

# FRONTO



## ELECTRICAL ENCLOSURES

TECHNICAL CATALOG 2025



# TEAM

## Dear partners!

On behalf of the entire Provento team, we express our deep gratitude for your permanent cooperation and the trust you place in us. Our achievements and successes would never be possible without you, and we are proud that together we continue to implement new projects on which the well-being of millions depends.

Times are changing, and we always strive to stay at the forefront of manufacturing current trends and innovations. We constantly are committed to excellence and introduce advanced technologies, this allowing us to create high-level products that meet the most relevant and responsible areas of the electrical market, where quality and reliability are above all else. To do this, we have all the possibilities, i.e. processes, equipment, production facilities, all the necessary resources and cool specialists!

We value you, our partners, and our mutually beneficial cooperation. Working together with Provento, you not only achieve success, but also realize your potential, grow and develop together with us. We will continue to take care of your success and offer you the best solutions and conditions for joint growth.



# ADVANTAGES

1 2 3 4 5 6

## 7 REASONS TO WORK WITH



### **A Russian Manufacturer**

Our products are manufactured in Russia. PROVENTO is the only decent alternative to global brands in projects with import substitution requirements.

### **High-Quality Products**

All Provento products are tested and meet Russian and European quality standards.

### **Terms**

Minimum production times allow to reduce costs and quickly introduce changes.  
We guarantee project implementation on time!

### **Wide Product Range**

The wide range of products allows to implement any design solutions within the shortest time.

### **Delivery**

Fast delivery due to an extensive logistics structure. A large range of finished products at the warehouse allows immediate shipment.

### **Prices**

Maximum acceptable prices due to costs minimization and raw materials favorable prices from consumption large volume.

### **Market Leader**

We are domestic market leaders now and compete with top companies.

# MISSION. VALUES

## Our Mission

We develop and manufacture advanced products and solutions for electrical engineering systems where quality and reliability are paramount.

### Vision

At the Russian market, we strive to become one of the leading companies producing electrical enclosures.

### Strategy

What distinguishes us is individual approach and the desire to be at the peak of technological progress in meeting the needs of our Customers interested in implementing high-quality solutions at the highest level. To open up new opportunities for our Customers, we transfer them all our innovative potential, and this guarantees them a process advantage in the market. We provide high-quality products, timely support and efficient service to our Customers helpfully improving their competitiveness.

## Company Values

**Motivation:** We create a working environment that values people and their contribution to the overall business development. This is an environment where the Company's employees become its main asset, allowing them to develop their capabilities, where enthusiasm is rewarded with support and trust.

**Ethics:** We are responsible to ourselves, to our customers, partners and society in fulfilling our obligations.

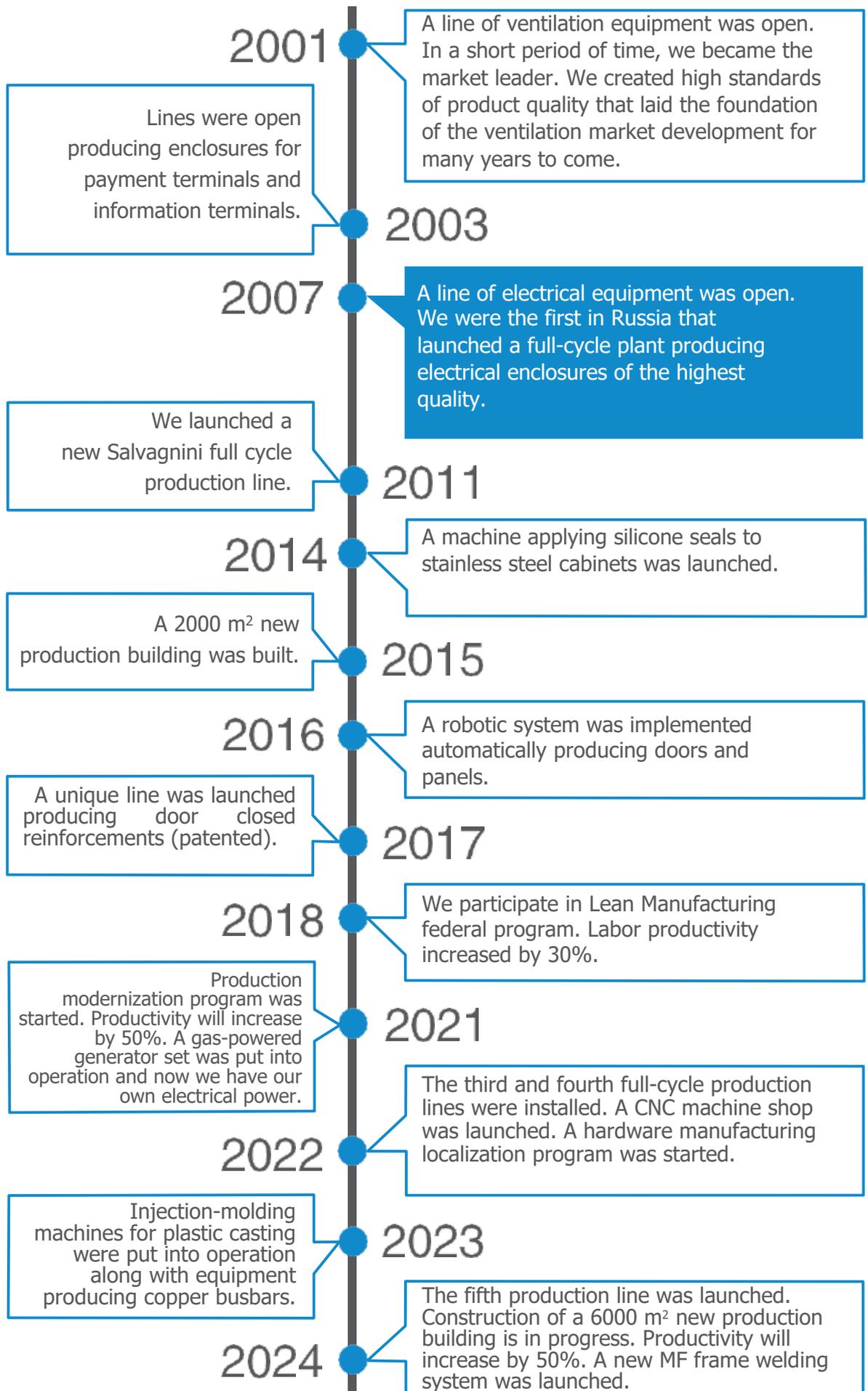
**Ambitiousness:** We are confident in our own abilities, we are ready to overcome any obstacles to solve the most difficult tasks. We constantly strive for the best and are not afraid to make mistakes on the way to perfection!

**Innovation:**— We never rest on our oars. The most unusual ideas today are new products on the market tomorrow. We are not afraid to dream!

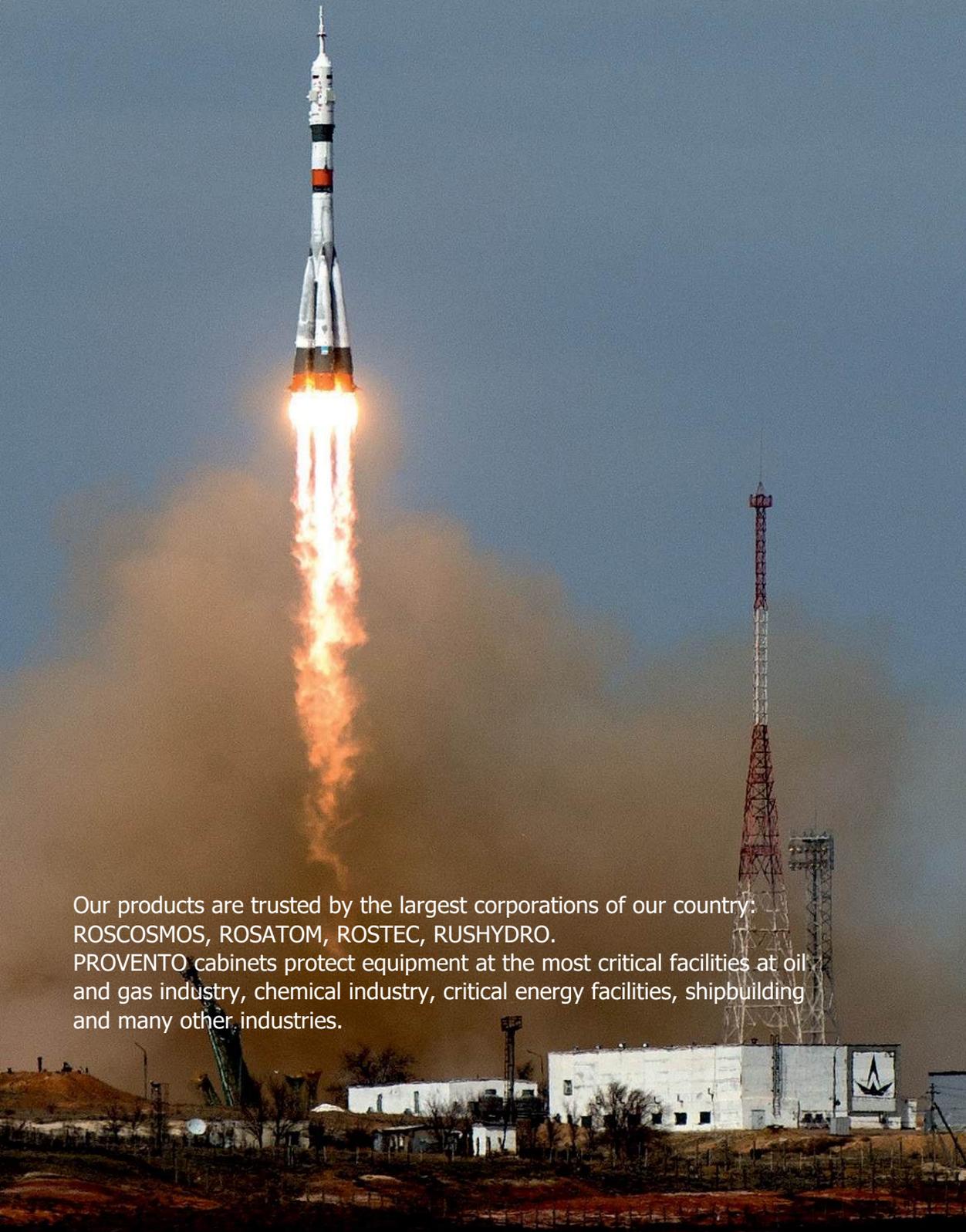
**Efficiency:** We achieve results through the most efficient way, at the lowest possible cost.



# HISTORY



PROVENTO – quality proven over the years.



Our products are trusted by the largest corporations of our country: ROSCOSMOS, ROSATOM, ROSTEC, RUSHYDRO. PROVENTO cabinets protect equipment at the most critical facilities at oil and gas industry, chemical industry, critical energy facilities, shipbuilding and many other industries.

TRUST

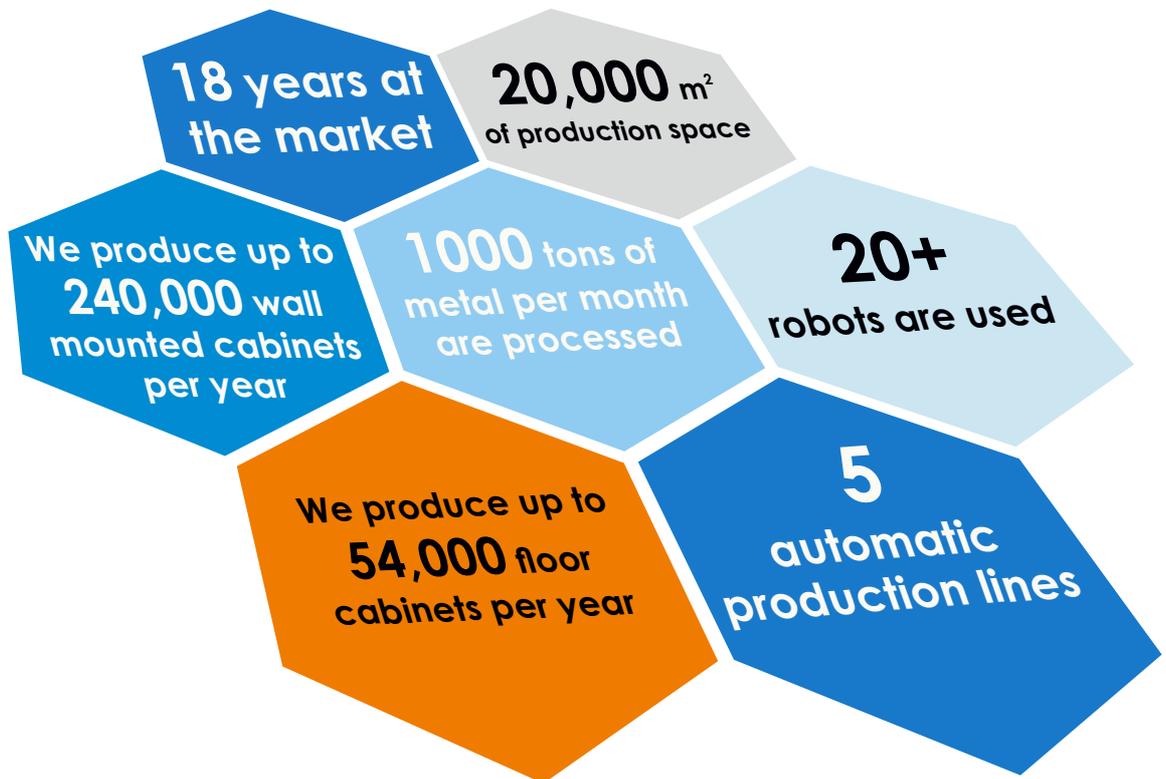
# PRODUCTION FACILITIES

**PROVENTO is a 100% Russian manufacturer with extensive experience in the production of electrical products for various purposes since 2007.**

The company initially relied on advanced European automated production processes and on adaptation of the best world manufacturers' solutions to the Russian market needs.

In cooperation with leading Russian and foreign experts in the field of electrical systems design and development, solutions were obtained considering progressive foreign experience and unique domestic developments of project operation in extreme conditions. Design advantages of developed products are unique advantages for our customers. First of all, this concerns product quality repeatability and production cost reduction.

State-of-the-art full-cycle robotic manufacturing and a unique management system ensure our process independence and market leadership in Russia and the CIS.



Video on production facilities





The company quality management system is certified as per ISO 9001-2015. Principles of integrated quality control are implemented at system level.

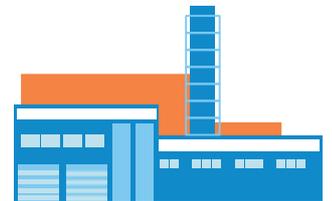
Quality mark is PROVENTO logo stamped at our products. We want the owners of electrical cabinets assembled on PROVENTO enclosure basis to be confident in quality and reliability of the purchased equipment. Therefore, the PROVENTO logo and trademark are always present on our products as a sign of their quality.

Well-established in-house management system:

- Manufacturing orders automated issuing and execution monitoring.
- Intelligent management of warehouse balances, automatic stock replenishment.

Symbiosis of European and domestic experience to produce the best Russian electrical cabinets.

ISO 9001  
CERTIFIED



# SERVICES



The entire database, knowledge base, catalog, description of technical specifications, documentation, comparison with similar equipment are collected together and available ONLINE in the PDS (Provento Data System)!

Independent order placement, production and delivery dates tracking, commercial conditions management and feedback to the manufacturer are available in real time!



PROVENTO Technical Channel: get up-to-date information on new products, find out current product news and discuss technical issues.  
@provento\_electro



Go to PROVENTO channel



2D drawings and 3D models of products

To simplify design and save time. The models are prepared for use at CAD systems. You benefit from easy and fast integration of PROVENTO products into your CAD project. Due to their universal format, 2D drawings and 3D models can be opened in all major CAD systems. A library of models was additionally developed for the platform format to allow end-to-end EPLAN design.



Download models

### Configurator

MPx cabinet configurator in Excel format for easy selection of accessories.

### Specification translator

Selection of equipment similar to PROVENTO with translation of specifications from other vendors.

### Video at RUTUBE

Installation manuals, product testing, information on new products, advantages.

Watch PROVENTO video



# CERTIFICATES

Certificates for enclosures

Certificate of compliance with ISO 9001

Certificates for accessories



Certificates for terminals

Certificates of the Maritime and River Register

Earthquake resistance reports



Certificate of use for cabinets up to 4000 A inclusive

UHL1 certificate

Test certificates

Evaluations of test results



# AUTOMATION ENCLOSURES







**Junction box MBS**



**Stainless steel junction box SBS**



**Junction box with viewing cover MBV**



**Compact distribution cabinet MES**



**Compact distribution cabinet with viewing door MEV**



**Compact double-door distribution cabinet MED**



**Compact stainless steel distribution cabinet SES**



**Compact stainless steel distribution cabinet with viewing door SEV**



**Compact stainless steel double-door distribution cabinet SED**

# PRODUCT OVERVIEW

## 10 REASONS TO CHOOSE AUTOMATION ENCLOSURES



1

Serial production of MEx cabinets at the plant in Nizhny Novgorod since 2007. 100% Russian manufacturer



2

Wide range (in various RAL colors): more than 200 standard sizes.



3

The enclosure is made of a single steel sheet, this providing maximum strength, high load capacity (up to 300 kg per mounting panel).



4

Corners are welded with a solid seam (provides maximum strength and tightness, eliminates corrosion appearance during operation). A chute along the enclosure edge prevents dirt and water from entering the cabinet when it is opened.



5

Unique arc welding method to fix fasteners (> 0.4 mm penetration depth compared to contact method with only about 0.1 mm penetration depth).



6

Coated with UV-resistant polyester powder paint. 720-hour salt mist test – (additional passivation with zirconium compound).



7

The sealing material is polyurethane foam with thickening at the corners (internal equipment is reliably protected against water and dust). Silicone sealer can be applied with -60 to 135°C operating temperature range.



8

The door opening angle is 180°; this is convenient during assembly and meets fire safety requirements.



9

Convenient branded packaging with installation instructions and serial number at the label.



10

Consistently high quality and repeatability through automated full-cycle production from cutting to packaging. The line capacity is up to 240,000 wall mounted cabinets per year.



**Degree of protection:**

IP66, IK10

**Material:**

**enclosure and cover:** 1.2 mm sheet steel  
**mounting panel:** 2.0 mm sheet steel

**Surface:**

**enclosure and cover:** structural powder coating RAL 7035  
**mounting panel:** zinc coating

**Sealing:**

**cover:** polyurethane foam

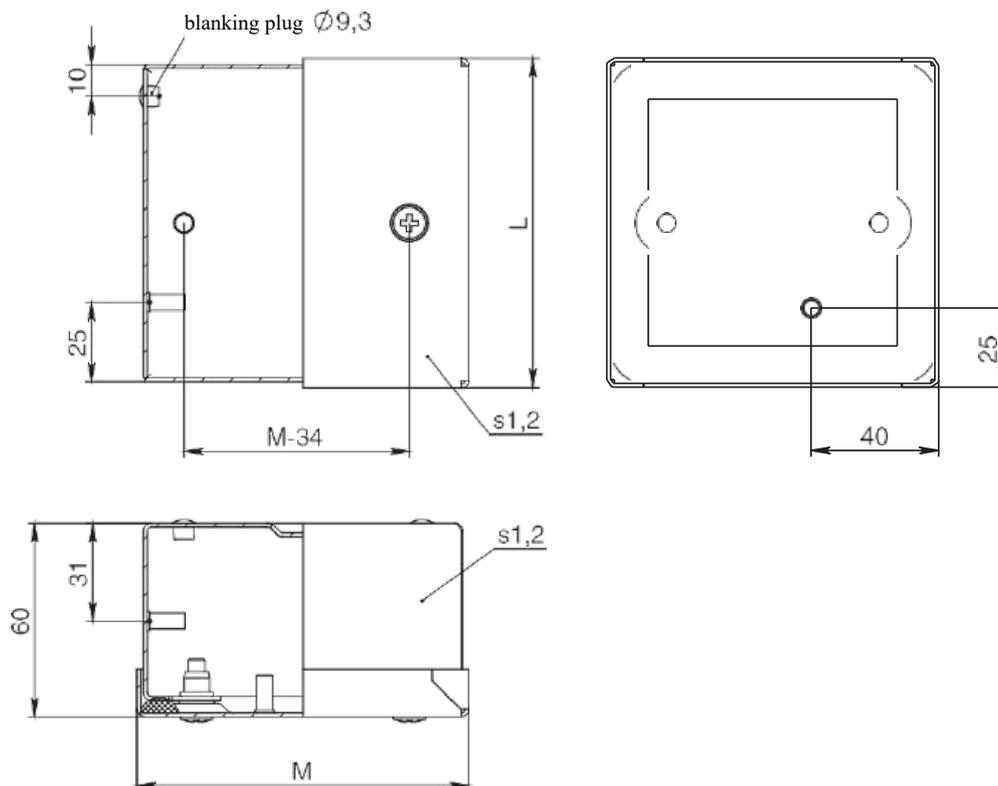
**Delivery scope:**

enclosure, cover, mounting panel (only for 120 mm deep boxes), packaging, technical passport

**Options:**

paint special RAL color: 3020, 7004, 7005, 9005, 9016, special dimensions, extra holes, silicone foam sealing

## Junction box MBS 60 mm deep

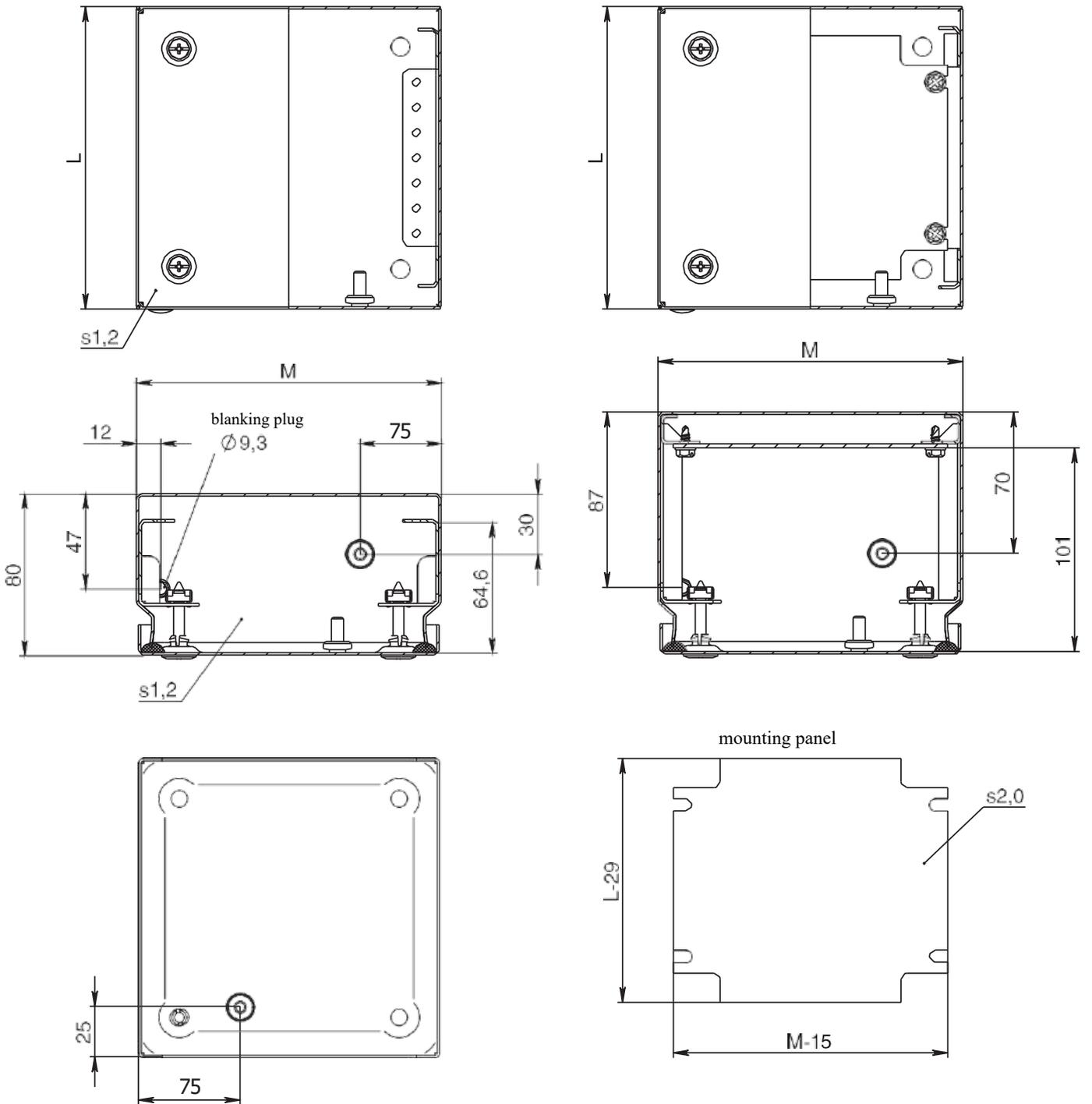


Box code		MBS 10.10.06	MBS 10.15.06	MBS 12.12.06	MBS 15.15.06
<b>The box includes:</b>	<b>Qty.</b>				
<b>Mounting panel</b>		-	-	-	-
<b>Height L, mm</b>		100	100	120	150
<b>Width M, mm</b>		100	150	120	150
<b>Depth, mm</b>		60	60	60	60
<b>Weight, kg</b>		0.5	0.6	0.6	0.8
<b>Components</b>					
<b>Wall mount C-clamp</b>		WB 6	WB 6	WB 6	WB 6

Junction boxes MBS 80 and 120 mm deep

80 mm deep

120 mm deep



## JUNCTION BOXES MBS

## Boxes MBS 80 mm deep

Box code		MBS 15.15.08	MBS 15.20.08	MBS 15.30.08	MBS 20.20.08	MBS 20.30.08
<b>The box includes:</b>	<b>Qty.</b>					
<b>Mounting panel</b>		-	-	-	-	-
<b>Height L, mm</b>		150	150	150	200	200
<b>Width M, mm</b>		150	200	300	200	300
<b>Depth, mm</b>		80	80	80	80	80
<b>Mounting panel height, mm</b>		121	121	121	171	171
<b>Mounting panel width, mm</b>		135	185	285	185	285
<b>Weight, kg</b>		1	1.3	1.7	1.5	2.2
<b>Components</b>						
<b>Wall mount C-clamp</b>		WB 8				
<b>Wall mount C-clamp</b>		WB 8 B				
<b>Mounting panel</b>		MP 15.15 B	MP 15.20 B	MP 15.30 B	MP 20.20 B	MP 20.30 B
<b>DIN rail</b>		DR 07.135	DR 07.185	DR 07.285	DR 07.185	DR 07.285

Box code		MBS 20.40.08	MBS 20.60.08	MBS 30.30.08	MBS 30.40.08	MBS 30.60.08
<b>The box includes:</b>	<b>Qty.</b>					
<b>Mounting panel</b>		-	-	-	-	-
<b>Height L, mm</b>		200	200	300	300	300
<b>Width M, mm</b>		400	600	300	400	600
<b>Depth, mm</b>		80	80	80	80	80
<b>Mounting panel height, mm</b>		171	-	-	-	-
<b>Mounting panel width, mm</b>		385	-	-	-	-
<b>Weight, kg</b>		2.7	5	3	3.7	5.2
<b>Components</b>						
<b>Wall mount C-clamp</b>		WB 8				
<b>Wall mount C-clamp</b>		WB 8 B				
<b>Mounting panel</b>		MP 20.40 B	MP 20.60 B	MP 30.30 B	MP 30.40 B	MP 30.60 B
<b>DIN rail</b>		DR 07.385	-	DR 07.285	DR 07.385	-

Boxes MBS 120 mm deep

Box code		MBS 15.15.12	MBS 15.20.12	MBS 15.30.12	MBS 20.20.12	MBS 20.30.12	MBS 20.40.12
The box includes:	Qty.						
Mounting panel	1 pcs.	MP 15.15 B	MP 15.20 B	MP 15.30 B	MP 20.20 B	MP 20.30 B	MP 20.40 B
Height L, mm		150	150	150	200	200	200
Width M, mm		150	200	300	200	300	400
Depth, mm		120	120	120	120	120	120
Mounting panel height, mm		121	121	121	171	171	171
Mounting panel width, mm		135	185	285	185	285	385
Weight, kg		1.5	1.9	2.7	2.4	3.3	4.1
<b>Components</b>							
Wall mount C-clamp		WB 8					
Wall mount C-clamp		WB 8 B					
DIN rail		DR 07.135	DR 07.185	DR 07.285	DR 07.185	DR 07.285	DR 07.385

Box code		MBS 30.30.12	MBS 30.40.12	MBS 30.60.12	MBS 40.40.12	MBS 40.60.12	MBS 40.80.12
The box includes:	Qty.						
Mounting panel	1 pcs.	MP 30.30 B	MP 30.40 B	MP 30.60 B	MP 40.40 B	MP 40.60 B	MP 40.80 B
Height L, mm		300	300	300	400	400	400
Width M, mm		300	400	600	400	600	800
Depth, mm		120	120	120	120	120	120
Mounting panel height, mm		271	271	271	371	371	371
Mounting panel width, mm		285	385	585	385	585	685
Weight, kg		4.6	5.7	8.4	7.6	10.8	14.2
<b>Components</b>							
Wall mount C-clamp		WB 8					
Wall mount C-clamp		WB 8 B					
DIN rail		DR 07.285	DR 07.385	-	DR 07.385	-	-



**Degree of protection:**  
IP66, IK10

**- 60°C**  
**+135°C**

**Material:**

**enclosure and cover:** 1.2 mm corrosion-resistant sheet steel AISI 304  
**mounting panel:** 2.0 mm sheet steel

**Surface:**

**enclosure and cover:** honed  
**mounting panel:** zinc coating

**Sealing:**

**cover:** silicone foam

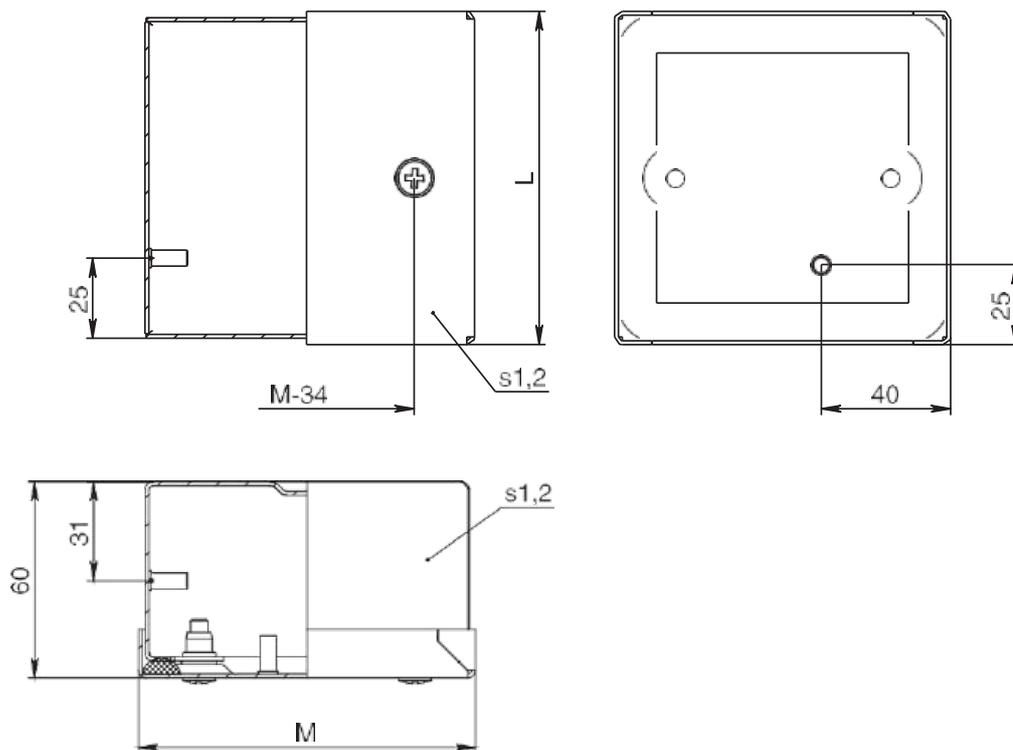
**Delivery scope:**

enclosure, cover, mounting panel (only for 120 mm deep boxes), packaging

**Options:**

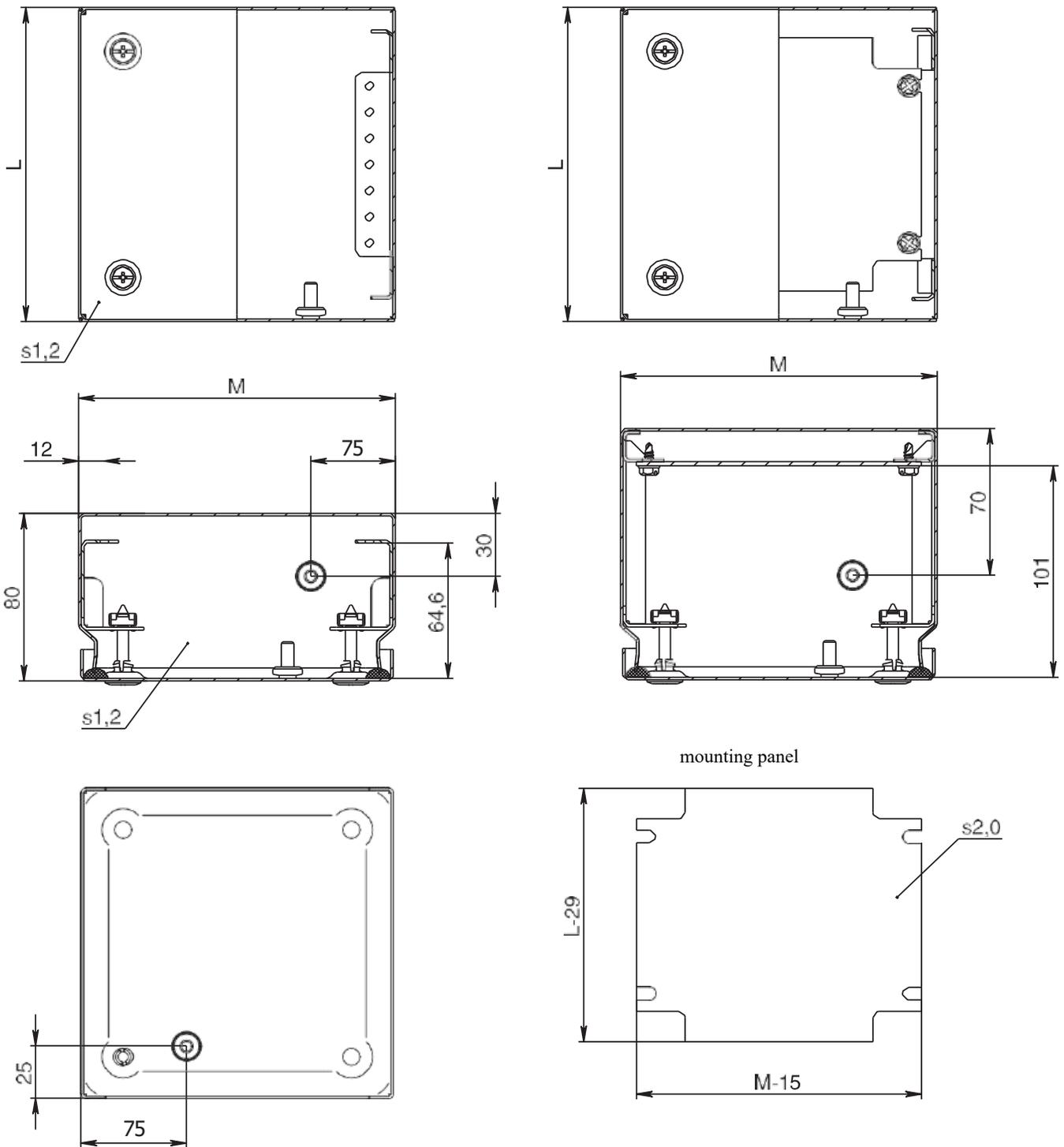
corrosion-resistant sheet steel AISI 316 L, viewing cover, special dimensions, extra holes

Junction box SBS 60 mm deep



Box code		SBS 10.10.06	SBS 12.12.06
<b>The box includes:</b>	<b>Qty.</b>		
Mounting panel		-	-
Height L, mm		100	120
Width M, mm		100	120
Depth, mm		60	60
Weight, kg		0.5	0.6
<b>Components</b>			
Wall mount C-clamp		WB 6 S	WB 6 S

Junction box SBS 80 and 120 mm deep



Boxes SBS 80 mm deep

Box code		SBS 15.15.08	SBS 15.20.08	SBS 15.30.08	SBS 20.20.08	SBS 20.30.08
<b>The box includes:</b>	<b>Qty.</b>					
<b>Mounting panel</b>		-	-	-	-	-
<b>Height L, mm</b>		150	150	150	200	200
<b>Width M, mm</b>		150	200	300	200	300
<b>Depth, mm</b>		80	80	80	80	80
<b>Mounting panel height, mm</b>		121	121	-	171	171
<b>Mounting panel width, mm</b>		135	185	-	185	285
<b>Weight, kg</b>		1	1.4	1.7	1.5	2.2
<b>Components</b>						
<b>Wall mount C-clamp</b>		WB 8 S				
<b>Wall mount C-clamp</b>		WB 8 BS				
<b>Mounting panel</b>		MP 15.15 B	MP 20.15 B	MP 15.30 B	MP 20.20 B	MP 20.30 B
<b>DIN rail</b>		DR 07.135	DR 07.185	DR 07.285	DR 07.185	DR 07.285

Boxes SBS 120 mm deep

Box code		SBS 20.20.12	SBS 20.30.12	SBS 20.50.12	SBS 30.30.12	SBS 30.40.12
<b>The box includes:</b>	<b>Qty.</b>					
<b>Mounting panel</b>	1 pcs.	MP 20.20 B	MP 20.30 B	MP 20.50 B	MP 30.30 B	MP 30.40 B
<b>Height L, mm</b>		200	200	200	300	300
<b>Width M, mm</b>		200	300	500	300	400
<b>Depth, mm</b>		120	120	120	120	120
<b>Mounting panel height, mm</b>		171	171	171	271	271
<b>Mounting panel width, mm</b>		185	285	485	285	385
<b>Weight, kg</b>		2.4	3.3	3.8	4.6	5.7
<b>Components</b>						
<b>Wall mount C-clamp</b>		WB 8 S				
<b>Wall mount C-clamp</b>		WB 8 BS				
<b>DIN rail</b>		DR 07.185	DR 07.285	-	DR 07.285	DR 07.385



**Degree of protection:**

IP66, IK10

**Material:**

**enclosure:** 1.2 mm sheet steel

**cover:** 1.2 mm sheet steel, 4.0 mm hardened glass

**mounting panel:** 2.0 mm sheet steel

**Surface:**

**enclosure and cover:** structural powder coating RAL 7035

**mounting panel:** zinc coating

**Sealing:**

**cover:** polyurethane foam

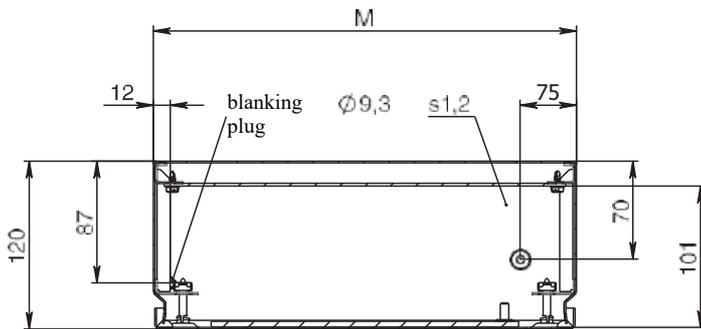
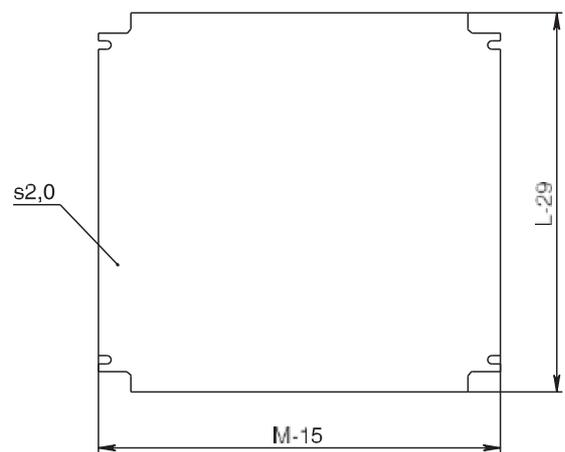
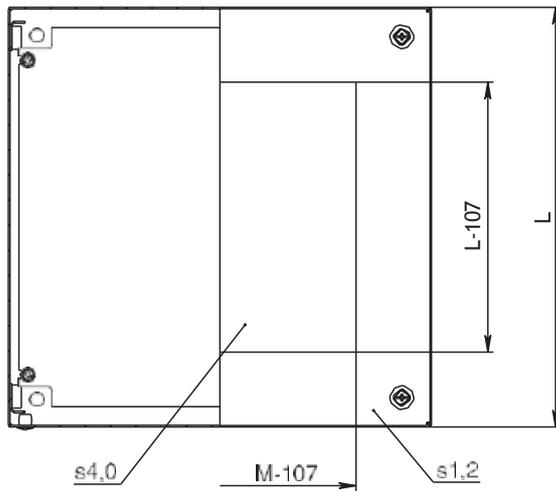
**Delivery scope:**

enclosure, cover, mounting panel, packaging, technical passport

**Options:**

paint special RAL color: 3020, 7004, 7005, 9005, 9016, special dimensions, extra holes, silicone foam sealing

mounting panel



# JUNCTION BOXES MBV

## Boxes MBV 120 mm deep

Box code		MBV 20.20.12	MBV 20.30.12	MBV 20.40.12	MBV 30.30.12
<b>The box includes:</b>	<b>Qty.</b>				
<b>Mounting panel</b>	1 pcs.	MP 20.20 B	MP 20.30 B	MP 20.40 B	MP 30.30 B
<b>Height L, mm</b>		200	200	200	300
<b>Width M, mm</b>		200	300	400	300
<b>Depth, mm</b>		120	120	120	120
<b>Mounting panel height, mm</b>		171	171	171	271
<b>Mounting panel width, mm</b>		185	285	385	385
<b>Weight, kg</b>		2.4	3.3	4.1	4.6
<b>Components</b>					
<b>Wall mount C-clamp</b>		WB 8	WB 8	WB 8	WB 8
<b>Wall mount C-clamp</b>		WB 8 B	WB 8 B	WB 8 B	WB 8 B
<b>DIN rail</b>		DR 07.185	DR 07.285	DR 07.385	DR 07.285

Box code		MBV 30.40.12	MBV 30.60.12	MBV 40.40.12	MBV 40.60.12
<b>The box includes:</b>	<b>Qty.</b>				
<b>Mounting panel</b>	1 pcs.	MP 30.40 B	MP 30.60 B	MP 40.40 B	MP 40.60 B
<b>Height L, mm</b>		300	300	400	400
<b>Width M, mm</b>		400	600	400	600
<b>Depth, mm</b>		120	120	120	120
<b>Mounting panel height, mm</b>		271	271	371	371
<b>Mounting panel width, mm</b>		385	585	385	585
<b>Weight, kg</b>		5.7	8.4	7.6	10.8
<b>Components</b>					
<b>Wall mount C-clamp</b>		WB 8	WB 8	WB 8	WB 8
<b>Wall mount C-clamp</b>		WB 8 B	WB 8 B	WB 8 B	WB 8 B
<b>Weight, kg</b>		DR 07.385	-	DR 07.385	-



**Degree of protection:**  
IP66, IK10, MSK-64 scale 9 points

**Material:**  
**enclosure and door:**  
1.5 mm sheet steel\*  
**mounting panel:**  
2.0-2.5 mm sheet steel\*\*  
(depends on size)

**Surface:**  
**enclosure and door:**  
structural powder coating  
RAL 7035 **mounting panel:**  
zinc coating

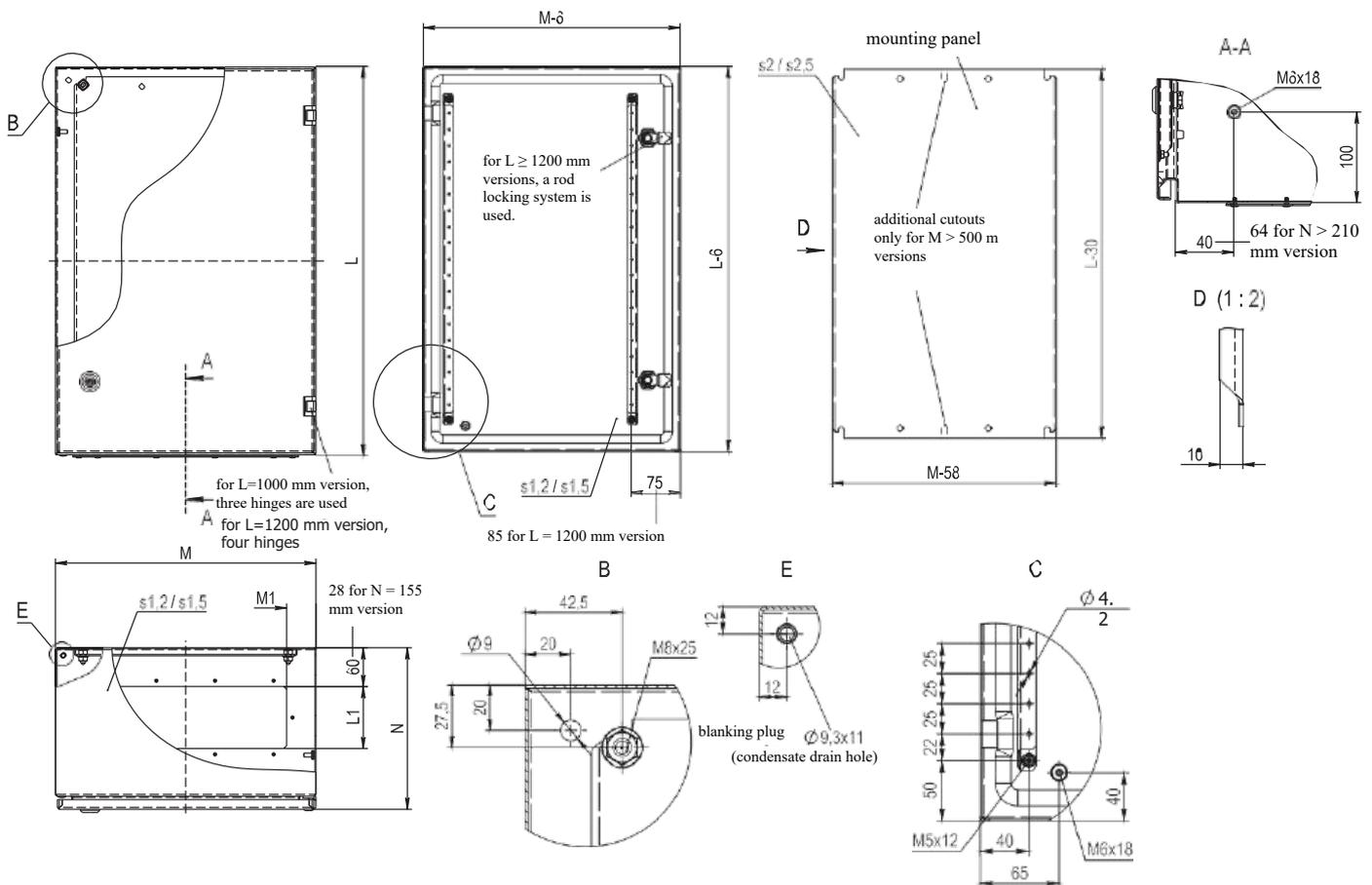
**Sealing:**  
**door and cable entry panel:**  
polyurethane foam

**Lock:**  
double bit tongue type or rod system  
(depends on size)

**Hinge:**  
opening angle  $\leq 180^\circ$

**Delivery scope:**  
enclosure, door, cable entry panel, mounting panel, key, packaging, technical passport

**Options:**  
paint special RAL color: 3020, 7004, 7005, 9005, 9016, special dimensions, extra holes, silicone foam sealing



\* – 1.2 mm for < 210 mm deep enclosures  
\*\* – 2.0 mm for < 800 mm wide enclosures  
\*\*\* – rod system for enclosures 1200, 1400, 1600 mm high

## Enclosures 300 and 400 mm high

Cabinet code		MES 30.20.15	MES 30.30.15	MES 30.40.15	MES 40.30.15	MES 40.30.21	MES 40.40.21	MES 40.40.25	MES 40.60.21
<b>The cabinet includes</b>	<b>Qty.</b>								
<b>Mounting panel</b>	1 pcs.	MP 30.20	MP 30.30	MP 30.40	MP 40.30	MP 40.30	MP 40.40	MP 40.40	MP 40.60
<b>Blind cable entry panel</b>	1 pcs.	PK 15.13 G	PK 25.13 G	PK 35.13 G	PK 25.13 G	PK 25.13 G	PK 35.13 G	PK 35.13 G	PK 55.13 G
<b>Height L, mm</b>		300	300	300	400	400	400	400	400
<b>Width M, mm</b>		200	300	400	300	300	400	400	600
<b>Depth N, mm</b>		155	155	155	155	210	210	250	210
<b>Mounting panel height, mm</b>		270	270	270	370	370	370	370	370
<b>Mounting panel width, mm</b>		142	242	342	242	242	342	342	542
<b>Weight, kg</b>		3.8	5.2	6.6	6.6	7.5	9.3	10	12.9
<b>Components</b>	<b>Qty.</b>								
<b>Internal door</b>		-	-	-	-	-	-	-	-
<b>Modular chassis</b>		-	-	-	-	-	-	-	-
<b>Visor</b>	1 pcs.	R 20.15	R 30.15	R 40.15	R 30.15	R 30.21	R 40.21	R 40.25	R 60.21
<b>Wall mount C-clamp</b>	4 pcs.	WB 8							
<b>Wall mount C-clamp</b>	4 pcs.	WB 8 B							
<b>Door stopper</b>	1 pcs.	SD 2 v2							
<b>Blind door horizontal rail</b>	10 pcs.	-	-	-	-	-	VB 40 GE	VB 40 GE	VB 60 GE
<b>Blind door vertical rail</b>	2 pcs.	-	-	-	VB 40				
<b>Zinc cylinder lock</b>	1 pcs.	LC 1C.Z							
<b>Zinc cylinder lock with rotary handle</b>	1 pcs.	LC 1C.ZH							
<b>Lock protective cover for lead seals</b>	1 pcs.	PC 1 L.S							
<b>Microperforated mounting panel</b>	1 pcs.	MP 30.20 P	MP 30.30 P	MP 30.40 P	MP 40.30 P	MP 40.30 P	MP 40.40 P	MP 40.40 P	-
<b>Internal mounting rail</b>	4 pcs.	-	-	-	-	MG 30 E	MG 30 E	MG 30 E	MG 30 E
<b>Extended plinth 300 mm high</b>		-	-	-	-	-	-	-	-
<b>Extended plinth 450 mm high</b>		-	-	-	-	-	-	-	-
<b>Mounting rack</b>	1 pcs.	-	ZL 30.21	ZL 40.21	ZL 30.21	ZL 30.21	ZL 40.21	ZL 40.21	-
<b>Pole mount kit</b>	1 pcs.	-	OK 30 EP	OK 40 EP	OK 30 EP	OK 30 EP	OK 40 EP	OK 40 EP	OK 60 EP
<b>Blind cable entry panel with knock out holes</b>	1 pcs.	PK 15.13	PK 25.13	PK 35.13	PK 25.13	PK 25.13	PK 35.13	PK 35.13	PK 55.13
<b>Panel spacer</b>	4 pcs.	S 8.25							
<b>Panel spacer</b>	4 pcs.	S 8.50							
<b>Document pocket</b>	1 pcs.	-	-	-	-	-	-	-	DP 40 P
<b>Blanking plugs</b>	4 pcs.	PL 09							

Enclosures 500 mm high

Cabinet code		MES 50.30.21	MES 50.40.21	MES 50.40.25	MES 50.50.21	MES 50.50.30
<b>The cabinet includes</b>	<b>Qty.</b>					
Mounting panel	1 pcs.	MP 50.30	MP 50.40	MP 50.40	MP 50.50	MP 50.50
Blind cable entry panel	1 pcs.	PK 25.13 G	PK 35.13 G	PK 35.13 G	PK 45.13 G	PK 45.13 G
Height L, mm		500	500	500	500	500
Width M, mm		300	400	400	500	500
Depth N, mm		210	210	250	21	300
Mounting panel height, mm		470	470	470	470	470
Mounting panel width, mm		242	342	342	442	442
Weight, kg		9.1	11.3	12	13.5	15
<b>Components</b>	<b>Qty.</b>					
Internal door	1 pcs.	-	ID 50.40	ID 50.40	-	-
Modular chassis	1 pcs.	-	MC 50.40	MC 50.40	-	-
Visor	1 pcs.	R 30.21	R 40.21	R 40.25	R 50.21	-
Wall mount C-clamp	4 pcs.	WB 8				
Wall mount C-clamp	4 pcs.	WB 8 B				
Door stopper	1 pcs.	SD 2 v2				
Blind door horizontal rail	10 pcs.	-	VB 40 GE	VB 40 GE	VB 50 GE	VB 50 GE
Blind door vertical rail	2 pcs.	VB 50				
Zinc cylinder lock	1 pcs.	LC 1C.Z				
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH				
Lock protective cover for lead seals	1 pcs.	PC 1 L.S				
Microperforated mounting panel	1 pcs.	MP 50.30 P	MP 50.40 P	MP 50.40 P	MP 50.50 P	MP 50.50 P
Internal mounting rail	4 pcs.	MG 30 E				
Extended plinth 300 mm high*		-	-	-	-	-
Extended plinth 450 mm high*		-	-	-	-	-
Mounting rack	1 pcs.	ZL 30.21	ZL 40.21	-	-	-
Pole mount kit	1 pcs.	OK 30 EP	OK 40 EP	OK 40 EP	OK 50 EP	OK 50 EP
Blind cable entry panel with knock out holes	1 pcs.	PK 25.13	PK 35.13	PK 35.13	PK 45.13	PK 45.13
Panel spacer	4 pcs.	S 8.25				
Panel spacer	4 pcs.	S 8.50				
Document pocket	1 pcs.	-	-	-	DP 40 P	DP 40 P
Blanking plugs	4 pcs.	PL 09				

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used

## Enclosures 600 mm high

Cabinet code		MES 60.40.21	MES 60.40.25	MES 60.40.30	MES 60.50.21	MES 60.60.21	MES 60.60.25	MES 60.60.30
<b>The cabinet includes</b>	<b>Qty.</b>							
Mounting panel	1 pcs.	MP 60.40	MP 60.40	MP 60.40	MP 60.50	MP 60.60	MP 60.60	MP 60.60
Blind cable entry panel	1 pcs.	PK 35.13 G	PK 35.13 G	PK 35.13 G	PK 45.13 G	PK 55.13 G	PK 55.13 G	PK 55.13 G
Height L, mm		600	600	600	600	600	600	600
Width M, mm		400	400	400	500	600	600	600
Depth N, mm		210	250	300	210	210	250	300
Mounting panel height, mm		570	570	570	570	570	570	570
Mounting panel width, mm		342	342	342	442	542	542	542
Weight, kg		13.1	13.9	16	16.5	18.4	19.4	23
<b>Components</b>	<b>Qty.</b>							
Internal door	1 pcs.	ID 60.40	ID 60.40	ID 60.40	-	-	-	-
Modular chassis	1 pcs.	MC 60.40	MC 60.40	MC 60.40	-	MC 60.60	MC 60.60	MC 60.60
Visor	1 pcs.	R 40.21	R 40.25		R 50.21	R 60.21	R 60.25	R 60.30
Wall mount C-clamp	4 pcs.	WB 8						
Wall mount C-clamp	4 pcs.	WB 8 B						
Door stopper	1 pcs.	SD 2 v2						
Blind door horizontal rail	10 pcs.	VB 40 GE	VB 40 GE	VB 40 GE	VB 50 GE	VB 60 GE	VB 60 GE	VB 60 GE
Blind door vertical rail	2 pcs.	VB 60						
Zinc cylinder lock	1 pcs.	LC 1C.Z						
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH						
Lock protective cover for lead seals	1 pcs.	PC 1 L.S						
Microperforated mounting panel	1 pcs.	MP 60.40 P	MP 60.40 P	MP 60.40 P	MP 60.50 P	MP 60.60 P	MP 60.60 P	MP 60.60 P
Internal mounting rail	4 pcs.	MG 30 E						
Extended plinth 300 mm high*	1 pcs.	-	-	ZH 30.30	-	-	-	ZH 30.30
Extended plinth 450 mm high*	1 pcs.	-	-	ZH 45.30	-	-	-	ZH 45.30
Mounting rack	1 pcs.	ZL 40.21	ZL 40.21	ZL 40.21	-	-	-	-
Pole mount kit	1 pcs.	OK 40 EP	OK 40 EP	OK 40 EP	OK 50 EP	OK 60 EP	OK 60 EP	OK 60 EP
Blind cable entry panel with knock out holes	1 pcs.	PK 35.13	PK 35.13	PK 35.13	PK 45.13	PK 55.13	PK 55.13	PK 55.13
Panel spacer	4 pcs.	S 8.25						
Panel spacer	4 pcs.	S 8.50						
Document pocket	1 pcs.	-	-	-	DP 40 P	DP 40 P	DP 40 P	DP 40 P
Blanking plugs	4 pcs.	PL 09						

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used

Enclosures 700 and 800 mm high

Cabinet code		MES 70.40.21	MES 70.50.21	MES 70.50.25	MES 80.60.21	MES 80.60.25	MES 80.60.30	MES 80.80.30
The cabinet includes	Qty.							
Mounting panel	1 pcs.	MP 70.40	MP 70.50	MP 70.50	MP 80.60	MP 80.60	MP 80.60	MP 80.80
Blind cable entry panel	1 pcs.	PK 35.13 G	PK 45.13 G	PK 45.13 G	PK 55.13 G	PK 55.13 G	PK 55.13 G	PK 35.13 G
Height L, mm		700	700	700	800	800	800	800
Width M, mm		400	500	500	600	600	600	800
Depth N, mm		210	210	250	210	250	300	300
Mounting panel height, mm		670	670	670	760	760	760	760
Mounting panel width, mm		342	442	442	542	542	542	742
Weight, kg		16	18	19	23.7	24.9	26.4	33.6
Components	Qty.							
Internal door	1 pcs.	-	ID 70.50	ID 70.50	ID 80.60	ID 80.60	ID 80.60	-
Modular chassis	1 pcs.	-	-	-	MC 80.60	MC 80.60	MC 80.60	-
Visor	1 pcs.	R 40.21	R 50.21	R 50.25	R 60.21	R 60.25	R 60.30	R 80.30
Wall mount C-clamp	4 pcs.	WB 8						
Wall mount C-clamp	4 pcs.	WB 8 B						
Door stopper	1 pcs.	SD 2 v2						
Blind door horizontal rail	10 pcs.	VB 40 GE	VB 50 GE	VB 50 GE	VB 60 GE	VB 60 GE	VB 60 GE	VB 80 GE
Blind door vertical rail	2 pcs.	VB 70	VB 70	VB 70	VB 80	VB 80	VB 80	VB 80
Zinc cylinder lock	1 pcs.	LC 1C.Z						
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH						
Lock protective cover for lead seals	1 pcs.	PC 1 L.S						
Microperforated mounting panel	1 pcs.	-	MP 70.50 P	MP 70.50 P	MP 80.60 P	MP 80.60 P	MP 80.60 P	MP 80.80 P
Internal mounting rail	4 pcs.	MG 30 E						
Extended plinth 300 mm high*	1 pcs.	-	-	-	-	-	ZH 30.30	ZH 30.30
Extended plinth 450 mm high*	1 pcs.	-	-	-	-	-	ZH 45.30	ZH 45.30
Mounting rack		-	-	-	-	-	-	-
Pole mount kit	1 pcs.	OK 40 EP	OK 50 EP	OK 50 EP	OK 60 EP	OK 60 EP	OK 60 EP	OK 80 EP
Blind cable entry panel with knock out holes	1 pcs.	PK 35.13	PK 45.13	PK 45.13	PK 55.13	PK 55.13	PK 55.13	PK 35.13
Panel spacer	4 pcs.	S 8.25						
Panel spacer	4 pcs.	S 8.50						
Document pocket	1 pcs.	DP 40 P						
Blanking plugs	4 pcs.	PL 09						

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used

## Enclosures 1000 and 1200 mm high

Cabinet code		MES 100.60.21	MES 100.60.25	MES 100.60.30	MES 100.80.25	MES 100.80.30
<b>The cabinet includes</b>	<b>Qty.</b>					
<b>Mounting panel</b>	1 pcs.	MP 100.60	MP 100.60	MP 100.60	MP 100.80	MP 100.80
<b>Blind cable entry panel</b>	1 pcs.	PK 55.13 G	PK 55.13 G	PK 55.13 G	PK 35.13 G	PK 35.13 G
<b>Height L, mm</b>		100	100	100	100	100
<b>Width M, mm</b>		600	600	600	800	800
<b>Depth N, mm</b>		210	250	300	250	300
<b>Mounting panel height, mm</b>		960	960	960	960	960
<b>Mounting panel width, mm</b>		542	542	542	742	742
<b>Weight, kg</b>		29.2	30.6	32.3	40	40.9
<b>Components</b>	<b>Qty.</b>					
<b>Internal door</b>		ID 100.60	ID 100.60	ID 100.60	ID 100.80	ID 100.80
<b>Modular chassis</b>		MC 100.60	MC 100.60	MC 100.60	-	-
<b>Visor</b>	1 pcs.	R 60.21	R 60.25	R 60.30	R 80.25	R 80.30
<b>Wall mount C-clamp</b>	4 pcs.	WB 8				
<b>Wall mount C-clamp</b>	4 pcs.	WB 8 B				
<b>Door stopper</b>	1 pcs.	SD 2 v2				
<b>Blind door horizontal rail</b>	10 pcs.	VB 60 GE	VB 60 GE	VB 60 GE	VB 80 GE	VB 80 GE
<b>Blind door vertical rail</b>	2 pcs.	VB 100				
<b>Zinc cylinder lock</b>	1 pcs.	LC 1C.Z				
<b>Zinc cylinder lock with rotary handle</b>	1 pcs.	LC 1C.ZH				
<b>Lock protective cover for lead seals</b>	1 pcs.	PC 1 L.S				
<b>Microperforated mounting panel</b>	1 pcs.	MP 100.60 P	MP 100.60 P	MP 100.60	MP 100.80 P	MP 100.80 P
<b>Internal mounting rail</b>	4 pcs.	MG 30 E				
<b>Extended plinth 300 mm high*</b>	1 pcs.	-	-	ZH 30.30	-	ZH 30.30
<b>Extended plinth 450 mm high*</b>	1 pcs.	-	-	ZH 45.30	-	ZH 45.30
<b>Mounting rack</b>		-	-	-	-	-
<b>Pole mount kit</b>	1 pcs.	OK 60 EP	OK 60 EP	OK 60 EP	OK 80 EP	OK 80 EP
<b>Blind cable entry panel with knock out holes</b>	1 pcs.	PK 55.13	PK 55.13	PK 55.13	PK 35.13	PK 35.13
<b>Panel spacer</b>	4 pcs.	S 8.25				
<b>Panel spacer</b>	4 pcs.	S 8.50				
<b>Document pocket</b>	1 pcs.	DP 40 P				
<b>Blanking plugs</b>	4 pcs.	PL 09				

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used

Enclosures 1200 and 1400 mm high

Cabinet code		MES 120.60.21	MES 120.60.25	MES 120.60.30	MES 120.80.30	MES 140.80.30
The cabinet includes	Qty.					
Mounting panel	1 pcs.	MP 120.60 E	MP 120.60 E	MP 120.60 E	MP 120.80 E	MP 140.80 E
Blind cable entry panel	1 pcs.	PK 55.13 G	PK 55.13 G	PK 55.13 G	PK 35.13 G	two end panels
Height L, mm		120	120	120	120	140
Width M, mm		600	600	600	800	800
Depth N, mm		210	250	300	300	300
Mounting panel height, mm		1160	1160	1160	1160	1360
Mounting panel width, mm		542	542	542	742	742
Weight, kg		34.5	36.3	37.5	45	48.3
Components	Qty.					
Internal door		ID 120.60	ID 120.60	ID 120.60	ID 120.80	ID 140.80
Modular chassis		MC 120.60	MC 120.60	MC 120.60	MC 120.80	-
Visor	1 pcs.	R 60.21	R 60.25	R 60.30	R 80.30	R 80.30
Wall mount C-clamp	4 pcs.	WB 8				
Wall mount C-clamp	4 pcs.	WB 8 B				
Door stopper	1 pcs.	SD 2 v2				
Blind door horizontal rail	10 pcs.	VB 60 GE	VB 60 GE	VB 60 GE	VB 80 GE	VB 80 GE
Blind door vertical rail	2 pcs.	VB 120	VB 120	VB 120	VB 120	VB 140
Zinc cylinder lock	1 pcs.	LC 1C.Z				
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH				
Lock protective cover for lead seals	1 pcs.	PC 1 L.S				
Microperforated mounting panel	1 pcs.	MP 120.60 PE	MP 120.60 PE	MP 120.60 PE	MP 120.60 PE	MP 140.80 PE
Internal mounting rail	4 pcs.	MG 30 E				
Extended plinth 300 mm high*	1 pcs.	-	ZH 30.30	ZH 30.30	ZH 30.30	ZH 30.30
Extended plinth 450 mm high*	1 pcs.	-	ZH 45.30	ZH 45.30	ZH 45.30	ZH 45.30
Mounting rack		-	-	-	-	-
Pole mount kit	1 pcs.	OK 60 EP	OK 60 EP	OK 60 EP	OK 80 EP	OK 80 EP
Blind cable entry panel with knock out holes	1 pcs.	PK 55.13	PK 55.13	PK 55.13	PK 35.13	PK 35.13
Panel spacer	4 pcs.	S 8.25				
Panel spacer	4 pcs.	S 8.50				
Document pocket	1 pcs.	DP 40 P				
Blanking plugs	4 pcs.	PL 09				

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used

**Degree of protection:**

IP66, IK10

**Material:****enclosure and end panel:**

1.5 mm sheet steel

**door:**1.5-2.0 mm sheet steel\*  
(depends on size)**mounting panel:**2.0-2.5 mm sheet steel\*\*  
(depends on size)**cable entry panels:**

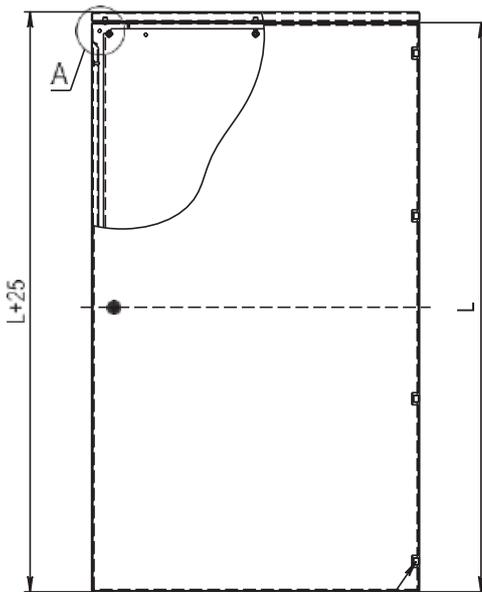
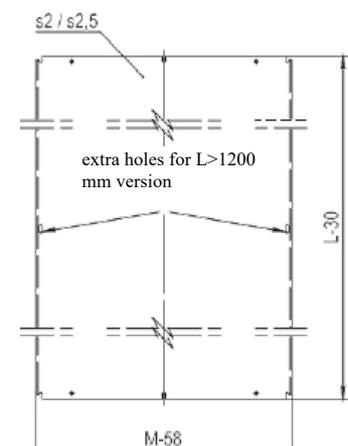
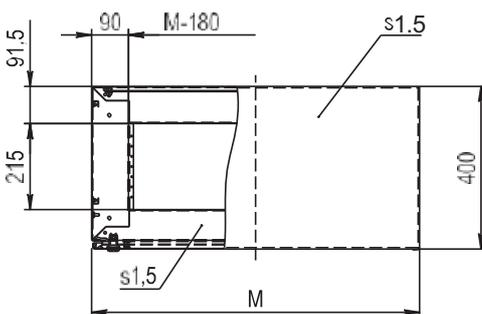
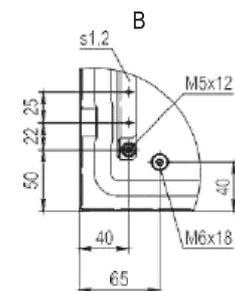
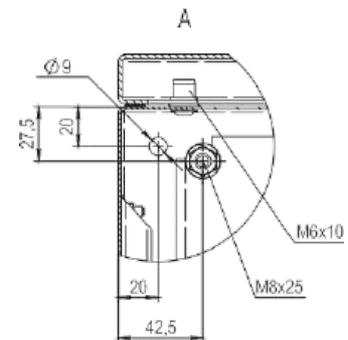
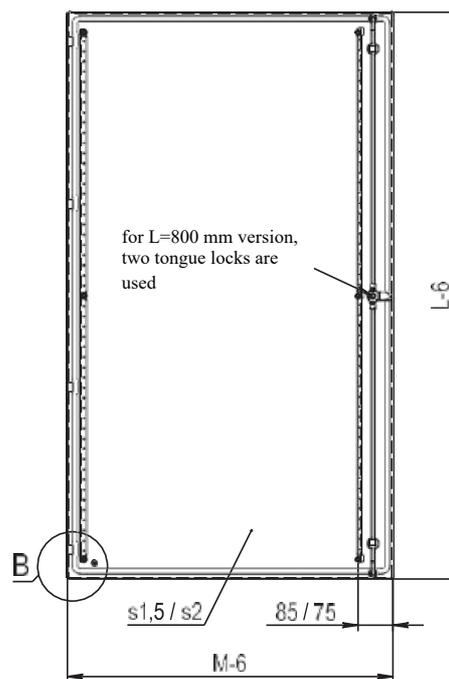
1.2 mm sheet steel

**Surface:****enclosure, door, end panel:**  
structural powder coating RAL 7035**mounting panel, cable entry****panels:**

zinc coating

**Sealing:****door, end panel:**  
polyurethane foam**Lock:**double bit tongue type or rod  
system  
(depends on size)**Hinge:**opening angle  $\leq 180^\circ$ **Delivery scope:** enclosure,  
door, mounting panel, cable  
entrypanel, end panel, key,  
packaging, technical passport**Options:**paint special RAL color: 3020,  
7004, 7005, 9005, 9016,  
special dimensions, extra holes,  
silicone foam sealing**Attention!**

VB rails for side walls: order separately

for L=800 mm version,  
two hinges are used, for L=1000  
mm three hinges, for L=1200  
mm four hinges

\* - 1.5 mm for &lt; 1400 mm high enclosures

\*\* - 2.0 mm for &lt; 800 mm wide enclosures

\*\*\* - rod system for enclosures 1200, 1400, 1600 mm high

Cabinet code		MES 80.60.40	MES 100.60.40	MES 100.80.40	MES 120.60.40	MES 120.80.40	MES 140.60.40	MES 140.80.40	MES 160.60.40
The cabinet includes	Qty., pcs.								
Mounting panel	1	MP 80.60	MP 100.60	MP 100.80	MP 120.60 E	MP 120.80 E	MP 140.60 E	MP 140.80 E	MP 160.60 E
Blind cable entry panel	1 2	PKV 60 P PRV 60 S	PKV 60 P PRV 60 S	PKV 80 P PRV 80 S	PKV 60 P PRV 60 S	PKV 80 P PRV 80 S	PKV 60 P PRV 60 S	PKV 80 P PRV 80 S	PKV 60 P PRV 60 S
Blind door rail	2	-	-	-	VB 120	VB 120	VB 140	VB 140	VB 160
Height L, mm		800	1000	1000	1200	1200	1400	1400	1600
Width M, mm		600	600	800	600	800	600	800	600
Depth N, mm		400	400	400	400	400	400	400	400
Mounting panel height, mm		760	960	960	1160	1160	1360	1360	1560
Mounting panel width, mm		542	542	742	542	742	542	742	542
Weight, kg		36.9	44.1	58	51.1	63.6	58.4	72.5	65.4
Components	Qty.								
Internal door	1 pcs.	ID 80.60	ID 100.60	ID 100.80	ID 120.60	ID 120.80	ID 140.60	ID 140.80	ID 160.60
Modular chassis	1 pcs.	MC 80.60	MC 100.60	-	MC 120.60	MC 120.80	-	-	-
Visor		-	-	-	-	-	-	-	-
Wall mount C-clamp	4 pcs.	WB 8							
Wall mount C-clamp	4 pcs.	WB 8 B							
Door stopper	1 pcs.	SD 2 v2							
Blind door horizontal rail	10 pcs.	VB 60 GE	VB 60 GE	VB 80 GE	VB 60 GE	VB 80 GE	VB 60 GE	VB 80 GE	VB 60 GE
Blind door vertical rail	2 pcs.	VB 80	VB 100	VB 100	VB 120	VB 120	VB 140	VB 140	VB 160
Zinc cylinder lock	1 pcs.	LC 1C.Z							
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH							
Lock protective cover for lead seals	1 pcs.	PC 1 L.S							
Microperforated mounting panel	1 pcs.	MP 80.6 0 P	MP 100.6 0 P	MP 100.8 0 P	MP 120.6 0 PE	MP 120.8 0 PE	MP 140.6 0 PE	MP 140.8 0 PE	MP 160.6 0 PE
Internal mounting rail	4 pcs.	MG 50 E							
Extended plinth 300 mm high*	1 pcs.	ZH 30.40							
Extended plinth 450 mm high*	1 pcs.	ZH 45.40							
Mounting rack		-	-	-	-	-	-	-	-
Pole mount kit	1 pcs.	OK 60 EP	OK 60 EP	OK 80 EP	OK 60 EP	OK 80 EP	OK 60 EP	OK 80 EP	OK 60 EP
Blind cable entry panel with knock out holes		-	-	-	-	-	-	-	-
Panel spacer	4 pcs.	S 8.25							
Panel spacer	4 pcs.	S 8.50							
Document pocket	1 pcs.	DP 40 P							
Blanking plugs	4 pcs.	PL 09							
End panel	1 pcs.	R 60.40 C	R 60.40 C	R 80.40 C	R 60.40 C	R 80.40 C	R 60.40 C	R 80.40 C	R 60.40 C

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used



**Degree of protection:**  
IP66\*, IK08

**Material:**  
**enclosure:**  
1.2 mm sheet steel  
**door:**  
1.2 mm sheet steel 4.0 mm  
hardened glass

**Surface:**  
**enclosure and door:** structural  
powder coating RAL 7035

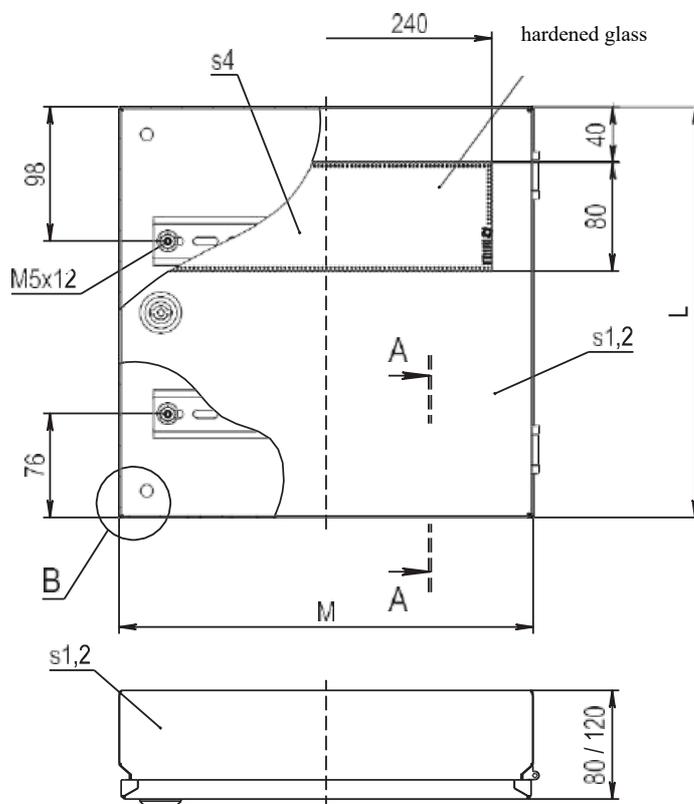
**Sealing:**  
**door:**  
polyurethane foam

**Lock:**  
double bit tongue type

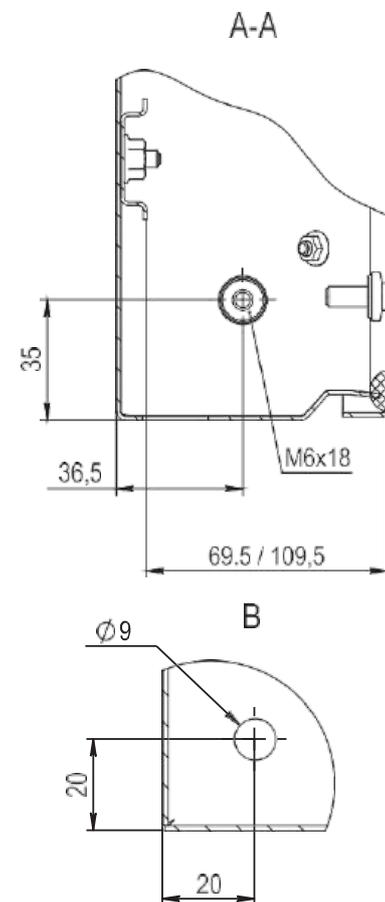
**Hinge:**  
opening angle  $\leq 180^\circ$

**Delivery scope:** enclosure  
with openings in the base  
for sealed glands, door, two  
(2) DIN rails,  
key, packaging, technical passport

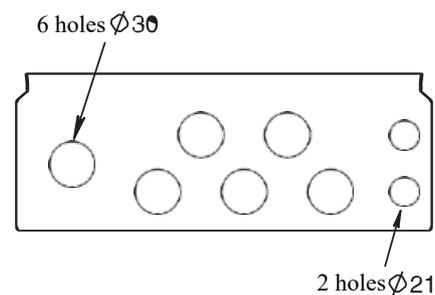
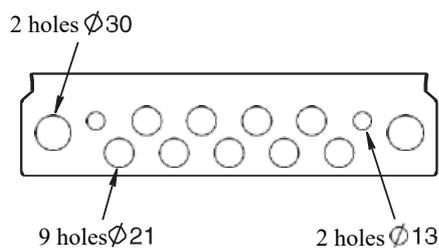
**Options:**  
paint special RAL color: 3020,  
7004, 7005, 9005, 9016,  
special dimensions, extra holes,  
silicone foam sealing



MEV 30.30.08 M



MEV 30.30.12 M



Cabinet code		MEV 30.30.08 M	MEV 30.30.12 M
The cabinet includes	Qty.		
Mounting panel		-	-
Blind cable entry panel		-	-
Blind door vertical rail		-	-
DIN rails	2 pcs.	DR 07.225	DR 07.225
Height L, mm		300	300
Width M, mm		300	300
Depth N, mm		80	120
Weight, kg		2.8	3.2
Components	Qty.		
Internal door		-	-
Modular chassis		-	-
Visor		-	-
Wall mount C-clamp	4 pcs.	WB 8	WB 8
Wall mount C-clamp	4 pcs.	WB 8 B	WB 8 B
Zinc cylinder lock	1 pcs.	LC 1C.Z	LC 1C.Z
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH	LC 1C.ZH
Lock protective cover for lead seals	1 pcs.	PC 1 L.S	PC 1 L.S
Pole mount kit	1 pcs.	OK 30 EP	OK 30 EP
Blanking plugs	4 pcs.	PL 09	PL 09



**Degree of protection:**  
IP66, IK08

**Material:**  
**door, cable entry panel:**  
1.5 mm sheet steel  
**door:** 1.5 mm sheet steel 4.0 mm hardened glass

**Surface:**  
**enclosure, cable entry panel, door:**  
structural powder coating  
RAL 7035

**Sealing:**  
**door and cable entry panel:**  
polyurethane foam

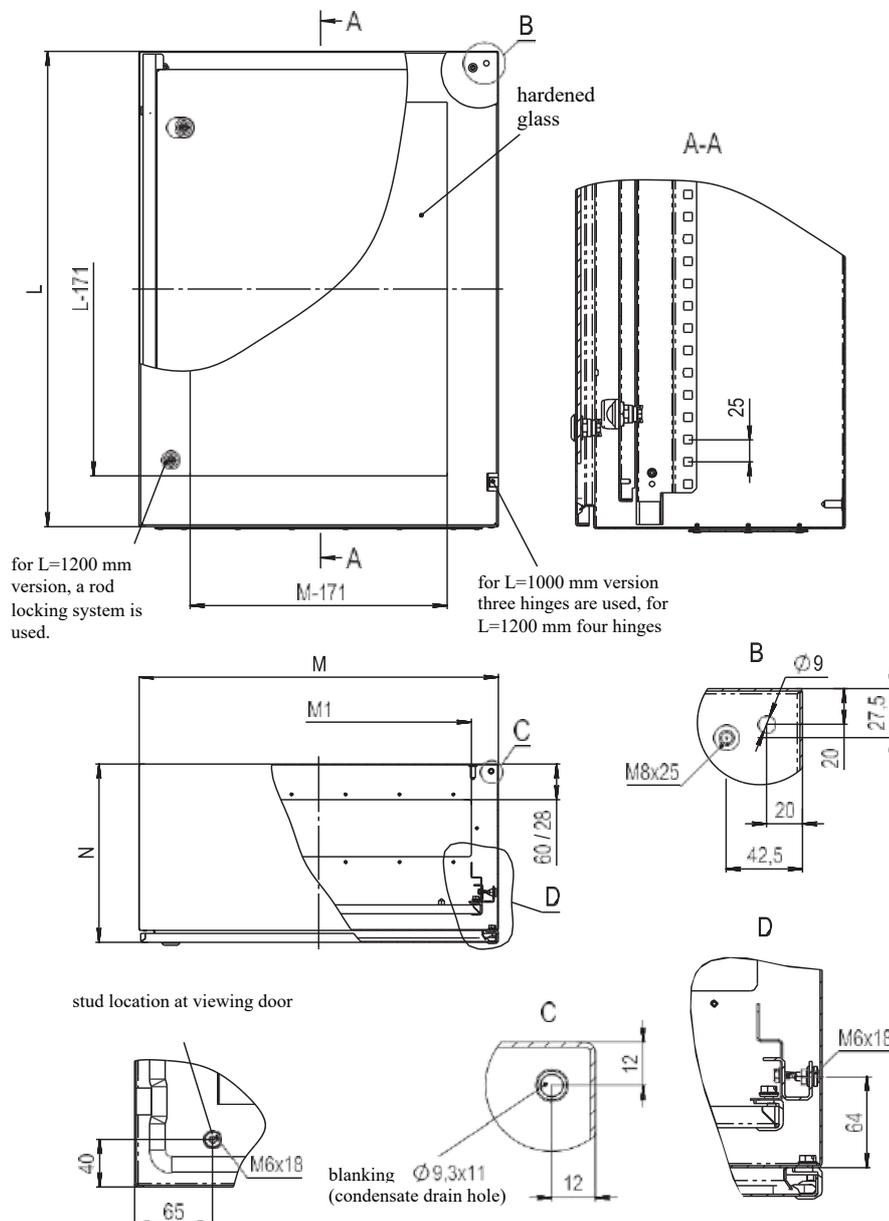
**Lock:**  
double bit tongue type or rod system\*  
(depends on size)

**Hinge:**  
opening angle  $\leq 180^\circ$

**Delivery scope:**  
enclosure, door, cable entry panel, key, packaging, technical passport

**Options:**  
paint special RAL color: 3020, 7004, 7005, 9005, 9016, special dimensions, extra holes, silicone foam sealing

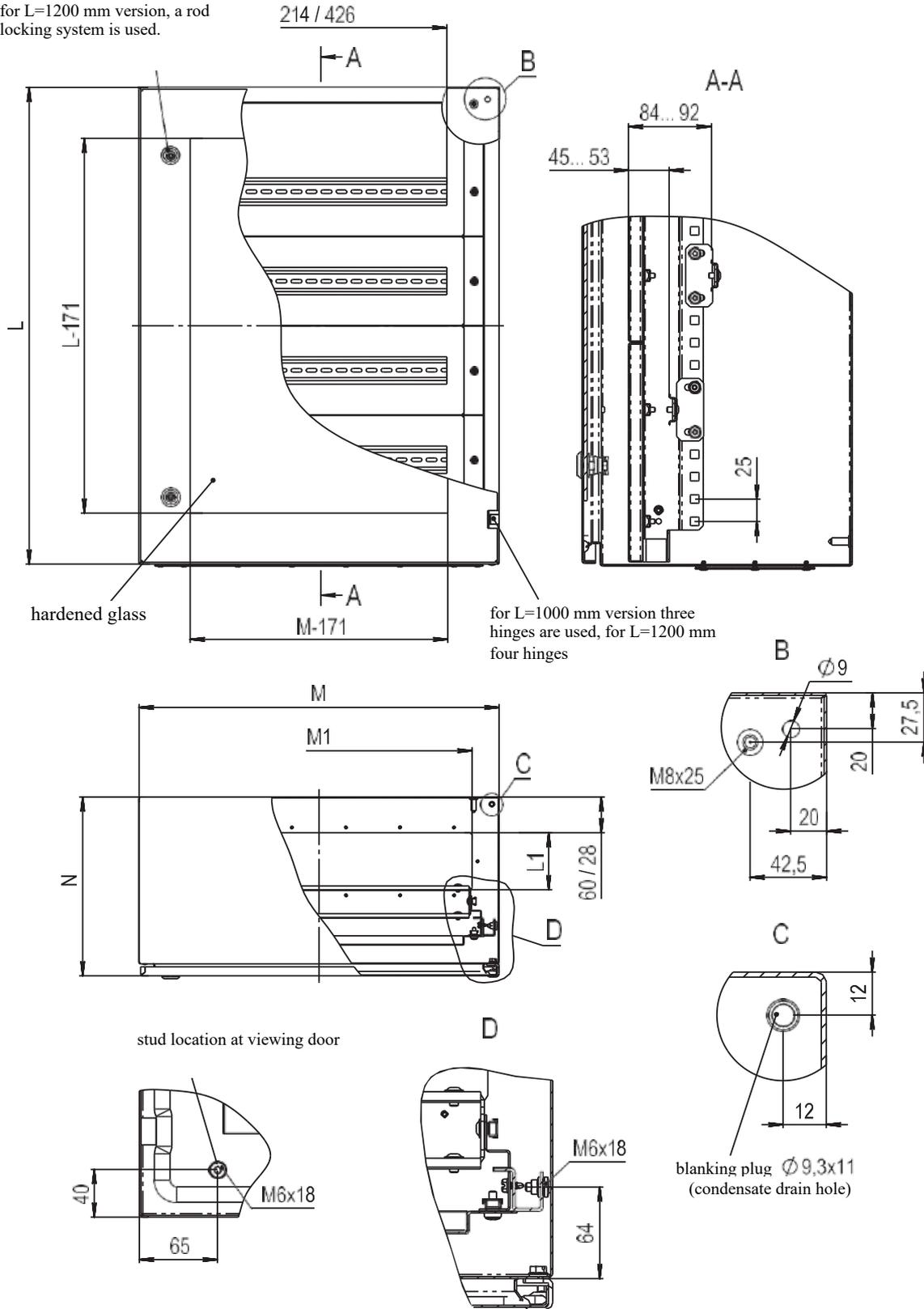
### Distribution cabinet MEV with internal door



\*- rod system for enclosures 1200, 1400, 1600 mm high

Distribution cabinet MEV with modular chassis

for L=1200 mm version, a rod locking system is used.



Enclosures 500 and 600 mm high

Cabinet code		MEV 50.40.21	MEV 50.40.25	MEV 60.40.21	MEV 60.40.25	MEV 60.60.25
<b>The cabinet includes</b>	<b>Qty.</b>					
<b>Mounting panel</b>		-	-	-	-	-
<b>Blind cable entry panel</b>	1 pcs.	PK 35.13 G	PK 35.13 G	PK 35.13 G	PK 35.13 G	PK 55.13 G
<b>Lock: double bit tongue type</b>		+	+	+	+	+
<b>Lock: rod system (three locking points)</b>		-	-	-	-	-
<b>Blind door vertical rail</b>		-	-	-	-	-
<b>Height L, mm</b>		500	500	600	600	600
<b>Width M, mm</b>		400	400	400	400	600
<b>Depth N, mm</b>		210	250	210	250	250
<b>Weight, kg</b>		8.7	9.4	10	10.8	14.4
<b>Components</b>	<b>Qty.</b>					
<b>Internal door</b>	1 pcs.	ID 50.40	ID 50.40	ID 60.40	ID 60.40	-
<b>Modular chassis</b>	1 pcs.	MC 50.40	MC 50.40	MC 60.40	MC 60.40	MC 60.60
<b>Visor</b>	1 pcs.	R 40.21	R 40.25	R 40.21	R 40.25	R 60.25
<b>Wall mount C-clamp</b>	4 pcs.	WB 8				
<b>Wall mount C-clamp</b>	4 pcs.	WB 8 B				
<b>Door stopper</b>	1 pcs.	SD 2 v2				
<b>Blind door horizontal rail</b>		-	-	-	-	-
<b>Blind door vertical rail</b>		-	-	-	-	-
<b>Zinc cylinder lock</b>	1 pcs.	LC 1C.Z				
<b>Zinc cylinder lock with rotary handle</b>	1 pcs.	LC 1C.ZH				
<b>Lock protective cover for lead seals</b>	1 pcs.	PC 1 L.S				
<b>Mounting panel</b>		MP 50.40	MP 50.40	MP 60.40	MP 60.40	MP 60.60
<b>Microperforated mounting panel</b>	1 pcs.	MP 50.40 P	MP 50.40 P	MP 60.40 P	MP 60.40 P	MP 60.60 P
<b>Internal mounting rail</b>	4 pcs.	MG 30 E				
<b>Extended plinth 300 mm high*</b>		-	-	-	-	-
<b>Extended plinth 450 mm high*</b>		-	-	-	-	-
<b>Mounting rack</b>		-	-	-	-	-
<b>Pole mount kit</b>	1 pcs.	OK 40 EP	OK 40 EP	OK 40 EP	OK 40 EP	OK 60 EP
<b>Blind cable entry panel with knock out holes</b>	1 pcs.	PK 35.13	PK 35.13	PK 35.13	PK 35.13	PK 55.13
<b>Panel spacer</b>	4 pcs.	S 8.25				
<b>Panel spacer</b>	4 pcs.	S 8.50				
<b>Document pocket</b>		-	-	-	-	-
<b>Blanking plugs</b>	4 pcs.	PL 09				

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used

## Enclosures 700 and 800 mm high

Cabinet code		MEV 70.50.21	MEV 70.50.25	MEV 80.60.21	MEV 80.60.25	MEV 80.60.30
The cabinet includes	Qty.					
Mounting panel		-	-	-	-	-
Blind cable entry panel	1 pcs.	PK 45.13 G	PK 45.13 G	PK 55.13 G	PK 55.13 G	PK 55.13 G
Lock: double bit tongue type		+	+	+	+	+
Lock: rod system (three locking points)		-	-	-	-	-
Blind door vertical rail		-	-	-	-	-
Height L, mm		700	700	800	800	800
Width M, mm		500	500	600	600	600
Depth N, mm		210	250	210	250	300
Weight, kg		13.3	14.3	17.1	18.3	19.8
Components	Qty.					
Internal door	1 pcs.	ID 70.50	ID 70.50	ID 80.60	ID 80.60	ID 80.60
Modular chassis	1 pcs.	-	-	MC 80.60	MC 80.60	MC 80.60
Visor	1 pcs.	R 50.21	R 50.25	R 60.21	R 60.25	R 60.30
Wall mount C-clamp	4 pcs.	WB 8				
Wall mount C-clamp	4 pcs.	WB 8 B				
Door stopper	1 pcs.	SD 2 v2				
Blind door horizontal rail		-	-	-	-	-
Blind door vertical rail		-	-	-	-	-
Zinc cylinder lock	1 pcs.	LC 1C.Z				
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH				
Lock protective cover for lead seals	1 pcs.	PC 1 L.S				
Mounting panel		MP 70.50	MP 70.50	MP 80.60	MP 80.60	MP 80.60
Microperforated mounting panel	1 pcs.	MP 70.50 P	MP 70.50 P	MP 80.60 P	MP 80.60 P	MP 80.60 P
Internal mounting rail	4 pcs.	MG 30 E				
Extended plinth 300 mm high*	1 pcs.	-	-	-	-	ZH 30.30
Extended plinth 450 mm high*	1 pcs.	-	-	-	-	ZH 45.30
Mounting rack		-	-	-	-	-
Pole mount kit	1 pcs.	OK 50 EP	OK 50 EP	OK 60 EP	OK 60 EP	OK 60 EP
Blind cable entry panel with knock out holes	1 pcs.	PK 45.13	PK 45.13	PK 55.13	PK 55.13	PK 55.13
Panel spacer	4 pcs.	S 8.25				
Panel spacer	4 pcs.	S 8.50				
Document pocket		-	-	-	-	-
Blanking plugs	4 pcs.	PL 09				

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used

Enclosures 700 and 800 mm high

Cabinet code		MEV 100.60.21	MEV 100.60.25	MEV 100.60.30	MEV 100.80.30	MEV 120.60.21	MEV 120.60.30
The cabinet includes	Qty.						
Mounting panel		-	-	-	-	-	-
Blind cable entry panel	1 pcs.	PK 55.13 G	PK 55.13 G	PK 55.13 G	PK 35.13 G	PK 55.13 G	PK 55.13 G
Lock: double bit tongue type		-	-	-	-	-	-
Lock: rod system (three locking points)		+	+	+	+	+	+
Blind door vertical rail		-	-	-	-	VB 120	VB 120
Height L, mm		1000	1000	1000	1000	1200	1200
Width M, mm		600	600	600	800	600	600
Depth N, mm		210	250	300	300	210	300
Weight, kg		20.8	22.2	23.9	29.5	24.4	27.9
Components	Qty.						
Internal door	1 pcs.	ID 100.60	ID 100.60	ID 100.60	ID 100.80	ID 120.60	ID 120.60
Modular chassis	1 pcs.	MC 100.60	MC 100.60	MC 100.60	-	MC 120.60	MC 120.60
Visor	1 pcs.	R 60.21	R 60.25	R 60.30	R 80.30	R 60.21	R 60.30
Wall mount C-clamp	4 pcs.	WB 8					
Wall mount C-clamp	4 pcs.	WB 8 B					
Door stopper	1 pcs.	SD 2 v2					
Blind door horizontal rail		-	-	-	-	-	-
Blind door vertical rail		-	-	-	-	-	-
Zinc cylinder lock	1 pcs.	LC 1C.Z					
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH					
Lock protective cover for lead seals	1 pcs.	PC 1 L.S					
Mounting panel	1 pcs.	MP 100.60	MP 100.60	MP 100.60	MP 100.80	MP 120.60 E	MP 120.60 E
Microperforated mounting panel	1 pcs.	MP 100.60 P	MP 100.60 P	MP 100.60 P	MP 100.80 P	MP 120.60 PE	MP 120.60 PE
Internal mounting rail	4 pcs.	MG 30 E					
Extended plinth 300 mm high*	1 pcs.	-	-	ZH 30.30	ZH 30.30	-	ZH 30.30
Extended plinth 450 mm high*	1 pcs.	-	-	ZH 45.30	ZH 45.30	-	ZH 45.30
Mounting rack		-	-	-	-	-	-
Pole mount kit	1 pcs.	OK 60 EP	OK 60 EP	OK 60 EP	OK 80 EP	OK 60 EP	OK 60 EP
Blind cable entry panel with knock out holes	1 pcs.	PK 55.13	PK 55.13	PK 55.13	PK 35.13	PK 55.13	PK 55.13
Panel spacer	4 pcs.	S 8.25					
Panel spacer	4 pcs.	S 8.50					
Document pocket		-	-	-	-	-	-
Blanking plugs	4 pcs.	PL 09					

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used



**Degree of protection:**  
IP55, IK08

**Material:**  
**door, cable entry panel:**  
1.5 mm sheet steel  
**door:** 1.5 mm sheet steel 4.0 mm hardened glass

**Surface:**  
**enclosure, end panel, door:**  
structural powder coating  
RAL 7035

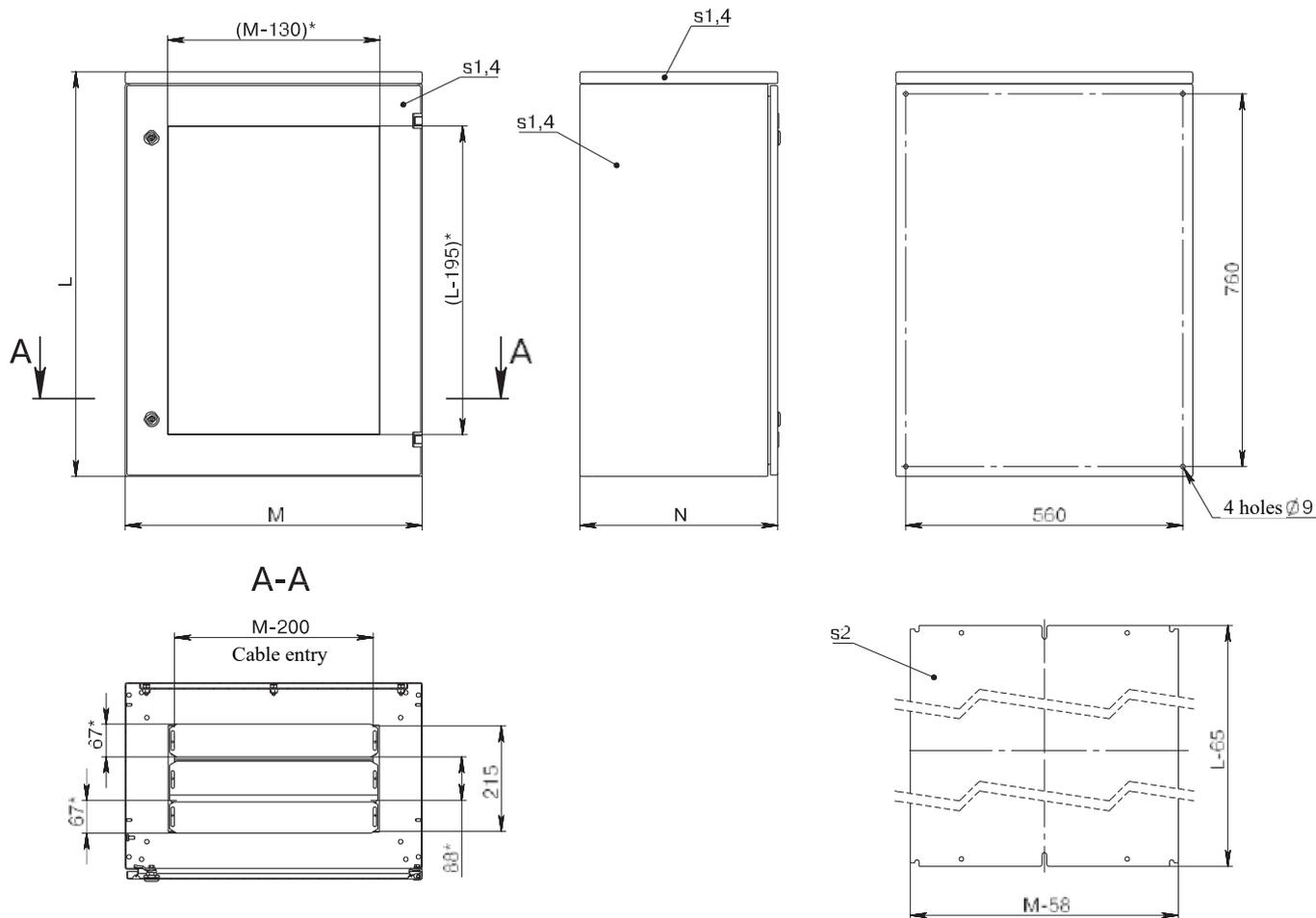
**Sealing:**  
**door and cable entry panel:**  
polyurethane foam

**Lock:**  
double bit tongue type

**Hinge:**  
opening angle  $\leq 180^\circ$

**Delivery scope:**  
enclosure, door, cable entry panel, key, packaging, technical passport

**Options:**  
paint special RAL color: 3020, 7004, 7005, 9005, 9016, special dimensions, extra holes, silicone foam sealing



Cabinet code		MEV 80.60.40
The cabinet includes	Qty.	
Mounting panel		-
Blind cable entry panel	1 pcs. 2 pcs.	PKV 60 P PRV 60 S
Lock: double bit tongue type		+
Lock: rod system (three locking points)		-
Blind door vertical rail		-
Height L, mm		800
Width M, mm		600
Depth N, mm		400
Weight, kg		36.9
Components	Qty.	
Internal door		ID 80.60
Modular chassis		MC 80.60
Visor		-
Wall mount C-clamp	4 pcs.	WB 8
Wall mount C-clamp	4 pcs.	WB 8 B
Door stopper	1 pcs.	SD 2 v2
Blind door horizontal rail	10 pcs.	-
Blind door vertical rail	2 pcs.	-
Zinc cylinder lock	1 pcs.	LC 1C.Z
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH
Lock protective cover for lead seals	1 pcs.	PC 1 L.S
Mounting panel	1 pcs.	MP 80.60
Microperforated mounting panel	1 pcs.	MP 80.60 P
Internal mounting rail	4 pcs.	MG 50 E
Extended plinth 300 mm high*	1 pcs.	ZH 30.40
Extended plinth 450 mm high*	1 pcs.	ZH 45.40
Mounting rack		-
Pole mount kit	1 pcs.	OK 60 EP
Blind cable entry panel with knock out holes	1 pcs.	
Panel spacer	4 pcs.	S 8.25
Panel spacer	4 pcs.	S 8.50
Document pocket		-
Blanking plugs	4 pcs.	PL 09
End panel	1 pcs.	R 60.40 C

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used



**Degree of protection:**  
IP55, IK10

**Material:**  
**enclosure, cable entry panels, door:**  
1.5 mm sheet steel  
**mounting panel:** 2.5 mm sheet steel

**Surface:**  
**enclosure, cable entry panels, door:** structural powder coating RAL 7035

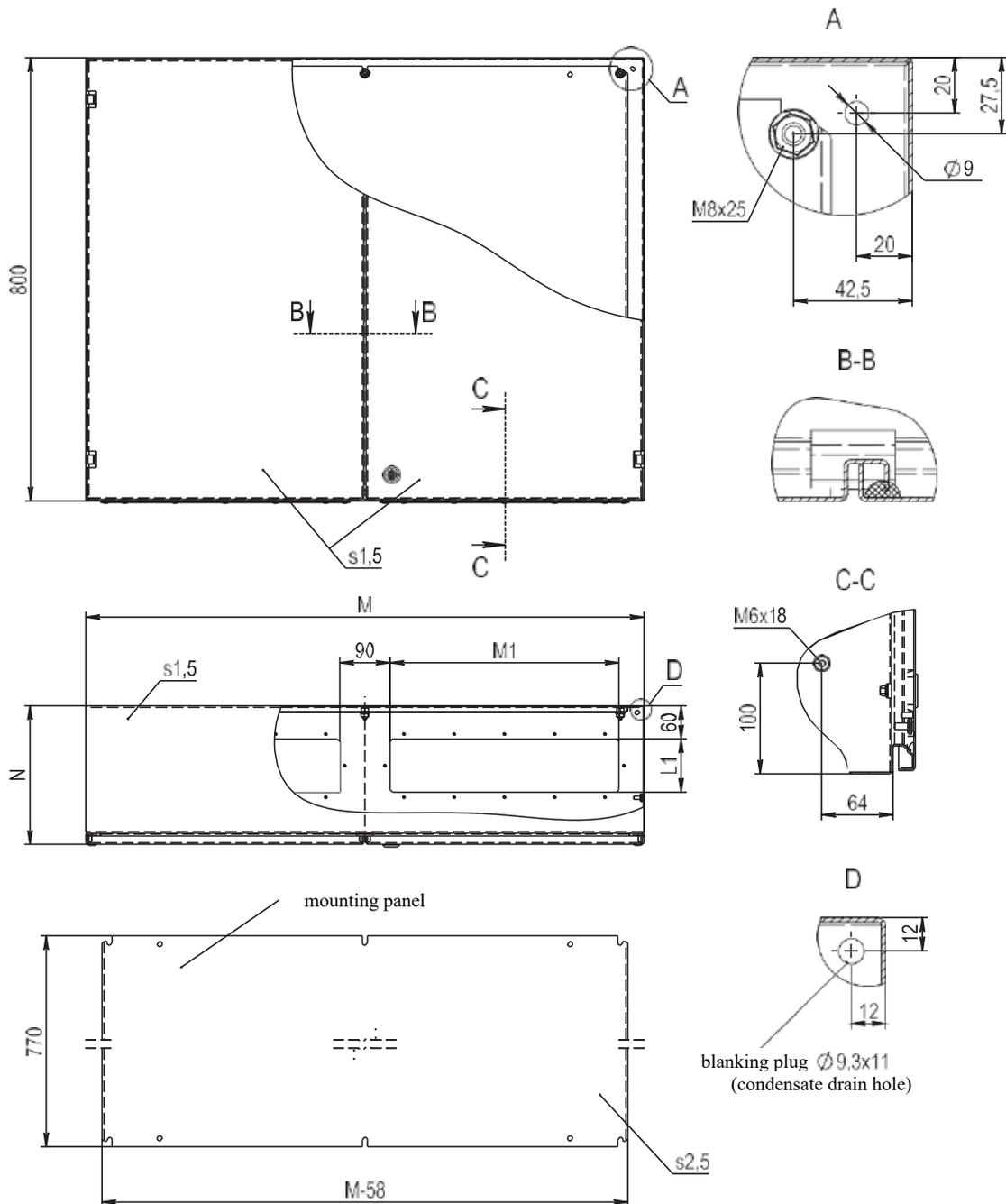
**Sealing:**  
**doors, cable entry panel:** polyurethane foam

**Lock:**  
double bit tongue type

**Hinge:**  
opening angle  $\leq 180^\circ$

**Delivery scope:**  
enclosure, door kit, two cable entry panels, mounting panel, key, packaging, technical passport

**Options:**  
paint special RAL color: 3020, 7004, 7005, 9005, 9016, special dimensions, extra holes, silicone foam sealing



Cabinet code		MED 80.100.25	MED 80.100.30	MED 80.120.30	MED 100.100.30	MED 120.120.30
The cabinet includes	Qty.					
Mounting panel	1 pcs.	MP 80.100	MP 80.100	MP 80.120	MP 100.100	MP 120.120 E
Blind cable entry panel	2 pcs.	PK 45.13 G	PK 45.13 G	PK 55.13 G	R 100.30 C	R 120.30 C
Lock: double bit tongue type		+	+	+	+	-
Lock: rod system (three locking points)		-	-	-	-	+
Blind door vertical rail	2 pcs.	-	-	-	-	VB 120
Height L, mm		800	800	80	1000	1200
Width M, mm		1000	1000	1200	1000	1200
Depth N, mm		250	300	300	300	300
Mounting panel height, mm		770	770	770	970	1170
Mounting panel width, mm		-942	942	1142	942	1142
Weight, kg		39.4	41.4	48.5	60	78.4
Components	Qty.					
Internal door		-	-	-	-	-
Modular chassis		-	-	-	-	-
Visor		-	-	-	-	-
Wall mount C-clamp	4 pcs.	WB 8	WB 8	WB 8	WB 8	WB 8
Wall mount C-clamp	4 pcs.	WB 8 B	WB 8 B	WB 8 B	WB 8 B	WB 8 B
Door stopper	1 pcs.	SD 2 v2	SD 2 v2	SD 2 v2	SD 2 v2	SD 2 v2
Blind door horizontal rail	10 pcs.	VB 50 GE	VB 50 GE	VB 60 GE	VB 50 GE	VB 60 GE
Blind door vertical rail	2 pcs.	VB 80	VB 80	VB 80	VB 100	VB 120
Zinc cylinder lock	1 pcs.	LC 1C.Z	LC 1C.Z	LC 1C.Z	LC 1C.Z	LC 1C.Z
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH
Lock protective cover for lead seals	1 pcs.	PC 1 L.S	PC 1 L.S	PC 1 L.S	PC 1 L.S	PC 1 L.S
Microperforated mounting panel	1 pcs.	MP 80.100 P	MP 80.100 P	-	-	-
Internal mounting rail	4 pcs.	MG 30 E	MG 30 E	MG 30 E	MG 30 E	MG 30 E
Extended plinth 300 mm high*		-	-	-	-	-
Extended plinth 450 mm high*		-	-	-	-	-
Mounting rack		-	-	-	-	-
Pole mount kit		-	-	-	-	-
Blind cable entry panel with knock out holes	1 pcs.	PK 45.13	PK 45.13	PK 55.13	-	-
Panel spacer	4 pcs.	S 8.25	S 8.25	S 8.25	S 8.25	S 8.25
Panel spacer	4 pcs.	S 8.50	S 8.50	S 8.50	S 8.50	S 8.50
Document pocket	1 pcs.	DP 40 P	DP 40 P	DP 40 P	DP 40 P	DP 40 P
Blanking plugs	4 pcs.	PL 09	PL 09	PL 09	PL 09	PL 09

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used



**Degree of protection:**  
IP55, IK10

**Material:**  
**enclosure and end panel:**  
 1.5 mm sheet steel **door:**  
 1.5-2.0 mm sheet steel\*\*  
 (depends on size)  
**mounting panel:** 2.5 mm  
 sheet steel **cable entry**  
**panels:** 1.2 mm sheet steel

**Surface:**  
**enclosure, door, end panel:**  
 structural powder coating RAL 7035  
**mounting panel, cable entry**  
**panels:** zinc coating

**Sealing:**  
**door, end panel:**  
 polyurethane foam

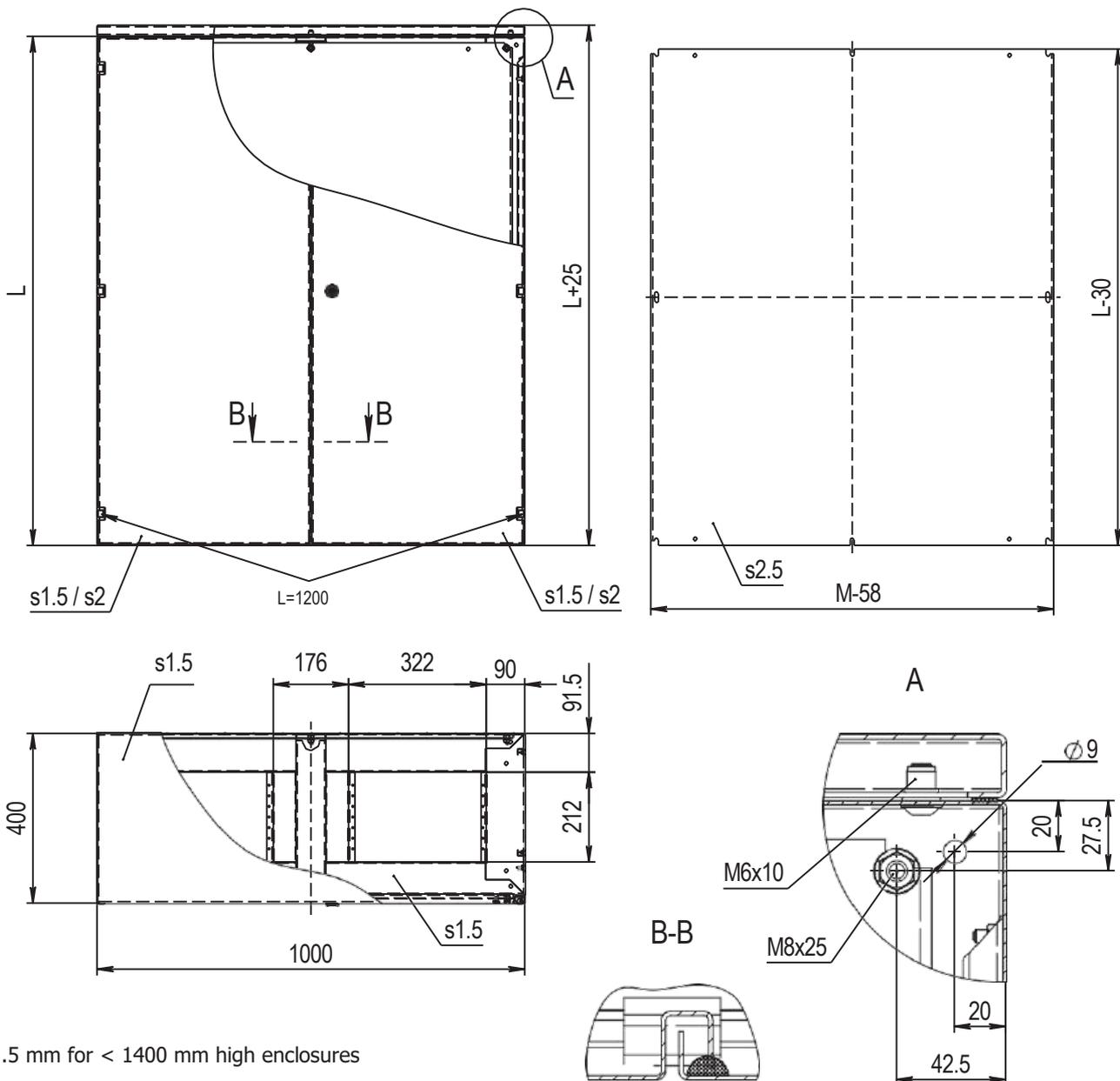
**Lock:**  
 double bit rod  
 system

**Hinge:** opening angle  $\leq 180^\circ$

**Delivery scope:** enclosure,  
 door kit, mounting panel,  
 cable entry panels, end  
 panel, key, packaging, door  
 vertical rail

**Options:**  
 paint special RAL color: 3020,  
 7004, 7005, 9005, 9016,  
 special dimensions, extra holes,  
 silicone foam sealing

**Attention!**  
 VB rails for side walls: order separately



\* – 1.5 mm for < 1400 mm high enclosures

Cabinet code		MED 120.100.40	MED 140.80.40	MED 140.100.40
<b>The cabinet includes</b>		<b>Qty.</b>		
<b>Mounting panel</b>	1 pcs.	MP 120.100 E	MP 140.80 E	MP 140.100 E
<b>Blind cable entry panel</b>		PKV 50 P – 2 pcs. PRV 50 S – 4 pcs.	PKV 80 P – 1 pcs. PRV 80 S – 2 pcs.	PKV 50 P – 2 pcs. PRV 50 S – 4 pcs.
<b>Lock: double bit tongue type</b>		-	-	-
<b>Lock: rod system (three locking points)</b>		+	+	+
<b>Blind door vertical rail</b>	2 pcs.	VB 120	VB 140	VB 140
<b>Height L, mm</b>		1200	1400	1400
<b>Width M, mm</b>		1000	800	1000
<b>Depth N, mm</b>		400	400	400
<b>Mounting panel height, mm</b>		1170	1370	1370
<b>Mounting panel width, mm</b>		942	742	942
<b>Weight, kg</b>		78.4	80	89.1
<b>Components</b>		<b>Qty.</b>		
<b>Internal door</b>		-	-	-
<b>Modular chassis</b>		-	-	-
<b>Visor</b>		-	-	-
<b>Wall mount C-clamp</b>	4 pcs.	WB 8	WB 8	WB 8
<b>Wall mount C-clamp</b>	4 pcs.	WB 8 B	WB 8 B	WB 8 B
<b>Door stopper</b>	1 pcs.	SD 2 v2	SD 2 v2	SD 2 v2
<b>Blind door horizontal rail</b>	10 pcs.	VB 50 GE	VB 40 GE	VB 50 GE
<b>Blind door vertical rail</b>	2 pcs.	VB 120	VB 140	VB 140
<b>Zinc cylinder lock</b>	1 pcs.	LC 1C.Z	LC 1C.Z	LC 1C.Z
<b>Zinc cylinder lock with rotary handle</b>	1 pcs.	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH
<b>Lock protective cover for lead seals</b>	1 pcs.	PC 1 L.S	PC 1 L.S	PC 1 L.S
<b>Microperforated mounting panel</b>	1 pcs.	MP 120.100 PE	MP 140.80 PE	MP 140.100 PE
<b>Internal mounting rail</b>	4 pcs.	MG 50 E	MG 50 E	MG 50 E
<b>Extended plinth 300 mm high*</b>		-	-	-
<b>Extended plinth 450 mm high*</b>		-	-	-
<b>Mounting rack</b>		-	-	-
<b>Pole mount kit</b>	1 pcs.	-	OK 80 EP	-
<b>Blind cable entry panel with knock out holes</b>		-	-	-
<b>Panel spacer</b>	4 pcs.	S 8.25	S 8.25	S 8.25
<b>Panel spacer</b>	4 pcs.	S 8.50	S 8.50	S 8.50
<b>Document pocket</b>	1 pcs.	DP 40 P	DP 40 P	DP 40 P
<b>Blanking plugs</b>	4 pcs.	PL 09	PL 09	PL 09
<b>End panel</b>	1 pcs.	R 100.40 C	R 80.40 C	R 100.40 C

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used



Enclosures 300 and 400 mm high

Cabinet code		SES 30.20.15	SES 30.40.15	SES 40.30.15	SES 40.30.21	SES 40.40.21
<b>The cabinet includes</b>	<b>Qty.</b>					
Mounting panel	1 pcs.	MP 30.20	MP 30.40	MP 40.30	MP 40.30	MP 40.40
Blind door vertical rail		-	-	-	-	-
Height L, mm		300	300	400	400	400
Width M, mm		200	400	300	300	400
Depth N, mm		155	155	155	210	210
Mounting panel height, mm		270	270	370	370	370
Mounting panel width, mm		142	342	242	242	342
Weight, kg		3.8	6.6	6.6	7.5	9.3
<b>Components</b>	<b>Qty.</b>					
Internal door		-	-	-	-	-
Modular chassis		-	-	-	-	-
Visor	1 pcs.	-	-	R 30.15 S	-	R 40.21 S
Wall mount C-clamp	4 pcs.	WB 8 S				
Wall mount C-clamp	4 pcs.	WB 8 BS				
Door stopper	1 pcs.	SD 2 v2				
Blind door horizontal rail	10 pcs.	-	VB 40 GE	-	-	VB 40 GE
Blind door vertical rail	2 pcs.	-	-	VB 40	VB 40	VB 40
Zinc cylinder lock	1 pcs.	LC 1C.Z				
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH				
Lock protective cover for lead seals	1 pcs.	PC 1 L.S				
Microperforated mounting panel	1 pcs.	MP 30.20 P	MP 30.40 P	MP 40.30 P	MP 40.30 P	MP 40.40 P
Internal mounting rail	4 pcs.	-	-	-	MG 30 E	MG 30 E
Extended plinth 300 mm high		-	-	-	-	-
Extended plinth 450 mm high		-	-	-	-	-
Mounting rack	1 pcs.	-	-	ZL 30.15	ZL 30.21	ZL 40.21
Pole mount kit	1 pcs.	-	OK 40 EP	OK 30 EP	OK 30 EP	OK 40 EP
Blind cable entry panel with knock out holes		-	-	-	-	-
Panel spacer	4 pcs.	S 8.25				
Panel spacer	4 pcs.	S 8.50				
Document pocket		-	-	-	-	-
Blanking plugs	4 pcs.	PL 09				

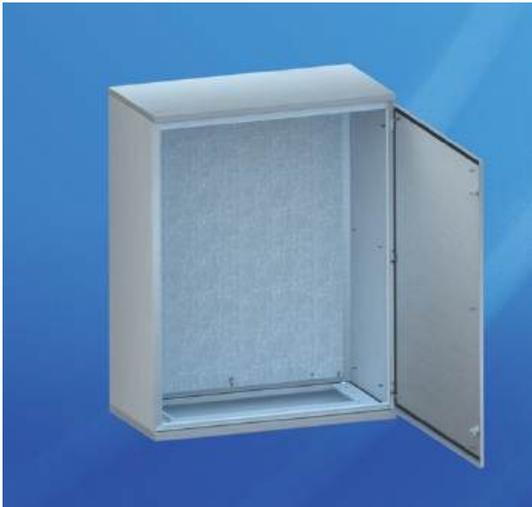
## Enclosures 500, 600 and 700 mm high

Cabinet code		SES 50.40.21	SES 50.50.21	SES 60.40.21	SES 60.60.21	SES 60.60.25	SES 70.50.25
The cabinet includes	Qty.						
Mounting panel	1 pcs.	MP 50.40	MP 50.50	MP 60.40	MP 60.60	MP 60.60	MP 70.50
Blind door vertical rail		-	-	-	-	-	-
Height L, mm		500	500	600	600	600	700
Width M, mm		400	500	400	600	600	500
Depth N, mm		210	21	210	210	250	250
Mounting panel height, mm		470	470	570	570	570	670
Mounting panel width, mm		342	442	342	542	542	442
Weight, kg		11.3	13.5	13.1	18.5	19.4	19
Components	Qty.						
Internal door	1 pcs.	ID 50.40	-	ID 60.40	-	-	ID 70.50
Modular chassis	1 pcs.	MC 50.40	-	MC 60.40	MC 60.60	MC 60.60	-
Visor	1 pcs.	R 40.21 S	R 50.21 S	R 40.21 S	R 60.21 S	R 60.25 S	R 50.25 S
Wall mount C-clamp	4 pcs.	WB 8 S					
Wall mount C-clamp	4 pcs.	WB 8 BS					
Door stopper	1 pcs.	SD 2 v2					
Blind door horizontal rail	10 pcs.	VB 40 GE	VB 50 GE	VB 40 GE	VB 60 GE	VB 60 GE	VB 50 GE
Blind door vertical rail	2 pcs.	VB 50	VB 50	VB 60	VB 60	VB 60	VB 70
Zinc cylinder lock	1 pcs.	LC 1C.Z					
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH					
Lock protective cover for lead seals	1 pcs.	PC 1 L.S					
Microperforated mounting panel	1 pcs.	MP 50.40 P	MP 50.50 P	MP 60.40 P	MP 60.60 P	MP 60.60 P	MP 70.50 P
Internal mounting rail	4 pcs.	MG 30 E					
Extended plinth 300 mm high		-	-	-	-	-	-
Extended plinth 450 mm high		-	-	-	-	-	-
Mounting rack	1 pcs.	ZL 40.21	-	ZL 40.21	-	-	-
Pole mount kit	1 pcs.	OK 40 EP	OK 50 EP	OK 40 EP	OK 60 EP	OK 60 EP	OK 50 EP
Blind cable entry panel with knock out holes		-	-	-	-	-	-
Panel spacer	4 pcs.	S 8.25					
Panel spacer	4 pcs.	S 8.50					
Document pocket	1 pcs.	-	DP 40 P	-	DP 40 P	DP 40 P	DP 40 P
Blanking plugs	4 pcs.	PL 09					

## Enclosures 800, 1000, 1200 and 1400 mm high

Cabinet code		SES 80.60.21	SES 80.60.30	SES 80.80.30	SES 100.60.30	SES 100.80.30	SES 120.60.30	SES 120.80.30	SES 140.80.30
The cabinet includes	Qty.								
Mounting panel	1 pcs.	MP 80.60	MP 80.60	MP 80.80	MP 100.60	MP 100.80	MP 120.60 E	MP 120.80 E	MP 140.80 E
Blind door vertical rail	2 pcs.	-	-	-	-	-	VB 120	VB 120	VB 140
Height L, mm		800	800	800	1000	1000	1200	1200	1400
Width M, mm		600	600	800	600	800	600	800	800
Depth N, mm		210	300	300	300	300	300	300	300
Mounting panel height, mm		770	770	770	970	970	1170	1170	1370
Mounting panel width, mm		542	542	742	542	742	542	742	742
Weight, kg		26.4	32	37.5	37.6	40.2	42	57	79
Components	Qty.								
Internal door	1 pcs.	ID 80.60	ID 80.60	-	ID 100.60	ID 100.80	ID 120.60	ID 120.80	ID 140.80
Modular chassis	1 pcs.	MC 80.60	MC 80.60	-	MC 100.60	-	MC 120.60	MC 120.80	-
Visor	1 pcs.	R 60.21 S	R 60.30 S	R 80.30 S	R 60.30 S	R 80.30 S	R 60.30 S	R 80.30 S	-
Wall mount C-clamp	4 pcs.	WB 8 S	WB 8 S	WB 8 S	WB 8 S	WB 8 S	WB 8 S	WB 8 S	WB 8 S
Wall mount C-clamp	4 pcs.	WB 8 BS	WB 8 BS	WB 8 BS	WB 8 BS	WB 8 BS	WB 8 BS	WB 8 BS	WB 8 BS
Door stopper	1 pcs.	SD 2 v2	SD 2 v2	SD 2 v2	SD 2 v2	SD 2 v2	SD 2 v2	SD 2 v2	SD 2 v2
Blind door horizontal rail	10 pcs.	VB 60 GE	VB 60 GE	VB 80 GE	VB 60 GE	VB 80 GE	VB 60 GE	VB 80 GE	VB 80 GE
Blind door vertical rail	2 pcs.	VB 80	VB 80	VB 80	VB 100	VB 100	VB 120	VB 120	VB 140
Zinc cylinder lock	1 pcs.	LC 1C.Z	LC 1C.Z	LC 1C.Z	LC 1C.Z	LC 1C.Z	LC 1C.Z	LC 1C.Z	LC 1C.Z
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH
Lock protective cover for lead seals	1 pcs.	PC 1 L.S	PC 1 L.S	PC 1 L.S	PC 1 L.S	PC 1 L.S	PC 1 L.S	PC 1 L.S	PC 1 L.S
Microperforated mounting panel	1 pcs.	MP 80.60 P	MP 80.60 P	MP 80.80 P	MP 100.60	MP 100.80 P	MP 120.60 P	MP 120.60 P	MP 140.80 P
Internal mounting rail	4 pcs.	MG 30 E	MG 30 E	MG 30 E	MG 30 E	MG 30 E	MG 30 E	MG 30 E	MG 30 E
Extended plinth 300 mm high*	1 pcs.	-	ZH 30.30	ZH 30.30	ZH 30.30	ZH 30.30	ZH 30.30	ZH 30.30	ZH 30.30
Extended plinth 450 mm high*	1 pcs.	-	ZH 45.30	ZH 45.30	ZH 45.30	ZH 45.30	ZH 45.30	ZH 45.30	ZH 45.30
Mounting rack		-	-	-	-	-	-	-	-
Pole mount kit	1 pcs.	OK 60 EP	OK 60 EP	OK 80 EP	OK 60 EP	OK 80 EP	OK 60 EP	OK 80 EP	OK 80 EP
Blind cable entry panel with knock out holes		-	-	-	-	-	-	-	-
Panel spacer	4 pcs.	S 8.25	S 8.25	S 8.25	S 8.25	S 8.25	S 8.25	S 8.25	S 8.25
Panel spacer	4 pcs.	S 8.50	S 8.50	S 8.50	S 8.50	S 8.50	S 8.50	S 8.50	S 8.50
Document pocket	1 pcs.	DP 40 P	DP 40 P	DP 40 P	DP 40 P	DP 40 P	DP 40 P	DP 40 P	DP 40 P
Blanking plugs	4 pcs.	PL 09	PL 09	PL 09	PL 09	PL 09	PL 09	PL 09	PL 09

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used



**Degree of protection:** IP66, IK10  
**- 60°C**  
**+135°C**

**Material:**  
**enclosure:** 1.2-1.5 mm corrosion-resistant sheet steel AISI 304\* (depends on size)

**door:** 1.5 mm corrosion-resistant sheet steel AISI 304

**mounting panel:** 2.0-2.5 mm sheet steel\*\* (depends on size)

**Surface:**  
**enclosure and door:** honed  
**mounting panel:** zinc coating

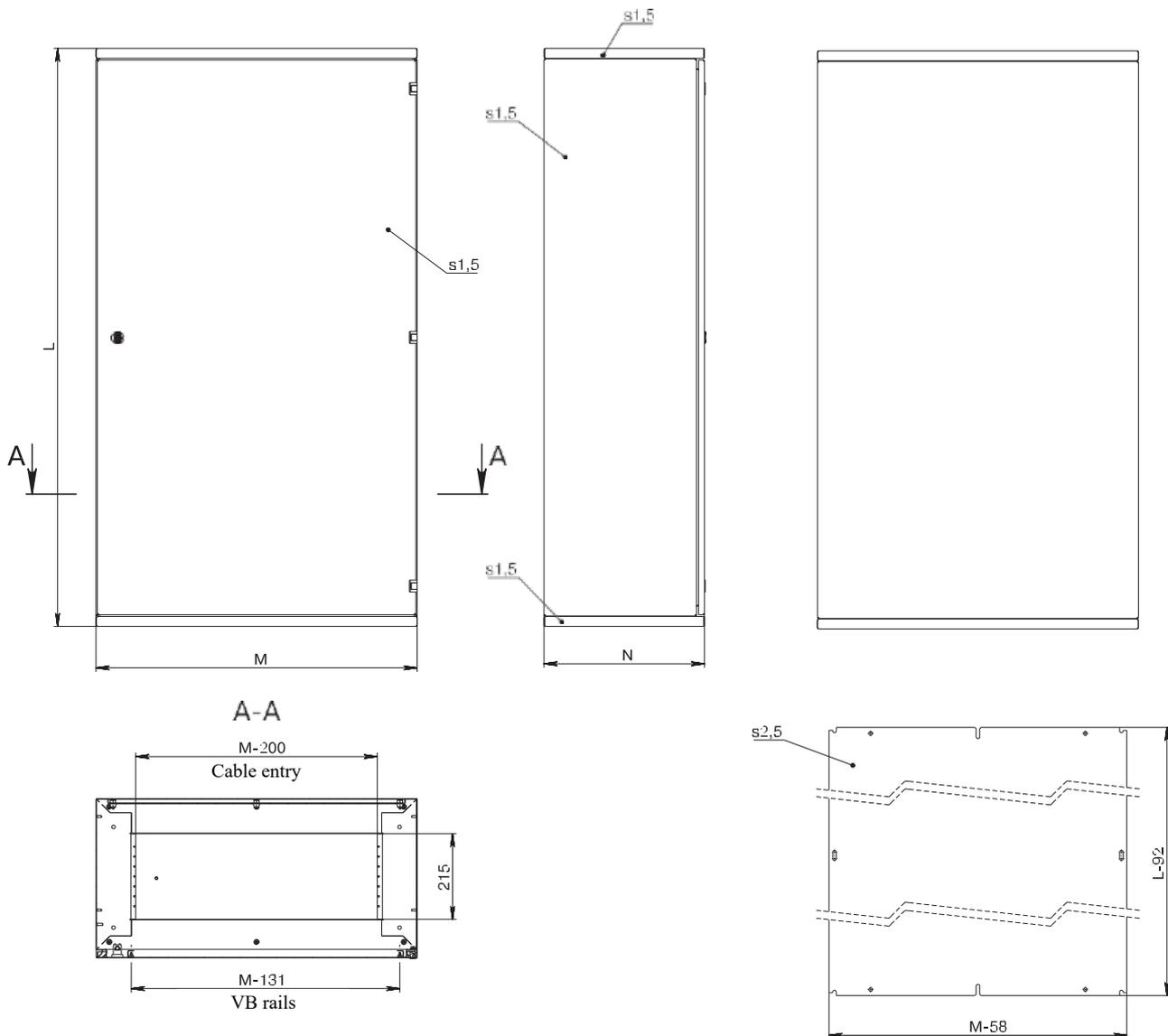
**Sealing:**  
**door:** silicone foam

**Lock:** double bit tongue type or rod system (depends on size)

**Hinge:** opening angle  $\leq 180^\circ$

**Delivery scope:** enclosure, door, mounting panel, key, packaging, technical passport

**Options:** corrosion-resistant sheet steel AISI 316, viewing cover, special dimensions, extra holes, RAL 7035 painting



## Enclosures 800, 1000 and 1200 mm high

Cabinet code		SES 80.60.40	SES 100.60.40	SES 100.80.40	SES 120.60.40
<b>The cabinet includes</b>	<b>Qty.</b>				
Mounting panel	1 pcs.	MP 80.60	MP 100.60	MP 100.80	MP 120.60 E
End panel	1 pcs.	End panel	End panel	R 80.40 CS	End panel
Blind door vertical rail		-	-	-	VB 120
Height L, mm		800	1000	1000	1200
Width M, mm		600	600	800	600
Depth N, mm		400	400	400	400
Mounting panel height, mm		770	970	970	1170
Mounting panel width, mm		542	542	742	542
Weight, kg		32	44	60	50.5
<b>Components</b>	<b>Qty.</b>				
Internal door		ID 80.60	ID 100.60	ID 100.80	ID 120.60
Modular chassis		MC 80.60	MC 100.60	-	MC 120.60
Visor		-	-	-	-
Wall mount C-clamp	4 pcs.	WB 8 S	WB 8 S	WB 8 S	WB 8 S
Wall mount C-clamp	4 pcs.	WB 8 BS	WB 8 BS	WB 8 BS	WB 8 BS
Door stopper	1 pcs.	SD 2 v2	SD 2 v2	SD 2 v2	SD 2 v2
Blind door horizontal rail	10 pcs.	VB 60 GE	VB 60 GE	VB 80 GE	VB 60 GE
Blind door vertical rail	2 pcs.	VB 80	VB 100	VB 100	VB 120
Zinc cylinder lock	1 pcs.	LC 1C.Z	LC 1C.Z	LC 1C.Z	LC 1C.Z
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH
Lock protective cover for lead seals	1 pcs.	PC 1 L.S	PC 1 L.S	PC 1 L.S	PC 1 L.S
Microperforated mounting panel	1 pcs.	MP 80.60 P	MP 100.60 P	MP 100.80 P	MP 120.60 PE
Internal mounting rail	4 pcs.	MG 50 E	MG 50 E	MG 50 E	MG 50 E
Extended plinth 300 mm high*	1 pcs.	ZH 30.40	ZH 30.40	ZH 30.40	ZH 30.40
Extended plinth 450 mm high*	1 pcs.	ZH 45.40	ZH 45.40	ZH 45.40	ZH 45.40
Mounting rack		-	-	-	-
Pole mount kit	1 pcs.	OK 60 EP	OK 60 EP	OK 80 EP	OK 60 EP
Blind cable entry panel with knock out holes		-	-	-	-
Panel spacer	4 pcs.	S 8.25	S 8.25	S 8.25	S 8.25
Panel spacer	4 pcs.	S 8.50	S 8.50	S 8.50	S 8.50
Document pocket	1 pcs.	DP 40 P	DP 40 P	DP 40 P	DP 40 P
Blanking plugs	4 pcs.	PL 09	PL 09	PL 09	PL 09
End panel	1 pcs.	-	-	R 80.40 CS	-

\* for 400 mm deep enclosures, floor cabinet plinths may be used



**Degree of protection:** IP55, IK10



**Material:**  
**enclosure:** 1.2-1.5 mm corrosion-resistant sheet steel AISI 304\* (depends on size)

**door:** 1.5 mm corrosion-resistant sheet steel AISI 304

**mounting panel:** 2.0-2.5 mm sheet steel\*\* (depends on size)

**Surface:**  
**enclosure and door:** honed  
**mounting panel:** zinc coating

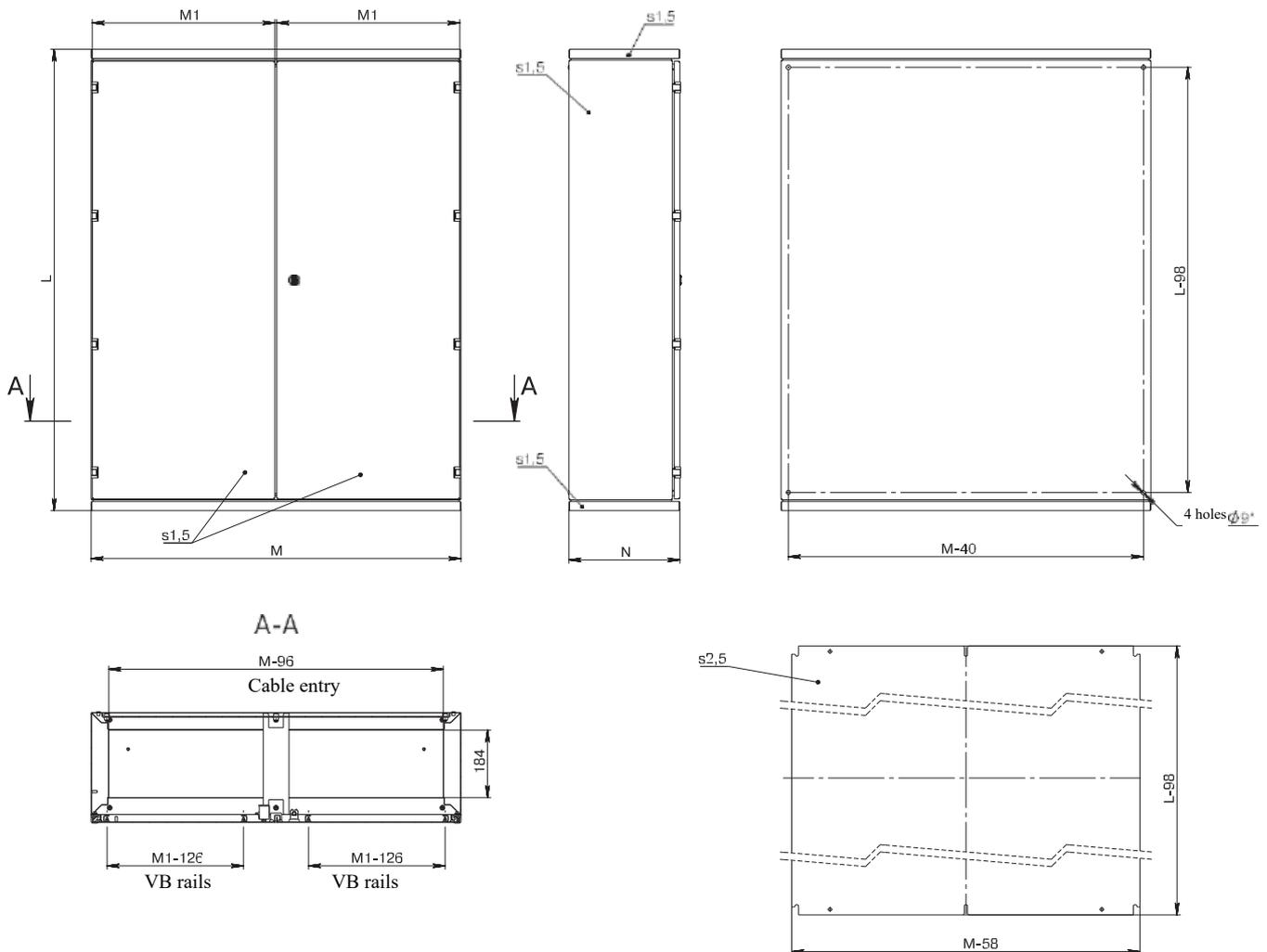
**Sealing:**  
**door:** silicone foam

**Lock:** double bit tongue type or rod system (depends on size)

**Hinge:** opening angle  $\leq 180^\circ$

**Delivery scope:** enclosure, door, mounting panel, key, packaging, technical passport

**Options:** corrosion-resistant sheet steel AISI 316, viewing cover, special dimensions, extra holes, RAL 7035 painting



Enclosures 300 mm high

Cabinet code		SED 100.100.30	SED 120.100.30
The cabinet includes	Qty.		
Mounting panel	1 pcs.	MP 100.100	MP 120.100 E
End panel	1 pcs.	End panel	End panel
Lock: double bit tongue type	1 pcs.	+	-
Lock: rod system (three locking points)		-	+
Blind door vertical rail	2 pcs.	VB 100	VB 120
Height L, mm		1000	1200
Width M, mm		1000	1000
Depth N, mm		300	300
Mounting panel height, mm		970	1170
Mounting panel width, mm		942	942
Weight, kg		61	73
Components	Qty.		
Internal door		-	-
Modular chassis		-	-
Visor		-	-
Wall mount C-clamp		WB 8 S	WB 8 S
Wall mount C-clamp		WB 8 BS	WB 8 BS
Door stopper		SD 2 v2	SD 2 v2
Blind door horizontal rail		VB 50 GE	VB 50 GE
Blind door vertical rail		VB 100	VB 120
Zinc cylinder lock		LC 1C.Z	LC 1C.Z
Zinc cylinder lock with rotary handle		LC 1C.ZH	LC 1C.ZH
Lock protective cover for lead seals		PC 1 L.S	PC 1 L.S
Microperforated mounting panel		-	MP 120.100 PE
Internal mounting rail		MG 30 E	MG 50 E
Extended plinth 300 mm high*		-	-
Extended plinth 450 mm high*		-	-
Mounting rack		-	-
Pole mount kit		-	-
Blind cable entry panel with knock out holes		-	-
Panel spacer		S 8.25	S 8.25
Panel spacer		S 8.50	S 8.50
Document pocket		DP 40 P	DP 40 P
Blanking plugs		PL 09	PL 09

\* for 300 mm deep enclosures, floor cabinet plinths may be used



**Degree of protection:** IP66, IK10  
 -60°C  
 +135°C

**Material:**  
**enclosure:** 1.2-1.5 mm corrosion-resistant sheet steel AISI 304\*  
 (depends on size) **door:** 1.5 mm corrosion-resistant sheet steel AISI 304  
**mounting panel:** 2.0-2.5 mm sheet steel\*\*  
 (depends on size)  
**glass:** 4 mm hardened glass

**Surface:**  
**enclosure and door:** honed  
**mounting panel:** zinc coating

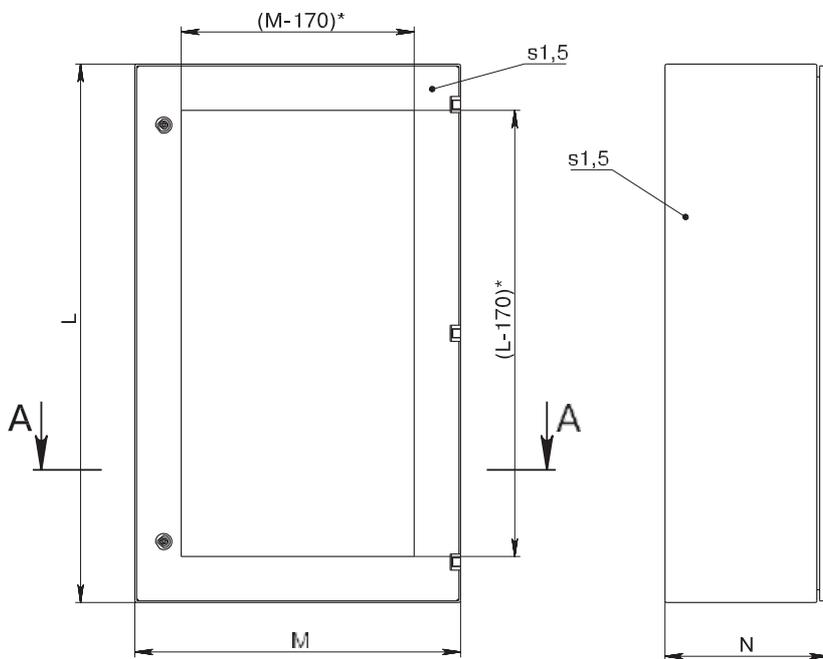
**Sealing:**  
**door:** silicone foam

**Lock:**  
 double bit tongue type or rod system  
 (depends on size)

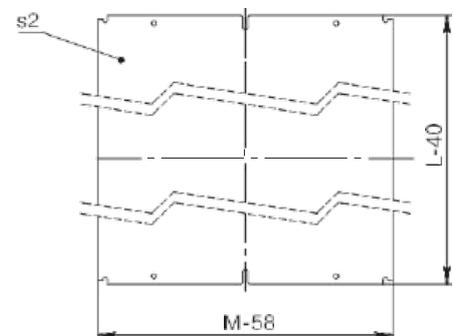
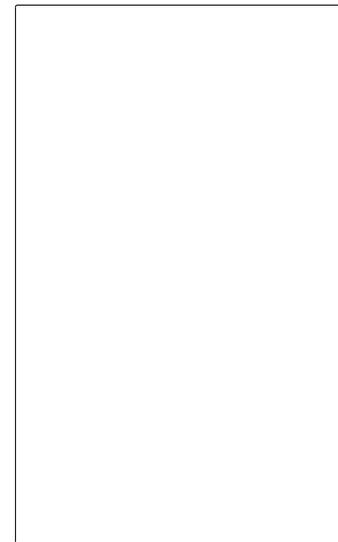
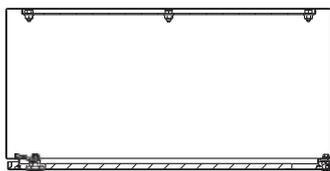
**Hinge:**  
 opening angle ≤ 180°

**Delivery scope:** enclosure, door, mounting panel, key, packaging, technical passport

**Options:**  
 corrosion-resistant sheet steel AISI 316, viewing cover, special dimensions, extra holes, RAL 7035 painting



A-A



Enclosures 250 and 300 mm high

Cabinet code		SEV 50.40.25	SEV 80.80.30	SEV 100.60.30
The cabinet includes	Qty.			
Mounting panel	1 pcs.	MP 50.40	MP 80.80	MP 100.60
Lock: double bit tongue type		1 pcs.	2 pcs.	-
Lock: rod system (three locking points)		-	-	+
Blind door vertical rail		-	-	-
Height L, mm		500	800	1000
Width M, mm		400	800	600
Depth N, mm		250	300	300
Mounting panel height, mm		470	770	960
Mounting panel width, mm		342	742	542
Weight, kg		9.4	19.8	23.9
Components	Qty.			
Internal door		ID 50.40	ID 80.60	ID 100.60
Modular chassis		MC 50.40	MC 80.60	MC 100.60
Visor	1 pcs.	R 40.25 S	R 60.30 S	R 60.30 S
Wall mount C-clamp	4 pcs.	WB 8 S	WB 8 S	WB 8 S
Wall mount C-clamp	4 pcs.	WB 8 BS	WB 8 BS	WB 8 BS
Door stopper	1 pcs.	SD 2 v2	SD 2 v2	SD 2 v2
Blind door horizontal rail	10 pcs.	VB 40 GE	VB 60 GE	VB 60 GE
Blind door vertical rail	2 pcs.	VB 50	VB 80	VB 100
Zinc cylinder lock	1 pcs.	LC 1C.Z	LC 1C.Z	LC 1C.Z
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH
Lock protective cover for lead seals	1 pcs.	PC 1 L.S	PC 1 L.S	PC 1 L.S
Mounting panel	1 pcs.	MP 50.40	MP 80.60	MP 100.60
Microperforated mounting panel	1 pcs.	MP 50.40 P	MP 80.60 P	MP 100.60 P
Internal mounting rail	4 pcs.	MG 30 E	MG 30 E	MG 30 E
Extended plinth 300 mm high*	1 pcs.	-	ZH 30.30	ZH 30.30
Extended plinth 450 mm high*	1 pcs.	-	ZH 45.30	ZH 45.30
Mounting rack		-	-	-
Pole mount kit	1 pcs.	OK 40 EP	OK 60 EP	OK 60 EP
Blind cable entry panel with knock out holes	1 pcs.	-	-	-
Panel spacer	4 pcs.	S 8.25	S 8.25	S 8.25
Panel spacer	4 pcs.	S 8.50	S 8.50	S 8.50
Document pocket		-	-	-
Blanking plugs	4 pcs.	PL 09	PL 09	PL 09

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used

# EXPLOSION-PROOF ENCLOSURES



## GENERAL INFORMATION

Series MES Ex, SES Ex, MBS Ex, SBS Ex and MBV Ex explosion-proof distribution enclosures are designed to arrange connections (branches) of general and special electrical circuits (power circuits, control circuits, alarm systems, etc.).

Scope of application: as part of group II explosion-proof electrical equipment operated at class 1 and 2 explosion-hazardous areas according to GOST R 51330.9-99 classification of indoor and outdoor installations, GOST R 51330.13-99 (IEC 60079-14-96) and other regulatory documents governing electrical equipment use at hazardous areas.

Explosion-proof distribution enclosures of these series are a welded steel shell consisting of an enclosure and a cover. The distribution enclosure has internal and external earthing clamps and earth signs. Locking washers prevent the cover self-unscrewing. Spring washers prevent earthing clamps loosening.

### Main technical data:

Environmental degree of protection according to GOST 14254-2015	IP66
Operating ambient temperature range, °C	-40 to +70 (polyurethane seal) -60 to +135 (silicone seal)
AC and DC power supply voltage, V	1000

### The enclosures are designed to meet requirements of manufacturers and installers:

- wide size range
- comply with protection class ExellU, IP66
- min. resistance to external mechanical impact: IK09
- M6 blind rivet nut for external earthing
- 180° opening angle doors
- covers with viewing window and protection against screw loss
- cast polyurethane / silicone seal
- galvanized steel mounting panels
- M8 blind rivet nuts at the rear panel for fixing to the wall
- textured polyester powder coating
- availability of accessories

### Classification of explosion protection:

**Ex:** mark of compliance with explosion protection standards

**e:** mark of compliance with protection type

Type e protection is an electrical equipment protection type with additional techniques against permissible temperature possible excess, arc discharges, sparking at normal or abnormal operating modes specified by the electrical equipment manufacturer at regulatory and technical documentation.

**II:** mark of compliance with the group of explosion-proof electrical equipment

Group II is explosion-proof electrical equipment for indoor and outdoor installation intended for potentially explosive environments, except for underground mine workings and their overground facilities dangerous for ore gas and/or dust.

**U:** mark of compliance with the specified Ex-component

Ex-component is the part of explosion-proof electrical equipment not used separately in an explosive environment; when integrated into explosion-proof electrical equipment, it is mandatory to confirm that Ex-components explosion-proof properties meet regulatory documents requirements.

### Outdoors installation of explosion-proof cabinets

Enclosures used in the open air require increased surface protection along with sealing protection if high humidity and UV radiation are constant, and it is recommended to use a protective visor against rain. Ensure enclosure ventilation or heating to prevent condensation of moisture inside.

Example of marking:

**Ex e IIC Gb U**

Product codes:

M	E	S	120.	80.	30	<b>Ex</b>
			enclosure height, cm	enclosure width, cm	enclosure depth, cm	
		S – single door (cover) D – double door (cover)				
		B – box E – compact cabinet				
M – painted carbon steel S – ground corrosion-resistant steel						



**Explosion-proof junction box  
MBS Ex**



**Explosion-proof junction box  
with viewing cover  
MBV Ex**



**Stainless steel explosion-proof  
junction box  
SBS Ex**



**Compact explosion-  
proof distribution  
cabinet MES Ex**



**Compact stainless steel  
explosion-proof  
distribution cabinet SES  
Ex**

## 8 DISTINCTIVE FEATURES OF EXPLOSION-PROOF CABINETS



# FEATURES

1

The enclosure is made of a single steel sheet. The enclosure joints are welded in a continuous cycle to give rigidity and density. A chute along the enclosure edge provides additional rigidity to it and prevents dirt and water from entering the cabinet when it is opened.



2

To fasten the mounting panel, M8 welded studs are installed using a unique method allowing to apply maximal loads to the panel.



3

Sealed threaded holes for wall mounting are at the enclosure back, so no marking and drilling are needed.



4

To achieve reliable sealing, a robot applies a polyurethane/silicone gasket using a continuous casting technique.



5

Earthing clamps are provided inside and outside the enclosure, at the door and at the mounting panel. M6 diameter copper-plated earthing pins have a contact flange and require no paint removal or contact paste application.



6

180° opening angle metal hinges have captive pins that are convenient during assembly and meet fire safety requirements.



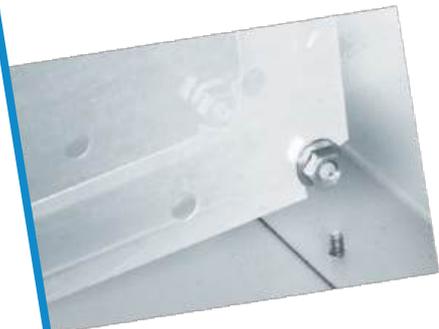
7

The cover is fixed to the enclosure with screws through fixing washers. They prevent the screws from falling out.



8

The mounting panel made of galvanized steel can be installed at different depths using spacers



# EXPLOSION-PROOF JUNCTION BOXES MBS Ex



**Degree of protection:**  
Ex e IIC Gb U, IP66, IK10

**Material:**  
**enclosure and cover:**  
1.2 mm sheet steel  
**mounting panel:**  
2.0 mm sheet steel

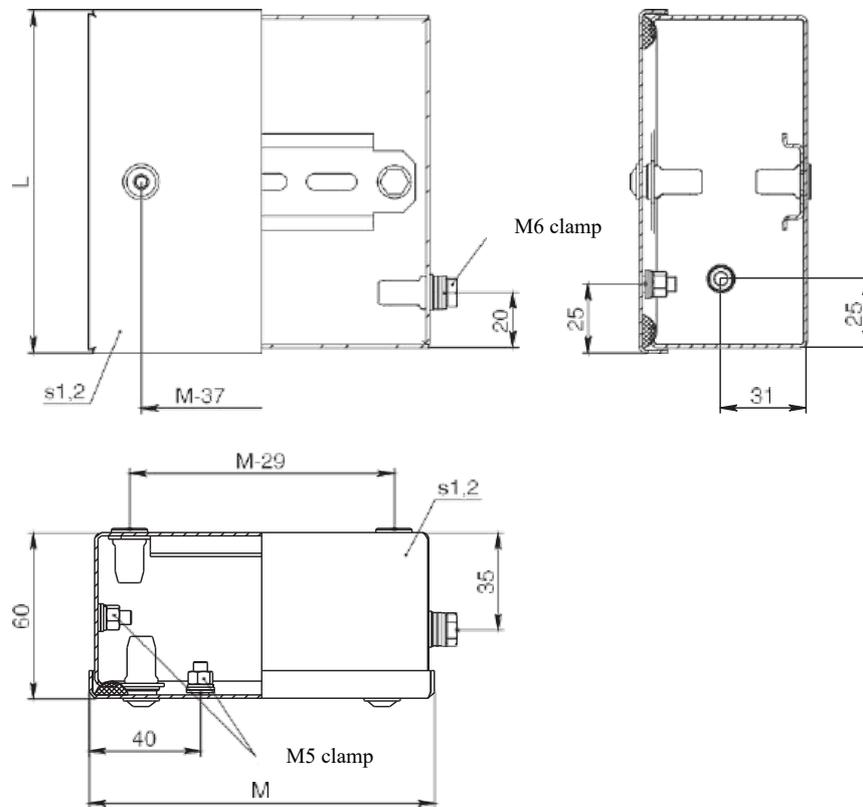
**Surface:**  
**enclosure and cover:**  
structural powder coating  
RAL 7035  
**mounting panel:**  
zinc coating

**Sealing:**  
**cover:** polyurethane foam

**Delivery scope:** enclosure, cover, DIN rails (for 60 and 80 mm deep), mounting panel (for 120 mm deep), packaging, technical passport

**Options:**  
paint special color, special dimensions, extra holes

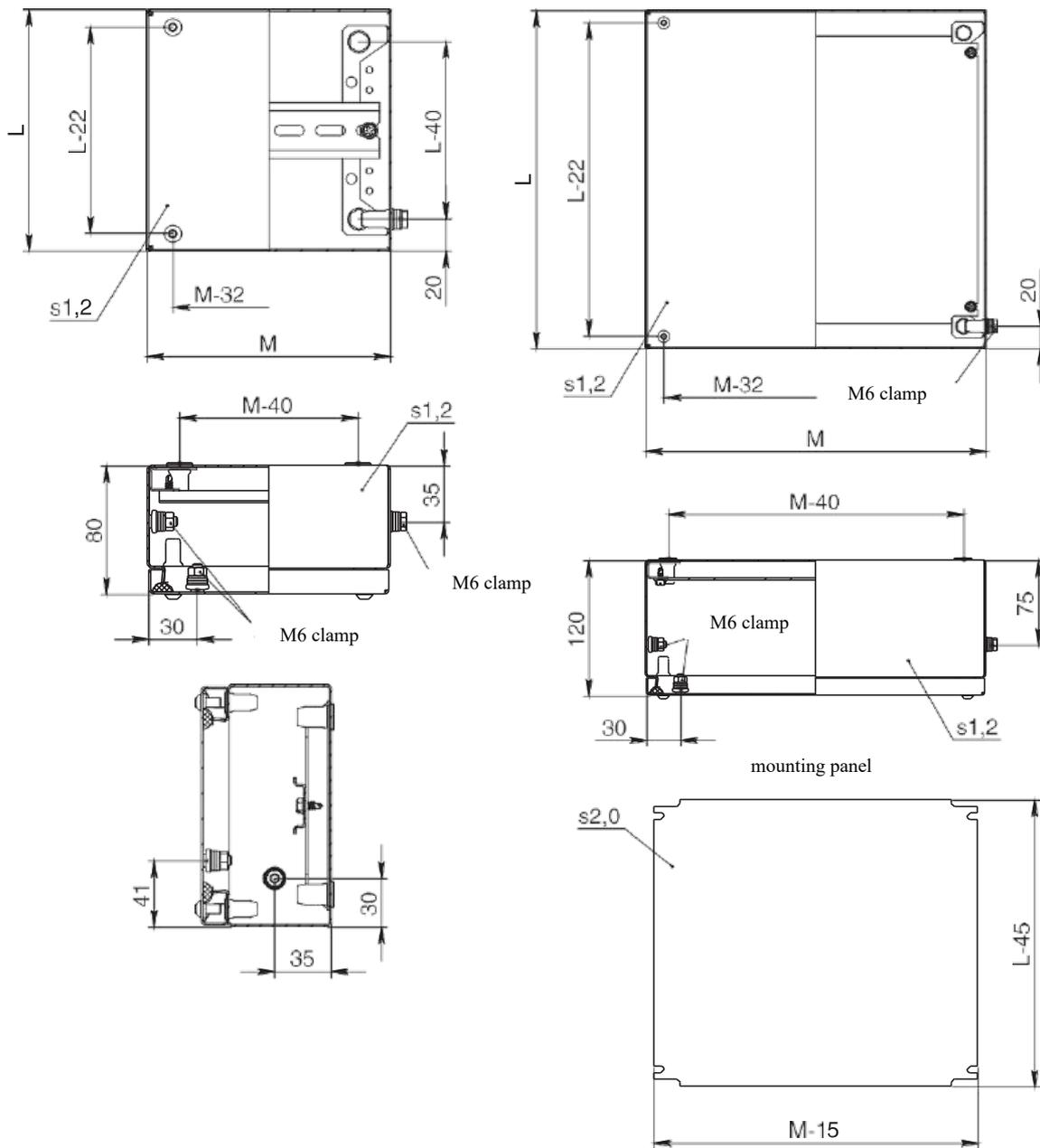
## Explosion-proof junction boxes MBS Ex 60 mm deep



Cabinet code		MBS 10.10.06 Ex	MBS 12.12.06 Ex
<b>The cabinet includes</b>	<b>Qty.</b>		
DIN rail	1 pcs.	DR 07.90	DR 07.110
Height L, mm		100	120
Width M, mm		100	120
Depth, mm		60	60
Weight, kg		0.5	0.6
<b>Components</b>	<b>Qty.</b>		
Wall mount C-clamp	4 pcs.	WB 6	WB 6
Wall mount C-clamp		-	-
DIN rail	10 pcs.	DR 07.90	DR 07.110

WALL TYPE  
EX  
FLOOR TYPE  
IT  
CONTROL  
TERMINALS  
IP  
MODIFIED  
ACCESSORIES  
INFORMATION

Explosion-proof junction boxes MBS Ex 80 and 120 mm deep



Cabinet code		MBS 15.15.08 Ex	MBS 15.30.08 Ex	MBS 20.20.08 Ex	MBS 20.30.08 Ex	MBS 30.30.12 Ex	MBS 30.40.12 Ex	MBS 40.60.12 Ex
The cabinet includes	Qty.							
Mounting panel/DIN rail	1 pcs.	DR 07.135	DR 07.285	DR 07.185	DR 07.285	MP 30.30 B	MP 30.40 B	MP 40.60 B
Height L, mm		150	150	200	200	300	300	400
Width M, mm		150	300	200	300	300	400	600
Depth, mm		80	80	80	80	120	120	120
Mounting panel height, mm		-	-	-	-	255	255	355
Mounting panel width, mm		-	-	-	-	285	385	585
Weight, kg		0.8	1.7	1.5	2.2	4.6	5.7	10.8
Components	Qty.							
Wall mount C-clamp	4 pcs.	WB 8						
Wall mount C-clamp	4 pcs.	WB 8 B						
DIN rail	10 pcs.	DR 07.135	DR 07.285	DR 07.185	DR 07.285	DR 07.285	DR 07.385	-



**Degree of protection:**  
Ex e IIC Gb U, IP66, IK10

**Material:**  
**enclosure and cover:**  
1.2 mm corrosion-resistant sheet steel AISI 304  
**mounting panel:**  
2.0 mm sheet steel

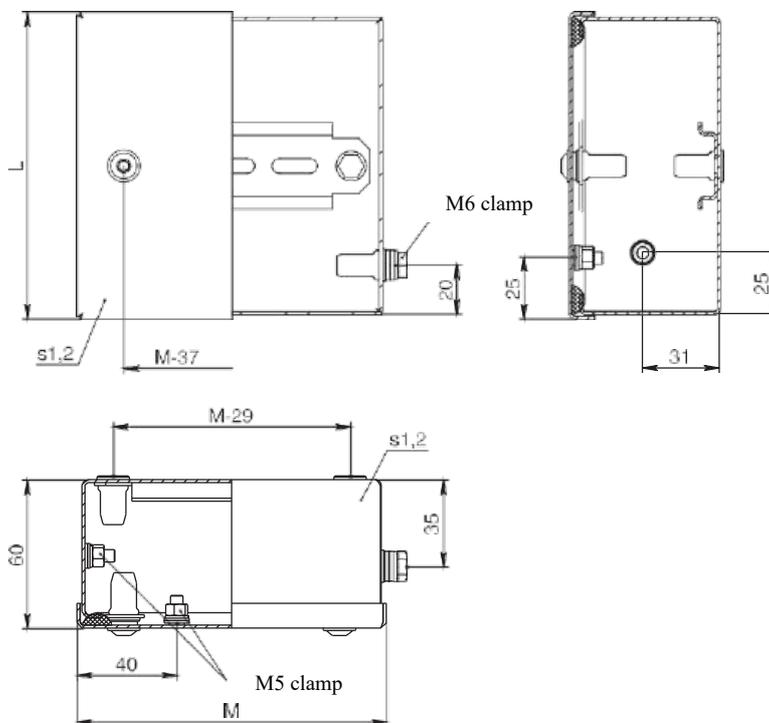
**Surface:**  
**enclosure and cover:**  
honed  
**mounting panel:**  
zinc coating

**Sealing:**  
**cover:** silicone foam

**Delivery scope:** enclosure, cover, DIN rails (for 60 and 80 mm deep), mounting panel (for 120 mm deep), packaging, technical passport

**Options:**  
corrosion-resistant sheet steel AISI 316, special dimensions, extra holes

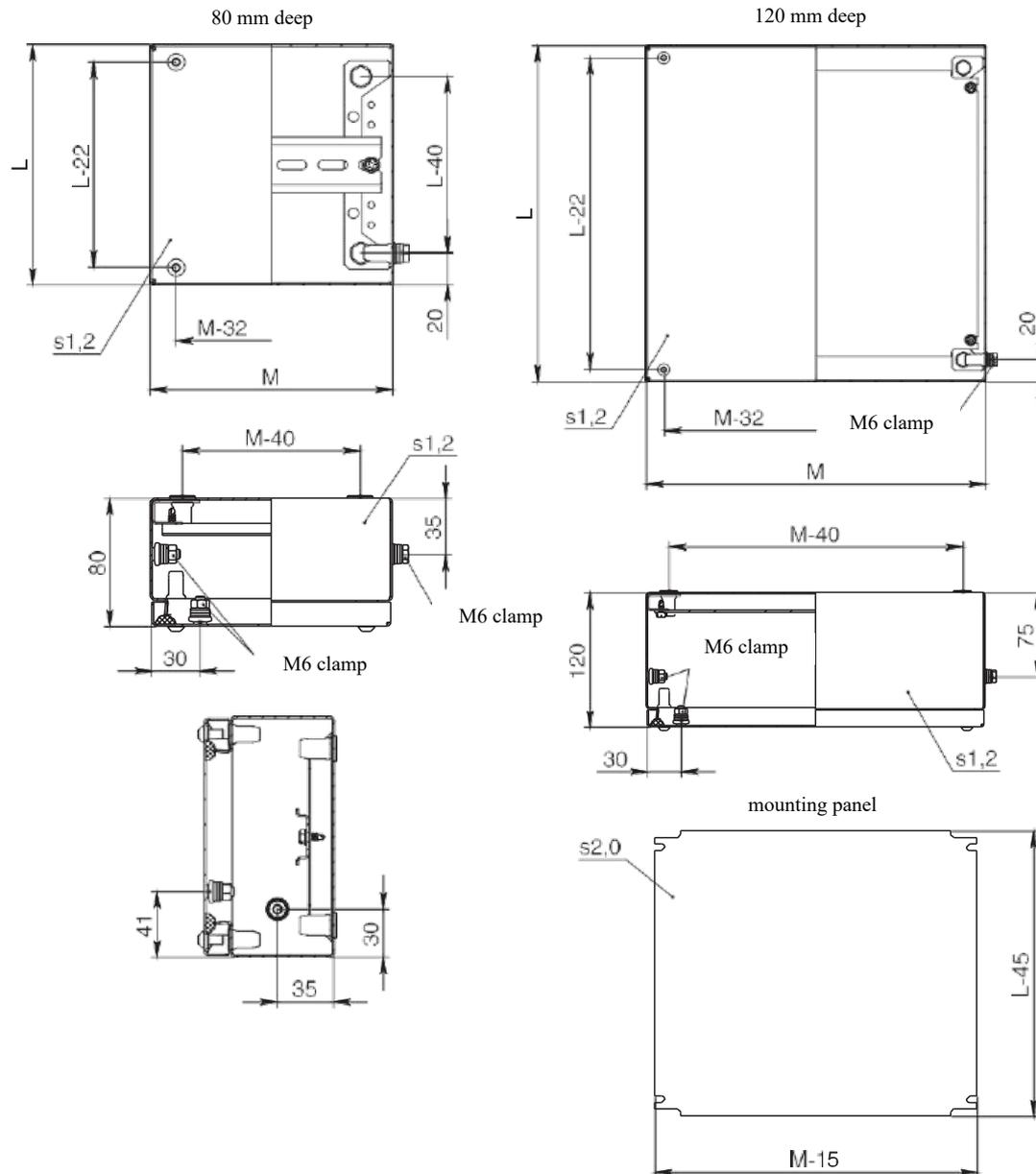
Explosion-proof junction boxes SBS Ex 60 mm deep



Cabinet code		SBS 10.10.06 Ex	SBS 12.12.06 Ex
<b>The cabinet includes</b>	<b>Qty.</b>		
Mounting panel		-	-
DIN rail	1 pcs.	+	+
Height L, mm		100	120
Width M, mm		100	120
Depth, mm		60	60
Mounting panel height, mm		-	-
Mounting panel width, mm		-	-
Weight, kg		0.5	0.6
<b>Components</b>	<b>Qty.</b>		
Wall mount C-clamp	4 pcs.	WB 6 S	WB 6 S
Wall mount C-clamp		-	-
DIN rail		-	-

WALL TYPE  
EX  
FLOOR TYPE  
IT  
CONTROL  
TERMINALS  
IP  
MODIFIED  
ACCESSORIES  
INFORMATION

## Explosion-proof junction boxes SBS Ex 80 and 120 mm deep



Cabinet code		SBS 15.15.08 Ex	SBS 15.30.08 Ex	SBS 20.20.08 Ex	SBS 20.30.08 Ex	SBS 30.30.12 Ex	SBS 30.40.12 Ex	SBS 40.60.12 Ex
<b>The cabinet includes</b>	<b>Qty.</b>							
Mounting panel	1 pcs.	-	-	-	-	MP 30.30 B	MP 30.40 B	MP 40.60 B
DIN rail	1 pcs.	DR 07.135	DR 07.285	DR 07.185	DR 07.285	-	-	-
Height L, mm		150	150	200	200	300	300	400
Width M, mm		150	300	200	300	300	400	600
Depth, mm		80	80	80	80	120	120	120
Mounting panel height, mm		-	-	-	-	255	255	355
Mounting panel width, mm		-	-	-	-	285	385	585
Weight, kg		1	1.7	1.5	2.2	4.6	5.7	10.7
<b>Components</b>	<b>Qty.</b>							
Wall mount C-clamp	4 pcs.	WB 8 S						
Wall mount C-clamp	4 pcs.	WB 8 BS						
DIN rail	10 pcs.	DR 07.135	DR 07.285	DR 07.185	DR 07.285	DR 07.285	DR 07.385	-

# EXPLOSION-PROOF JUNCTION BOXES MBV Ex



**Degree of protection:**  
Ex e IIC Gb U, IP66, IK09

**Material**  
**enclosure:**  
1.2 mm sheet steel  
**cover:**  
1.2 mm sheet steel, 4.0 mm hardened glass  
**mounting panel:**  
2.0 mm sheet steel

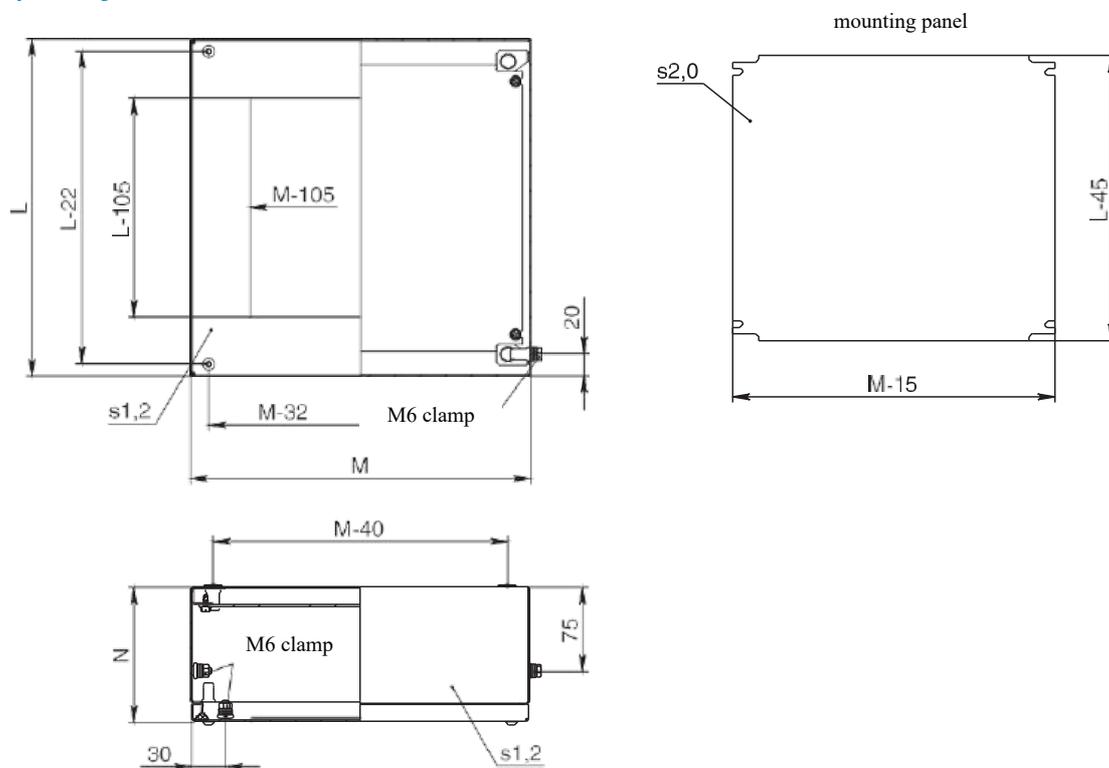
**Surface:**  
**enclosure and cover:**  
structural powder coating RAL 7035  
**mounting panel:**  
zinc coating

**Sealing:**  
**cover:** polyurethane foam

**Delivery scope:** enclosure, cover, DIN rails (for 80 mm deep), mounting panel (for 120 mm deep), packaging, technical passport

**Options:**  
paint special color, special dimensions, extra holes

## Explosion-proof junction box MBV Ex



Cabinet code		MBV 20.20.08 Ex	MBV 20.30.08 Ex	MBV 30.30.12 Ex	MBV 30.40.12 Ex
<b>The cabinet includes</b>	<b>Qty.</b>				
Mounting panel/DIN rail	1 pcs.	DR 07.185	DR 07.285	MP 30.30 B	MP 30.40 B
Height L, mm		200	200	300	300
Width M, mm		200	300	300	400
Depth N, mm		80	80	120	120
Mounting panel height, mm		-	-	255	255
Mounting panel width, mm		-	-	285	385
Weight, kg		1.6	2.1	4.6	5.7
<b>Components</b>	<b>Qty.</b>				
Wall mount C-clamp	4 pcs.	WB 8	WB 8	WB 8	WB 8
Wall mount C-clamp	4 pcs.	WB 8 B	WB 8 B	WB 8 B	WB 8 B
DIN rail	10 pcs.	DR 07.185	DR 07.285	DR 07.285	DR 07.385



**Degree of protection:**  
Ex e IIC Gb U, IP66, IK10

**Material:**  
**enclosure:** 1.5 mm sheet steel\*  
**door:** 1.5-2.0 mm sheet steel\*\*  
(depends on size)  
**mounting panel:**  
2.0-2.5 mm sheet steel\*\*\*  
(depends on size)

**Lock:**  
double bit tongue or rod type  
(depends on size)

**Surface:**  
**enclosure and door:**  
structural powder coating RAL  
7035  
**mounting panel:** zinc coating

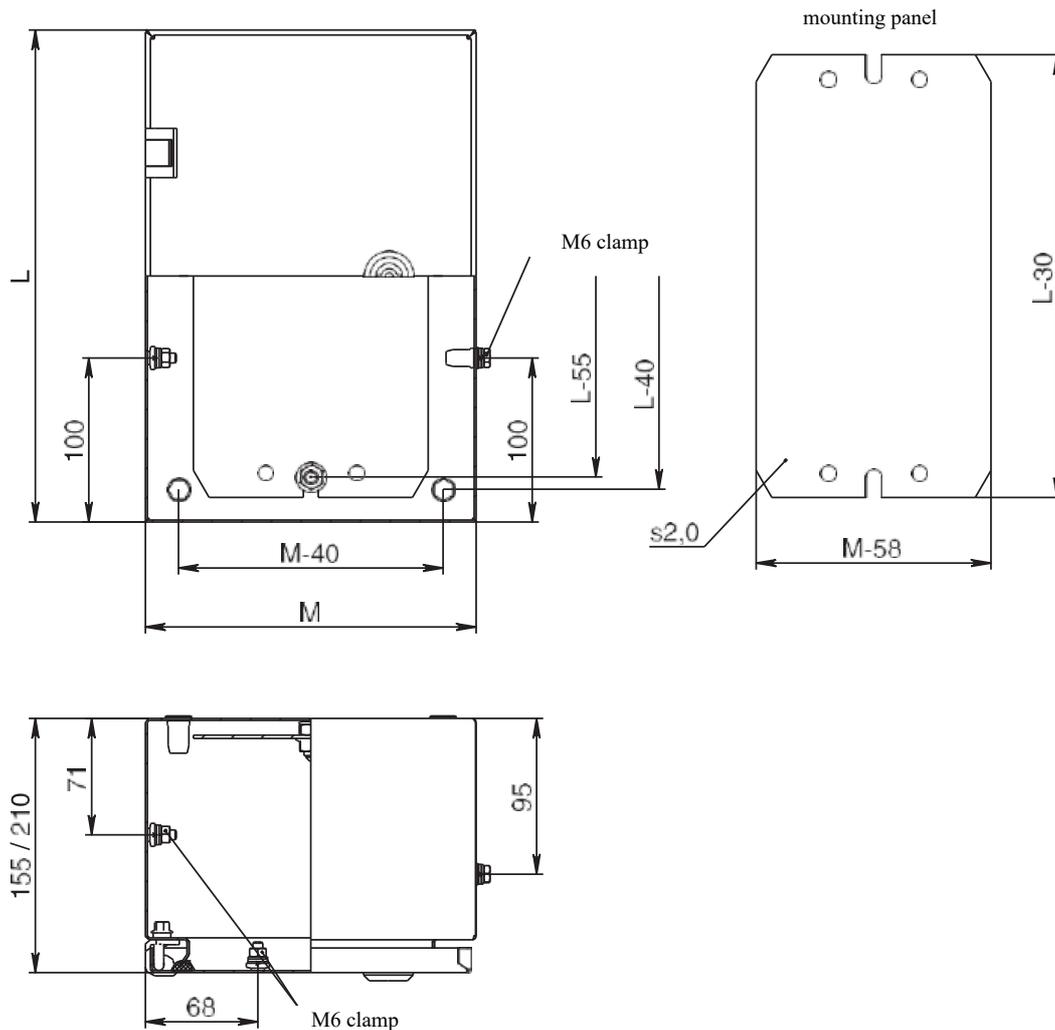
**Sealing:**  
**door:** polyurethane foam

**Hinge:**  
opening angle  $\leq 180^\circ$

**Delivery scope:**  
enclosure, door, mounting panel,  
key, packaging, technical passport

**Options:**  
paint special color, special  
dimensions, extra holes

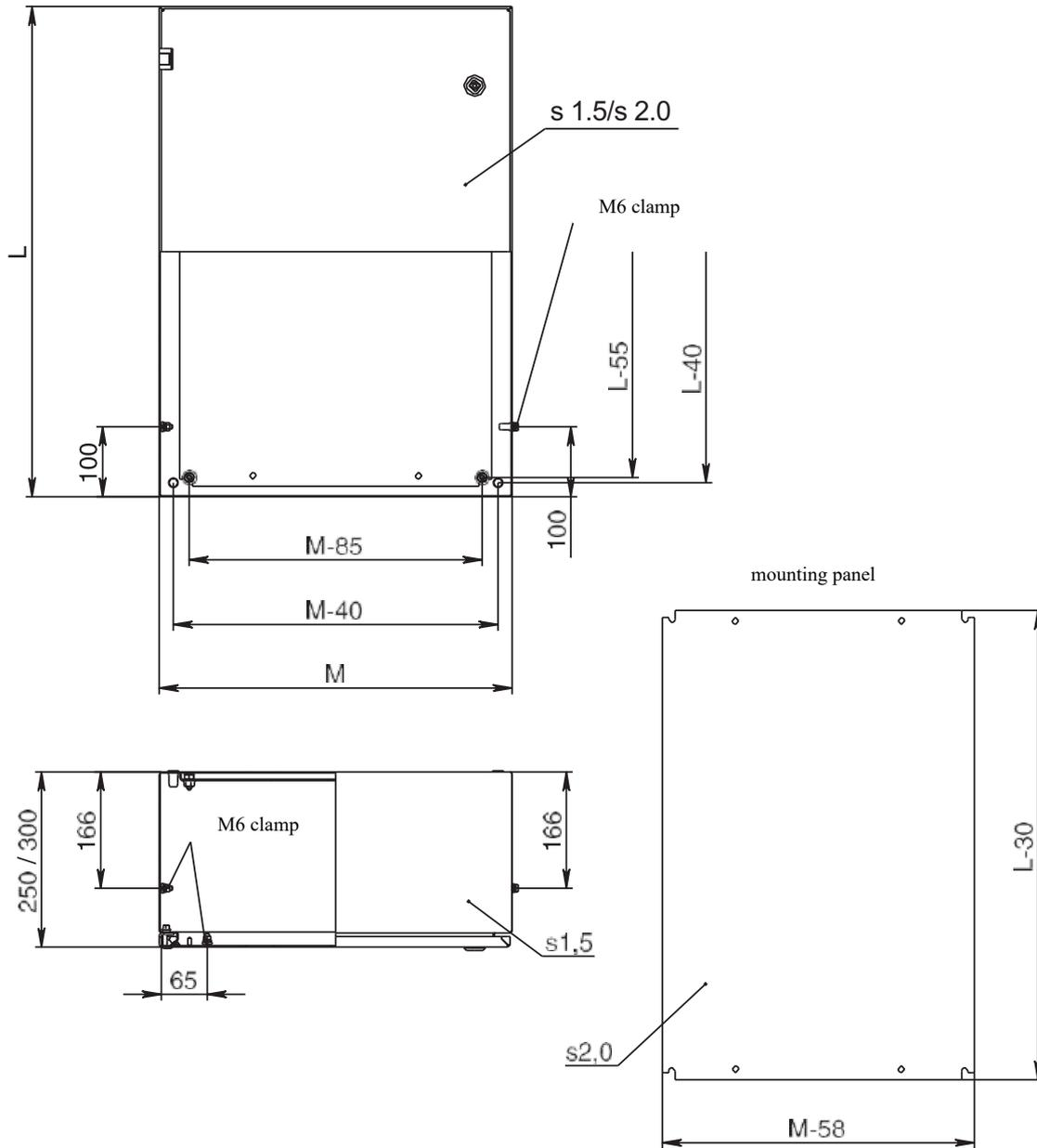
## Explosion-proof distribution cabinets MES Ex 155 and 210 mm deep



## 155 and 210 mm deep

Cabinet code		MES 30.20.15 Ex	MES 30.40.15 Ex	MES 40.30.15 Ex	MES 40.40.21 Ex	MES 50.40.21 Ex	MES 50.50.21 Ex	MES 60.40.21 Ex
The cabinet includes	Qty.							
Mounting panel	1 pcs.	MP 30.20	MP 30.40	MP 40.30	MP 40.40	MP 50.40	MP 50.50	MP 60.40
Height L, mm		300	300	400	400	500	500	600
Width M, mm		200	400	300	400	400	500	400
Depth N, mm		155	155	155	210	210	21	210
Mounting panel height, mm		270	270	370	370	470	470	570
Mounting panel width, mm		142	342	242	342	342	542	342
Weight, kg		3.8	6.6	6.6	9.3	11.3	13.5	13.1
Components	Qty.							
Internal door	1 pcs.	-	-	-	-	ID 50.40	-	ID 60.40
Modular chassis	1 pcs.	-	-	-	-	MC 50.40	-	MC 60.40
Visor	1 pcs.	R 20.15	R 40.15	R 30.15	R 40.21	R 40.21	R 50.21	R 40.21
Wall mount C-clamp	4 pcs.	WB 8						
Wall mount C-clamp	4 pcs.	WB 8 B						
Door stopper	1 pcs.	SD 2 v2						
Blind door horizontal rail	10 pcs.	-	VB 40 GE	-	VB 40 GE	VB 40 GE	VB 50 GE	VB 40 GE
Blind door vertical rail	10 pcs.	-	-	-	-	VB 50	VB 50	VB 60
Zinc cylinder lock	1 pcs.	LC 1C.Z						
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH						
Lock protective cover for lead seals	1 pcs.	PC 1 L.S						
Microperforated mounting panel	1 pcs.	MP 30.20 P	MP 30.40 P	MP 40.30 P	MP 40.40 P	MP 50.40 P	MP 50.50 P	MP 60.40 P
Internal mounting rail	4 pcs.	-	-	-	MG 30 E	MG 30 E	MG 30 E	MG 30 E
Extended plinth 300 mm high		-	-	-	-	-	-	-
Extended plinth 450 mm high		-	-	-	-	-	-	-
Mounting rack	1 pcs.	-	-	ZL 30.15	ZL 40.21	ZL 40.21	-	ZL 40.21
Pole mount kit	1 pcs.	-	OK 40 EP	OK 30 EP	OK 40 EP	OK 40 EP	OK 50 EP	OK 40 EP
Panel spacer	4 pcs.	S 8.25						
Panel spacer	4 pcs.	S 8.50						
Document pocket	1 pcs.	-	-	-	-	-	DP 40 P	-
Blanking plugs		-	-	-	-	-	-	-

250 and 300 mm deep



# EXPLOSION-PROOF DISTRIBUTION CABINETS MES Ex

## 250 and 300 mm deep

Cabinet code		MES 60.60.25 Ex	MES 70.50.25 Ex	MES 80.60.30 Ex	MES 100.80.30 Ex	MES 120.80.30 Ex
<b>The cabinet includes</b>	<b>Qty.</b>					
<b>Mounting panel</b>	1 pcs.	MP 60.60	MP 70.50	MP 80.60	MP 100.80	MP 120.80 E
<b>Height L, mm</b>		600	700	800	100	120
<b>Width M, mm</b>		600	500	600	800	800
<b>Depth N, mm</b>		250	250	300	300	300
<b>Mounting panel height, mm</b>		570	670	770	970	1170
<b>Mounting panel width, mm</b>		542	442	542	742	742
<b>Weight, kg</b>		19.4	19	26.4	40.9	48.3
<b>Components</b>	<b>Qty.</b>					
<b>Internal door</b>	1 pcs.	-	ID 70.50	ID 80.60	ID 100.80	ID 120.80
<b>Modular chassis</b>	1 pcs.	MC 60.60	-	MC 80.60	-	MC 120.80
<b>Visor</b>	1 pcs.	R 60.25	R 50.25	R 60.30	R 80.30	R 80.30
<b>Wall mount C-clamp</b>	4 pcs.	WB 8	WB 8	WB 8	WB 8	WB 8
<b>Wall mount C-clamp</b>	4 pcs.	WB 8 B	WB 8 B	WB 8 B	WB 8 B	WB 8 B
<b>Door stopper</b>	1 pcs.	SD 2 v2	SD 2 v2	SD 2 v2	SD 2 v2	SD 2 v2
<b>Blind door horizontal rail</b>	10 pcs.	VB 60 GE	VB 50 GE	VB 60 GE	VB 80 GE	VB 80 GE
<b>Blind door vertical rail</b>	10 pcs.	VB 60	VB 70	VB 80	VB 100	VB 120
<b>Zinc cylinder lock</b>	1 pcs.	LC 1C.Z	LC 1C.Z	LC 1C.Z	LC 1C.Z	LC 1C.Z
<b>Zinc cylinder lock with rotary handle</b>	1 pcs.	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH
<b>Lock protective cover for lead seals</b>	1 pcs.	PC 1 L.S	PC 1 L.S	PC 1 L.S	PC 1 L.S	PC 1 L.S
<b>Microperforated mounting panel</b>	1 pcs.	MP 60.60 P	MP 70.50 P	MP 80.60 P	MP 100.80 P	MP 120.60 PE
<b>Internal mounting rail</b>	4 pcs.	MG 30 E	MG 30 E	MG 30 E	MG 30 E	MG 30 E
<b>Extended plinth 300 mm high*</b>	1 pcs.	-	-	ZH 30.30	ZH 30.30	ZH 30.30
<b>Extended plinth 450 mm high*</b>	1 pcs.	-	-	ZH 45.30	ZH 45.30	ZH 45.30
<b>Mounting rack</b>		-	-	-	-	-
<b>Pole mount kit</b>	1 pcs.	OK 60 EP	OK 50 EP	OK 60 EP	OK 80 EP	OK 80 EP
<b>Panel spacer</b>	4 pcs.	S 8.25	S 8.25	S 8.25	S 8.25	S 8.25
<b>Panel spacer</b>	4 pcs.	S 8.50	S 8.50	S 8.50	S 8.50	S 8.50
<b>Document pocket</b>	1 pcs.	DP 40 P	DP 40 P	DP 40 P	DP 40 P	DP 40 P
<b>Blanking plugs</b>		-	-	-	-	-

\* for 250 and 300 mm deep enclosures, floor cabinet plinths may be used



**Degree of protection:**  
Ex e IIC Gb U, IP66, IK10

**Material:**  
**enclosure:**  
1.2-1.5 mm corrosion-resistant sheet steel AISI 304\* (depends on size)  
**door:** 1.5 mm corrosion-resistant sheet steel AISI 304  
**mounting panel:**  
2.0-2.5 mm sheet steel\*\* (depends on size)

**Lock:**  
double bit tongue or rod type (depends on size)

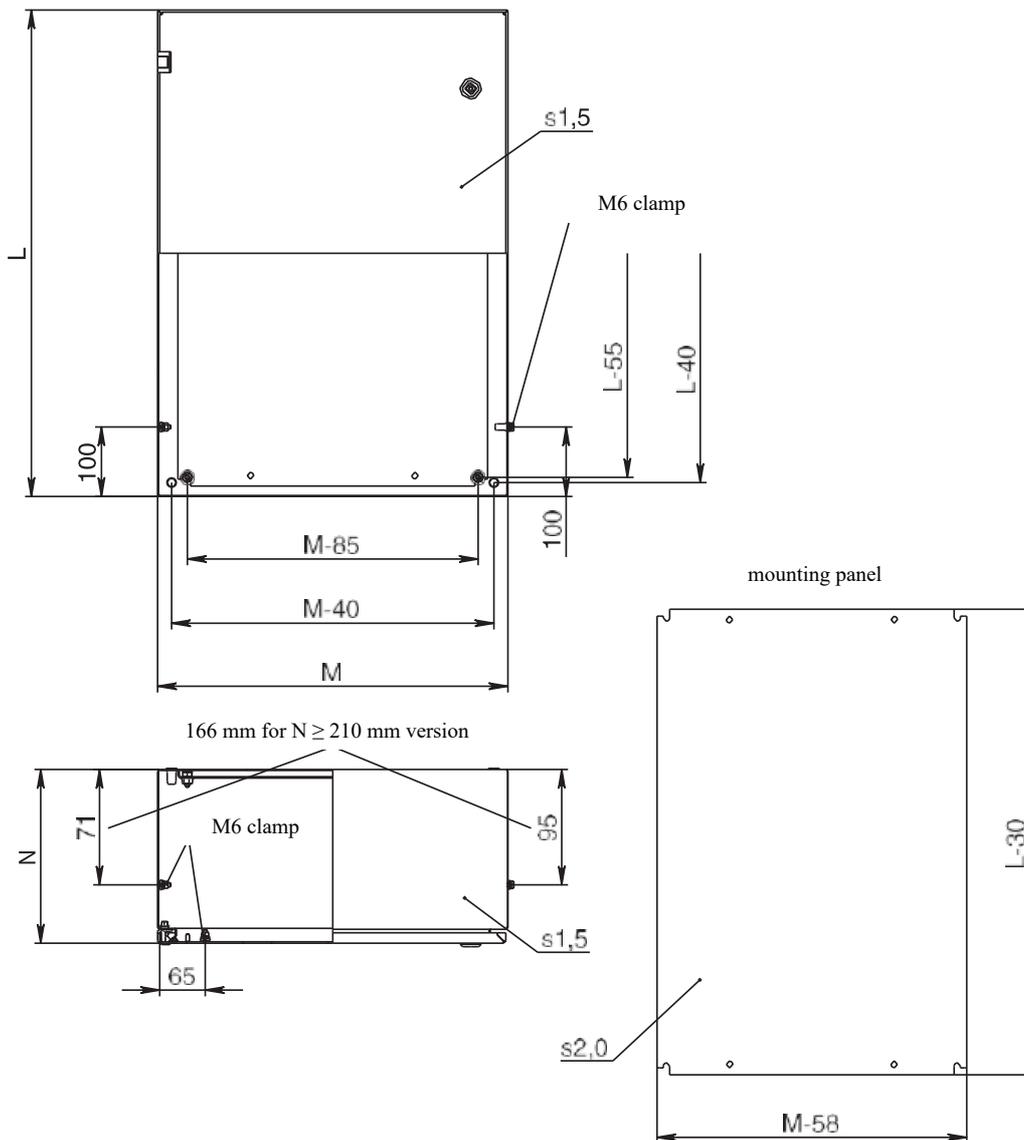
**Surface:**  
**enclosure and door:** honed  
**mounting panel:** zinc coating

**Sealing:**  
**door:** silicone foam

**Hinge:**  
opening angle  $\leq 180^\circ$

**Delivery scope:**  
enclosure, door, mounting panel, key, packaging, technical passport

**Options:**  
corrosion-resistant sheet steel AISI 316, special dimensions, extra holes



## 150 and 210 mm deep

Cabinet code		SES 30.20.15 Ex	SES 30.40.15 Ex	SES 40.30.15 Ex	SES 40.40.21 Ex	SES 50.40.21 Ex	SES 50.50.21 Ex	SES 60.40.21 Ex
<b>The cabinet includes</b>	<b>Qty.</b>							
<b>Mounting panel</b>	1 pcs.	MP 30.20	MP 30.40	MP 40.30	MP 40.40	MP 50.40	MP 50.50	MP 60.40
<b>Height L, mm</b>		300	300	400	400	500	500	600
<b>Width M, mm</b>		200	400	300	400	400	500	400
<b>Depth N, mm</b>		150	150	150	210	210	21	210
<b>Mounting panel height, mm</b>		270	270	370	370	470	470	570
<b>Mounting panel width, mm</b>		142	342	242	342	342	442	542
<b>Weight, kg</b>		3.8	6.6	6.6	9.3	11.3	13.5	13.1
<b>Components</b>	<b>Qty.</b>							
<b>Internal door</b>	1 pcs.	-	-	-	-	ID 50.40	-	ID 60.40
<b>Modular chassis</b>	1 pcs.	-	-	-	-	MC 50.40	-	MC 60.40
<b>Visor</b>	1 pcs.	R 20.15 S	R 40.15 S	R 30.15 S	R 40.21 S	R 40.21 S	R 50.21 S	R 40.21 S
<b>Wall mount C-clamp</b>	4 pcs.	WB 8 S						
<b>Wall mount C-clamp</b>	4 pcs.	WB 8 BS						
<b>Door stopper</b>	1 pcs.	SD 2 v2						
<b>Blind door horizontal rail</b>	10 pcs.	-	VB 40 GE	-	VB 40 GE	VB 40 GE	VB 50 GE	VB 40 GE
<b>Blind door vertical rail</b>	10 pcs.	-	-	VB 40	VB 40	VB 50	VB 50	VB 60
<b>Zinc cylinder lock</b>	1 pcs.	LC 1C.Z						
<b>Zinc cylinder lock with rotary handle</b>	1 pcs.	LC 1C.ZH						
<b>Lock protective cover for lead seals</b>	1 pcs.	PC 1 L.S						
<b>Microperforated mounting panel</b>	1 pcs.	MP 30.20 P	MP 30.40 P	MP 40.30 P	MP 40.40 P	MP 50.40 P	MP 50.50 P	MP 60.40 P
<b>Internal mounting rail</b>	4 pcs.	-	-	-	MG 30 E	MG 30 E	MG 30 E	MG 30 E
<b>Extended plinth 300 mm high</b>		-	-	-	-	-	-	-
<b>Extended plinth 450 mm high</b>		-	-	-	-	-	-	-
<b>Mounting rack</b>	1 pcs.	-	-	ZL 30.15	ZL 40.21	ZL 40.21	-	ZL 40.21
<b>Pole mount kit</b>	1 pcs.	-	OK 40 EP	OK 30 EP	OK 40 EP	OK 40 EP	OK 50 EP	OK 40 EP
<b>Panel spacer</b>	4 pcs.	S 8.25						
<b>Panel spacer</b>	4 pcs.	S 8.50						
<b>Document pocket</b>	1 pcs.	-	-	-	-	-	DP 40 P	-
<b>Blanking plugs</b>		-	-	-	-	-	-	-

## 250 and 300 mm deep

Cabinet code		SES 60.60.25 Ex	SES 70.50.25 Ex	SES 80.60.30 Ex	SES 100.80.30 Ex	SES 120.80.30 Ex
The cabinet includes	Qty.					
Mounting panel	1 pcs.	MP 60.60	MP 70.50	MP 80.60	MP 100.80	MP 120.80 E
Height L, mm		600	700	800	1000	1200
Width M, mm		600	500	600	800	800
Depth N, mm		250	250	300	300	300
Mounting panel height, mm		570	670	770	970	1170
Mounting panel width, mm		542	442	542	742	742
Weight, kg		19.4	19	26.4	40.2	47.6
Components	Qty.					
Internal door	1 pcs.	-	ID 70.50	ID 80.60	ID 100.80	ID 120.80
Modular chassis	1 pcs.	-	-	MC 80.60	-	MC 120.80
Visor	1 pcs.	R 60.25 S	R 50.25 S	R 60.30 S	R 80.30 S	R 80.30 S
Wall mount C-clamp	4 pcs.	WB 8 S	WB 8 S	WB 8 S	WB 8 S	WB 8 S
Wall mount C-clamp	4 pcs.	WB 8 BS	WB 8 BS	WB 8 BS	WB 8 BS	WB 8 BS
Door stopper	1 pcs.	SD 2 v2	SD 2 v2	SD 2 v2	SD 2 v2	SD 2 v2
Blind door horizontal rail	10 pcs.	VB 60 GE	VB 50 GE	VB 60 GE	VB 80 GE	VB 80 GE
Blind door vertical rail	10 pcs.	VB 60	VB 70	VB 80	VB 100	VB 120
Zinc cylinder lock	1 pcs.	LC 1C.Z	LC 1C.Z	LC 1C.Z	LC 1C.Z	LC 1C.Z
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH	LC 1C.ZH
Lock protective cover for lead seals	1 pcs.	PC 1 L.S	PC 1 L.S	PC 1 L.S	PC 1 L.S	PC 1 L.S
Microperforated mounting panel	1 pcs.	MP 60.60 P	MP 70.50 P	MP 80.60 P	MP 100.80 P	MP 120.60 PE
Internal mounting rail	4 pcs.	MG 30 E	MG 30 E	MG 30 E	MG 30 E	MG 30 E
Extended plinth 300 mm high	1 pcs.	-	-	ZH 30.30	ZH 30.30	ZH 30.30
Extended plinth 450 mm high	1 pcs.	-	-	ZH 45.30	ZH 45.30	ZH 45.30
Mounting rack		-	-	-	-	-
Pole mount kit	1 pcs.	OK 60 EP	OK 50 EP	OK 60 EP	OK 80 EP	OK 80 EP
Panel spacer	4 pcs.	S 8.25	S 8.25	S 8.25	S 8.25	S 8.25
Panel spacer	4 pcs.	S 8.50	S 8.50	S 8.50	S 8.50	S 8.50
Document pocket	1 pcs.	DP 40 P	DP 40 P	DP 40 P	DP 40 P	DP 40 P
Blanking plugs		-	-	-	-	-



# ENCLOSURES

## FOR DISTRIBUTION AND AUTOMATION SYSTEMS



WALL TYPE  
Ex  
FLOOR TYPE  
IT  
CONTROL  
TERMINALS  
IP  
MODIFIED  
ACCESSORIES  
INFORMATION



**Distribution cabinet with viewing door  
MPS**



**Two-door distribution cabinet  
MPD**



**Distribution cabinet with viewing door  
MPV**



**Stainless steel distribution cabinet  
SPS**



**Stainless steel two-door distribution cabinet  
SPD**



**Stainless steel distribution cabinet with viewing door  
SPV**



**Server cabinet  
MPP**



**Computer cabinet  
MKM**



**Custom cabinets**

The product range is a complete set of steel frame enclosures for systems of electrical devices control and protection, industrial process automation, electrical energy automation and distribution.

The company products are used at numerous industries like energy, mining, metallurgy, chemistry along with areas requiring the use of modern methods of production process automation at civil construction and infrastructures.

**The enclosures are designed to meet requirements of manufacturers and installers:**

- wide size range
- compliance with protection rating IP55 (can be upgraded to IP65)
- min. resistance to external mechanical impact: IK08
- the welded frame structure is perforated with 25 mm pitch for equipment installation
- the frame symmetry allows to interconnect side or rear panels of several cabinets
- the carcass top has an opening with a removable panel designed to entry cables, install a fan panel or other types of ceiling panels (optional)
- the carcass base has one or two openings with sliding panels designed to entry cables, install a ventilation panel
- 225° opening angle reversible doors with a four-point rod lock and a reinforcing frame with holes to fix cable ducts
- blind, viewing and perforated doors
- the rear panel can be replaced for a door
- internal doors
- frames for modular equipment
- cast polyurethane seal
- galvanized steel solid or perforated mounting panels
- textured polyester powder coating
- accessories for 19" equipment are available
- permissible load: 1500 kg (static)

**Product codes:**

<div style="background-color: #0070C0; color: white; padding: 5px; margin-bottom: 5px;">M</div> <div style="border: 1px solid #0070C0; height: 200px; width: 100%;"></div>	<div style="background-color: #0070C0; color: white; padding: 5px; margin-bottom: 5px;">P</div> <div style="border: 1px solid #0070C0; height: 200px; width: 100%;"></div>	<div style="background-color: #0070C0; color: white; padding: 5px; margin-bottom: 5px;">S</div> <div style="border: 1px solid #0070C0; height: 200px; width: 100%;"></div>	<div style="background-color: #0070C0; color: white; padding: 5px; margin-bottom: 5px;">200.</div> <div style="border: 1px solid #0070C0; height: 100px; width: 100%;"></div>	<div style="background-color: #0070C0; color: white; padding: 5px; margin-bottom: 5px;">80.</div> <div style="border: 1px solid #0070C0; height: 50px; width: 100%;"></div>	<div style="background-color: #0070C0; color: white; padding: 5px; margin-bottom: 5px;">60</div> <div style="border: 1px solid #0070C0; height: 50px; width: 100%;"></div>
			enclosure height, cm	enclosure width, cm	enclosure depth, cm

S – single door  
 D – double door  
 V – viewing door  
 M – sectional door  
 P – perforated door

P – distribution cabinet  
 K – computer cabinet

M – painted carbon steel  
 S – ground corrosion-resistant steel



# 10 REASONS TO CHOOSE ENCLOSURES FOR DISTRIBUTION AND AUTOMATION SYSTEMS



# ADVANTAGES

1

The frame is made entirely of 2 mm thick steel. The frame corners are reinforced with steel embedded elements; two robots weld them during a continuous cycle to give rigidity and density. The frame profiles are perforated with 25 mm pitch for equipment installation.



2

The enclosure symmetry allows to connect easily and quickly the frames left, right and rear sides.



3

The galvanized steel mounting panel with C-shaped side edging can be installed at different depths with 25 mm pitch.



4

The doors and panels have copper-plated earthing pins installed with a contact flange not requiring protective coating removal. Removable earthing clamps can be installed at any part of the frame.



5

To achieve reliable sealing, a robot applies a polyurethane gasket using a continuous casting technique. The cast sealing strip can withstand -40 to +70 °C temperatures.



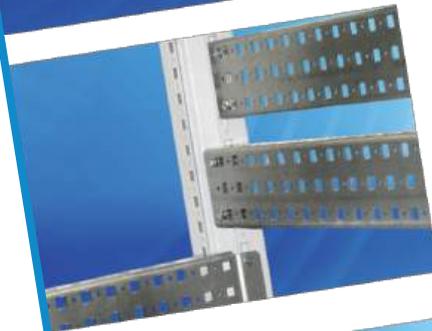
6

The rod lock provides 4-point locking, and this combined with four hinges reliably and tightly retains the enclosure doors. The door surface can be optimally used to place equipment, since the lock is located outside the frame opening. The standard double bit lock can be replaced for a lock with a rotary handle and a profile cylinder.



7

225° opening angle metal hinges of original design have captive pins. For all cabinets with a single-leaf door, simply re-install the hinges from one side to another to change door swing direction. Double doors can be swapped. One person alone can perform all these manipulations.



8

The mounting rails can be fixed at various widths and depths of two symmetrical planes.



9

The enclosures can be delivered as assembled units with custom configuration.



10

Wide choice of accessories.



**Degree of protection:**

IP55, IK10. To achieve IP55 protection rating, SP X.Y side walls are used along with cable entry panels of standard configuration. Protection rating IP65 if SP X.Y side walls are used with PK X.Y GP blind cable entry panel. MSK-64 scale 8 points without reinforcement kit use, 9 points at 70 meters using reinforcement kit for seismic zones.

**Material:**

**frame and door:** 2.0 mm sheet steel

**panels:** 1.5 mm sheet steel

**mounting panel:** 2.5 mm sheet steel

**Surface:**

**frame, door, panels:** structural powder coating RAL 7035

**mounting panel:** zinc coating

**Sealing:**

**door and panels:** polyurethane foam

**Lock:**

double bit four-point rod type

**Hinge:**

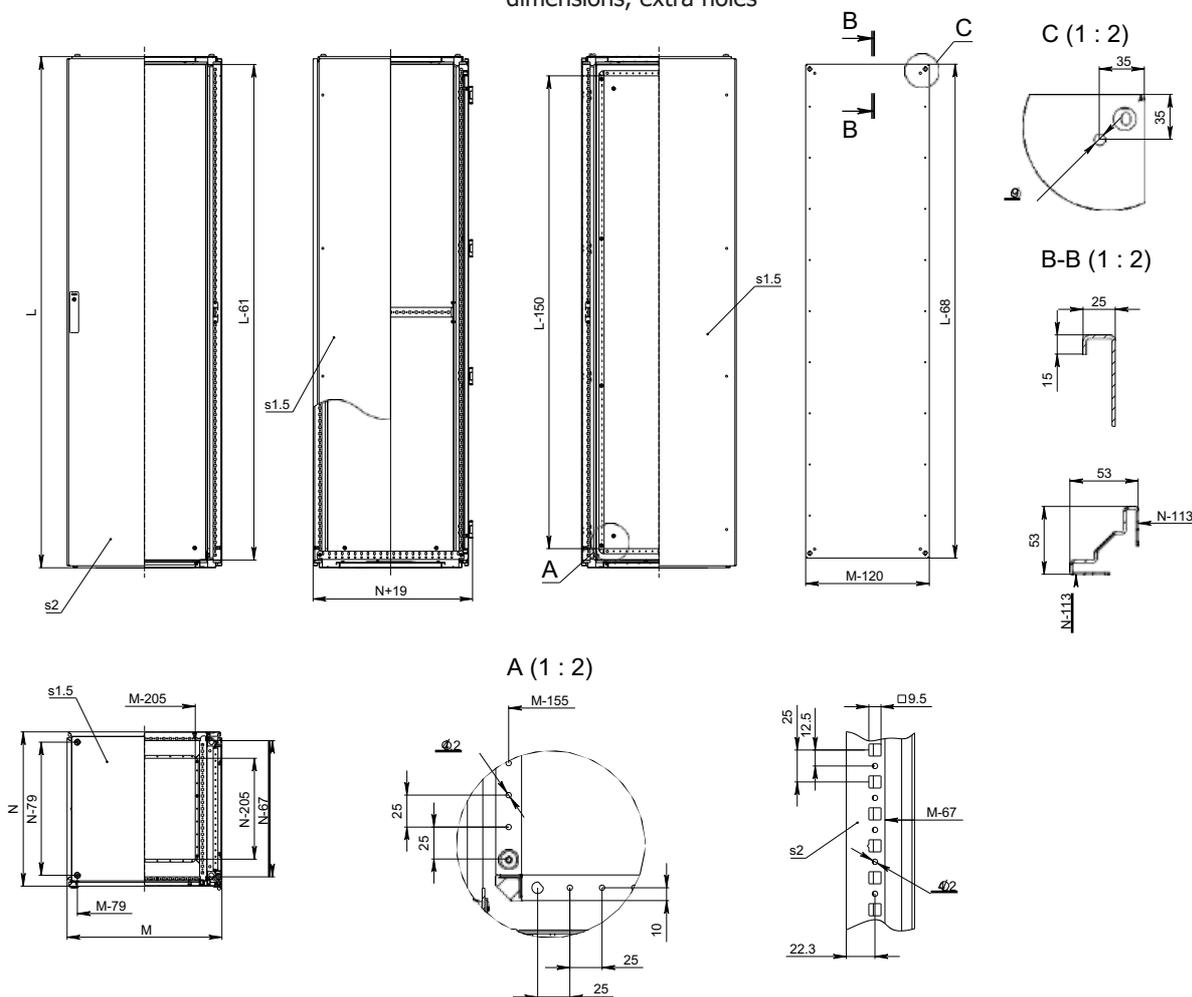
225°, max. opening angle, right-hung door

**Delivery scope:**

frame with ceiling panel, cable entry panels, door, rear panel, mounting panel (excluding 400 mm wide), mounting crossbeam, key, packaging

**Options:**

paint special RAL color 3020, 7004, 7005, 9005, 9016, special dimensions, extra holes



WALL TYPE  
EX  
FLOOR TYPE  
IT  
CONTROL  
TERMINALS  
IP  
MODIFIED  
ACCESSORIES  
INFORMATION

Enclosures 1200 and 1400 mm high

Cabinet code		MPS 120.60.60	MPS 120.80.40	MPS 120.80.60	MPS 140.60.60
The cabinet includes	Qty.				
Frame with ceiling panel and cable entry	1 pcs.	MF 120.60.60	MF 120.80.40	MF 120.80.60	MF 140.60.60
Mounting panel	1 pcs.	MP 120.60	MP 120.80	MP 120.80	MP 140.60
Door	1 pcs.	D 120.60	D 120.80	D 120.80	D 140.60
Rear panel	1 pcs.	BP 120.60	BP 120.80	BP 120.80	BP 140.60
Height (L), mm		1200	1200	1200	1400
Width (M), mm		600	800	800	600
Depth (N), mm		600	400	600	600
Mounting panel height, mm		1132	1132	1132	1332
Mounting panel width, mm		480	680	680	480
Weight, kg		55	80	62	80
Components	Qty.				
Side panels	2 pcs.	SP 120.60	SP 120.40	SP 120.60	SP 140.60
Front and rear components of 100 mm high plinth	2 pcs.	ZA 60.00 v.2	ZA 80.00 v.2	ZA 80.00 v.2	ZA 60.00 v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.60 v.2	ZA 00.40 v.2	ZA 00.60 v.2	ZA 00.60 v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 60.00 H v.2	ZA 80.00 H v.2	ZA 80.00 H v.2	ZA 60.00 H v.2
Side components of 200 mm high plinth	2 pcs.	ZA 00.60 H v.2	ZA 00.40 H v.2	ZA 00.60 H v.2	ZA 00.60 H v.2
Eye bolts	4 pcs.	LE 12	LE 12	LE 12	LE 12
Rotary handle with cylinder	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z
Rotary handle without cylinder	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z
Double bit rotary handle	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z
Rotary handle with 7 mm triangle	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z
Ceiling panel with perforation	1 pcs.	R 60.60 P	R 80.40 P	R 80.60 P	R 60.60 P
Ceiling panel with perforation and cable entry	1 pcs.	R 60.60 PK	-	R 80.60 PK	R 60.60 PK
Viewing window	1 pcs.	FT 67.60 / FT 37.60	FT 67.80 / FT 37.80	FT 67.80 / FT 37.80	FT 67.60 / FT 37.60
Protective visor	1 pcs.	R 60.60	R 80.40	R 80.60	R 60.60
Internal door	1 pcs.	-	-	-	-
Document pocket	1 pcs.	DP 60 M	DP 80 M	DP 80 M	DP 60 M
Door stopper	1 pcs.	SD	SD	SD	SD
Quick release door stopper	1 pcs.	SD P	SD P	SD P	SD P
Blind door rail	10 pcs.	VB 60 G	VB 80 G	VB 80 G	VB 60 G
Separation panel	1 pcs.	-	-	-	-
Reinforcement kit for seismic zones	1 pcs.	-	-	IK 01 EQ 120.80.60	IK 01 EQ 140.60.60
Plinth for seismic zones	1 pcs.	ZA 60.60 EQ	ZA 80.40 EQ	ZA 80.60 EQ	ZA 60.60 EQ
Modular frame	1 pcs.	-	-	-	-
Rotary modular frame	1 pcs.	-	-	-	-
Intermediate mounting panel	1 pcs.	-	-	-	-
Touch protection	1 pcs.	-	-	-	-
Shelf	1 pcs.	SH 60.60	-	SH 80.60	SH 60.60
Pull-out shelf	1 pcs.	SH 60.60 M	-	SH 80.60 M	SH 60.60 M
Screw type support	4 pcs.	F 12.40	F 12.40	F 12.40	F 12.40
Roller	2 pcs.	C 12.125	C 12.125	C 12.125	C 12.125
Roller with brake	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T
Reinforced travel roller	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F
Joint kit	1 pcs.	IK 01	IK 01	IK 01	IK 01
Ventilation panel	1 pcs.	PV 60.60 PK	-	PV 80.60 PK	PV 60.60 PK
Cable entry panel	2 pcs.	PK 42.08 P	PK 62.08	PK 62.08	PK 42.08 P
Blind cable entry panel	1 pcs.	PK 60.60 GP	PK 80.40 GP	PK 80.60 GP	PK 60.60 GP
Cable panel	1 pcs.	-	-	-	-
Vertical rail 19"	4 pcs.	MG 120 IT	MG 120 IT	MG 120 IT	MG 140 IT
19" rail console	4 pcs.	not required	B 6 G	B 6 G	not required
Rotary frame 19"	1 pcs.	-	-	-	-
Rotary partial frame 19"	1 pcs.	-	MC 80.80 IRP	MC 80.80 IRP	-
Double-sided frame 19"	1 pcs.	-	-	-	-

Enclosures 1600 mm high

Cabinet code		MPS 160.60.40	MPS 160.60.50	MPS 160.60.60	MPS 160.60.80
<b>The cabinet includes</b>	<b>Qty.</b>				
<b>Frame with ceiling panel and cable entry</b>	1 pcs.	MF 160.60.40	MF 160.60.50	MF 160.60.60	MF 160.60.80
<b>Mounting panel</b>	1 pcs.	MP 160.60	MP 160.60	MP 160.60	MP 160.60
<b>Door</b>	1 pcs.	D 160.60	D 160.60	D 160.60	D 160.60
<b>Rear panel</b>	1 pcs.	BP 160.60	BP 160.60	BP 160.60	BP 160.60
<b>Height (L), mm</b>		1600	1600	1600	1600
<b>Width (M), mm</b>		600	600	600	600
<b>Depth (N), mm</b>		400	500	600	800
<b>Mounting panel height, mm</b>		1532	1532	1532	1532
<b>Mounting panel width, mm</b>		480	480	480	480
<b>Weight, kg</b>		80	80	88.9	104
<b>Components</b>	<b>Qty.</b>				
<b>Side panels</b>	2 pcs.	SP 160.40	SP 160.50	SP 160.60	SP 160.80
<b>Front and rear components of 100 mm high plinth</b>	2 pcs.	ZA 60.00 v.2	ZA 60.00 v.2	ZA 60.00 v.2	ZA 60.00 v.2
<b>Side components of 100 mm high plinth</b>	2 pcs.	ZA 00.40 v.2	ZA 00.50 v.2	ZA 00.60 v.2	ZA 00.80 v.2
<b>Front and rear components of 200 mm high plinth</b>	2 pcs.	ZA 60.00 H v.2			
<b>Side components of 200 mm high plinth</b>	2 pcs.	ZA 00.40 H v.2	ZA 00.50 H v.2	ZA 00.60 H v.2	ZA 00.80 H v.2
<b>Eye bolts</b>	4 pcs.	LE 12	LE 12	LE 12	LE 12
<b>Rotary handle with cylinder</b>	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z
<b>Rotary handle without cylinder</b>	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z
<b>Double bit rotary handle</b>	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z
<b>Rotary handle with 7 mm triangle</b>	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z
<b>Ceiling panel with perforation</b>	1 pcs.	-	-	R 60.60 P	R 60.80 P
<b>Ceiling panel with perforation and cable entry</b>	1 pcs.	R 60.40 PK	-	R 60.60 PK	R 60.80 PK
<b>Viewing window</b>	1 pcs.	FT 67.60 / FT 37.60			
<b>Protective visor</b>	1 pcs.	R 60.40	R 60.50	R 60.60	-
<b>Internal door</b>	1 pcs.	-	-	-	-
<b>Document pocket</b>	1 pcs.	DP 60 M	DP 60 M	DP 60 M	DP 60 M
<b>Door stopper</b>	1 pcs.	SD	SD	SD	SD
<b>Quick release door stopper</b>	1 pcs.	SD P	SD P	SD P	SD P
<b>Blind door rail</b>	10 pcs.	VB 60 G	VB 60 G	VB 60 G	VB 60 G
<b>Separation panel</b>	1 pcs.	-	-	-	-
<b>Reinforcement kit for seismic zones</b>	1 pcs.	-	IK 01 EQ 160.60.50	IK 01 EQ 160.60.60	IK 01 EQ 160.60.80
<b>Plinth for seismic zones</b>	1 pcs.	ZA 60.40 EQ	ZA 60.50 EQ	ZA 60.60 EQ	ZA 80.60 EQ
<b>Modular frame</b>	1 pcs.	-	-	-	-
<b>Rotary modular frame</b>	1 pcs.	-	-	-	-
<b>Intermediate mounting panel</b>	1 pcs.	MP 160.11	MP 160.11	MP 160.11	MP 160.11
<b>Touch protection</b>	1 pcs.	PP 160.80 MC	PP 160.80 MC	PP 160.80 MC	PP 160.80 MC
<b>Shelf</b>	1 pcs.	-	-	SH 60.60	SH 80.60
<b>Pull-out shelf</b>	1 pcs.	-	-	SH 60.60 M	-
<b>Screw type support</b>	4 pcs.	F 12.40	F 12.40	F 12.40	F 12.40
<b>Roller</b>	2 pcs.	C 12.125	C 12.125	C 12.125	C 12.125
<b>Roller with brake</b>	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T
<b>Reinforced travel roller</b>	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F
<b>Joint kit</b>	1 pcs.	IK 01	IK 01	IK 01	IK 01
<b>Ventilation panel</b>	1 pcs.	-	-	PV 60.60 PK	PV 60.80 PK
<b>Cable entry panel</b>	2 pcs.	PK 42.08 P	PK 42.08 P	PK 42.08 P	PK 42.08 P
<b>Blind cable entry panel</b>	1 pcs.	PK 60.40 GP	PK 60.50 GP	PK 60.60 GP	PK 80.60 GP
<b>Cable panel</b>	1 pcs.	-	-	-	-
<b>Vertical rail 19``</b>	4 pcs.	MG 160 IT	MG 160 IT	MG 160 IT	MG 160 IT
<b>19`` rail console</b>	4 pcs.	not required	not required	not required	not required
<b>Rotary frame 19``</b>	1 pcs.	-	-	-	-
<b>Rotary partial frame 19``</b>	1 pcs.	-	-	-	-
<b>Double-sided frame 19``</b>	1 pcs.	-	-	-	-

## Enclosures 1600 mm high

Cabinet code		MPS 160.80.40	MPS 160.80.50	MPS 160.80.60
<b>The cabinet includes</b>	<b>Qty.</b>			
Frame with ceiling panel and cable entry	1 pcs.	MF 160.80.40	MF 160.80.50	MF 160.80.60
Mounting panel	1 pcs.	MP 160.80	MP 160.80	MP 160.80
Door	1 pcs.	D 160.80	D 160.80	D 160.80
Rear panel	1 pcs.	BP 160.80	BP 160.80	BP 160.80
Height (L), mm		1600	1600	1600
Width (M), mm		800	800	800
Depth (N), mm		400	500	600
Mounting panel height, mm		1532	1532	1532
Mounting panel width, mm		680	680	680
Weight, kg		90	99	100
<b>Components</b>	<b>Qty.</b>			
Side panels	2 pcs.	SP 160.40	SP 160.50	SP 160.60
Front and rear components of 100 mm high plinth	2 pcs.	ZA 80.00 v.2	ZA 80.00 v.2	ZA 80.00 v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.40 v.2	ZA 00.50 v2	ZA 00.60 v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 80.00 H v.2	ZA 60.00 H v.2	ZA 80.00 H v.2
Side components of 200 mm high plinth	2 pcs.	ZA 00.40 H v.2	ZA 00.50 H v.2	ZA 00.60 H v.2
Eye bolts	4 pcs.	LE 12	LE 12	LE 12
Rotary handle with cylinder	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z
Rotary handle without cylinder	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z
Double bit rotary handle	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z
Rotary handle with 7 mm triangle	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z
Ceiling panel with perforation	1 pcs.	R 80.40	-	R 80.60 P
Ceiling panel with perforation and cable entry	1 pcs.	-	-	R 80.60 PK
Viewing window	1 pcs.	FT 67.80 / FT 37.80	FT 67.80 / FT 37.80	FT 67.80 / FT 37.80
Protective visor	1 pcs.	R 80.40	R 80.50	R 80.60
Internal door	1 pcs.	-	-	-
Document pocket	1 pcs.	DP 80 M	DP 80 M	DP 80 M
Door stopper	1 pcs.	SD	SD	SD
Quick release door stopper	1 pcs.	SD P	SD P	SD P
Blind door rail	10 pcs.	VB 80 G	VB 80 G	VB 80 G
Separation panel	1 pcs.	-	-	-
Reinforcement kit for seismic zones	1 pcs.	-	-	IK 01 EQ 160.80.60
Plinth for seismic zones	1 pcs.	ZA 80.40 EQ	ZA 80.50 EQ	ZA 80.60 EQ
Modular frame	1 pcs.	-	-	-
Rotary modular frame	1 pcs.	-	-	-
Intermediate mounting panel	1 pcs.	MP 160.11	MP 160.11	MP 160.11
Touch protection	1 pcs.	PP 160.80 MC	PP 160.80 MC	PP 160.80 MC
Shelf	1 pcs.	-	-	SH 80.60
Pull-out shelf	1 pcs.	-	-	SH 80.60 M
Screw type support	4 pcs.	F 12.40	F 12.40	F 12.40
Roller	2 pcs.	C 12.125	C 12.125	C 12.125
Roller with brake	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T
Reinforced travel roller	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F
Joint kit	1 pcs.	IK 01	IK 01	IK 01
Ventilation panel	1 pcs.	-	-	PV 80.60 PK
Cable entry panel	2 pcs.	PK 62.08	PK 62.08	PK 62.08
Blind cable entry panel	1 pcs.	PK 80.40 GP	PK 80.50 GP	PK 80.60 GP
Cable panel	1 pcs.	-	-	-
Vertical rail 19``	4 pcs.	MG 160 IT	MG 160 IT	MG 160 IT
19`` rail console	4 pcs.	B 6 G	B 6 G	B 6 G
Rotary frame 19``	1 pcs.	-	-	-
Rotary partial frame 19``	1 pcs.	MC 80.80 IRP	MC 80.80 IRP	MC 80.80 IRP
Double-sided frame 19``	1 pcs.	-	-	-

Enclosures 1800 mm high

Cabinet code		MPS 180.40.50	MPS 180.40.60	MPS 180.60.40	MPS 180.60.50	MPS 180.60.60
The cabinet includes	Qty.					
Frame with ceiling panel and cable entry	1 pcs.	MF 180.40.50	MF 180.40.60	MF 180.60.40	MF 180.60.50	MF 180.60.60
Mounting panel	1 pcs.	-	-	MP 180.60	MP 180.60	MP 180.60
Door	1 pcs.	D 180.40	D 180.40	D 180.60	D 180.60	D 180.60
Rear panel	1 pcs.	BP 180.40	BP 180.40	BP 180.60	BP 180.60	BP 180.60
Height (L), mm		1800	1800	1800	1800	1800
Width (M), mm		400	400	600	600	600
Depth (N), mm		500	600	400	500	600
Mounting panel height, mm		1732	1732	1732	1732	1732
Mounting panel width, mm		280	280	480	480	480
Weight, kg		45.9	48.5	78.3	89	101.4
Components	Qty.					
Side panels	2 pcs.	SP 180.50	SP 180.60	SP 180.40	SP 180.50	SP 180.60
Front and rear components of 100 mm high plinth	2 pcs.	ZA 40.00 v.2	ZA 40.00 v.2	ZA 60.00 v.2	ZA 60.00 v.2	ZA 60.00 v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.50 v.2	ZA 00.60 v.2	ZA 00.40 v.2	ZA 00.50 v.2	ZA 00.60 v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 40.00 H v.2	ZA 40.00 H v.2	ZA 60.00 H v.2	ZA 60.00 H v.2	ZA 60.00 H v.2
Side components of 200 mm high plinth	2 pcs.	ZA 00.50 H v.2	ZA 00.60 H v.2	ZA 00.40 H v.2	ZA 00.50 H v.2	ZA 00.60 H v.2
Eye bolts	4 pcs.	LE 12	LE 12	LE 12	LE 12	LE 12
Rotary handle with cylinder	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z
Rotary handle without cylinder	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z
Double bit rotary handle	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z
Rotary handle with 7 mm triangle	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z
Ceiling panel with perforation	1 pcs.	-	-	-	-	R 60.60 P
Ceiling panel with perforation and cable entry	1 pcs.	-	-	-	-	R 60.60 PK
Viewing window	1 pcs.	-	-	FT 67.60 / FT 37.60	FT 67.60 / FT 37.60	FT 67.60 / FT 37.60
Protective visor	1 pcs.	-	-	R 60.40	R 60.50	R 60.60
Internal door	1 pcs.	-	-	ID 180.60	ID 180.60	ID 180.60
Document pocket	1 pcs.	DP 40 M	DP 40 M	DP 60 M	DP 60 M	DP 60 M
Door stopper	1 pcs.	SD	SD	SD	SD	SD
Quick release door stopper	1 pcs.	SD P	SD P	SD P	SD P	SD P
Blind door rail	10 pcs.	VB 40 G	VB 40 G	VB 60 G	VB 60 G	VB 60 G
Separation panel	1 pcs.	SP 180.50 N	SP 180.60 N	SP 180.40 N	SP 180.50 N	SP 180.60 N
Reinforcement kit for seismic zones	1 pcs.	-	-	IK 01 EQ 180.60.40	IK 01 EQ 180.60.50	IK 01 EQ 180.60.60
Plinth for seismic zones	1 pcs.	-	ZA 60.40 EQ	ZA 60.40 EQ	ZA 60.50 EQ	ZA 60.60 EQ
Modular frame	1 pcs.	-	-	MC 180.60	MC 180.60	MC 180.60
Rotary modular frame	1 pcs.	-	-	MC 180.60 R	MC 180.60 R	MC 180.60 R
Intermediate mounting panel	1 pcs.	MP 180.11	MP 180.11	MP 180.11	MP 180.11	MP 180.11
Touch protection	1 pcs.	-	-	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC
Shelf	1 pcs.	-	-	-	-	SH 60.60
Pull-out shelf	1 pcs.	-	-	-	-	SH 60.60 M
Screw type support	4 pcs.	F 12.40	F 12.40	F 12.40	F 12.40	F 12.40
Roller	2 pcs.	C 12.125	C 12.125	C 12.125	C 12.125	C 12.125
Roller with brake	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T
Reinforced travel roller	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F
Joint kit	1 pcs.	IK 01	IK 01	IK 01	IK 01	IK 01
Ventilation panel	1 pcs.	-	-	-	-	PV 60.60 PK
Cable entry panel	2 pcs.	-	-	PK 42.08 P	PK 42.08 P	PK 42.08 P
Blind cable entry panel	1 pcs.	-	PK 60.40 GP	PK 60.40 GP	PK 60.50 GP	PK 60.60 GP
Cable panel	1 pcs.	CR 180.20	CR 180.20	CR 180.20	CR 180.20	CR 180.20
Vertical rail 19"	4 pcs.	-	-	MG 180 IT	MG 180 IT	MG 180 IT
19" rail console	4 pcs.	-	-	not required	not required	not required
Rotary frame 19"	1 pcs.	-	-	-	-	-
Rotary partial frame 19"	1 pcs.	-	-	-	-	-
Double-sided frame 19"	1 pcs.	-	-	-	-	-

## Enclosures 1800 mm high

Cabinet code		MPS 180.80.40	MPS 180.80.50	MPS 180.80.60
<b>The cabinet includes</b>	<b>Qty.</b>			
Frame with ceiling panel and cable entry	1 pcs.	MF 180.80.40	MF 180.80.50	MF 180.80.60
Mounting panel	1 pcs.	MP 180.80	MP 180.80	MP 180.80
Door	1 pcs.	D 180.80	D 180.80	D 180.80
Rear panel	1 pcs.	BP 180.80	BP 180.80	BP 180.80
Height (L), mm		1800	1800	1800
Width (M), mm		800	800	800
Depth (N), mm		400	500	600
Mounting panel height, mm		1732	1732	1732
Mounting panel width, mm		680	680	680
Weight, kg		96.9	101.7	104.8
<b>Components</b>	<b>Qty.</b>			
Side panels	2 pcs.	SP 180.40	SP 180.50	SP 180.60
Front and rear components of 100 mm high plinth	2 pcs.	ZA 60.00 v.2	ZA 80.00 v.2	ZA 80.00 v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.40 v.2	ZA 00.50 v.2	ZA 00.60 v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 60.00 H v.2	ZA 80.00 H v.2	ZA 80.00 H v.2
Side components of 200 mm high plinth	2 pcs.	ZA 00.40 H v.2	ZA 00.50 H v.2	ZA 00.60 H v.2
Eye bolts	4 pcs.	LE 12	LE 12	LE 12
Rotary handle with cylinder	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z
Rotary handle without cylinder	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z
Double bit rotary handle	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z
Rotary handle with 7 mm triangle	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z
Ceiling panel with perforation	1 pcs.	R 80.40 P	-	R 80.60 P
Ceiling panel with perforation and cable entry	1 pcs.	-	-	R 80.60 PK
Viewing window	1 pcs.	FT 67.80 / FT 37.80	FT 67.80 / FT 37.80	FT 67.80 / FT 37.80
Protective visor	1 pcs.	R 80.40	R 80.50	R 80.60
Internal door	1 pcs.	ID 180.80	ID 180.80	ID 180.80
Document pocket	1 pcs.	DP 80 M	DP 80 M	DP 80 M
Door stopper	1 pcs.	SD	SD	SD
Quick release door stopper	1 pcs.	SD P	SD P	SD P
Blind door rail	10 pcs.	VB 80 G	VB 80 G	VB 80 G
Separation panel	1 pcs.	SP 180.40 N	SP 180.50 N	SP 180.60 N
Reinforcement kit for seismic zones	1 pcs.	IK 01 EQ 180.80.40	IK 01 EQ 180.80.50	IK 01 EQ 180.80.60
Plinth for seismic zones	1 pcs.	ZA 80.40 EQ	ZA 80.50 EQ	ZA 80.60 EQ
Modular frame	1 pcs.	MC 180.80	MC 180.80	MC 180.80
Rotary modular frame	1 pcs.	MC 180.80 R	MC 180.80 R	MC 180.80 R
Intermediate mounting panel	1 pcs.	MP 180.11	MP 180.11	MP 180.11
Touch protection	1 pcs.	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC
Shelf	1 pcs.	-	-	SH 80.60
Pull-out shelf	1 pcs.	-	-	SH 80.60 M
Screw type support	4 pcs.	F 12.40	F 12.40	F 12.40
Roller	2 pcs.	C 12.125	C 12.125	C 12.125
Roller with brake	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T
Reinforced travel roller	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F
Joint kit	1 pcs.	IK 01	IK 01	IK 01
Ventilation panel	1 pcs.	-	-	PV 80.60 PK
Cable entry panel	2 pcs.	PK 62.08	PK 62.08	PK 62.08
Blind cable entry panel	1 pcs.	PK 80.40 GP	PK 80.50 GP	PK 80.60 GP
Cable panel	1 pcs.	CR 180.20	CR 180.20	CR 180.20
Vertical rail 19"	4 pcs.	MG 180 IT	MG 180 IT	MG 180 IT
19" rail console	4 pcs.	B 6 G	B 6 G	B 6 G
Rotary frame 19"	1 pcs.	-	-	-
Rotary partial frame 19"	1 pcs.	MC 80.80 IRP	MC 80.80 IRP	MC 80.80 IRP
Double-sided frame 19"	1 pcs.	-	-	-

Enclosures 2000 mm high

Cabinet code	MPS 200.40.50	MPS 200.40.60	MPS 200.60.40	MPS 200.60.50	MPS 200.60.60	MPS 200.60.80	
<b>The cabinet includes</b>	<b>Qty.</b>						
Frame with ceiling panel and cable entry	1 pcs.	MF 200.40.50	MF 200.40.60	MF 200.60.40	MF 200.60.50	MF 200.60.60	MF 200.60.80
Mounting panel	1 pcs.	-	-	MP 200.60	MP 200.60	MP 200.60	MP 200.60
Door	1 pcs.	D 200.40	D 200.40	D 200.60	D 200.60	D 200.60	D 200.60
Rear panel	1 pcs.	BP 200.40	BP 200.40	BP 200.60	BP 200.60	BP 200.60	BP 200.60
Height (L), mm		2000	2000	2000	2000	2000	2000
Width (M), mm		400	400	600	600	600	600
Depth (N), mm		500	600	400	500	600	800
Mounting panel height, mm		1932	1932	1932	1932	1932	1932
Mounting panel width, mm		280	280	480	480	480	480
Weight, kg		66.3	69.7	91.4	94.8	97.7	103.2
<b>Components</b>	<b>Qty.</b>						
Side panels	2 pcs.	SP 200.50	SP 200.60	SP 200.40	SP 200.50	SP 200.60	SP 200.80
Front and rear components of 100 mm high plinth	2 pcs.	ZA 40.00 v.2	ZA 40.00 v.2	ZA 60.00 v.2	ZA 60.00 v.2	ZA 60.00 v.2	ZA 60.00 v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.50 v.2	ZA 00.60 v.2	ZA 00.40 v.2	ZA 00.50 v.2	ZA 00.60 v.2	ZA 00.80 v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 40.00 H v.2	ZA 40.00 H v.2	ZA 60.00 H v.2	ZA 60.00 H v.2	ZA 60.00 H v.2	ZA 60.00 H v.2
Side components of 200 mm high plinth	2 pcs.	ZA 00.50 H v.2	ZA 00.60 H v.2	ZA 00.40 H v.2	ZA 00.50 H v.2	ZA 00.60 H v.2	ZA 00.80 H v.2
Eye bolts	4 pcs.	LE 12	LE 12	LE 12	LE 12	LE 12	LE 12
Rotary handle with cylinder	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z
Rotary handle without cylinder	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z
Double bit rotary handle	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z
Rotary handle with 7 mm triangle	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z
Ceiling panel with perforation	1 pcs.	-	-	-	-	R 60.60 P	R 60.80 P
Ceiling panel with perforation and cable entry	1 pcs.	-	-	-	-	R 60.60 PK	R 60.80 PK
Viewing window	1 pcs.	-	-	FT 67.60 / FT 37.60			
Protective visor	1 pcs.	-	-	R 60.40	R 60.50	R 60.60	R 60.80
Internal door	1 pcs.	-	-	ID 200.60	ID 200.60	ID 200.60	ID 200.60
Document pocket	1 pcs.	DP 40 M	DP 40 M	DP 60 M	DP 60 M	DP 60 M	DP 60 M
Door stopper	1 pcs.	SD	SD	SD	SD	SD	SD
Quick release door stopper	1 pcs.	SD P	SD P	SD P	SD P	SD P	SD P
Blind door rail	10 pcs.	VB 40 G	VB 40 G	VB 60 G	VB 60 G	VB 60 G	VB 60 G
Separation panel	1 pcs.	SP 200.50 N	SP 200.60 N	SP 200.40 N	SP 200.50 N	SP 200.60 N	SP 200.80 N
Reinforcement kit for seismic zones	1 pcs.	-	IK 01 EQ 200.40.60	IK 01 EQ 200.60.40	-	IK 01 EQ 200.60.60	IK 01 EQ 200.60.80
Plinth for seismic zones	1 pcs.	-	ZA 60.40 EQ	ZA 60.40 EQ	ZA 60.50 EQ	ZA 60.60 EQ	ZA 80.60 EQ
Modular frame	1 pcs.	MC 200.40	MC 200.40	MC 200.60	MC 200.60	MC 200.60	MC 200.60
Rotary modular frame	1 pcs.	-	-	MC 200.60 R	MC 200.60 R	MC 200.60 R	MC 200.60 R
Intermediate mounting panel	1 pcs.	MP 200.11	MP 200.11	MP 200.11	MP 200.11	MP 200.11	MP 200.11
Touch protection	1 pcs.	-	-	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC
Shelf	1 pcs.	-	-	-	-	SH 60.60	SH 80.60
Pull-out shelf	1 pcs.	-	-	-	-	SH 60.60 M	-
Screw type support	4 pcs.	F 12.40	F 12.40	F 12.40	F 12.40	F 12.40	F 12.40
Roller	2 pcs.	C 12.125	C 12.125	C 12.125	C 12.125	C 12.125	C 12.125
Roller with brake	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T
Reinforced travel roller	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F
Joint kit	1 pcs.	IK 01	IK 01	IK 01	IK 01	IK 01	IK 01
Ventilation panel	1 pcs.	-	-	-	-	PV 60.60 PK	PV 60.80 PK
Cable entry panel	2 pcs.	-	-	PK 42.08 P	PK 42.08 P	PK 42.08 P	PK 42.08 P
Blind cable entry panel	1 pcs.	-	PK 60.40 GP	PK 60.40 GP	PK 60.50 GP	PK 60.60 GP	PK 80.60 GP
Cable panel	1 pcs.	CR 200.20	CR 200.20	CR 200.20	CR 200.20	CR 200.20	CR 200.20
Vertical rail 19``	4 pcs.	-	-	MG 200 IT	MG 200 IT	MG 200 IT	MG 200 IT
19`` rail console	4 pcs.	-	-	not required	not required	not required	not required
Rotary frame 19``	1 pcs.	-	-	-	-	-	-
Rotary partial frame 19``	1 pcs.	-	-	-	-	-	-
Double-sided frame 19``	1 pcs.	-	-	-	-	-	-

## Enclosures 2000 mm high

Cabinet code		MPS 200.80.40	MPS 200.80.50	MPS 200.80.60	MPS 200.80.80
<b>The cabinet includes</b>	<b>Qty.</b>				
Frame with ceiling panel and cable entry	1 pcs.	MF 200.80.40	MF 200.80.50	MF 200.80.60	MF 200.80.80
Mounting panel	1 pcs.	MP 200.80	MP 200.80	MP 200.80	MP 200.80
Door	1 pcs.	D 200.80	D 200.80	D 200.80	D 200.80
Rear panel	1 pcs.	BP 200.80	BP 200.80	BP 200.80	BP 200.80
Height (L), mm		2000	2000	2000	2000
Width (M), mm		800	800	800	800
Depth (N), mm		400	500	600	800
Mounting panel height, mm		1932	1932	1932	1932
Mounting panel width, mm		680	680	680	680
Weight, kg		115.5	119.2	121.8	129.5
<b>Components</b>	<b>Qty.</b>				
Side panels	2 pcs.	SP 200.40	SP 200.50	SP 200.60	SP 200.80
Front and rear components of 100 mm high plinth	2 pcs.	ZA 80.00 v.2	ZA 80.00 v.2	ZA 80.00 v.2	ZA 80.00 v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.40 v.2	ZA 00.50 v.2	ZA 00.60 v.2	ZA 00.80 v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 80.00 H v.2			
Side components of 200 mm high plinth	2 pcs.	ZA 00.40 H v.2	ZA 00.50 H v.2	ZA 00.60 H v.2	ZA 00.80 H v.2
Eye bolts	4 pcs.	LE 12	LE 12	LE 12	LE 12
Rotary handle with cylinder	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z
Rotary handle without cylinder	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z
Double bit rotary handle	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z
Rotary handle with 7 mm triangle	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z
Ceiling panel with perforation	1 pcs.	R 80.40 P	-	R 80.60 P	R 80.80 P
Ceiling panel with perforation and cable entry	1 pcs.	-	-	R 80.60 PK	R 80.80 PK
Viewing window	1 pcs.	FT 67.80 / FT 37.80			
Protective visor	1 pcs.	R 80.40	R 80.50	R 80.60	R 80.80
Internal door	1 pcs.	ID 200.80	ID 200.80	ID 200.80	ID 200.80
Document pocket	1 pcs.	DP 80 M	DP 80 M	DP 80 M	DP 80 M
Door stopper	1 pcs.	SD	SD	SD	SD
Quick release door stopper	1 pcs.	SD P	SD P	SD P	SD P
Blind door rail	10 pcs.	VB 80 G	VB 80 G	VB 80 G	VB 80 G
Separation panel	1 pcs.	SP 200.40 N	SP 200.50 N	SP 200.60 N	SP 200.80 N
Reinforcement kit for seismic zones	1 pcs.	IK 01 EQ 200.80.40	-	IK 01 EQ 200.80.60	IK 01 EQ 200.80.80
Plinth for seismic zones	1 pcs.	ZA 80.40 EQ	ZA 80.50 EQ	ZA 80.60 EQ	ZA 80.80 EQ
Modular frame	1 pcs.	MC 200.80	MC 200.80	MC 200.80	MC 200.80
Rotary modular frame	1 pcs.	MC 200.80 R	MC 200.80 R	MC 200.80 R	MC 200.80 R
Intermediate mounting panel	1 pcs.	MP 200.11	MP 200.11	MP 200.11	MP 200.11
Touch protection	1 pcs.	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC
Shelf	1 pcs.	-	-	SH 80.60	SH 80.80
Pull-out shelf	1 pcs.	-	-	SH 80.60 M	-
Screw type support	4 pcs.	F 12.40	F 12.40	F 12.40	F 12.40
Roller	2 pcs.	C 12.125	C 12.125	C 12.125	C 12.125
Roller with brake	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T
Reinforced travel roller	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F
Joint kit	1 pcs.	IK 01	IK 01	IK 01	IK 01
Ventilation panel	1 pcs.	-	-	PV 80.60 PK	PV 80.80 PK
Cable entry panel	2 pcs.	PK 62.08	PK 62.08	PK 62.08	PK 62.08
Blind cable entry panel	1 pcs.	-	PK 60.40 GP	PK 60.40 GP	PK 60.50 GP
Cable panel	1 pcs.	CR 200.20	CR 200.20	CR 200.20	CR 200.20
Vertical rail 19``	4 pcs.	MG 200 IT	MG 200 IT	MG 200 IT	MG 200 IT
19`` rail console	4 pcs.	B 6 G	B 6 G	B 6 G	B 6 G
Rotary frame 19``	1 pcs.	MC 200.80 IRP	MC 200.80 IRP	MC 200.80 IRP	MC 200.80 IRP
Rotary partial frame 19``	1 pcs.	MC 80.80 IRP	MC 80.80 IRP	MC 80.80 IRP	MC 80.80 IRP
Double-sided frame 19``	1 pcs.	MC 200.80 ID	MC 200.80 ID	MC 200.80 ID	MC 200.80 ID

Enclosures 2200 mm high

Cabinet code		MPS 220.60.60	MPS 220.60.80	MPS 220.80.40	MPS 220.80.60	MPS 220.80.80
<b>The cabinet includes</b>	<b>Qty.</b>					
<b>Frame with ceiling panel and cable entry</b>	1 pcs.	MF 220.60.60	MF 220.60.80	MF 220.80.40	MF 220.80.60	MF 220.80.80
<b>Mounting panel</b>	1 pcs.	MP 220.60	MP 220.60	MP 220.80	MP 220.80	MP 220.80
<b>Door</b>	1 pcs.	D 220.60	D 220.60	D 220.80	D 220.80	D 220.80
<b>Rear panel</b>	1 pcs.	BP 220.60	BP 220.60	BP 220.80	BP 220.80	BP 220.80
<b>Height (L), mm</b>		2200	2200	2200	2200	2200
<b>Width (M), mm</b>		600	600	800	800	800
<b>Depth (N), mm</b>		600	800	400	600	800
<b>Mounting panel height, mm</b>		2132	2132	2132	2132	2132
<b>Mounting panel width, mm</b>		480	480	680	680	680
<b>Weight, kg</b>		104.2	110.3	117	131.3	137.5
<b>Components</b>	<b>Qty.</b>					
<b>Side panels</b>	2 pcs.	SP 220.60	SP 220.80	SP 220.40	SP 220.60	SP 220.80
<b>Front and rear components of 100 mm high plinth</b>	2 pcs.	ZA 60.00 v.2	ZA 60.00 v.2	ZA 80.00 v.2	ZA 80.00 v.2	ZA 80.00 v.2
<b>Side components of 100 mm high plinth</b>	2 pcs.	ZA 00.60 v.2	ZA 00.80 v.2	ZA 00.40 v.2	ZA 00.60 v.2	ZA 00.80 v.2
<b>Front and rear components of 200 mm high plinth</b>	2 pcs.	ZA 60.00 H v.2	ZA 60.00 H v.2	ZA 80.00 H v.2	ZA 80.00 H v.2	ZA 80.00 H v.2
<b>Side components of 200 mm high plinth</b>	2 pcs.	ZA 00.60 H v.2	ZA 00.80 H v.2	ZA 00.40 H v.2	ZA 00.60 H v.2	ZA 00.80 H v.2
<b>Eye bolts</b>	4 pcs.	LE 12				
<b>Rotary handle with cylinder</b>	1 pcs.	LH 1C.Z				
<b>Rotary handle without cylinder</b>	1 pcs.	LH 2C.Z				
<b>Double bit rotary handle</b>	1 pcs.	LH 3C.Z				
<b>Rotary handle with 7 mm triangle</b>	1 pcs.	LH 4C.Z				
<b>Ceiling panel with perforation</b>	1 pcs.	R 60.60 P	R 60.80 P	R 80.40 P	R 80.60 P	R 80.80 P
<b>Ceiling panel with perforation and cable entry</b>	1 pcs.	R 60.60 PK	R 60.80 PK	-	R 80.60 PK	R 80.80 PK
<b>Viewing window</b>	1 pcs.	FT 67.60 / FT 37.60	FT 67.60 / FT 37.60	FT 67.80 / FT 37.80	FT 67.80 / FT 37.80	FT 67.80 / FT 37.80
<b>Protective visor</b>	1 pcs.	R 60.60	R 60.80	R 60.40	R 80.60	R 80.80
<b>Internal door</b>	1 pcs.	ID 220.60	ID 220.60	ID 220.80	ID 220.80	ID 220.80
<b>Document pocket</b>	1 pcs.	DP 60 M	DP 60 M	DP 80 M	DP 80 M	DP 80 M
<b>Door stopper</b>	1 pcs.	SD	SD	SD	SD	SD
<b>Quick release door stopper</b>	1 pcs.	SD P				
<b>Blind door rail</b>	10 pcs.	VB 60 G	VB 60 G	VB 80 G	VB 80 G	VB 80 G
<b>Separation panel</b>	1 pcs.	SP 220.60 N	SP 220.80 N	-	SP 220.60 N	SP 220.80 N
<b>Reinforcement kit for seismic zones</b>	1 pcs.	IK 01 EO 220.60.60	IK 01 EO 220.60.80	-	IK 01 EO 220.80.60	IK 01 EO 220.80.80
<b>Plinth for seismic zones</b>	1 pcs.	ZA 60.60 EQ	ZA 80.60 EQ	ZA 80.40 EQ	ZA 80.60 EQ	ZA 80.80 EQ
<b>Modular frame</b>	1 pcs.	MC 220.60	MC 220.60	MC 220.80	MC 220.80	MC 220.80
<b>Rotary modular frame</b>	1 pcs.	MC 220.60 R	MC 220.60 R	-	-	-
<b>Intermediate mounting panel</b>	1 pcs.	MP 220.11				
<b>Touch protection</b>	1 pcs.	PP 220.80 MC				
<b>Shelf</b>	1 pcs.	SH 60.60	SH 80.60	-	SH 80.60	SH 80.80
<b>Pull-out shelf</b>	1 pcs.	SH 60.60 M	-	-	SH 80.60 M	-
<b>Screw type support</b>	4 pcs.	F 12.40				
<b>Roller</b>	2 pcs.	C 12.125				
<b>Roller with brake</b>	2 pcs.	C 12.125 T				
<b>Reinforced travel roller</b>	4 pcs.	C 12.82 F				
<b>Joint kit</b>	1 pcs.	IK 01				
<b>Ventilation panel</b>	1 pcs.	PV 60.60 PK	PV 60.80 PK	-	PV 80.60 PK	PV 80.80 PK
<b>Cable entry panel</b>	2 pcs.	PK 42.08 P	PK 42.08 P	PK 62.08	PK 62.08	PK 62.08
<b>Blind cable entry panel</b>	1 pcs.	PK 60.60 GP	PK 80.60 GP	PK 80.40 GP	PK 80.60 GP	PK 80.80 GP
<b>Cable panel</b>	1 pcs.	CR 220.20				
<b>Vertical rail 19``</b>	4 pcs.	MG 220 IT	MG 200 IT	MG 220 IT	MG 200 IT	MG 220 IT
<b>19`` rail console</b>	4 pcs.	not required	not required	B 6 G	B 6 G	B 6 G
<b>Rotary frame 19``</b>	1 pcs.	-	-	-	-	-
<b>Rotary partial frame 19``</b>	1 pcs.	-	-	MC 80.80 IRP	MC 80.80 IRP	MC 80.80 IRP
<b>Double-sided frame 19``</b>	1 pcs.	-	-	-	-	-



**Degree of protection:**

IP55, IK10. To achieve IP55 protection rating, SP X.Y S side walls are used along with cable entry panels of standard configuration. Protection rating IP65 if SP X.Y side walls are used with PK X.Y GPS blind cable entry panel. MSK-64 scale 8 points without reinforcement kit use, 9 points at 70 meters using reinforcement kit for seismic zones.

**Material:**

**frame, door, panels:** 1.5 mm corrosion-resistant sheet steel AISI 304

**mounting panel:** 2.5 mm sheet steel

**Surface:**

**door and panels:** honed

**mounting panel:** zinc coating

**Sealing:**

**door and panels:** polyurethane foam

**Lock:**

double bit four-point rod type

**Hinge:**

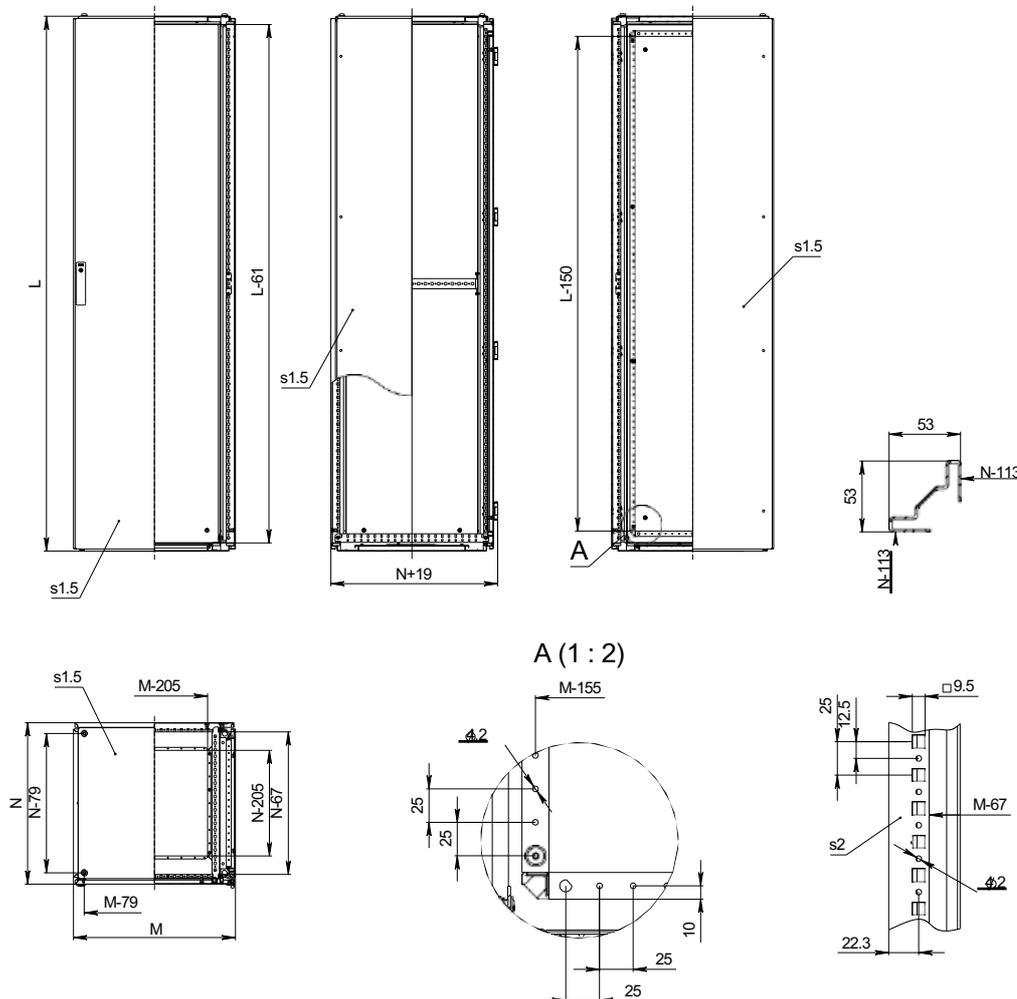
225°, max. opening angle, right-hung door

**Delivery scope:**

frame with ceiling panel and cable entry panels, door, rear panel, mounting panel, mounting crossbeam, key, packaging, technical passport

**Options:**

special dimensions, extra holes, painting



Enclosures 1800 mm high

Cabinet code		SPS 180.60.40	SPS 180.60.50	SPS 180.80.40	SPS 180.60.60	SPS 180.80.50	SPS 180.80.60
The cabinet includes	Qty.						
Frame with ceiling panel and cable entry	1 pcs.	frame	frame	frame	frame	frame	frame
Mounting panel	1 pcs.	MP 180.60	MP 180.60	MP 180.60	MP 180.80	MP 180.80	MP 180.80
Door	1 pcs.	door	door	door	door	door	door
Rear panel	1 pcs.	rear panel	rear panel	rear panel	rear panel	rear panel	rear panel
Height (L), mm		1800	1800	1800	1800	1800	1800
Width (M), mm		600	600	600	800	800	600
Depth (N), mm		400	500	600	400	500	600
Mounting panel height, mm		1732	1732	1732	1732	1732	1732
Mounting panel width, mm		480	480	480	680	680	680
Weight, kg		70	74.4	78	81	86.2	98
Components	Qty.						
Side panels	2 pcs.	SP 180.40 S	SP 180.50 S	SP 180.60 S	SP 180.40 S	SP 180.50 S	SP 180.60 S
Front and rear components of 100 mm high plinth	2 pcs.	ZA 60.00 S v.2	ZA 60.00 S v.2	ZA 60.00 S v.2	ZA 80.00 S v.2	ZA 80.00 S v.2	ZA 80.00 S v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.40 S v.2	ZA 00.50 S v.2	ZA 00.60 S v.2	ZA 00.40 S v.2	ZA 00.50 S v.2	ZA 00.60 S v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 60.00 HS v.2	ZA 60.00 HS v.2	ZA 60.00 HS v.2	ZA 80.00 HS v.2	ZA 80.00 HS v.2	ZA 80.00 HS v.2
Side components of 200 mm high plinth	2 pcs.	ZA 00.40 HS v.2	ZA 00.50 HS v.2	ZA 00.60 HS v.2	ZA 00.40 HS v.2	ZA 00.50 HS v.2	ZA 00.60 HS v.2
Eye bolts	4 pcs.	LE 12	LE 12	LE 12	LE 12	LE 12	LE 12
Rotary handle with cylinder	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z
Rotary handle without cylinder	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z
Double bit rotary handle	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z
Rotary handle with 7 mm triangle	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z
Ceiling panel with perforation	1 pcs.	-	-	-	-	-	-
Ceiling panel with perforation and cable entry	1 pcs.	-	-	-	-	-	-
Viewing window	1 pcs.	FT 67.60 S / FT 37.60 S	FT 67.60 S / FT 37.60 S	FT 67.60 S / FT 37.60 S	FT 67.80 S	FT 67.80 S	FT 67.80 S
Protective visor	1 pcs.	-	R 60.50 S	R 60.60 S	-	R 80.50 S	R 80.60 S
Internal door	1 pcs.	ID 180.60	ID 180.60	ID 180.60	ID 180.80	ID 180.80	ID 180.80
Document pocket	1 pcs.	DP 60 M	DP 60 M	DP 60 M	DP 80 M	DP 80 M	DP 80 M
Door stopper	1 pcs.	SD	SD	SD	SD	SD	SD
Quick release door stopper	1 pcs.	SD P	SD P	SD P	SD P	SD P	SD P
Blind door rail	10 pcs.	VB 60 G	VB 60 G	VB 60 G	VB 80 G	VB 80 G	VB 80 G
Separation panel	1 pcs.	SP 180.40 N	SP 180.50 N	SP 180.60 N	SP 180.40 N	SP 180.50 N	SP 180.60 N
Reinforcement kit for seismic zones	1 pcs.	IK 01 EQ 180.60.40	IK 01 EQ 180.60.50	IK 01 EQ 180.60.60	IK 01 EQ 180.80.40	IK 01 EQ 180.80.50	IK 01 EQ 180.80.60
Plinth for seismic zones	1 pcs.	ZA 60.40 EQ	ZA 60.50 EQ	ZA 60.60 EQ	ZA 80.40 EQ	ZA 80.50 EQ	ZA 80.60 EQ
Modular frame	1 pcs.	MC 180.60	MC 180.60	MC 180.60	MC 180.80	MC 180.80	MC 180.80
Rotary modular frame	1 pcs.	MC 180.60 R	MC 180.60 R	MC 180.60 R	MC 180.80 R	MC 180.80 R	MC 180.80 R
Intermediate mounting panel	1 pcs.	MP 180.11	MP 180.11	MP 180.11	MP 180.11	MP 180.11	MP 180.11
Touch protection	1 pcs.	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC
Shelf	1 pcs.	-	-	SH 60.60	-	-	SH 80.60
Pull-out shelf	1 pcs.	-	-	SH 60.60 M	-	-	SH 80.60 M
Screw type support	4 pcs.	F 12.40	F 12.40	F 12.40	F 12.40	F 12.40	F 12.40
Roller	2 pcs.	C 12.125	C 12.125	C 12.125	C 12.125	C 12.125	C 12.125
Roller with brake	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T
Reinforced travel roller	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F
Joint kit	1 pcs.	IK 01	IK 01	IK 01	IK 01	IK 01	IK 01
Ventilation panel	1 pcs.	-	-	PV 60.60 PK	-	-	PV 80.60 PK
Cable entry panel	2 pcs.	PK 42.08 P	PK 42.08 P	PK 42.08 P	PK 62.08 P	PK 62.08	PK 42.08 P
Blind cable entry panel	1 pcs.	PK 60.40 GPS	PK 60.50 GPS	PK 60.60 GPS	PK 80.40 GPS	PK 80.50 GPS	PK 80.60 GPS
Cable panel	1 pcs.	CR 180.20	CR 180.20	CR 180.20	CR 180.20	CR 180.20	CR 180.20
Vertical rail 19``	4 pcs.	MG 180 IT	MG 180 IT	MG 180 IT	MG 180 IT	MG 180 IT	MG 180 IT
19`` rail console	4 pcs.	not required	not required	not required	B 6 G	B 6 G	B 6 G
Rotary frame 19``	1 pcs.	-	-	-	-	-	-
Rotary partial frame 19``	1 pcs.	-	-	-	MC 80.80 IRP	MC 80.80 IRP	MC 80.80 IRP
Double-sided frame 19``	1 pcs.	-	-	-	-	-	-

Enclosures 2000 mm high

Cabinet code		SPS 200.60.60	SPS 200.80.60	SPS 200.80.80
<b>The cabinet includes</b>	<b>Qty.</b>			
Frame with ceiling panel and cable entry	1 pcs.	frame	frame	frame
Mounting panel	1 pcs.	MP 200.60	MP 200.80	MP 200.80
Door	1 pcs.	door	door	door
Rear panel	1 pcs.	rear panel	rear panel	rear panel
Height (L), mm		2000	2000	2000
Width (M), mm		600	800	800
Depth (N), mm		600	600	800
Mounting panel height, mm		1932	1932	1932
Mounting panel width, mm		480	680	680
Weight, kg		81.6	102.4	110
<b>Components</b>	<b>Qty.</b>			
Side panels	2 pcs.	SP 200.60 S	SP 200.60 S	SP 200.80 S
Front and rear components of 100 mm high plinth	2 pcs.	ZA 60.00 S v.2	ZA 80.00 S v.2	ZA 80.00 S v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.60 S v.2	ZA 00.80 S v.2	ZA 00.80 S v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 60.00 HS v.2	ZA 80.00 HS v.2	ZA 80.00 HS v.2
Side components of 200 mm high plinth	2 pcs.	ZA 00.60 HS v.2	ZA 00.60 HS v.2	ZA 00.80 HS v.2
Eye bolts	4 pcs.	LE 12	LE 12	LE 12
Rotary handle with cylinder	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z
Rotary handle without cylinder	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z
Double bit rotary handle	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z
Rotary handle with 7 mm triangle	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z
Ceiling panel with perforation	1 pcs.	-	-	-
Ceiling panel with perforation and cable entry	1 pcs.	-	-	-
Viewing window	1 pcs.	FT 67.60 S / FT 37.60 S	FT 67.80 S	FT 67.80 S
Protective visor	1 pcs.	R 60.60 S	R 80.60 S	-
Internal door	1 pcs.	ID 200.60	ID 200.80	ID 200.80
Document pocket	1 pcs.	DP 60 M	DP 80 M	DP 80 M
Door stopper	1 pcs.	SD	SD	SD
Quick release door stopper	1 pcs.	SD P	SD P	SD P
Blind door rail	10 pcs.	VB 80 G	VB 80 G	VB 80 G
Separation panel	1 pcs.	SP 200.60 N	SP 200.60 N	SP 200.80 N
Reinforcement kit for seismic zones	1 pcs.	IK 01 EQ 200.60.60	IK 01 EQ 200.80.60	IK 01 EQ 200.80.80
Plinth for seismic zones	1 pcs.	ZA 60.60 EQ	ZA 80.60 EQ	ZA 80.80 EQ
Modular frame	1 pcs.	MC 200.60	MC 200.80	MC 200.80
Rotary modular frame	1 pcs.	MC 200.60 R	MC 200.80 R	MC 200.80 R
Intermediate mounting panel	1 pcs.	MP 200.11	MP 200.11	MP 200.11
Touch protection	1 pcs.	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC
Shelf	1 pcs.	SH 60.60	SH 80.60	SH 80.80
Pull-out shelf	1 pcs.	SH 60.60 M	SH 80.60 M	SH 80.60 M
Screw type support	4 pcs.	F 12.40	F 12.40	F 12.40
Roller	2 pcs.	C 12.125	C 12.125	C 12.125
Roller with brake	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T
Reinforced travel roller	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F
Joint kit	1 pcs.	IK 01	IK 01	IK 01
Ventilation panel	1 pcs.	PV 60.60 PK	PV 80.60 PK	PV 80.80 PK
Cable entry panel	2 pcs.	PK 42.08 P	PK 62.08	PK 62.08
Blind cable entry panel	1 pcs.	PK 60.60 GPS	PK 80.60 GPS	PK 80.80 GPS
Cable panel	1 pcs.	CR 200.20	CR 200.20	CR 200.20
Vertical rail 19``	4 pcs.	MG 200 IT	MG 200 IT	MG 200 IT
19`` rail console	4 pcs.	not required	B 6 G	B 6 G
Rotary frame 19``	1 pcs.	-	MC 200.80 IRP	MC 200.80 IRP
Rotary partial frame 19``	1 pcs.	-	MC 80.80 IRP	MC 80.80 IRP
Double-sided frame 19``	1 pcs.	-	MC 200.80 ID	MC 200.80 ID

WALL TYPE  
EX  
FLOOR TYPE  
IT  
CONTROL  
TERMINALS  
IP  
MODIFIED  
ACCESSORIES  
INFORMATION



**Degree of protection:**

IP55, IK10. To achieve IP55 protection rating, SP X.Y side walls are used along with cable entry panels of standard configuration. Protection rating IP65 if SP X.Y side walls are used with PK X.Y GP blind cable entry panel.  
MSK-64 scale 8 points  
without reinforcement kit use, 9 points at 70 meters using reinforcement kit for seismic zones

**Climate class:** UHL1 (moderately cold)

**Material:**

**frame:** 2.0 mm sheet steel  
**door:** 2.0 mm sheet steel 4.0 mm hardened glass  
**panels:** 1.5 mm sheet steel

**Surface:**

structural powder coating RAL 7035

**Sealing:**

**door and panels:** polyurethane foam

**Lock:**

double bit four-point rod type

**Hinge:**

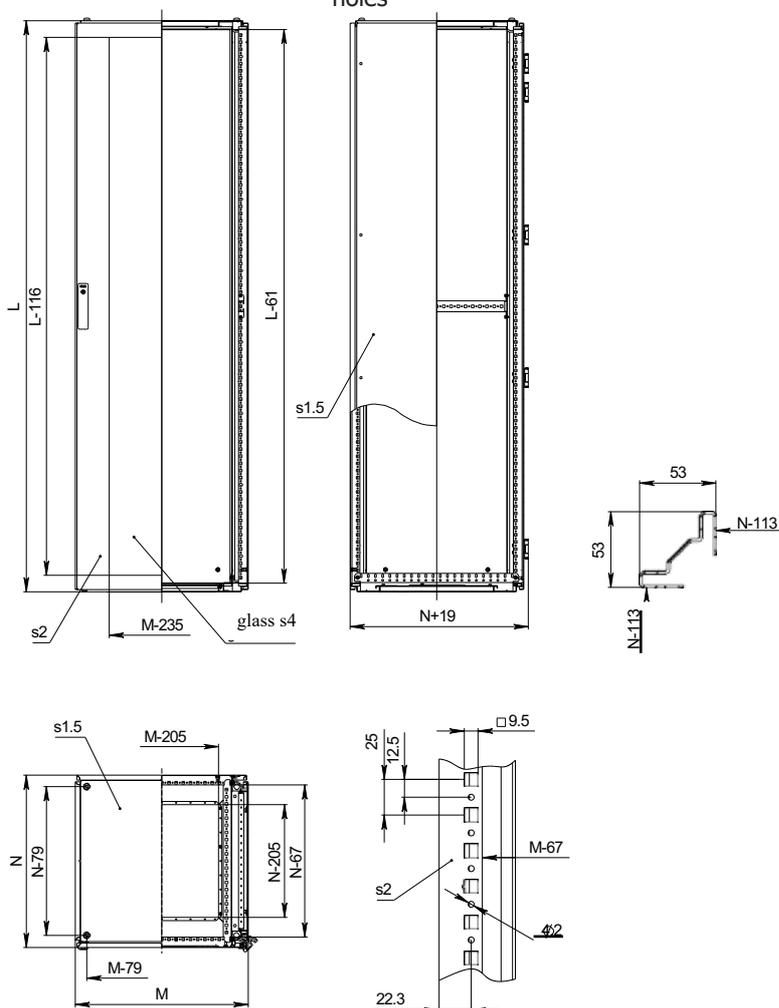
225°, max. opening angle, right-hung door

**Delivery scope:**

frame with ceiling panel and cable entry panels, door, rear panel, key, packaging, technical passport

**Options:**

paint special color (RAL 3020, RAL 7004, etc.), special dimensions, extra holes



WALL TYPE  
EX  
FLOOR TYPE  
IT  
CONTROL  
TERMINALS  
IP  
MODIFIED  
ACCESSORIES  
INFORMATION

Enclosures 1800 mm high

Cabinet code		MPV 180.60.50	MPV 180.60.60	MPV 180.80.50	MPV 180.80.60
<b>The cabinet includes</b>	<b>Qty.</b>				
<b>Frame with ceiling panel and cable entry</b>	1 pcs.	MF 180.60.50	MF 180.60.60	MF 180.80.50	MF 180.80.60
<b>Mounting panel</b>		-	-	-	-
<b>Door</b>	1 pcs.	D 180.60 V	D 180.60 V	D 180.80 V	D 180.80 V
<b>Rear panel</b>	1 pcs.	BP 180.60	BP 180.60	BP 180.80	BP 180.80
<b>Height (L), mm</b>		1800	1800	1800	1800
<b>Width (M), mm</b>		600	600	800	800
<b>Depth (N), mm</b>		500	600	500	600
<b>Mounting panel height, mm</b>		1732	1732	1732	1732
<b>Mounting panel width, mm</b>		480	480	680	680
<b>Weight, kg</b>		63.2	65.6	74.3	77.9
<b>Components</b>	<b>Qty.</b>				
<b>Mounting panel</b>	1 pcs.	MP 180.60	MP 180.60	MP 180.80	MP 180.80
<b>Side panels</b>	2 pcs.	SP 180.50	SP 180.60	SP 180.50	SP 180.60
<b>Front and rear components of 100 mm high plinth</b>	2 pcs.	ZA 60.00 v.2	ZA 60.00 v.2	ZA 80.00 v.2	ZA 80.00 v.2
<b>Side components of 100 mm high plinth</b>	2 pcs.	ZA 00.50 v.2	ZA 00.60 v.2	ZA 00.50 v.2	ZA 00.60 v.2
<b>Front and rear components of 200 mm high plinth</b>	2 pcs.	ZA 60.00 H v.2	ZA 60.00 H v.2	ZA 80.00 H v.2	ZA 80.00 H v.2
<b>Side components of 200 mm high plinth</b>	2 pcs.	ZA 00.50 H v.2	ZA 00.60 H v.2	ZA 00.50 H v.2	ZA 00.60 H v.2
<b>Eye bolts</b>	4 pcs.	LE 12	LE 12	LE 12	LE 12
<b>Rotary handle with cylinder</b>	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z
<b>Rotary handle without cylinder</b>	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z
<b>Double bit rotary handle</b>	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z
<b>Rotary handle with 7 mm triangle</b>	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z
<b>Ceiling panel with perforation</b>		-	-	-	-
<b>Ceiling panel with perforation and cable entry</b>		-	-	-	-
<b>Protective visor</b>	1 pcs.	R 60.50	R 60.60	R 80.50	R 80.60
<b>Internal door</b>	1 pcs.	ID 180.60	ID 180.60	ID 180.80	ID 180.60
<b>Document pocket</b>	1 pcs.	-	-	-	-
<b>Door stopper</b>	1 pcs.	SD	SD	SD	SD
<b>Quick release door stopper</b>		-	-	-	-
<b>Blind door rail</b>		-	-	-	-
<b>Separation panel</b>	1 pcs.	SP 180.50 N	SP 180.60 N	SP 180.50 N	SP 180.60 N
<b>Reinforcement kit for seismic zones</b>	1 pcs.	IK 01 EQ 180.60.50	IK 01 EQ 180.60.60	IK 01 EQ 180.80.50	IK 01 EQ 180.80.60
<b>Plinth for seismic zones</b>	1 pcs.	ZA 60.50 EQ	ZA 60.60 EQ	ZA 80.50 EQ	ZA 80.60 EQ
<b>Modular frame</b>	1 pcs.	MC 180.60	MC 180.60	MC 180.80	MC 180.80
<b>Rotary modular frame</b>	1 pcs.	MC 180.60 R	MC 180.60 R	MC 180.80 R	MC 180.80 R
<b>Intermediate mounting panel</b>	1 pcs.	MP 180.11	MP 180.11	MP 180.11	MP 180.11
<b>Touch protection</b>	1 pcs.	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC
<b>Shelf</b>	1 pcs.	-	SH 60.60	-	SH 80.80
<b>Pull-out shelf</b>	1 pcs.	-	SH 60.60 M	-	SH 80.60 M
<b>Screw type support</b>	4 pcs.	F 12.40	F 12.40	F 12.40	F 12.40
<b>Roller</b>	2 pcs.	C 12.125	C 12.125	C 12.125	C 12.125
<b>Roller with brake</b>	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T
<b>Reinforced travel roller</b>	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F
<b>Joint kit</b>	1 pcs.	IK 01	IK 01	IK 01	IK 01
<b>Ventilation panel</b>	1 pcs.	-	PV 60.60 PK	-	PV 80.60 PK
<b>Cable entry panel</b>	2 pcs.	PK 42.08 P	PK 42.08 P	PK 62.08	PK 62.08 P
<b>Blind cable entry panel</b>	1 pcs.	PK 60.50 GP	PK 60.60 GP	PK 80.50 GP	PK 80.60 GP
<b>Cable panel</b>	1 pcs.	CR 180.20	CR 180.20	CR 180.20	CR 180.20
<b>Vertical rail 19``</b>	4 pcs.	MG 180 IT	MG 180 IT	MG 180 IT	MG 180 IT
<b>19`` rail console</b>	4 pcs.	not required	not required	B 6 G	B 6 G
<b>Rotary frame 19``</b>	1 pcs.	-	-	-	-
<b>Rotary partial frame 19``</b>	1 pcs.	-	-	MC 80.80 IRP	MC 80.80 IRP
<b>Double-sided frame 19``</b>		-	-	-	-

Enclosures 2000 mm high

Cabinet code		MPV 200.60.60	MPV 200.60.80	MPV 200.80.60	MPV 200.80.80
<b>The cabinet includes</b>	<b>Qty.</b>				
<b>Frame with ceiling panel and cable entry</b>	1 pcs.	MF 200.60.60	MF 200.60.80	MF 200.80.60	MF 200.80.80
<b>Mounting panel</b>	-	-	-	-	-
<b>Door</b>	1 pcs.	D 200.60 V	D 200.60 V	D 200.80 V	D 200.80 V
<b>Rear panel</b>	1 pcs.	BP 200.60	BP 200.60	D 200.80	D 200.80
<b>Height (L), mm</b>		2000	2000	2000	2000
<b>Width (M), mm</b>		600	600	800	800
<b>Depth (N), mm</b>		600	800	600	800
<b>Mounting panel height, mm</b>		1932	1932	1932	1932
<b>Mounting panel width, mm</b>		480	480	680	680
<b>Weight, kg</b>		70.1	76.9	83.1	89.9
<b>Components</b>	<b>Qty.</b>				
<b>Mounting panel</b>	1 pcs.	MP 200.60	MP 200.60	MP 200.80	MP 200.80
<b>Side panels</b>	2 pcs.	SP 200.60	SP 200.80	SP 200.60	SP 200.80
<b>Front and rear components of 100 mm high plinth</b>	2 pcs.	ZA 60.00 v.2	ZA 60.00 v.2	ZA 80.00 v.2	ZA 80.00 v.2
<b>Side components of 100 mm high plinth</b>	2 pcs.	ZA 00.60 v.2	ZA 00.80 v.2	ZA 00.80 v.2	ZA 00.80 v.2
<b>Front and rear components of 200 mm high plinth</b>	2 pcs.	ZA 60.00 H v.2	ZA 60.00 H v.2	ZA 80.00 H v.2	ZA 80.00 H v.2
<b>Side components of 200 mm high plinth</b>	2 pcs.	ZA 00.60 H v.2	ZA 00.80 H v.2	ZA 00.60 H v.2	ZA 00.80 H v.2
<b>Eye bolts</b>	4 pcs.	LE 12	LE 12	LE 12	LE 12
<b>Rotary handle with cylinder</b>	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z
<b>Rotary handle without cylinder</b>	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z
<b>Double bit rotary handle</b>	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z
<b>Rotary handle with 7 mm triangle</b>	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z
<b>Ceiling panel with perforation</b>	1 pcs.	R 60.60 P	R 60.80 P	R 80.60 P	R 80.80 P
<b>Ceiling panel with perforation and cable entry</b>	1 pcs.	R 60.60 PK	R 60.80 PK	R 80.60 PK	R 80.80 PK
<b>Protective visor</b>	1 pcs.	R 60.60	R 60.80	R 80.60	R 80.80
<b>Internal door</b>	1 pcs.	ID 200.60	ID 200.60	ID 200.80	ID 200.80
<b>Document pocket</b>	-	-	-	-	-
<b>Door stopper</b>	1 pcs.	SD	SD	SD	SD
<b>Quick release door stopper</b>		-	-	-	-
<b>Blind door rail</b>		-	-	-	-
<b>Separation panel</b>	1 pcs.	SP 200.60 N	SP 200.80 N	SP 200.60 N	SP 200.80 N
<b>Reinforcement kit for seismic zones</b>	1 pcs.	IK 01 EQ 200.60.60	IK 01 EQ 200.60.80	IK 01 EQ 200.80.60	IK 01 EQ 200.80.80
<b>Plinth for seismic zones</b>	1 pcs.	ZA 60.60 EQ	ZA 80.60 EQ	ZA 80.60 EQ	ZA 80.80 EQ
<b>Modular frame</b>	1 pcs.	MC 200.60	MC 200.60	MC 200.80	MC 200.80
<b>Rotary modular frame</b>	1 pcs.	MC 200.60 R	MC 200.60 R	MC 200.80 R	MC 200.80 R
<b>Intermediate mounting panel</b>	1 pcs.	MP 200.11	MP 200.11	MP 200.11	MP 200.11
<b>Touch protection</b>	1 pcs.	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC	PP 200.80 MC
<b>Shelf</b>	1 pcs.	SH 60.60	SH 80.60	SH 80.60	SH 80.80
<b>Pull-out shelf</b>	1 pcs.	SH 60.60 M	-	SH 80.60 M	SH 80.60 M
<b>Screw type support</b>	4 pcs.	F 12.40	F 12.40	F 12.40	F 12.40
<b>Roller</b>	2 pcs.	C 12.125	C 12.125	C 12.125	C 12.125
<b>Roller with brake</b>	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T
<b>Reinforced travel roller</b>	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F
<b>Joint kit</b>	1 pcs.	IK 01	IK 01	IK 01	IK 01
<b>Ventilation panel</b>	1 pcs.	PV 60.60 PK	PV 60.80 PK	PV 80.60 PK	PV 80.80 PK
<b>Cable entry panel</b>	2 pcs.	PK 42.08 P	PK 42.08 P	PK 62.08	PK 62.08
<b>Blind cable entry panel</b>	1 pcs.	PK 60.60 GP	PK 80.60 GP	PK 80.60 GP	PK 80.80 GP
<b>Cable panel</b>	1 pcs.	CR 200.20	CR 200.20	CR 200.20	CR 200.20
<b>Vertical rail 19"</b>	4 pcs.	MG 200 IT	MG 200 IT	MG 200 IT	MG 200 IT
<b>19" rail console</b>	4 pcs.	not required	not required	B 6 G	B 6 G
<b>Rotary frame 19"</b>	1 pcs.	-	-	MC 200.80 IRP	MC 200.80 IRP
<b>Rotary partial frame 19"</b>	1 pcs.	-	-	MC 80.80 IRP	MC 80.80 IRP
<b>Double-sided frame 19"</b>	1 pcs.	-	-	MC 200.80 ID	MC 200.80 ID

Enclosures 2200 mm high

Cabinet code		MPV 220.60.60	MPV 220.60.80	MPV 220.80.60	MPV 220.80.80
The cabinet includes	Qty.				
Frame with ceiling panel and cable entry	1 pcs.	MF 220.60.60	MF 220.60.80	MF 220.80.60	MF 220.80.80
Mounting panel	-	-	-	-	-
Door	1 pcs.	D 220.60	D 220.60	D 220.80	D 220.80
Rear panel	1 pcs.	BP 220.60	BP 220.60	BP 220.80	BP 220.80
Height (L), mm		2200	2200	2200	2200
Width (M), mm		600	600	800	800
Depth (N), mm		600	800	600	800
Mounting panel height, mm		2132	2132	2132	2132
Mounting panel width, mm		480	480	480	480
Weight, kg		78.5	84.3	103.9	110.9
Components	Qty.				
Mounting panel	1 pcs.	MP 220.60	MP 220.60	MP 220.80	MP 220.80
Side panels	2 pcs.	SP 220.60	SP 220.80	SP 220.60	SP 220.80
Front and rear components of 100 mm high plinth	2 pcs.	ZA 60.00 v.2	ZA 60.00 v.2	ZA 80.00 v.2	ZA 80.00 v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.60 v.2	ZA 00.80 v.2	ZA 00.60 v.2	ZA 00.80 v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 60.00 H v.2	ZA 60.00 H v.2	ZA 80.00 H v.2	ZA 80.00 H v.2
Side components of 200 mm high plinth	2 pcs.	ZA 00.60 H v.2	ZA 00.80 H v.2	ZA 00.60 H v.2	ZA 00.80 H v.2
Eye bolts	4 pcs.	LE 12	LE 12	LE 12	LE 12
Rotary handle with cylinder	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z
Rotary handle without cylinder	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z
Double bit rotary handle	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z
Rotary handle with 7 mm triangle	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z
Ceiling panel with perforation	1 pcs.	R 60.60 P	R 60.80 P	R 80.60 P	R 80.80 P
Ceiling panel with perforation and cable entry	1 pcs.	R 60.60 PK	R 60.80 PK	R 80.60 PK	R 80.80 PK
Protective visor	1 pcs.	R 60.60	R 60.80	R 80.60	R 80.80
Internal door	1 pcs.	ID 220.60	ID 220.60	ID 220.80	ID 220.80
Document pocket	1 pcs.	-	-	-	-
Door stopper	1 pcs.	SD	SD	SD	SD
Quick release door stopper	1 pcs.	-	-	-	-
Blind door rail	10 pcs.	-	-	-	-
Separation panel	1 pcs.	SP 220.60 N	SP 220.80 N	SP 220.60 N	SP 220.80 N
Reinforcement kit for seismic zones	1 pcs.	IK 01 EQ 220.60.60	IK 01 EQ 220.60.80	IK 01 EQ 220.80.60	IK 01 EQ 220.80.80
Plinth for seismic zones	1 pcs.	ZA 60.60 EQ	ZA 80.60 EQ	ZA 80.60 EQ	ZA 80.80 EQ
Modular frame	1 pcs.	MC 220.60	MC 220.60	MC 220.80	MC 220.80
Rotary modular frame	1 pcs.	MC 220.60 R	MC 220.60 R	-	-
Intermediate mounting panel	1 pcs.	MP 220.11	MP 220.11	MP 220.11	MP 220.11
Touch protection	1 pcs.	PP 220.80 MC	PP 220.80 MC	PP 220.80 MC	PP 220.80 MC
Shelf	1 pcs.	SH 60.60	SH 80.60	SH 80.60	SH 80.80
Pull-out shelf	1 pcs.	SH 60.60 M	-	SH 80.60 M	-
Screw type support	4 pcs.	F 12.40	F 12.40	F 12.40	F 12.40
Roller	2 pcs.	C 12.125	C 12.125	C 12.125	C 12.125
Roller with brake	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T
Reinforced travel roller	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F
Joint kit	1 pcs.	IK 01	IK 01	IK 01	IK 01
Ventilation panel	1 pcs.	PV 60.60 PK	PV 60.80 PK	PV 80.60 PK	PV 80.80 PK
Cable entry panel	2 pcs.	PK 42.08 P	PK 42.08 P	PK 62.08	PK 62.08
Blind cable entry panel	1 pcs.	PK 60.60 GP	PK 80.60 GP	PK 80.60 GP	PK 80.80 GP
Cable panel	1 pcs.	CR 220.20	CR 220.20	CR 220.20	CR 220.20
Vertical rail 19"	4 pcs.	MG 220 IT	MG 200 IT	MG 200 IT	MG 220 IT
19" rail console	4 pcs.	not required	not required	B 6 G	B 6 G
Rotary frame 19"	1 pcs.	-	-	-	-
Rotary partial frame 19"	1 pcs.	-	-	MC 80.80 IRP	MC 80.80 IRP
Double-sided frame 19"	1 pcs.	-	-	-	-

WALL TYPE  
Ex  
FLOOR TYPE  
IT  
CONTROL  
TERMINALS  
IP  
MODIFIED  
ACCESSORIES  
INFORMATION



**Degree of protection:**

IP55, IK10. To achieve IP55 protection rating, SP X.Y side walls are used along with cable entry panels of standard configuration. Protection rating IP65 if SP X.Y side walls are used with PK X.Y GP blind cable entry panel. MSK-64 scale 8 points without reinforcement kit use, 9 points at 70 meters using reinforcement kit for seismic zones

**Climate class:** UHL1 (moderately cold)

**Material:**

**frame and doors:** 2.0 mm sheet steel

**panels:** 1.5 mm sheet steel

**mounting panel:** 2.5 mm sheet steel

**Surface:**

**frame, door, panels:** structural powder coating RAL 7035

**mounting panel:** zinc coating

**Sealing:**

**doors and panels:** polyurethane foam

**Lock:**

double bit four-point rod type

**Hinge:**

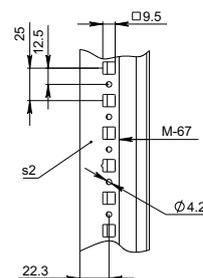
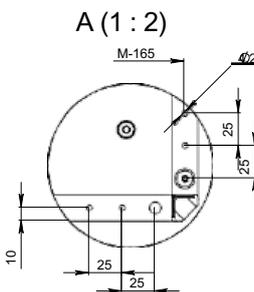
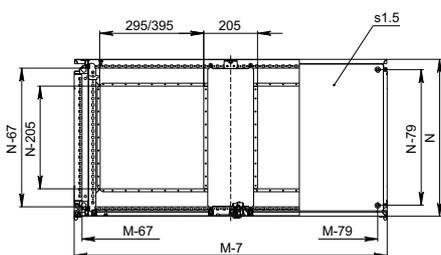
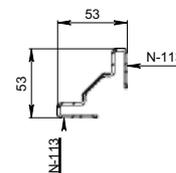
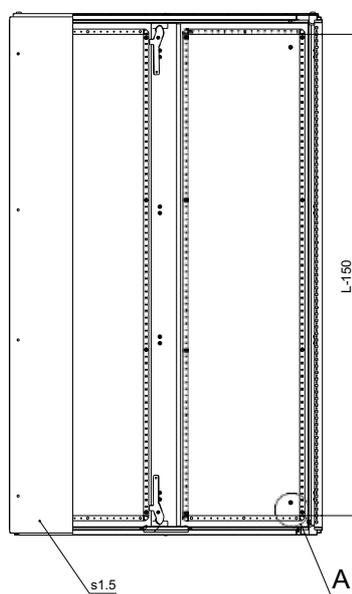
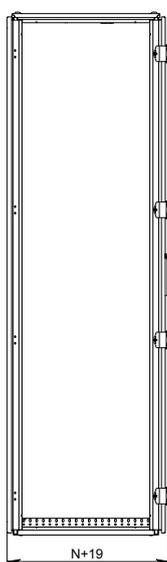
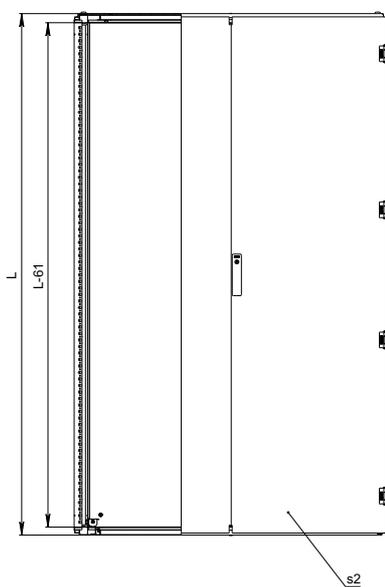
≤ 225° opening angle

**Delivery scope:**

frame with ceiling panel and cable entry panels, door kit, rear panel, mounting panel, key, packaging, technical passport

**Options:**

paint special color (RAL 3020, RAL 7004, etc.), special dimensions, extra holes



Enclosures 1200 and 1800 mm high

Cabinet code		MPD 120.80.50	MPD 180.100.40	MPD 180.120.40	MPD 180.120.50	MPD 180.120.60
The cabinet includes	Qty.					
<b>Frame with ceiling panel and cable entry</b>	1 pcs.	MF 120.80.50	MF 180.100.40	MF 180.120.40	MF 180.120.50	MF 180.120.60
Mounting panel	1 pcs.	MP 120.80	MP 180.100	MP 180.120	MP 180.120	MP 180.120
Door	1 pcs.	D 120.80	D 180.100	D 180.120	D 180.120	D 180.120
Rear panel	1 pcs.	BP 120.80	BP 180.100	BP 180.120	BP 180.120	BP 180.120
Height (L), mm		1200	1800	1800	1800	1800
Width (M), mm		800	1000	1200	1200	1200
Depth (N), mm		500	400	400	500	600
Mounting panel height, mm		1132	1732	1732	1732	1732
Mounting panel width, mm		680	880	1080	1080	1080
Weight, kg		60	126.9	146.9	149.9	155.5
Components	Qty.					
Side panels	2 pcs.	SP 120.50	SP 180.40	SP 180.40	SP 180.500	SP 180.60
Front and rear components of 100 mm high plinth	2 pcs.	ZA 80.00 v.2	ZA 100.00 v.2	ZA 120.00 v.2	ZA 120.00 v.2	ZA 120.00 v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.50 v.2	ZA 00.40 v.2	ZA 00.40 v.2	ZA 00.50 v.2	ZA 00.60 v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 80.00 H v.2	ZA 100.00 H v.2	ZA 120.00 H v.2	ZA 120.00 H v.2	ZA 120.00 H v.2
Side components of 200 mm high plinth	2 pcs.	ZA 00.50 H v.2	ZA 00.40 H v.2	ZA 00.40 H v.2	ZA 00.50 H v.2	ZA 00.60 H v.2
Eye bolts	4 pcs.	LE 12	LE 12	LE 12	LE 12	LE 12
Rotary handle with cylinder	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z
Rotary handle without cylinder	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z
Double bit rotary handle	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z
Rotary handle with 7 mm triangle	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z
Ceiling panel with perforation	1 pcs.	-	-	-	-	-
Ceiling panel with perforation and cable entry	1 pcs.	-	-	-	-	-
Viewing window	1 pcs.	-	-	FT 67.60 / FT 37.60	FT 67.60 / FT 37.60	FT 67.60 / FT 37.60
Protective visor	1 pcs.	R 80.50	R 100.40	R 120.40	R 120.50	R 120.60
Internal door	1 pcs.	-	-	-	-	-
Document pocket	1 pcs.	DP 40 M	DP 50 M	DP 60 M	DP 60 M	DP 60 M
Door stopper	1 pcs.	SD	SD	SD	SD	SD
Quick release door stopper	1 pcs.	SD P	SD P	SD P	SD P	SD P
Blind door rail	10 pcs.	VB 40 G	VB 50 G	VB 60 G	VB 60 G	VB 60 G
Separation panel	1 pcs.	SP 180.50 N	SP 180.60 N	SP 180.50 N	SP 180.60 N	SP 200.60 N
Reinforcement kit for seismic zones	1 pcs.	IK 01 EQ 120.80.50	-	-	-	IK 01 EQ 180.120.60
Plinth for seismic zones	1 pcs.	ZA 80.50 EQ	ZA 100.40 EQ	ZA 120.40 EQ	-	ZA 120.60 EQ
Modular frame	1 pcs.	-	-	-	-	-
Rotary modular frame	1 pcs.	-	-	-	-	-
Intermediate mounting panel	1 pcs.	-	MP 180.11	MP 180.11	MP 180.11	MP 180.11
Touch protection	1 pcs.	-	-	-	-	-
Shelf	1 pcs.	-	-	-	-	-
Pull-out shelf	1 pcs.	-	-	-	-	-
Screw type support	4 pcs.	F 12.40	F 12.40	F 12.40	F 12.40	F 12.40
Roller	2 pcs.	C 12.125	C 12.125	C 12.125	C 12.125	C 12.125
Roller with brake	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T
Reinforced travel roller	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F
Joint kit	1 pcs.	IK 01	IK 01	IK 01	IK 01	IK 01
Ventilation panel	1 pcs.	-	-	-	-	PV 60.60 PK
Cable entry panel	2 pcs.	PK 62.08 P	PK 32.08 P	PK 42.08 P	PK 42.08 P	PK 42.08 P
Blind cable entry panel	1 pcs.	PK 80.50 GP	PK 100.40 GP	PK 120.40 GP	-	PK 120.60 GP
Cable panel	1 pcs.	-	CR 180.20	CR 180.20	CR 180.20	CR 180.20
Vertical rail 19``	4 pcs.	MG 120 IT	-	-	-	-
19`` rail console	4 pcs.	B 6 G	-	-	-	-
Rotary frame 19``	1 pcs.	-	-	-	-	-
Rotary partial frame 19``	1 pcs.	MC 80.80 IRP	-	-	-	-
Double-sided frame 19``	1 pcs.	-	-	-	-	-

Enclosures 2000 mm high

Cabinet code		MPD 200.100.40	MPD 200.100.50	MPD 200.100.60	MPD 200.100.80	MPD 200.120.40	MPD 200.120.50	MPD 200.120.60
<b>The cabinet includes</b>	<b>Qty.</b>							
Frame with ceiling panel and cable entry	1 pcs.	MF 200.100.40	MF 200.100.50	MF 200.100.60	MF 200.100.80	MF 200.120.40	MF 200.120.50	MF 200.120.60
Mounting panel	1 pcs.	MP 200.100	MP 200.100	MP 200.100	MP 200.100	MP 200.120	MP 200.120	MP 200.120
Door	1 pcs.	D 200.100	D 200.100	D 200.100	D 200.100	D 200.120	D 200.120	D 200.120
Rear panel	1 pcs.	BP 200.100	BP 200.100	BP 200.100	BP 200.100	BP 200.120	BP 200.120	BP 200.120
Height (L), mm		2000	2000	2000	2000	2000	2000	2000
Width (M), mm		1000	1000	1000	1000	1200	1200	1200
Depth (N), mm		400	500	600	800	400	500	600
Mounting panel height, mm								
Mounting panel width, mm								
Weight, kg								
<b>Components</b>	<b>Qty.</b>							
Side panels	2 pcs.	SP 200.40	SP 200.50	SP 200.60	SP 200.80	SP 200.40	SP 200.50	SP 200.60
Front and rear components of 100 mm high plinth	2 pcs.	ZA 100.00 v.2	ZA 100.00 v.2	ZA 100.00 v.2	ZA 100.00 v.2	ZA 120.00 v.2	ZA 120.00 v.2	ZA 120.00 v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.40 v.2	ZA 00.50 v.2	ZA 00.60 v.2	ZA 00.80 v.2	ZA 00.40 v.2	ZA 00.50 v.2	ZA 00.60 v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 100.00 H v.2	ZA 120.00 H v.2	ZA 120.00 H v.2	ZA 120.00 H v.2			
Side components of 200 mm high plinth	2 pcs.	ZA 00.40 H v.2	ZA 00.50 H v.2	ZA 00.60 H v.2	ZA 00.80 H v.2	ZA 00.40 H v.2	ZA 00.50 H v.2	ZA 00.60 H v.2
Eye bolts	4 pcs.	LE 12						
Rotary handle with cylinder	1 pcs.	LH 1C.Z						
Rotary handle without cylinder	1 pcs.	LH 2C.Z						
Double bit rotary handle	1 pcs.	LH 3C.Z						
Rotary handle with 7 mm triangle	1 pcs.	LH 4C.Z						
Ceiling panel with perforation	1 pcs.	-	-	R 60.100 P	R 80.100 P	-	-	-
Ceiling panel with perforation and cable entry	1 pcs.	-	-	R 60.100 PK	R 80.100 PK	-	-	-
Viewing window	1 pcs.	-	-	-	-	FT 67.60 / FT 37.60	FT 67.60 / FT 37.60	FT 67.60 / FT 37.60
Protective visor	1 pcs.	R 100.40	R 100.50	R 100.60	R 100.80	R 120.40	R 120.50	R 120.60
Internal door	1 pcs.	-	-	-	-	-	-	ID 220.80
Document pocket	1 pcs.	DP 50 M	DP 50 M	DP 50 M	DP 50 M	DP 60 M	DP 60 M	DP 60 M
Door stopper	1 pcs.	SD						
Quick release door stopper	1 pcs.	SD P						
Blind door rail	10 pcs.	VB 50 G	VB 50 G	VB 50 G	VB 50 G	VB 60 G	VB 60 G	VB 60 G
Separation panel	1 pcs.	SP 200.80 N	SP 200.60 N	SP 200.80 N	SP 220.60 N	SP 220.80 N	SP 220.60 N	SP 220.80 N
Reinforcement kit for seismic zones	1 pcs.	IK 01 EQ 200.100.40	IK 01 EQ 200.100.50	IK 01 EQ 200.100.60	IK 01 EQ 200.100.80	IK 01 EQ 200.120.40	-	IK 01 EQ 200.120.60
Plinth for seismic zones	1 pcs.	ZA 100.40 EQ	ZA 100.50 EQ	ZA 60.100 EQ	ZA 80.100 EQ	ZA 120.40 EQ	-	ZA 120.60 EQ
Modular frame	1 pcs.	-	-	-	-	MC 200.120	MC 200.120	MC 200.120
Rotary modular frame	1 pcs.	-	-	-	-	-	-	-
Intermediate mounting panel	1 pcs.	MP 200.11						
Touch protection	1 pcs.	-	-	-	-	PP 200.120 MC	PP 200.120 MC	PP 200.120 MC
Shelf	1 pcs.	-	-	-	-	-	-	-
Pull-out shelf	1 pcs.	-	-	-	-	-	-	-
Screw type support	4 pcs.	F 12.40						
Roller	2 pcs.	C 12.125						
Roller with brake	2 pcs.	C 12.125 T						
Reinforced travel roller	4 pcs.	C 12.82 F						
Joint kit	1 pcs.	IK 01						
Ventilation panel	1 pcs.	-	-	-	-	-	-	PV 60.60 PK
Cable entry panel	2 pcs.	PK 32.08 P	PK 32.08 P	PK 32.08 P	PK 32.08 P	PK 42.08 P	PK 42.08 P	PK 42.08 P
Blind cable entry panel	1 pcs.	PK 100.40 GP	PK 100.50 GP	PK 100.60 GP	PK 100.80 GP	PK 120.40 GP	-	PK 120.60 GP
Cable panel	1 pcs.	CR 200.20						
Vertical rail 19"	4 pcs.	-	-	-	-	-	-	-
19" rail console	4 pcs.	-	-	-	-	-	-	-
Rotary frame 19"	1 pcs.	-	-	-	-	-	-	-
Rotary partial frame 19"	1 pcs.	-	-	-	-	-	-	-
Double-sided frame 19"	1 pcs.	-	-	-	-	-	-	-

## Enclosures 2200 mm high

Cabinet code		MPD 220.100.60	MPD 220.100.80	MPD 220.120.60
<b>The cabinet includes</b>	<b>Qty.</b>			
Frame with ceiling panel and cable entry	1 pcs.	MF 220.100.60	MF 220.100.80	MF 220.120.60
Mounting panel	1 pcs.	MP 220.100	MP 220.100	MP 220.120
Door	1 pcs.	D 220.100	D 220.100	D 220.120
Rear panel	1 pcs.	BP 220.100	BP 220.100	BP 220.120
Height (L), mm		2200	2200	2200
Width (M), mm		1000	1000	1200
Depth (N), mm		600	800	600
Mounting panel height, mm		2132	2132	2132
Mounting panel width, mm		880	880	1080
Weight, kg		156.3	160	181.9
<b>Components</b>	<b>Qty.</b>			
Side panels	2 pcs.	SP 220.60	SP 220.80	SP 220.60
Front and rear components of 100 mm high plinth	2 pcs.	ZA 100.00 v.2	ZA 100.00 v.2	ZA 120.00 v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.60 v.2	ZA 00.80 v.2	ZA 00.60 v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 100.00 H v.2	ZA 100.00 H v.2	ZA 120.00 H v.2
Side components of 200 mm high plinth	2 pcs.	ZA 00.60 H v.2	ZA 00.80 H v.2	ZA 00.60 H v.2
Eye bolts	4 pcs.	LE 12	LE 12	LE 12
Rotary handle with cylinder	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z
Rotary handle without cylinder	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z
Double bit rotary handle	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z
Rotary handle with 7 mm triangle	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z
Ceiling panel with perforation	1 pcs.	R 60.100 P	R 80.100 P	-
Ceiling panel with perforation and cable entry	1 pcs.	R 60.100 PK	R 80.100 PK	-
Viewing window		-	-	FT 67.60 / FT 37.60
Protective visor	1 pcs.	R 100.60	R 100.80	R 120.60
Internal door	1 pcs.	-	-	-
Document pocket	1 pcs.	DP 50 M	DP 50 M	DP 60 M
Door stopper	1 pcs.	SD	SD	SD
Quick release door stopper	1 pcs.	SD P	SD P	SD P
Blind door rail	10 pcs.	VB 50 G	VB 50 G	VB 60 G
Separation panel	1 pcs.	SP 220.60 N	SP 220.80 N	SP 220.60 N
Reinforcement kit for seismic zones	1 pcs.	-	-	IK 01 EQ 220.120.60
Plinth for seismic zones	1 pcs.	ZA 60.100 EQ	ZA 80.100 EQ	ZA 120.60 EQ
Modular frame	1 pcs.	MC 220.100	MC 220.100	-
Rotary modular frame	1 pcs.	-	-	-
Intermediate mounting panel	1 pcs.	MP 220.11	MP 220.11	MP 220.11
Touch protection	1 pcs.	-	-	-
Shelf	1 pcs.	-	-	-
Pull-out shelf	1 pcs.	-	-	-
Screw type support	4 pcs.	F 12.40	F 12.40	F 12.40
Roller	2 pcs.	C 12.125	C 12.125	C 12.125
Roller with brake	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T
Reinforced travel roller	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F
Joint kit	1 pcs.	IK 01	IK 01	IK 01
Ventilation panel	1 pcs.	-	-	PV 60.60 PK
Cable entry panel	2 pcs.	PK 32.08 P	PK 32.08 P	PK 42.08 P
Blind cable entry panel	1 pcs.	PK 100.60 GP	PK 100.80 GP	PK 120.60 GP
Cable panel	1 pcs.	CR 220.20	CR 220.20	CR 220.20
Vertical rail 19``	4 pcs.	-	-	-
19`` rail console	4 pcs.	-	-	-
Rotary frame 19``	1 pcs.	-	-	-
Rotary partial frame 19``	1 pcs.	-	-	-
Double-sided frame 19``	1 pcs.	-	-	-



**Degree of protection:**

IP55, IK10. To achieve IP55 protection rating, SP X.Y S side walls are used along with cable entry panels of standard configuration. MSK-64 scale 8 points without reinforcement kit use, 9 points with reinforcement kit use at seismic zones

**Climate class:** UHL1 (moderately cold)

**Material:**

**frame and doors:** 1.5 mm corrosion-resistant sheet steel AISI 304

**panels:** 1.5 mm sheet steel

**mounting panel:** 2.5 mm sheet steel

**Surface:**

**door and panels:** honed

**mounting panel:** zinc coating

**Sealing:**

**doors and panels:** polyurethane foam

**Lock:**

double bit four-point rod type

**Hinge:**

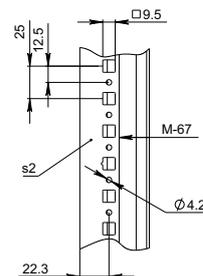
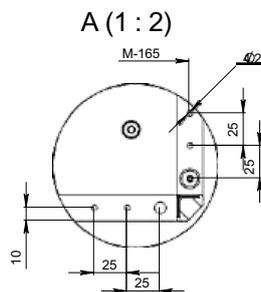
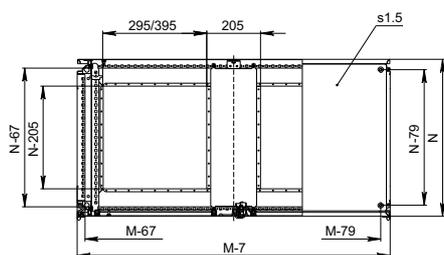
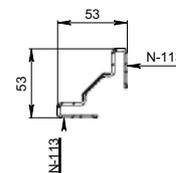
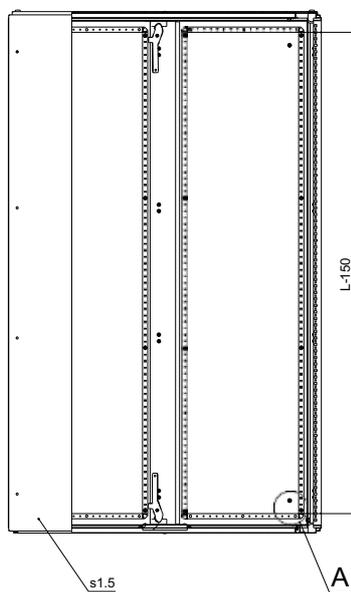
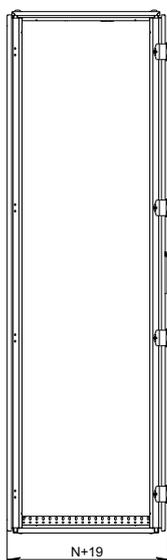
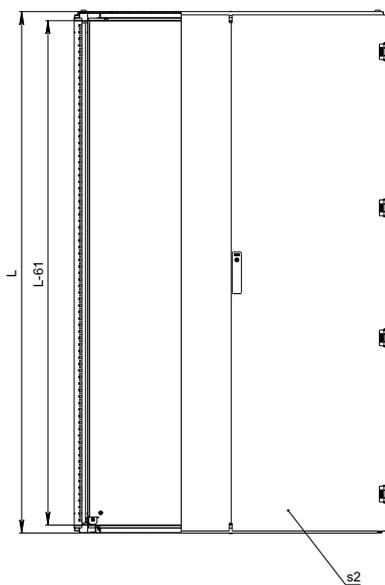
≤ 225° opening angle

**Delivery scope:**

frame with ceiling panel and cable entry panels, door, rear panel, mounting panel, mounting crossbeam, key, packaging, technical passport

**Options:**

special dimensions, extra holes, painting



## Enclosures 1800 and 2000 mm high

Cabinet code		SPD 180.100.40	SPD 180.120.40	SPD 180.120.50	SPD 200.120.60
The cabinet includes	Qty.				
Frame with ceiling panel and cable entry	1 pcs.	Frame	Frame	Frame	Frame
Mounting panel	1 pcs.	MP 180.100	MP 180.120	MP 180.120	MP 200.120
Door	1 pcs.	Door	Door	Door	Door
Rear panel	1 pcs.	Rear panel	Rear panel	Rear panel	Rear panel
Height (L), mm		1800	1800	1800	2000
Width (M), mm		1000	1200	1200	1200
Depth (N), mm		400	400	500	600
Mounting panel height, mm		1732	1732	1732	1932
Mounting panel width, mm		880	1080	1080	1080
Weight, kg		126	146	150	166
Components	Qty.				
Side panels	2 pcs.	SP 180.40 S	SP 180.40 S	SP 180.500 S	SP 200.60 S
Front and rear components of 100 mm high plinth	2 pcs.	ZA 100.00 S v.2	ZA 120.00 S v.2	ZA 120.00 S v.2	ZA 120.00 S v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.40 S v.2	ZA 00.40 S v.2	ZA 00.50 S v.2	ZA 00.60 S v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 100.00 HS v.2	ZA 120.00 HS v.2	ZA 120.00 HS v.2	ZA 120.00 HS v.2
Side components of 200 mm high plinth	2 pcs.	ZA 00.40 HS v.2	ZA 00.40 HS v.2	ZA 00.50 HS v.2	ZA 00.60 HS v.2
Eye bolts	4 pcs.	LE 12	LE 12	LE 12	LE 12
Rotary handle with cylinder	1 pcs.	LH 1C.Z	LH 1C.Z	LH 1C.Z	LH 1C.Z
Rotary handle without cylinder	1 pcs.	LH 2C.Z	LH 2C.Z	LH 2C.Z	LH 2C.Z
Double bit rotary handle	1 pcs.	LH 3C.Z	LH 3C.Z	LH 3C.Z	LH 3C.Z
Rotary handle with 7 mm triangle	1 pcs.	LH 4C.Z	LH 4C.Z	LH 4C.Z	LH 4C.Z
Ceiling panel with perforation	1 pcs.	-	-	-	-
Ceiling panel with perforation and cable entry	1 pcs.	-	-	-	-
Viewing window		-	FT 67.60 / FT 37.60	FT 67.60 / FT 37.60	FT 67.60 / FT 37.60
Protective visor	1 pcs.	-	R 120.40 S	R 120.50 S	R 120.60 S
Internal door	1 pcs.	-	-	-	ID 220.80
Document pocket	1 pcs.	DP 50 M	DP 60 M	DP 60 M	DP 60 M
Door stopper	1 pcs.	SD	SD	SD	SD
Quick release door stopper	1 pcs.	SD P	SD P	SD P	SD P
Blind door rail	10 pcs.	VB 50 G	VB 60 G	VB 60 G	VB 60 G
Separation panel	1 pcs.	SP 180.60 N	SP 180.50 N	SP 180.60 N	SP 220.80 N
Reinforcement kit for seismic zones	1 pcs.	-	IK 01 EQ 180.120.40	-	IK 01 EQ 200.120.60
Plinth for seismic zones	1 pcs.	ZA 100.40 EQ	ZA 120.40 EQ	-	ZA 120.60 EQ
Modular frame	1 pcs.	-	-	-	MC 200.120
Rotary modular frame	1 pcs.	-	-	-	-
Intermediate mounting panel	1 pcs.	MP 180.11	MP 180.11	MP 180.11	MP 200.11
Touch protection	1 pcs.	-	-	-	PP 200.120 MC
Shelf	1 pcs.	-	-	-	-
Pull-out shelf	1 pcs.	-	-	-	-
Screw type support	4 pcs.	F 12.40	F 12.40	F 12.40	F 12.40
Roller	2 pcs.	C 12.125	C 12.125	C 12.125	C 12.125
Roller with brake	2 pcs.	C 12.125 T	C 12.125 T	C 12.125 T	C 12.125 T
Reinforced travel roller	4 pcs.	C 12.82 F	C 12.82 F	C 12.82 F	C 12.82 F
Joint kit	1 pcs.	IK 01	IK 01	IK 01	IK 01
Ventilation panel	1 pcs.	-	-	-	PV 60.60 PK
Cable entry panel	2 pcs.	PK 32.08 P	PK 42.08 P	PK 42.08 P	PK 42.08 P
Blind cable entry panel	1 pcs.	PK 100.40 GPS	-	-	-
Cable panel	1 pcs.	CR 180.20	CR 180.20	CR 180.20	CR 200.20
Vertical rail 19``	4 pcs.	-	-	-	-
19`` rail console	4 pcs.	-	-	-	-
Rotary frame 19``	1 pcs.	-	-	-	-
Rotary partial frame 19``	1 pcs.	-	-	-	-
Double-sided frame 19``	1 pcs.	-	-	-	-



**Degree of protection:**

IP55, IK08

**Material:**

**frame and doors:** 2.0 mm sheet steel 4.0 mm hardened glass  
**panels and shelves:** 1.5 mm sheet steel

**Surface:**

structural powder coating RAL 7035

**Sealing:**

**doors and panels:** polyurethane foam

**Lock:**

tongue type with cylinder

**Hinge:**

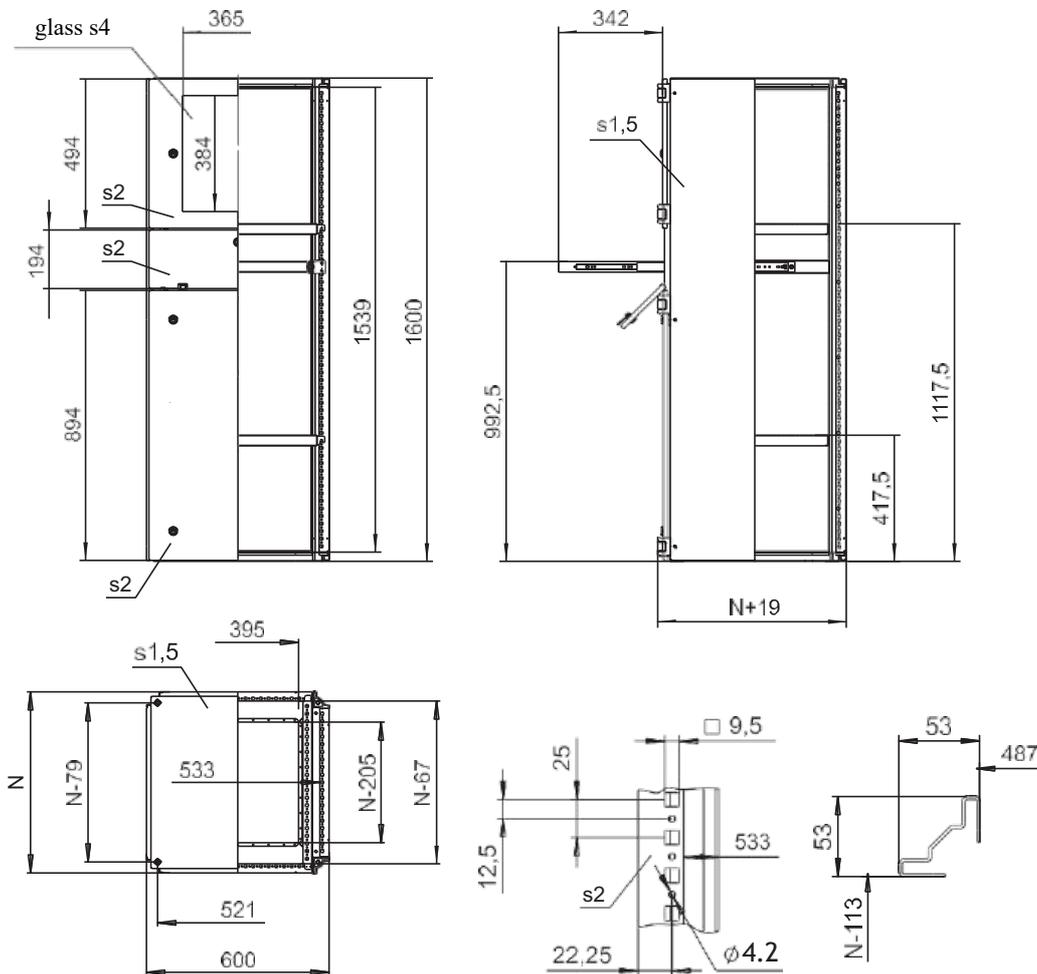
≤ 225° opening angle

**Delivery scope:**

frame with ceiling panel and cable entry panels, door kit, two side panels, monitor shelf, keyboard pull-out shelf, system unit shelf, two keys, packaging

**Options:**

paint special color



Cabinet code		MKM 160.60.60	MKM 160.60.80
<b>The cabinet includes</b>	<b>Qty.</b>		
Frame with ceiling panel and cable entry	1 pcs.	MF 160.60.60	MF 160.60.80
Mounting panel	-	-	-
<b>Doors:</b>			
Sectional viewing door	1 pcs.	D 50.60 MV	D 50.60 MV
Sectional flap door	1 pcs.	D 20.60 MK	D 20.60 MK
Sectional door	1 pcs.	D 90.60 M	D 90.60 M
Shelf	2 pcs.	SH 60.60	SH 60.80
Pull-out shelf	1 pcs.	SH 60.60 M	SH 60.60 M
Rear panel		BP 160.60	BP 160.60
Side panels	2 pcs.	SP 160.60	SP 160.80
Height, mm		1600	1600
Width, mm		600	600
Depth, mm		600	800
Weight, kg		88.9	104
<b>Components</b>	<b>Qty.</b>		
Front and rear components of 100 mm high plinth	2 pcs.	ZA 60.00 v.2	ZA 60.00 v.2
Side components of 100 mm high plinth	2 pcs.	ZA 00.60 v.2	ZA 00.80 v.2
Front and rear components of 200 mm high plinth	2 pcs.	ZA 60.00 H v.2	ZA 60.00 H v.2
Side components of 200 mm high plinth	2 pcs.	ZA 00.60 H v.2	ZA 00.80 H v.2
Eye bolts	4 pcs.	LE 12	LE 12
Zinc cylinder lock with rotary handle	1 pcs.	LC 1C.ZH	LC 1C.ZH
Ceiling panel with perforation	1 pcs.	R 60.60 P	R 60.80 P
Ceiling panel with perforation and cable entry	1 pcs.	R 60.60 PK	R 60.80 PK
Protective visor	1 pcs.	R 60.60	R 60.80
Internal door	1 pcs.	-	-
Document pocket	1 pcs.	DP 60 M	DP 60 M
Door stopper	1 pcs.	SD	SD
Quick release door stopper	1 pcs.	SD P	SD P
Blind door rail	10 pcs.	VB 60 G	VB 60 G
Separation panel	1 pcs.	-	-
Reinforcement kit for seismic zones	1 pcs.	IK 01 EQ 160.60.60	IK 01 EQ 160.60.80
Plinth for seismic zones	1 pcs.	ZA 60.60 EQ	ZA 80.60 EQ
Modular frame	1 pcs.	-	-
Rotary modular frame	1 pcs.	-	-
Intermediate mounting panel	1 pcs.	-	-
Touch protection	1 pcs.	-	-
Shelf	1 pcs.	SH 60.60	SH 60.60
Pull-out shelf	1 pcs.	SH 60.60 M	-
Screw type support	4 pcs.	F 12.40	F 12.40
Roller	2 pcs.	C 12.125	C 12.125
Roller with brake	2 pcs.	C 12.125 T	C 12.125 T
Reinforced travel roller	4 pcs.	C 12.82 F	C 12.82 F
Ventilation panel	1 pcs.	PV 60.60 PK	PV 60.80 PK
Cable entry panel	2 pcs.	PK 42.08 P	PK 42.08 P
Blind cable entry panel	1 pcs.	PK 60.60 GP	PK 80.60 GP
Cable panel	1 pcs.	-	-
Vertical rail 19``	4 pcs.	-	-
19`` rail console	4 pcs.	-	-
Rotary frame 19``	1 pcs.	-	-
Rotary partial frame 19``	1 pcs.	-	-
Double-sided frame 19``	1 pcs.	-	-



Galv. flanged screw  
M6x25 ISO 7380  
ULF



**Degree of protection:**

IP55, IK10(08)

**Material:**

**frame:** 2.0 mm sheet steel

**doors:** 2.0 mm sheet steel 4.0 mm hardened glass

**panels:** 1.5 mm sheet steel

**mounting panel:** 2.5 mm sheet steel

**Surface:**

**frame, door, panels:** structural powder coating RAL 7035

**mounting panel:** zinc coating

**Sealing:**

**doors and panels:** polyurethane foam

**Lock:**

double bit four-point rod type

**Hinge:**

≤ 225° opening angle

**Delivery scope:**

the cabinet is configured individually at PDS (Provento Data System) according to the client's requirements. The cabinet can include: frame, doors, sectional doors, rear panel, side panels, sectional panels, mounting panels, key, packaging, technical passport

**Options:**

paint special RAL color 3020, 7004, 7005, 9005, 9016

Custom cabinets can include modular front doors and panels:

- Sectional doors



- Sectional panels



- End panel



- Separation plank



Enclosures 1200, 1400, 1600 and 1800 mm high

The table shows a list of standard sizes and components for custom cabinets. When a cabinet is ordered through the kit designer, it is assigned a unique code. All cabinets are delivered as assembled units.



Height, mm	Width, mm	Depth, mm	Frame code	Weight, kg	Code of frame with addit. cable entry*	Weight, kg	Blind door code	Weight, kg	Double blind door code	Weight, kg
1200	600	500	MF 120.60.50	28						
1200	600	600	MF 120.60.60	25	MF 120.60.60 D	25	D 120.60	11.7		
1200	600	800	MF 120.60.80	30						
1200	800	500	MF 120.80.50	28						
1200	800	600	MF 120.80.60	30			D 120.80	17.5	D 120.80 D	18
1200	800	800	MF 120.80.80	34	MF 120.80.80 D	40.5				
1400	600	400	MF 140.60.40	20			D 140.60	15		
1400	600	600	MF 140.60.60	25						
1600	400	400	MF 160.40.40	22			D 160.40	13		
1600	600	400	MF 160.60.40	24						
1600	600	500	MF 160.60.50	28			D 160.60	21.9		
1600	600	600	MF 160.60.60	30						
1600	600	800	MF 160.60.80	34						
1600	800	400	MF 160.80.40	34			D 160.80	24		
1800	400	400	MF 180.40.40	24						
1800	400	500	MF 180.40.50	24.4			D 180.40	16.1		
1800	400	600	MF 180.40.60	25.7						
1800	600	1000	MF 180.60.100	41.8	MF 180.60.100 D	41.8				
1800	600	400	MF 180.60.40	25.7	MF 180.60.40 D	25.7				
1800	600	500	MF 180.60.50	27.5			D 180.60	21.9	D 180.60 D	21.4
1800	600	600	MF 180.60.60	33.4	MF 180.60.60 D	29.5				
1800	600	800	MF 180.60.80	37.8	MF 180.60.80 D	37.8				
1800	800	1000	MF 180.80.100	47.8	MF 180.80.100 D	47.8				
1800	800	400	MF 180.80.40	27	MF 180.80.40 D	27.5				
1800	800	500	MF 180.80.50	31.1			D 180.80	27.7	D 180.80 D	36.4
1800	800	600	MF 180.80.60	34	MF 180.80.60 D	34				
1800	800	800	MF 180.80.80	43.1	MF 180.80.80 D	43.1				
1800	1000	400	MF 180.100.40	31.9						
1800	1000	500	MF 180.100.50	44					D 180.100 D	38
1800	1000	600	MF 180.100.60	48.2						
1800	1000	800	MF 180.100.80	47.8						
1800	1200	400	MF 180.120.40	34.9	MF 180.120.40 D	34.9				
1800	1200	500	MF 180.120.50	37.1					D 180.120 D	43.9
1800	1200	600	MF 180.120.60	41.9						

Enclosures 1200, 1400, 1600 and 1800 mm high



Viewing door code	Weight, kg	Code perforated door*	Weight, kg	Code rear panel	Weight, kg	Code side panel	Weight, kg	Solid mounting panel code	Weight, kg	Microperforated mounting panel code	Weight, kg
D 120.60 V	0	D 120.60 P	8	BP 120.60	8.3	SP 120.50	6.5	MP 120.60	12		
						SP 120.60	7.8				
						SP 120.80	9.7				
D 120.80 V	0	D 120.80 P	10.6	BP 120.80	11	SP 120.50	6.5	MP 120.80	18		
						SP 120.60	7.8				
						SP 120.80	9.7				
				BP 140.60	9	SP 140.40	12	MP 140.60	15.5		
						SP 140.60	18				
				BP 160.40	7.6	SP 160.40	21.5	MP 160.40			
				BP 160.60	11	SP 160.40	21.5	MP 160.60	19.5		
						SP 160.50	17.4				
D 160.60 V	16					SP 160.60	21.5				
						SP 160.80	21.5				
				BP 160.80	14.6	SP 160.40	21.5	MP 160.80	23.71		
D 180.40 V	12.5			BP 180.40	8.4	SP 180.40	15.6	MP 180.40	13		
						SP 180.50	19.6				
						SP 180.60	23.6				
D 180.60 V	18.1	D 180.60 P	11	BP 180.60	12.4	SP 180.100	39.2	MP 180.60	19.5	MP 180.60 P	19.5
						SP 180.40	15.6				
						SP 180.50	19.6				
						SP 180.60	23.6				
						SP 180.80	26.2				
						SP 180.100	39.2				
						SP 180.40	15.6	MP 180.80	26.6	MP 180.80 P	26.6
D 180.80 V	21.7	D 180.80 P	14.7	BP 180.80	16.3	SP 180.50	19.6				
						SP 180.60	23.6				
						SP 180.80	26.2				
						SP 180.40	15.6				
						SP 180.50	19.6	MP 180.100	33.7	MP 180.100 P	33.7
				BP 180.100	20.5	SP 180.60	23.6				
						SP 180.80	26.2				
						SP 180.40	15.6				
						SP 180.50	19.6				
						SP 180.60	23.6				
						SP 180.80	26.2				
						SP 180.40	15.6				
				BP 180.120	24.5	SP 180.50	19.6	MP 180.120	40.8	MP 180.120 P	40.8
						SP 180.60	23.6				

WALL TYPE  
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ACCESSORIES  
INFORMATION

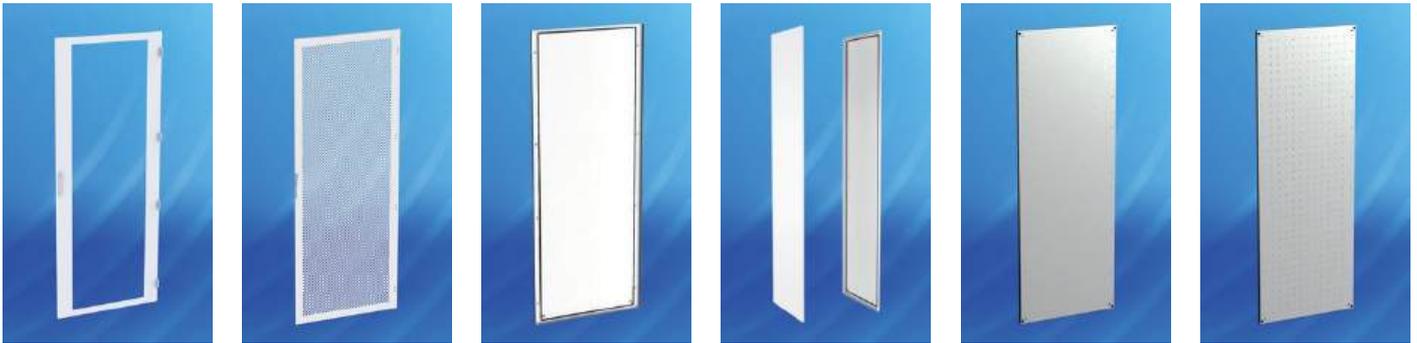
Enclosures 2000 and 2200 mm high



Height, mm	Width, mm	Depth, mm	Frame code	Weight, kg	Code of frame with addit. cable entry*	Weight, kg	Blind door code	Weight, kg	Double blind door code	Weight, kg
2000	400	400	MF 200.40.40	26						
2000	400	500	MF 200.40.50	26.2						
2000	400	600	MF 200.40.60	27.8			D 200.40	17.5		
2000	400	800	MF 200.40.80	32.8						
2000	600	1000	MF 200.60.100	43.5	MF 200.60.100 D	43.5				
2000	600	1200	MF 200.60.120	43.7						
2000	600	400	MF 200.60.40	30	MF 200.60.40 D	27.8	D 200.60	24	D 200.60 D	26
2000	600	500	MF 200.60.50	29.3						
2000	600	600	MF 200.60.60	36	MF 200.60.60 D	31.5				
2000	600	800	MF 200.60.80	35.8	MF 200.60.80 D	35.8				
2000	800	1000	MF 200.80.100	49.5	MF 200.80.100 D	51.2				
2000	800	1200	MF 200.80.120	52.1	MF 200.80.120 D	53				
2000	800	400	MF 200.80.40	38	MF 200.80.40 D	31.2	D 200.80	30.4	D 200.80 D	30.4
2000	800	500	MF 200.80.50	32.9						
2000	800	600	MF 200.80.60	44.5	MF 200.80.60 D	35.8				
2000	800	800	MF 200.80.80	55	MF 200.80.80 D	41.3				
2000	1000	400	MF 200.100.40	33.7						
2000	1000	500	MF 200.100.50	36.7			D 200.100	35	D 200.100 D	41.6
2000	1000	600	MF 200.100.60	46						
2000	1000	800	MF 200.100.80	48						
2000	1200	400	MF 200.120.40	40.7						
2000	1200	500	MF 200.120.50	41.7						
2000	1200	600	MF 200.120.60	50.5	MF 200.120.60 D	43.7			D 200.120 D	42.8
2000	1200	800	MF 200.120.80	63						
2200	400	400	MF 220.40.40	28						
2200	400	600	MF 220.40.60	33			D 220.40	19.5		
2200	400	800	MF 220.40.80	39						
2200	600	1000	MF 220.60.100	45.2	MF 220.60.100 D	42.5				
2200	600	400	MF 220.60.40	33			D 220.60	26		
2200	600	600	MF 220.60.60	37.4	MF 220.60.60 D	37.4				
2200	600	800	MF 220.60.80	37.4	MF 220.60.80 D	37.4				
2200	800	1000	MF 220.80.100	51.2	MF 220.80.100 D	51.2				
2200	800	400	MF 220.80.40	39			D 220.80	32.2	D 220.80 D	30.4
2200	800	600	MF 220.80.60	42.9	MF 220.80.60 D	42.9				
2200	800	800	MF 220.80.80	45.3	MF 220.80.80 D	45.3				
2200	1000	600	MF 220.100.60	45.2					D 220.100 D	42.6
2200	1000	800	MF 220.100.80	50						
2200	1200	600	MF 220.120.60	40					D 220.120 D	52.7
2200	1200	800	MF 220.120.80	42.1						

WALL TYPE  
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Enclosures 2000 and 2200 mm high



Viewing door code	Weight, kg	Perforated door code*	Weight, kg	Rear panel code	Weight, kg	Side panel code	Weight, kg	Solid mounting panel code	Weight, kg	Microperforated mounting panel code	Weight, kg
D 200.40 V	12.9			BP 200.40	9.3	SP 200.40	17.4	MP 200.40	18		
						SP 200.50	21.8				
						SP 200.60	26.2				
D 200.60 V	19.4	D 200.60 P	12.2	BP 200.60	13.7	SP 200.80	35	MP 200.60	21.7	MP 200.60 P	21.7
						SP 200.100	43.4				
						SP 200.120	53				
D 200.80 V	28	D 200.80 P	18.26	BP 200.80	18	SP 200.40	17.4	MP 200.80	29.6	MP 200.80 P	29.6
						SP 200.50	21.8				
						SP 200.60	26.2				
				BP 200.100	22.7	SP 200.80	35	MP 200.100	37.5	MP 200.100 P	37.5
						SP 200.40	17.4				
						SP 200.50	21.8				
				BP 200.120	27.1	SP 200.60	26.2	MP 200.120	45.4	MP 200.120 P	45.4
						SP 200.80	35				
						SP 200.40	17.4				
D 220.60 V	21	D 220.60 P	13.4	BP 220.40	11	SP 200.50	21.8	MP 220.60	23.9	MP 220.60 P	23.9
						SP 200.60	26.2				
						SP 200.80	35				
D 220.80 V	26.5	D 220.80 P	18.1	BP 220.60	15	SP 220.40	18.8	MP 220.80	32.6	MP 220.80 P	32.6
						SP 220.60	26.2				
						SP 220.80	35				
				BP 220.80	19.9	SP 220.100	47.8	MP 220.100	42		
						SP 220.40	18.8				
						SP 220.60	26.2				
				BP 220.100	29.8	SP 220.80	35	MP 220.120	50	MP 220.120 P	49.9
						SP 220.60	26.2				
						SP 220.80	35				
				BP 220.120	34.2	SP 220.40	18.8				
						SP 220.50	21.8				
						SP 220.60	26.2				





**Degree of protection:**

IP20, IK08. To achieve IP20 protection rating, SP X.Y side walls are used along with cable entry panels of standard configuration.

**Material:**

**frame and door:** 2.0 mm sheet steel  
**panels:** 1.5 mm sheet steel  
**rails:** 2.0 mm sheet steel

**Surface:**

**frame, door, panels:** structural powder coating RAL 7035  
**rails:** zinc coating

**Sealing:**

**door and panels:** polyurethane foam

**Lock:**

double bit four-point rod type

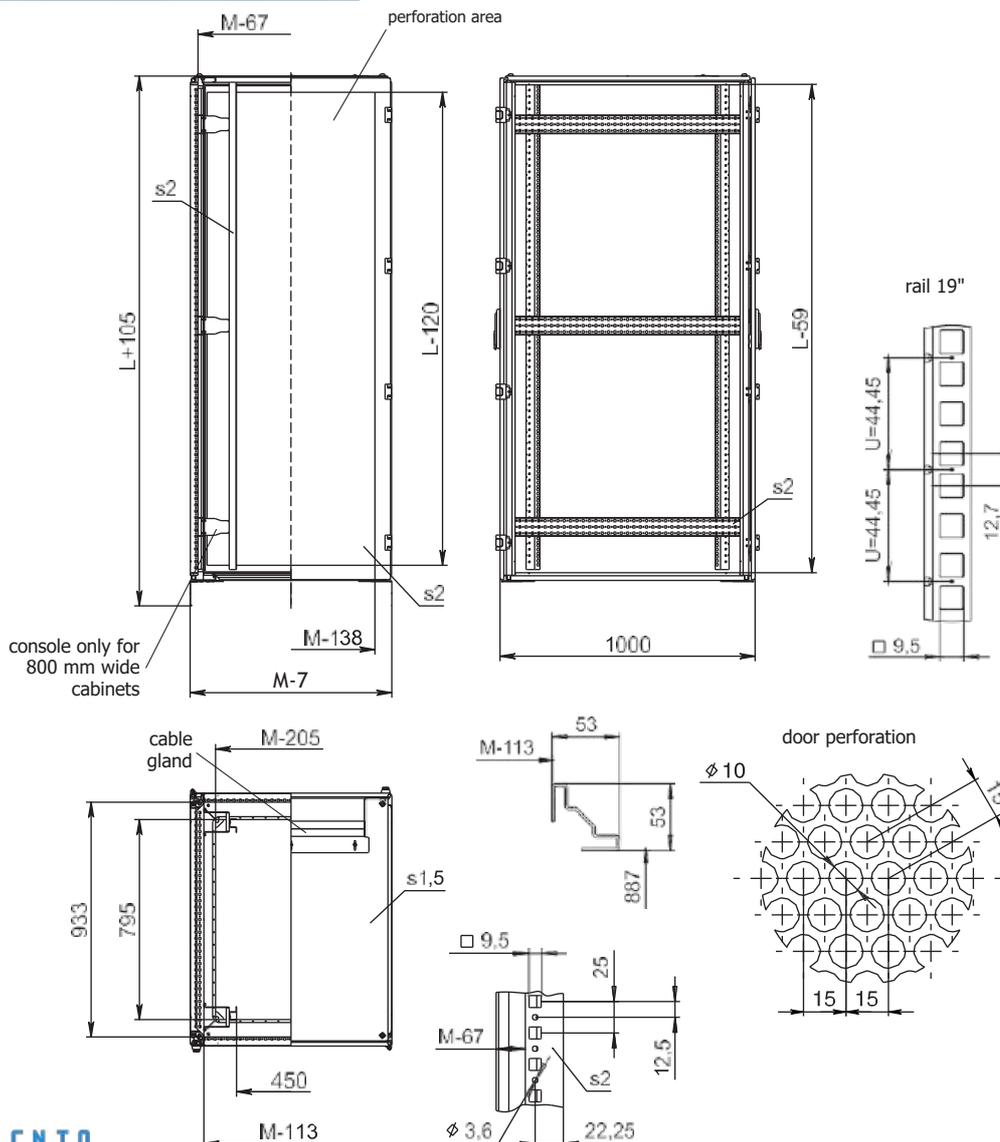
**Hinge:**

225° max. opening angle, right-hung door

**Delivery scope:**

frame with ceiling panel and cable entry panels, two perforated doors, four vertical rails 19", two keys, packaging

**Options:** paint special RAL color 3020, 7004, 7005, 9005, 9016, special dimensions, extra holes



Enclosures 2000 mm high

Cabinet code		MPP 200.60.100	MPP 200.80.100
<b>The cabinet includes</b>	<b>Qty.</b>		
<b>Frame with ceiling panel and cable entry</b>	1 pcs.	MF 200.60.100 D	MF 200.80.100 D
<b>Vertical rail 19"</b>	4 pcs.	MG 200 IT	MG 200 IT
<b>Door</b>	2 pcs.	D 200.60 P	D 200.80 P
<b>Height (L), mm</b>		2000	2000
<b>Width (M), mm</b>		600	800
<b>Depth (N), mm</b>		1000	1000
<b>Weight, kg</b>		111.6	119.3
<b>Components</b>	<b>Qty.</b>		
<b>Side panels</b>	2 pcs.	SP 200.100	SP 200.100
<b>Front and rear components of 100 mm high plinth</b>	2 pcs.	ZA 60.00 v.2	ZA 80.00 v.2
<b>Side components of 100 mm high plinth</b>	2 pcs.	ZA 00.100 v.2	ZA 00.100 v.2
<b>Front and rear components of 200 mm high plinth</b>	2 pcs.	ZA 60.00 H v.2	ZA 80.00 H v.2
<b>Side components of 200 mm high plinth</b>	2 pcs.	ZA 00.100 H v.2	ZA 00.100 H v.2
<b>Eye bolts</b>	4 pcs.	LE 12	LE 12
<b>Rotary handle with cylinder</b>	1 pcs.	LH 1C.Z	LH 1C.Z
<b>Rotary handle without cylinder</b>	1 pcs.	LH 2C.Z	LH 2C.Z
<b>Double bit rotary handle</b>	1 pcs.	LH 3C.Z	LH 3C.Z
<b>Rotary handle with 7 mm triangle</b>	1 pcs.	LH 4C.Z	LH 4C.Z
<b>Ceiling panel with perforation</b>	1 pcs.	R 60.100 P	R 80.100 P
<b>Ceiling panel with perforation and cable entry</b>	1 pcs.	R 60.100 PK	R 80.100 PK
<b>Protective visor</b>	1 pcs.	R 60.80	R 60.80
<b>Door stopper</b>	1 pcs.	SD	SD
<b>Quick release door stopper</b>	1 pcs.	SD P	SD P
<b>Screw type support</b>	4 pcs.	F 12.40	F 12.40
<b>Roller</b>	2 pcs.	C 12.125	C 12.125
<b>Roller with brake</b>	2 pcs.	C 12.125 T	C 12.125 T
<b>Reinforced travel roller</b>	4 pcs.	C 12.82 F	C 12.82 F
<b>Ventilation panel</b>	1 pcs.	PV 60.100 PK	PV 80.100 PK
<b>Cable entry panel</b>	2 pcs.	PK 42.08 P	PK 42.08 P
<b>Blind cable entry panel</b>	1 pcs.	PK 100.60 GP	PK 100.80 GP

# ENCLOSURES for network and telecommunications equipment



## GENERAL INFORMATION

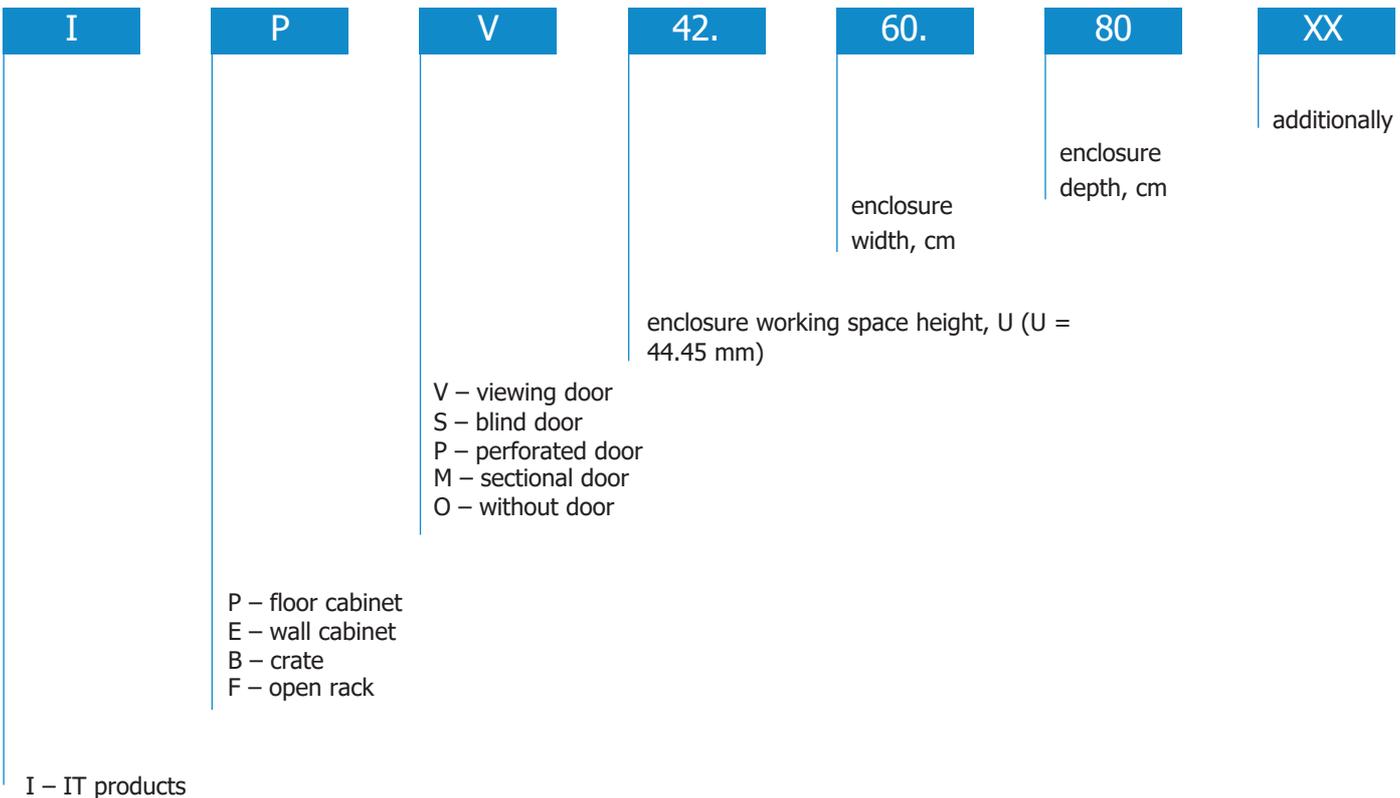
The range of products is a complete set of steel enclosures to create switching nodes and server spaces for small, medium and large cable information systems.

The company products are used for data centers, IT infrastructure, computer and network equipment, distributors at buildings and facilities, switching equipment.

### The enclosures are designed to meet requirements of manufacturers and installers:

- modern design
- wide size range
- rigid stable floor cabinet carcass with front and rear O-shaped welded frames
- cabinets can be installed at hard-to-reach places due to simple and easy disassembly/assembly
- comply with protection class up to IP30
- min. resistance to external mechanical impact: IK08
- the carcass symmetry allows to interconnect floor cabinets through side panels
- all doors are removable and reversible with the opening angle of 130° for floor and 180° for wall enclosures, respectively
- at floor cabinets, the front viewing door with a two-point rod lock can be replaced for a blind or perforated door
- the rear viewing door with cylindrical locks and brush cable entries of floor cabinets can be replaced for a viewing or perforated door with a two-point rod lock
- removable side panels of floor cabinets support reversible blind doors with cylindrical locks
- removable panels for various purposes are available at the carcass bottom panel
- a fan panel can be installed to the carcass top panel
- the roof has perforations for natural and forced ventilation
- 19" rails can be installed at different depths
- textured polyester powder coating
- availability of accessories: plinths, shelves, fan units, cable organizers, brush cable entries, blanking plug panels, etc.

### Product codes:



1.



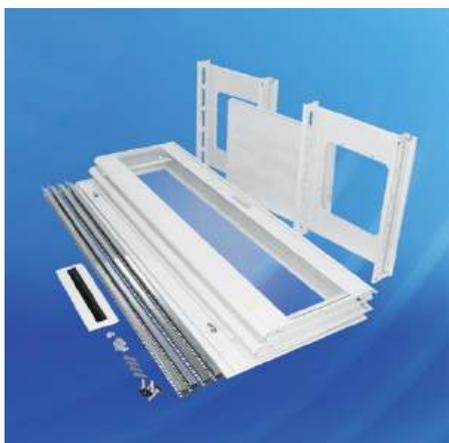
2.



3.



4.



5.



6.



1. Modern design Simplicity and elegance due to beveled vertical corners of floor cabinets.

2. Removable side panels of floor cabinets support reversible blind doors with cylindrical locks.

3. Rigid stable floor cabinet carcass with front and rear O-shaped welded frames.

4. Cabinets can be installed at hard-to-reach places due to simple and easy disassembly-assembly.

5. The carcass symmetry allows to interconnect floor cabinets through side panels.

6. Earthing connectors are provided inside the enclosure, at panels and doors. Copper-plated earthing pins have a contact flange and require no paint removal or contact paste application

This line of 19" enclosures is designed to create switching nodes and server spaces for small, medium and large cable information systems. Modern design, high quality and ease of use characterize these cabinets and racks.

### Floor cabinets

Used to install passive and active telecommunications equipment, servers, uninterruptible power supplies. Are most often located at central and floor switching nodes.

- Height: 24-47U
- Width: 600 and 800 mm
- Depth: 600, 800, 1000 mm
- Rigid frame structure
- Max. load capacity: 600 kg
- Delivered as assembled units
- Easy and fast disassembly/assembly
- Additional options



### Wall cabinets

Used to install passive and active telecommunications equipment, fiber-optic communication lines (FOCL). Are most often used in offices to create floor switching nodes; providers use them to create house networks. The 3-section cabinet provides optimal access to the equipment.

- Height: 9-21U, 8U (10")
- Depth: 537, 553, 250 mm (10")
- 2-section or 3-section versions are available
- Max. load capacity: 60 kg
- Delivered as assembled units
- Easy and fast disassembly/assembly
- Can be installed to a wall
- Additional options



WALL TYPE  
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## Open racks

A cost-effective solution to install passive and active 19" telecommunications equipment requiring no additional protection. It is installed in switching nodes with restricted access rights

- Height: 24-45U
- Width: 600 mm
- Base depth: 735 mm
- Number of frames: one or two
- Max. load capacity: 300 kg
- Delivered as disassembled unit
- Easy and fast assembly
- Additional options



## Crates

Used to arrange electronic circuit boards, telecommunications and telephony components. Can be installed to 19" cabinets or racks

- Height: 1-3U
- Width: 19"
- Depth: 260 and 360 mm
- Delivered as assembled units



## FLOOR CABINETS WITH VIEWING DOOR IPV



Used to install passive and active telecommunications equipment

- suitable for 19" equipment
- modern design
- cabinet fast disassembly/assembly
- cabinets can be interconnected
- all doors and panels are removable and have 130° opening angle

**Degree of protection:**  
IP30, IK08

**Permissible load:**  
600 kg

**Climate class:**  
UHL1 (moderately cold)

**Material:**

**carcass:** 1.5-2.0 mm sheet steel

**rear door, panels:** 1.2 mm sheet steel

**front door:** 1.2 mm sheet steel 4.0 mm hardened glass

**19" profiles:** 2.0 mm galvanized sheet steel

**Surface:**

structural powder coating RAL 7035

**Delivery scope:**

carcass, standard ceiling panel, front viewing door with two-point rod lock and rotary handle, shortened rear door with two cylindrical locks and brush cable entry, side panels with two cylindrical locks, four 19" rails, four screw type supports, two keys (suitable for all cabinet locks), packaging

**Options:**  
paint special color

**Delivery:**  
as assembled unit

**Accessories:**

see pages 260-269 for more information

**Detailed drawing:** see page 275

Enclosure working space height, U (U = 44.45 mm)	Height, mm	Width, mm	Depth, mm	Weight, kg	Cabinet code
24	1200	600	600	57.4	IPV 24.60.60
			800	65.3	IPV 24.60.80
38	1800	600	600	64.5	IPV 24.80.60
			800	77.8	IPV 38.60.60
43	2000	600	600	88.2	IPV 38.60.80
			800	85.5	IPV 38.80.60
47	2200	600	600	84.7	IPV 43.60.60
			800	93.5	IPV 43.60.80
47	2200	800	600	92.3	IPV 43.80.60
			800	105.2	IPV 43.80.80
47	2200	600	600	97.7	IPV 47.60.60
			800	104.1	IPV 47.60.80
47	2200	800	600	99.9	IPV 47.80.60
			800	99.9	IPV 47.80.60



# CUSTOM CABINETS

Used to install passive and active telecommunications equipment, servers, uninterruptible power supplies

**Material:**

**carcass:** 1.5-2.0 mm sheet steel  
**rear door, panels:** 1.2 mm sheet steel  
**front door** 1.2 mm sheet steel 4.0 mm hardened glass  
**19" profiles:** 2.0 mm galvanized sheet steel

**Surface:**

structural powder coating RAL 7035

**Degree of protection:**

IP20, IK08

**Climate class:** UHL1 (moderately cold)

**Permissible load:**

600 kg

**Options:**

paint special color

**Accessories:**

see pages 260-269

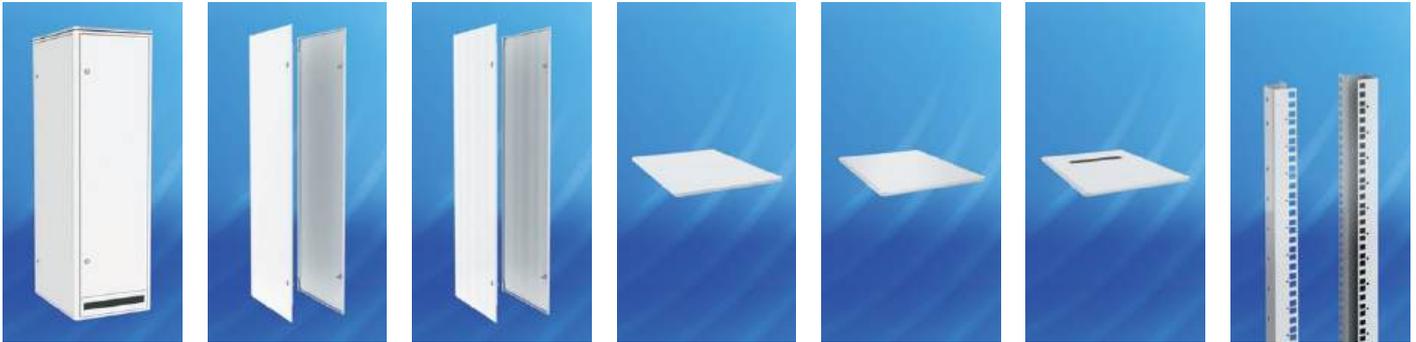
- custom configuration
- suitable for 19" equipment
- modern design
- cabinet fast disassembly/assembly

- cabinets can be interconnected
- all doors and panels are removable and have 130° opening angle



Height, mm	Width, mm	Depth, mm	Frame code	Weight, kg	Viewing door code	Weight, kg	Blind door code	Weight, kg	Perforated door code	Weight, kg
1200 (24U)	600	600	IF 120.60.60	21.1	D 120.60 IV	7.8	D 120.60 I	7.5	D 120.60 IP	7.3
		800	IF 120.60.80	25.4	D 120.60 IV	7.8	D 120.60 I	7.5	D 120.60 IP	7.3
		1000	IF 120.60.100	30.1	D 120.60 IV	7.8	D 120.60 I	7.5	D 120.60 IP	7.3
	800	600	IF 120.80.60	24.6	D 120.80 IV	9.8	D 120.80 I	10	D 120.80 IP	9.7
		800	IF 120.80.80	29.4	D 120.80 IV	9.8	D 120.80 I	10	D 120.80 IP	9.7
		1000	IF 120.80.100	34.9	D 120.80 IV	9.8	D 120.80 I	10	D 120.80 IP	9.7
1800 (38U)	600	600	IF 180.60.60	24.7	D 180.60 IV	11.8	D 180.60 I	11.4	D 180.60 IP	11
		800	IF 180.60.80	29	D 180.60 IV	11.8	D 180.60 I	11.4	D 180.60 IP	11
		1000	IF 180.60.100	33.7	D 180.60 IV	11.8	D 180.60 I	11.4	D 180.60 IP	11
	800	600	IF 180.80.60	28.3	D 180.80 IV	15.3	D 180.80 I	15.2	D 180.80 IP	14.7
		800	IF 180.80.80	33	D 180.80 IV	15.3	D 180.80 I	15.2	D 180.80 IP	14.7
		1000	IF 180.80.100	38.6	D 180.80 IV	15.3	D 180.80 I	15.2	D 180.80 IP	14.7
2000 (43U)	600	600	IF 200.60.60	25.9	D 200.60 IV	13.2	D 200.60 I	12.6	D 200.60 IP	12.2
		800	IF 200.60.80	30.2	D 200.60 IV	13.2	D 200.60 I	12.6	D 200.60 IP	12.2
		1000	IF 200.60.100	34.9	D 200.60 IV	13.2	D 200.60 I	12.6	D 200.60 IP	12.2
	800	600	IF 200.80.60	29.4	D 200.80 IV	17	D 200.80 I	16.9	D 200.80 IP	16.3
		800	IF 200.80.80	34.2	D 200.80 IV	17	D 200.80 I	16.9	D 200.80 IP	16.3
		1000	IF 200.80.100	39.8	D 200.80 IV	17	D 200.80 I	16.9	D 200.80 IP	16.3
2200 (47U)	600	600	IF 220.60.60	27.1	D 220.60 IV	14.5	D 220.60 I	13.9	D 220.60 IP	13.4
		800	IF 220.60.80	31.4	D 220.60 IV	14.5	D 220.60 I	13.9	D 220.60 IP	13.4
		1000	IF 220.60.100	36.1	D 220.60 IV	14.5	D 220.60 I	13.9	D 220.60 IP	13.4
	800	600	IF 220.80.60	30.6	D 220.80 IV	18.9	D 220.80 I	18.7	D 220.80 IP	18.1
		800	IF 220.80.80	35.4	D 220.80 IV	18.9	D 220.80 I	18.7	D 220.80 IP	18.1
		1000	IF 220.80.100	41	D 220.80 IV	18.9	D 220.80 I	18.7	D 220.80 IP	18.1

**Attention!** Cabinets are delivered as assembled units



Code of shortened blind door with brush cable entry	Weight, kg	Code of blind side panels (2 pcs.)	Weight, kg	Code of perf. side panels (2 pcs.)	Weight, kg	Code of standard ceiling panel	Weight, kg	Code of perforated ceiling panel	Weight, kg	Code of ceiling panel with brush cable entry	Weight, kg	19" rail code (2 pcs.)*	Weight, kg
D 120.60 IK	5.7	SP 120.60 I	10.6	SP 120.60 IP	10.2	R 60.60 I	2.9	R 60.60 IP	2.8	R 60.60 IK	2.7	IG 24	3.9
D 120.60 IK	5.7	SP 120.80 I	14.3	SP 120.80 IP	13.8	R 60.80 I	3.8	R 60.80 IP	3.7	R 60.80 IK	3.5	IG 24	3.9
D 120.60 IK	5.7	SP 120.100 I	20.3	SP 120.100 IP	19.6	R 60.100 I	5	R 60.100 IP	4.8	R 60.100 IK	4.8	IG 24	3.9
D 120.80 IK	7.8	SP 120.60 I	10.6	SP 120.60 IP	10.2	R 80.60 I	3.8	R 80.60 IP	3.7	R 80.60 IK	3.5	IG 24	3.9
D 120.80 IK	7.8	SP 120.80 I	14.3	SP 120.80 IP	13.8	R 80.80 I	5.1	R 80.80 IP	4.9	R 80.80 IK	4.8	IG 24	3.9
D 120.80 IK	7.8	SP 120.100 I	20.3	SP 120.100 IP	19.6	R 80.100 I	6.6	R 80.100 IP	6.4	R 80.100 IK	6.3	IG 24	3.9
D 180.60 IK	8.5	SP 180.60 I	16.2	SP 180.60 IP	15.6	R 60.60 I	2.9	R 60.60 IP	2.8	R 60.60 IK	2.7	IG 38	6.1
D 180.60 IK	8.5	SP 180.80 I	21.7	SP 180.80 IP	21	R 60.80 I	3.8	R 60.80 IP	3.7	R 60.80 IK	3.5	IG 38	6.1
D 180.60 IK	8.5	SP 180.100 I	29.8	SP 180.100 IP	28.7	R 60.100 I	5	R 60.100 IP	4.8	R 60.100 IK	4.8	IG 38	6.1
D 180.80 IK	12.2	SP 180.60 I	16.2	SP 180.60 IP	15.6	R 80.60 I	3.8	R 80.60 IP	3.7	R 80.60 IK	3.5	IG 38	6.1
D 180.80 IK	12.2	SP 180.80 I	21.7	SP 180.80 IP	21	R 80.80 I	5.1	R 80.80 IP	4.9	R 80.80 IK	4.8	IG 38	6.1
D 180.80 IK	12.2	SP 180.100 I	29.8	SP 180.100 IP	28.7	R 80.100 I	6.6	R 80.100 IP	6.4	R 80.100 IK	6.3	IG 38	6.1
D 200.60 IK	9.5	SP 200.60 I	18.1	SP 200.60 IP	17.5	R 60.60 I	2.9	R 60.60 IP	2.8	R 60.60 IK	2.7	IG 43	6.8
D 200.60 IK	9.5	SP 200.80 I	24.2	SP 200.80 IP	23.4	R 60.80 I	3.8	R 60.80 IP	3.7	R 60.80 IK	3.5	IG 43	6.8
D 200.60 IK	9.5	SP 200.100 I	34.4	SP 200.100 IP	33.4	R 60.100 I	5	R 60.100 IP	4.8	R 60.100 IK	4.8	IG 43	6.8
D 200.80 IK	12.7	SP 200.60 I	18.1	SP 200.60 IP	17.5	R 80.60 I	3.8	R 80.60 IP	3.7	R 80.60 IK	3.5	IG 43	6.8
D 200.80 IK	12.7	SP 200.80 I	24.2	SP 200.80 IP	23.4	R 80.80 I	5.1	R 80.80 IP	4.9	R 80.80 IK	4.8	IG 43	6.8
D 200.80 IK	12.7	SP 200.100 I	34.4	SP 200.100 IP	33.4	R 80.100 I	6.6	R 80.100 IP	6.4	R 80.100 IK	6.3	IG 43	6.8
D 220.60 IK	10.4	SP 220.60 I	19.9	SP 220.60 IP	19.2	R 60.60 I	2.9	R 60.60 IP	2.8	R 60.60 IK	2.7	IG 47	7.5
D 220.60 IK	10.4	SP 220.80 I	26.7	SP 220.80 IP	25.8	R 60.80 I	3.8	R 60.80 IP	3.7	R 60.80 IK	3.5	IG 47	7.5
D 220.60 IK	10.4	SP 220.100 I	38	SP 220.100 IP	36.9	R 60.100 I	5	R 60.100 IP	4.8	R 60.100 IK	4.8	IG 47	7.5
D 220.80 IK	13.9	SP 220.60 I	19.9	SP 220.60 IP	19.2	R 80.60 I	3.8	R 80.60 IP	3.7	R 80.60 IK	3.5	IG 47	7.5
D 220.80 IK	13.9	SP 220.80 I	26.7	SP 220.80 IP	25.8	R 80.80 I	5.1	R 80.80 IP	4.9	R 80.80 IK	4.8	IG 47	7.5
D 220.80 IK	13.9	SP 220.100 I	38	SP 220.100 IP	36.9	R 80.100 I	6.6	R 80.100 IP	6.4	R 80.100 IK	6.3	IG 47	7.5

\* – when rails are installed into 800 mm wide cabinets, a B 6 IG console is required

## 2-SECTION WALL CABINETS



Used to install passive and active telecommunications equipment

- suitable for 19" equipment
- cabinet fast disassembly/assembly
- can be installed to a wall
- removable door and casing
- available brush cable entry

**Degree of protection:**  
IP20, IK08

**Permissible load:**  
60 kg

**Climate class:**  
UHL1 (moderately cold)

**Material, surface:**

**wall panel, casing:** 1.5 mm sheet steel, structural powder coating RAL 7035

**door:** 1.5 mm sheet steel, structural powder coating RAL 7035, 4.0 mm hardened glass

**19" profiles:** 2.0 mm galvanized sheet steel

**Delivery scope:**

wall panel with brush cable entry and two cylindrical locks, casing with blanking plugs for fans, viewing/blind door with cylindrical lock, two 19" rails, cable busbar, two keys (suitable for all cabinet locks), packaging

**Options:**  
paint special color

**Delivery:**  
as assembled unit

**Accessories:**  
see pages 260-269 for more information

**Detailed drawing:** see page 277

Enclosure working space height, U (U = 44.45 mm)	Height, mm	Width, mm	Depth, mm	Weight, kg	Cabinet code with viewing door	Weight, kg	Cabinet code with blind door
9	500	600	537	26	IEV 09.60.54	27.5	IES 09.60.54
12	600			28.5	IEV 12.60.54	30.5	IES 12.60.54



Used to install passive and active telecommunications equipment

- suitable for 19" equipment
- optimal access to equipment
- cabinet fast disassembly/assembly
- can be installed to a wall
- available brush cable entry

**Degree of protection:**  
IP20, IK08

**Permissible load:**  
60 kg

**Climate class:**  
UHL1 (moderately cold)

**Material, surface:**  
**wall panel, rotary panel:** 1.5 mm sheet steel, structural powder coating RAL 7035  
**door:** 1.5 mm sheet steel, structural powder coating RAL 7035, 4.0 mm hardened glass  
**19" profiles:** 2.0 mm galvanized sheet steel

**Delivery scope:**

wall panel with brush cable entry and cylindrical lock, rotary panel with blanking plugs for fans, viewing/blind door with cylindrical lock, two 19" rails, cable busbar, two keys (suitable for all cabinet locks), packaging

**Options:**  
paint special color

**Delivery:**  
as assembled unit

**Accessories:**  
see pages 260-269 for more information

**Detailed drawing:** see page 278

Enclosure working space height, U (U = 44.45 mm)	Height, mm	Width, mm	Depth, mm	Weight, kg	Cabinet code with viewing door
12	600	600	553	25.4	IEV 12.60.55
16	800			33.3	IEV 16.60.55
21	1000			34.5	IEV 21.60.55

## FOCL WALL CABINETS



Used for distribution of fiber optic cables

- suitable for extreme conditions
- based on MES automation enclosure
- additional cable entries available

**Degree of protection:**  
IP66, IK10

**Climate class:**  
UHL1 (moderately cold)

**Material, surface:**  
**enclosure, door, cable entry panels:** 1.5 mm sheet steel, structural powder coating RAL 7035  
**mounting panels:** 2.5 mm galvanized sheet steel

**Delivery scope:**  
 enclosure, door with two double bit locks, two cable entry side panels, cable entry bottom panel, mounting panel with cable organizers and cable busbar, mounting panel to fix 4 splice cassettes and 4 patch panels, key, packaging

**Accessories:**  
 wall mounting brackets WB 8, cable entry panel with knock out holes PK 35.13, protective visor R 40.21

**Delivery:**  
 as assembled unit

**Detailed drawing:** see page 279

Height, mm	Width, mm	Depth, mm	Weight, kg	Cabinet code
600	400	210	17.3	MES 60.40.21 OD



Used to install passive and active telecommunications equipment requiring no additional protection.

- suitable for 19" equipment
- rigid welded frame
- possible interconnection in a row

**Permissible load:**

300 kg

**Material, surface:**

**frame. base:** 2.0 mm sheet steel, structural powder coating RAL 7035

**Delivery scope:**

frame. base, packaging

**Options:**

paint special color

**Delivery:**

as disassembled unit

**Accessories:**

see pages 260-269 for more information

**Detailed drawing:** see page 280

Enclosure working space height, U (U = 44.45 mm)	Height, mm	Width, mm	Weight, kg	Rack code	Weight, kg	Additional frame code
24	1172	568	12.9	IFO 24.57.74	8.1	IFO 24.57.00
36	1705		15.5	IFO 36.57.74	10.9	IFO 36.57.00
42	1972		16.8	IFO 42.57.74	12.3	IFO 42.57.00
45	2105		17.4	IFO 45.57.74	12.9	IFO 45.57.00

\* – if additional frame is used



Used to arrange electronic circuit boards, telecommunications and telephony components

- are installed to 19" cabinets or racks

**Degree of protection:**

IP20, IK08

**Material, surface:**

**enclosure:** 1.2 mm sheet steel, structural powder coating RAL 7035

**front panel:** 3.0 mm sheet steel, structural powder coating RAL 7035

**Delivery scope:**

enclosure, front panel, packaging

**Options:**

paint special color, various depths

**Delivery:**

as assembled unit

**Detailed drawing:** see page 281

Height, U (U = 44.45 mm)	Width, mm	Depth, mm	Weight, kg	Enclosure code with steel panel
1	482.6	260	2.6	IBS 01.48.26 M
2			3.5	IBS 02.48.26 M
2	482.6	360	4.3	IBS 02.48.36 M
3			5.2	IBS 03.48.36 M

# ENCLOSURES FOR CONTROL SYSTEMS



## GENERAL INFORMATION

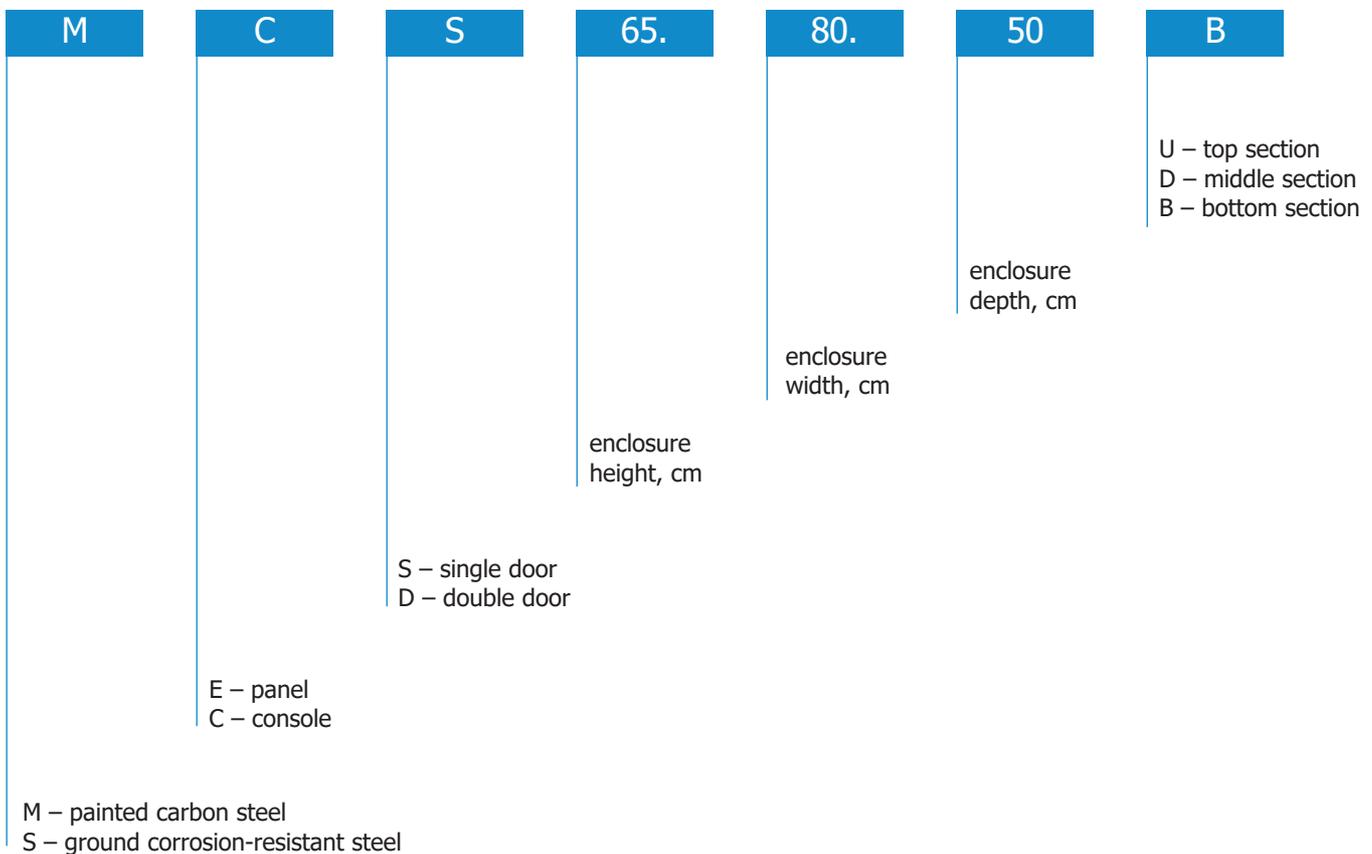
The product range consists of a complete set of steel enclosures for systems of production processes control and automation.

The company products are used at numerous industries like energy, mining, metallurgy, chemistry along with areas requiring the use of modern methods of production process control and automation.

### The enclosures are designed to meet requirements of manufacturers and installers:

- modularity
- easy installation
- wide size range
- components of corrosion-resistant steel are available
- comply with protection class IP55
- min. resistance to external mechanical impact: IK10 (09)
- enclosure welded design
- controls and monitoring devices can be installed to the control panel door or rear wall
- several cabinets can be interconnected through side panels
- bottom mounting panels of galvanized sheet steel can be re-located with 25 mm pitch
- the enclosure bottom has one or two openings with sliding panels designed to entry cables
- perforated rails are available to fix cables, ducts, etc.
- cast polyurethane / silicone seal
- textured polyester powder coating

### Product codes:



1.



2.



1. components of panels and consoles can be arbitrarily combined.

2. Large console surfaces are sloped to conveniently install controls and monitoring devices.

3. several consoles can be interconnected through side panels.

3.



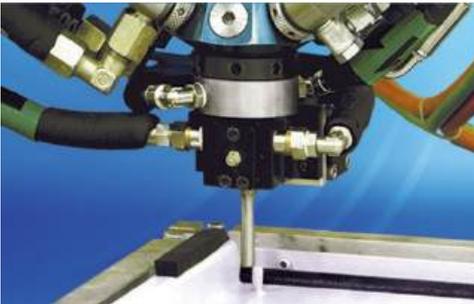
4.



4. 180° opening angle metal hinges have captive pins. The door swing direction can be changed from right to left at bottom sections of all consoles simply re-installing the hinges. Double doors can be swapped.

5. To achieve reliable sealing, a robot applies a gasket using a continuous casting technique. The cast sealing strip can withstand temperatures -40 to +70 °C (polyurethane), -60 to +135 °C (silicone).

5.



6.



6. Earthing clamps are provided inside the enclosure, at doors (covers) and mounting panels. Copper-panel earthing pins have a contact flange and require no protective coating removal.

7.



8.



7. The console bottom section has a galvanized steel mounting panel with C-shaped side edging that can be installed at different depths with 25 mm pitch.

8. All doors and covers have perforated rails to install components.

9.



10.



9. Mounting panels can be installed to console top and middle sections.

10. For safety and easy maintenance, covers of console top and middle sections are equipped with stoppers.



**Degree of protection:**  
IP66, IK10

**Climate class:**  
UHL1 (moderately cold)

**Material:**  
1.2-1.5 mm sheet steel  
(depends on size)

**Surface:**  
**enclosure and door:** structural  
powder coating RAL 7035

**Sealing:**  
**door:** polyurethane foam

**Lock:**  
double bit tongue (crank) type

**Hinge:**  
opening angle  $\leq 180^\circ$

**Delivery scope:**  
reinforced enclosure, door with rails, key,  
packaging

**Options:**  
paint special color (RAL 3020, RAL 7004, etc.), holes  
and openings

**Detailed drawing:**  
see page 282

Panel code	Height, mm	Width, mm	Depth, mm	Weight, kg
MES 30.30.15 U	300	300	155	5.1
MES 30.40.15 U	300	400	155	6.6
MES 40.60.21 U	400	600	210	14.2
MES 50.50.21 U	500	500	210	14.6



**Degree of protection:**  
IP66, IK10



**Climate class:**  
UHL1 (moderately cold)

**Material:**  
**enclosure:** 1.2 mm corrosion-resistant sheet steel AISI 304  
**door:** 1.5 mm corrosion-resistant sheet steel AISI 304

**Surface:**  
**enclosure, door:** honed

**Sealing:**  
**door:** silicone foam

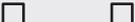
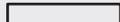
**Lock:**  
double bit tongue (crank) type

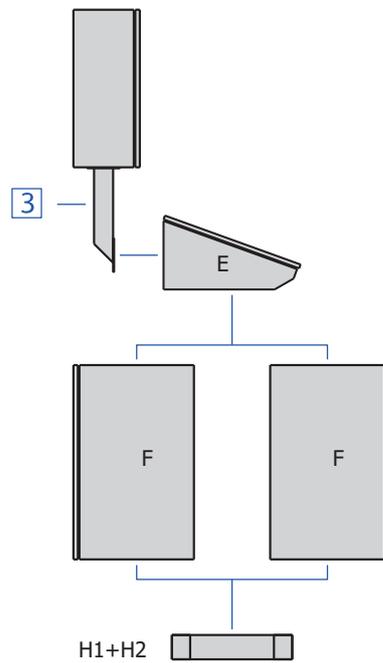
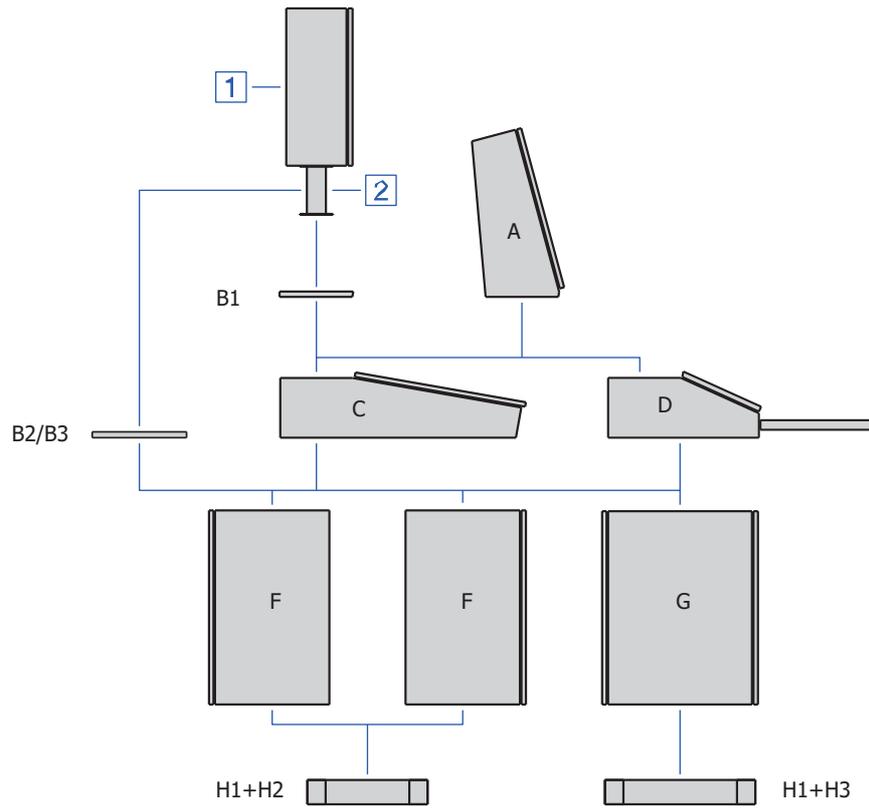
**Hinge:**  
opening angle  $\leq 180^\circ$

**Detailed drawing:**  
see page 282

**Delivery scope:**  
reinforced enclosure, door with rails, key,  
packaging

Panel code	Height, mm	Width, mm	Depth, mm	Weight, kg
SES 30.40.15 U	300	400	155	6.6
SES 40.60.21 U	400	600	210	13

Console components	Height, mm	Width, mm				Depth, mm
		600	800	1200	1600	
<b>Top section</b>						
 A	560	–	MCS 56.80.24 U	MCS 56.120.24 U	MCS 56.160.24 U	240
<b>End panel of middle section</b>						
 B1	19	–	R 80.24 C	R 120.24 C	R 160.24 C	245
<b>Middle section</b>						
 C	200	–	MCS 20.80.81 D	MCS 20.120.81 D	MCS 20.160.81 D	815
 D	200	–	MCS 20.80.90 DK	–	MCS 20.160.90 DK	900
 E	270	MCS 27.60.49 D	MCS 27.80.49 D	MCS 27.120.49 D	–	495
<b>End panel of bottom section</b>						
 B2	28	R 60.40 C	R 80.40 C	R 120.40 C	R 160.40 C	400
 B3	28	–	R 80.50 C	R 120.50 C	R 160.50 C	500
<b>Bottom section</b>						
 F	650	MCS 65.60.40 B	MCS 65.80.40 B	MCD 65.120.40 B	–	400
 G	650	–	MCS 65.80.50 B	MCD 65.120.50 B	MCD 65.160.50 B	500
<b>Plinth front and rear components</b>						
 H1	100	ZA 60.00 v.2	ZA 80.00 v.2	ZA 120.00 v.2	ZA 160.00 v.2	400 500
<b>Plinth side components</b>						
 H2	100	ZA 00.40 v.2				400
 H3	100	ZA 00.50 v.2				500

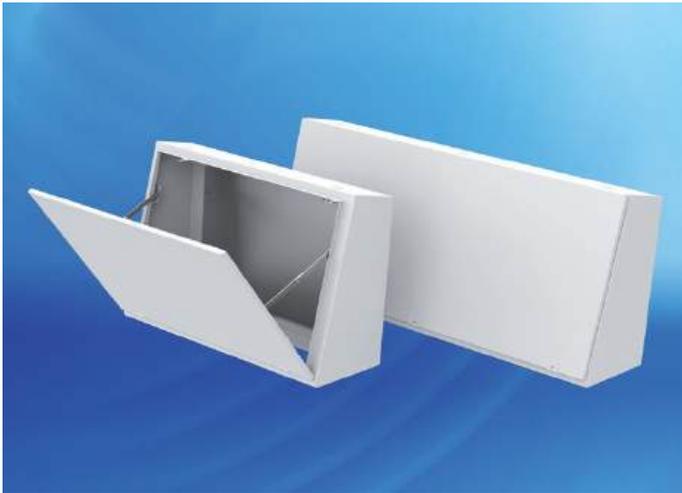


1 – control panel MES X.Y.Z.U/SES X.Y.Z.U

2 – mounting rack ZL 150 G

3 – mounting rack ZL 350 V

**Attention!** Consoles are delivered as sets



**Degree of protection:**  
IP55, IK10

**Climate class:**  
UHL1 (moderately cold)

**Material:**  
**enclosure:** 1.5 mm sheet steel  
**door:** 2.0 mm sheet steel

**Surface:**  
**enclosure and door:** structural powder coating RAL 7035

**Sealing:**  
**door:** polyurethane foam

**Lock:**  
double bit tongue (crank) type

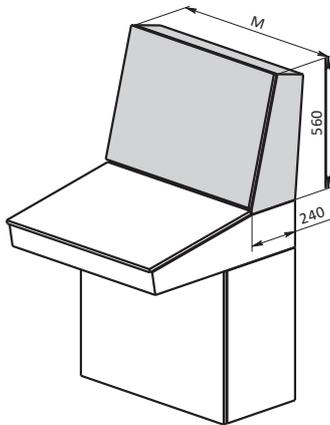
**Hinge:**  
opening angle  $\leq 180^\circ$

**Delivery scope:**  
enclosure, door with rails, stoppers, key, packaging

**Options:**  
paint special color, holes and openings

**Accessories:**  
see pages 260-269 for more information

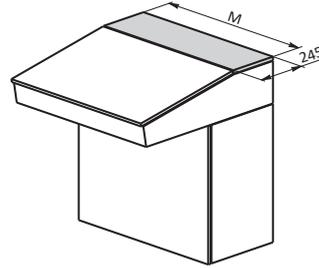
**Detailed drawing:**  
see page 221



Console code	Height, mm	Width (M), mm	Depth, mm	Weight, kg
MCS 56.80.24 U*	560	800	240	22.2
MCS 56.120.24 U*	560	1200	240	31.7
MCS 56.160.24 U*	560	1600	240	42.2

\* – space for mounting panels is provided at the enclosure (see page 196)

End panel of middle section



**Degree of protection:**  
IP55, IK10

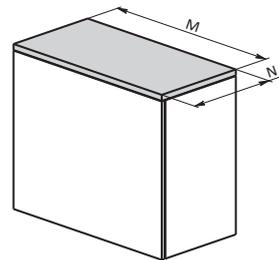
**Material:**  
1.5 mm sheet steel

**Surface:** structural powder coating RAL 7035

**Sealing:** polyurethane foam

Panel code	Height, mm	Width (M), mm	Depth, mm	Weight, kg
R 80.24 C	19	800	245	2.9
R 120.24 C	19	1200	245	4.4
R 160.24 C	19	1600	245	5.8

End panel of bottom section



**Degree of protection:**  
IP55, IK10

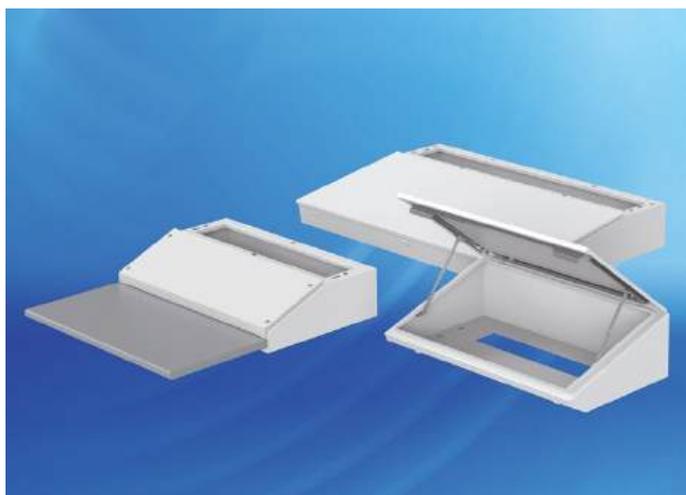
**Material:**  
1.5 mm sheet steel

**Surface:** structural powder coating RAL 7035

**Sealing:** polyurethane foam

Panel code	Height, mm	Width (M), mm	Depth (N), mm	Weight, kg
R 60.40 C*	28	600	400	5.2
R 80.40 C*	28	800	400	6.8
R 100.40 C*	19	1000	400	
R 120.40 C	28	1200	400	10.0
R 80.50 C	28	800	500	8.4
R 120.50 C	28	1200	500	12.4
R 160.50 C	28	1600	500	16.4

\* – can be used at MES cabinets 400 mm deep



**Degree of protection:**

IP55, IK10 (IK09)

**Climate class:**

UHL1 (moderately cold)

**Material:**

**enclosure:** 1.5 mm sheet steel

**door:** 2.0 mm sheet steel

**tabletop:** laminated MDF

**Surface:**

**enclosure and door:** structural

powder coating RAL 7035

**Sealing:**

**door:** polyurethane foam

**Lock:**

double bit tongue (crank) type

**Hinge:**

opening angle  $\leq 180^\circ$

**Delivery scope:**

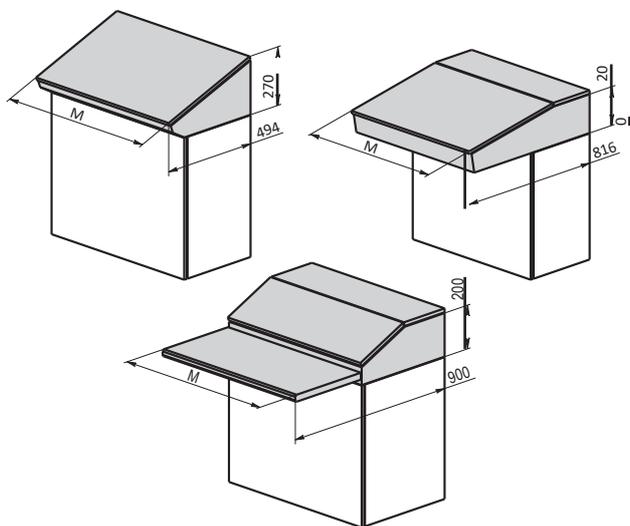
enclosure, door with rails,  
stoppers, key, packaging

**Options:**

paint special color, holes and openings

**Detailed drawing:**

see pages 284-286



Console code	Height, mm	Width (M), mm	Depth, mm	Weight, kg
MCS 20.80.81 D*	200	800	816	25.8
MCS 20.120.81 D*	200	1200	816	36.7
MCS 20.160.81 D*	200	1600	816	48.2
MCS 20.80.90 DK	200	800	900	29.3
MCS 20.160.90 DK	200	1600	900	55.9
MCS 27.60.49 D	270	600	494	11.8
MCS 27.80.49 D	270	800	494	15.9
MCS 27.120.49 D	270	1200	494	21.6

\* – space for mounting panels is provided at the enclosure (see page 112)

**Degree of protection:**

IP55, IK10

**Climate class:**

UHL1 (moderately cold)

**Material:****enclosure and door:** 1.5 mm sheet steel**mounting panel:** 2.0 mm galvanized steel**Surface:****enclosure and door:** structural powder coating RAL 7035**Sealing:****door:** polyurethane foam**Lock:**

double bit tongue (crank) type

**Hinge:**opening angle  $\leq 180^\circ$ **Delivery scope:**

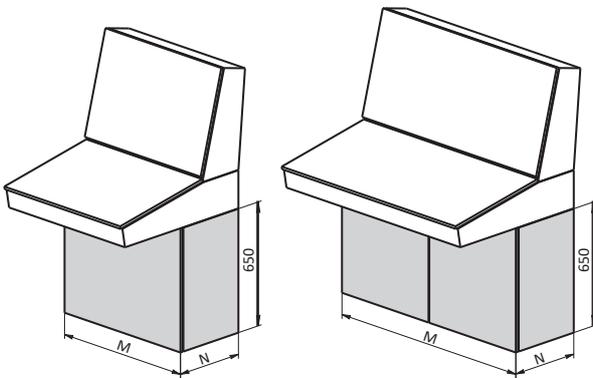
enclosure, door(s) with rails, mounting panel, key, packaging

**Options:**

paint special color, holes and openings

**Detailed drawing:**

see pages 287-288



Console code	Height, mm	Width (M), mm	Depth, mm	Weight, kg
MCS 65.60.40 B	650	600	400	27.2
MCS 65.80.40 B	650	800	400	34.0
MCD 65.120.40 B	650	1200	400	49.6
MCS 65.80.50 B	650	800	500	37.1
MCD 65.120.50 B	650	1200	500	52
MCD 65.160.50 B	650	1600	500	68.5



**Degree of protection:**  
IP55, IK10

-60°C  
 +135°C

**Climate class:**  
UHL1 (moderately cold)

**Material:**  
**enclosure, doors, plinths:**  
1.5 mm corrosion-resistant sheet steel AISI 304  
**mounting panel:** 2.0-2.5 mm galvanized steel

**Surface:**  
**enclosure, doors, plinths:** honed

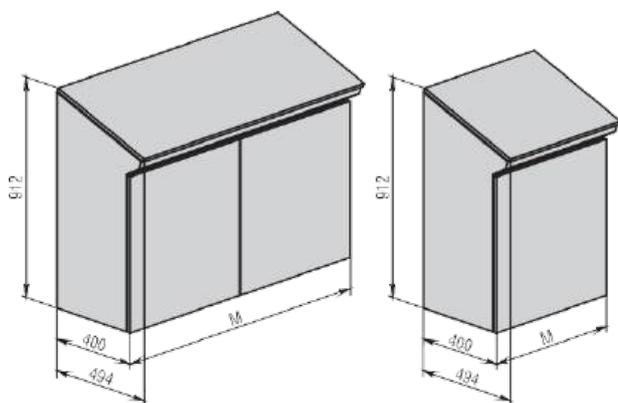
**Sealing:**  
**door:** silicone foam

**Lock:**  
double bit tongue (crank) type

**Hinge:**  
opening angle ≤ 180°

**Delivery scope:**  
enclosure, doors, mounting panel,  
key, packaging

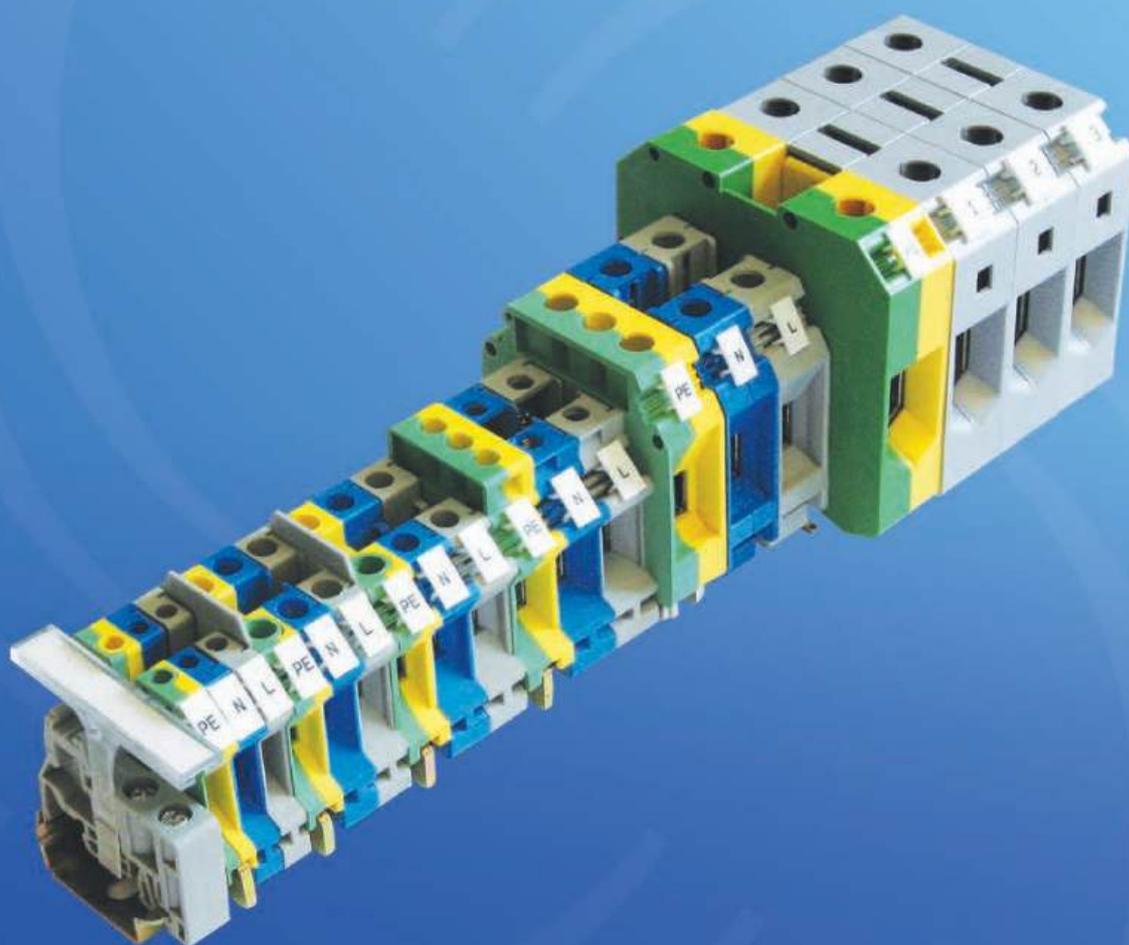
**Detailed drawing:**  
see page 289



Console code	Height, mm	Width (M), mm	Depth, mm	Weight, kg
SCS 91.60.49	912	600	494	34.8
SCS 91.80.49	912	800	494	46.5
SCD 91.120.49	912	1200	494	66.6

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# ELECTRICAL TERMINALS



## Electrical terminals series TB

PROVENTO screw terminals meet the highest requirements. The screw clamping system provides reliable protection against screw self-unscrewing, so clamping screws require no periodic tightening.

Copper conductors of any type can be connected without prior preparation. Several conductors can be connected to a single terminal pin. Unlike other types of clamps, the screw clamp high clamping force ensures gas tightness and durability of up to 95 mm<sup>2</sup> connecting conductors.

The TB series includes various terminal types: pass-through, earthing, branching, multi-pass, measuring, double, with disconnecter, with fuse holder, etc. A wide range of accessories is available for TB series terminals. These terminals can also be used at explosion-hazardous areas.

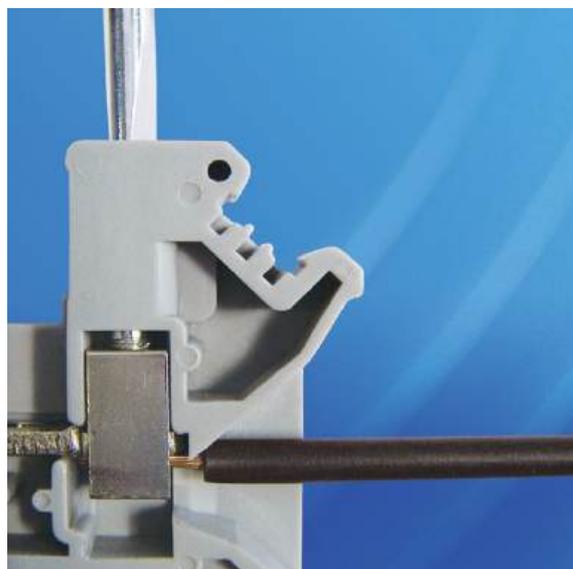
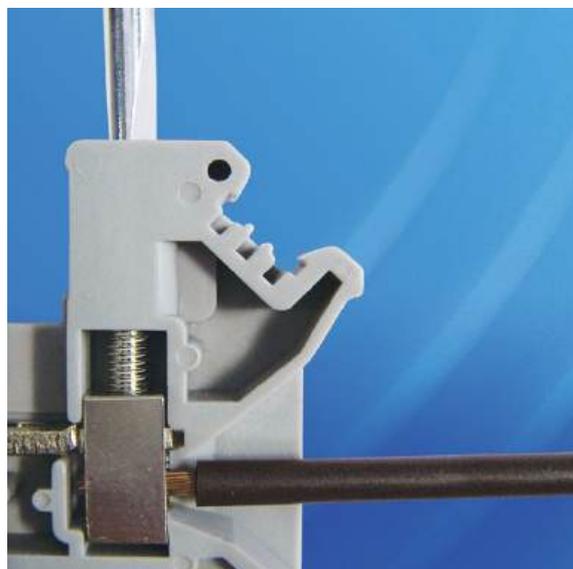
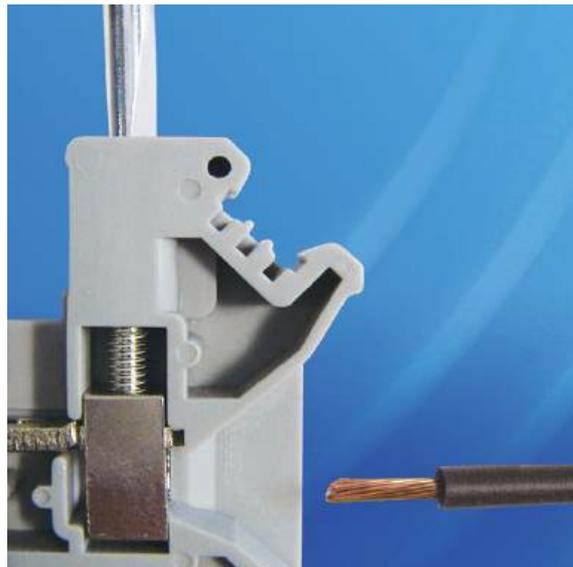
### Specifications of materials

The terminal metal parts are made of high-quality corrosion-resistant copper alloy with high electrical conductivity.

The terminal insulating housing is made of polyamide 6.6. Polyamide 6.6 is elastic, resistant to shock, UV radiation and aggressive chemical compounds and can be operated up to +130°C.

### Design features

- The universal base allows to attach the terminals to both types of DIN mounting rails, i.e.-conventional and G – shaped
- the cylindrical recess nesting the clamping mechanism screw is an ideal guide surface for screwdrivers
- the same accessories are used for terminals with different cross-sections, i.e. end caps, terminal group separators, etc.
- terminal leads can be electrically combined in two ways: either installing screw-fixed jumpers along the terminal block axis, or inserting comb-shaped jumpers into the terminal openings
- for universal and earthing terminals with the same housing shape,
- a common marking system is used





**Classification of explosion protection:**

Example of marking: **ExellU**

Ex: mark of compliance with explosion protection standards

e: mark of compliance with protection type

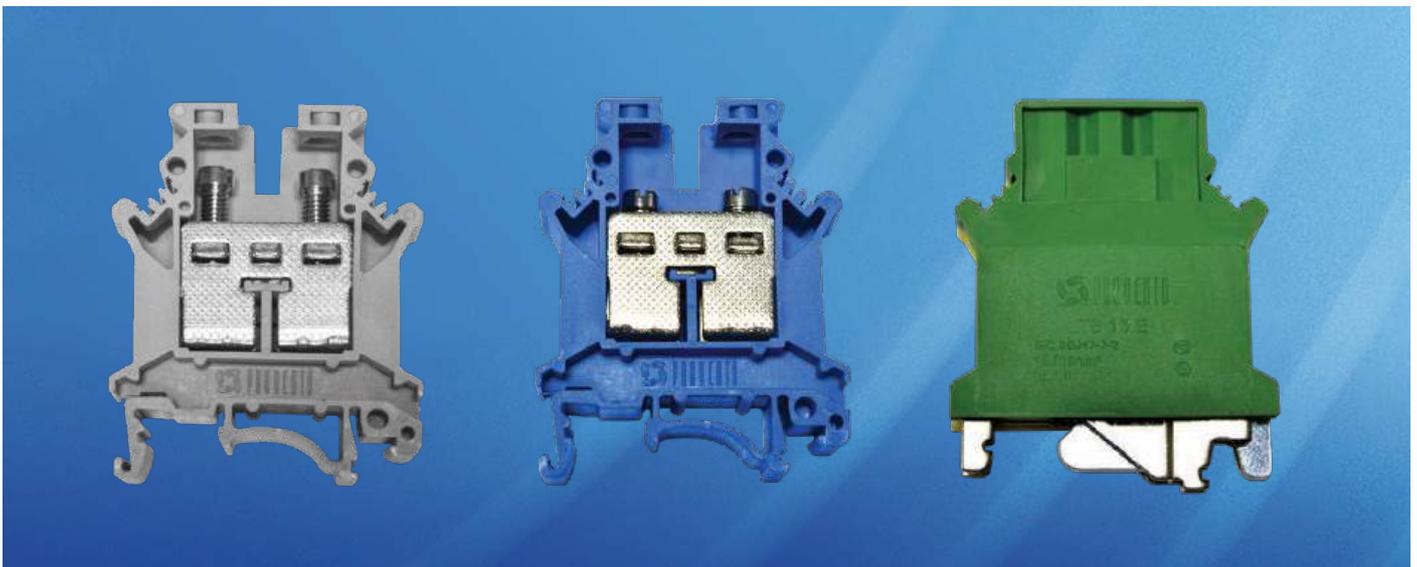
Type e protection is an electrical equipment protection type with additional techniques against permissible temperature possible excess, arc discharges, sparking at normal or abnormal operating modes specified by the electrical equipment manufacturer at regulatory and technical documentation.

II: mark of compliance with the group of explosion-proof electrical equipment

Group II is explosion-proof electrical equipment for indoor and outdoor installation intended for potentially explosive environments, except for underground mine workings and their overground facilities dangerous for ore gas and/or dust.

U: mark of compliance with the specified Ex-component

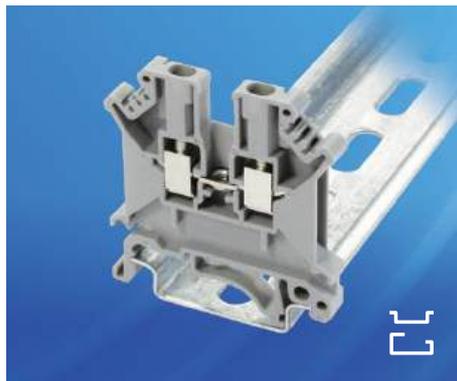
Ex-component is the part of explosion-proof electrical equipment not used separately in an explosive environment; when integrated into explosion-proof electrical equipment, it is mandatory to confirm that Ex-components explosion-proof properties meet regulatory documents requirements.



### Universal screw terminals TB

2.5-6 mm<sup>2</sup> universal terminal blocks differ in overall width.

Therefore, TB2,5 to TB10 terminals use the same terminal group separators and end caps.



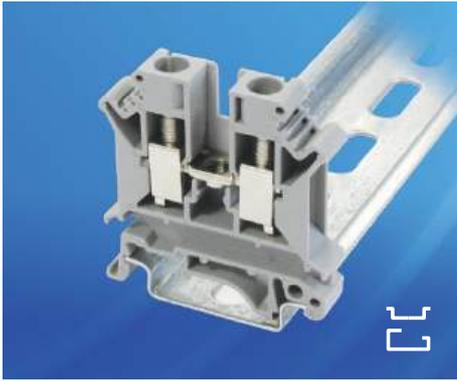
TB2,5



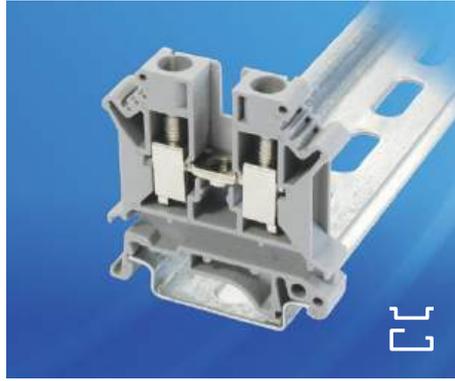
TB4



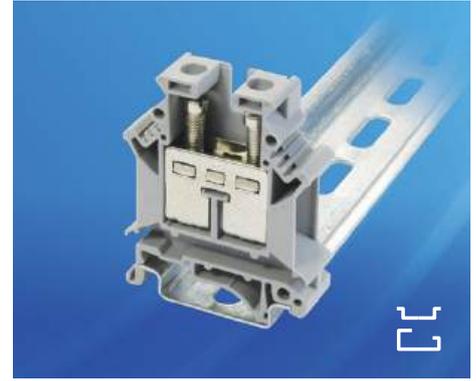
Description	Type	Color	Pcs. in pack.	Type	Color	Pcs. in pack.
<b>Terminal</b>	Width: 5.2 mm			Width: 6.2 mm		
Screw type	TB2,5	grey	50	TB4	grey	50
Screw type	TB2,5N	blue	50	TB4N	blue	50
<b>Specifications (IEC 60947-7-1)</b>						
Rated voltage	B	800	–	B	800	–
Rated / maximum current	A	24 / 32	–	A	32 / 41	–
Pulse voltage	kV	8	–	kV	8	–
Single core cable	mm <sup>2</sup>	0.25-4	–	mm <sup>2</sup>	0.25-6	–
Multi-core cable	mm <sup>2</sup>	0.25-2.5	–	mm <sup>2</sup>	0.25-4	–
Insulation stripping length	mm	8	–	mm	8	–
Screw thread diameter	mm	3	–	mm	3	–
Tightening torque	Nm	0.6-0.8	–	Nm	0.6-0.8	–
Flammability class (UL 94)	–	V0	–	–	V0	–
<b>End cap</b>						
	T2,5-10EC	grey	50	T2,5-10EC	grey	50
	T2,5-10ECN	blue	50	T2,5-10ECN	blue	50
<b>Fixed bridge bar</b>						
10 contacts	T5.10FB	silver	10	T6.10FB	silver	10
<b>Comb-shaped jumper</b>						
10 contacts	T5.10IB	grey	10	T6.10IB	grey	10
<b>Jumper separator</b>						
	T2,5-16SP	grey	50	T2,5-16SP	grey	50
<b>Terminal group separator</b>						
	T2,5-16PP	grey	50	T2,5-16PP	grey	50
<b>Terminal marking</b>						
	T 5 MT	white	50	T 6 MT	white	50
<b>Term. group marking</b>						
	T10MHCL	–	50	T10MHCL	–	50
	–	–	–	–	–	–
<b>Stopper for DIN rail</b>						
	T30CL	grey	50	T30CL	grey	50
	–	–	–	–	–	–



TB6



TB10



TB16



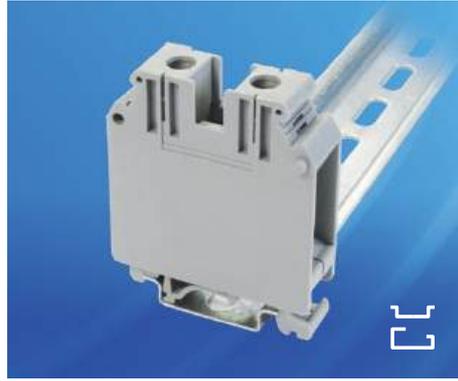
Type	Color	Pcs. in pack.
Width: 8.2 mm		
TB6	grey	40
TB6N	blue	40
B	800	–
A	41 / 57	–
kV	8	–
mm <sup>2</sup>	0.25-10	–
mm <sup>2</sup>	0.25-6	–
mm	10	–
mm	4	–
Nm	1.5-1.8	–
–	V0	–
T2,5-10EC	grey	50
T2,5-10ECN	blue	50
T8.10FB	silver	10
T8.10IB	grey	10
T2,5-16SP	grey	50
T2,5-16PP	grey	50
T 8 MT	white	50
T10MHCL	–	50
–	–	–
T30CL	grey	50
–	–	–

Type	Color	Pcs. in pack.
Width: 10.2 mm		
TB10	grey	30
TB10N	blue	30
B	800	–
A	57 / 76	–
kV	8	–
mm <sup>2</sup>	0.5-16	–
mm <sup>2</sup>	0.5-10	–
mm	10	–
mm	4	–
Nm	1.5-1.8	–
–	V0	–
T2,5-10EC	grey	50
T2,5-10ECN	blue	50
T10.10FB	silver	10
T10.10IB	grey	10
T2,5-16SP	grey	50
T2,5-16PP	grey	50
T 10 MT	white	50
T10MHCL	–	50
–	–	–
T30CL	grey	50
–	–	–

Type	Color	Pcs. in pack.
Width: 12.2 mm		
TB16	grey	36
TB16N	blue	36
B	800	–
A	76 / 101	–
kV	8	–
mm <sup>2</sup>	2.5-25	–
mm <sup>2</sup>	4-16	–
mm	11	–
mm	4	–
Nm	1.5-1.8	–
–	V0	–
T16EC	grey	50
–	–	–
T12.10FB	silver	10
T12.10IB	grey	10
T2,5-16SP	grey	50
T2,5-16PP	grey	50
T 10 MT	white	50
T10MHCL	–	50
–	–	–
T30CL	grey	50
–	–	–

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Universal screw terminals TB



TB35

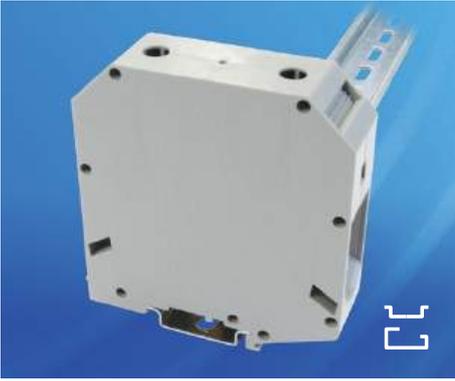


TB50



Description	Type	Color	Pcs. in pack.	Type	Color	Pcs. in pack.
<b>Terminal</b>	Width: 15.2 mm			Width: 20 mm		
Screw type	TB35	grey	20	TB50	grey	10
Screw type	TB35N	blue	20	TB50N	blue	10
<b>Specifications (IEC 60947-7-1)</b>						
Rated voltage	B	1000	–	B	1000	–
Rated / maximum current	A	125 / 150	–	A	150 / 150	–
Pulse voltage	kV	8	–	kV	8	–
Single core cable	mm <sup>2</sup>	0.75-50	–	mm <sup>2</sup>	16-70	–
Multi-core cable	mm <sup>2</sup>	0.75-35	–	mm <sup>2</sup>	25-50	–
Insulation stripping length	mm	16	–	mm	24	–
Screw thread diameter	mm	6	–	mm	6	–
Tightening torque	Nm	3.2-3.7	–	Nm	6-8	–
Flammability class (UL 94)	–	V0	–	–	V0	–
<b>End cap</b>						
	–	–	–	–	–	–
–	–	–	–	–	–	–
<b>Fixed bridge bar</b>						
 10 contacts	T15.10FB	silver	10	–	–	–
<b>Comb-shaped jumper</b>						
 10 contacts	T15.10IB	grey	10	–	–	–
<b>Jumper separator</b>						
	T2,5-16SP	grey	50	–	–	–
<b>Terminal group separator</b>						
	–	–	–	–	–	–
<b>Terminal marking</b>						
	T 10 MT	white	50	T 10 MT	white	50
<b>Term. group marking</b>						
 	T10MHCL	–	50	–	–	–
T10MHCL T10MH	–	–	–	T10MH	grey	30
<b>Stopper for DIN rail</b>						
 	T30CL	grey	50	–	–	–
T30CL T40CL	–	–	–	T40CL	alumin.	10

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TB95



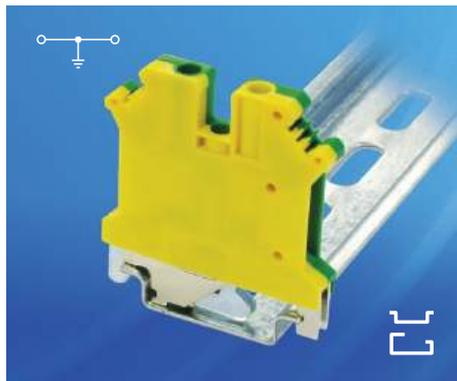
Type	Color	Pcs. in pack.
Width: 25 mm		
TB95	grey	5
-	-	-
B	1000	-
A	232 / 232	-
kV	8	-
mm <sup>2</sup>	25-95	-
mm <sup>2</sup>	35-95	-
mm	33	-
mm	8	-
Nm	15-20	-
-	V0	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
T 10 MT	white	50
-	-	-
T10MH	grey	30
-	-	-
T40CL	alumin.	10



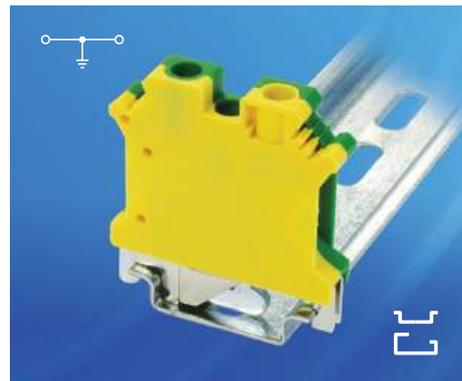
## Universal earthing terminals TB E

The terminals of this series meet all the requirements for earthing terminals.

The closed terminal housing is made of yellow-green dielectric. Earthing terminal shape and width match those of universal terminals with the same cross-section.



TB2,5E



TB4E

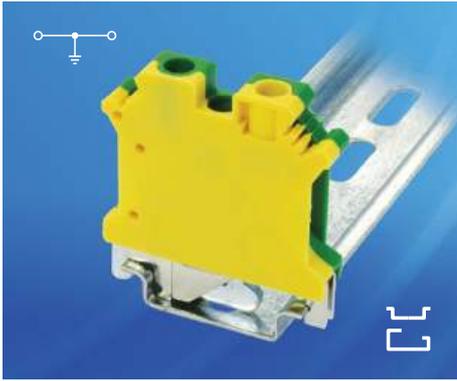


Description
<b>Terminal</b>
Screw type
<b>Specifications (IEC 60947-7-2)</b>
Pulse voltage
Single core cable
Multi-core cable
Insulation stripping length
Screw thread diameter
Tightening torque
Flammability class (UL 94)
<b>Terminal marking</b>

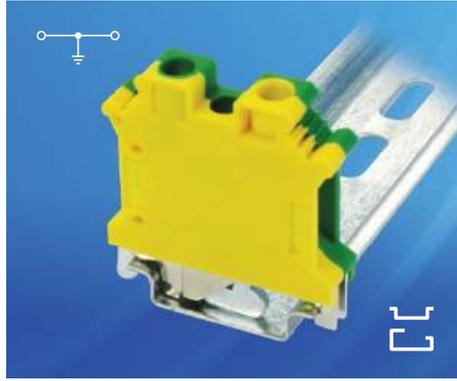


Type	Color	Pcs. in pack.
Width: 5.2 mm		
TB2,5E	yellow-green	50
Pulse voltage		
kV	8	–
mm <sup>2</sup>	0.25-4	–
mm <sup>2</sup>	0.25-2.5	–
mm	8	–
mm	3	–
Nm	0.6-0.8	–
–	V0	–
T 5 MT	white	50

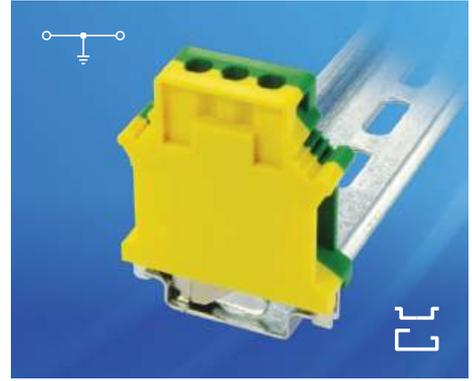
Type	Color	Pcs. in pack.
Width: 6.2 mm		
TB4E	yellow-green	50
Pulse voltage		
kV	8	–
mm <sup>2</sup>	0.25-6	–
mm <sup>2</sup>	0.25-4	–
mm	8	–
mm	3	–
Nm	0.6-0.8	–
–	V0	–
T 6 MT	white	50



TB6E



TB10E



TB16E



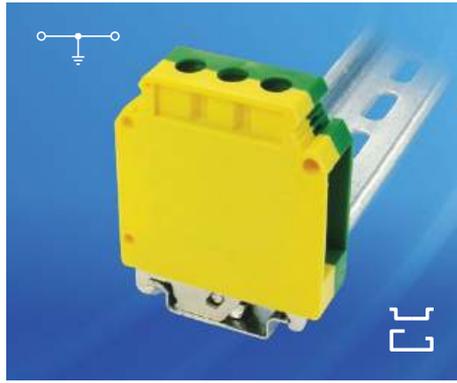
Type	Color	Pcs. in pack.
Width: 8.2 mm		
TB6E	yellow-green	40
kV	8	-
mm <sup>2</sup>	0.25-10	-
mm <sup>2</sup>	0.25-6	-
mm	10	-
mm	4	-
Nm	1.5-1.8	-
-	V0	-
T 8 MT	white	50

Type	Color	Pcs. in pack.
Width: 10.2 mm		
TB10E	yellow-green	30
kV	8	-
mm <sup>2</sup>	0.5-16	-
mm <sup>2</sup>	0.5-10	-
mm	10	-
mm	4	-
Nm	1.5-1.8	-
-	V0	-
T 10 MT	white	50

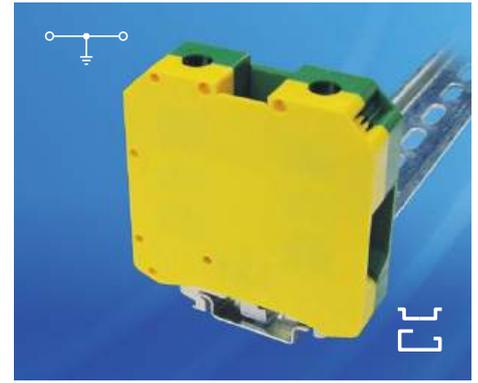
Type	Color	Pcs. in pack.
Width: 12.2 mm		
TB16E	yellow-green	36
kV	8	-
mm <sup>2</sup>	2.5-25	-
mm <sup>2</sup>	4-16	-
mm	11	-
mm	4	-
Nm	1.5-1.8	-
-	V0	-
T 10 MT	white	50

# UNIVERSAL SCREW TERMINALS

## Universal earthing terminals TB E



TB35E



TB50E



Description	Type	Color	Pcs. in pack.	Type	Color	Pcs. in pack.
<b>Terminal</b>	Width: 15.2 mm			Width: 20 mm		
Screw type	TB35E	yellow-green	20	TB50E	yellow-green	10
<b>Specifications (IEC 60947-7-2)</b>						
Pulse voltage	kV	8	–	kV	8	–
Single core cable	mm <sup>2</sup>	0.75-50	–	mm <sup>2</sup>	16-70	–
Multi-core cable	mm <sup>2</sup>	0.75-35	–	mm <sup>2</sup>	25-50	–
Insulation stripping length	mm	15	–	mm	24	–
Screw thread diameter	mm	6	–	mm	6	–
Tightening torque	Nm	3.2-3.7	–	Nm	3.2-3.7	–
Flammability class (UL 94)	–	V0	–	–	V0	–
<b>Terminal marking</b>						
	T 10 MT	white	50	T 10 MT	white	50



## Double clamp terminals TB D

In practice, it is often necessary to connect several conductors to one terminal.

The four-lead TB D terminals perfectly solve this problem, since two leads are available at each terminal side where several conductors can be connected.



### TB4D

Description	Type	Color	Pcs. in pack.
<b>Terminal</b>	Width: 6.2 mm		
Screw type	TB4D	grey	33
<b>Specifications (IEC 60947-7-1)</b>			
Rated voltage	B	630	–
Rated / maximum current	A	24 / 32	–
Pulse voltage	kV	6	–
Single core cable	mm <sup>2</sup>	0.25-6	–
Multi-core cable	mm <sup>2</sup>	0.25-4	–
Insulation stripping length	mm	8	–
Screw thread diameter	mm	3	–
Tightening torque	Nm	0.5-0.6	–
Flammability class (UL 94)	–	V2	–
<b>End cap</b>			
	T4ECD	grey	50
<b>Fixed bridge bar</b>			
10 contacts	T6.10FB	silver	10
<b>Comb-shaped jumper</b>			
10 contacts	T6.10IB	grey	10
<b>Terminal marking</b>			
	T 6 MT	white	50
<b>Terminal group marking</b>			
	T10MHCL	–	50
<b>Stopper for DIN rail</b>			
	T30CL	grey	50

Two-level terminals TB DL



TB2,5DL



TB4DL

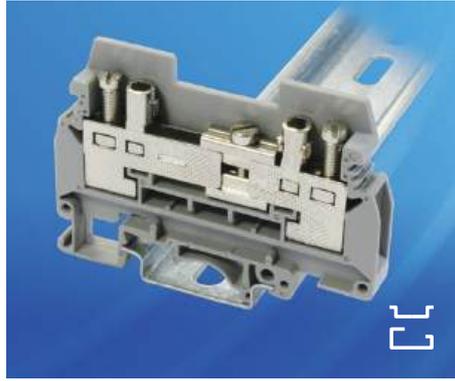
Description	Type	Color	Pcs. in pack.	Type	Color	Pcs. in pack.
<b>Terminal</b>	Width: 5.2 mm			Width: 6.2 mm		
Screw type	TB2,5DL	grey	60	TB4DL	grey	50
<b>Specifications (IEC 60947-7-1)</b>						
Rated voltage	B	500	–	B	500	–
Rated / maximum current	A	24 / 32	–	A	32 / 41	–
Pulse voltage	kV	6	–	kV	6	–
Single core cable	mm <sup>2</sup>	0.25-4	–	mm <sup>2</sup>	0.25-4	–
Multi-core cable	mm <sup>2</sup>	0.25-2.5	–	mm <sup>2</sup>	0.25-4	–
Insulation stripping length	mm	8	–	mm	8	–
Screw thread diameter	mm	3	–	mm	3	–
Tightening torque	Nm	0.5-0.6	–	Nm	0.6-0.8	–
Flammability class (UL 94)	–	V0	–	–	V0	–
<b>End cap</b>						
	T2,5-4ECDL	grey	50	T2,5-4ECDL	grey	50
<b>Spacer (s = 2.5 mm)</b>						
	T2,5-4SPDL	grey	50	T2,5-4SPDL	grey	50
<b>Fixed bridge bar</b>						
	T5.10FB	silver	10	T6.10FB	silver	10
10 contacts						
<b>Comb-shaped jumper</b>						
	T5.10IB	grey	10	T6.10IB	grey	10
10 contacts						
<b>Terminal marking</b>						
	T 5 MT	white	50	T 6 MT	white	50
<b>Terminal group marking</b>						
	T10MHCL	–	50	T10MHCL	–	50
<b>Stopper for DIN rail</b>						
	T30CL	grey	50	T30CL	grey	50

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## Measuring terminals with sliding disconnectors TB T

These terminals have a high-current disconnector, allowing to easily check measuring circuits.

The clamping screw head has a 4 mm diameter cylindrical recess for tester probes. It allows to take measurements or to short leads of adjacent terminals using a special jumper.



TB6T

Description	Type	Color	Pcs. in pack.
<b>Terminal</b>	Width: 8.2 mm		
Screw type	TB6T	grey	30
<b>Specifications (IEC 60947-7-1)</b>			
Rated voltage	B	400	–
Rated / maximum current	A	41 / 57	–
Pulse voltage	kV	6	–
Single core cable	mm <sup>2</sup>	0.5-10	–
Multi-core cable	mm <sup>2</sup>	0.5-6	–
Insulation stripping length	mm	13	–
Screw thread diameter	mm	4	–
Tightening torque	Nm	1.2-1.5	–
Flammability class (UL 94)	–	V0	–
<b>End cap</b> 	T6ECT	grey	50
<b>Terminal marking</b> 	T 8 MT	white	50
<b>Terminal group marking</b> 	T10MHCL	–	50
<b>Stopper for DIN rail</b> 	T30CL	grey	50

### Terminals with lever type fuse holder TB F

A distinctive feature of lever type fuse holders TB F is that to insert or replace the fuse, the lever holder needs to be open and locked at its fully flipped position.

Two terminal versions are available with or without light indicator. The indicator lights up when the fuse blows.



TB4F

Description	Type	Color	Pcs. in pack.
<b>Terminal</b>	Width: 8.2 mm		
Screw type	TB4F	black	30
Screw type with indicator 12-30 V AC/DC	TB4FL24	black	30
<b>Specifications (IEC 60947-7-3)</b>			
Rated voltage	B	500	–
Rated current	A	6.3	–
Pulse voltage	kV	6	–
Fuse size	–	G/5x20/ 5x25/5x30	–
Single core cable	mm <sup>2</sup>	0.25-4	–
Multi-core cable	mm <sup>2</sup>	0.25-4	–
Insulation stripping length	mm	8	–
Screw thread diameter	mm	3	–
Tightening torque	Nm	0.5-0.8	–
Flammability class (UL 94)	–	V2	–
<b>Terminal marking</b>			
	T 8 MT	white	50



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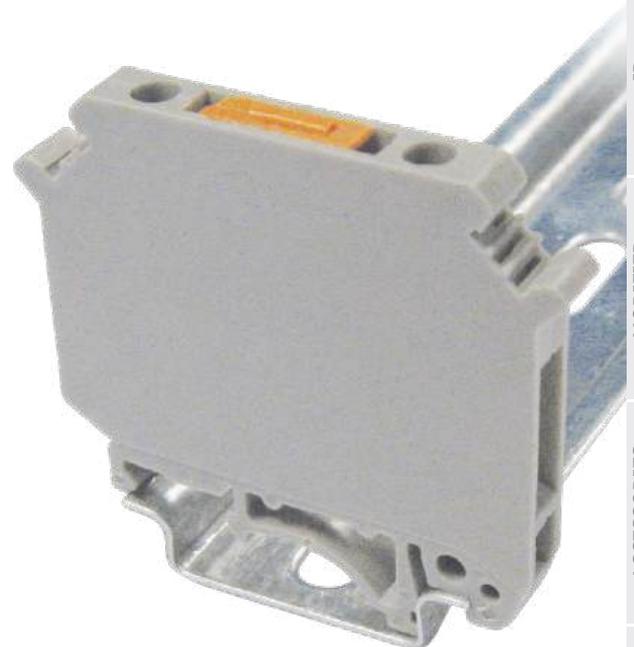
## Terminals with knife disconnecter TB DC

Terminals with disconnectors are widely used at measurement, adjustment and control circuits, allowing to quickly locate a fault and perform the required operations at the circuit de-energized section.



TB4DC

Description	Type	Color	Pcs. in pack.
<b>Terminal</b>	Width: 6.2 mm		
Screw type	TB4DC	grey	40
<b>Specifications (IEC 60947-7-1)</b>			
Rated voltage	B	500	–
Rated / maximum current	A	16 / 16	–
Pulse voltage	kV	6	–
Single core cable	mm <sup>2</sup>	0.25-6	–
Multi-core cable	mm <sup>2</sup>	0.25-4	–
Insulation stripping length	mm	8	–
Screw thread diameter	mm	3	–
Tightening torque	Nm	0.5-0.6	–
Flammability class (UL 94)	–	V0	–
<b>Comb-shaped jumper</b>			
	T6.10IB	grey	10
<b>Terminal marking</b>			
	T 6 MT	white	50



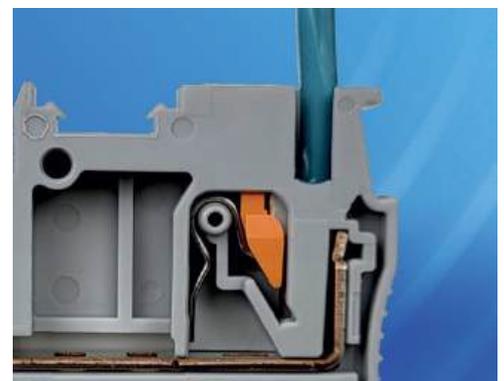
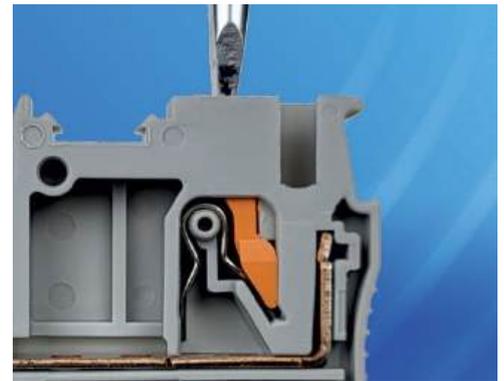
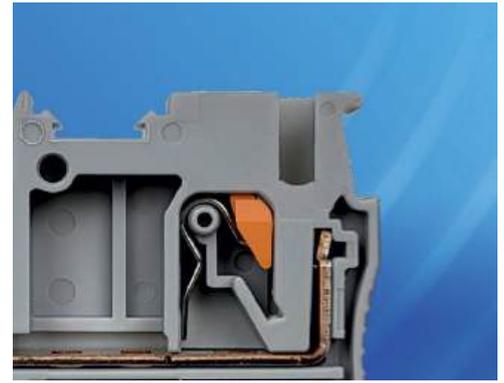
## UNIVERSAL TERMINALS PUSH-IN

### Electrical terminals series TPI

Push-in connection technique is designed to connect wires directly. Rigid or tipped conductors are attached to the connection point directly and without using tools. The specially shaped Push-in clamp spring allows to insert the conductors without noticeable effort. Low insertion forces greatly facilitate the cabling process.

When the wire is inserted, the special push-in clamp contact spring made of high-quality spring steel is automatically released and provides the required force pressing it to the current busbar.

The high clamping force and the tin layer on the spring pocket or busbar guarantee a reliable electrical connection. When a tensile stress is applied, the pull-out force of the conductor increases as the spring is inserted and fixed in the housing. This ensures maximum contacting force and wire-breaking force along with the connection vibration-resistance and gas-tightness. To depress the spring and remove the conductor or to connect tipless flexible wires, simply press the spring contact control button without fear of direct contact with live parts.





**PLASTIC TERMINALS:** fire-proof (V0 UL94) high-quality polyamide 66 (-60 °C to 130 °C operating temperature), resistant to UV radiation and aggressive media, with high both strength and ductility.



**POWER BUSBAR:** Contains 95% copper with 65% content in screw terminal cage and screw, i.e. transition resistance between components is minimal and Provento terminals are of premium quality.



Successful FROST resistance tests (-60 °C, 24 hours at static conditions).

See [DIN RAIL TERMINALS AND ACCESSORIES](#) catalog for complete information on range and specifications of TPI series terminals



## UNIVERSAL SPRING TERMINALS

### Electrical terminals series TS

Spring-loaded connections ensure high connection convenience and intuitive maintenance.

Spring clamps are ideally suited for easy and safe cable routing of all types of 0.08 to 35 mm<sup>2</sup> conductors.

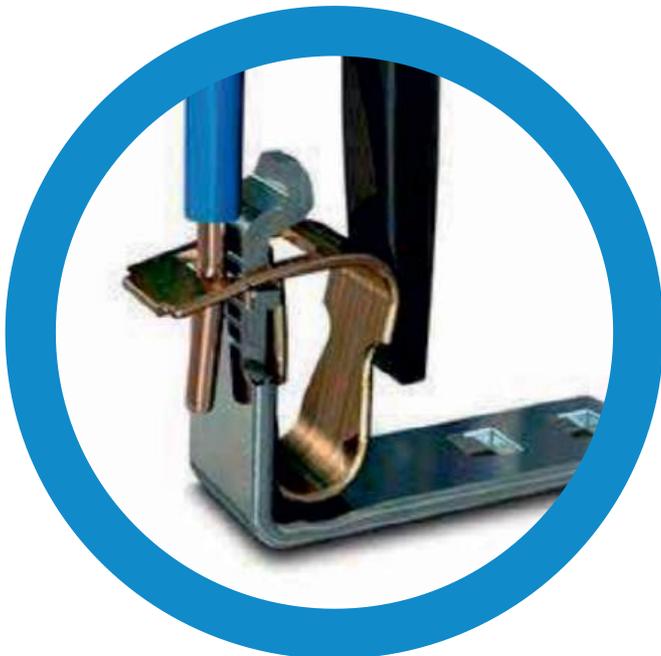
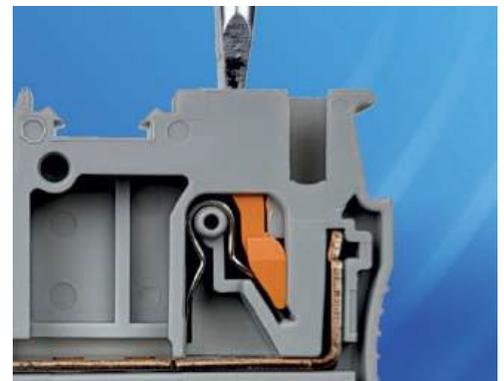
The spring connector characteristic feature is the conductor spring clamping.

When tension spring technique is used, the spring is released as a screwdriver is inserted to the working slot. Then, the screwdriver is fixed in the open connection point.

This frees up both of the user's hands and makes it easier to connect tipless flexible wires.

The fixed screwdriver holds the connection point open and also serves for visual orientation. When the tool is removed, the spring presses the conductor against the busbar.

Repeat the same to disconnect the conductor.





**PLASTIC TERMINALS:** fire-proof (V0 UL94) high-quality polyamide 66 (-60 °C to 130 °C operating temperature), resistant to UV radiation and aggressive media, with high both strength and ductility.

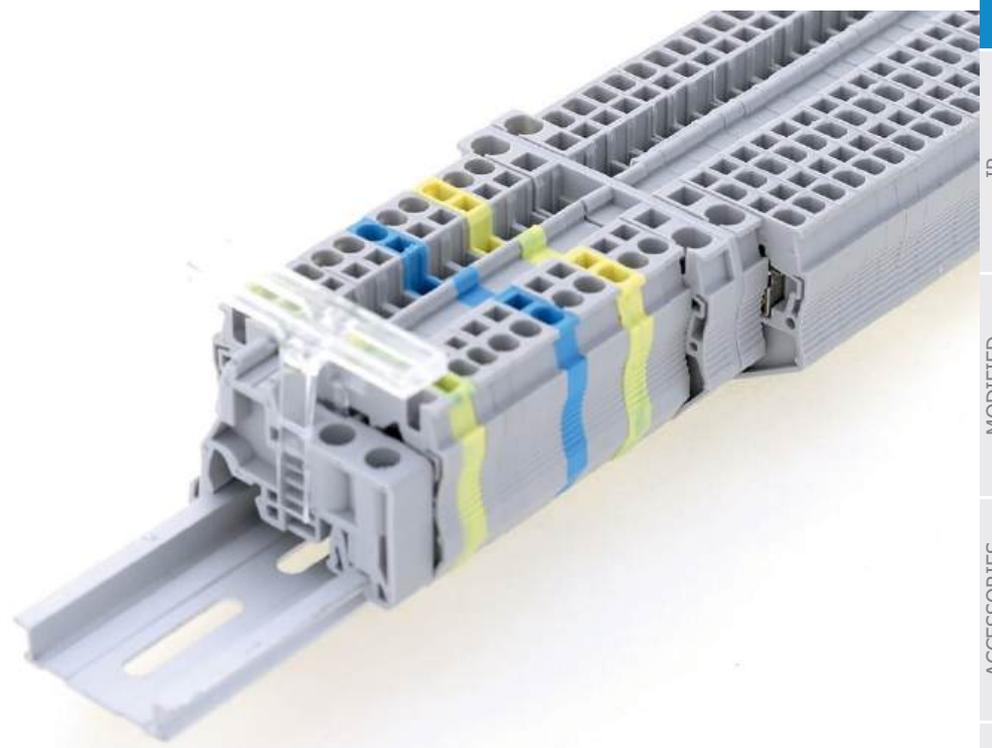


**POWER BUSBAR:** Contains 95% copper with 65% content in screw terminal cage and screw, i.e. transition resistance between components is minimal and Provento terminals are of premium quality.



Successful FROST resistance tests (-60 °C, 24 hours at static conditions).

See **DIN RAIL TERMINALS AND ACCESSORIES** catalog for complete information on range and specifications of TS series terminals





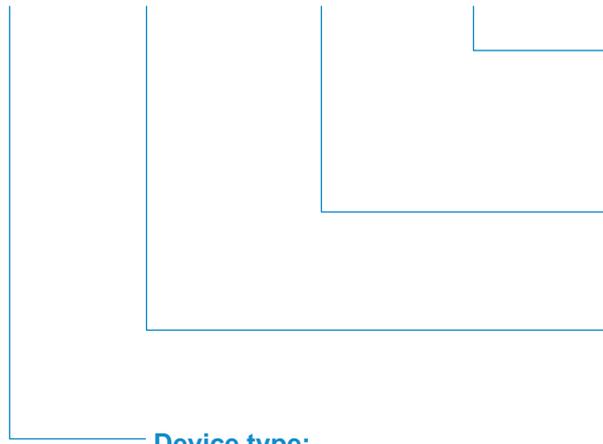
CLOOS

CLOOS  
THE EXPERT

# POWER SUPPLIES



## PS-1AC-24DC-20



**Output current:**

- 5 – 5 A DC
- 10 – 10 A DC
- 20 – 20 A DC
- 40 – 40 A DC

**Output voltage:**

- 24DC – 24 V DC
- 48DC – 48 V DC

**Supply type:**

- 1AC – single-phase 230 V network
- 24DC – 24 V DC

**Device type:**

- PS – power supply
- UPS – UPS
- DIODE – diode module



**Power supplies**

**Uninterruptible power supplies**

**Diode module**

## 6 REASONS TO CHOOSE POWER SUPPLIES



**1 Wide temperature range -40 to 70 (85)**

Can be used at extreme temperature conditions

**2 Remote alarm DC OK contact**

The IP can be connected to any automated process control system

**3 High efficiency 94..95%**

Low heat loss guarantees high reliability and long service life of the device

**4 Universal input with wide voltage range 85 TO 264 V AC / 120 TO 370 V DC**

Can be used at unstable networks

Can be used for different applications with various network parameters

**5 Overload capacity Up to 150 (130)% for 3 (1) sec**

Can be used at heavy loads that with high inrush current

**6 Compact dimensions 32 / 41 / 48 / 110 mm width**

Allow to save space at DIN rails that is very important for cabinets with high mounting density.



# ADVANTAGES

# ADVANTAGES

## 6 REASONS TO CHOOSE UNINTERRUPTIBLE POWER SUPPLIES



**1** Wide temperature range -40 to 75 (85)

Can be used at extreme temperature conditions

**2** Extensive remote alarm and display capabilities: 4 LEDs, 3 remote alarm contacts, 1 control signal

Extensive capabilities of UPS integration into any automated process control system.  
Comprehensive information on UPS and battery status

**3** Free-standing battery  
Universal charge/discharge characteristic

A battery can be connected of any manufacturer and any capacity up to 150 Ah

**4** Contacts to connect a PT1000 battery temperature sensor

The battery temperature control allows to optimize the charging current to voltage ratio, thus extending the battery life.

**5** The printed circuit board is coated with varnish  
Corrosion resistance class G3 as per ANSI / ISA 71.04-2013

The device can be used at production facilities with aggressive environments

**6** High charging current up to 3 A  
Allows to charge a discharged battery in a short time

# 6 REASONS TO CHOOSE DIODE MODULES



1

**Wide temperature range**  
-40 to 80 (85)  
Can be used at extreme temperature conditions

2

**Remote alarms**  
**DC OK contact**

The module can be connected to any automated process control system through a dry contact

3

**High efficiency 97-98%**

Low heat loss guarantees high reliability and long service life of the device

4

**Wide input voltage range 9 (22) to 60 V DC**

Can be used with 12, 24 and 48 V DC circuit voltages

5

**N+1 multiple parallel connection method can be used**

Reliable redundant power supply systems can be built

6

**Compact dimensions**  
**35 mm (20 A) and 54 mm (40 A) width**

Allow to save space at DIN rails that is very important for cabinets with high mounting density.

Technical specifications

Single-phase power supply, 24 V DC, 5 A



Single-phase power supply, 24 V DC, 10 A



	PS-1AC-24DC-5	PS-1AC-24DC-10
<b>Input data</b>		
Input voltage range	85 to 264 V AC / 120 to 370 V DC	85 to 264 V AC / 120 to 370 V DC
Frequency range	47 to 63 Hz	47 to 63 Hz
Current consumption (230 V AC)	0.75 A	1.5 A
Starting current (230 V AC)	30 A (max.)	30 A (max.)
Leakage current	< 1 mA	< 0.5 mA
<b>Output data</b>		
Rated output current	5 A	10 A
Rated output voltage	24 V DC	24 V DC
Adjustment range	23.5 to 28.0 V DC	24 to 28 V DC
Max. output current	7.5 A (3 sec.)	15 A (3 sec.)
Output voltage ripple	100 mV	120 mV
<b>Alarm contact data</b>		
Max. voltage	30 V DC	30 V DC
Max. current	1 A	1 A
<b>General specifications</b>		
Dimensions HxDxW mm	124 (128.8 with adapter) x 110 (119.9 with adapter) x 32 mm	124 (128.8 with adapter) x 110 (119.9 with adapter) x 41 mm
Operating temperature range	-40 to 75 °C (<95% rel. humidity)*	-40 to 75 °C (<95% rel. humidity)*
Storage temperature	-40 to 85 °C (20 to 95% rel. humidity)	-40 to 85 °C (<90% rel. humidity)
Efficiency	94%	94%
Insulation level (1 min stress test, 15 mA max. leakage current)	1500 V input / enclosure 3000 V input / output 500 V output / enclosure	2000 V input / enclosure 3000 V input / output 500 V output / enclosure
Weight	490 g	650 g

\* - consider temperature derating schedule

## Technical specifications

Single-phase power supply, 24 V  
DC, 20 ASingle-phase power supply, 24 V  
DC, 40 A

	PS-1AC-24DC-20	PS-1AC-24DC-40
<b>Input data</b>		
Input voltage range	85 to 264 V AC / 120 to 370 V DC	180 to 264 V AC / 254 to 370 V DC
Frequency range	47 to 63 Hz	47 to 63 Hz
Current consumption (230 V AC)	2.5 A	6 A
Starting current (230 V AC)	35 A (max.)	50 A (max.)
Leakage current	< 0.8 mA	< 5 mA
<b>Output data</b>		
Rated output current	20 A	40 A
Rated output voltage	24 V DC	24 V DC
Adjustment range	24 to 28 V DC	24 to 28 V DC
Max. output current	30 A (1 sec.)	52 A (3 sec.)
Output voltage ripple	50 mV	180 mV
<b>Alarm contact data</b>		
Max. voltage	30 V DC	30 V DC
Max. current	1 A	1 A
<b>General specifications</b>		
Dimensions HxDxW mm	125 (129.8 with adapter) x 131.5 (141.1 with adapter) x 48 mm	124 (128.8 with adapter) x 127 (134.6 with adapter) x 110 mm
Operating temperature range	-40 to 70 °C (10 to 95% rel. humidity)*	-40 to 85 °C (10 to 95% rel. humidity)*
Storage temperature	-40 to 85 °C (20 to 90% rel. humidity)	-40 to 85 °C (10 to 90% rel. humidity)
Efficiency	94.5%	95%
Insulation level (1 min stress test, 15 mA max. leakage current)	2000 V input / enclosure 3000 V input / output 500 V output / enclosure	2000 V input / enclosure 4000 V input / output 500 V output / enclosure
Weight	980 g	1680 g

\* - consider temperature derating schedule

## Technical specifications

Diode module,  
24 to 48 V DC, 40 A

	DIODE-24/48DC-40
<b>Input data</b>	
Input voltage range	9 to 60 V DC
Current consumption	40 A
<b>Output data</b>	
Rated output current	40 A
Rated output voltage	12 V DC / 24 V DC / 48 V DC
Rated output power	480 W (12 V DC) / 960 W (24 V DC) / 1920 W (48 V DC)
Output voltage ripple	200 mV
<b>Alarm contact data</b>	
Max. voltage	30 V DC
Max. current	1 A
<b>General specifications</b>	
Dimensions HxDxW mm	124 (128.8 with adapter) x 110 (118.9 with adapter) x 55 mm
Operating temperature range	-40 to 85 °C
Storage temperature	-40 to 85 °C (<95% rel. humidity)
Efficiency	98%
Insulation level (1 min stress test, 2 mA max. leakage current)	1500 V
Weight	400 g

## Technical specifications

Diode module,  
24 to 48 V DC, 20 A



		DIODE-24/48DC-20
<b>Input data</b>		
Input voltage range		22 to 60 V DC
Current consumption		20 A
<b>Output data</b>		
Rated output current		20 A
Rated output voltage		24 V DC / 48 V DC
Rated output power		480 W (24 V DC) / 960 W (48 V DC)
Output voltage ripple		200 mV
<b>Alarm contact data</b>		
Max. voltage		30 V DC
Max. current		1 A
<b>General specifications</b>		
Dimensions HxDxW mm		125 (128 with adapter) x 112.7 (120 with adapter) x 35 mm
Operating temperature range		-40 to 80 °C
Storage temperature		-40 to 85 °C (<95% rel. humidity)
Efficiency		97%
Insulation level (1 min stress test, 2 mA max. leakage current)		1500 V
Weight		365 g

## Technical specifications

Uninterruptible power supply, 24 V DC, 20 A



	UPS-24DC-24DC-20
<b>Input data</b>	
Input voltage range	22.5 to 30 V DC
Leakage current	< 0.5 mA
<b>Output data</b>	
Rated output current	20 A
Rated output voltage	24 V DC
Output voltage range	Depends on the power supply (max. 28.8 in battery mode)
<b>Battery data</b>	
Battery voltage range	18 to 28.8 V DC
Max. charging current	3 A
Connected battery max. capacity	150 Ah
<b>General specifications</b>	
Dimensions HxDxW mm	124 (128 with adapter) x 121 (128.5 with adapter) x 46 mm
Operating temperature range	-40 to 75 °C (20 to 90% rel. humidity)
Storage temperature	-40 to 85 °C (10 to 95% rel. humidity)
Alarm output	3 NO dry contact s
Efficiency	98%
Insulation level (1 min stress test, 52 mA max. leakage current)	1000 V
Weight	600 g

# MODIFIED ENCLOSURES



We offer our clients services of standard products modification. These services are included to the following list:



**CUSTOM CABINETS**

cabinets can be assembled at the manufacturer's factory using standard components according to the customer's drawings.

- ✓ customer's time is saved needed to assemble cabinets at their own facility
- ✓ minimum manufacture time
- ✓ assembly is included in the product price



**PAINT SPECIAL COLOR**

products can be painted to any RAL color.

- ✓ pre-painting preparation (degreasing, phosphating, washing, drying) with automatic equipment
- ✓ high-quality materials from leading manufacturers are used that guarantee 240 h salt fog resistance.
- ✓ 80-120 µm coating thickness, i.e. 40-60% thicker than coatings of other European manufacturers



**EXTRA HOLES**

at the customer's request, additional holes can be made at standard products for cable entries, controls, etc.

- ✓ holes are made before painting allowing to protect the entire product surface
- ✓ any hole geometry at any product surface
- ✓ high manufacture accuracy



**SILICONE SEAL APPLICATION**

polyurethane seal can be replaced for silicone seal at customer's request

- ✓ Wide operation temperature range: -60 to +135 °C
- ✓ can be applied to products made of painted steel
- ✓ high durability



**MATERIAL CHANGE**

at the customer's request, products can be manufactured of AISI316 / AISI316L stainless steel

- ✓ enhanced corrosion and chemical resistance of products
- ✓ Products can be used at the harshest operating conditions



**OVERALL DIMENSIONS CHANGE**

at the customer's request, overall dimensions of standard products can be changed

- ✓ minimum modification time
- ✓ all the product specifications are kept (IP, IK)

WALL TYPE  
EX  
FLOOR TYPE  
IT  
CONTROL  
TERMINALS  
IP  
MODIFIED  
ACCESSORIES  
INFORMATION

1.



3.



5.



7.



2.



4.



6.



8.



**1. VAST EXPERIENCE**

Our company has a vast experience of development and manufacture of thin-sheet metal products. We can create products meeting the highest market requirements.

**2. EXPERTISE**

Our comprehensive approach to solve any problem allows us to achieve high-quality results in the shortest possible time.

**3. ADVANCED TECHNOLOGIES**

We use state-of-the-art cutting-edge technologies, so we can create products with unique technical specifications.

**4. AUTOMATED MANUFACTURE**

High level of manufacture automation allows us to guarantee our customers stable product quality and timely delivery.

**5. HIGH-QUALITY MATERIALS**

We use only high-quality materials and components from reliable and trusted suppliers. This allows us to ensure high reliability of our products over the entire service life.

**6. HIGH LEVEL OF SERVICE**

We take care of our customers and offer them the highest level of service from the moment the request is received to the end of the warranty period.

**7. OPTIMAL PRICES**

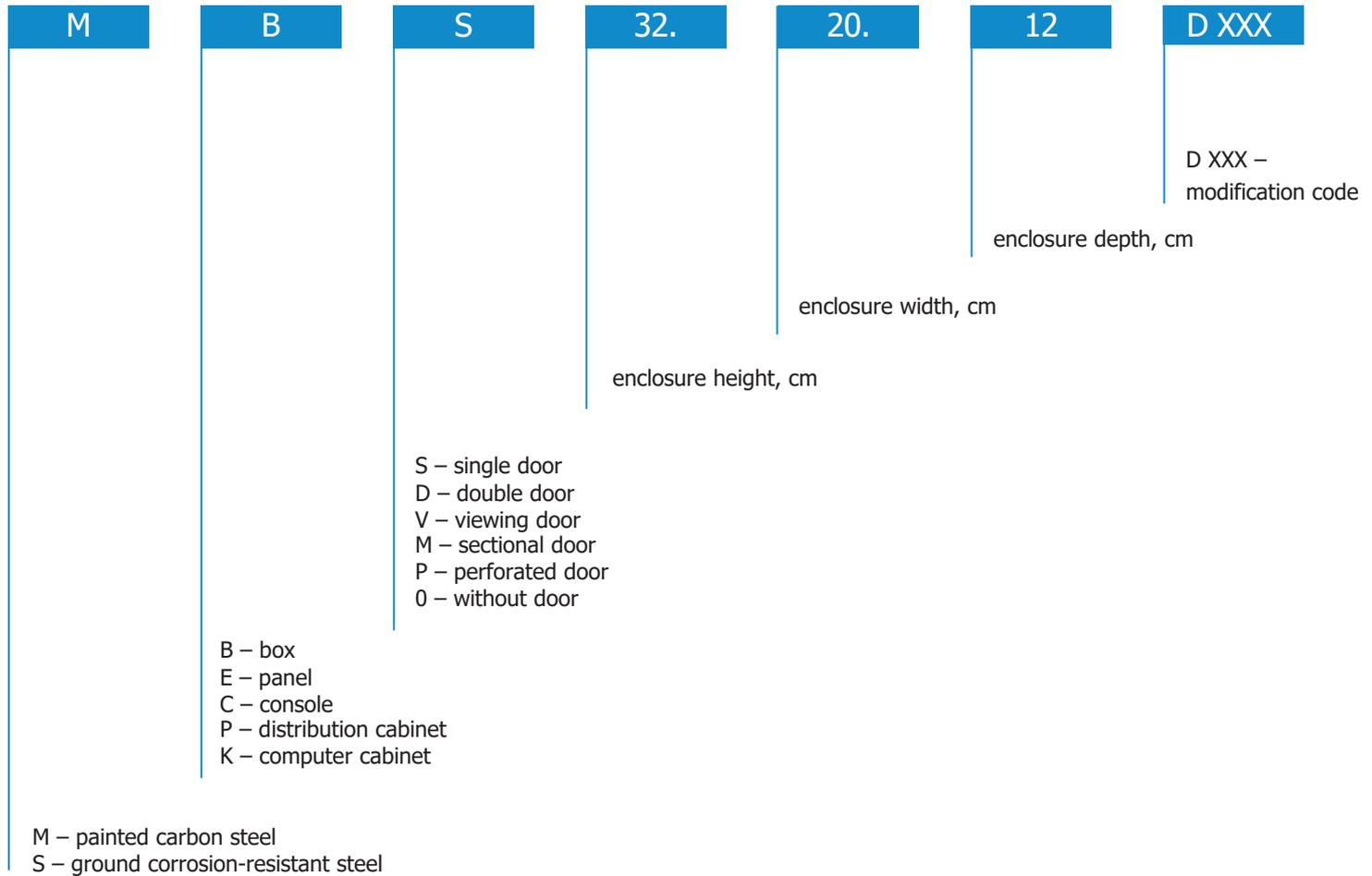
The company high level of organization aimed at reducing costs allowed us to suggest our customers optimal prices for the offered products.

**8. SHORTEST TIME**

Expertize, a clear organization of manufacture and logistics chains can significantly reduce time losses. As a result, the customer receives their order within the shortest time.

## ADDITIONAL INFORMATION

A code is assigned to each non-standard order. The code is unique and contains all the order necessary information. If a similar order is placed, the customer can use the previously assigned code and can also find a suitable solution at the non-standard products database.



# ACCESSORIES



## ACCESSORIES

WALL TYPE	TOP PANEL	<b>TOP PANEL / WALL MOUNT</b>	<b>176</b>	Telecommunications plinth	218
Ex	DOORS	Eye bolt	176	Telecom. plinth corner component	219
FLOOR TYPE	INTERNAL INSTALLATION	Ceiling panel	176	Telecommunications plinth side panel	219
IT	BASE	Protective visor for floor cabinets	177	Screw type support	221
CONTROL	ROW CONNECTION	Protective visor for wall cabinets	178	Extended plinth	221
TERMINALS	EXTERNAL INSTALLATION	Wall mounting brackets for wall cabinets	179	Roller	222
IP	MICROCLIMATE CONTROL	Tinting paint	180	<b>ROW CONNECTION</b>	<b>223</b>
MODIFIED	CABLE LAYING	Wall mounting brackets for floor cabinets	180	Joint kit	223
ACCESSORIES	19" EQUIPMENT	<b>DOORS / LOCKS</b>	<b>181</b>	Bracket for transporting floor cabinets	226
INFORMATION	FASTENERS	Sectional door	181	<b>EXTERNAL INSTALLATION</b>	<b>227</b>
		Sectional flap door	182	Rod system gripper	227
		Sectional panel	182	Panel holder	227
		End panel	183	Handle	227
		Separation plank	183	Pole mount kit	228
		Internal door for floor cabinets	184	Mounting rack	228
		Cover holder	185	Protective plank	229
		Rest	185	Mounting rack	229
		Document pocket	186	<b>MICROCLIMATE CONTROL</b>	<b>230</b>
		Internal door for wall cabinets	186	Filter fan	230
		Modular chassis	186	Filter grid	230
		Door stopper	187	Replacement filter	232
		Blind door rail	188	Fan protective casing	232
		Cylinder lock key	189	Fan	233
		Double bit zinc key	189	Heater	234
		Zinc cylinder lock with rotary handle	189	Temperature controller	235
		Double bit zinc lock	189	Hygrostat	236
		Rotary handle	190	Louvre panel	236
		Hinge	191	Fan panel	237
		Lock protective cover for lead seals	191	Air conditioner	241
		Lead sealing kit	191	Ventilation panel	243
		Viewing window	192	Fan module	245
		Flap shelf for keyboard	193	<b>CABLE ROUTING COMPONENTS</b>	<b>246</b>
		<b>INTERNAL INSTALLATION</b>	<b>194</b>	Cable entry	246
		Partition panel	194	Cable entry panel	246
		Sectional mounting panel	195	Frame beam	248
		Wall cabinet mounting panel	196	Brush cable entry	249
		Mounting panel for junction boxes	197	Polyamide cable entry	250
		Mounting grid	198	Brass cable entry	250
		Mounting panel retainer	199	Stainless steel cable entry	251
		Joint kit	199	Cable organizer	251
		Cable duct support base	199	Cable rail	251
		Mounting crossbeam	200	Cable panel	252
		Crossbeam holder	201	Self-adhesive expandable seal	252
		Earthquake-resistant reinforcement kit	201	Cable rail with EMC contact	252
		Earthquake-resistant plinth	201	19" panel with cable organizers	253
		Modular frame	202	Cable entry panel with knock out holes	253
		Modular vertical rail	203	Busbar assembly holder	255
		Touch protection	204	Support insulator	258
		Floor cabinet mod. blind panel	205	Busbar clamp	259
		Intermediate mounting panel	205	Cable hold down clamp with EMC contact	259
		Wall cabinet mod. blind panel	206	Cable clamp	259
		Limit switch	206	Cable hold down clamp with EMC contact	259
		Earthing and neutral grounding busbars	207	<b>19" EQUIPMENT</b>	<b>260</b>
		Earthing kit Central earthing point	207	Console for cabinet 19" vertical rails	260
		Earthing wire	208	Mpx series (MF frame)	260
			208	Vertical rail 19"	260
		DIN rail	209	Frame 19"	263
		DIN rail holder	210	Shelf 19"	264
		Shelf	211	Horizontal rail 19"	267
		Ceiling panel spacer	211	IF frame mounting rail	267
		Compact cabinet spacer	211	Support rail	267
		Mounting rail for floor cabinets	212	19" panel	268
		Mounting panel reinforcement	213	19" distribution enclosure	268
		Flat mounting panel	214	<b>FASTENERS</b>	<b>269</b>
		Luminaire	215	Mounting screw	270
		IT luminaire bracket	215	Self-tapping mounting screw	270
		<b>BASE</b>	<b>216</b>	Thread forming mounting screw	271
		Plinth side components	216	Flanged nut	271
		Plinth front and rear components	216	Rectangular captive nut	273
		Plinth corner component	217	Captive nut	273
		Crossbeam join bracket	218	Plastic blanking plug	273

## Ceiling panel



## Package scope:

- 1** – Panel, spacer kit and fasteners
- 2** – panel, cable entry plate, spacer kit and fasteners
- 3** – panel, fasteners
- 1** – ceiling panel with perforation

Designed to replace the standard panel of floor distribution cabinets. Ventilation holes (6 x 40 mm) are located around the perimeter. At the cable entry version, a movable panel reliably seals the cable entry area and allows easy installation.

**Material:** 1.5 mm sheet steel

**Surface:** structural powder coating RAL 7035

**Options:** paint special RAL 3020, RAL 7004, etc.

Panel code	Cabinet width, mm	Cabinet depth, mm	Weight	Qty. in package
R 60.60 P	800	600	4.7	1 set
R 60.80 P		800	6.1	1 set
R 60.100 P		1000	7.6	1 set
R 80.60 P		600	6.1	1 set
R 80.80 P		800	8.0	1 set
R 80.100 P		1000	9.9	1 set
R 80.120 P		1200	11.9	1 set

- 2** – ceiling panel with perforation and cable entry

Panel code	Cabinet width, mm	Cabinet depth, mm	Weight	Qty. in package
R 60.40 PK	600	400	4.0	1 set
R 60.60 PK		600	5.4	1 set
R 60.80 PK		800	6.9	1 set
R 60.100 PK		1000	8.2	1 set
R 80.60 PK	800	600	6.9	1 set
R 80.80 PK		800	8.8	1 set
R 80.100 PK		1000	10.6	1 set
R 80.120 PK		1200	12	1 set

- 3** – Blind ceiling panel

Panel code	Cabinet width, mm	Cabinet depth, mm	Weight, kg	Qty. in package
R 60.60 G	600	600	3.85	1 set
R 80.40 G	800	400	3.4	1 set
R 80.60 G		600	5.15	1 set
R 80.80 G		800	6.9	1 set
R 100.60 G	1000	600	6.4	1 set
R 100.80 G		800	8.6	1 set

## Transportation eye bolt

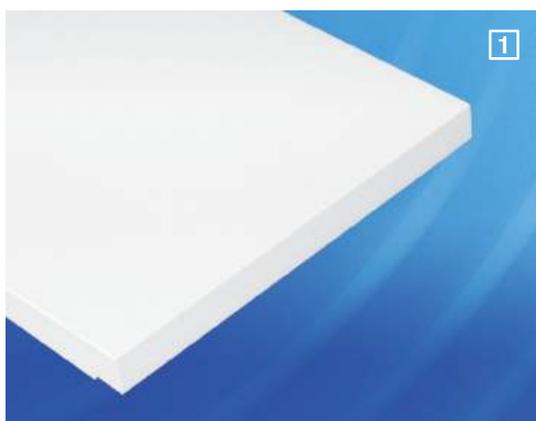


Intended for transportation of floor distribution cabinets using a crane. Easily mounted in the frame threaded holes instead of screws fixing the ceiling panel, M12 thread diameter. 200 kg maximum permissible static load when transporting at 60° angle.

**Material:** galvanized steel

Eye bolt code	Qty. in package, pcs.
LE 12	4

Protective visor

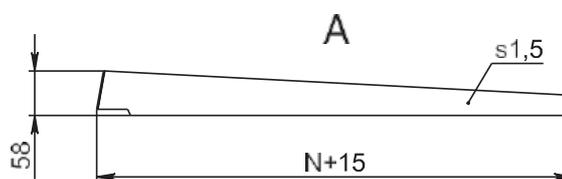
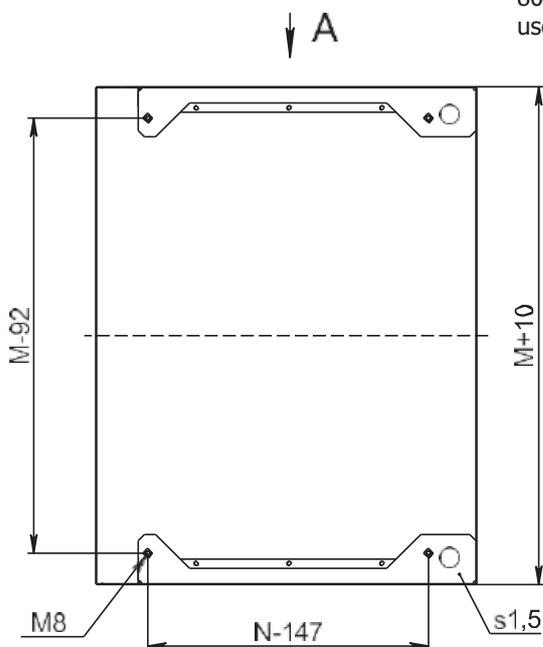


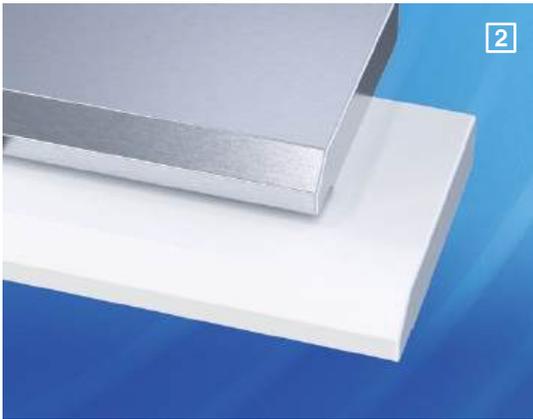
Designed to protect outdoor distribution cabinets from direct water ingress.

**Package scope:**  
visor and fasteners

Visor code	Cabinet width (M), mm	Cabinet depth (N), mm	Material	Weight, kg	Qty. in package, pcs.
R 60.40	600	400	1.5 mm sheet steel, structural powder coating RAL 7035	4.4	1
R 60.50		500		5.5	1
R 60.60		600		6.3	1
R 80.40	800	400		5.6	1
R 80.50		500		6.7	1
R 80.60		600		7.8	1
R 80.80		800		10.2	1
R 100.40	1000	400		6.6	1
R 100.60		600		9.3	1
R 120.40	1200	400		7.6	1
R 120.50		500		9.1	1
R 120.60		600		10.7	1
R 120.80		800	13.9	1	
R 160.60*	1600	600	13.8	1	
R 60.50 S	600	600	corrosion-resistant sheet steel AISI 304 1.5 mm, honed surface	6.8	1
R 80.50 S	800	500		7.2	1
R 80.60 S		600		8.4	1
R 120.40 S	1200	400		8.0	1
R 120.50 S		500		9.8	1
R 120.60 S		600		11.5	1

\* – used to connect two cabinets in a row 800 mm wide and 600 mm deep. The remaining standard sizes are used for stand-alone solutions

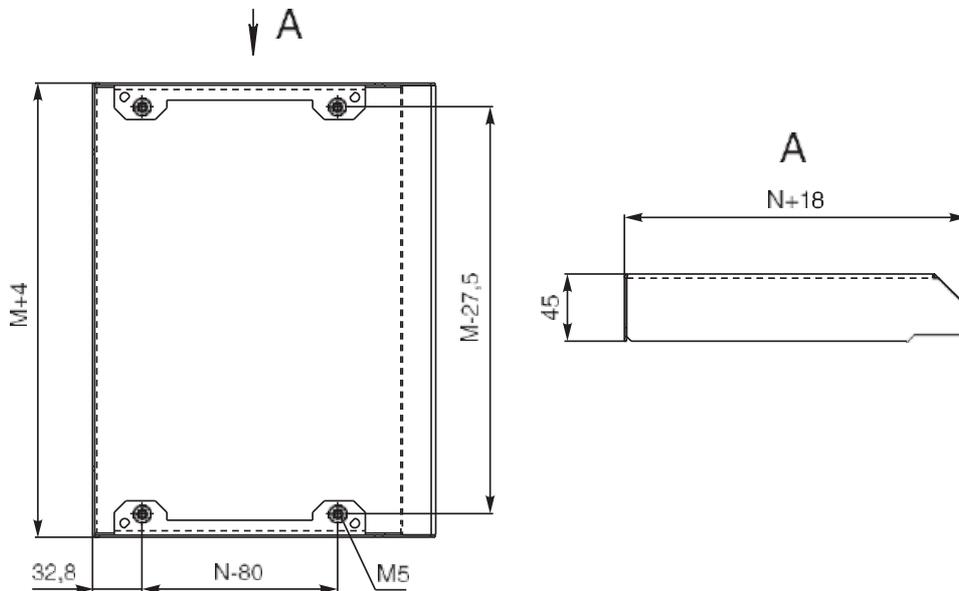




Designed for compact distribution enclosures. Used to directly protect against direct water ingress.

**Package scope:**  
visor and fasteners

Visor code	Cabinet width (M), mm	Cabinet depth (N), mm	Material	Weight, kg	Qty. in package, pcs.	
R 20.15	200	155	1.5 mm sheet steel, structural powder coating RAL 7035	0.9	1	
R 30.15	300			1.2	1	
R 40.15	400			1.5	1	
R 30.21	300	210		1.5	1	
R 40.21	400			1.9	1	
R 50.21	500			2.2	1	
R 60.21	600			2.6	1	
R 40.25	400	250		2	1	
R 50.25	500			2.5	1	
R 60.25	600			3	1	
R 60.30	600	300		3.3	1	
R 80.30	800			4.3	1	
R 30.15 S	300	150		corrosion-resistant sheet steel AISI 304 1.5 mm, surface honed	1.2	1
R 40.21 S	400	210			1.9	1
R 50.21 S	500				1.8	1
R 60.21 S	600		2.5		1	
R 50.25 S	500	250	2.5		1	
R 60.25 S	600		3		1	
R 60.30 S	600	300	3.3		1	
R 80.30 S	800		4.1		1	
R 100.30 S	1000		4.6		1	



Wall mount C-clamp



WB 6



WB 8



WB 8 B

Designed for compact distribution enclosures (MBS and SBS 60 mm deep).

Designed for all compact distribution enclosures (excluding MBS and SBS 60 mm deep).

Designed for all compact distribution enclosures (excluding MBS and SBS 60 mm deep).

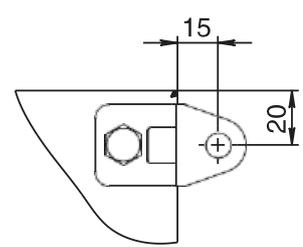
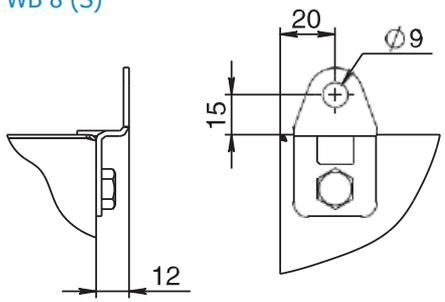
Used to mount enclosures to walls vertically or horizontally. Brackets are attached through holes at the enclosure rear wall (excluding corrosion-resistant steel enclosures).

Package scope:

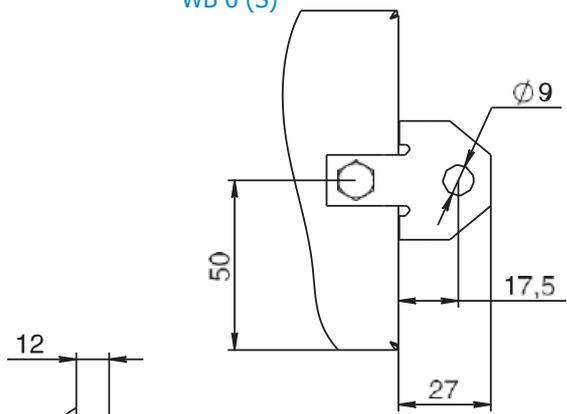
C-clamp, plastic washer and fasteners

C-clamp code	Material	Set max. load, kg	Qty. in package, pcs.
WB 6	2.0 mm galvanized sheet steel	150	4
WB 8			
WB 8 B			
WB 6 S	1.5 mm corrosion-resistant sheet steel AISI 304	150	4
WB 8 S			
WB 8 BS			

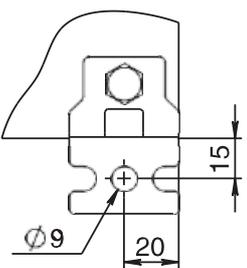
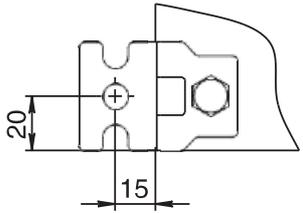
WB 8 (S)



WB 6 (S)



WB 8 B(S)



## Wall mount C-clamp

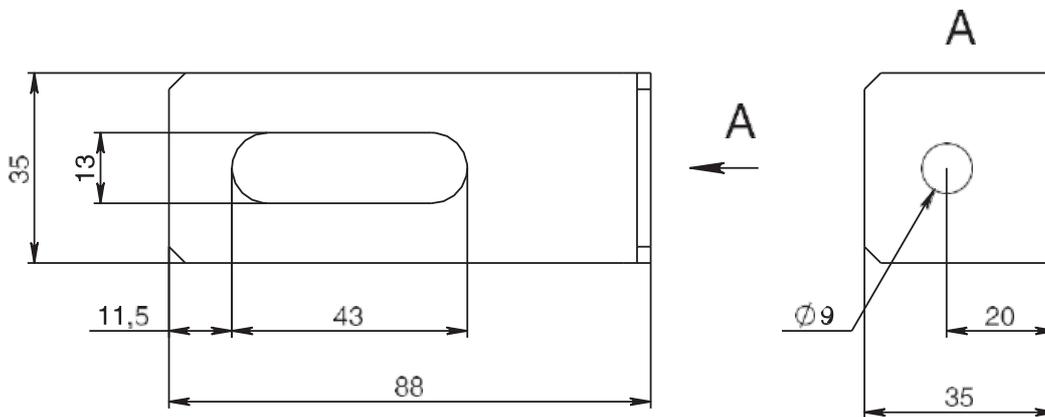


Intended to fix to the wall the top section of floor distribution cabinets with small depth or heavy equipment on the door.

**Material:**  
2.5 mm galvanized sheet steel

**Package scope:**  
C-clamp and fasteners

C-clamp code	Use	Qty. in package, pcs.
WB 12	for floor distribution cabinets	2



## Tinting paint



To tint surfaces with damaged powder coating. Aerosol can. 400 ml volume.

Paint code	Color
CS 7035.01	RAL 7035
CS 3020.01	RAL 3020
CS 7021.01	RAL 7021
CS 7004.01	RAL 7004

## Touch-up stick



To tint surfaces with damaged powder coating. Touch-up stick. 12 ml volume.

Paint code	Color
CS 7035.02	RAL 7035
CS 3020.02	RAL 3020
CS 7021.02	RAL 7021
CS 7004.02	RAL 7004

Sectional door



Sectional doors with or without sight glass can be combined with each other in any order using separation planks. One end panel and one separation plank are required at top and bottom sections. Optional right- or left-hung door. Designed for floor distribution cabinets. WE RECOMMEND TO ORDER AS PART OF CUSTOM CABINET.

**Material:** 2.0 mm sheet steel, 4.0 mm hardened glass

**Hinge:** opening angle  $\leq 225^\circ$

**Surface:** structural powder coating RAL 7035

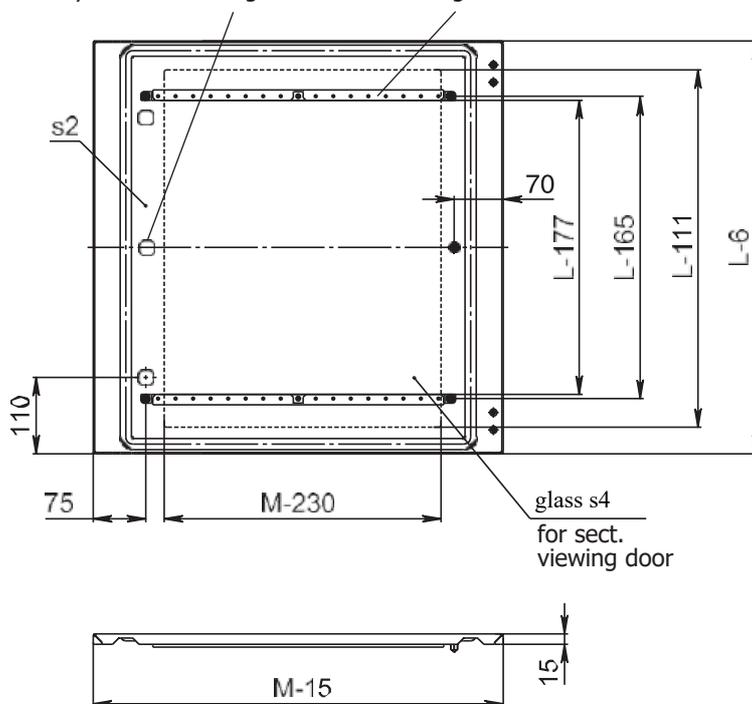
**Lock:** double bit tongue type

**Package scope:** door, hinges, locks, two rails for blind doors (only for blind doors 600, 800 and 1000 mm high) and fasteners

Height (L), mm	Blind door code				Viewing door code			
	Width (M) 600 mm	Weight, kg	Width (M) 800 mm	Weight, kg	Width (M) 600 mm	Weight, kg	Width (M) 800 mm	Weight, kg
200	D 20.60 M	2.6	D 20.80 M	3.3	–	–	–	–
400	D 40.60 M	4.5	D 40.80 M	5.8	D 40.60 MV	3.8	D 40.80 MV	4.8
600	D 60.60 M	6.4	D 60.80 M	8.3	D 60.60 MV	5.7	D 60.80 MV	7.3
800	D 80.60 M	8.3	D 80.80 M	10.8	D 80.60 MV	7.3	D 80.80 MV	9.2
1000	D 100.60 M	10.2	D 100.80 M	13.4	–	–	–	–

**Attention!** Holders to attach SP X side panels: order separately.

1 lock hole only for 200 mm high doors      2 rails only for 600, 800 and 1000 mm high blind doors



## Sectional panel



Sectional panels can be combined with each other in any order using separation planks. One end panel and one separation plank are required at top and bottom sections. Designed for floor distribution cabinets.

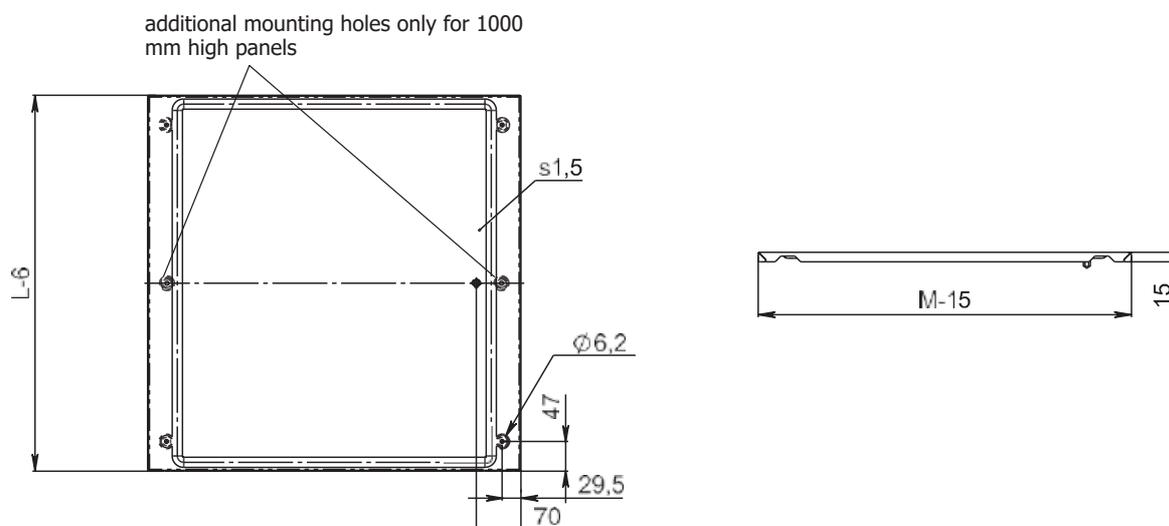
**Material:**  
1.5 mm sheet steel,

**Package scope:**  
panel, panel holder and fasteners

**Surface:**  
structural powder coating  
RAL 7035

Height (L), mm	Blind panel code			
	Width (M) 600 mm	Weight	Width (M) 800 mm	Weight, kg
200	DP 20.60	1.6	DP 20.80	2.1
400	DP 40.60	2.9	DP 40.80	3.8
600	DP 60.60	4.6	DP 60.80	5.6
800	DP 80.60	5.6	DP 80.80	7.3
1000	DP 100.60	6,9	DP 100.80	9.1

**Attention!** Holders to attach SP X side panels: order separately.



## Sectional flap door



Designed for floor distribution cabinets. Combined with sectional panels in any order using separation planks. One end panel and one separation plank are required at top and bottom sections.

**Material:**  
1.5 mm sheet steel,

**Package scope:**  
sectional door - 1 pcs., hinge - 2 pcs., double 5 mm bit lock - 1 pcs., fasteners, packaging

**Surface:**  
structural powder coating  
RAL 7035

Height (L), mm	Blind panel code	
	Width (M) 600 mm	Weight, kg
200	DP 20.60 MK	2.0

End panel



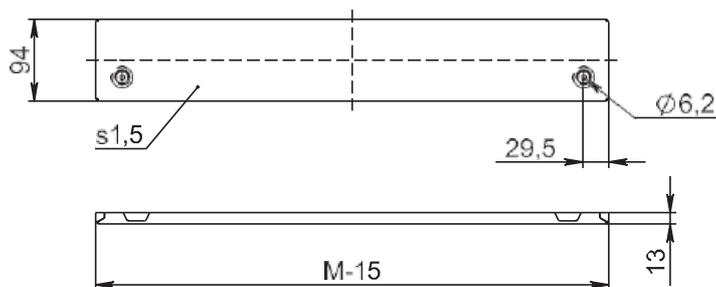
Used as upper and lower end panel at floor distribution cabinets.

**Material:**  
1.5 mm sheet steel

**Package scope:** panel,  
panel holder and  
fasteners

**Surface:**  
structural powder coating  
RAL 7035

Panel code		Height, mm	Qty. in package
Width (M) 600 mm	Width (M) 800 mm		
DP 10.60	DP 10.80	100	1 set



Separation plank



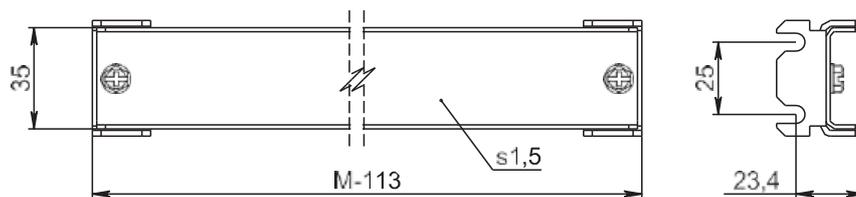
Used as sealing plank between sectional doors and panels at floor distribution cabinets.

**Material:**  
1.5 mm sheet steel

**Package scope:**  
plank, 2 brackets, seal  
and fasteners

**Surface:** structural  
powder coating RAL 7035

Plank code		Qty. in package
Width (M) 600 mm	Width (M) 800 mm	
GB 60	GB 80	1 set



## Internal door



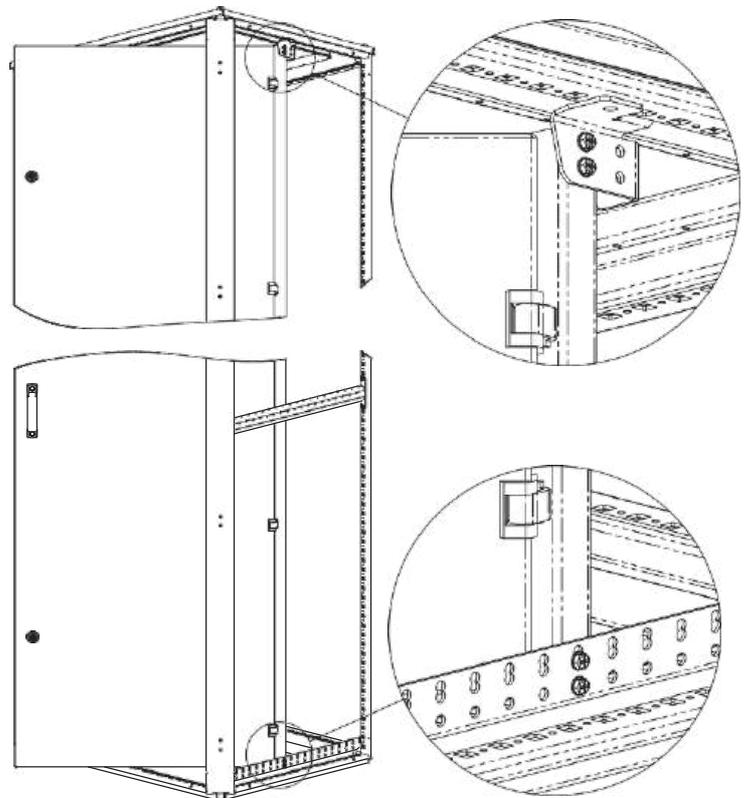
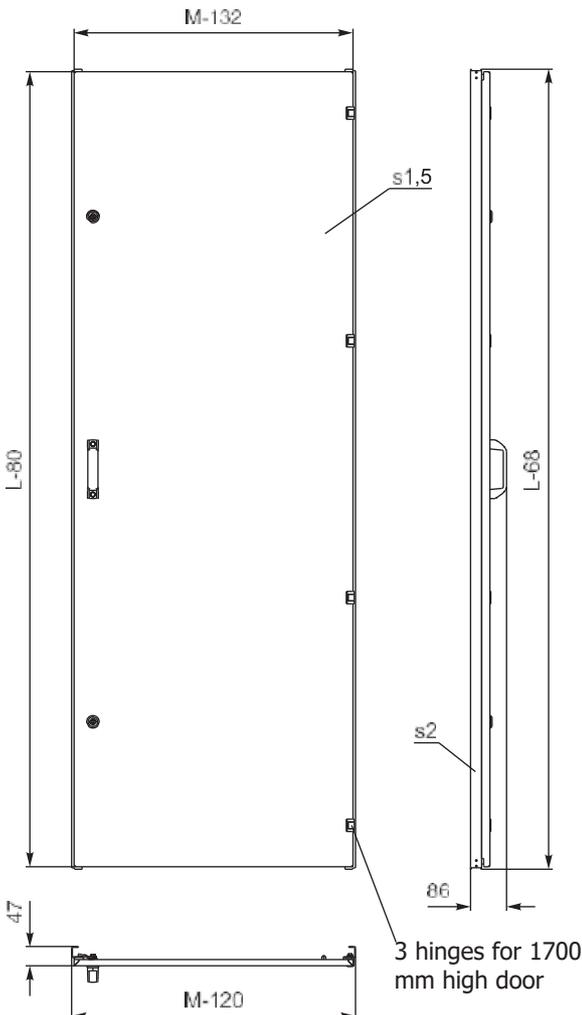
Intended to monitor the equipment installed at floor distribution cabinets through the viewing door. Mounted to the floor distribution cabinet frame. Depth adjustment with 25 mm pitch. Locked with two double bit tongue locks. Right- or left-hung door.

**Material:**  
1.5 mm sheet steel

**Surface:**  
structural powder  
coating RAL 7035

**Package scope:**  
door, 2 support profiles, 2 locks, door  
handle, hinges and fasteners

Door code	Cabinet height (L), mm	Cabinet width (M), mm	Weight, kg	Qty. in package
ID 180.60	1800	600	13.5	1 set
ID 180.80		800	17.7	1 set
ID 200.60	2000	600	15.5	1 set
ID 200.80		800	19.7	1 set
ID 220.60	2200	600	17	1 set
ID 220.80		800	21.6	1 set



The door profile is installed to the cabinet frame using self-tapping screws (included to the set)

## Rest



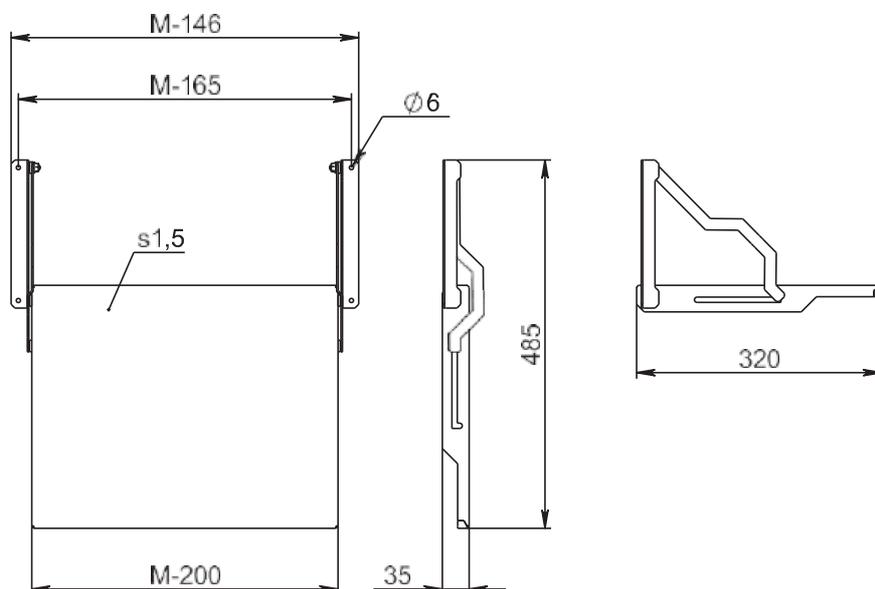
Designed for documents, programmable devices, measuring instruments, etc. It is mounted to the door frame of floor distribution cabinets. Max. load capacity: 30 kg.

**Material:**  
1.5 mm sheet steel

**Package scope:**  
rest, 2 holders, 2 stoppers, plastic washers and fasteners

**Surface:**  
structural powder coating RAL 7035

Rest code	Cabinet width (M), mm
SH 50 D	1000
SH 60 D	600 / 1200
SH 80 D	800



## Cover holder

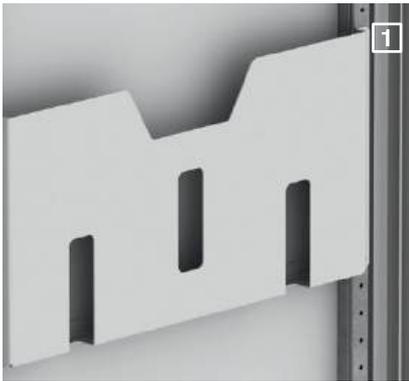


Designed for all junction boxes (except for 60 mm deep boxes). Used to support the box cover in open position.

**Material:**  
1.2 mm corrosion-resistant sheet steel  
AISI 304

Holder code	Qty. in pack., pcs.
B 0 B	2

## Document pocket



1

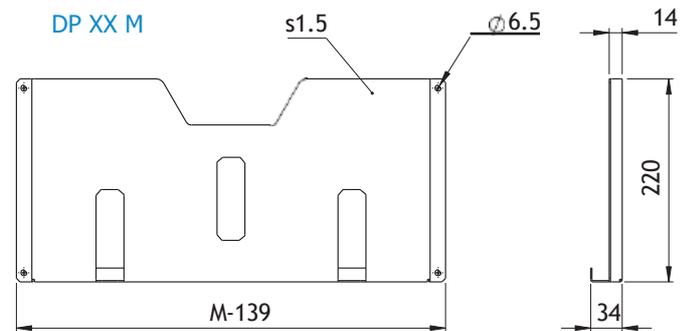
Pocket code	Cabinet width (M), mm
DP 30 MD	600
DP 40 M	400
DP 50 M	500 / 1000
DP 60 M	600 / 1200
DP 80 M	800



2

2

Pocket code	Internal dimensions			Qty. in package, pcs.
	Height, mm	Width, mm	Depth, mm	
DP 40 P	220	235	30	1



Designed to store wiring diagrams, floppy disks, etc. Adjustable installation height. 30 mm internal depth. DP X M is suitable for distribution and automation cabinets. The plastic pocket is attached to door inner surface of  $\geq 400$  mm wide MPx (SPx) series enclosures.

**Material and surface:**

- 1 – 1.5 mm sheet steel, structural powder coating RAL 7035
- 2 – plastic, color identical to RAL 7035

## Internal door



To mount controls and alarms. Mounted to compact distribution cabinet enclosure. Locked with one or two double bit tongue locks.

Internal door code	Weight, kg
ID 50.40	3.4
ID 60.40	4.3
ID 70.50	5.7
ID 80.60	7.7
ID 100.60	9.6
ID 100.80	11.6
ID 120.60	11.5
ID 120.80	14
ID 140.80	18.1

## Modular chassis



Modular chassis is a ready-made solution to install modular DIN rail equipment into MEX cabinets.

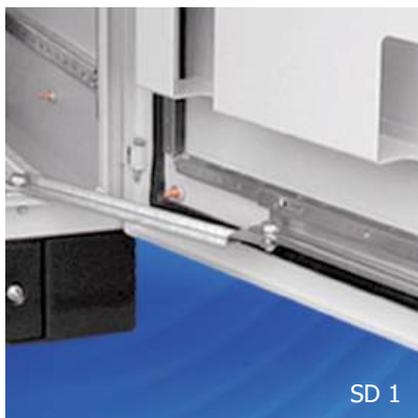
Mod. chassis code	Modules qty.	Weight, kg
MC 50.40	24 (2x12)	3.8
MC 60.40	36 (3x12)	4.5
MC 60.60	72 (3x24)	7.2
MC 80.60	96 (4x24)	8.1
MC 100.60	144 (6x24)	10.4
MC 120.60	168 (7x24)	11.2
MC 120.80	245 (7x36)	17.7

Door stopper



SD

Mounted to the door frame and to the floor distribution cabinet frame



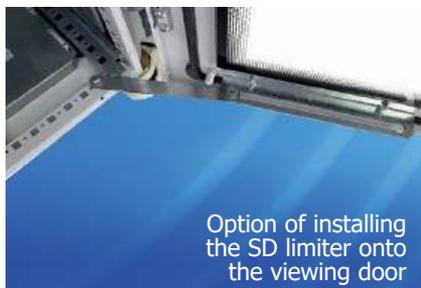
SD 1

Mounted to the enclosure and door of control console bottom section



SD 2 v2

Mounted to the enclosure and door of compact distribution cabinets



Option of installing the SD limiter onto the viewing door



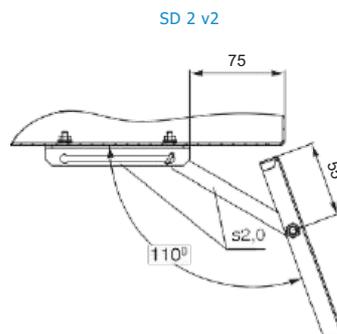
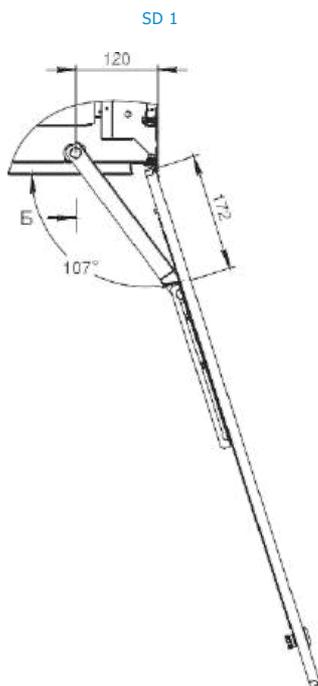
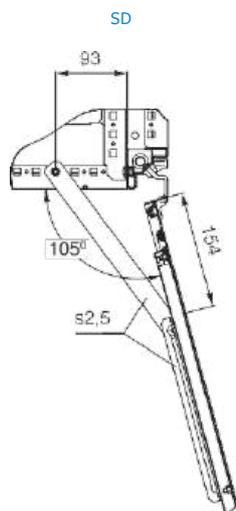
SD P

Mounted to the door frame and to the floor distribution cabinet frame

**Material:**

SD, SD1 – galvanized sheet steel SD2 v2 – corrosion-resistant sheet steel

Limiters code	Qty. in package
SD	1 set
SD 1	1 set
SD 2 v2	1 set
SD P	1 set



## Blind door rail



**1** – Designed to mount equipment to the door (e.g. cables or cable ducts). Attached to the door frame of floor distribution cabinets and to door interior side, the cover or side wall of control console bottom section.

**Material:**

- 1** – 2.0 mm galvanized sheet steel  
**2** – 2.0 mm galvanized sheet steel  
**3** – 1.2 mm galvanized sheet steel



**2** – designed to mount equipment to the door (e.g. cables or cable ducts). It is mounted to door rails of compact distribution cabinets.

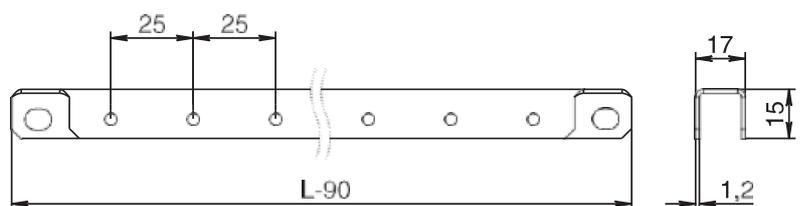
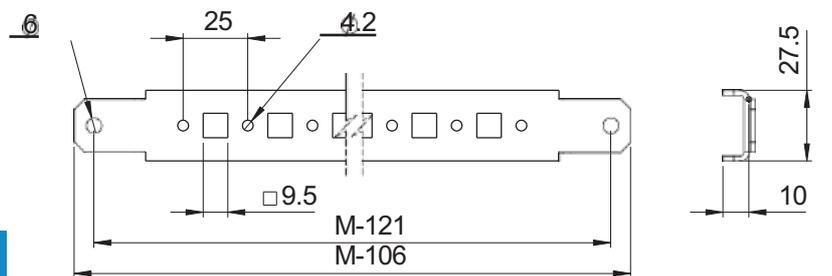
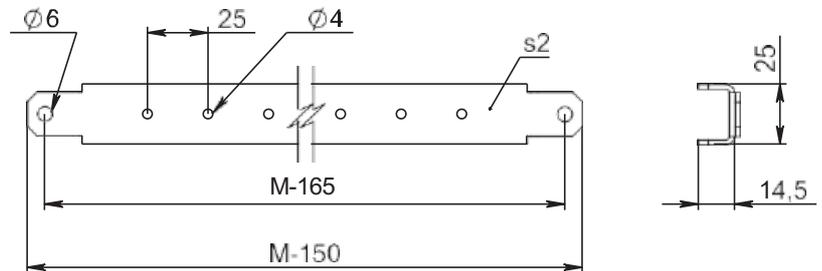


**3** – designed for  $\geq 500$  mm high compact distribution enclosures. Used to attach accessories (e.g. cable ducts) to blind door interior side or to walls of  $\geq 400$  mm deep MES cabinets. The rails have 4.2 mm holes with 25 mm pitch. Rails are included to enclosure assemblies with blind doors 1200, 1400 and 1600 mm high.

<b>1</b>	Rail code	Cabinet width (M), mm	Qty. in pack., pcs
	VB 40 G	400	10
	VB 50 G	500 / 1000	10
	VB 60 G	600 / 1200	10
	VB 80 G	800	10

<b>2</b>	Rail code	Cabinet width (M), mm	Qty. in pack., pcs
	VB 40 GE	400	10
	VB 50 GE	500	10
	VB 60 GE	600	10
	VB 80 GE	800	10

<b>3</b>	Rail code	Cabinet height (L), mm	Weight, kg	Qty. in pack., pcs
	VB 50	500	0.15	2
	VB 60	600	0.17	2
	VB 70	700	0.18	2
	VB 80	800	0.19	2
	VB 100	1000	0.23	2
	VB 120	1200	0.28	2
	VB 140	1400	0.49	2
	VB 160	1600	0.57	2



## DOORS / LOCKS

### Zinc cylinder lock



Zinc cylinder lock is designed to replace the standard double bit lock at compact distribution cabinets.

**Material:**  
zinc die casting

**Package scope:**  
lock, key KY 1C.Z (EK333) 2 pcs.

Lock code	Qty. in package, pcs.
LC 1C.Z	1

### Double bit lock



Double bit door lock.

Lock code	Material	Qty. in pack., pcs
LC 5DB.S	corr.-resistant steel AISI 316	1
LC 5DB.Z	zinc die casting	1

### Zinc cylinder lock with rotary handle



Zinc door lock with cylinder and rotary handle (to replace standard double bit locks) allows to restrict access rights and to reduce the key load. Used in the design of compact distribution cabinets.

**Material:**  
zinc die casting

**Package scope:**  
lock, key KY 1C.Z (EK333) 2 pcs.

Lock code	Qty. in package, pcs.
LC 1C.ZH	1

### Double bit key



Designed for key inserts.

**Material:**  
zinc die casting

Key code	Qty. in package, pcs.
KY 5 DB.Z	1

### Cylinder lock key



Keys for lock with cylinder are used if the key is lost or a duplicate needed. Suitable for: zinc lock with cylinder LC 1C.Z, zinc lock with cylinder and rotary handle LC 1C.ZH, LH 1C.Z rotary handle.

Key code	Qty. in package, pcs.
KY 1C.Z	2

## Rotary handle with cylinder



Door rotary handle with cylinder. Used to replace the standard double bit lining of floor distribution cabinets or floor cabinets for telecommunications equipment.

**Material:**  
Zinc die casting

**Package scope:**  
handle, fasteners, key KY 1C.Z (EK333) 2 pcs.

Handle code	Qty. in package, pcs.
LH 1C.Z	1

## Rotary handle without cylinder



Door rotary handle without cylinder. Used to replace the standard double bit lining of floor distribution cabinets or floor cabinets for telecommunications equipment.

**Material:**  
Zinc die casting

**Package scope:**  
handle and fasteners

Handle code	Qty. in package, pcs.
LH 2C.Z	1

## Double bit rotary handle



Double bit door rotary handle. Used to replace the standard double bit lining of floor distribution cabinets or floor cabinets for telecommunications equipment.

**Material:**  
Zinc die casting

**Package scope:**  
handle and fasteners

Handle code	Qty. in package, pcs.
LH 3C.Z	1

## Rotary handle with triangle



Door rotary handle with 7 mm triangle. Used to replace the standard double bit lining of floor distribution cabinets or floor cabinets for telecommunications equipment.

**Material:**  
Zinc die casting

**Package scope:**  
handle and fasteners

Handle code	Qty. in package, pcs.
LH 4C.Z	1

## Hinge



**1** Designed to mount 180° opening angle doors of wall mounted cabinets (except for cabinets 80 and 120 mm deep).

**Material:**

**door component:** zinc die casting

**enclosure component:** 3.0 mm sheet steel

Hinge code	Material	Qty. in package, pcs.
HG 180.90 SE	corr.-resistant steel AISI 316	1
HG 180.90 ME	cast steel	1



**2** Designed to mount 225° opening angle doors of floor cabinets.

**Material:**

zinc die casting

**Package scope:**

hinge and fasteners

Hinge code	Qty. in package, pcs.
HG 180.45 ZP	4

## Lock protective cover for lead seals



The lock protective cover for lead seals is installed to the door of compact distribution cabinets allowing a seal application to control the cabinet opening.

**Material:**

stainless steel AISI 304

Cover code	Weight	Qty. in package, pcs.
PC 1 L.S	0.05	2

## Lead sealing kit



The lead sealing kit is installed to the door of floor distribution cabinets allowing a seal application to control the cabinet opening.

**Material:**

sheet steel RAL 7035

Cover code	Weight	Qty. in package, pcs.
PC 1 LH.M V.2	0.1	1

## Viewing window



Designed to protect controls, displays and instruments against dust, dirt and liquid ingress and to prevent unauthorized persons access.

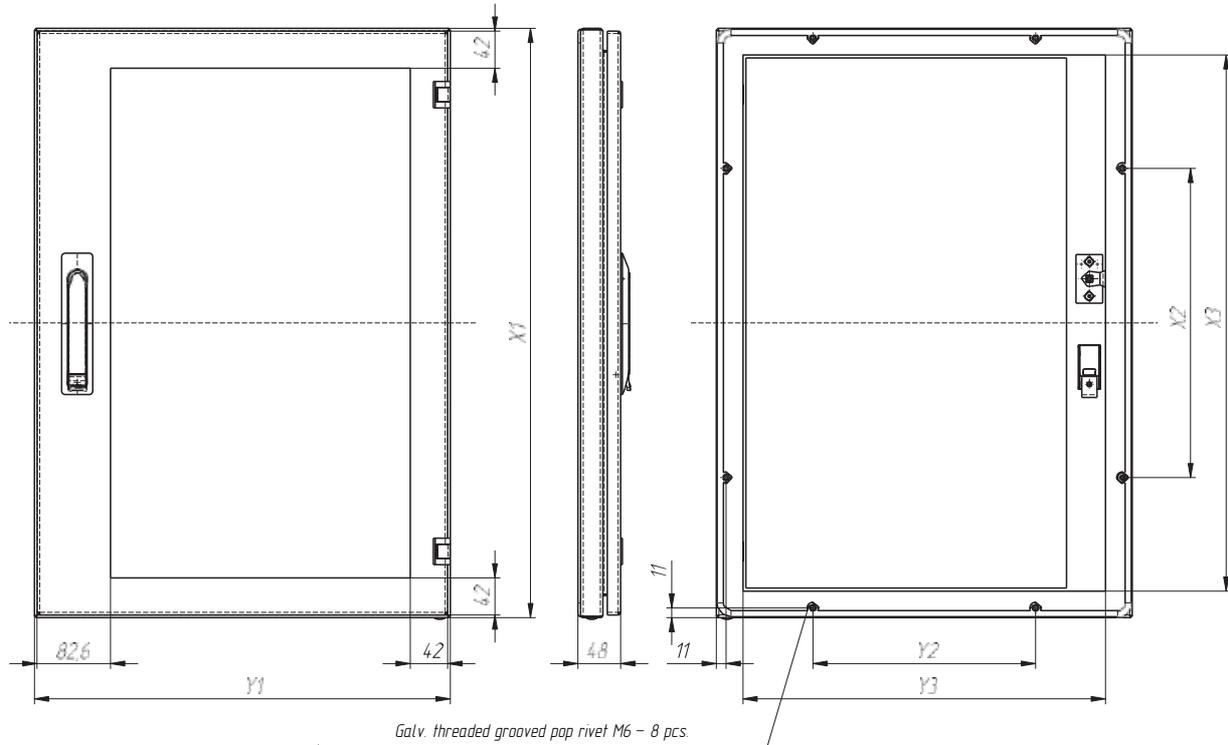
**Material:** steel RAL 7035 / corrosion-resistant sheet steel AISI 304

**IP protection rating:** IP66

**Opening angle:** 180°

**Package scope:** viewing window, rotary handle, fasteners

Viewing window code	Height X1, mm	Width Y1, mm	Dimensions, mm				Window material
			X2	X3	Y2	Y3	
FT 37.60	367	467	250	307	250	407	Painted steel RAL 7035
FT 37.80	367	667	250	307	250	607	Painted steel RAL 7035
FT 67.60	667	467	350	607	450	407	Painted steel RAL 7035
FT 67.80	667	667	350	607	450	607	Painted steel RAL 7035
FT 37.60 S	367	467	250	307	250	407	Corrosion-resistant sheet steel AISI 304
FT 67.60 S	667	667	350	307	450	607	Corrosion-resistant sheet steel AISI 304



Flap shelf for keyboard



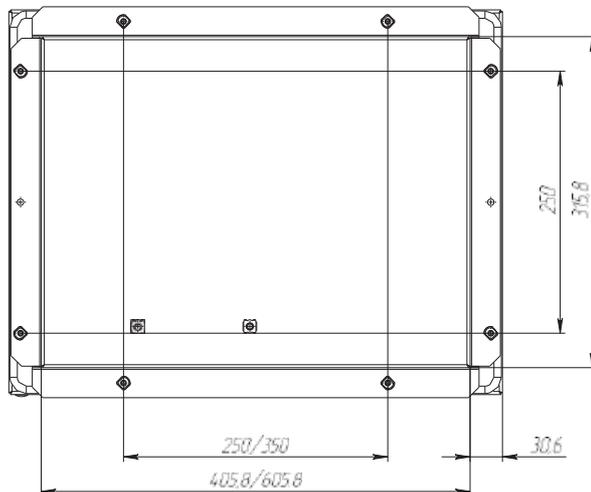
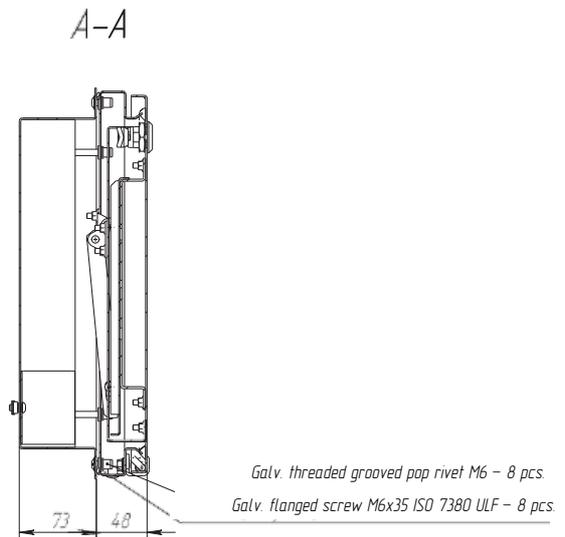
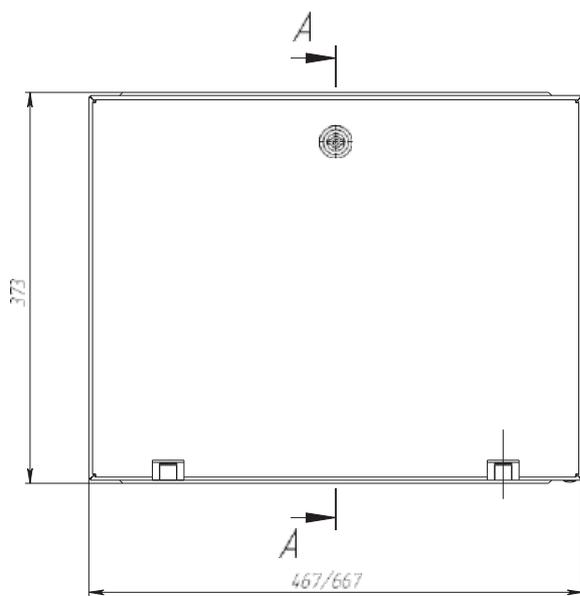
Designed to accommodate a keyboard and mouse at the external panel of distribution cabinets. Installed to the door of floor distribution cabinets 600 and 800 mm wide. The assembly includes a pull-out rest for the mouse pad.

**Material:** painted steel RAL 7035

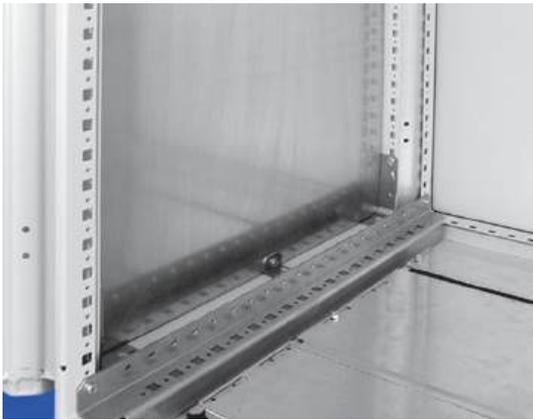
**Degree of protection:** IP66, IK10

**Package scope:**  
flap shelf, lock with double bit key, fasteners

Shelf code	for door width, mm	Keyboard
SK 60 D	600	Layout TKL 80% (86-87 keys). Not included to delivery scope.
SK 80 D	800	Layout TKL 80% (86-87 keys). Not included to delivery scope.



Separation panel

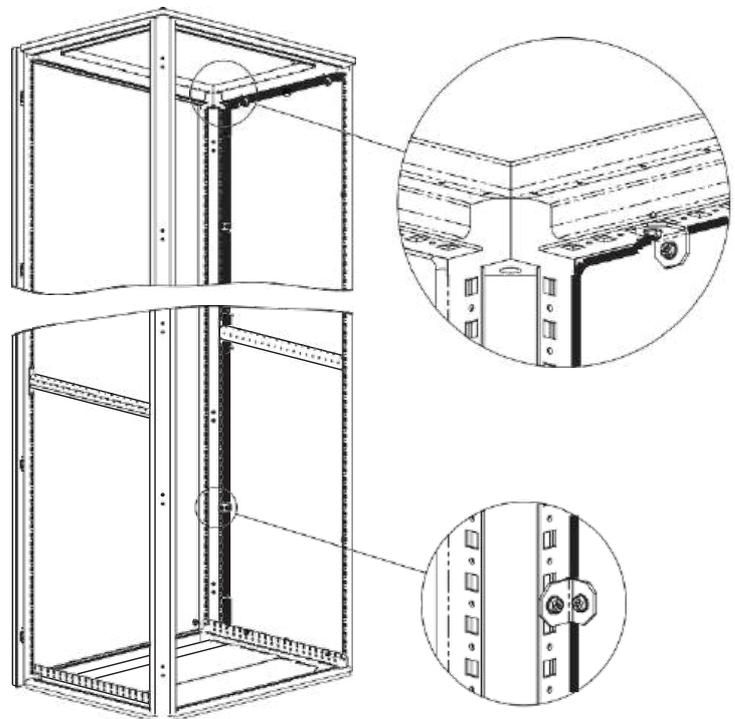
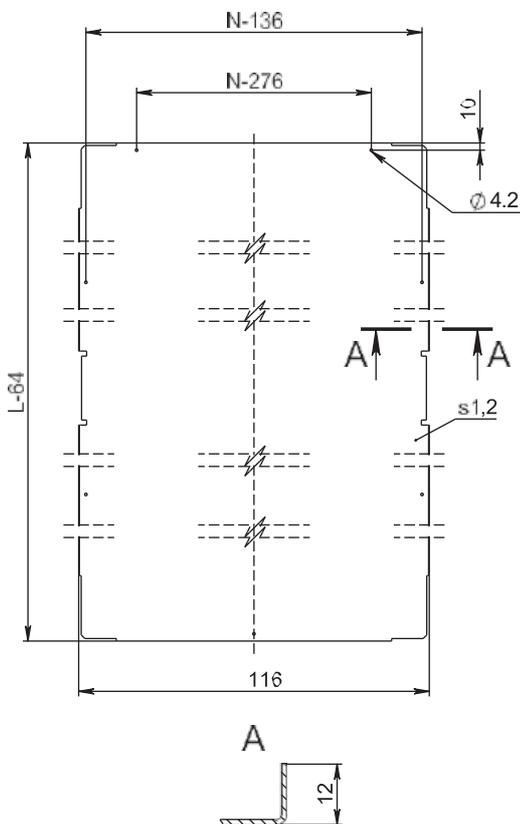


Designed to separate the internal space of two connected floor distribution cabinets. Provides IP20 insulation between cabinets. Attached to the cabinet frame.

**Material:**  
1.2 mm galvanized sheet steel

**Package scope:**  
panel, brackets and fasteners

Panel code	Cabinet height (L), mm	Cabinet depth (N), mm	Weight, kg	Qty. in package
SP 180.40 N	1800	400	4.2	1 set
SP 180.50 N		500	5.6	1 set
SP 180.60 N		600	7.0	1 set
SP 200.40 N	2000	400	4.7	1 set
SP 200.50 N		500	6.2	1 set
SP 200.60 N		600	7.8	1 set
SP 200.80 N	2200	800	10.8	1 set
SP 220.60 N		600	8.5	1 set
SP 220.80 N		800	11.9	1 set



The separation panel is installed to the cabinet frame using self-tapping screws and brackets (included to the set)

Sectional mounting panel



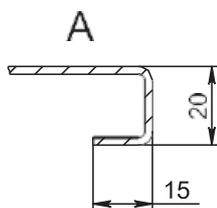
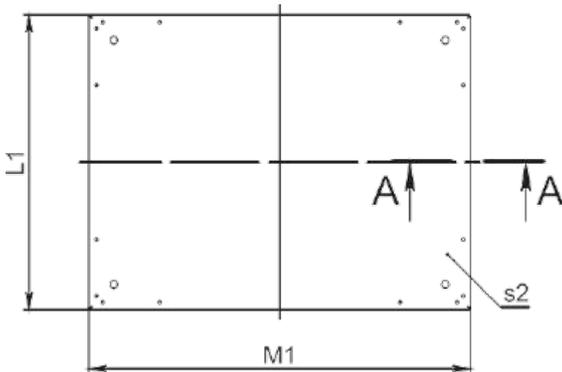
Designed to install any switching and control equipment inside floor distribution cabinets. Complements installation levels. Attached directly to the cabinet frame or using mounting rails.

**Material:**  
2.0 mm galvanized sheet steel

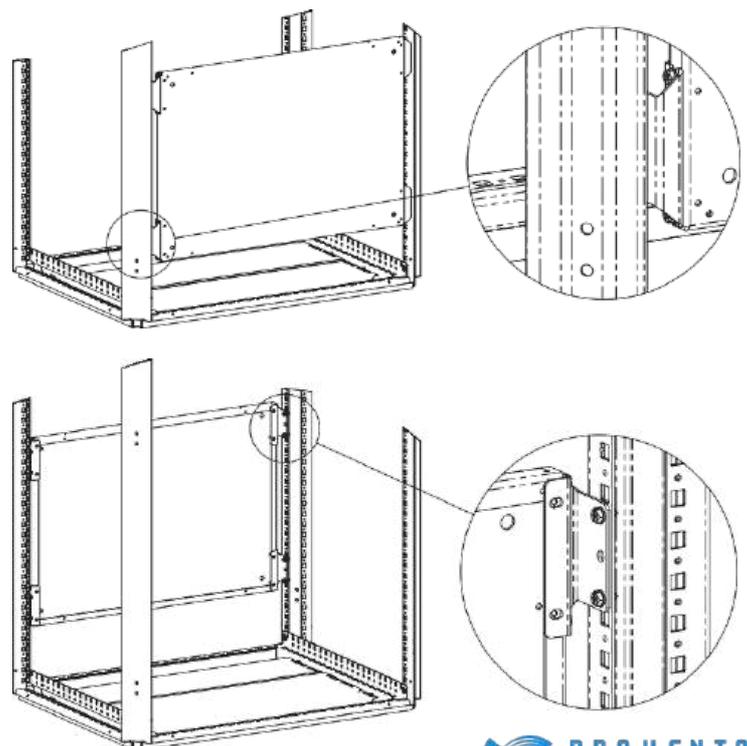
**Package scope:**  
panel, 4 brackets and fasteners

Dimensions (M1 x L1), mm	Installation as per width of cabinet, mm					Installation as per cabinet depth, mm				Code of solid panel	Weight, kg	Code of perf. panel*	Weight, kg	Qty. in pack.
	400	600	800	1000	1200	400	500	600	800					
450 x 150	-	■	-	-	-	-	-	■	-	MP 45.15 M	1.4	-	-	1 set
450 x 250	■	■	-	-	-	■	-	■	-	MP 45.25 M	2.2	MP 45.25 MP	1.8	1 set
450 x 350	-	■	-	-	-	-	■	■	-	MP 45.35 M	3.0	MP 45.35 MP	2.7	1 set
450 x 550	-	■	-	-	-	-	-	■	-	MP 45.55 M	4.6	MP 45.55 MP	4.2	1 set
650 x 150	-	-	■	-	-	-	-	-	■	MP 65.15 M	2.0	-	-	1 set
650 x 250	■	-	■	-	-	■	-	-	■	MP 65.25 M	3.8	-	-	1 set
650 x 350	-	-	■	-	-	-	■	-	■	MP 65.35 M	4.2	MP 65.35 MP	3.9	1 set
650 x 450	-	■	■	-	-	-	-	■	■	MP 65.45 M	5.3	MP 65.45 MP	4.8	1 set
650 x 550	-	-	■	-	-	-	-	-	■	MP 65.55 M	6.4	MP 65.55 MP	5.9	1 set
850 x 350	-	-	-	■	-	-	■	-	-	MP 85.35 M	5.4	-	-	1 set
850 x 450	-	-	-	■	-	-	-	■	-	MP 85.45 M	6.9	-	-	1 set
1050 x 350	-	-	-	-	■	-	■	-	-	MP 105.35 M	6.6	-	-	1 set
1050 x 450	-	-	-	-	■	-	-	■	-	MP 105.45 M	8.4	-	-	1 set

\* - panels with 9.5 mm square holes for captive nuts at 25 mm pitch



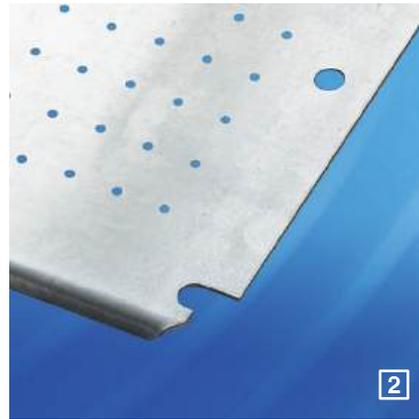
The panel is mounted to the frame using self-tapping screws through the mounting panel brackets



## Mounting panel



1



2

Designed for compact distribution cabinets.

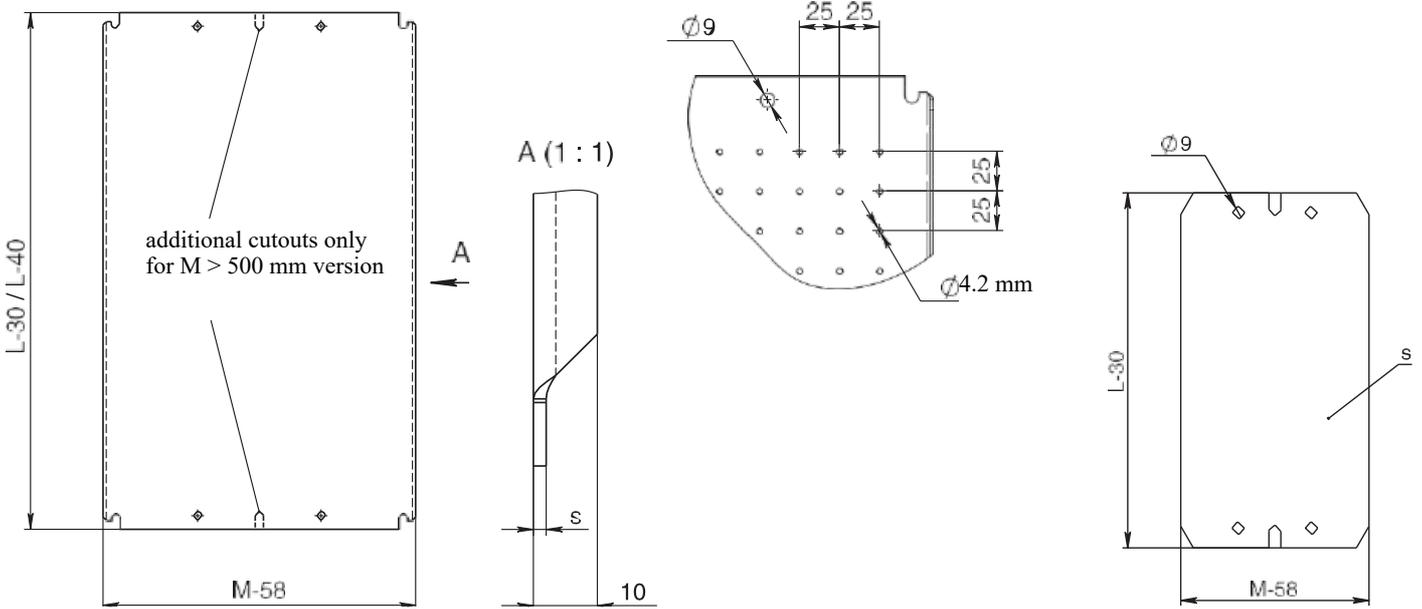
**Material:**

2.0-2.5 mm galvanized sheet steel  
(depends on size)

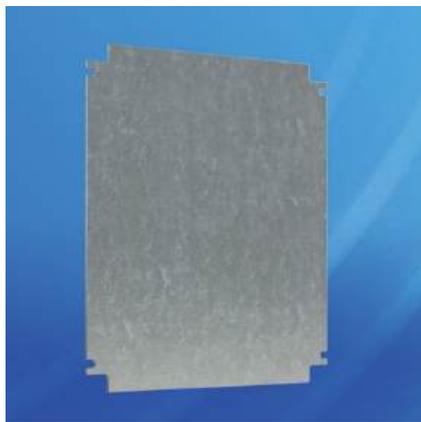
- 1 – solid panel
- 2 – panel with 4.2 mm diameter holes at 25 mm pitch

Solid panel code	Microperf. panel code	Cabinet height (L), mm	Cabinet width (M), mm	S (panel thickness), mm	Weight, kg	Qty. in package, pcs.
MP 30.20	MP 30.20 P	300	200	2.0	0.6	1
MP 30.30	MP 30.30 P		300		1.1	1
MP 30.40	MP 30.40 P		400		1.5	1
MP 40.30	MP 40.30 P	400	300		1.5	1
MP 40.40	MP 40.40 P		400		2.1	1
MP 40.60	–		600		3.1	1
MP 50.30	MP 50.30 P	500	300		2	1
MP 50.40	MP 50.40 P		400		2.6	1
MP 50.50	MP 50.50 P		500		3.4	1
MP 60.40	MP 60.40 P	600	400		2.5	3.1
MP 60.60	MP 60.60 P		600	4.9		1
MP 70.50	MP 70.50 P	700	500	4.7		1
MP 80.60	MP 80.60 P	800	600	6.6		1
MP 80.80	MP 80.80 P		800	9		1
MP 80.100	MP 80.100 P		1000	11.5		1
MP 80.120	–	1000	1200	13.9		1
MP 100.60	MP 100.60 P		600	8.4		1
MP 100.80	MP 100.80 P		800	11.4		1
MP 100.100	–	1000	1000	18		1
MP 120.60 E	MP 120.60 PE	1200	600	2.0	10.1	1
MP 120.80 E	MP 120.80 PE		800	13.8	1	
MP 120.100 E	MP 120.100 PE		1000	21.7	1	
MP 120.120 E	–		1200	26.5	1	
MP 140.60 E	MP 140.60 PE	1400	600	2.5	14.8	1
MP 140.80 E	MP 140.80 PE		800		20.2	1
MP 140.100 E	MP 140.100 PE		1000		25.5	1
MP 160.60 E	MP 160.60 PE	1600	600		16.7	1
MP 180.60 E	–	1800	600		22	1

# INTERNAL INSTALLATION



## Mounting panel

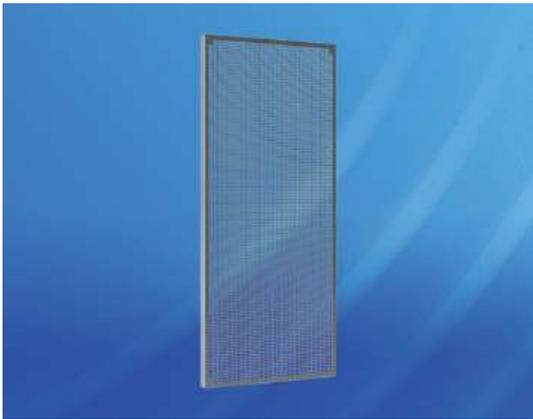


Designed for installation in junction boxes.

**Material:**  
2.0 galvanized sheet steel

Panel code	Box height, mm	Box width, mm	Panel thickness, mm	Panel weight, kg
MP 15.15 B	150	150	2	0.23
MP 20.15 B		200	2	0.35
MP 20.20 B	200	200	2	0.5
MP 20.30 B		300	2	0.741
MP 20.40 B		400	2	1.01
MP 40.40 B	400	400	2	2.3

## Mounting grid



Designed to install any switching and control equipment inside floor distribution cabinets. Complements installation levels. Attached directly to the cabinet frame or using mounting rails. Perforation 26x11 mm.

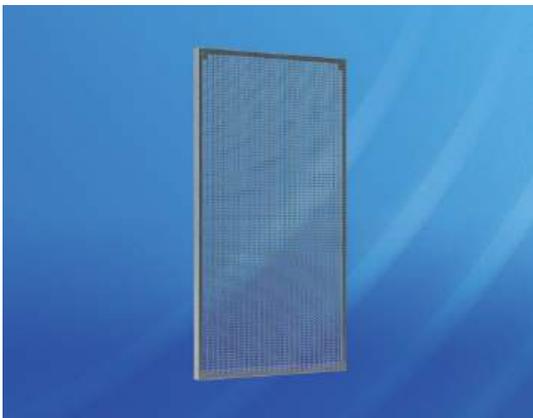
**Material:**  
2.0 mm galvanized sheet steel

**Package scope:**  
mounting grid, fasteners

**Recommended fasteners:**  
- rectangular captive nut N 4 MR, N 5 MR, N 6 MR  
- captive nut N 8 MS

Grid code	Cabinet height, mm	Installation as per cabinet width, mm			Installation as per cabinet depth, mm		
		600	800	1000	600	800	1000
MN 200.60	2000	■	-	-	■	-	-
MN 200.80		-	■	-	-	■	-
MN 200.100		-	-	■	-	-	■
MN 180.60	1800	■	-	-	■	-	-
MN 180.80		-	■	-	-	■	-
MN 180.100		-	-	■	-	-	■

## Sectional mounting grid



Designed to install any switching and control equipment inside floor distribution cabinets. Complements installation levels. Attached directly to the cabinet frame or using mounting rails. Perforation 26x11 mm.

**Material:** 2.0 mm galvanized sheet steel

**Package scope:**  
mounting grid, fasteners

**Recommended fasteners:**  
- rectangular captive nut N 4 MR, N 5 MR, N 6 MR  
- captive nut N 8 MS

Grid code	Cabinet height, mm	Installation as per cabinet width, mm					Installation as per cabinet depth, mm				
		400	600	800	1000	1200	400	600	800	1000	1200
MN 90.80 M	900	-	-	■	-	-	-	-	+	-	-
MN 90.100 M		-	-	-	■	-	-	-	-	+	-
MN 120.60 M	1200	-	■	-	-	-	-	■	-	-	-
MN 120.80 M		-	-	■	-	-	-	-	■	-	-
MN 160.60 M	1600	-	■	-	-	-	-	■	-	-	-
MN 160.80 M		-	-	■	-	-	-	-	■	-	-
MN 160.100 M		-	-	-	■	-	-	-	-	■	-
MN 180.40 M	1800	■	-	-	-	-	■	-	-	-	-
MN 180.60 M		-	■	-	-	-	-	■	-	-	-
MN 180.80 M		-	-	■	-	-	-	-	■	-	-
MN 180.100 M		-	-	-	■	-	-	-	-	■	-
MN 180.120 M		-	-	-	-	■	-	-	-	-	■
			-	-	-	-	■	-	-	-	-

## INTERNAL INSTALLATION

### Cable duct support base

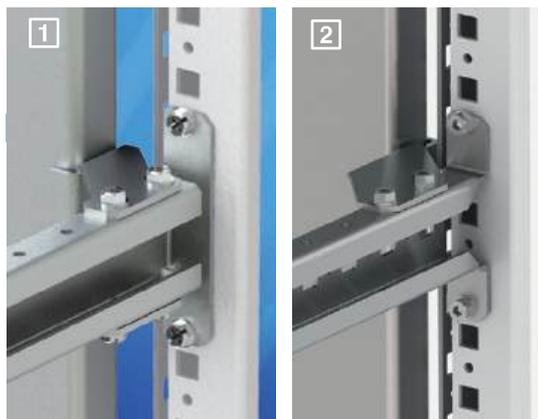


To fix cable ducts to MN mounting grids with 26x11 mm straight perforation. Also installed to 35 mm DIN rails. Fully similar to NSYSPC.

**Material:**  
plastic

Base code	Qty. in package, pcs.
WD 01	20

### Mounting panel retainer



1 – Designed to reduce mounting panel possible vibrations at floor distribution cabinets. Attached to mounting crossbeams. By default, it is included to floor distribution cabinets with a mounting panel.

2 – Designed to reduce mounting panel possible vibrations at floor distribution cabinets. Used jointly with IK 06 MP set. Attached to mounting crossbeams.

**Material:**  
2.5 mm galvanized sheet steel

Retainer code	Qty. in package, pcs.
B 6 MP	10
B 8 MP	10

### Joint kit



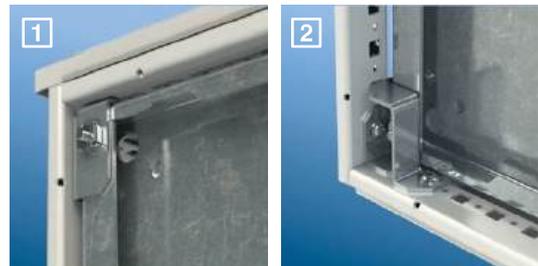
It is required to install mounting crossbeams.  
Pre-assembled

**Material:**  
galvanized steel

**Package scope:**  
lead screw nut, bolt, M8  
washer and nut

Set code	Qty. in package
IK 08 MG	20 sets

### Mounting panel attachment set



Designed to attach MP X.Y mounting panels at side external surface of MF X.Y frames allowing to maximize the useful volume of internal cabinet space.

**Material:**  
2.5 mm galvanized  
sheet steel

**Package scope:**  
bracket 4 pcs. and fasteners

Set code	Qty. in package
IK 06 MPO	4
IK 06 MP	4

- 1 set to attach mounting panels at external surface
- 2 set to attach mounting panels at internal surface

## Mounting crossbeam



Designed to install equipment with stepless adjustment: insulators; bus assemblies; cables. Attached directly to floor distribution cabinet frame or using crossbeam holder or mounting rails. The equipment is installed to crossbeams using IK 08 MG joint kit.

**Package scope:**  
crossbeam and fasteners

**Material:**

MG XX.XX C и MG XX.XX CL 2.00 mm galvanized sheet steel; MG 80.02 1.2 mm galvanized sheet steel

– installation to interior, ceiling and floor surfaces

Crossbeam code	Cabinet size (M), mm	Profile cross-section, mm	Qty. in package, pcs.
MG 40.04 C	400	38 x 18	6
MG 50.04 C	500		6
MG 60.04 C	600		6
MG 80.04 C	800		6
MG 100.04 C	1000		6
MG 120.04 C	1200		6

– installation to external surface

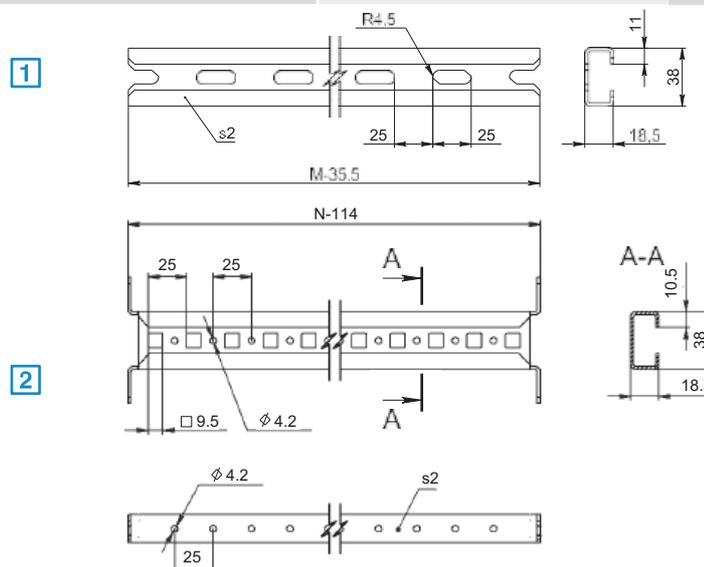
Crossbeam code	Cabinet size (N), mm	Profile cross-section, mm	Qty. in package, pcs.
MG 40.04 CL	400	38 x 18	4
MG 50.04 CL	500		4
MG 60.04 CL	600		4
MG 80.04 CL	800		4
MG 100.04 CL	1000		4

– installation to exterior surface

Rail code	Height, mm	Profile cross-section, mm	Qty. in package, pcs.
MG 80.02	685	20 x13,5	4
MG 60.02	485		4
MG 40.02	285		4

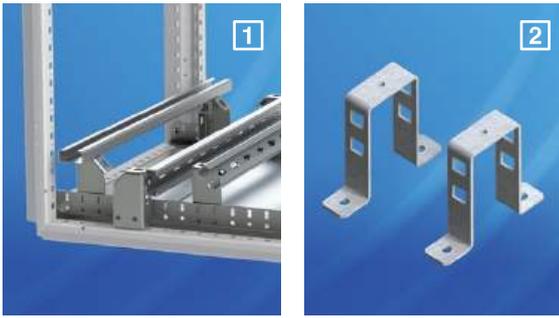
**Attention!**

Joint kit (see page 199):  
order separately



## INTERNAL INSTALLATION

### Crossbeam holder



Intended to install mounting crossbeams at 45° or 90° to the mounting surface of floor distribution cabinets.

**Material:**  
2.5 mm galvanized sheet steel

**Package scope:**  
2 symmetrical holders and fasteners

Holder code	Qty. in package
B 8 MG	6 sets

Holder code	Qty. in package
B 8.8 MG	6 sets

### Reinforcement kit for seismic zones



Designed to reinforce MPS 200.80.60\* enclosure allowing to use it at seismic zones up to MSK-64 scale 9 points at 70 m. Used with the ZA 80.60 EQ\* base.

**Material:**  
2.5 mm galvanized sheet steel

**Package scope:**  
2 frame base reinforcement pieces, 4 profiles, 10 corner brackets, 2 rack brackets, 2 rails, 2 rail brackets, 2 mounting panel reinforcement pieces, 4 rails guides, fasteners

Set code	Weight, kg	Qty. in package
IK 01 EQ X.Y.Z*	22	1 set

\* - relevant height (X), width (Y) and depth (Z) of floor distribution cabinet in cm

### Plinth assembly for seismic zones



Designed to attach to the floor distribution cabinets with reinforcement kit for seismic zones IK 01 EQ.

**Material:**  
sheet steel with thickness: 4.0 mm for corner components; 2.0 mm for panels

**Surface:**  
structural powder coating (color: black)

**Package scope:**  
four corner components, four panels and fasteners

Plinth code	Weight, kg
ZA Y.Z EQ**	11.2

\* - relevant width (Y) and depth (Z) of floor distribution cabinet in cm

Modular frame



Designed to install modular panels and DIN rails. The rotary frame is locked with 2 double bit tongue locks and can be opened to the right or left direction.

**Material:**  
2.0 mm sheet steel

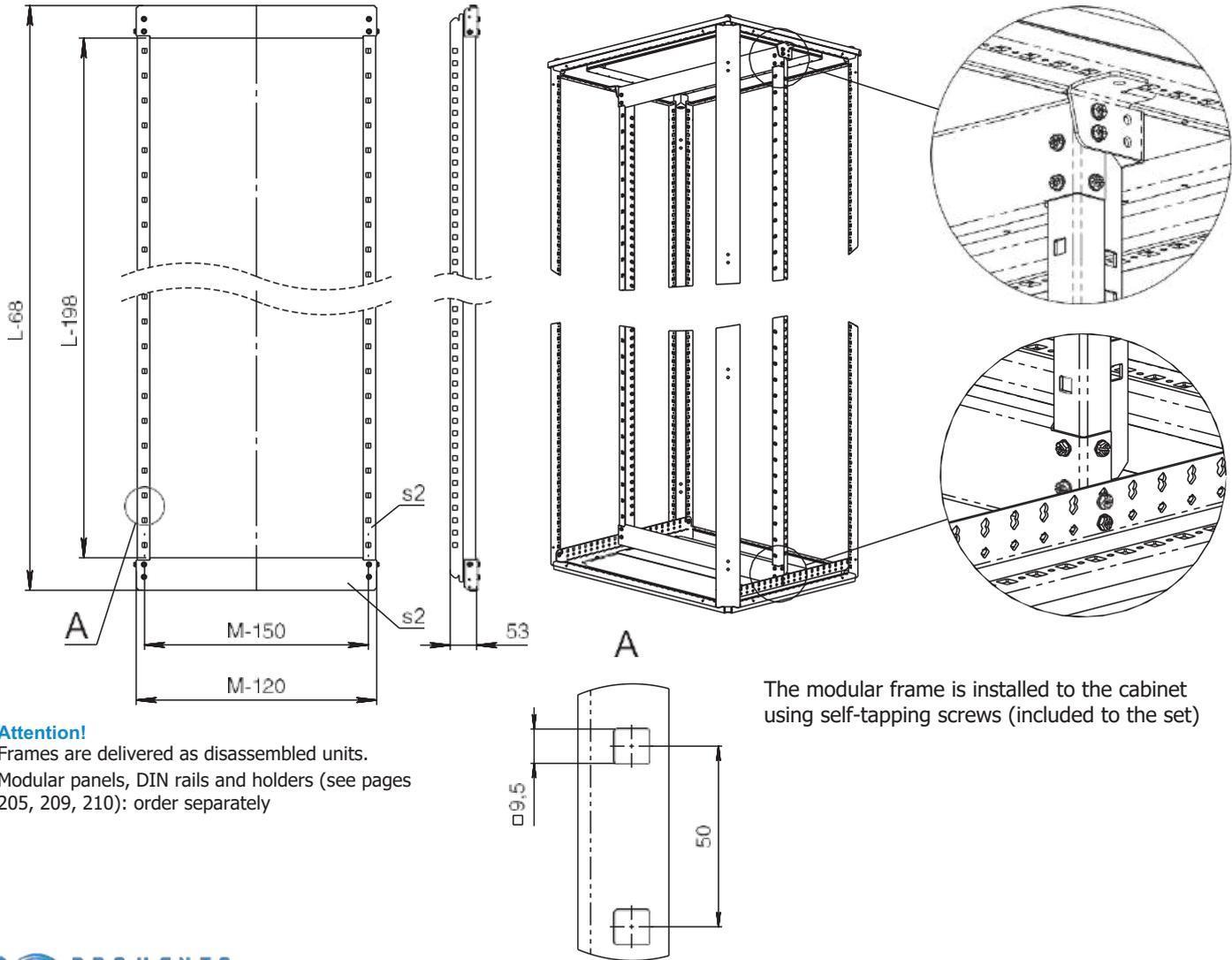
**Surface:** structural powder coating RAL 7035

**Frame package scope:**  
frame and fasteners

**Rotary frame package scope:**  
frame, 2 beams, 2 locks, 2 axles, 2 plastic washers, 2 dampers and fasteners

Height (L), mm	Frame code						Rotary frame code									
	width (M) 400 mm	Weight, kg	Width (M) 600 mm	Weight, kg	Width (M) 800 mm	Weight, kg	Width (M) 1000 mm	Weight, kg	Width (M) 1200 mm	Weight, kg	Width (M) 600 mm	Weight, kg	Width (M) 800 mm	Weight, kg	Width (M) 1000 mm	Weight, kg
1600	-	-	MC 160.60.	6,3	-	-	-	-	-	-	-	-	-	-	-	-
1800	-	-	MC 180.60.	6,8	MC 180.80	7,9	-	-	-	-	MC 180.60 R	8,5	MC 180.80 R	10	-	-
2000	MC 200.40	7	MC 200.60	7,5	MC 200.80	8,4	MC 200.100	9	MC 200.120	9,5	MC 200.60 R	9,1	MC 200.80 R	10,6	MC 200.100 R	11,5
2200	-	-	MC 220.60	8,5	MC 220.80	9	MC 220.100	9,5	-	-	MC 220.60 R	10	-	-	-	-

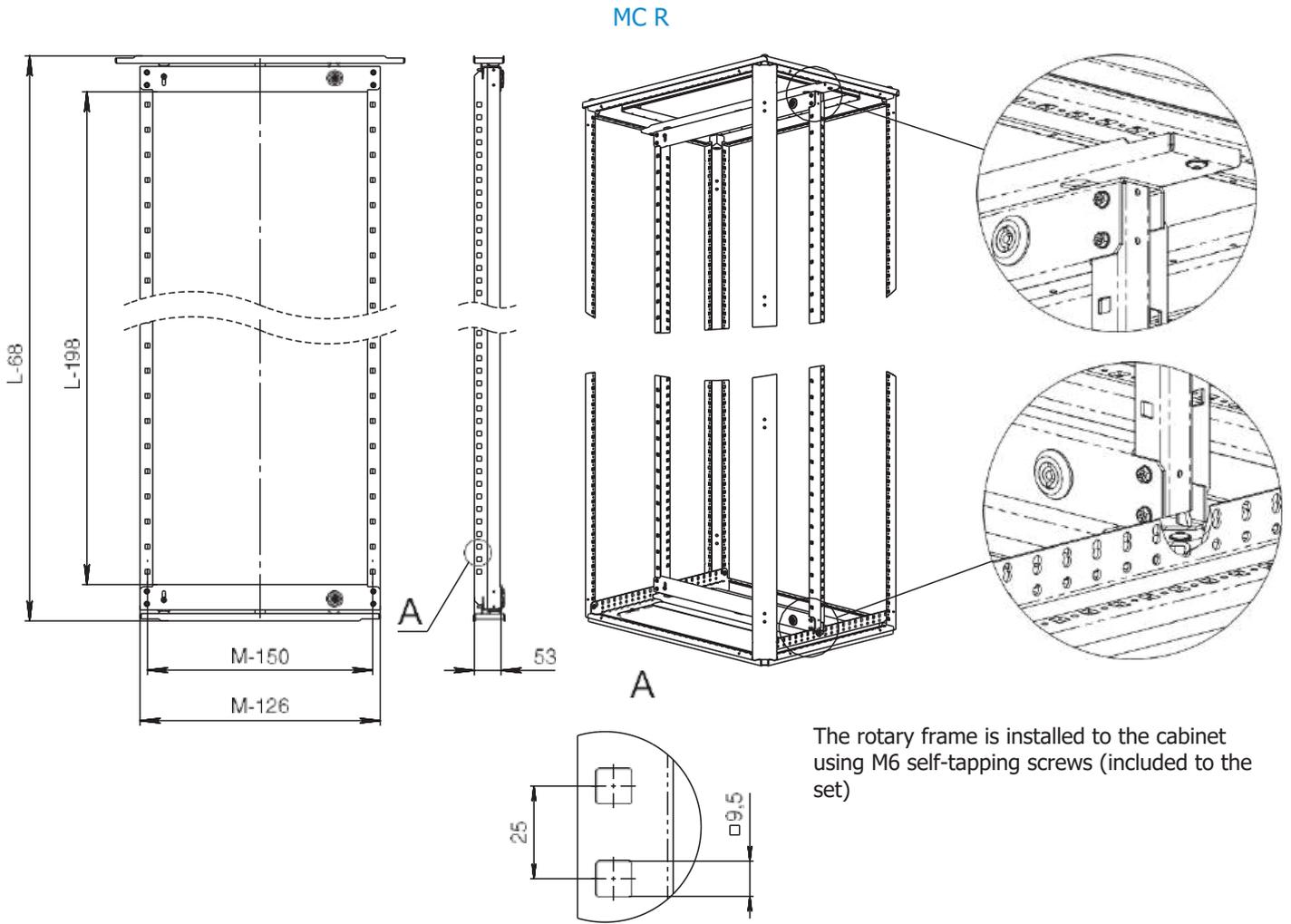
MC



**Attention!**  
Frames are delivered as disassembled units. Modular panels, DIN rails and holders (see pages 205, 209, 210): order separately

The modular frame is installed to the cabinet using self-tapping screws (included to the set)

# INTERNAL INSTALLATION



## Modular vertical rail



Vertical modular rails MG X MC can be used to replace modular frames MC X.Y. This is a more budget-friendly solution to mount modular equipment at cabinets.

**Material:**  
2.0 mm galvanized sheet steel

**Package scope:**  
rails and fasteners

Rail code	Rail height, mm	Qty. in package, pcs.
MG 160 MC	1600	2
MG 180 MC	1800	2
MG 200 MC	2000	2

Touch protection



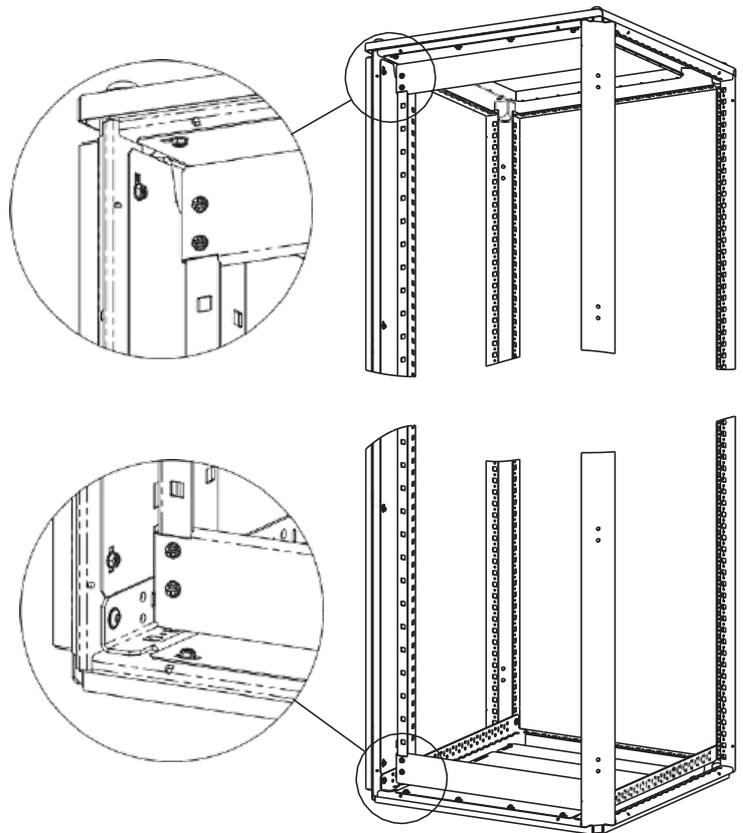
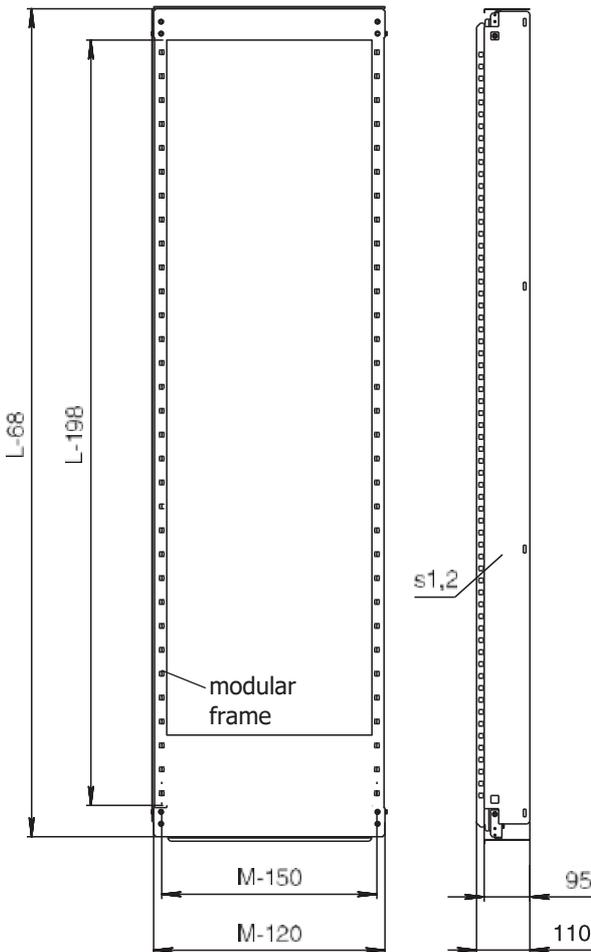
Designed to restrict access around the modular frame perimeter. Suitable for all modular frame standard sizes. Consists of several parts allowing to use the set for cabinets with different heights and widths.

**Material:**  
1.2 mm galvanized sheet steel

**Surface:**  
structural powder coating RAL 7035

**Frame package scope:**  
panels and fasteners

Protection code	Cabinet height	Cabinet width			
		400	600	800	1200
PP 200.40 MC	1800	+	-	-	-
	2000	+	-	-	-
PP 200.80 MC	1800	-	+	+	-
	2000	-	+	+	-
PP 200.120 MC	1800	-	+	-	+
	2000	-	+	-	+
PP 220.80 MC	1800	-	+	+	-
	2000	-	+	+	-
	2200	-	+	+	-



The touch protection set is installed to the cabinet frame using self-tapping screws (included to the set)

Modular panel



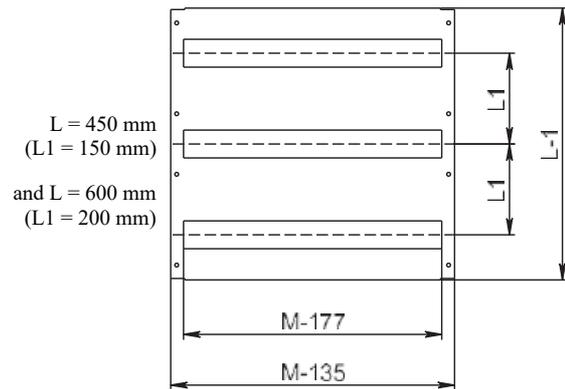
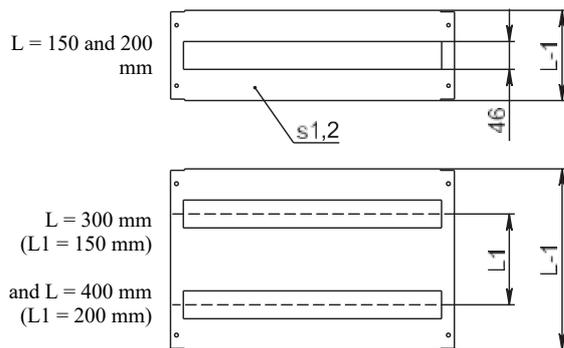
Designed to mount items to modular frames at floor distribution cabinets. Cutouts in the panel are intended to install modular distribution devices and can be made by the Customer if necessary.

**Material:**  
1.2 mm sheet steel

**Package scope:**  
modular panel 1 pcs.,  
without fasteners

**Surface:**  
structural powder coating  
RAL 7035

Height (L), mm	Blind panel code					Code of panel with cutouts			
	Cabinet width (M) 400 mm	Cabinet width (M) 600 mm	Cabinet width (M) 800 mm	Cabinet width (M) 1000 mm	Cabinet width (M) 1200 mm	Cabinet width (M) 600 mm	Modules qty.	Cabinet width (M) 800 mm	Modules qty.
50	MB 05.30	MB 05.50	MB 05.70	MB 05.90	-	-	-	-	-
150	MB 15.30	MB 15.50	MB 15.70	-	-	MB 15.50 P	24 (1x24)	MB 15.70 P	35 (1x35)
200	MB 20.30	MB 20.50	MB 20.70	MB 20.90	-	MB 20.50 P	24 (1x24)	MB 20.70 P	35 (1x35)
300	MB 30.30	MB 30.50	MB 30.70	MB 30.90	-	MB 30.50 P	48 (2x24)	MB 30.70 P	70 (2x35)
400	MB 40.30	MB 40.50	MB 40.70	-	-	MB 40.50 P	48 (2x24)	MB 40.70 P	70 (2x35)
450	MB 45.30	MB 45.50	MB 45.70	MB 45.90	-	MB 45.50 P	72 (3x24)	MB 45.70 P	105 (3x35)
600	MB 60.30	MB 60.50	MB 60.70	MB 60.90	MB 60.110	MB 60.50 P	72 (3x24)	MB 60.70 P	105 (3x35)



Intermediate mounting panel

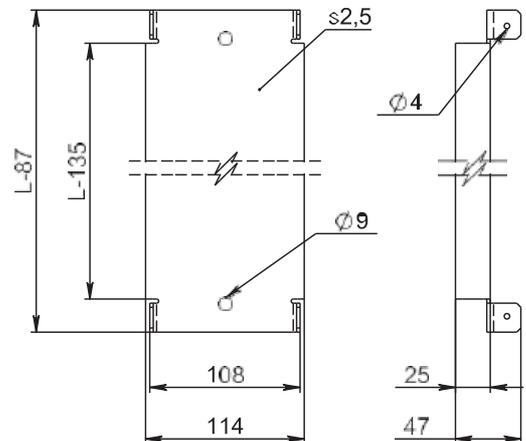


Allows to maintain mounting plane continuity between two mounting panels of floor-mounted distribution cabinets.

**Material:** 2.5 mm galvanized sheet steel

**Package scope:**  
panel and fasteners

Panel code	Cabinet height (L), mm	Weight, kg	Qty. in pack., pcs
MP 180.11	1800	5.8	1
MP 200.11	2000	6.4	1
MP 220.11	2200	7.1	1



### Blind modular panel



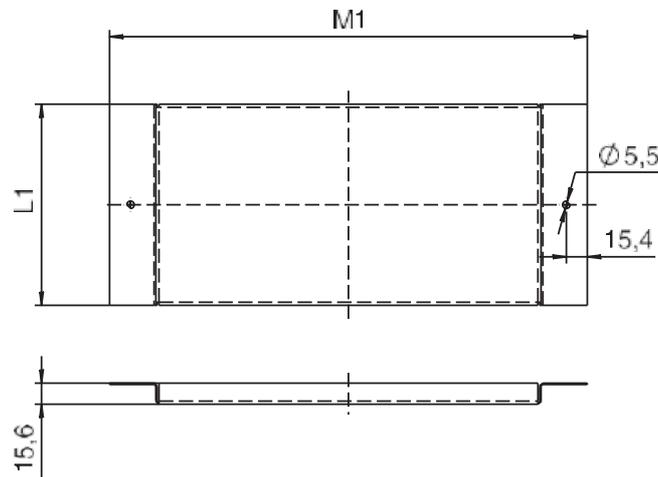
Intended to install modular chassis at compact distribution cabinets.

**Material:**  
1.2 mm sheet steel

**Surface:** structural powder coating  
RAL 7035

**Package scope:**  
modular panel 1 pcs.,  
without fasteners

Panel code	Panel height (L1), mm	Cabinet width(M1), mm	Weight, kg	Qty. in pack., pcs
MB 15.35	149	400	0.5	1
MB 15.55		600	0.8	1
MB 20.35	195	400	0.6	1
MB 20.55		600	1	1
MB 25.35	245	400	0.8	1
MB 25.55		600	1.2	1



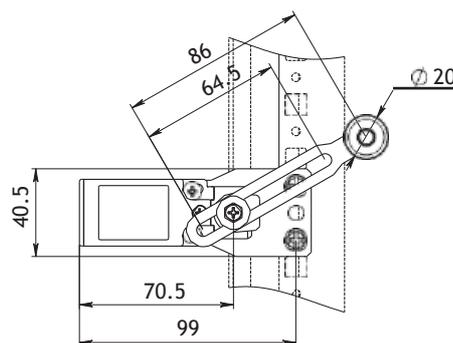
### Limit switch



Intended to switch on a lamp or alarm when the door is opened. Attached to the frame of floor distribution cabinets. To attach cables, we recommend to use GK 13 PG cable entry.

**Package scope:**  
switch, adapter and fasteners

Switch code	Maximum current, A (230 V)	Qty. in package
SW 01	6	1 set



## INTERNAL INSTALLATION

### Earthing and neutral grounding busbars



The earthing bus is designed to connect a chain of earthing circuits from equipment items installed at the cabinet and to connect an external earthing connection. The busbars have screw terminals to connect wires.

**Package scope:**

busbar BB 10 E/N, fasteners not included to the package  
 busbar BI 1.45 N, insulators, thread forming screw, contact washers, fasteners  
 busbar BI 1.45 E, spacers, thread forming screw, contact washers, fasteners  
 busbar BI 1.115 N, insulators, contact washers, fasteners

Busbar code	Width, mm	Height, mm	Length, mm	Number of connection points, pcs.	Qty. in package, pcs.
BB 10 E	13	32	110	10	1
BB 10 N	13	32	110	10	1
BI 1.45 E	15	5	450	20	1
BI 1.45 N	15	5	450	20	1
BI 1.115 N	15	5	1150	-	1

### Earthing kit



Designed for proper earthing of all the enclosure elements and cables to the cabinet frame. Toothed contact washers ensure earthing cable reliable connection. This eliminates the need to remove manually the paintwork at the connection area.

**Package scope:**

bolt, 2 washers, contact washer, spring washer and earth sign

Set code	Size	Qty. in package, pcs.
EK 6	M6	10 sets
EK 8	M8	10 sets

### External earthing kit



Designed to connect earthing to the floor cabinet plinth and in other cases when external earthing is required.

**Package scope:**

galvanized double-sided spacer, M8 nut, contact washer, washer, grover washer, earth sign

Set code	Qty. in package, pcs.
EK 8 E	1

## Central earthing point



To connect earthing wires to vertical or horizontal profiles at cabinets. The joint plate is attached with two self-tapping screws to the cabinet frame ensuring reliable contact. An M8 x 20 mm threaded stud is used to connect earthing.

**Package scope:**  
central earthing point, fixing screws

Set code	Qty. in package, pcs.
EK 8 GP	1

## Earth wire



Designed to create a reliable earthing connection. Comes ready for installation complete with M6 and M8 cable lugs.

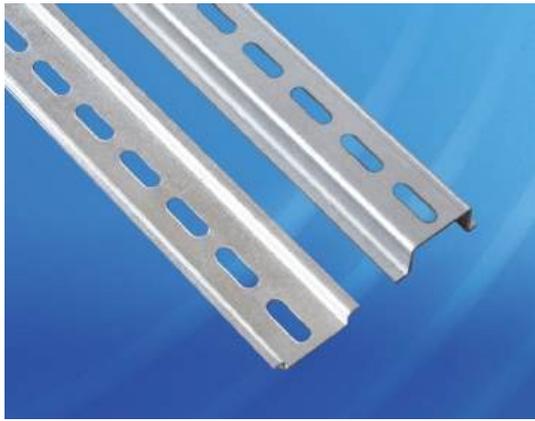
**Lug material:**  
copper / brass

**Insulation material:**  
yellow / green PVC

Wire code	Connection	Cross-section, mm <sup>2</sup>	Length, mm	Qty. in package, pcs.
W 6.04.6.400	M6 – M6	4	400	10
W 6.04.6.200	M6 – M6	4	200	10
W 6.04.8.200	M6 – M8	4	200	10
W 6.04.6.300	M6 – M6	4	300	10
W 8.10.8.300	M8 – M8	10	300	10

# INTERNAL INSTALLATION

## DIN rail



Designed for all enclosures. Used to install modular devices.

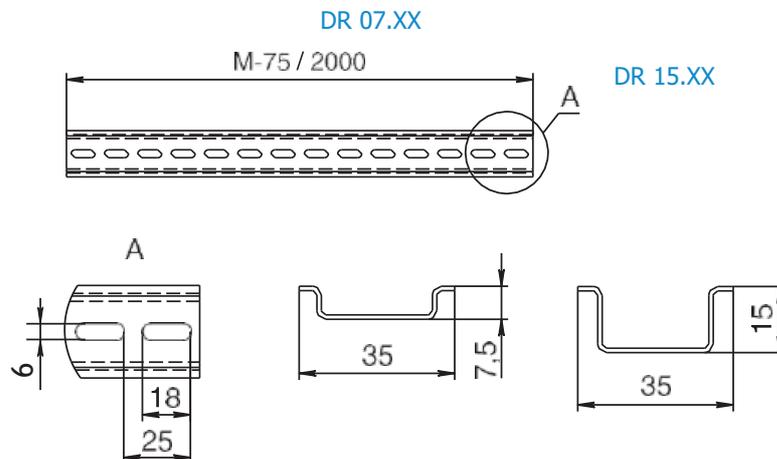
**Material:**

1.2 mm galvanized sheet steel

Rail code	Rail depth, mm	Cabinet width (M), mm	Weight, kg	Qty. in package, pcs.
DR 07.135*	7	150	0.04	10
DR 07.185*		200	0.06	10
DR 07.285*		300	0.9	10
DR 07.385*		400	0.12	10
DR 07.125		200	0.05	10
DR 07.225		300	0.08	10
DR 07.325		400	0.12	10
DR 07.525		600	0.2	10
DR 07.725		800	0.28	10
DR 07.2000		-	0.65	10
DR 15.225	15	300	0.12	10
DR 15.325		400	0.17	10
DR 15.425**		600	0.21	10
DR 15.525		600	0.27	10
DR 15.625**		800	0.29	10
DR 15.725		800	0.38	10
DR 15.2000		-	1.0	10

\* – used to install items into junction boxes including explosion-proof boxes

\*\* – used to install items to floor cabinet modular frames



DIN rail holder

B 5.35 DR



Designed to install DIN rails onto mounting panels.

**Material:**  
2.0 mm galvanized sheet steel

B 6 DR

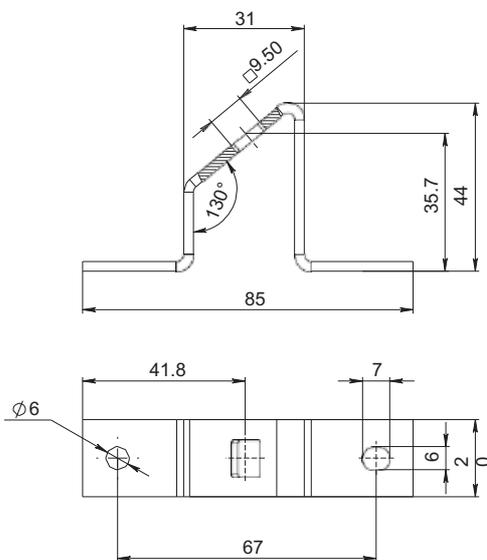


Designed to install DIN rails to modular frames of floor distribution cabinets and modular chassis of wall cabinets.

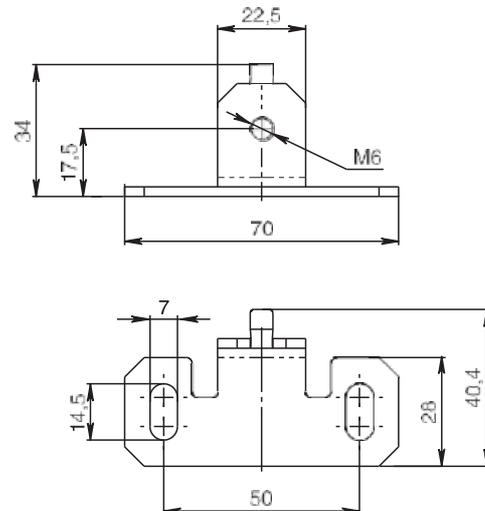
**Material:**  
2.5 mm galvanized sheet steel

Holder code	Qty. in package, pcs.
B 5.35 DR	20
B 6 DR	10

B 5.35 DR



B 6 DR



## INTERNAL INSTALLATION

### Shelf



Intended to place instruments. Attached to the frame of floor distribution cabinets. Max. load capacity: 100 kg.

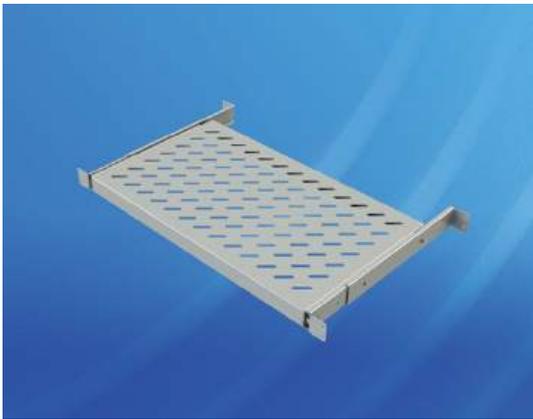
**Material:**  
1.5 mm sheet steel

**Package scope:**  
shelf and  
fasteners

**Surface:** structural powder coating  
RAL 7035

Shelf code	Cabinet width (M), mm	Cabinet depth (N), mm	Weight, kg	Qty. in pack., pcs
SH 60.60	600	600	3.3	1
SH 80.60	800	600	4.4	1
SH 80.80	800	800	5.9	1

### Pull-out shelf



Intended to place instruments. Attached to the frame of floor distribution cabinets. Max. load capacity: 35 kg.

**Material:**  
1.5 mm sheet steel

**Package scope:**  
shelf and  
fasteners

**Surface:** structural powder coating  
RAL 7035

Shelf code	Cabinet width (M), mm	Cabinet depth (N), mm	Weight, kg	Qty. in pack., pcs
SH 60.60 M	600	600/800	7	1
SH 80.60 M	800	600/800	8	1

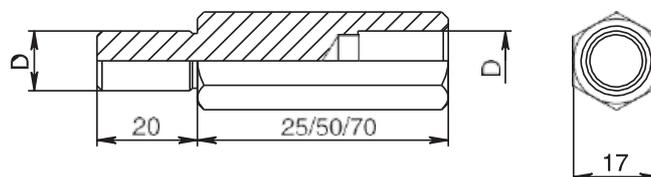
### Ceiling panel spacer



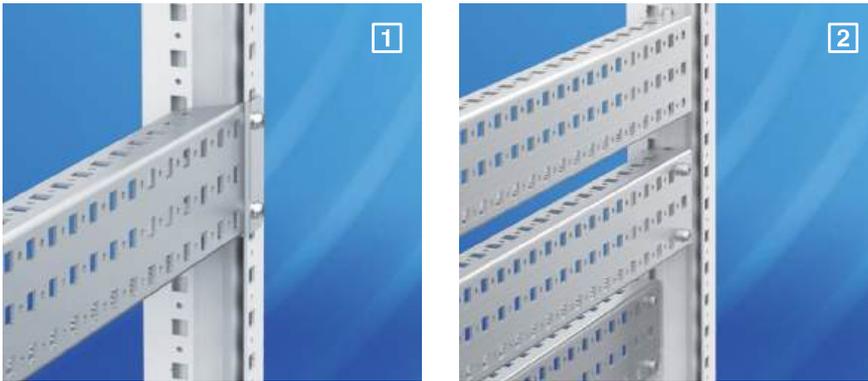
Designed to install ceiling panels at two different heights and to adjust mounting panel depth.

**Material:**  
galvanized steel

Set code	Spacer length, mm	Thread diameter D, mm	Qty. in package, pcs.
SK 6.70	70	6	10
SK 8.25	25	8	4
SK 8.50	50		4
SK 12.25	25	12	4
SK 12.50	50		4



Mounting rail



Designed to adjust equipment installation depth, width and height at floor distribution cabinets. Equipment can be attached to the rail with captive nuts and/or self-tapping screws. The rail is attached to the cabinet frame and/or other rails.

**Material:**  
2.0 mm  
galvanized  
sheet steel

**Package scope:**  
**2** – rail, 2 brackets  
and fasteners

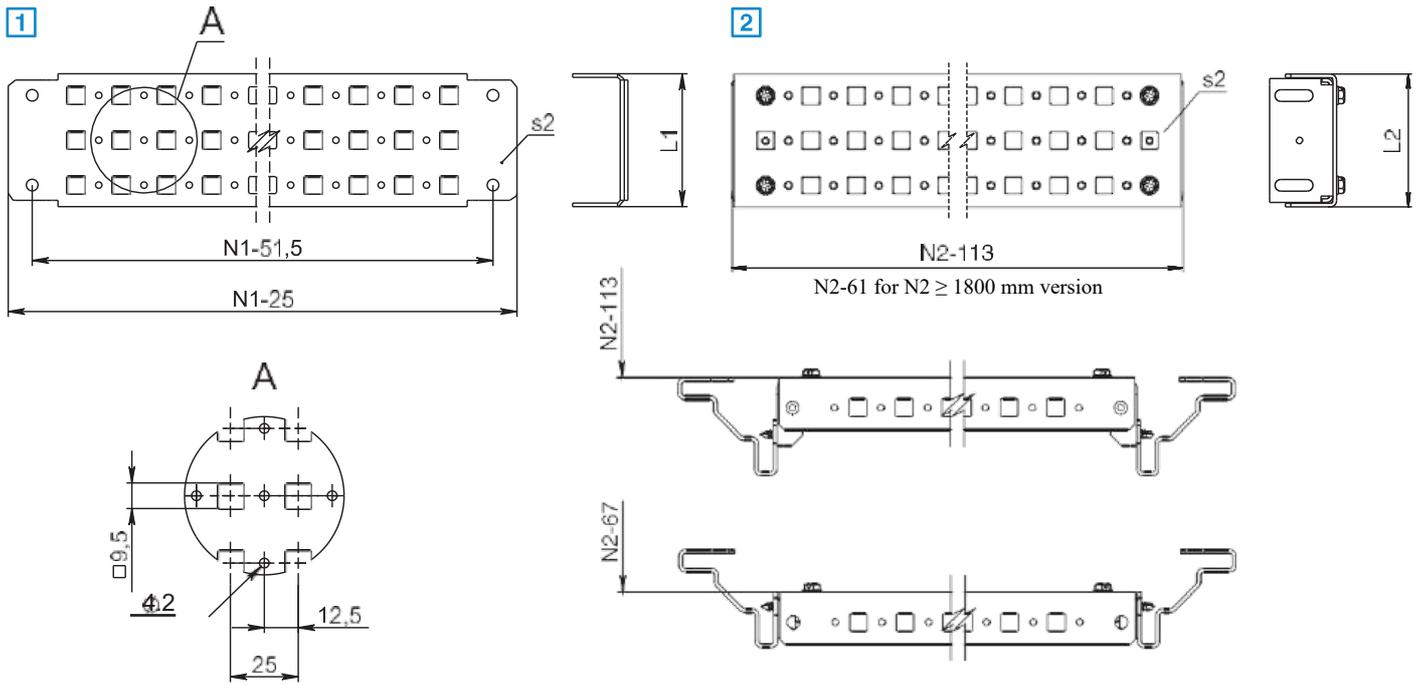
**1** – installation to interior surface

Rail code	Rail width (L1), mm	Cabinet size (N1), mm	Weight, kg	Qty. in package, pcs.
MG 40.03	24	400	2.4	8
MG 50.03		500	3.2	8
MG 60.03		600	4.0	8
MG 80.03		800	5.5	8
MG 40.06	49	400	1.9	4
MG 50.06		500	2.4	4
MG 60.06		600	3.0	4
MG 80.06		800	4.1	4
MG 100.06		1000	5.2	4
MG 120.06		1200	6.3	4
MG 40.09	74	400	2.3	4
MG 50.09		500	3.0	4
MG 60.09		600	3.7	4
MG 80.09		800	5.0	4
MG 100.09		1000	6.3	4
MG 120.09		1200	7.7	4

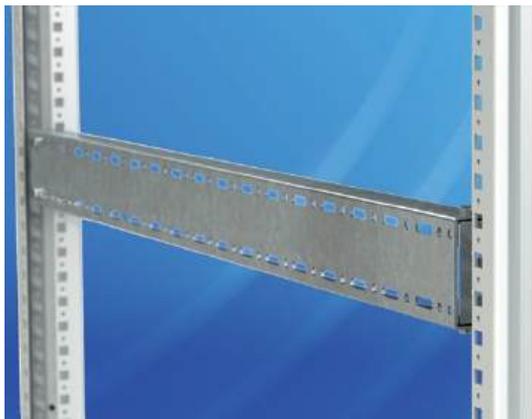
**2** – installation to internal and external surface (2 installation levels)

Rail code	Rail width (L2), mm	Cabinet size (N2), mm	Weight, kg	Qty. in package
MG 40.06 L v.2	49	400	1.9	4 sets
MG 50.06 L v.2		500	2.4	4 sets
MG 60.06 L v.2		600	2.9	4 sets
MG 80.06 L v.2		800	4.0	4 sets
MG 100.06 L v.2		1000	5.0	4 sets
MG 120.06 L v.2		1200	6.1	4 sets
MG 40.09 L v.2	74	400	2.5	4 sets
MG 50.09 L v.2		500	3.1	4 sets
MG 60.09 L v.2		600	3.8	4 sets
MG 80.09 L v.2		800	5.1	4 sets
MG 100.09 L v.2		1000	6.4	4 sets
MG 120.09 L v.2		1200	7.7	4 sets
MG 180.09 L v.2		1800	11.7	4 sets
MG 200.09 L v.2		2000	13.0	4 sets
MG 220.09 L v.2	2200	14.3	4 sets	

## INTERNAL INSTALLATION



## Mounting rail



Designed to adjust equipment installation depth, width and height at floor distribution cabinets. The rail has oval and round perforations for self-tapping screws and mounting screws S 6.(X) MX with flanged nuts N 6 MF. The rail is attached to internal and external surfaces of cabinet frames and/or to other rails using two brackets included to the delivery package. Used as part of MPP cabinets and MF X.Y.60IT frames.

**Material:** 2.0 mm galvanized sheet steel

**Package scope:** mounting rail, mounting rail bracket, self-tapping screw

Reinforcement code	Cabinet width, mm	Weight, kg	Qty. in pack., pcs.
MG 60.09 IL	600	3.6	6
MG 80.09 IL	800	7.8	6
MG 100.09 IL	1000	9.6	6
MG 120.09 IL	1200	11.4	6

## Mounting panel reinforcement



Designed to enhance mounting panel mechanical strength of floor distribution cabinets. It is installed at standard cabinets 1000 and 1200 mm wide.

**Material:** 2.5 mm galvanized sheet steel

**Package scope:** reinforcement piece and fasteners

Reinforcement code	Cabinet width, mm	Weight, kg	Qty. in pack., pcs.
MG 60.05 MP	600	3.2	4
MG 80.05 MP	800	4.5	4

## Mounting panel



Designed to fix equipment using captive nuts and/or self-tapping screws. Attached to frames of floor distribution and network cabinets and/or to mounting rails

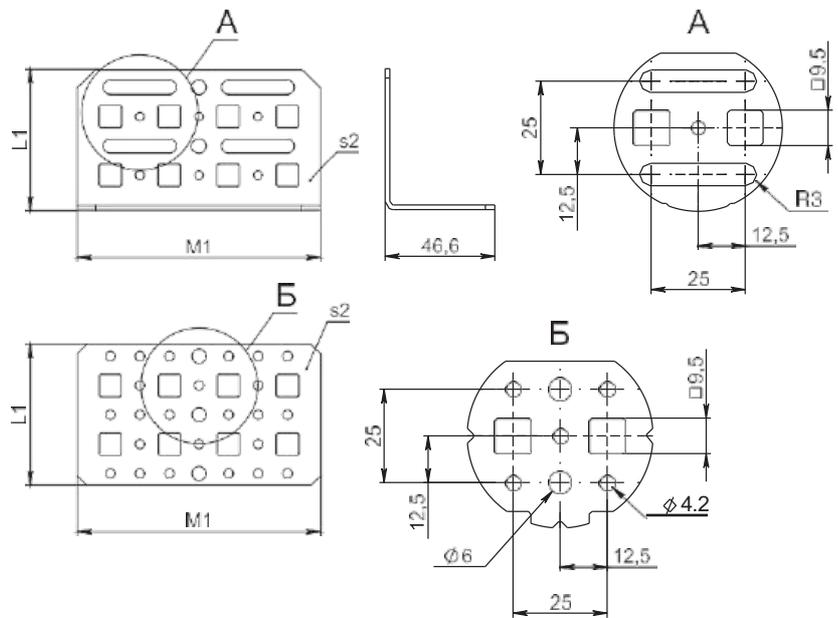
**Material:** 2.0 mm galvanized sheet steel

### flat panels

Panel code	Length of panel (L1), mm	width of panel (M1), mm	Qty. in package, pcs.
MP 06.10 P	60	103	8
MP 10.10 P	103	103	8

### corner panels

Panel code	Panel length (L1), mm	Panel width (M1), mm	Qty. in package, pcs.
MP 03.10 PL	30	103	8
MP 06.10 PL	60	103	8



## Internal mounting rail

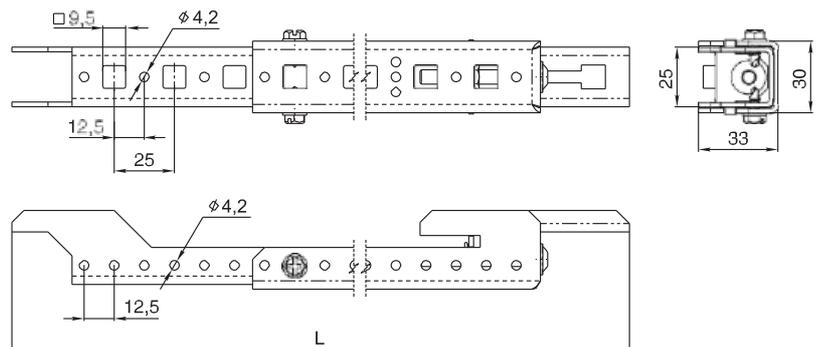


Designed for wall cabinets 210-400 mm deep and for console bottom sections. Can be installed to cabinet both vertical and horizontal internal surfaces (no cabinet modification is required) jointly with a standard mounting panel. The rails are telescopic (one rail is suitable for cabinets of different depths). The following basic components can be installed onto internal rails: MG (L) mounting rail, SW 01 end switch, luminaire, flat (corner) mounting panel MP X.10 P (L)

**Material:** 2.0 mm galvanized sheet steel

**Package scope:** external rail, internal rail, stopper, fasteners

Rail code	Depth cabinet, mm	Length rail (L), mm	Weight, kg	Qty. in pack.
MG 30 E	210	187	1.24	4 set
	250	227		
	300	277		
MG 50 E	400	377	1.8	4 set
	500	477		



## INTERNAL INSTALLATION

### Luminaire bracket



Designed to fasten luminaires onto 19" frames

**Material:**

sheet steel, structural powder coating RAL 7035

**Fasteners:**

included to delivery scope

Bracket code	Qty. in package
MB 10.48 CLG	1 set

### LED luminaires



Designed for easy maintenance of equipment inside the cabinet

**Material:**

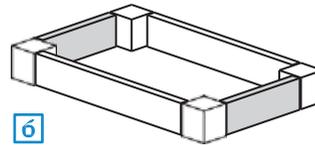
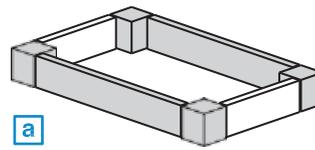
plastic

**Package scope:**

lamp, power switch, connecting cable, fasteners

Luminaire code	Power	Dimensions, mm	Control	Power supply	Installation
LA 5 LED	5	345x40x35	Switch	AC 100-240 V	attached with screws
LA 5 LED M	5	345x40x35	Switch	AC 100-240 V	with magnets
LA 5 LED S	5	345x40x35	Motion sensor	AC 100-240 V	attached with screws
LA 5.024 LED M	5	345x40x35	Switch	DC 24 V	with magnets

Plinth



Designed for floor installation of wall enclosures with automation equipment, floor distribution cabinets, console bottom sections. The base height is 100, 200 mm. Consists of front, back, and side components

Package scope:

- a** – four corners, front and back panels, fasteners
- b** – two side panels and fasteners

**a** – plinth front and rear components

Code				Cabinet depth (N), mm	Panel version	Material	Qty. in pack.	
Height (L1) 100 mm	Weight, kg	Height (L1) 200 mm	Weight, kg					
ZA 40.00 v.2	2.2	ZA 40.00 H v.2	3.7	400	solid	front and rear panels: 1.5 mm sheet steel, corners: 3 mm sheet steel  surface of all components: structural powder coating black color	1 set	
ZA 60.00 v.2	2.5	ZA 60.00 H v.2	4.2	600	solid		1 set	
ZA 60.00 P v.2	2.4	–	–		w/vent		1 set	
ZA 80.00 v.2	2.8	ZA 80.00 H v.2	4.7	800	solid		1 set	
ZA 80.00 P v.2	2.7	–	–		w/vent		1 set	
ZA 100.00 v.2	3.1	ZA 100.00 H v.2	5.2	1000	solid		1 set	
ZA 120.00 v.2	3.4	ZA 120.00 H v.2	5.8	1200	solid		1 set	
ZA 160.00 v.2	4.0	–	–	1600	solid		1 set	
ZA 60.00 S v.2	1.9	ZA 60.00 HS v.2	3.1	600	solid		front and rear panels: 1.2 mm ASI 304, corners: 2 mm AISI 304, surface of all components: honed	1 set
ZA 80.00 S v.2	2.7	ZA 60.00 HS v.2	4.7	800	solid			1 set
ZA 100.00 S v.2	4.7	ZA 100.00 HS v.2	10	1000	solid	1 set		
ZA 120.00 S v.2	2.9	ZA 120.00 HS v.2	10.5	1200	solid	1 set		

**b** – plinth side components

Code				Cabinet depth (N), mm	Panel version	Material	Qty. in pack.
Height (L1) 100 mm	Weight, kg	Height (L1) 200 mm	Weight, kg				
ZA 00.25 v.2	0.3	–	–	250	solid	1.5 mm sheet steel, structural powder coating black color	1 set
ZA 00.30 v.2	0.4	–	–	300	solid		1 set
ZA 00.40 v.2	0.8	ZA 00.40 H v.2	1.4	400	solid		1 set
ZA 00.50 v.2	1.1	ZA 00.50 H v.2	1.9	500	solid		1 set
ZA 00.60 v.2	1.4	ZA 00.60 H v.2	2.4	600	solid		1 set
ZA 00.60 K v.2	1.2	–	–		w/brush entry		1 set
ZA 00.80 v.2	2.0	ZA 00.80 H v.2	3.5	800	solid		1 set
ZA 00.80 K v.2	1.8	–	–		w/brush entry		1 set
ZA 00.100 v.2	2.6	ZA 00.100 H v.2	4.5	1000	solid		1 set
ZA 00.30 S v.2	0.4	–	–	300	solid		1.2 mm corrosion-resistant sheet steel AISI 304, honed surface
ZA 00.40 S v.2	0.7	–	–	400	solid	1 set	
ZA 00.50 S v.2	0.9	ZA 00.50 HS v.2	1.7	500	solid	1 set	
ZA 00.60 S v.2	1.2	ZA 00.60 HS v.2	2.1	600	solid	1 set	
ZA 00.80 S v.2	1.74	ZA 00.80 HS v.2	3	800	solid	1 set	

## BASE



Cables can be attached at cabinet plinths using mounting crossbars (ordered separately, see page 132) through M6 captive nuts (ordered separately, see page 200) that are installed into relevant holes located at plinth corners.

### Plinth corner component



Intended to create custom plinth sets for MPx series floor distribution cabinets. Used to fix plinth blind panels and plinth panels with brush entry.

**Package scope:**  
corner component, fasteners

Corner component code	Plinth height, mm	Weight, kg	Qty. in package	Color
Z 100	100	2.6	4	black
Z 200	200	4.4	4	black

### Plinth double corner component



Designed for central installation between two heavy cabinets.

**Package scope:**  
corner component, fasteners

Corner component code	Plinth height, mm	Weight, kg	Qty. in package	Color
Z 100 D	100	2.85	2	black
Z 200 D	200	5	2	black

## Crossbeam join bracket

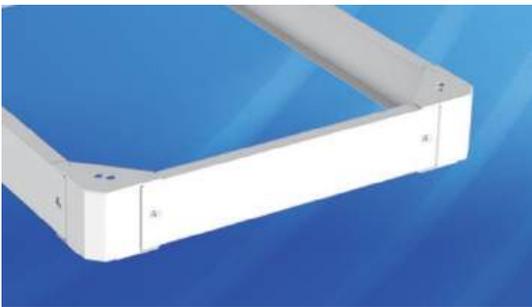


Designed to join MG X.04 CL crossbeams at 90 degree angle. Suitable to arrange cable fixing at plinths of MPx series floor cabinets.

**Package scope:**  
brackets, fasteners

Bracket code	Weight, kg	Qty. in package	Material
IK 01 C	0.25	2	Galvanized sheet steel

## Telecommunications plinth for IPx cabinets



Used to attach floor network cabinets to the floor. 100 mm plinth height. Consists of corner components for front, rear and side panels.

**Material:**  
1.2 mm sheet steel

**Surface:** structural powder coating RAL 7035

**Package scope:**  
4 corner components, 4 side panels, fasteners

**Options:**  
coating color RAL 7021

Code				Cabinet size		Material	Qty. in package
Height (L1) 100 mm	Weight, kg	Height (L1) 200 mm	Weight, kg	width (M) x depth (N), mm			
ZA 60.60 I	3,9	ZA 60.60 IH	3.9	600 x 600		front and rear panels: 1.5 mm sheet steel, corners: 3 mm sheet steel  surface of all components: structural powder coating, RAL 7035	1 set
ZA 60.80 I	4.2	ZA 60.80 IH	4.2	600 x 800	800 x 600		1 set
ZA 80.80 I	4.7	ZA 80.80 IH	4.7	800 x 800			1 set

## Telecommunications plinth with roll-over protection for IPx cabinets



Used to attach to the floor 1000 mm deep floor network cabinets. Equipped with a pull-out cell to protect against rolling over. 100 mm plinth height.

Plinth code	Weight, kg	Cabinet size	Panel vers.	Qty. in pack.
		width (M) x depth (N), mm		
ZA 60.100 IM	10.9	600 x 1000	w/roll over prot.	1 set

## BASE

### Telecommunications plinth corner component



Used as part of plinths for floor network cabinets.

**Package scope:**  
corner component, fasteners

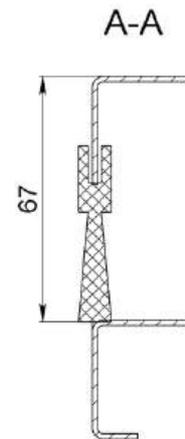
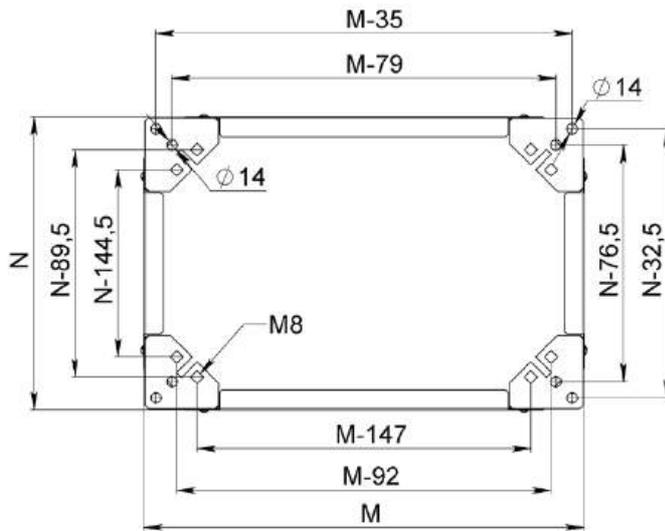
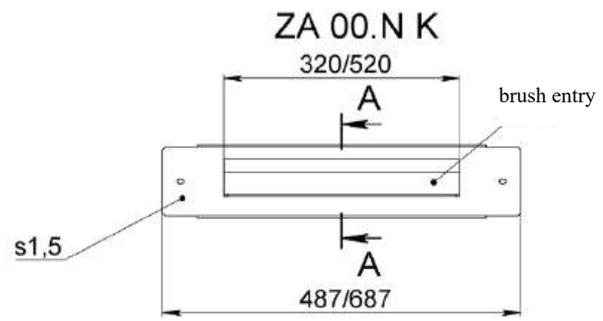
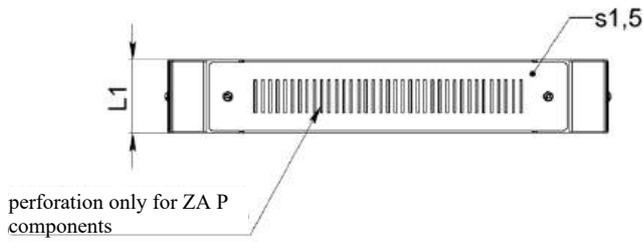
Corner component code	Plinth height, mm	Weight, kg	Qty. in package	Color
Z 100 I	100	0.88	4	RAL 7035
Z 200 I	200	2.2	4	RAL 7035

### Telecommunications plinth panel

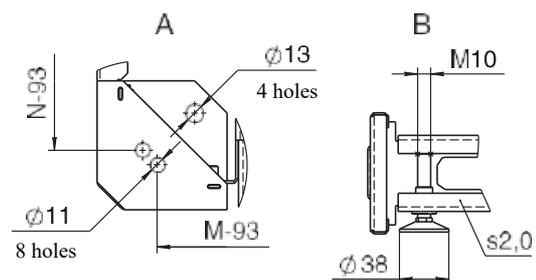
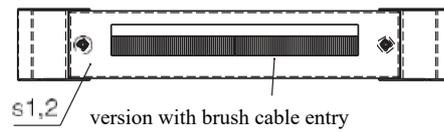
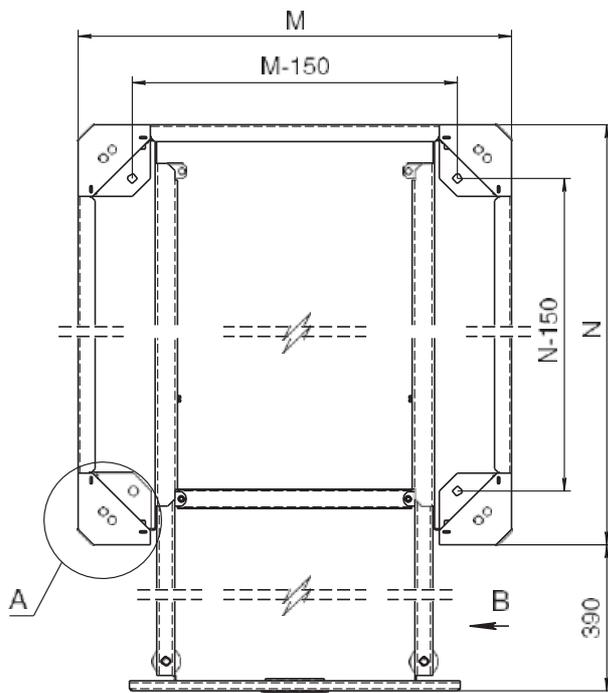
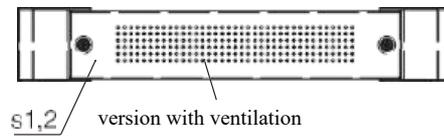
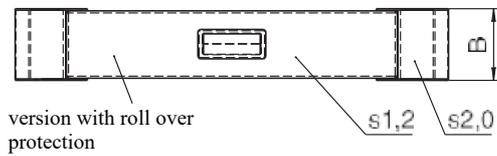


Panel code	Cabinet size (width x depth, mm)	Version	Qty. in package, pcs.
Z 100.600 I	600	solid	1
Z 100.800 I	800	solid	1
Z 100.1000 I	1000	solid	1
Z 100.600 IP	600	with ventilation	1
Z 100.800 IP	800	with ventilation	1
Z 100.1000 IP	1000	with ventilation	1
Z 100.600 IK	600	with brush cable entry	1
Z 100.800 IK	800	with brush cable entry	1
Z 100.1000 IK	1000	with brush cable entry	1

1



2



# BASE

## Extended plinth



Designed for all 300 and 400 mm deep enclosure MES, MEV and MED. Used to attach enclosures to the floor. Max. load capacity: 250 kg.

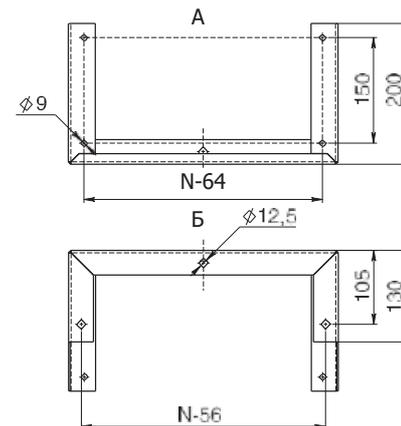
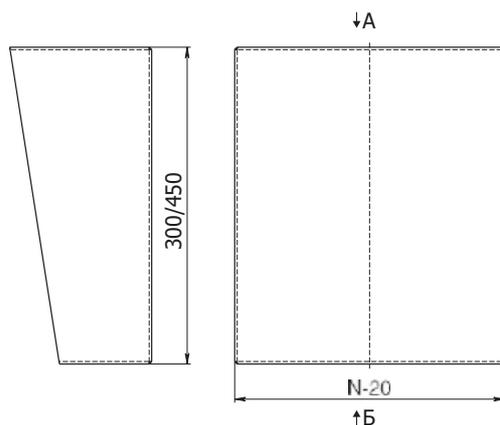
**Material:**  
2.0 mm sheet steel

**Surface:** structural powder coating RAL 7035

**Package scope:**  
2 plinth side components and fasteners

**Options:**  
special coating color RAL 9005, etc.

Plinth code	Plinth height, mm	Cabinet depth (N), mm	Weight, kg	Qty. in package, pcs.
ZH 30.30	300	300	6.6	1
ZH 45.30	450		9.4	1
ZH 30.40	300	400	7.6	1
ZH 45.40	450		11.0	1



## Screw type support



Designed to compensate for floor unevenness.

Support code	Thread diameter, mm	Stud length, mm	Static load per support, kg	Use	Qty. in pack., pcs
F 10.50	10	50	150	for IPx series floor cabinets	4
F 12.40	12	40	300	For MPx series floor cabinets	4

## Roller



Designed to facilitate movement, can be easily installed to steel embedded frames.

**Package scope:** roller, support plate C 10.110 (T)

Roller code	Brake availability	Thread diameter, mm	Static load per roller, kg	Gap to floor, mm	Use	Qty. in pack., pcs
C 10.110	–	10	50	110	for floor telecommunications cabinets	2
C 10.110 T	■					2
C 12.125	–	12	100	125	for floor distribution cabinets	2
C 12.125 T	■					2

## Reinforced travel roller

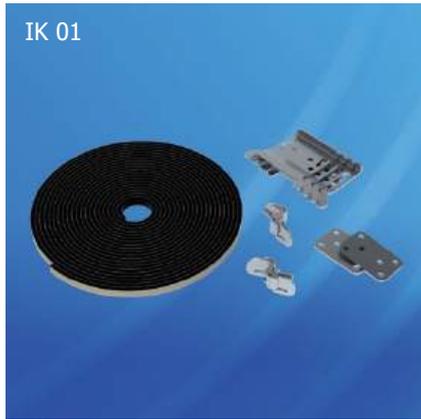


Designed to facilitate movement of heavy MPx series floor cabinets, can be easily installed to steel embedded frames.

**Package scope:** roller

Support code	Brake availability	Thread diameter, mm	Static load per support, kg	Use	Qty. in pack., pcs
C 12.82 F	■	12	250	for floor distribution cabinets	4

Joint kit

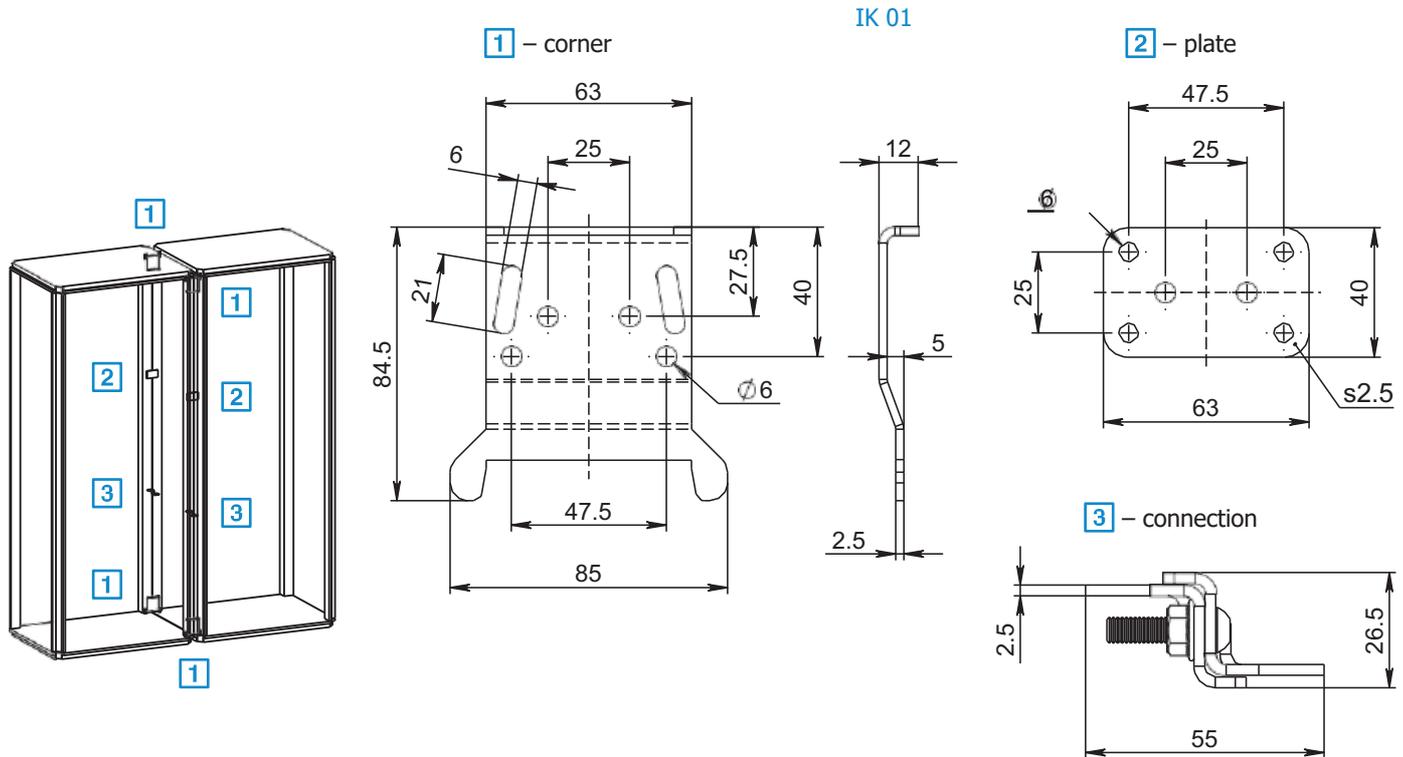


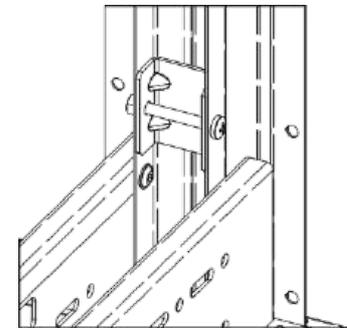
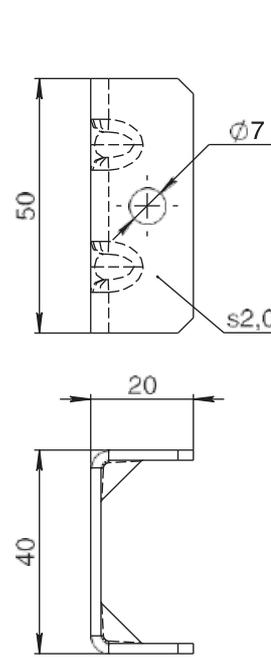
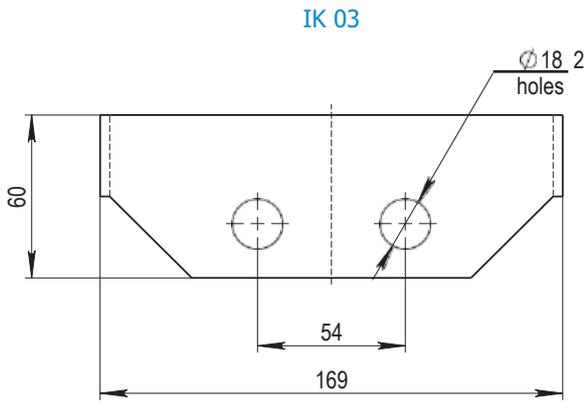
Designed to join two floor distribution cabinets through their side or rear frames

Used to join two control consoles through their side walls

Used to join separate floor network cabinets through their sides

Set code	Material	Use	Qty. in package
IK 01	galvanized sheet steel	for floor distribution cabinets	1 set
IK 03		for control consoles	1 set
IK 01 I		for floor network and telecommunications cabinets	1 set
IK 02 I		for open racks IFO	1 set





Joint kit IFO



Used to join IFO series open racks through their sides.

**Package scope:**  
joint plates, fasteners

Set code	Material	Use	Qty. in package
IK 02 I	galvanized sheet steel	for IFO series open racks	1 set

## ROW CONNECTION

### Exterior joint kit



Used to connect externally MPx series floor cabinets and MF frames.

**Package scope:**  
connecting bracket 8 pcs., fasteners

Set code	Material	Use	Qty. in package
IK 01 O	galvanized sheet steel	for floor distribution cabinets	1 set

### Mounting panel joint kit



To connect back-to-back two MRx series mounting panels at floor cabinets. Used jointly with mounting panel standard fastening components.

**Package scope:**  
fasteners

Set code	Material	Use	Qty. in package
IK 03 MP	galvanized steel	to connect mounting panels at cabinets with two-side maintenance access	1 set

## Plinth joint kit



Designed to join plinths of floor distribution cabinets.

**Material:**  
galvanized steel

**Attention!** Before plinths are joint, remove side panels at the joining area.

Set code	Qty. in package, pcs.
IK 01 ZA v.2	1 set

## Transportation bracket



Designed to evenly distribute the lifting force when two joint floor distribution cabinets are transported using a crane. Easily mounted to frame threaded holes intended to fix the ceiling panel with 12 mm thread diameter. 500 kg maximum permissible static load when transported at 60° angle

**Material:**  
4.0 mm sheet steel

**Package scope:**  
brackets and fasteners

**Surface:** structural powder coating  
RAL 7035

Bracket code	Qty. in package, pcs.
LL 12	2

## EXTERNAL INSTALLATION

### Panel holder



Intended to install side, back and sectional panels at floor distribution cabinet.

**Material:**  
zinc die casting

**Package scope:**  
holder and fasteners

Holder code	Qty. in package, pcs.
B 6 SP	8

### Rod system gripper



Intended to fix lock rod system in closed position and to install side panels at floor distribution cabinets.

**Material:**  
zinc die casting

**Package scope:**  
gripper and fasteners

Gripper code	Qty. in package, pcs.
B 6 DP	4

### Handle



Designed for horizontal or vertical installation at control panel wall.

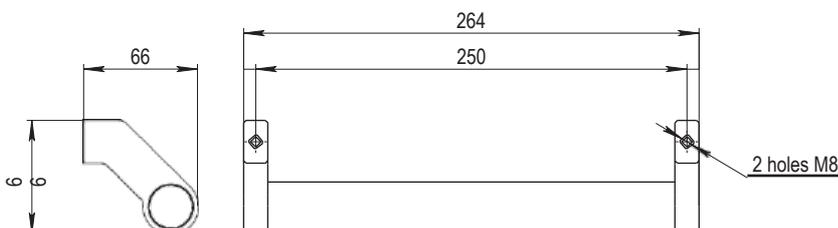
**Package scope:**  
handle and fasteners

**a**

Gripper code	Material	Qty. in package, pcs.
HD 250.45 Z	handle holder: plastic handle tube: aluminum	1

**b**

Gripper code	Material	Qty. in package, pcs.
HD 122.40 P	plastic	1



## Mounting rack

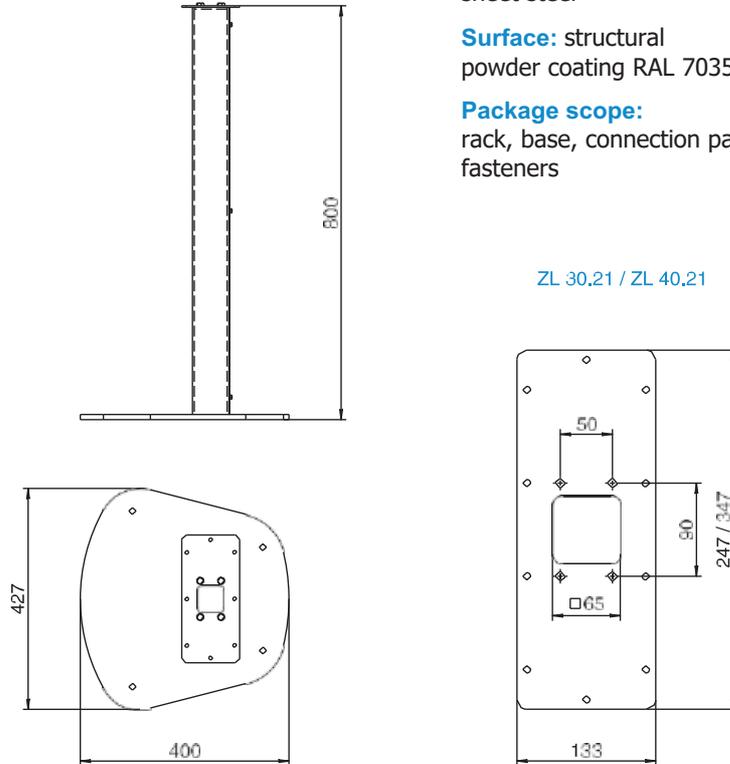


Designed for all 600 x 400 x 250 mm max. size MES and MEVS. Used to attach enclosures to the floor at 800 mm height.

**Material:**  
sheet steel

**Surface:** structural  
powder coating RAL 7035

**Package scope:**  
rack, base, connection panel and fasteners



Rack code	Cabinet width, mm	Cabinet depth, mm	Weight, kg	Qty. in package, pcs.
ZL 30.21	300	210	18.7	1
ZL 40.21	400	210, 250	19	1

## Support pole mount kit



Used to attach compact distribution cabinets to a rectangular (50 to 150 mm) or round (40 to 190 mm) pole.

**Material:**  
bracket: 2.0-2.5 mm corrosion-resistant sheet steel, fastening tape: 1.2 mm corrosion-resistant sheet steel AISI 304

**Package scope:**  
2 crossbeams, 4 corners, 4 brackets, 2 support fastening tapes, fasteners

Mount code	Cabinet width, mm	Qty. in package, pcs.	Max. load to kit, kg
OK 30 EP	300	2	150
OK 40 EP	400	2	150
OK 50 EP	500	2	150
OK 60 EP	600	2	150
OK 80 EP	800	2	150

## EXTERNAL INSTALLATION

### Mounting rack



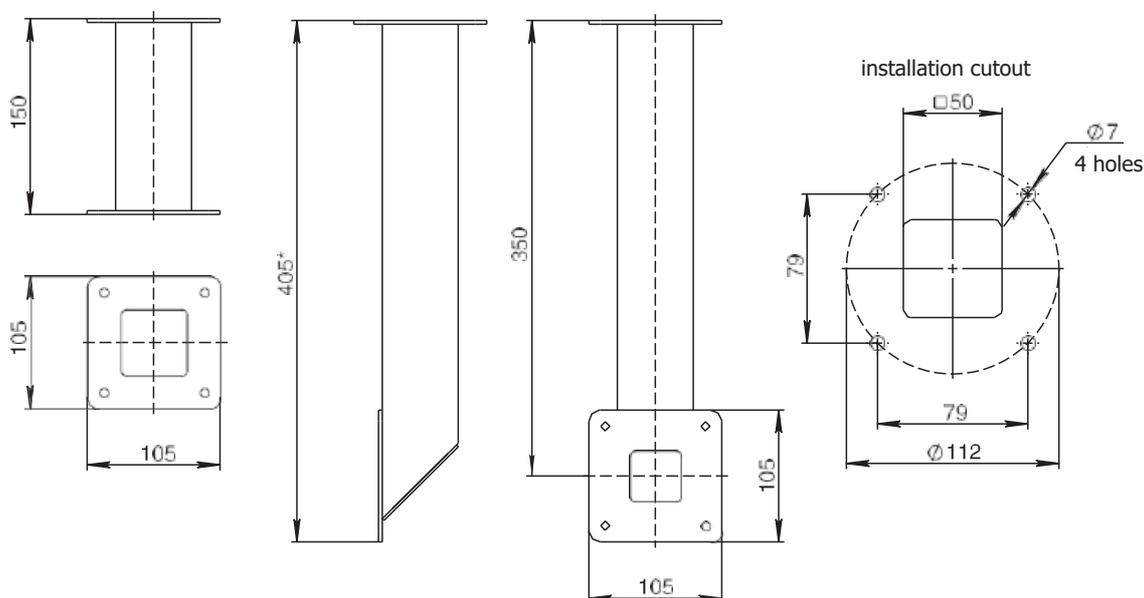
Designed to attach control panels to consoles. Supplied with support panel reinforcement.

**Material:**  
sheet steel, structural powder coating  
RAL7035

Rack code	Mount type	Rack height, mm	Qty. in pack., pcs
ZL 150 G	horizontal	150	1
ZL 350 V	vertical	350	1

ZL 150 G

ZL 350 V



### Protective plank



Prevents dirt and liquid from getting on top of the seal between two floor distribution cabinets.

**Material:**  
1.5 mm sheet steel, structural powder coating RAL 7035, 1.5 mm corrosion-resistant sheet steel AISI 304 for GB 60 RS.

Plank code	Cabinet depth, mm	Qty. in package, pcs.
GB 40 RS	400	1
GB 40 R	400	1
GB 50 R	500	1
GB 50 RS	500	1
GB 60 R	600	1
GB 60 RS	600	1
GB 80 R	800	1
GB 80 RS	800	1
GB 100 R	1000	1

Filter fan



Characterized by installation ease, maintenance ease, efficiency. High IP protection rating implies a fan use for both industry and construction.

**Color:**  
RAL 7035

**Degree of protection:**  
IP54

**Purity class:** G4

**Temperature range:**  
-10 to +55 °C

**Options:**  
temperature controller, see page 235

Fan code	Free flow, m³/h	Noise level, dB	Power, W	Operating voltage
FA 08.230 FD	39	27	13	230 V / 50 Hz
FA 12.230 FD	138	48	19	230 V / 50 Hz
FA 13.230 FD	272	54	31	230 V / 50 Hz
FA 15.230 FD	272	52	31	230 V / 50 Hz
FA 20.230 FD	800	63	48	230 V / 50 Hz
FA 08.024 FD	84	30	4.8	24 V
FA 12.024 FD	179	48	9.6	230 V / 50 Hz

Filter grid



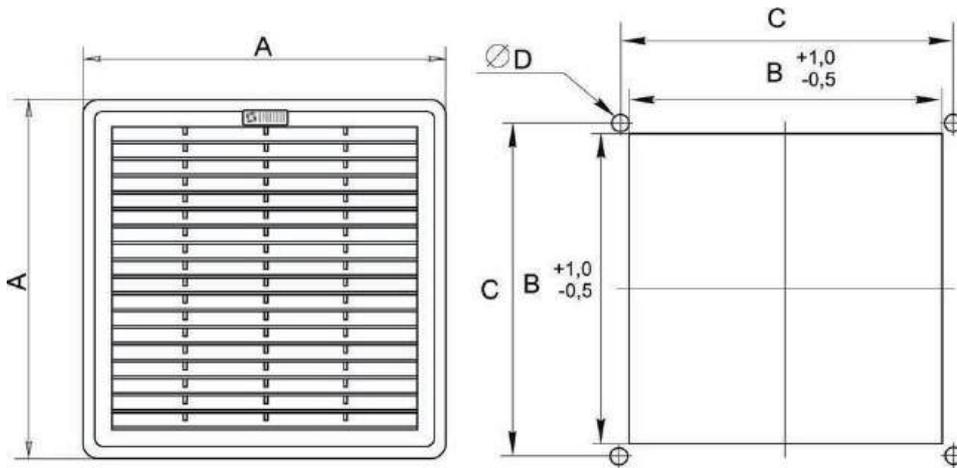
Characterized by installation ease, maintenance ease, efficiency. High IP protection rating implies a fan use for both industry and construction.

**Color:**  
RAL 7035

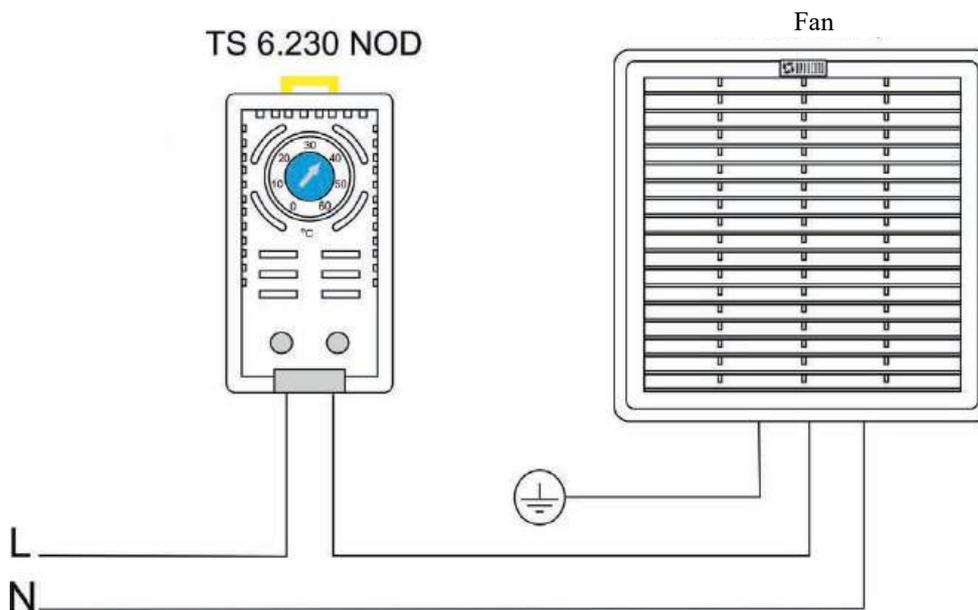
**Degree of protection:**  
IP54

**Temperature range:**  
-10 to +55 °C

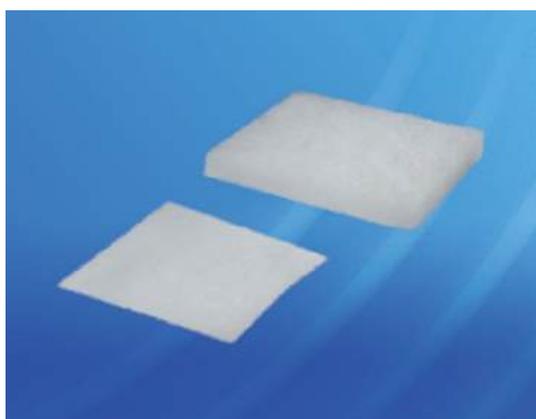
Grid code	Weight, kg	Purity class	Qty. in package, pcs.
FF 08 D	0.062	G4	1
FF 12 D	0.111	G4	1
FF 13 D	0.189	G4	1
FF 15 D	0.348	G4	1
FF 20 D	0.571	G4	1



Grid code	Fan code	A, mm	B, mm	C, mm	D, mm
FF 08 D	FA 08.230 FD	106	95	95	1.8
FF 12 D	FA 12.230 FD	150	125	131	1.8
FF 13 D	FA 13.230 FD	200	177	185	4.5
FF 15 D	FA 15.230 FD	248	223	230	4.5
FF 20 D	FA 20.230 FD	320	291	302	4.5



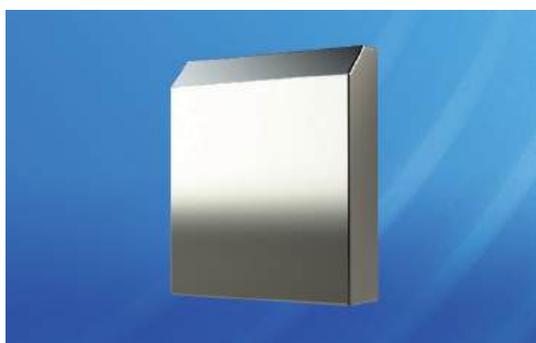
## Replacement filter



For the ventilation systems to function smoothly, periodically clean the internal filter or replace as necessary. Filters are made of flame-resistant synthetic fiber with progressive filtration capacity.

Filter code	Description	Qty. in set
F 08 G3	Replacement filter	6
F 12 G3 / F 12 G4	Replacement filter	6
F 13 G3 / F 13 G4	Replacement filter	6
F 15 G3 / F 15 G4	Replacement filter	6
F 20 G3 / F 20 G4	Replacement filter	6

## Filter fan protective casing



Designed to enhance protection level of filter fan and filter grid. The stainless steel casing is coated with silicone seal and polyurethane foam. Suitable for installation jointly with filter fan or filter grid.

**Material:**

1.2 mm corrosion-resistant sheet steel AISI 304 or 1.4 mm sheet steel RAL 7035

**Degree of protection:**

IP 56

**Package scope:**

casing and fasteners

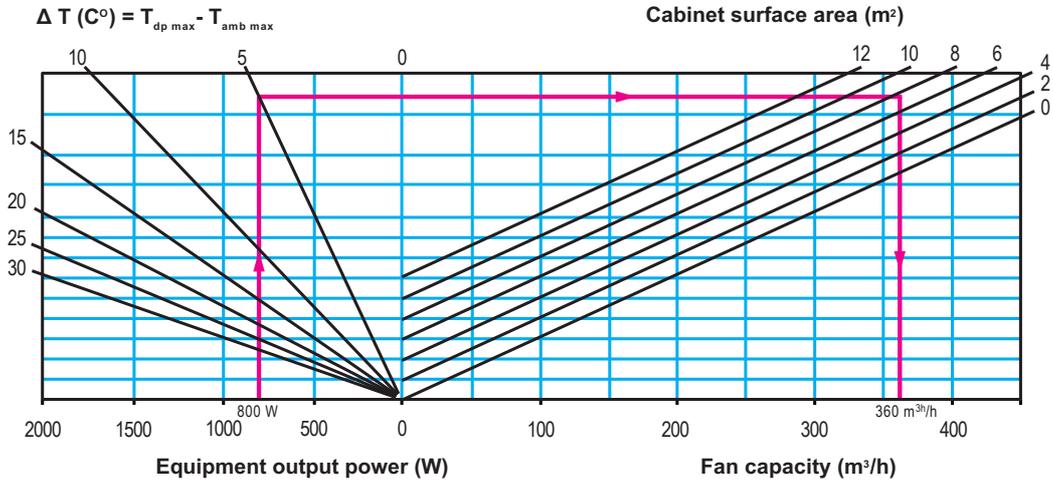


Protective casing code	Height, mm	Width, mm	Depth, mm	Code of filter fan / filter grid	Material
R 08 FA S	199	160	60	FA 08.230 FD / FF 08 D	Steel AISI 304
R 08 FA	199	160	60	FA 08.230 FD / FF 08 D	Steel RAL 7035
R 12 FA S	244	205	60	FA 12.230 FD / FF 12 D	Steel AISI 304
R 12 FA	244	205	60	FA 12.230 FD / FF 12 D	Steel RAL 7035
R 13 FA S	299	260	60	FA 13.230 FD / FF 13 D	Steel AISI 304
R 13 FA	299	260	60	FA 13.230 FD / FF 13 D	Steel RAL 7035
R 15 FA S	344	305	60	FA 15.230 FD/ FF 15 D	Steel AISI 304
R 15 FA	344	305	60	FA 15.230 FD/ FF 15 D	Steel RAL 7035
R 20 FA S	419	380	60	FA 20.230 FD/ FF 20 D	Steel AISI 304
R 20 FA	419	380	60	FA 20.230 FD/ FF 20 D	Steel RAL 7035

**Fan installation recommendations:**

To draw fresh air in, it is recommended to install fans at cabinet bottom. To remove heated air, use an exhaust grate installed at the cabinet top section.

**Fan power determination graph**



**Fan**



Suitable for installation into wall cabinets. Characterized by easy installation, easy maintenance, efficiency.

**Operating voltage:**  
AC 230 V / 50 Hz

**Degree of protection:**  
IP20

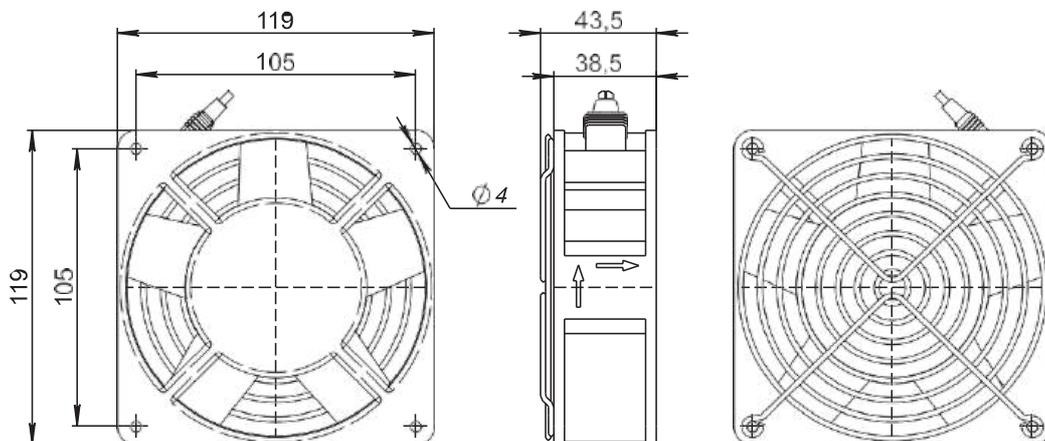
**Color:**  
black

**Temperature range:**  
-10 to +50 °C

**Package scope:**  
fan, protective grid, 0,61 m connection cable

**Options:**  
temperature controller, see page 235

Fan code	Free flow, m <sup>3</sup> /h	Noise level, dB (A)	Power, W	Rated current, mA
FA 12.230 I	165	42	22	160



Heater



Used to provide the required temperature and prevent condensation to form inside the cabinet. A temperature controller or hygrostat controls heating.

**Operating voltage:**

230 V / 50 Hz

**Color:**

black

**Material:**

anodized aluminum

**Heating element**

self-regulating PTC thermistor

**Degree of protection:**

IP20

**Temperature range:**

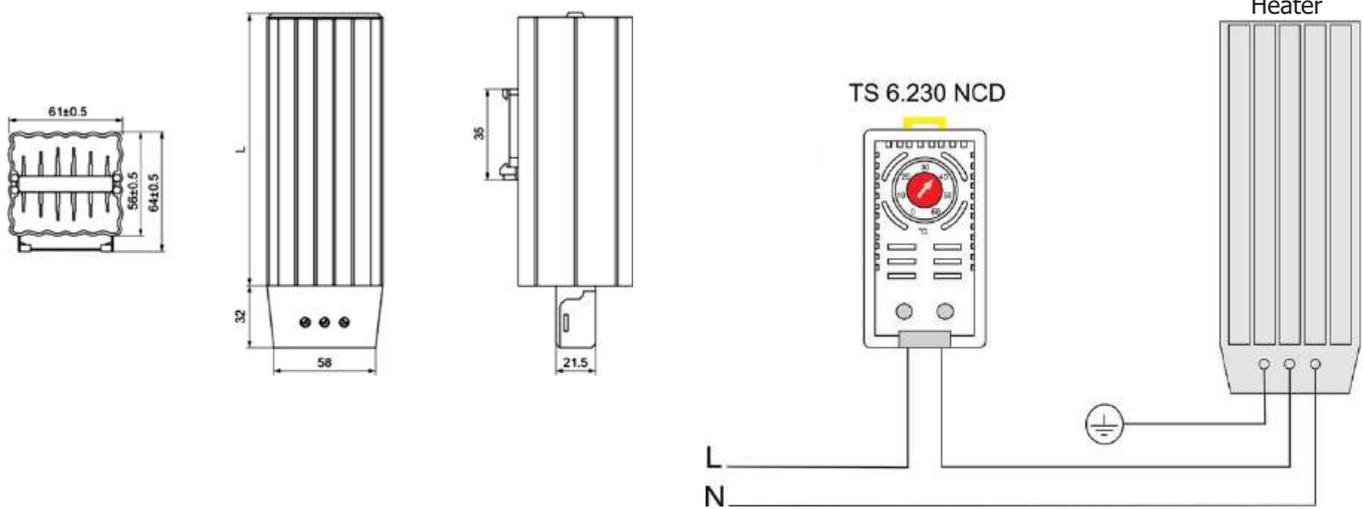
-10 to +50 °C

**Options:**

temperature controller, see page 235

Heater code	Power at 23 °C, W	Operating voltage, V (Hz)	Rated current, mA	Fan availability
HT 15 D	15	230 (50)	65	–
HT 30 D	30	230 (50)	130	–
HT 45 D	45	230 (50)	190	–
HT 80 D	80	230 (50)	370	–
HT 150 D	150	230 (50)	640	–
HT 250 FD	250	230 (50)	1160	■
HT 350 FD	350	230 (50)	1900	■

Connection diagrams



Heater code	L, mm	Weight, kg
HT 15 D	65	0.25
HT 30 D	656	0.25

Heater code	A, mm	Weight, kg
HT 45 D	65	0.25
HT 80 D	140	0.45
HT 150 D	220	0.65

Heater code	A, mm	Weight, kg
HT 250 FD	182	1.1
HT 350 FD	222	1.4

## MICROCLIMATE CONTROL

### Heater installation recommendations:

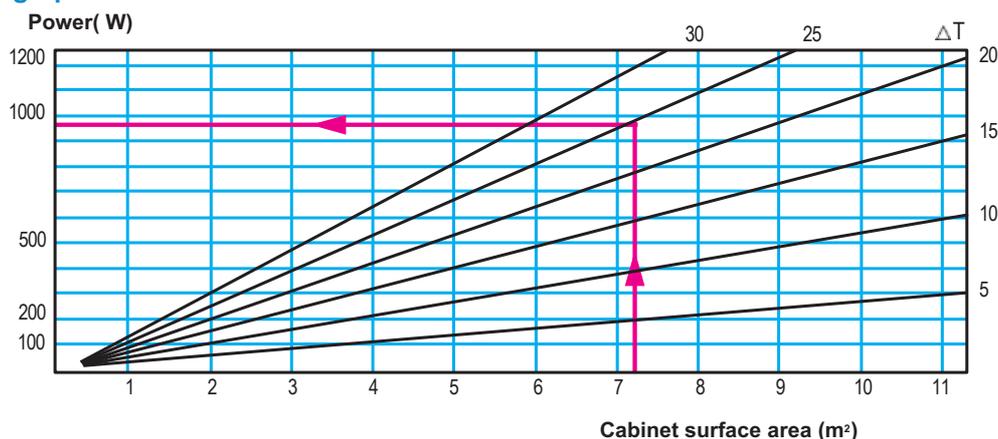
Install low-power heaters to the cabinet base within the recommended security perimeter: 10 cm

It is forbidden to install large equipment above the heater that may interfere with natural convection

It is forbidden to install highly sensitive equipment above the heater. If several heaters are used, install them in parallel

Install heaters vertically to facilitate convection. This is especially important when high-power floor heaters are installed

### Heat calculation graph



### Note:

Select heater(s) so that the heater power or the total power of several heaters is slightly higher than the calculated value

## Temperature controller



Used to maintain the cabinet internal temperature.

A NC contact temperature controller is used to turn off the heater when the temperature rises above the set value.

A NO contact temperature controller is used to turn off the fan when the temperature rises above the set value

### Installation recommendations:

It is recommended to install NC contact temperature controllers to cabinet bottom section. It is recommended to install NO contact temperature controllers to cabinet top section.

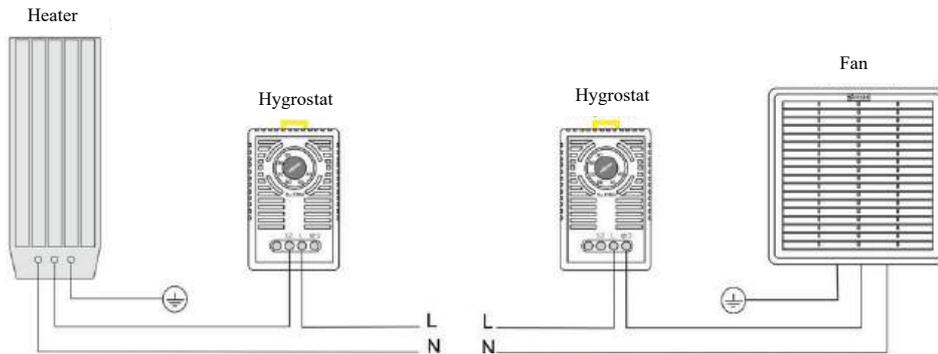
Temperature controller code	Control scale, °C	Contact	Maximum current, A (230 V)
TS 6.230 NCD	-10 to +80	NC	6
TS 6.230 NOD	-10 to +80	NO	6

Hygrostat



Used to turn on the heater or fan.

Hygrostat code	Control scale, %	Contact	Maximum current, A (230 V)
HS 5.230 D	35 to 95	NC/NO	5



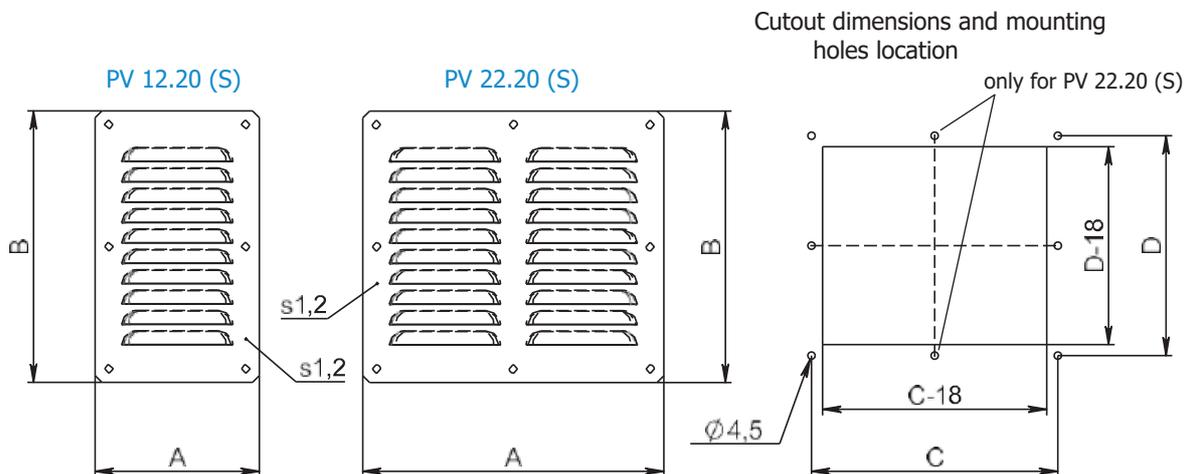
Ventilation louvre panel



Degree of protection: IP22

Panel code		Dimensions		Qty. in pack., pcs
sheet steel, powder coating RAL 7035	corr.-resistant steel AISI 304	width A, mm	height B, mm	
PV 12.20	PV 12.20 S	120	200	1
PV 22.20	PV 22.20 S	220	200	1

Panel code	A, mm	B, mm	C, mm	D, mm
PV 12.20, PV 12.20 S	120	200	100	180
PV 22.20, PV 22.20 S	220	200	200	180



TOP PANEL WALL TYPE  
DOORS Ex  
INTERNAL INSTALLATION FLOOR TYPE  
BASE IT  
ROW CONNECTION CONTROL  
EXTERNAL INSTALLATION TERMINALS  
MICROCLIMATE CONTROL IP  
CABLE LAYING MODIFIED  
19" EQUIPMENT ACCESSORIES  
FASTENERS INFORMATION

Fan panel



Suitable for installation at MF frame upper opening of the of distribution cabinets. Air supply can be enhanced using optional FA 12.230 I fan kit. Can be combined with standard ceiling panels on SK 12.XX panel spacers or with ceiling panels R X. Y P, R X. Y PK.

**Operating voltage:**  
230 V / 50 Hz

**Material:**  
1.2-1.5 mm sheet steel

**Surface:** structural  
powder coating RAL 7035

**Options:**  
temperature controller, see  
page 235

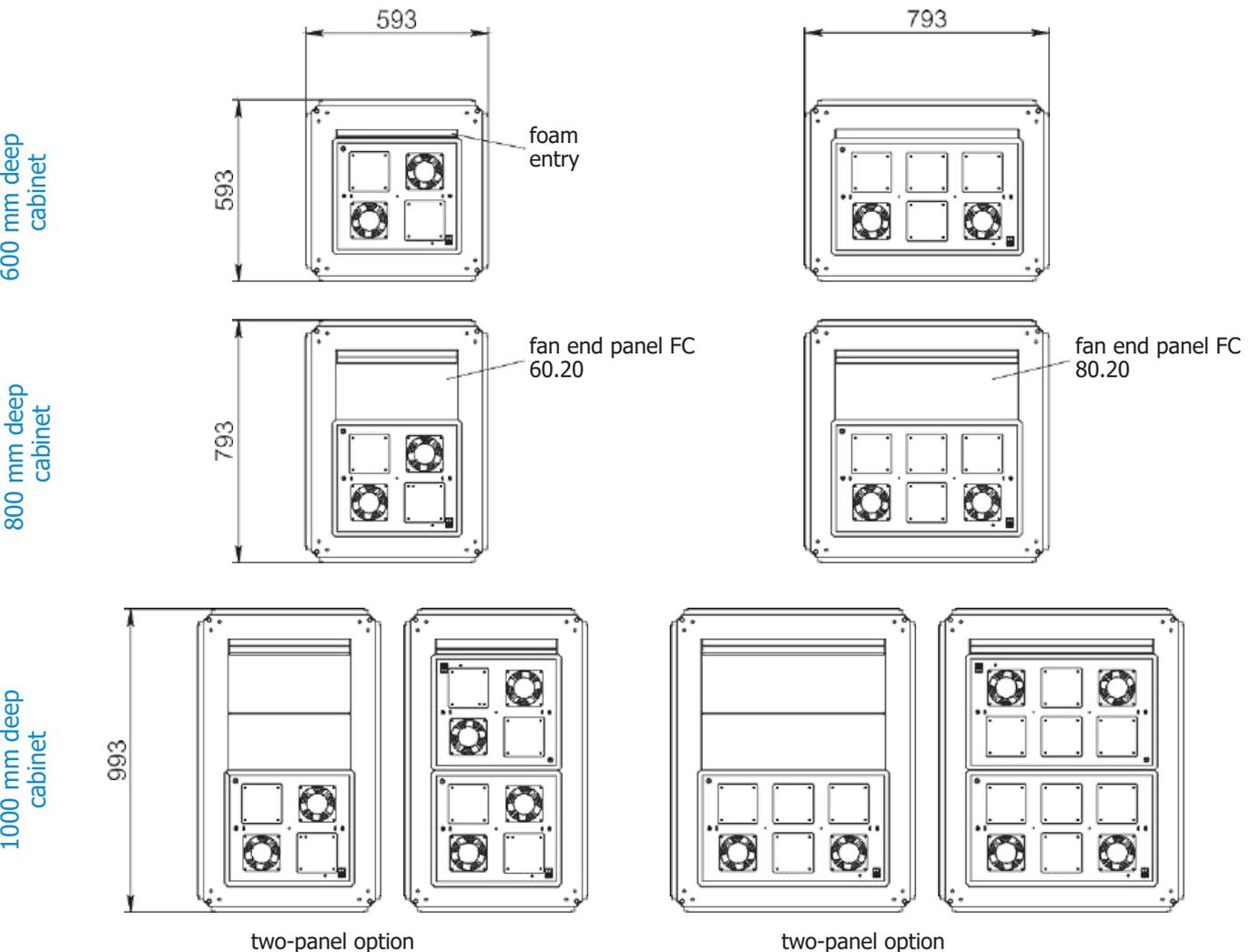
**Degree of protection:** IP20

**Temperature range:**  
-10 to +50 °C

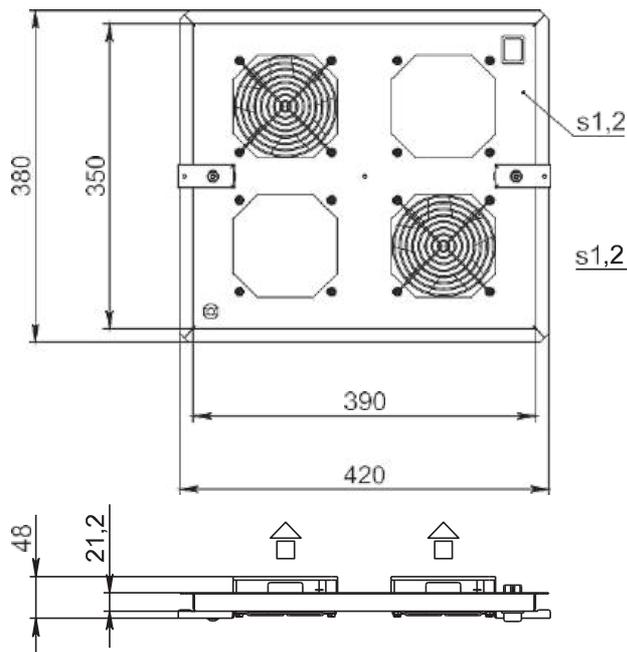
**Package scope:**  
2 fans, illuminated switch,  
current protection, 2.5 m  
connection cable, 2 cable entry  
panels, foam entry and  
fasteners

for MPx type distribution cabinets

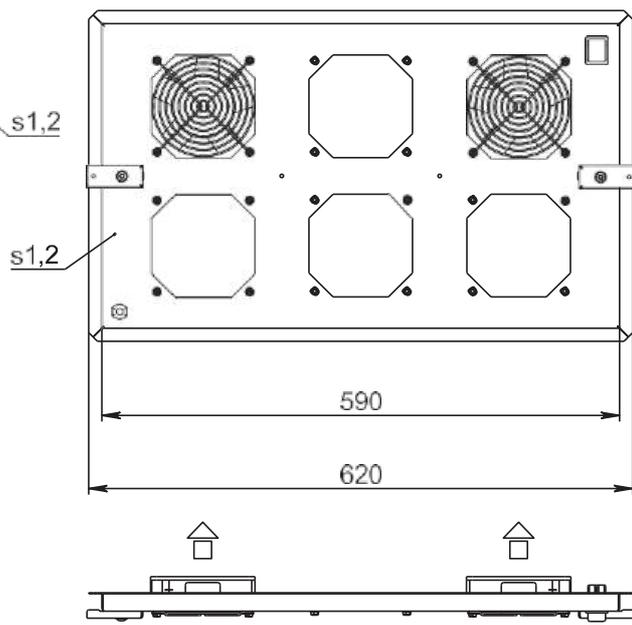
Panel code	Cabinet width, mm	Cabinet depth, mm	Free flow, m³/h	Max. free flow, m³/h	Number of fans, pcs.	Max. number of fans, pcs.	Weight, kg
FC 02.230 P	600	600, 800, 1000	330	660	2	4	5.3
FC 02.230 PD	800	600, 800, 1000	330	990	2	6	7.2



FC 02.230 P



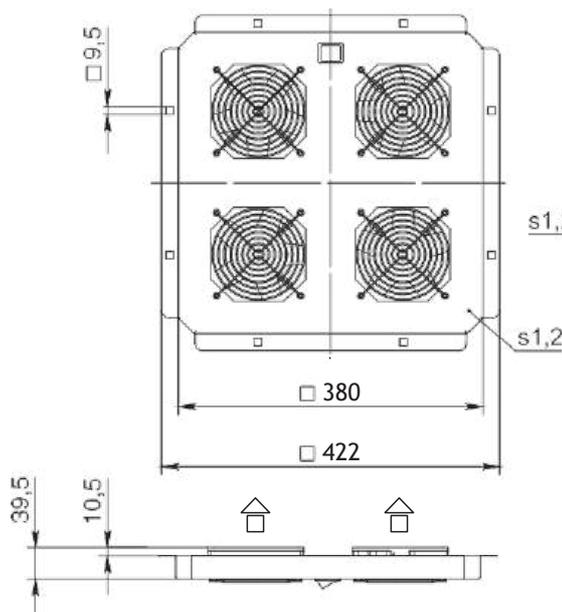
FC 02.230 PD



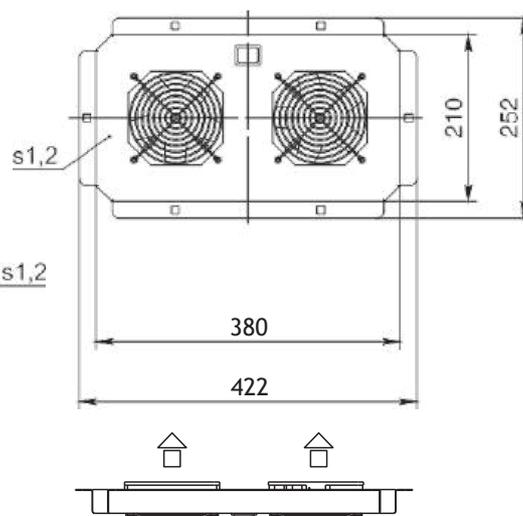
for IPx type network and telecommunications cabinets, installed to IF frame prepared opening, fixed with M5/M6 captive nuts and screws

Panel code	Cabinet width, mm	Cabinet depth, mm	Free flow, m <sup>3</sup> /h	Max. free flow, m <sup>3</sup> /h	Number of fans, pcs.	Max. number of fans, pcs.	Weight, kg
FC 02.230 D	600, 800	600, 800, 1000	330	660	2	4	2.4
FC 04.230 D	600, 800	600, 800, 1000	660	660	4	4	4.5
FC 02.230	600, 800	1000	330	330	2	2	2.4

FC 04.230 D



FC 02.230



Fan panel



Suitable for installation onto ceiling panel of distribution cabinets.

**Material:**  
1.5 mm sheet steel

**Surface:** structural powder coating RAL 7035

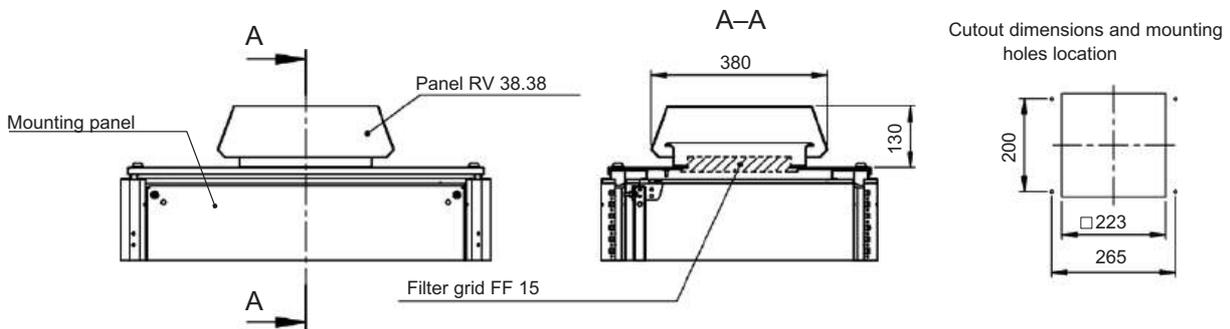
**Degree of protection:**  
IP44 (IP54), IK10

**Package scope:**  
top panel,  
bottom panel for fan mounting,  
fasteners

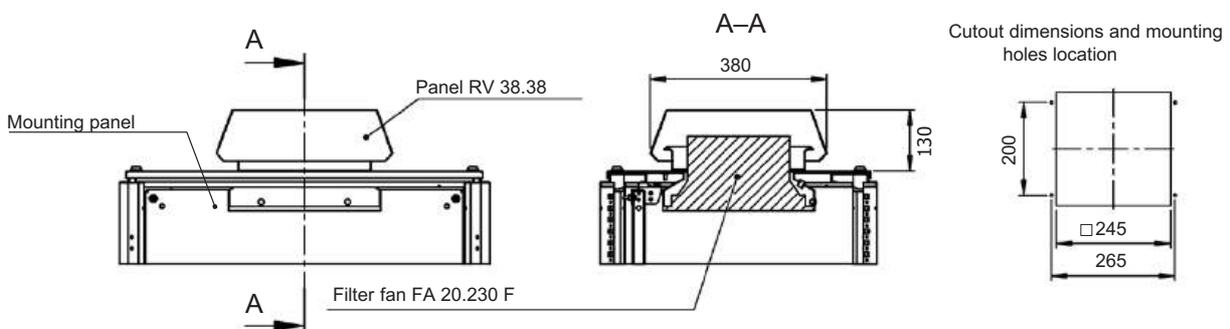
If standard components are used, fan panel 3 main configurations are available:

Configuration	Free flow, m³/h	Noise level, dB	Power, W	Rated current, mA	IP protection rating	Weight, kg
RV 38.38	–	–	–	–	IP 44	5.1
RV 38.38 + FF 15	–	–	–	–	IP 54	5.45
RV 38.38 + FA 20.230 F	500	60	70	345	IP 54	7.0
RV 38.38 + FA 15.230 F	245	50	32	140	IP 54	6.75

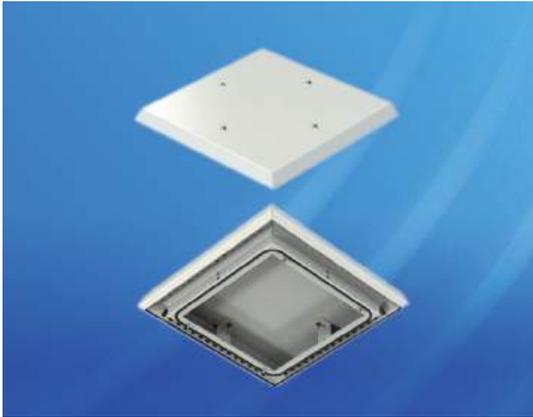
RV 38.38 / RV 38.38 + FF 15 (B)



RV 38.38 + FA 20.230 F (FB)



Ceiling ventilation panel



Suitable for installation onto ceiling panel of distribution cabinets and series MF frames. Filter grid can be also installed.

**Material:**  
1.5 mm sheet steel

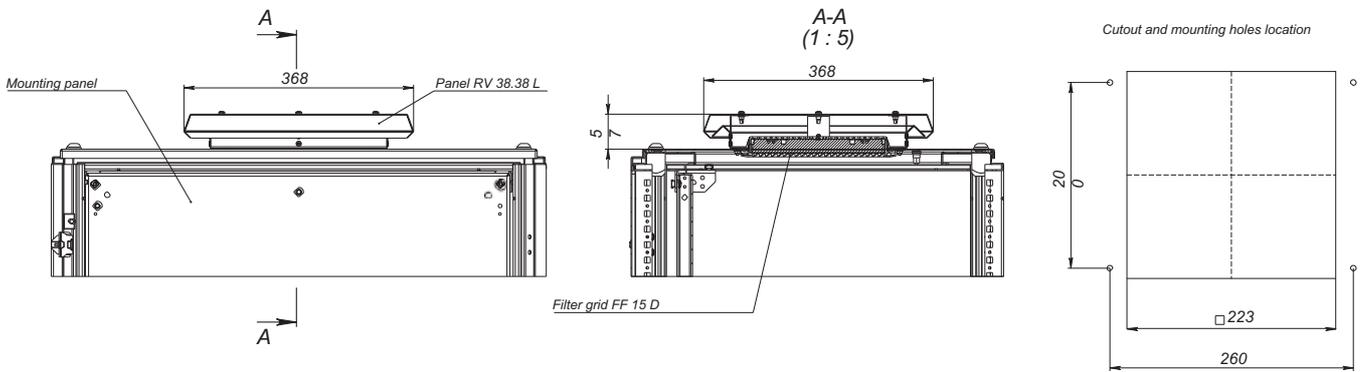
**Degree of protection:**  
IP44 (IP54), IK10

**Surface:** structural  
powder coating RAL 7035

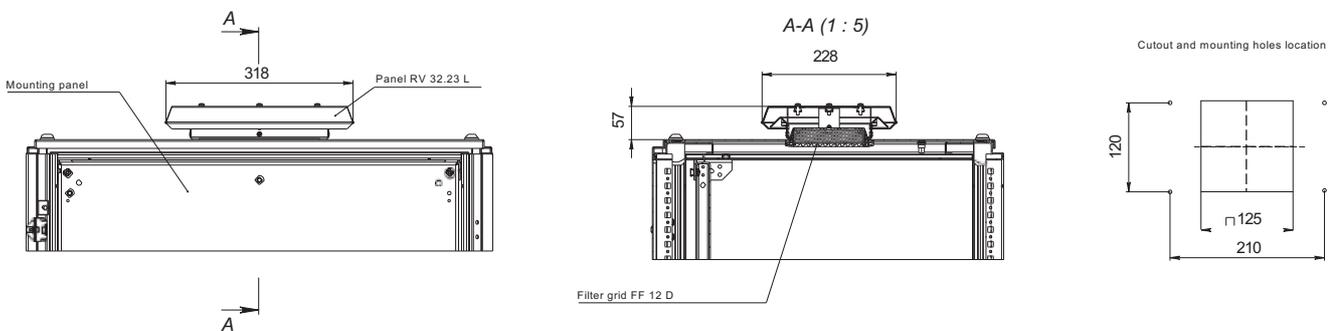
**Package scope:**  
ventilation panel,  
fasteners

Configuration	IP protection rating	Weight, kg
RV 38.38 L	IP 44	2.7
RV 38.38 + FF 15	IP 54	3.05
RV 32.23 L	IP 44	1.65
RV 32.23 + FF 12	IP 54	1.76

RV 38.38 L + FF 15 D



RV 32.23 L + FF 12 D



## MICROCLIMATE CONTROL

### Wall mounted air conditioner



Air conditioners are designed to maintain specified microclimate parameters inside distribution cabinets. They keep the cabinet internal temperature at a constant level independently of the ambient temperature. ACs are installed at distribution cabinet door.

**Material:** painted steel

**IP protection rating:** IP54

**Ambient temperature:** -20° to +50° C

**Setting range:** +20° to +45° C

**Rated voltage:** 230 V / 50 Hz

**Package scope:** air conditioner, fasteners, set of connecting wires

Characteristic		AC 300 D	AC 500 D	AC 800 D	AC 1000 D	AC 1500 D	AC 2000 D	AC 2500 D
Cooling capacity	W	300	500	800	1000	1500	2000	2500
Rated current	A	1.3	1.6	2	3	3.3	4.3	4.6
Full power	W	225	360	375	680	700	940	965
Refrigerant		R134A				R410A		
Capacity	m <sup>3</sup> /h	300	300	570	570	900	900	1170
Noise level	dB	≤ 55	≤ 58	≤ 59	≤ 60	≤ 60	≤ 63	≤ 63
Dimensions	Height, mm	550	550	700	700	850	850	1000
	Width, mm	280	280	350	350	410	410	430
	Depth, mm	170	170	170	170	230	230	230
Weight	kg	16	22	23	30	36	48	50

### Ceiling air conditioner



Air conditioners are designed to maintain specified microclimate parameters inside distribution cabinets. They keep the cabinet internal temperature at a constant level independently of the ambient temperature. ACs are installed at distribution cabinet ceiling panels.

**Material:** painted steel

**IP protection rating:** IP54

**Ambient temperature:** -20° to +50° C

**Setting range:** +20° to +45° C

**Rated voltage:** 230 V / 50 Hz

**Package scope:** air conditioner, fasteners, set of connecting wires

Characteristic		AC 500 R	AC 800 R	AC 1000 R	AC 1500 R	AC 2000 R
Cooling capacity	W	500	800	1000	500	800
Rated current	A	1.6	2	3	3.3	4.3
Full power	W	360	375	680	700	940
Refrigerant		R134A			R410A	
Capacity	m <sup>3</sup> /h	300	570	570	900	900
Noise level	dB	≤ 58	≤ 59	≤ 60	≤ 60	≤ 63
Dimensions	Height, mm	300	300	300	380	380
	Width, mm	500	500	500	580	580
	Depth, mm	350	350	350	450	450
Weight	kg	22	23	30	36	48

Ventilation panel



Suitable for installation to floor distribution cabinet bases.

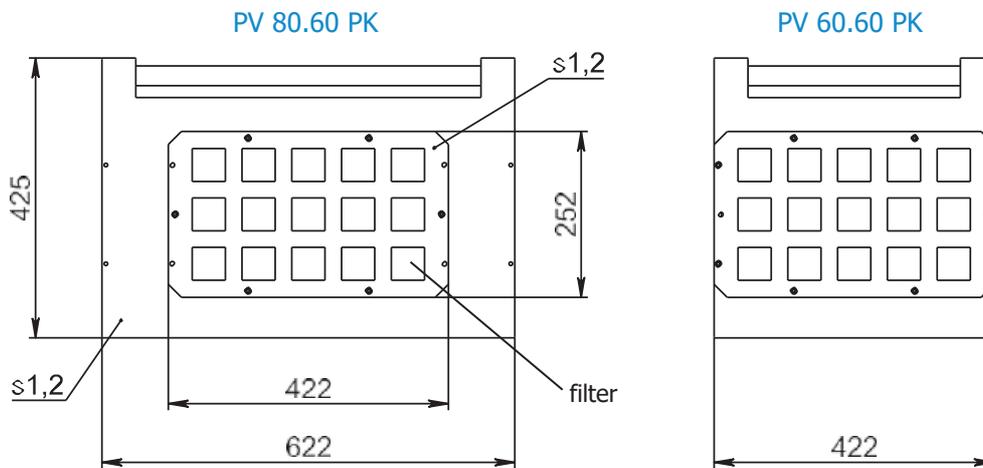
**Material:**  
1.2 mm sheet steel

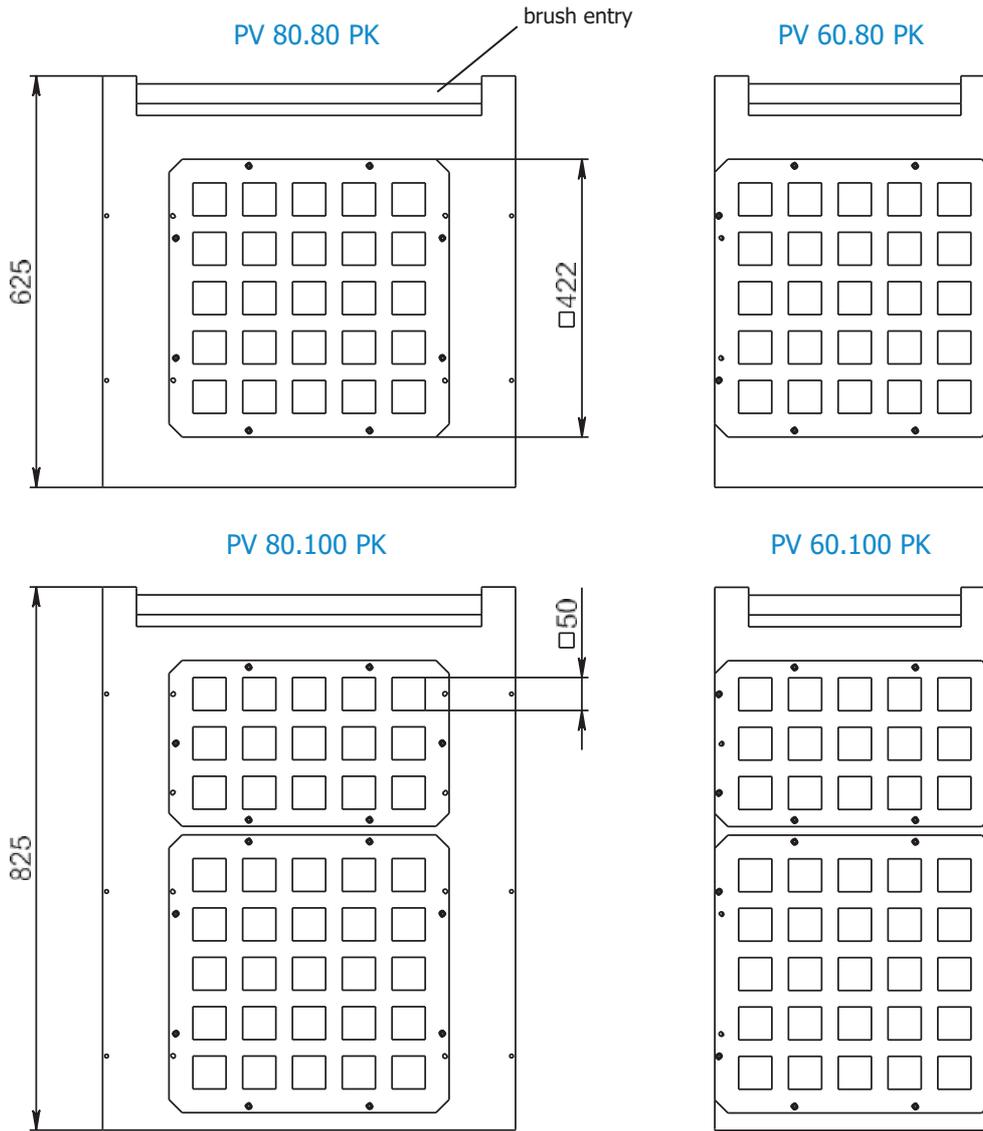
**Surface:** structural powder coating RAL 7035

**Degree of protection:**  
IP20

**Package scope:** panel, brush cable entry, filter and fasteners

Panel code	installation to cabinet (M x N), mm	Filter availability	Weight, kg
PV 60.60 PK	600 x 600	■	1.8
PV 60.80 PK	600 x 800	■	2.7
PV 60.100 PK	600 x 1000	■	3.7
PV 80.60 PK	800 x 600	■	2.5
PV 80.80 PK	800 x 800	■	3.7
PV 80.100 PK	800 x 1000	■	5.1





Suitable for installation to a ceiling panel or base of floor telecommunications cabinets.

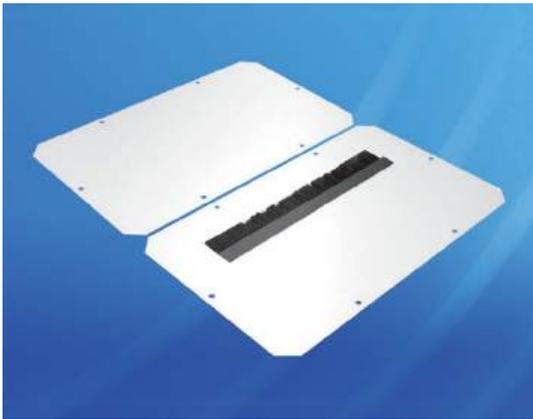
**Material:**  
1.2 mm sheet steel

**Degree of protection:**  
IP20

**Surface:** structural  
powder coating RAL 7035

Panel code	Filter availability
PV 38.21 I*	-
PV 38.21 IF*	■
PV 38.38 I	-
PV 38.38 IF	■

\* - only for installation to cabinets 1000 mm deep



Suitable for installation to top or bottom panels of IPx series floor telecommunications cabinets or IF frames.

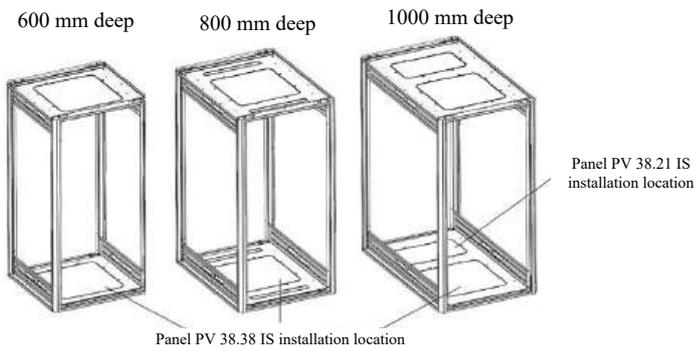
**Material:** sheet steel  
structural powder coating RAL 7035

**Options:** paint color RAL 7021,  
holes on request

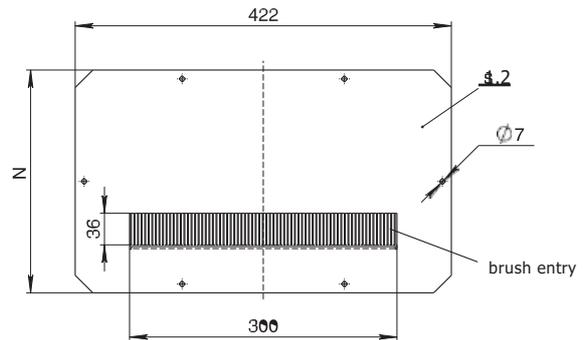
**Fasteners:** included to delivery scope

Code of blind panel	Code of panel with brush cable entry	Panel depth (N), mm	Cabinet depth, mm	Qty. in package, pcs.
PV 38.21 IS*	PV 38.21 IK*	252	1000	1
PV 38.38 IS	PV 38.38 IK	422	600, 800, 1000	1

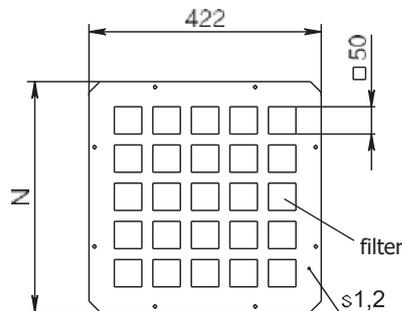
\* – only for installation to cabinets 1000 mm deep



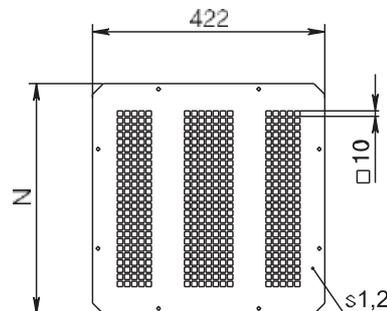
PV 38.XX IS



PV 38.38 IF



PV 38.38 I



Panel code	Panel depth (N), mm
PV 38.21 I, PV 38.21 IF	252
PV 38.38 I, PV 38.38 IF	422

Fan module



Suitable for installation to 19" profiles of wall and floor cabinets. The fan module is equipped with fans, illuminated switch, current protection and 2.5 m connection cable

**Operating voltage:**  
230 V / 50 Hz

**Degree of protection:** IP20

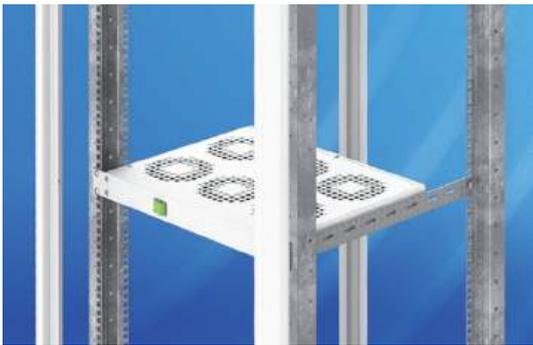
**Material:**  
1.2-3.0 mm sheet steel

**Temperature range:**  
-10 to +50 °C

**Surface:** structural  
powder coating RAL 7035

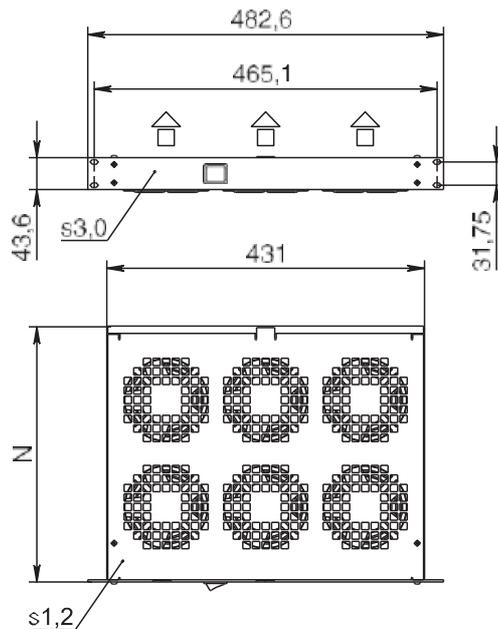
**Options:**  
temperature controller, see  
page 235

**Package scope:**  
module and fasteners



Versions FI 04.230 D and FI 06.230 D are additionally equipped with two MG 45.03 IL support rails and fasteners

Module code	Free flow, m³/h	Number of fans, pcs.	Power, W	Rated current, mA	Weight, kg
FI 02.230	330	2	44	320	4.6
FI 03.230	495	3	66	480	5.9
FI 04.230 D	660	4	88	640	8.0
FI 06.230 D	990	6	132	960	10.6



Module code	N (module depth), mm
FI 02.230, FI 03.230	230
FI 04.230 D, FI 06.230 D	349

## Cable entry panel

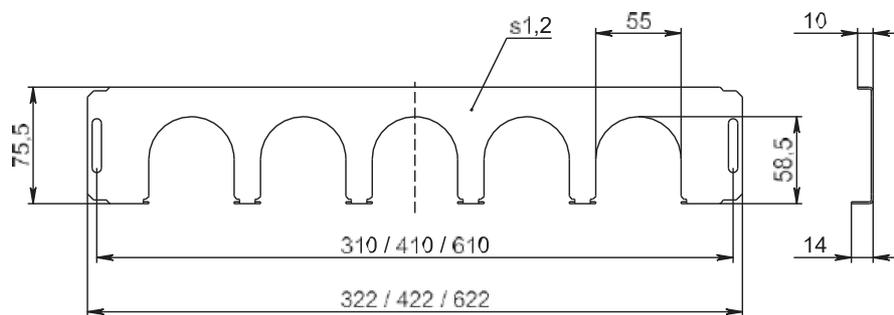


Intended for installation of cable entries. Used instead of standard base panel fixed component. Joints between panels are sealed applying a self-adhesive sealer. Suitable for installation into floor distribution cabinets, wall cabinets 400 mm deep and console bottom sections

**Material:** 1.2 mm galvanized sheet steel

**Package scope:** Panel, fasteners

Panel code	Cabinet width, mm	Qty. of entries, pcs.	Qty. in package, pcs.
PK 32.08 P	1000	3	2
PK 42.08 P	600 / 1200	5	2
PK 62.08 P	800	8	2



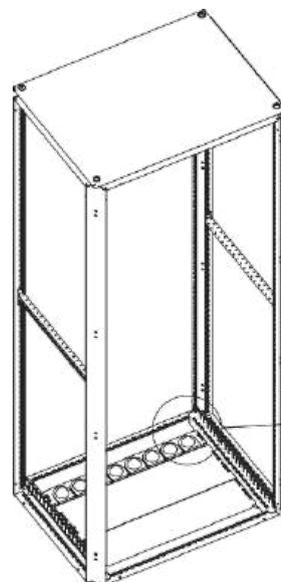
## Cable entry



Designed to insert cables. In combination with the cable entry panel, provides fast and reliable sealing of cables inserted through the cabinet base.

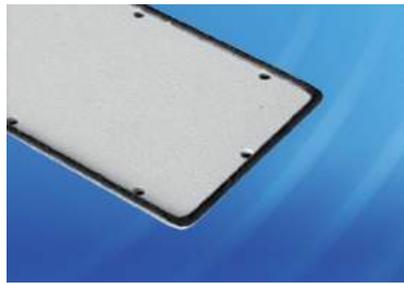
**Material:**  
base: polypropylene  
corrugated casing: thermoplastic elastomer

Entry code	Cable diameter, mm	No. of inserted cables, pcs	Qty. in package, pcs.
GK 13.8	13	8	25
GK 21.3	21	3	25
GK 47.1	47	1	25



The panel with sealed cable entries (IP 55) is installed onto the cabinet frame instead of the standard fixed panel at the frame base; treat the joint with self-adhesive seal G 10.5 G or G 20.40 G.

Blind cable entry panel for compact cabinets



Suitable for installation to compact distribution cabinet bases.

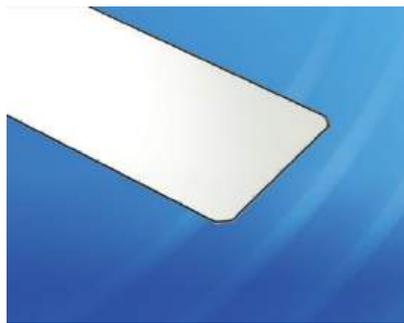
**Degree of protection:** IP66

**Material:**  
1.4 mm sheet steel RAL 7035

**Package scope:**  
panel and fasteners

Panel code	Cabinet width, mm	Qty. in pack., pcs.
PK 15.13 G	200	1
PK 25.13 G	300	1
PK 35.13 G	400	1
PK 45.13 G	500	1
PK 55.13 G	600	1

Blind cable entry panel



Intended for installation to floor distribution cabinet bases. Installed instead of base components standard panels.

**Degree of protection:** IP65

**Material:**  
1.8 mm galvanized steel / 1.5 mm corrosion-resistant sheet steel AISI 304

**Package scope:**  
panel and fasteners

Panel code	Cabinet width, mm	Cabinet depth, mm	Material	Qty. in pack., pcs.
PK 60.40 GP	600	400	Galvanized steel	1
PK 60.50 GP		500	Galvanized steel	1
PK 60.50 GPS		500	Steel AISI 304	1
PK 60.60 GP		600	Galvanized steel	1
PK 60.60 GPS		600	Galvanized steel	1
PK 80.40 GP	800	400	Galvanized steel	1
PK 80.50 GPS		500	Steel AISI 304	1
PK 80.60 GP		600	Galvanized steel	1
PK 80.60 GPS		600	Steel AISI 304	1
PK 80.80 GP	1000	800	Galvanized steel	1
PK 100.40 GP		400	Galvanized steel	1
PK 100.40 GPS			Steel AISI 304	1
PK 100.50 GP	1000	500	Galvanized steel	1
PK 100.60 GP		600	Galvanized steel	1
PK 100.80 GP		800	Galvanized steel	1
PK 120.40 GP	1200	400	Galvanized steel	1
PK 120.60 GP		600	Galvanized steel	1
PK 120.80 GP		800	Galvanized steel	1

## Frame beam



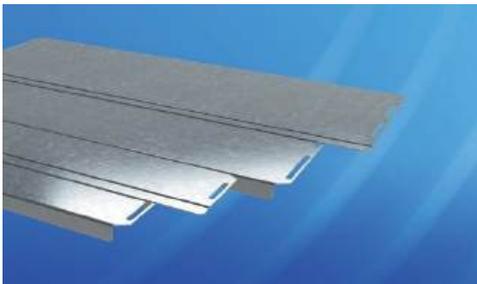
Designed for mounting into bottom and top of frames at 1000 and 1200 mm wide distribution cabinets, performs the function of support beam for vertical installation of MG XX.YY rails along cabinet height.

**Material:**  
2.0 mm galvanized steel

**Package scope:**  
beam

Beam code	Cabinet depth, mm
MF 40 D	400
MF 50 D	500
MF 60 D	600
MF 80 D	800

## Sliding / extended sliding cable entry panel



Designed for installation into floor distribution cabinets instead of components for standard base panels. Allows to use combinations of panels to organize cable entries according to custom requirements. Each sliding cable entry panel has a 19 mm bend at one side to install G 20.40 G self-adhesive seal.

**Material:**  
1.2 mm galvanized sheet steel

**Package scope:**  
panel and fasteners

Side panel code	Width, mm	Depth, mm	Qty. in package, pcs.
PKV 40 P	400	84	1
PKV 50 P	500	84	1
PKV 60 P	600	84	1
PKV 80 P	800	84	1
PKV 40 PH	400	193	1
PKV 60 PH	600	193	1
PKV 80 PH	800	193	1

## Stationary / extended stationary cable entry panel



Designed for installation into floor distribution cabinets instead of components for standard base panels. Allows to use combinations of panels to organize cable entries according to custom requirements. Each stationary cable entry panel has 19 mm bends at both sides to install G 20.40 G self-adhesive seal.

**Material:**  
1.2 mm galvanized sheet steel

**Package scope:**  
panel and fasteners

Side panel code	Width, mm	Depth, mm	Qty. in package, pcs.
PKV 40 S	400	67	1
PKV 50 S	500	67	1
PKV 60 S	600	67	1
PKV 80 S	800	67	1
PKV 100 S	100	67	1
PKV 120 S	120	67	1
PKV 40 SH	400	177	1
PKV 60 SH	600	177	1
PKV 80 SH	800	177	1
PKV 100 SH	100	177	1
PKV 120 SH	100	177	1

### Narrow cable entry panel



45 mm wide narrow cable entry panel to replace standard panels (67 and 177 mm wide). A brush entry G X.4 B or foam entry G 20.40 G can be attached to the panel side bends.

**Material:** 1.2 mm galvanized sheet steel

**Package scope:** panel and fasteners

Side panel code	Width, mm	Depth, mm	Qty. in package, pcs.
PKV 60 B	600	45	1
PKV 80 B	800	45	1
PKV 100 B	1000	45	1
PKV 120 B	1200	45	1

### Corner brush entry



Designed to lay cables into base panels of floor distribution cabinets and mounting panels of compact distribution cabinets 400 mm deep.

**Material:** aluminum casing

**Package scope:** casing and brush 2 pcs.

Brush entry code	Cabinet width, mm	Brush length, mm	Quantity in set, pcs.
G 50.4 B	1000	290	2
G 60.4 B	600/1200	390	2
G 80.4 B	800	590	2

### Flat brush entry



The brush is mounted onto the part edge (1.2-1.5 mm thick). 30 mm brush length. Can be used to replace corner brush entries G X.4 B at floor cabinet base panels, or can be installed into knock out holes of IT products (IPx, IEx cabinets).

**Material:** aluminum casing

**Package scope:** casing and brush 2 pcs.

Brush entry code	Cabinet width, mm	Quantity in set, pcs.
G 35.3 B	350	2
G 48.3 B	480	2
G 68.3 B	680	2

Polyamide cable entry



Clamping components are present ensuring uniform compression and strain relief. The neoprene seal guarantees optimal sealing at the attachment point to the enclosure

**Material:**  
enclosure: polyamide,  
seal: neoprene

**Color:**  
RAL 7035

**Degree of protection:**  
IP68

**Temperature range:**  
-40 to +100°C

Entry code	Size, mm	Cable diameter, mm	Qty. in package, pcs.
GK 09 PG	15.2 (PG 9)	4-8	50
GK 11 PG	18.6 (PG 11)	5-10	50
GK 13 PG	20.4 (PG 13.5)	6-12	50
GK 16 PG	22.5 (PG 16)	10-14	25
GK 21 PG	28.3 (PG 21)	13-18	15
GK 29 PG	37.0 (PG 29)	18-25	5
GK 30 PG	47.0 (PG 36)	22-32	5
GK 12 M	12 (M12 x 1.5)	3-6.5	50
GK 16 M	16 (M16 x 1.5)	4-8	50
GK 20 M	20 (M20 x 1.5)	6-12	50
GK 25 M	25 (M25 x 1.5)	13-18	25
GK 32 M	32 (M32 x 1.5)	16-21	15
GK 40 M	40 (M40 x 1.5)	22-32	5
GK 50 M	50 (M50 x 1.5)	32-38	5

Brass cable entry



Clamping components are present ensuring uniform compression and strain relief. The neoprene seal guarantees optimal sealing at the attachment point to the enclosure.

**Material:**  
enclosure: brass, seal:  
neoprene

**Color:**  
RAL 7035

**Degree of protection:**  
IP68

**Temperature range:**  
-40 to +100°C

Entry code	Size, mm	Cable diameter, mm	Qty. in package, pcs.
GKB 12 M	12 (M12 x 1.5)	3-6.5	10
GKB 16 M	16 (M16 x 1.5)	4-8	10
GKB 20 M	20 (M20 x 1.5)	6-12	10
GKB 25 M	25 (M25 x 1.5)	13-18	10
GKB 32 M	32 (M32 x 1.5)	16-21	5
GKB 40 M	40 (M40 x 1.5)	22-32	2
GKB 50 M	50 (M50 x 1.5)	32-38	2
GKB 63 M	63 (M63 x 1.5)	38-44	1

## CABLE ROUTING COMPONENTS

### Stainless steel cable entry



The cable entry is made of corrosion-resistant AISI 304 steel with rubber diaphragm and neoprene seal. Camping components provide uniform compression and strain relief, and neoprene guarantees optimal sealing at the point of attachment to the enclosure.

**Material:**  
enclosure: corrosion-resistant steel,  
seal: neoprene

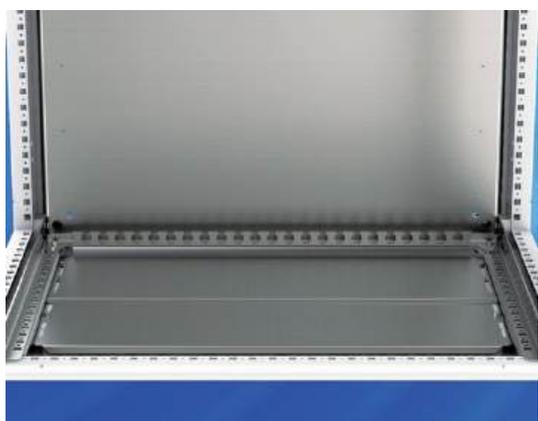
**Color:**  
RAL 7035

**Degree of protection:**  
IP68

**Temperature range:**  
-40 to +100°C

Entry code	Size, mm	Cable diameter, mm	Qty. in package, pcs.
GKS 12 M	12 (M12 x 1.5)	3–6.5	10
GKS 16 M	16 (M16 x 1.5)	4–8	10
GKS 20 M	20 (M20 x 1.5)	6–12	10
GKS 25 M	25 (M25 x 1.5)	13–18	10
GKS 32 M	32 (M32 x 1.5)	16–21	5
GKS 40 M	40 (M40 x 1.5)	22–32	2
GKS 50 M	50 (M50 x 1.5)	32–38	2
GKS 63 M	63 (M63 x 1.5)	38–44	1

### Cable rail



Designed for quick and easy wiring of incoming and outgoing cables. Installation depth adjustment with 25 mm pitch.

**Material:** 2.5 mm  
galvanized sheet steel

**Package scope:**  
rail and fasteners

Rail code	Cabinet width, mm	Qty. in package, pcs.
MG 40	400	1
MG 60	600 / 1200	1
MG 80	800	1
MG 100	1000	1

### Cable organizer

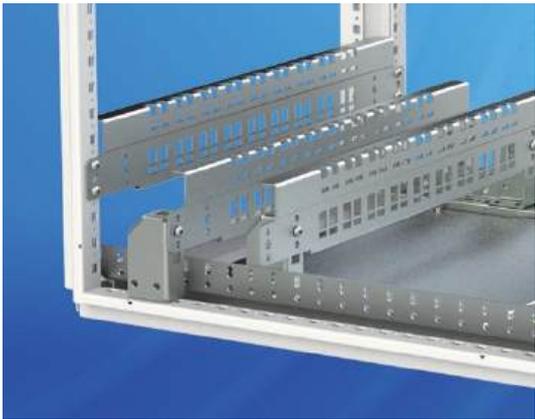


Designed for distribution of patch cables. Quick and easy installation into 9.5 mm square holes for captive nuts. Horizontal or vertical position.

**Material:** PA 6.6

Organizer code	Organizer internal dimensions, mm	Qty. in package, pcs.
B 10 IC	75 x 35	10

Cable rail with EMC contact

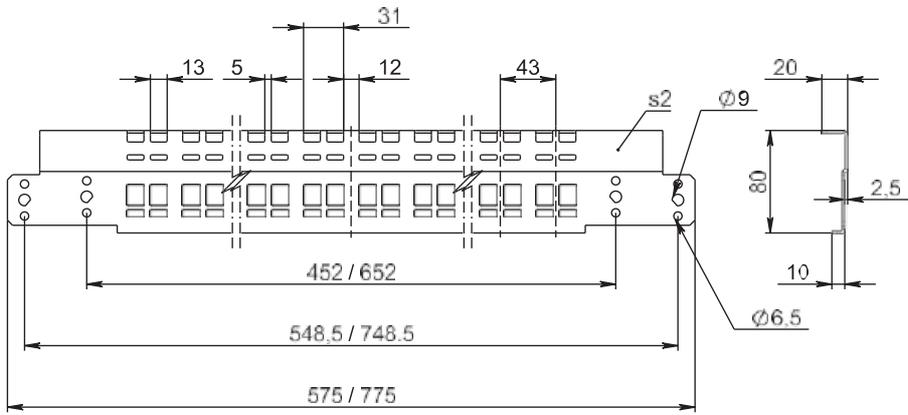


Designed for wiring and strain relief, cable clamps allow to arrange EMC contact between incoming and outgoing cables. Installation adjustment with 25 mm pitch. Can be attached directly to the cabinet frame or via the B 8 MG crossbeam holders (order separately, see page 131). The rail has two holes for additional contact.

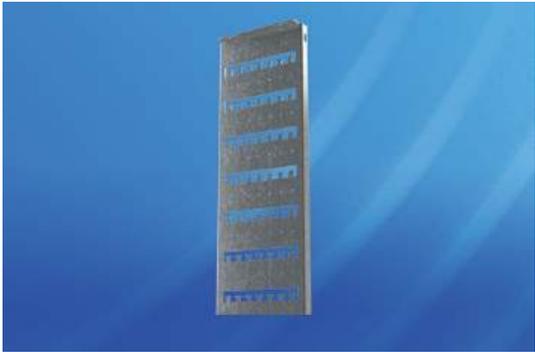
**Material:**  
2.0 mm galvanized sheet steel

**Package scope:**  
rail and fasteners

Rail code	Cabinet width, mm	Max. number of hold down clamps, pcs.	Qty. in package
MG 60 EMC	600	18	1 set
MG 80 EMC	800	28	1 set



Cable panel



The cable panel is installed using screws into floor distribution cabinets based on MF frames ≥ 2000 mm high. Designed for convenient attachment, interception and routing of cables for network equipment and servers.

**Material:**  
1.2 mm galvanized sheet steel

**Package scope:**  
panel and fasteners

Cable panel code	Cabinet height, mm	Width, mm	Qty. in package, pcs.
CR 180.20	1800	200	1
CR 200.20	2000	200	1
CR 220.20	2200	200	1

Self-adhesive expandable seal



Intended to organize cable entries of floor distribution and automation cabinets and wall mounted cabinets 400 mm deep.

**Material:**  
special polyurethane foam

Cable panel code	Length, m
G 20.40 G	7.5

Panel with cable organizers



Designed for distribution of patch cables. Fastened to 19" frames or rails.

**Material:** 1.2 mm sheet steel, structural powder coating RAL 7035, polyamide

**Options:** coating color RAL 7021

Panel code	Organizer height, U (U = 44.45 mm)	Qty. of C-clamps	Qty. in pack., pcs
MB 10.48 IC	1U	5	1

Cable entry panel with knock out holes



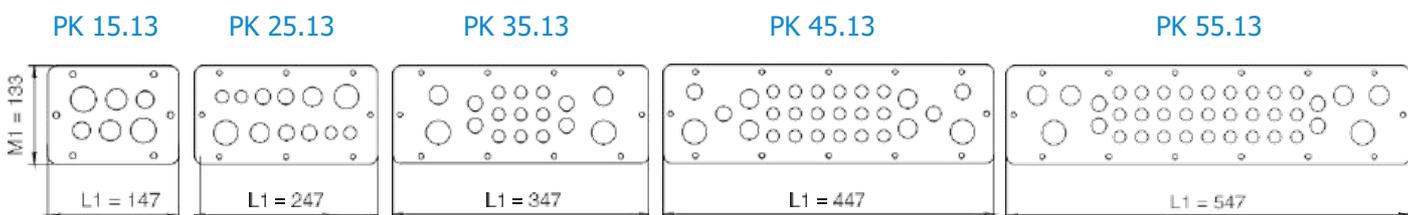
Designed for all enclosures with cable entry panel\*

**Material:** 1.5 mm sheet steel

**Surface:** structural powder coating RAL 7035

Panel code	Panel length (L1), mm	Panel width (M1), mm	Diameter and number of holes				Weight, kg	Qty. in pack., pcs
			16.5 mm	20.5 mm	25.5 mm	32.5 mm		
PK 15.13	147	133	2	2	2	–	0.18	1
PK 25.13	247		4	4	2	2	0.37	1
PK 35.13	347		9	5	2	2	0.52	1
PK 45.13	447		18	5	4	2	0.67	1
PK 55.13	547		27	5	4	2	0.83	1

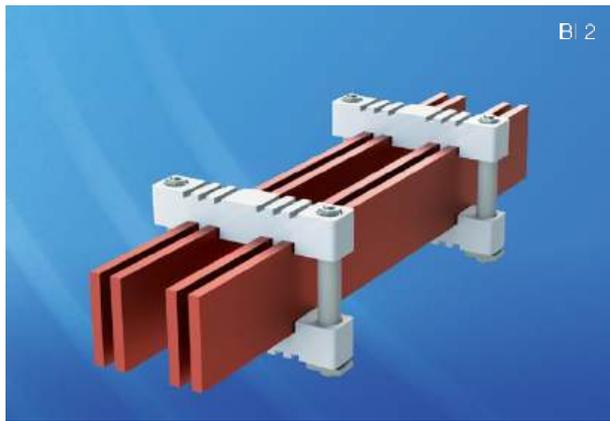
\* – see pages 211, 215-216 to select wall cabinet panels



Distribution cabinets MES

Cabinet code	Height (L), mm	Width (M), mm	Depth (N), mm	Degree of protection	Lock, pcs.	Size of enclosure opening for the cable entry panel, M1 x L1, mm	Cable entry panels with knock out holes				
							Panel code	Qty., pcs.			
MEx 20.20.08	200	200	80	IP 66	1	-	-	-			
MEx 20.20.12			120						-	-	
MEx 30.20.12	300	300									120
MEx 30.30.12			400						300	155	
MEx 40.30.12	300	300									155
MEx 30.20.15			300						400	155	
MEx 30.30.15	400	300									210
MEx 30.40.15			400						400	210	
MEx 40.30.15	400	600									210
MEx 40.30.21			500						300	250	
MEx 40.40.21	500	500									300
MEx 40.60.21			600						400	210	
MEx 50.30.21	600	600									210
MEx 50.40.21			700						500	250	
MEx 50.40.25	800	600			250	410 x 96	PK 45.13	1			
MEx 50.50.21			800						800	300	510 x 96
MEx 50.50.30	1000	800			300	310 x 96	PK 35.13	2			
MEx 60.40.21			1200						600	210	510 x 96
MEx 60.40.25	1200	800			250	310 x 96	PK 35.13	2			
MEx 60.60.21			1400						600	400	510 x 96
MEx 60.60.25	1400	800			400	310 x 96	PK 35.13	2			
MEx 70.50.21			1600						600	400	rod system
MEx 70.50.25	1600	800			400	rod system	-	-			
MEx 80.60.21			800						600	400	2
MEx 80.60.25	1000	800			400	rod system	605 x 215	-			
MEx 80.60.30			1200						600	400	rod system
MEx 80.80.30	1400	800			400	rod system	605 x 215	-			
MES 100.60.21			1600						600	400	rod system
MES 100.60.25	1600	800		400	rod system	405 x 215	-				
MES 100.60.30			1600					600	400	rod system	405 x 215
MES 100.80.25	1600	800		400	rod system	405 x 215	-				
MES 100.80.30			1600					600	400	rod system	405 x 215
MES 120.60.21	1600	800		400	rod system	405 x 215	-				
MES 120.60.30			1600					600	400	rod system	405 x 215
MES 120.80.30	1600	800		400	rod system	405 x 215	-				
MES 140.80.30			1600					600	400	rod system	405 x 215
MES 80.60.40	1600	800		400	rod system	405 x 215	-				
MES 100.60.40			1600					600	400	rod system	405 x 215
MES 120.60.40	1600	800		400	rod system	405 x 215	-				
MES 120.80.40			1600					600	400	rod system	405 x 215
MES 140.60.40	1600	800		400	rod system	405 x 215	-				
MES 140.80.40			1600					600	400	rod system	405 x 215
MES 160.60.40	1600	800		400	rod system	405 x 215	-				

Busbar assembly holder



Designed for 20-120 x 5 (10) mm flat busbars. It is compact and quick to install with a minimum number of operations. Attached to mounting crossbars.

**Material:**  
glass fiber reinforced thermoplastic polyester (SMC), 140°C, operating temperature, incombustibility according to UL94-V0 standard

**Rated current:**  
320-3500 A

**Max. operating voltage:**  
1000 V

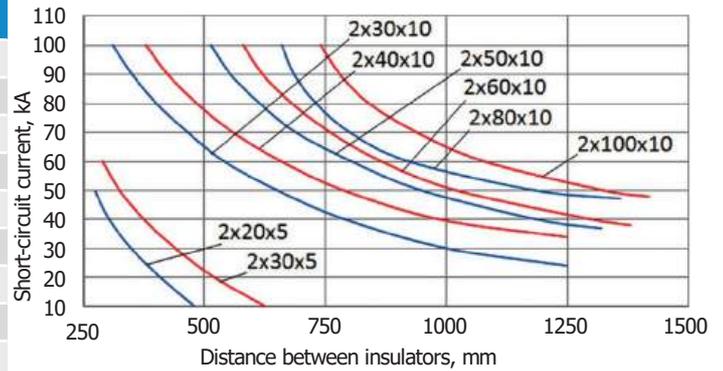
**Rated frequency:**  
50/60 Hz

**Package scope:**  
Two insulators, bushings (length 40 mm 2 pcs., 30 mm 2 pcs., 20 mm 4 pcs.), two studs, fasteners

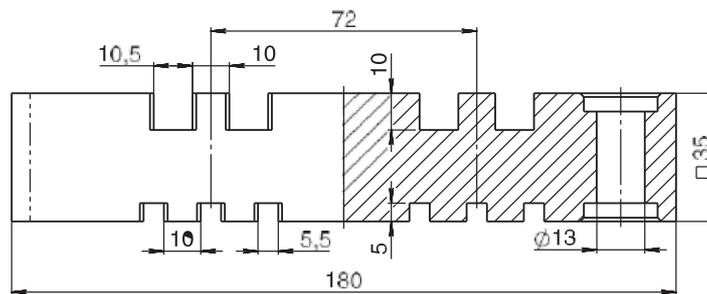
Holder code	Number of poles	Distance between busbar centers, mm	Qty. in package
BI 2	2	72	1 set

Busbar dimensions, mm	Rated current*, A			Cross-section, mm <sup>2</sup>	Weight, kg/m
	1 busbar	2 busbars	3 busbars		
20 x 5	320	500	690	99.1	0.88
30 x 5	440	672	896	149	1.33
30 x 10	630	1250	-	299	2.66
40 x 10	850	1500	-	399	3.55
50 x 10	1000	1700	-	499	4.44
60 x 10	1250	2000	-	599	5.33
80 x 10	1450	2400	-	799	7.11
100 x 10	1700	2750	-	999	8.89
120 x 10	2000	3500	-	1199	10.66

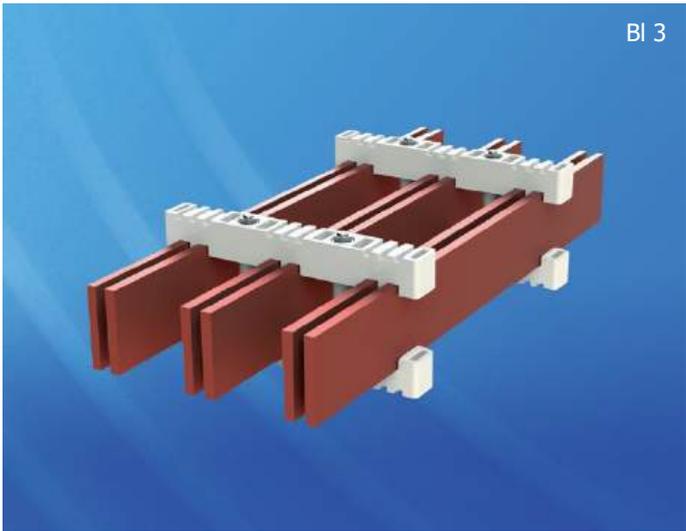
Short circuit resistance diagram



\* - at 25°C temperature



Busbar assembly holder



BI 3

Designed for 20-120 x 5 (10) mm flat busbars. It is compact and quick to install with a minimum number of operations. Attached to mounting crossbars.

**Material:**  
glass fiber reinforced thermoplastic polyester (SMC), 140°C, operating temperature, incombustibility according to UL94-V0 standard

**Rated current:**  
320-3500 A

**Max. operating voltage:**  
1000 V

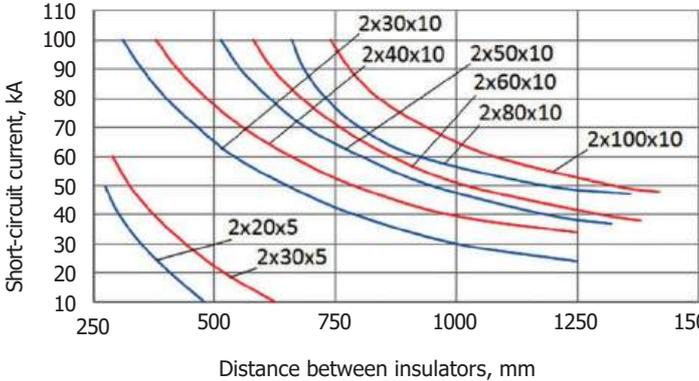
**Rated frequency:**  
50/60 Hz

**Package scope:**  
Two insulators, bushings (length 40 mm 2 pcs., 30 mm 2 pcs., 20 mm 4 pcs.), two studs, fasteners

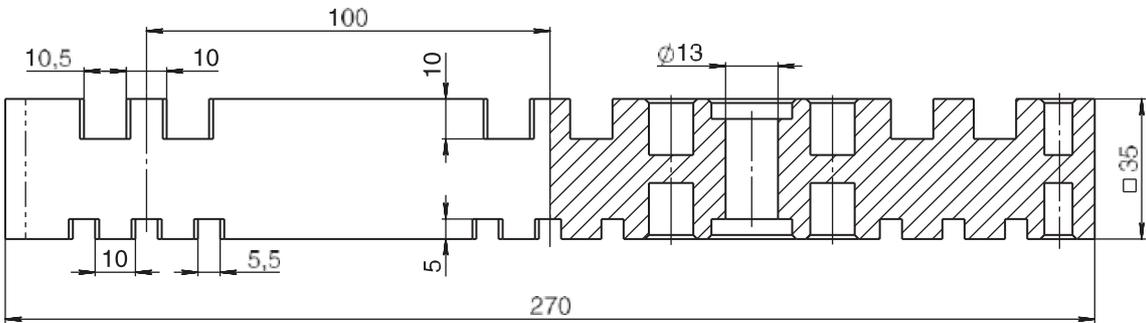
Holder code	Number of poles	Distance between busbar centers, mm	Qty. in package
BI 3	3	100	1 set

Busbar dimension s, mm	Rated current*, A			Cross-section, mm²	Weight, kg/m
	1 busbar	2 busbars	3 busbars		
20 x 5	320	500	690	99.1	0.88
30 x 5	440	672	896	149	1.33
30 x 10	630	1250	-	299	2.66
40 x 10	850	1500	-	399	3.55
50 x 10	1000	1700	-	499	4.44
60 x 10	1250	2000	-	599	5.33
80 x 10	1450	2400	-	799	7.11
100 x 10	1700	2750	-	999	8.89
120 x 10	2000	3500	-	1199	10.66

Short circuit resistance diagram



\* - at 25°C temperature



Busbar assembly holder



Designed for 20-120 x 5 (10) mm flat busbars. It is compact and quick to install with a minimum number of operations. Attached to mounting crossbars.

**Material:**  
glass fiber reinforced thermoplastic polyester (SMC), 140°C, operating temperature, incombustibility according to UL94-V0 standard

**Rated current:**  
320-3500 A

**Max. operating voltage:**  
1000 V

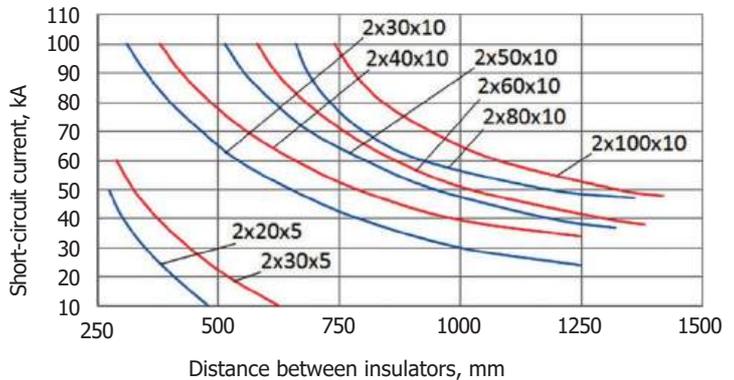
**Rated frequency:**  
50/60 Hz

**Package scope:**  
Two insulators, bushings (length 40 mm 2 pcs., 30 mm 2 pcs., 20 mm 4 pcs.), two studs, fasteners

Holder code	Number of poles	Distance between busbar centers, mm	Qty. in package
BI 3.3	3	126	1 set

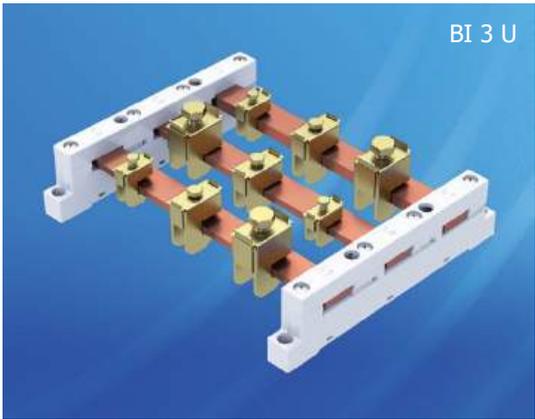
Busbar dimension s, mm	Rated current*, A			Cross-section, mm <sup>2</sup>	Weight, kg/m
	1 busbar	2 busbars	3 busbars		
20 x 5	320	500	690	99.1	0.88
30 x 5	440	672	896	149	1.33
30 x 10	630	1250	–	299	2.66
40 x 10	850	1500	–	399	3.55
50 x 10	1000	1700	–	499	4.44
60 x 10	1250	2000	–	599	5.33
80 x 10	1450	2400	–	799	7.11
100 x 10	1700	2750	–	999	8.89
120 x 10	2000	3500	–	1199	10.66

Short circuit resistance diagram



\* - at 25°C temperature

Busbar assembly holder



BI 3 U

Designed for flat busbars 15x5, 20x5, 25x5, 30x5, 15x10, 20x10, 25x10, 30x10 mm. Compact and quick to install with a minimum number of operations. Can be used as intermediate holder.

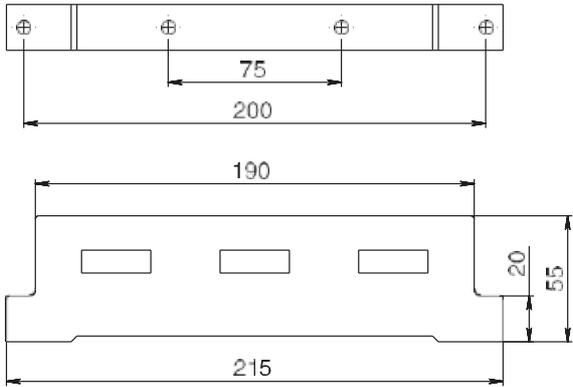
**Material:**  
glass fiber reinforced thermoplastic polyester (PBT), 140°C operating temperature, incombustibility according to UL94-V0 standard

**Rated current:**  
800 A

**Max. operating voltage:**  
1000 V

**Rated frequency:**  
50/60 Hz

Holder code	Number of poles	Distance between busbar centers, mm	Qty. in package, pcs.
BI 3 U	3	60	2



Support insulator



Used to attach busbars inside the cabinet to fasten and isolate current-carrying parts from the cabinet enclosure and panels

**Material:**  
polymer material

**Max. operating voltage:**  
1000 V

Insulator code	Thread diameter, mm	Height, mm	Qty. in package, pcs.
BI 30	8	30	6
BI 45	8	45	6
BI 51	8	51	6

### Cable clamp



Designed to fasten cables onto mounting crossbars and cable rails with EMC contact

**Material:**  
chromated galvanized steel

Clamp code	Cable diameter, mm	Qty. in package, pcs.
CL 12	6-12	25
CL 18	12-18	25
CL 22	18-22	25
CL 30	22-30	25
CL 38	30-38	25
CL 42	38-42	25
CL 50	42-50	25
CL 64	50-64	25

### Cable hold down clamp with EMC contact



Provides EMC contact by pressing cable shields against the cable rail with EMC contact

**Material:**  
chromated galvanized steel

Hold down clamp code	Cable shield diameter, mm	Qty. in package, pcs.
CL 10 EMC	3-10	10
CL 15 EMC	4-15	10
CL 20 EMC	10-20	10
CL 28 EMC	15-28	10

### Busbar clamp

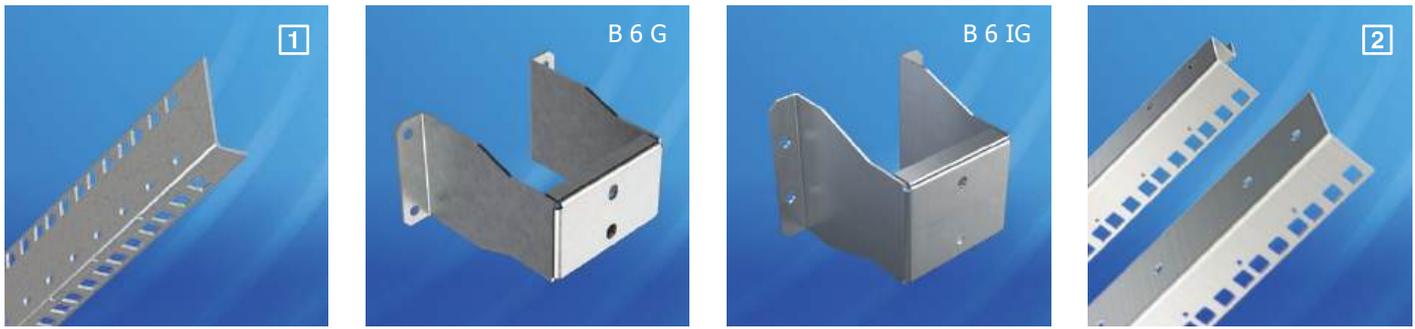


Universal clamp designed to attach flat busbars and round section cables. An open terminal chamber and a captive bolt ensure quick and easy installation.

**Material:**  
chromated galvanized steel

Clamp code	Busbar thickness, mm	Cable cross-section, mm <sup>2</sup>	Qty. in package, pcs.
CK 05.04	4-5	1-4	15
CK 05.16	4-5	2.5-16	15
CK 05.50	4-5	16-50	15
CK 05.70	4-5	35-70	15
CK 05.185	4-5	70-185	15
CK 10.04	9-10	1-4	15
CK 10.50	9-10	16-50	15
CK 10.70	9-10	35-70	15
CK 10.185	9-10	70-185	15

Vertical rail 19"



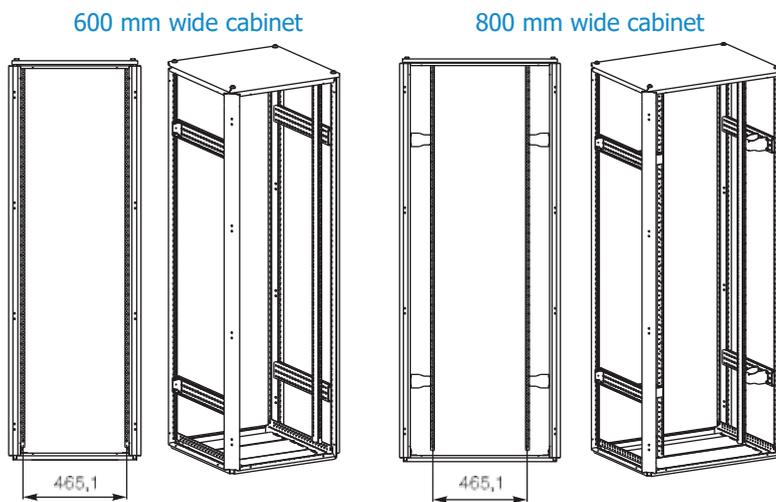
Designed to mount crates and other 19" components.

**Material:** galvanized sheet steel

**1** – MPx series cabinets for distribution and automation systems (MF frame)

L-rail code	Rail height, U (U = 44.45 mm)	Cabinet height (L), mm	Weight, kg	Qty. in package, pcs.
MG 120 IT	24	1200	5.2	4
MG 140 IT	29	1400	5.9	4
MG 160 IT	33	1600	6.8	4
MG 180 IT	38	1800	7.7	4
MG 200 IT	43	2000	8.6	4
MG 220 IT	47	2200	9.5	4

**Attention!** When rails are installed into 800 mm wide cabinets, B 6 IG consoles are required (4 pcs.). To enhance rail load-bearing capacity, use of B 6 GB reinforced consoles is recommended.



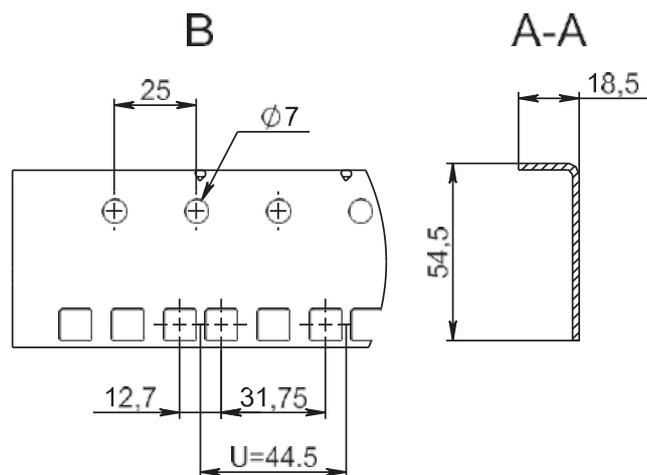
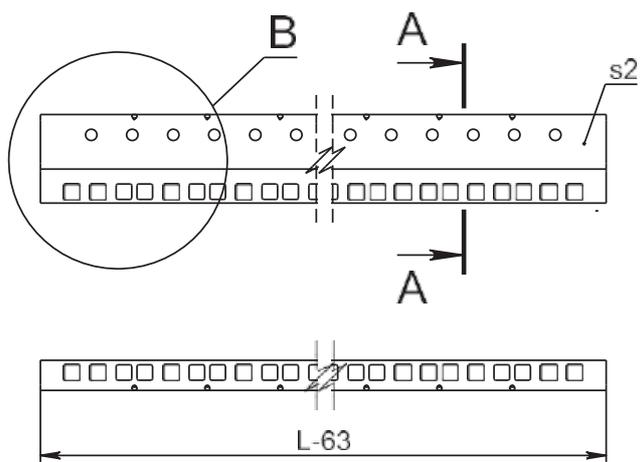
19" vertical rails are installed to floor cabinet frames jointly with MG L.v.2 mounting rails (see page 212)

**2** – IPx series cabinets for network and telecommunications equipment (IF frame)

C-rail code	L-rail code	Rail height, U (U = 44.45 mm)	Cabinet height (L), mm	Qty. in package, pcs.
IG 09	IG 09 L	9	500	2
IG 12	IG 12 L	12	600	2
IG 16	IG 16 L	16	800	2
IG 21	IG 21 L	21	1000	2
IG 24	IG 24 L	24	1200	2
IG 38	IG 38 L	38	1800	2
IG 43	IG 43 L	43	2000	2
IG 47	IG 47 L	47	2200	2

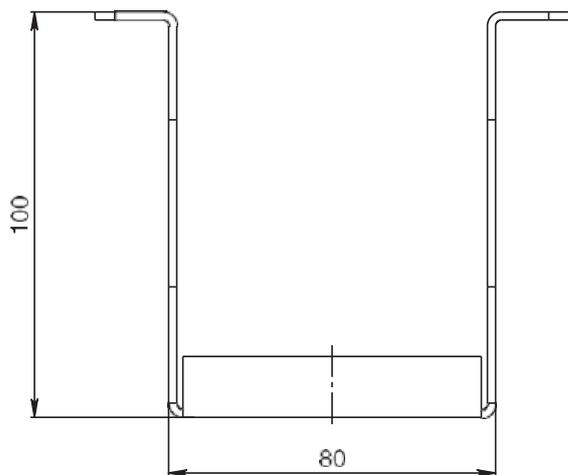
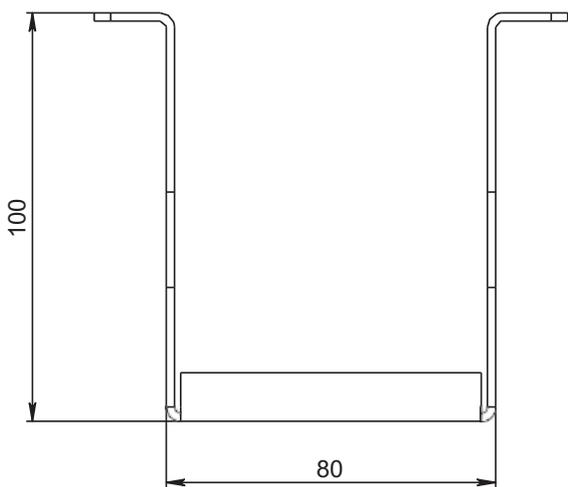
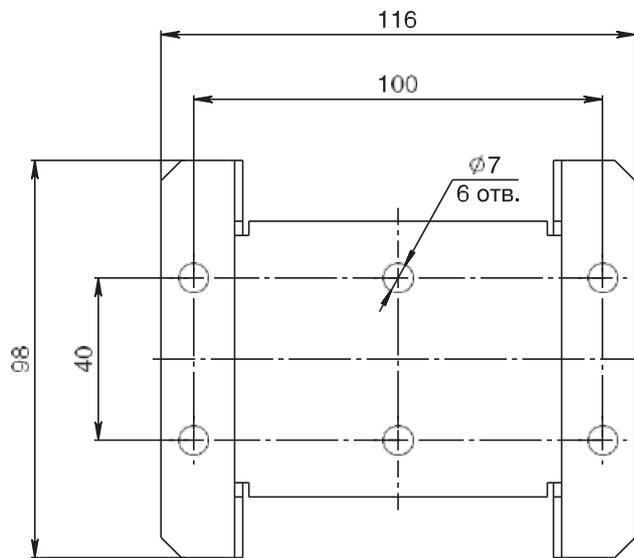
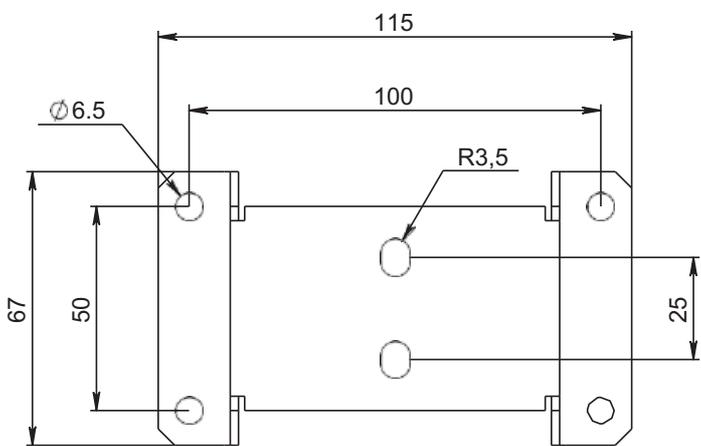
**Attention!** When rails are installed into 800 mm wide cabinets, B 6 IG consoles are required (4 pcs.). Used jointly with MG 80.07 IT, MG 60.07 IT

1

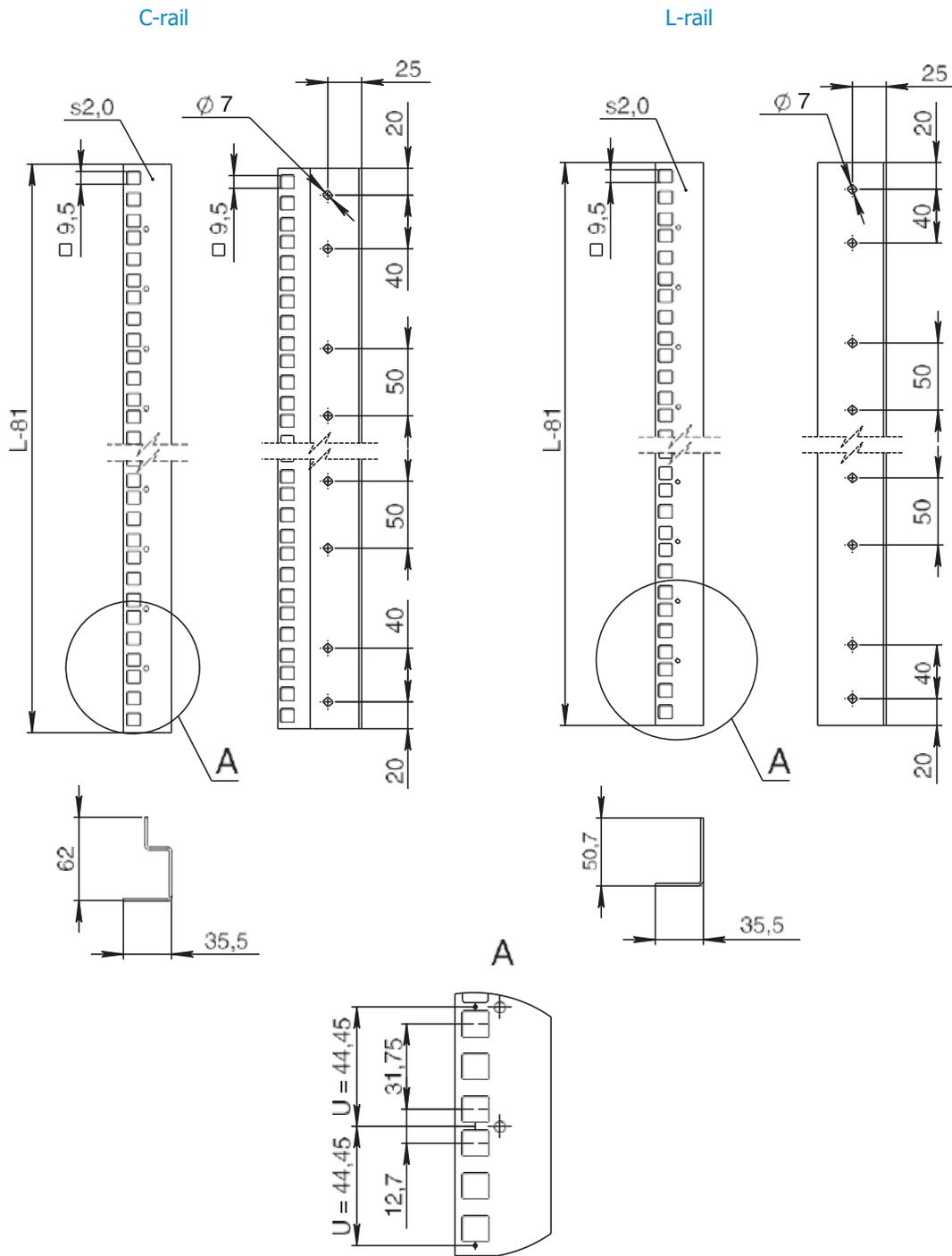


B 6 G

B 6 IG



2



## 19" EQUIPMENT

### Rotary frame 19"



Designed to install 19" equipment inside floor distribution cabinets. Can only be installed into cabinets 800 mm wide. Mounted to frames. Adjustable depth. Locked using two locks with double 5 mm bit key. Right- or left-hung door.

**Material:**

vertical profiles: 2.0 mm  
sheet steel, beams:  
galvanized, horizontal  
profiles: RAL7035

**Permissible load:**

80 kg

**Package scope:**

frame and  
fasteners

Side panel code	Frame height, U (U = 44.45 mm)	Cabinet height, mm	Cabinet width, mm
MC 200.80 IRP	40	2000	800

### Rotary partial frame 19"



Designed to install 19" equipment inside floor distribution cabinets. Can only be installed into cabinets 800 mm wide. Equipment is installed onto mounting rails located inside cabinets at required depth. Installation depth is adjustable. Locked using two locks with double 5 mm bit key. Right- or left-hung door.

**Material:**

vertical profiles: 2.0 mm  
sheet steel, beams:  
galvanized, horizontal  
profiles: RAL7035

**Permissible load:**

80 kg

**Package scope:**

frame and  
fasteners

Side panel code	Frame height, U (U = 44.45 mm)	Cabinet width, mm	Cabinet width, mm
MC 80.80 IRP	12	800	800

### Double-sided frame 19"



Designed to install 19" equipment inside floor distribution cabinets. Can only be installed into cabinets 800 mm wide. Mounted to frames. Adjustable depth. Designed to install 19" equipment at both sides.

**Material:**

vertical profiles: 2.0 mm  
sheet steel, beams:  
galvanized, horizontal  
profiles: RAL7035

**Permissible load:**

80 kg

**Package scope:**

frame and  
fasteners

Side panel code	Frame height, U (U = 44.45 mm)	Cabinet height, mm	Cabinet width, mm
MC 200.80 ID	40	2000	800

Shelf



Intended to place instruments.  
Permissible load: 100 kg for shelves attached at two planes, 25 kg for 19" shelves attached at one plane.

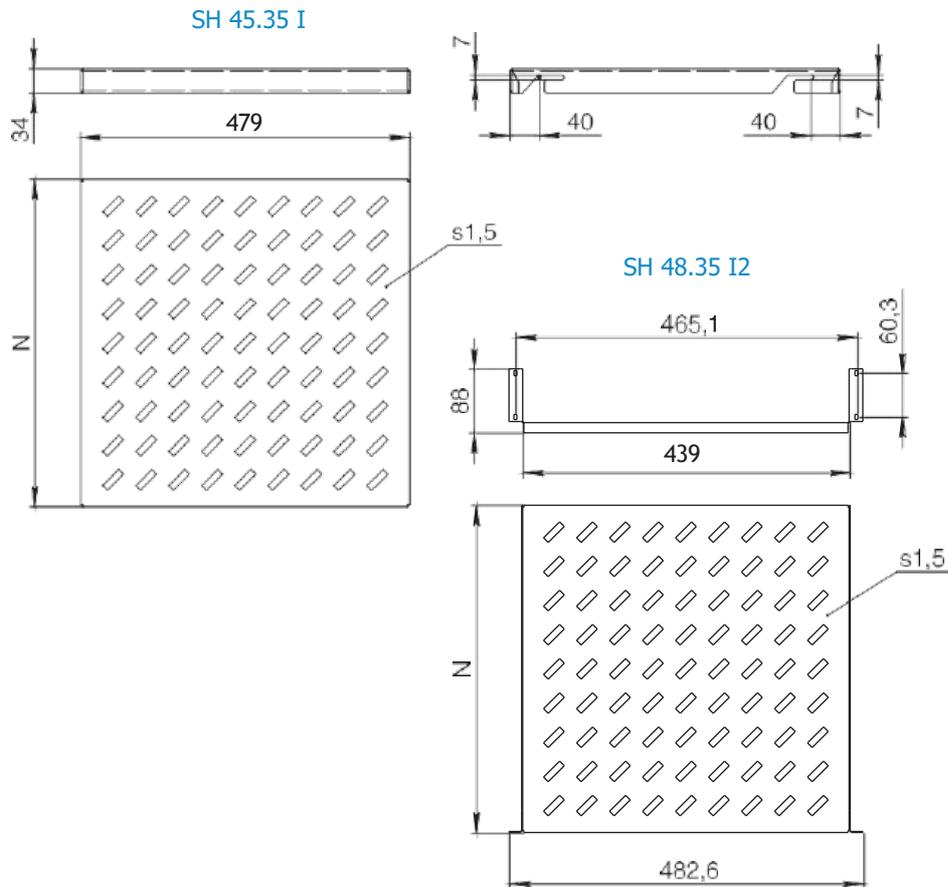
**Material:** sheet steel  
structural powder coating RAL 7035

**Options:** paint color RAL 7021,  
holes on request

**Fasteners:** included to delivery scope

Code of shelf attached at two planes*	Code of shelf attached at one plane	Shelf depth (N), mm	Min. cabinet depth, mm	Qty. in package, pcs.									
-	SH 48.25 I2	250	600	1									
SH 45.35 I	SH 48.35 I2	350	600	1									
SH 45.45 I	SH 48.45 I2	450	1	SH 45.55 I	-	550	800	1	SH 45.65 I	-	650	800	1
SH 45.55 I	-	550	800	1									
SH 45.65 I	-	650	800	1									

\* except for IFO open racks



Pull-out shelf



Intended to place instruments, can be pulled out. Attached to 19" frames.  
Max. load capacity: 25 kg

**Material:** sheet steel  
structural powder coating RAL 7035

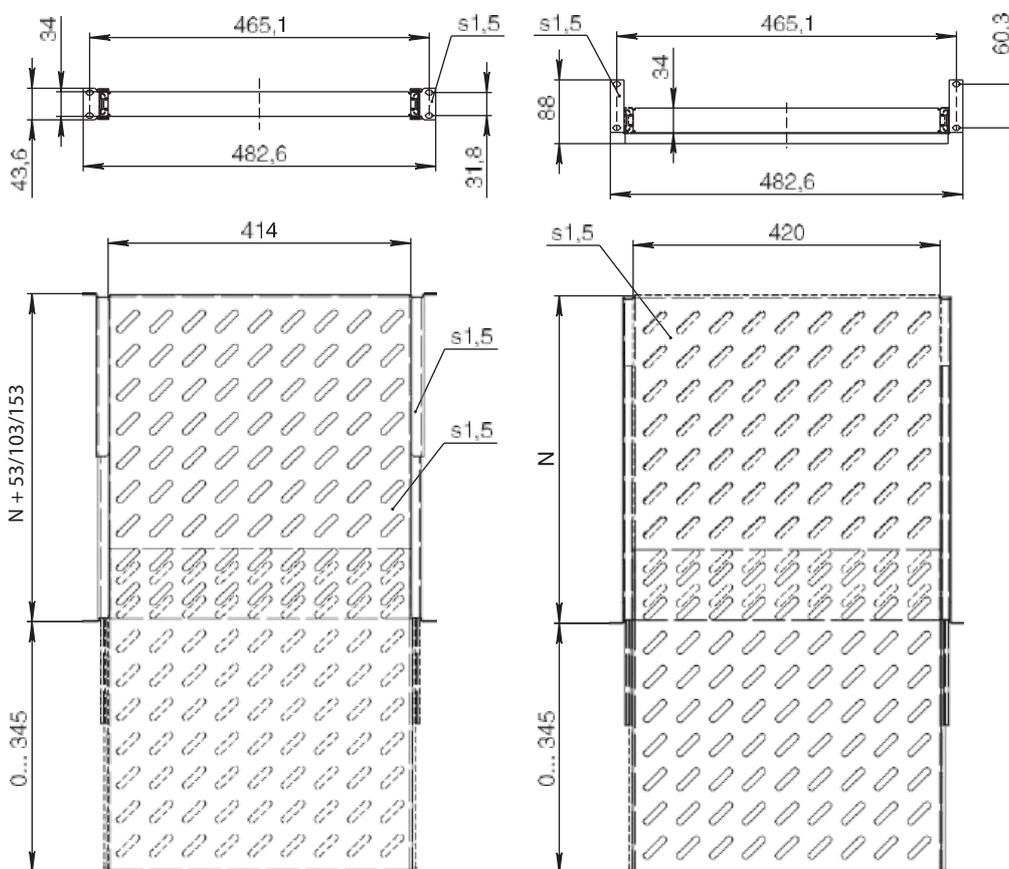
**Options:** paint color RAL 7021,  
holes on request

**Fasteners:** included to delivery scope

Code of shelf attached at two planes	Code of shelf attached at one plane	Shelf depth (N), mm	Min. cabinet depth, mm	Qty. in package, pcs.
SH 48.35 IM	SH 48.35 IM2	350	600	1
SH 48.45 IM	SH 48.45 IM2	450	600	1
SH 48.55 IM	-	550	800	1
SH 48.65 IM	-	650	800	1

SH 48.35 IM

SH 48.35 IM2



Rotary frame



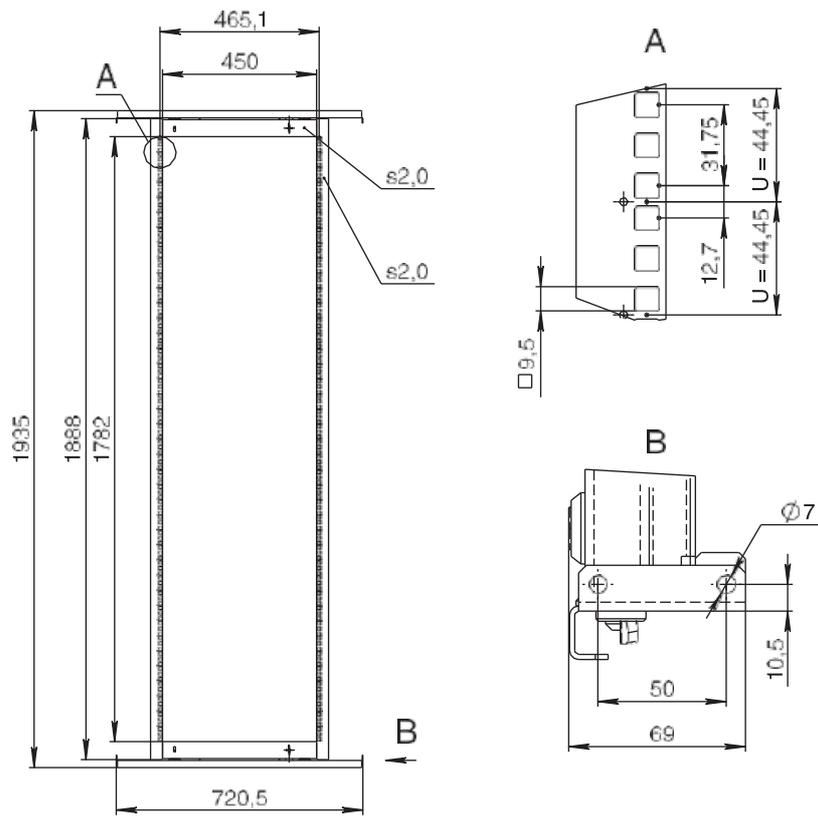
To install 19" network and telecommunications equipment inside floor cabinets. Designed only for cabinets 800 mm wide. Mounted onto carcasses. Adjustable installation depth. Locked using 2 tongue locks with cylinder. Right- or left-hung door

**Material:** sheet steel  
structural powder coating RAL 7035

**Fasteners:** included to delivery scope

**Permissible load:** 120 kg

Frame code	Frame height, U (U = 44.45 mm)	Cabinet height, mm	Cabinet width (M), mm	Weight, kg
MC 200.80 IR	40	2000	800	9.6



# 19" EQUIPMENT

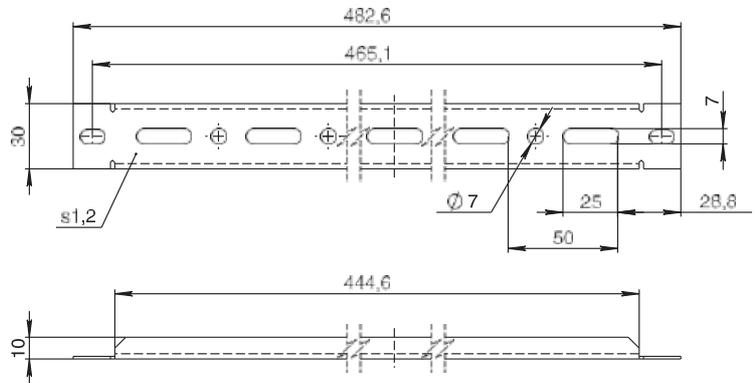
## Horizontal rail



Designed to attach equipment and cables. Attached to 19" rails

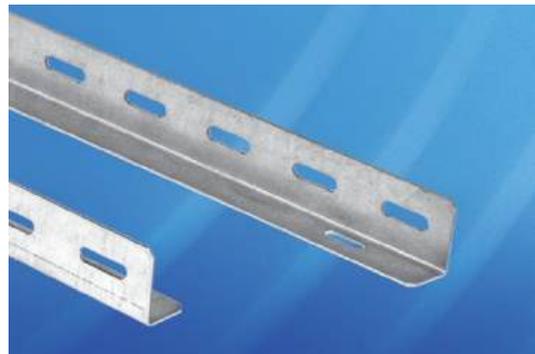
**Material:**

1.2 mm galvanized sheet steel



Rail code	Rail width, mm	Rail length, mm	Qty. in package, pcs.
MG 48.03 I	30	482.6	2

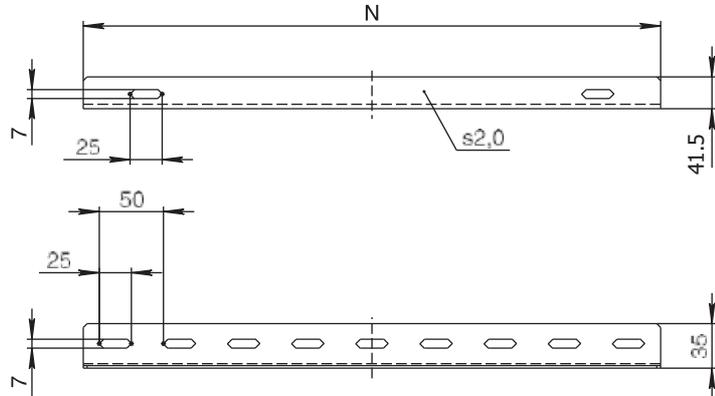
## Support rails



Designed to support heavy equipment. Attached onto two 19" planes. Max. static load: 70 kg.

**Material:**

2 mm galvanized sheet steel



Rail code	Rail width, mm	Length rail (N), mm	Qty. in package, pcs.
MG 35.03 IL	41.5	350	2
MG 45.03 IL	41.5	450	2
MG 55.03 IL	41.5	550	2
MG 65.03 IL	41.5	650	2

## IF frame mounting rail, 2 pcs.



Designed for installation onto telecommunications cabinet frames (IF frame) to create an additional equipment mounting plane.

**Material:**

2.0 mm sheet steel with RAL7035 coating

**Package scope:**

rail and fasteners

Side panel code	Qty. in set
MG 60.10 I	2
MG 80.10 I	2
MG 100.10 I	2

## Blind panel 19"

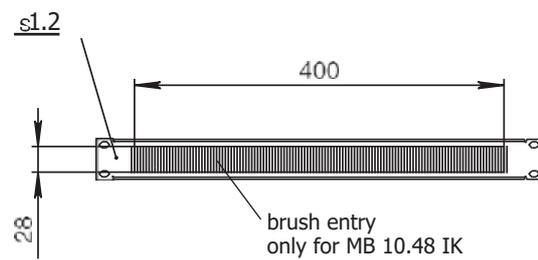
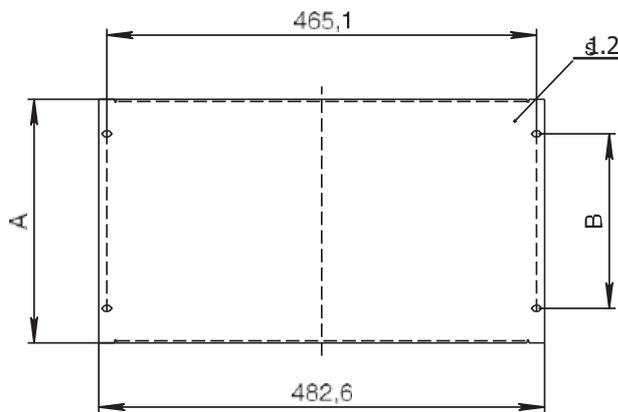


Designed to protect empty fields. Attached to 19" frames or rails

**Material:** 1.2 mm sheet steel, structural powder coating RAL 7035

**Options:** paint color RAL 7021, holes on request

Panel height, U (U = 44.45 mm)	Panel code	Code of panel with brush cable entry	A, mm	B, mm	Qty. in pack., pcs
1	MB 10.48 I	MB 10.48 IK	43.6	31.75	2
1.5	MB 15.48 I	-	-	-	2
2	MB 20.48 I	-	88.1	76.3	2
3	MB 30.48 I	-	132.5	57.1	2
6	MB 60.48 I	-	265.9	190.5	2



Distribution enclosure

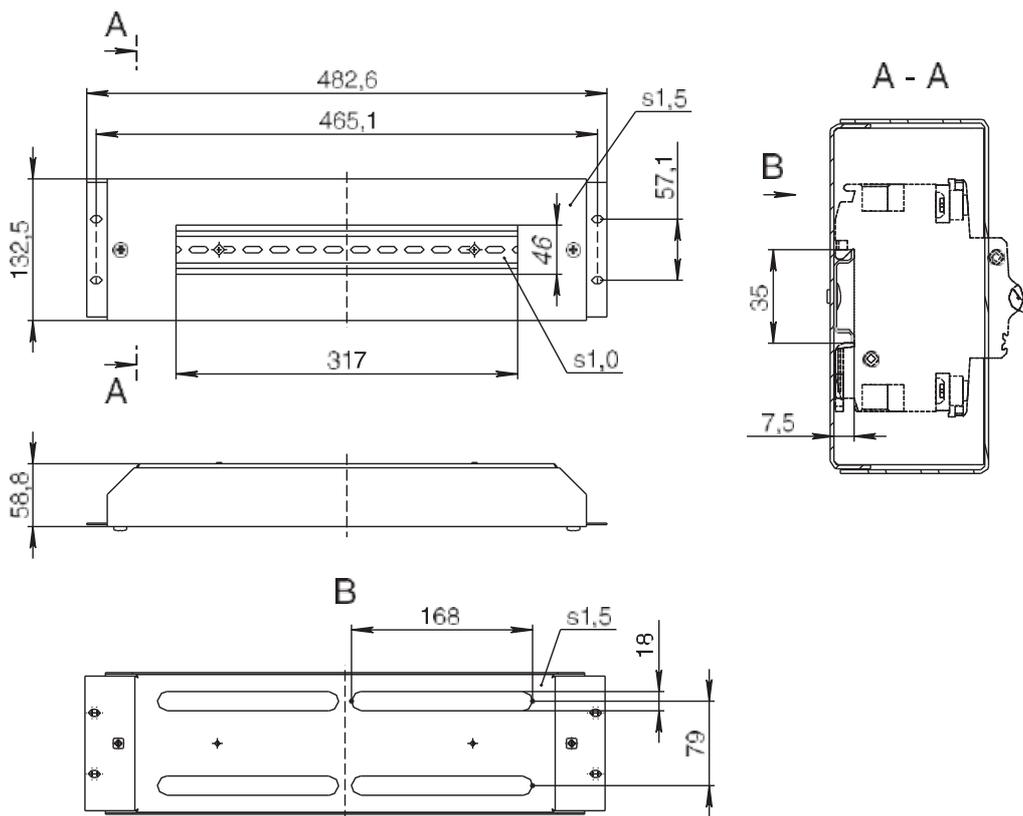


Designed to install DC and AC modular components. Attached to 19" frames. 18 max. number of modules (17.5 mm)

**Material:** sheet steel  
structural powder coating RAL 7035

**Options:** coating color RAL 7021

Enclosure code	Modules qty. (17.5 mm)	Rail height, U (U = 44.45 mm)	Depth, mm	Weight, kg	Qty. in pack.
MC 03 I	18	3	59	1.9	1



## Fixing screw



Suitable to fix modular equipment and 19" components threading them into captive nuts. Phillips slot, M5 x 16 mm, M6 x 16 mm

**Material:**  
galvanized steel

**Package scope:**  
screw and plastic  
Intermediate washer

Screw code	Size	Qty. in package, pcs.
S 5.16 M	M5 x 16	100
S 6.16 M	M6 x 16	100



Suitable to attach panels, brackets and rails threading them into nuts. Hex slot, M6 x 10 mm, M8 x 16 mm

**Material:**  
galvanized steel

Screw code	Size	Qty. in package, pcs.
S 6.10 MX	M6 x 10	100
S 6.16 MX	M6 x 16	100
S 8.16 MX	M8 x 16	100



The kit is designed to fix MBS box covers.

Screw code	Size	Qty. in package, pcs.
S 5.35 MBS	M 5 x 35	4



Used to fix covers of SBS x.y.z Ex junction boxes.

Screw code	Size	Qty. in package, pcs.
S 6.25 MXS	M 6x25	50

## FASTENERS

### Thread forming screw



Thread forming screw with torx T25 head. M5x12 mm size, cuts M5 threads when screwed into 4.2-4.5 mm holes.

**Material:**  
carbon steel, zinc plated

Screw code	Size	Qty. in package, pcs.
S 5.12 FT	M5 x 12	100

### Thread forming screw



Thread forming screw with torx T25 head. M5x12 mm size, cuts M5 threads when screwed into 4.2-4.5 mm holes.

**Material:**  
stainless steel

Screw code	Size	Qty. in package, pcs.
S 5.12 FTS	M5 x 12	100

### Self-tapping screw



Self-tapping screw with torx T25 head. Size 5.5x13 mm.

**Material:**  
carbon steel, zinc plated

Screw code	Size	Qty. in package, pcs.
S 5.13 T	M5.5	100

### Self-tapping screw



Centering, drilling, attachment using electric or pneumatic tools at a time. Hex head, M4.9 x 11 mm.

**Material:**  
galvanized steel

Screw code	Size	Qty. in package, pcs.
S 5.11	M4.9 x 11	100



## FASTENERS

### Flanged nut



Suitable for loaded fasteners. Used with S 6.10 MX and S 8.16 MX screws.

**Material:**  
galvanized steel

Nut code	Size	Qty. in package, pcs.
N 5 MF	M5	100
N 6 MF	M6	100
N 8 MF	M8	100

### Captive nut



Suitable to fix brackets, rails, modular equipment, 19" components. Suitable for installation into 1.7-2.7 mm thick components.

**Material:**  
galvanized steel

Nut code	Size	Size of installation holes	Qty. in package, pcs.
N 5 MS	M5	Ø9,5	100
N 6 MS	M6	Ø9,5	100
N 8 MS	M8	Ø12,3	100

### Rectangular captive nut



Rectangular captive nuts for MN mounting grids.

**Material:**  
galvanized steel

Nut code	Size	Qty. in package, pcs.
N 4 MR	M4	100
N 5 MR	M5	100
N 6 MR	M6	100

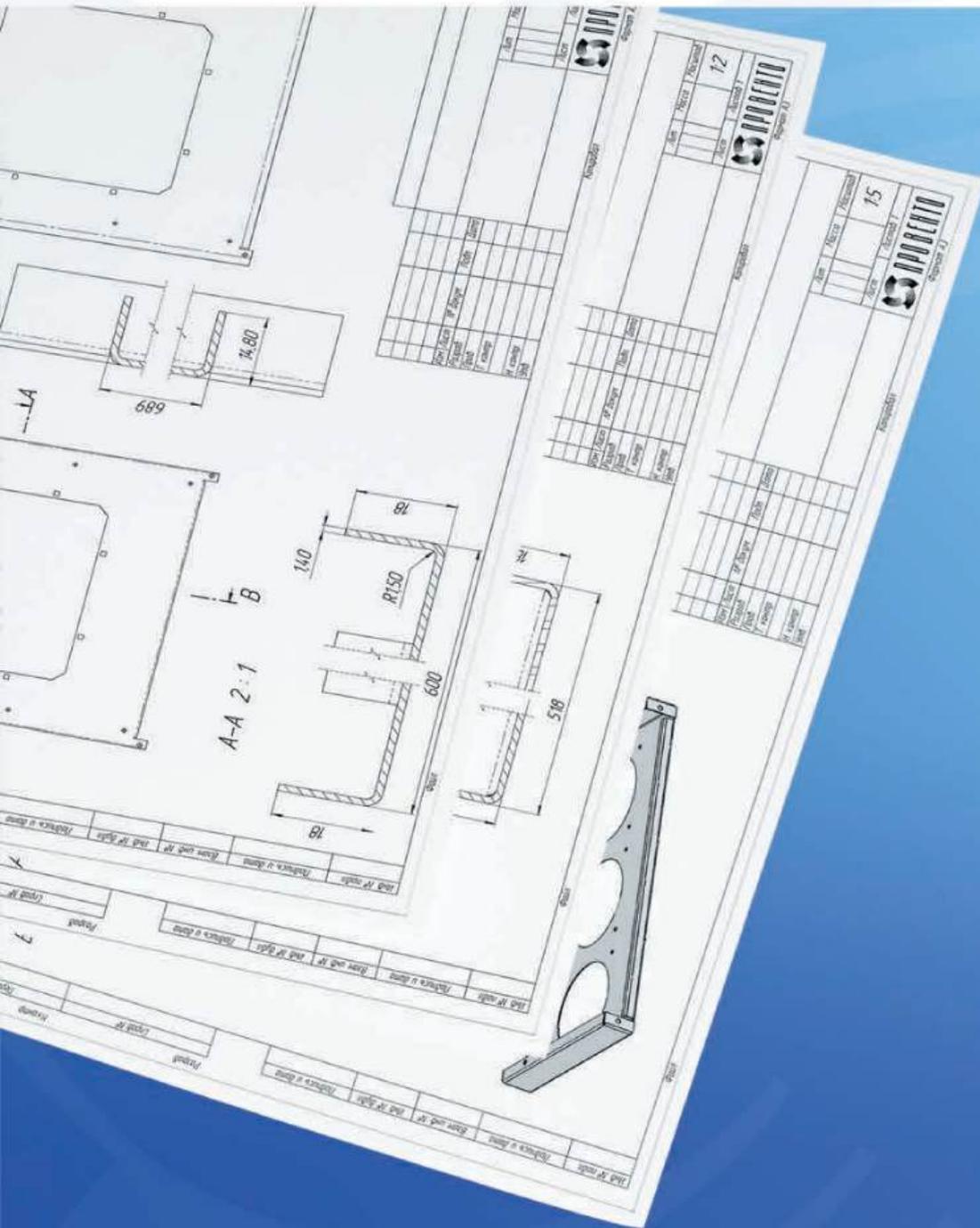
### Blanking plug kit



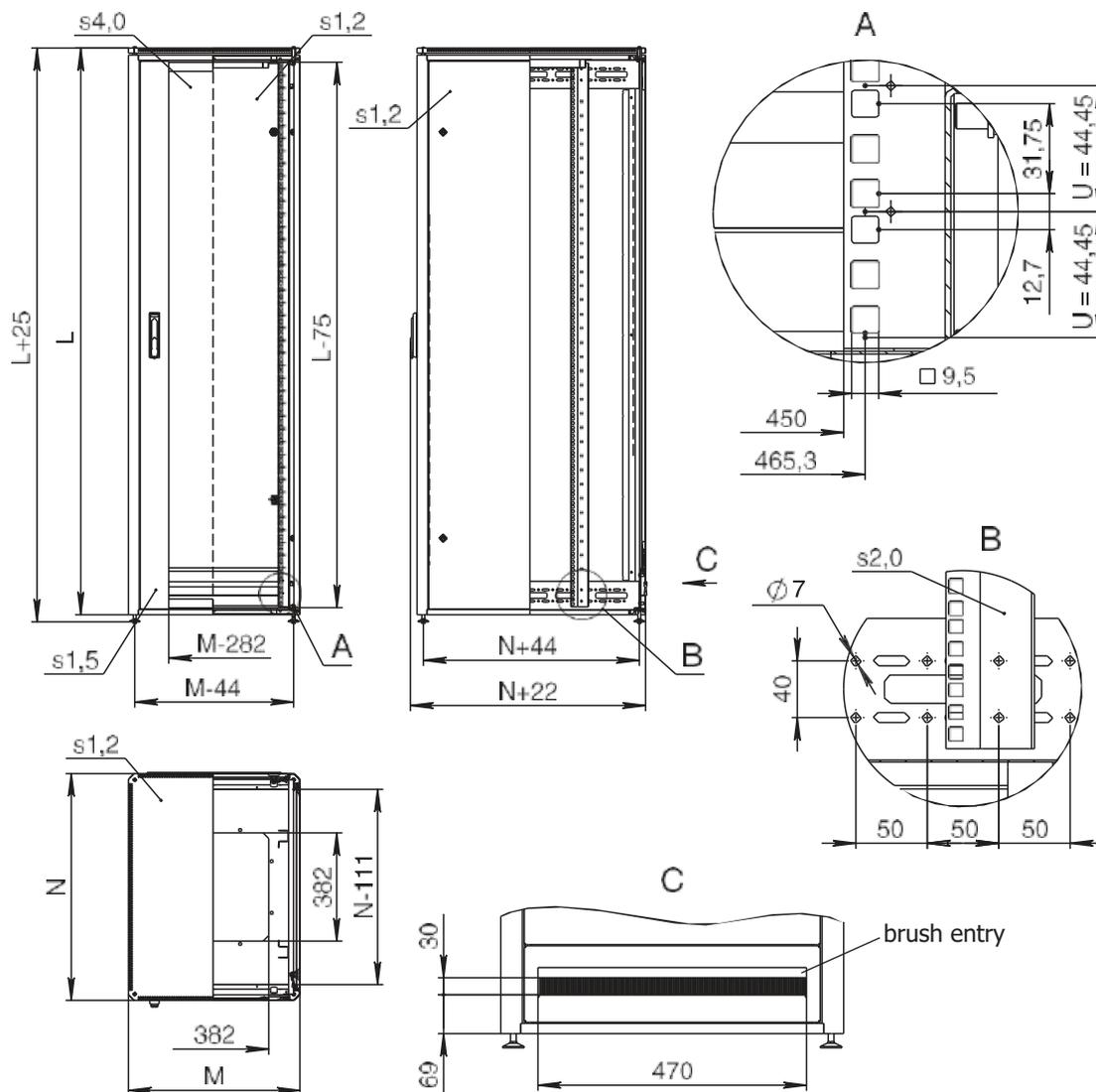
Designed for all enclosures. Used to seal 9 mm diameter holes.

Set code	Size, mm	Qty. in package, pcs.
PL 09	9.3 x 11	4

# ENCLOSURE DIMENSIONS



Floor cabinets with viewing door IPV

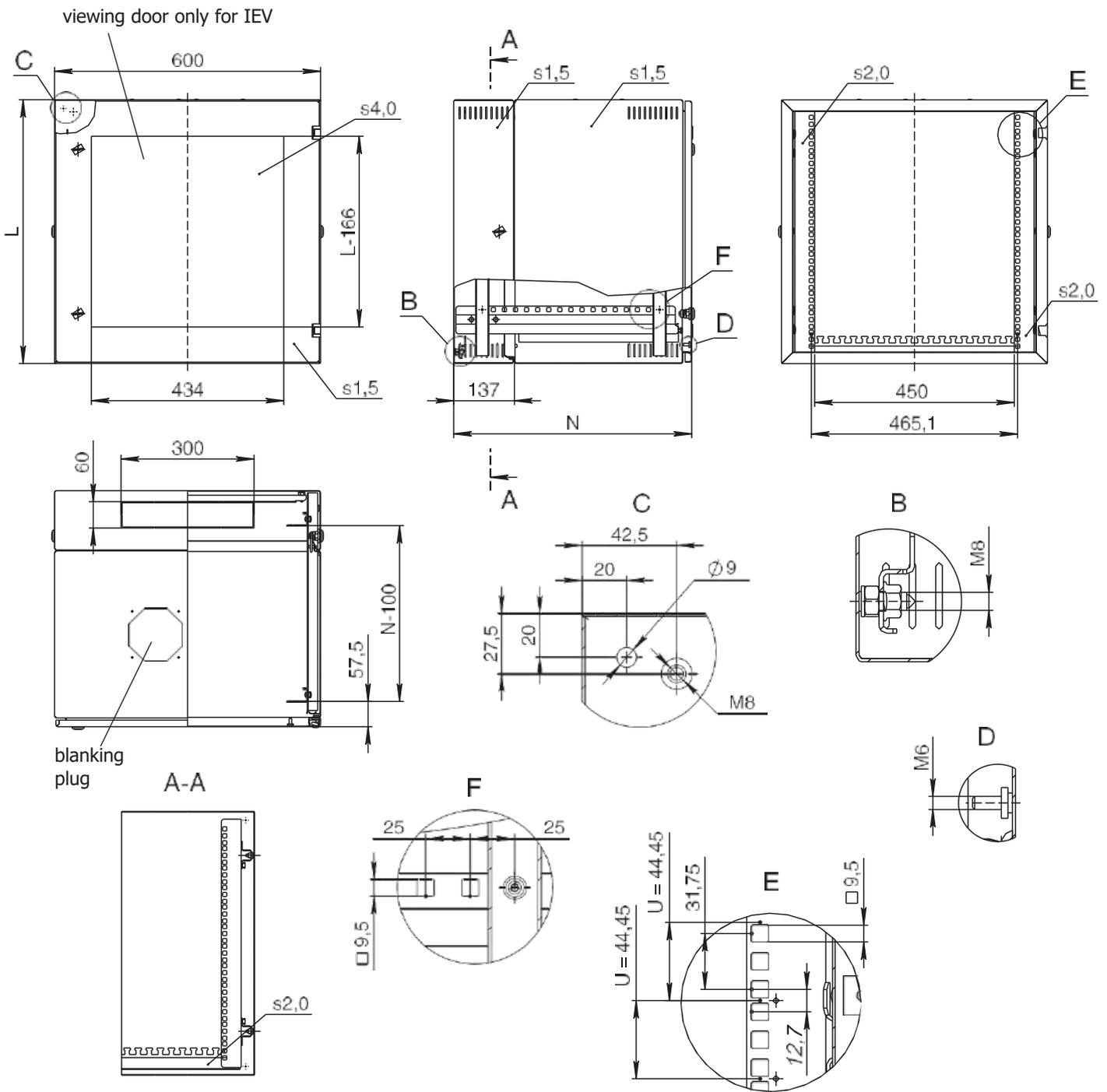


Enclosure working space height, U (U = 44.45 mm)	Height (L), mm	Width (M), mm	Depth (N), mm	Cabinet code
24	1200	600	600	IPV 24.60.60
			800	IPV 24.60.80
38	1800	600	600	IPV 24.80.60
			800	IPV 24.80.80
43	2000	600	600	IPV 38.60.60
			800	IPV 38.60.80
47	2200	600	600	IPV 38.80.60
			800	IPV 38.80.80
47	2200	600	600	IPV 43.60.60
			800	IPV 43.60.80
47	2200	800	600	IPV 43.80.60
			800	IPV 43.80.80
47	2200	800	600	IPV 47.60.60
			600	IPV 47.60.80
47	2200	800	600	IPV 47.80.60
			600	IPV 47.80.80

WALL TYPE  
EX  
FLOOR TYPE  
IT  
CONTROL  
TERMINALS  
IP  
MODIFIED  
ACCESSORIES  
INFORMATION



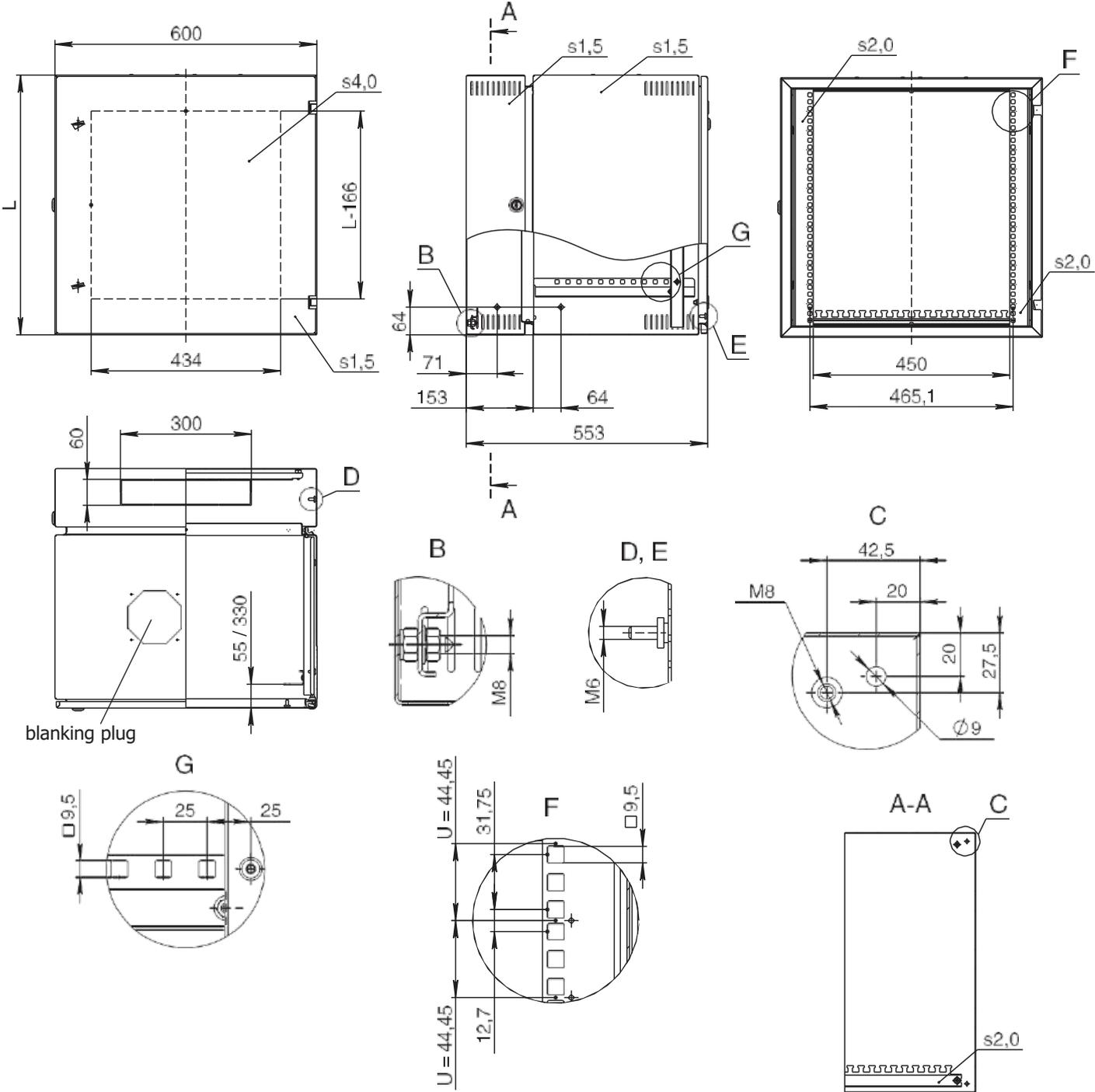
2-section wall cabinets



Enclosure working space height, U (U = 44.45 mm)	Height (L), mm	Width (M), mm	Depth (N), mm	Code of cabinet with viewing door	Code of cabinet with blind door
9	500	600	537	IEV 09.60.54	IES 09.60.54
12	600			IEV 12.60.54	IES 12.60.54

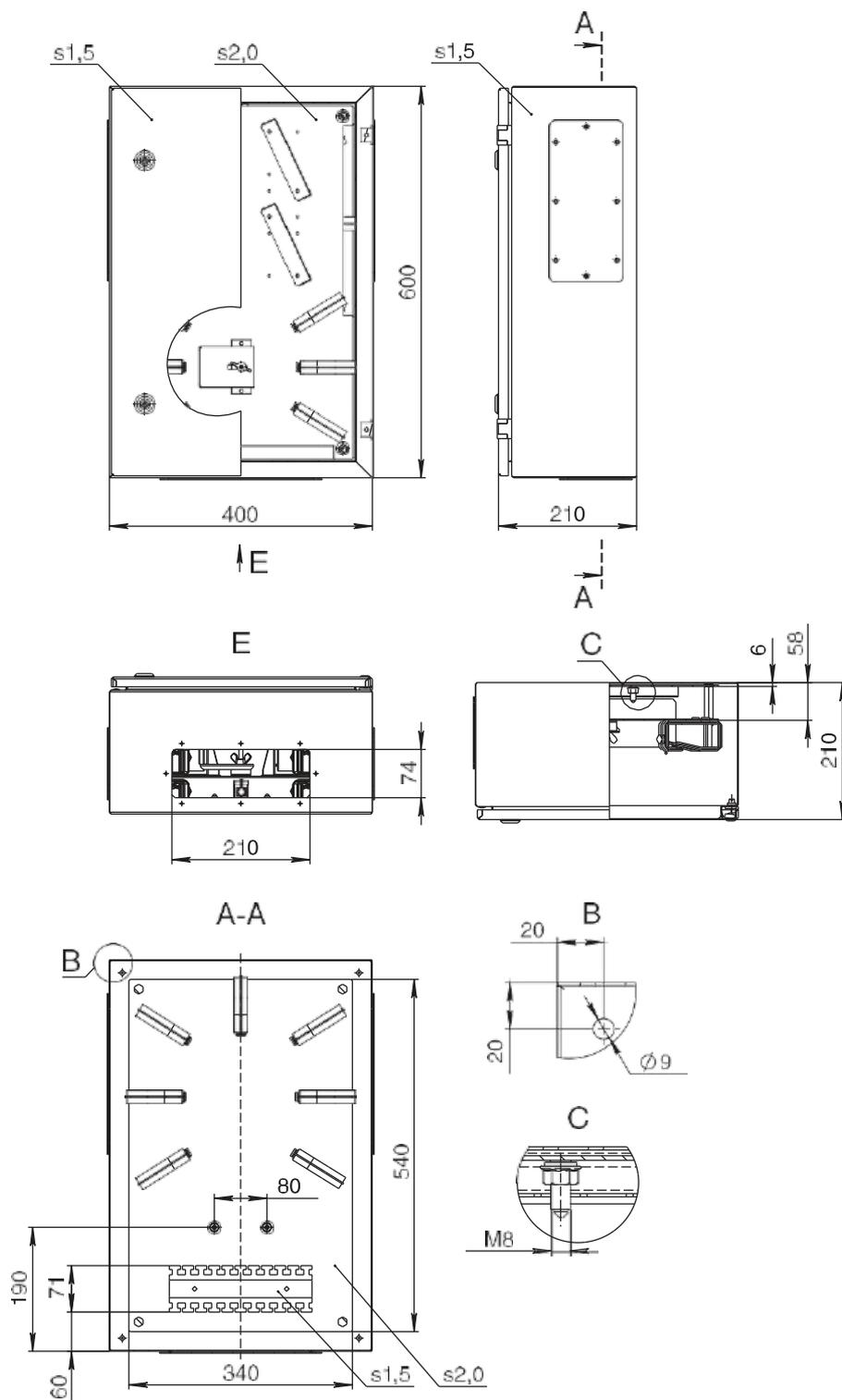
WALL TYPE  
EX  
FLOOR TYPE  
IT  
CONTROL  
TERMINALS  
IP  
MODIFIED  
ACCESSORIES  
INFORMATION

3-section wall cabinets



Enclosure working space height, U (U = 44.45 mm)	Height (L), mm	Width (M), mm	Depth (N), mm	Code of cabinet with viewing door
12	600	600	553	IEV 12.60.55
16	800			IEV 16.60.55
21	1000			IEV 21.60.55

FOCL wall cabinets

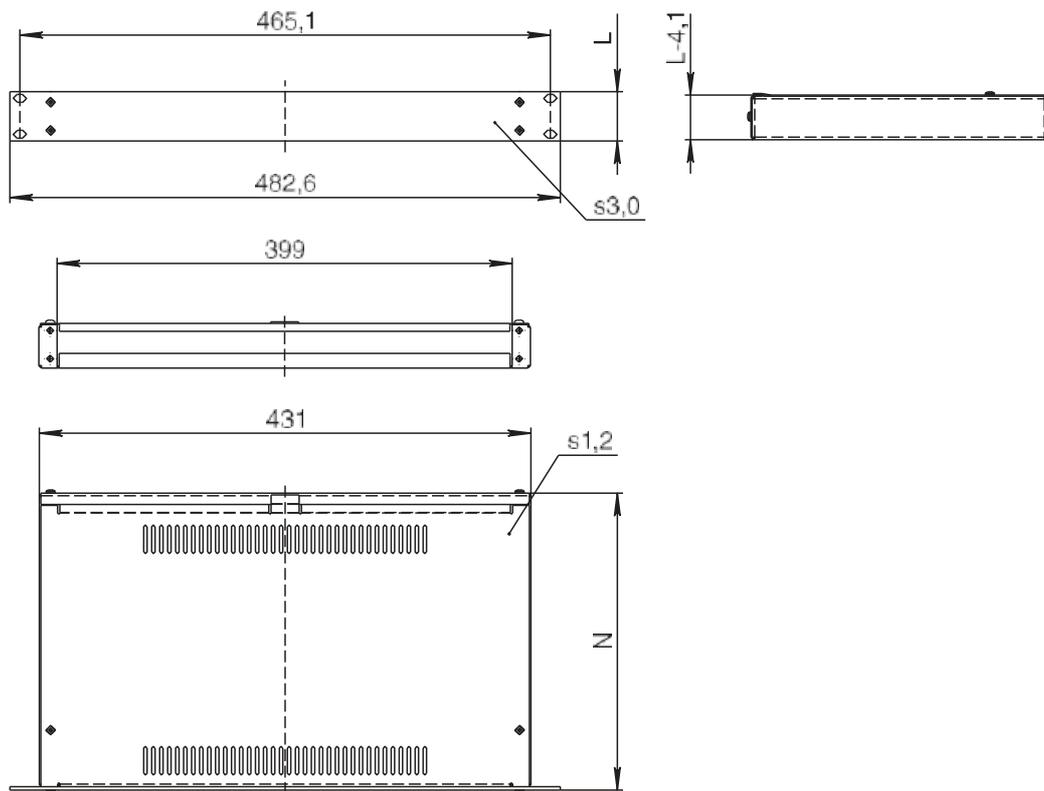


Height (L), mm	Width (M), mm	Depth (N), mm	Cabinet code
600	400	210	MES 60.40.21 OD

WALL TYPE  
Ex  
FLOOR TYPE  
IT  
CONTROL  
TERMINALS  
IP  
MODIFIED  
ACCESSORIES  
INFORMATION

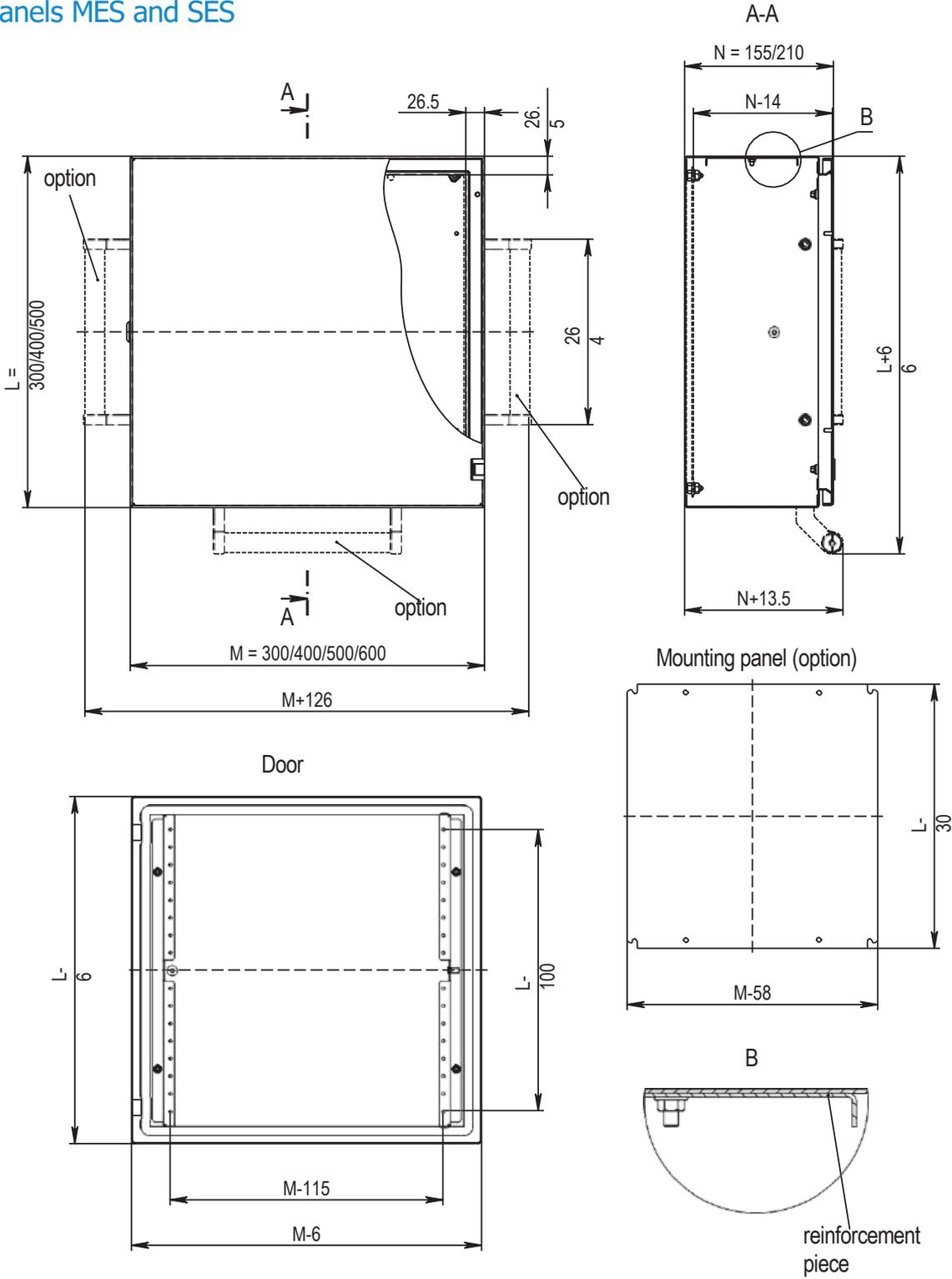


## Crates IBS



Height, U (U = 44.45 mm)	Height (L), mm	Depth (N), mm	Code of enclosure with steel panel
1	482.6	260	IBS 01.48.26 M
2		260	IBS 02.48.26 M
2		360	IBS 02.48.36 M
3		360	IBS 03.48.36 M

Control panels MES and SES

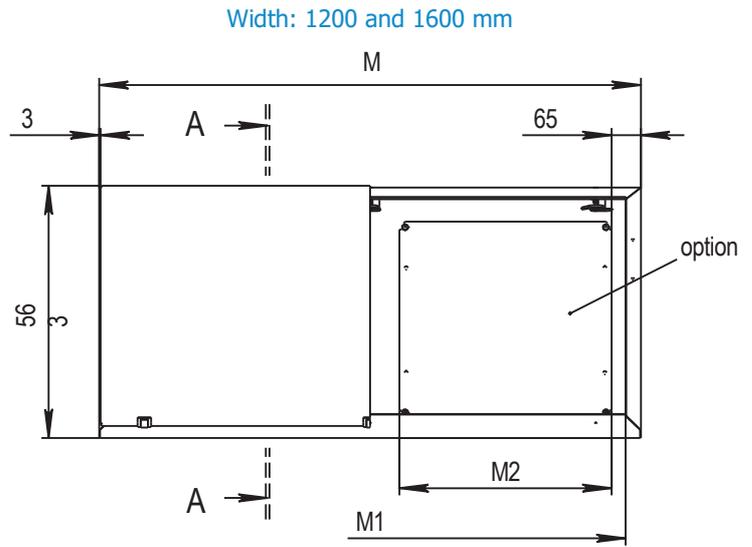
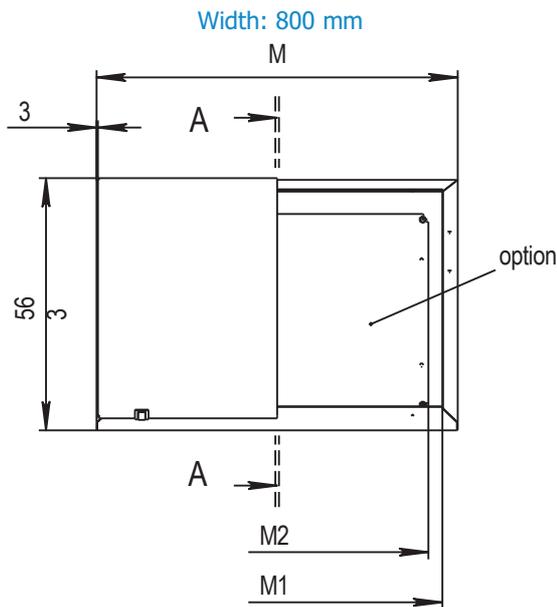


Panel code	Height (L), mm	Width (M), mm	Depth (N), mm
MES 30.30.15 U	300	300	155
MES 30.40.15 U		400	
MES 40.60.21 U	400	600	210
MES 50.50.21 U	500	500	
SES 30.40.15 U	300	400	155
SES 40.60.21 U	400	600	210

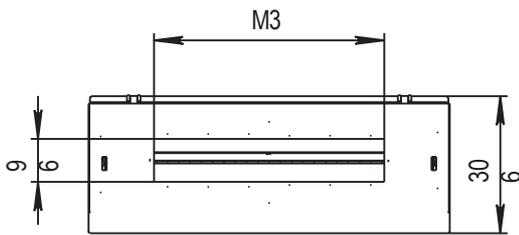
# ENCLOSURE DIMENSIONS

## Control consoles MCS, MCD

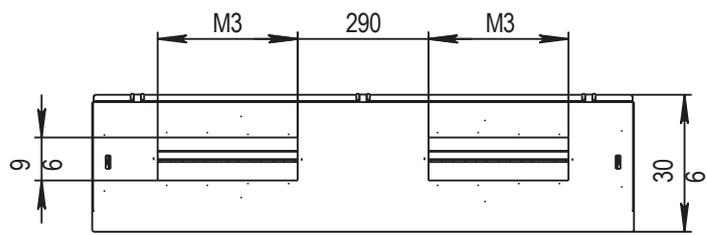
Top section



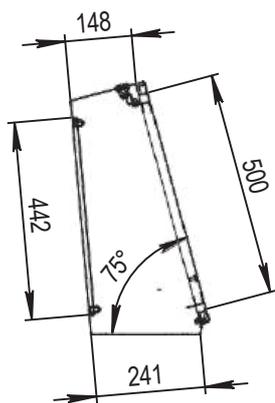
Bottom view



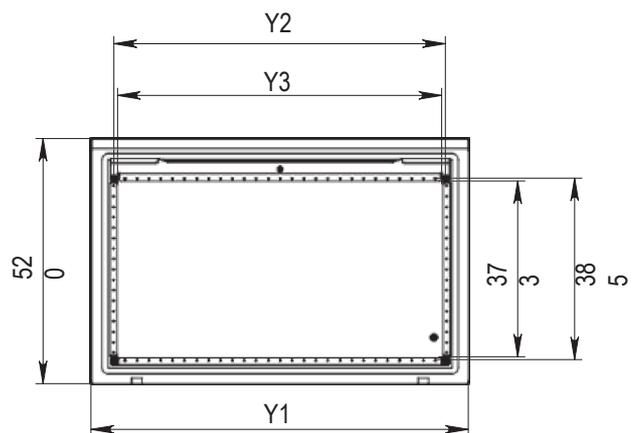
Bottom view



A-A



Cover



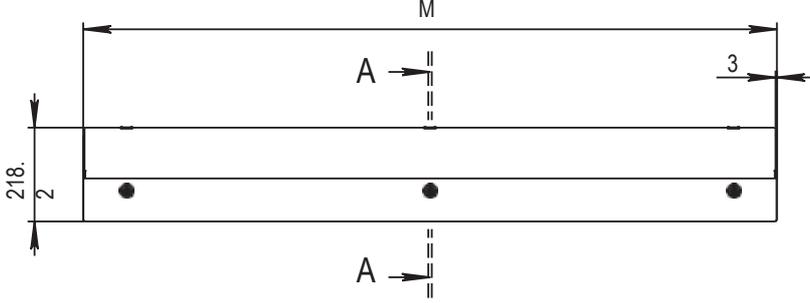
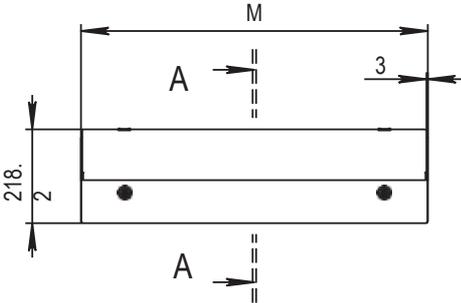
Console code	Height (L), mm	Width (M), mm	Depth (N), mm	M1, mm	M2, mm	M3, mm	Y1, mm	Y2, mm	Y3, mm
MCS 56.80.24 U	560	800	240	732	670	510	794	697.5	682
MCS 56.120.24 U		1200		1132	470	310	1194	1097.5	1082
MCS 56.160.24 U		1600		1532	670	510	1594	1497.5	1482

Control consoles MCS, MCD

Middle section MCS 20.XX.81 D

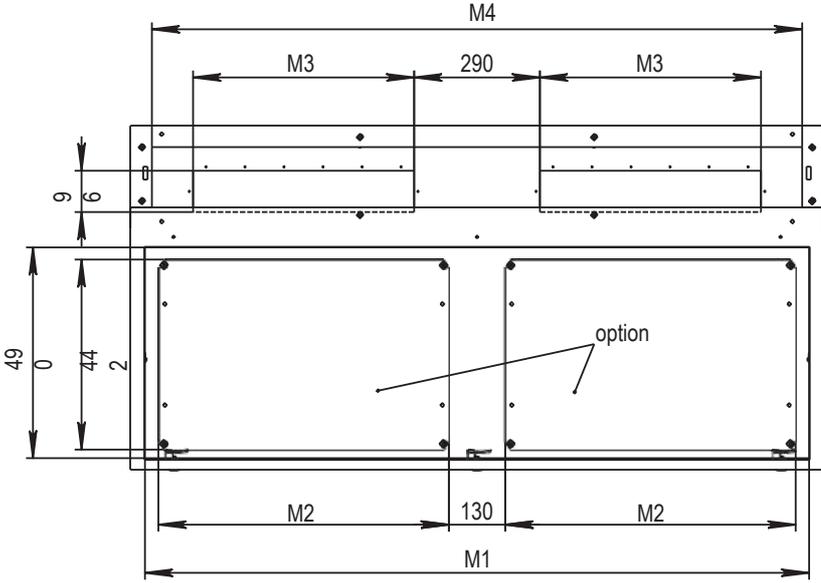
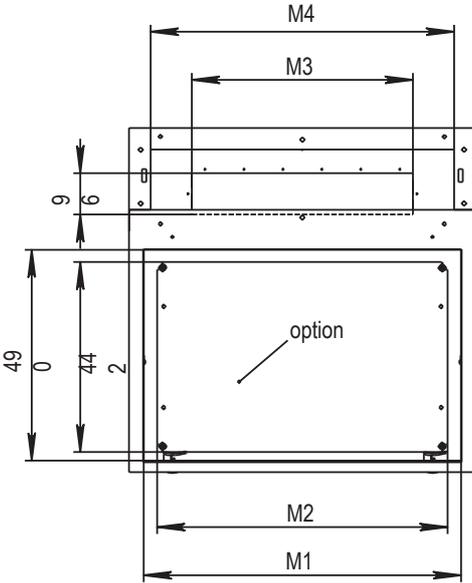
Width: 800 mm

Width: 1200 and 1600 mm

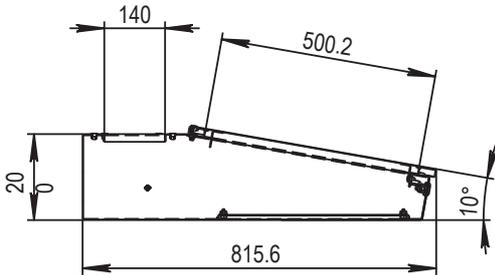


View w/o cover

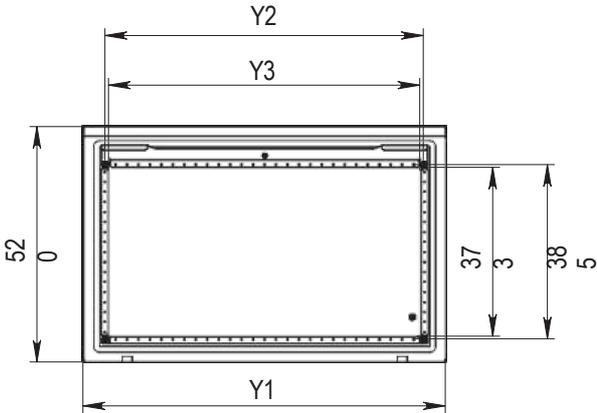
View w/o cover



A-A



Cover

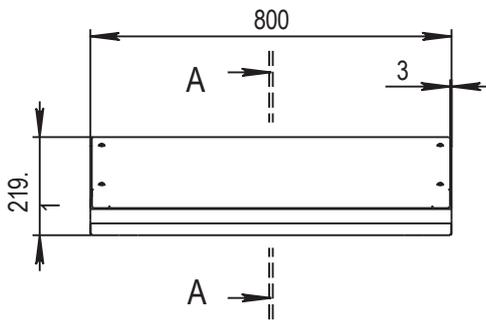


Console code	Height (L), mm	Width (M), mm	Depth (N), mm	M1, mm	M2, mm	M3, mm	M4, mm	Y1, mm	Y2, mm	Y3, mm
MCS 20.80.81 D	200	800	816	732	670	510	700	794	697.5	682
MCS 20.120.81 D		1200		1132	470	310	1100	1194	1097.5	1082
MCS 20.160.81 D		1600		1532	670	510	1500	1594	1497.5	1482

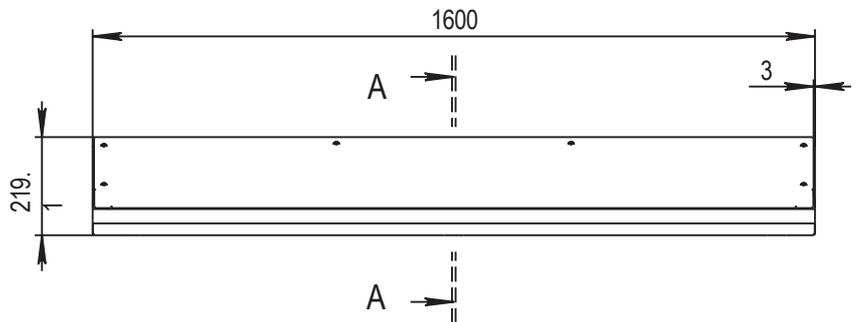
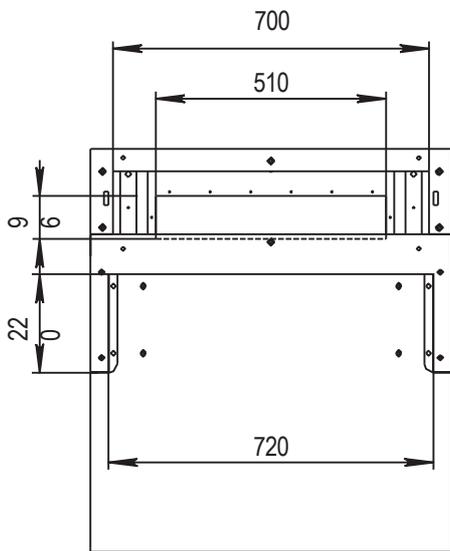
# ENCLOSURE DIMENSIONS

## Control consoles MCS, MCD

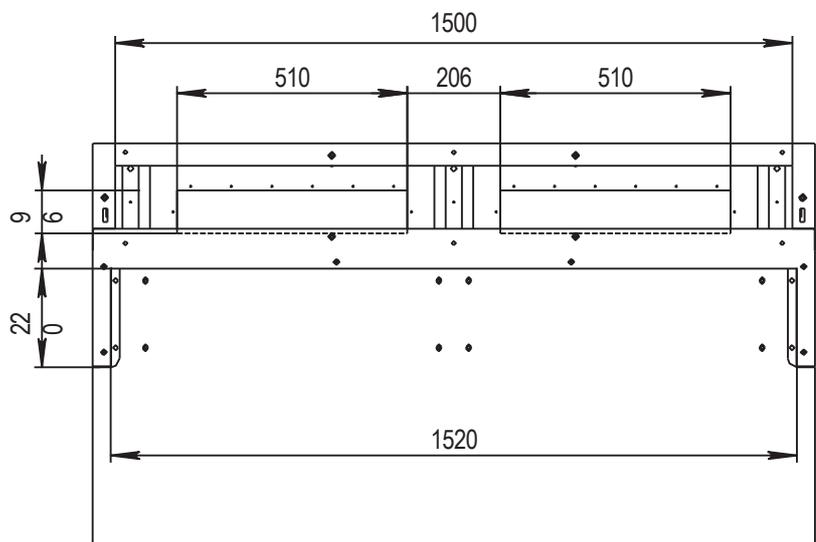
Middle section MCS 20.XX.90 DK



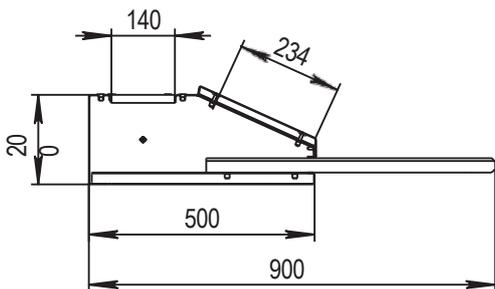
View w/o cover



View w/o cover



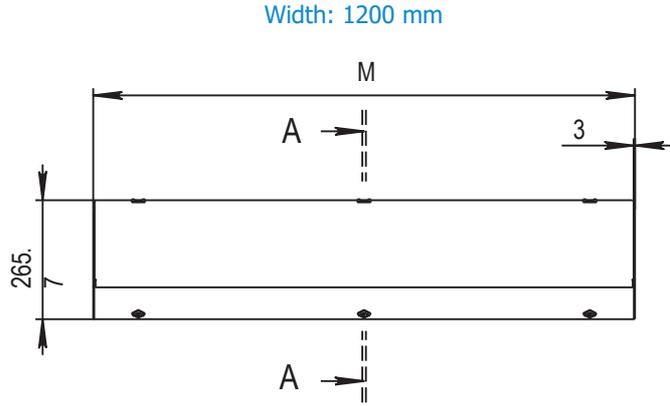
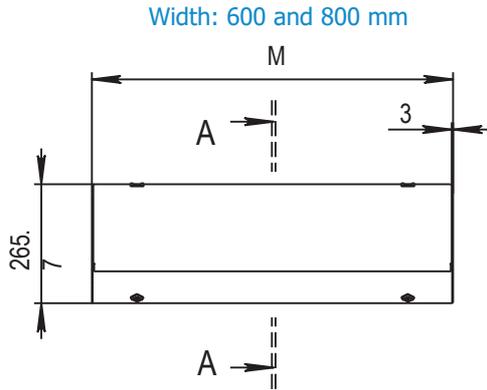
A-A



Console code	Height (L), mm	Width (M), mm	Depth (N), mm
MCS 20.80.90 DK	200	800	900
MCS 20.160.90 DK		1600	

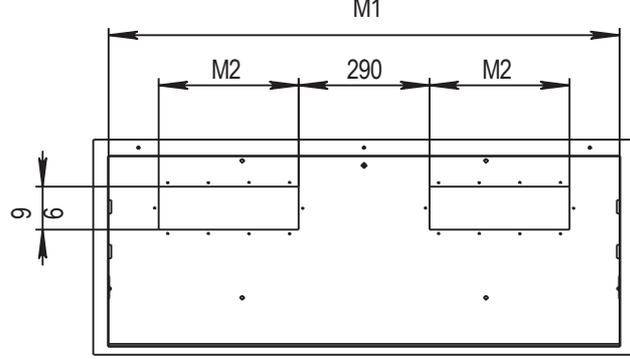
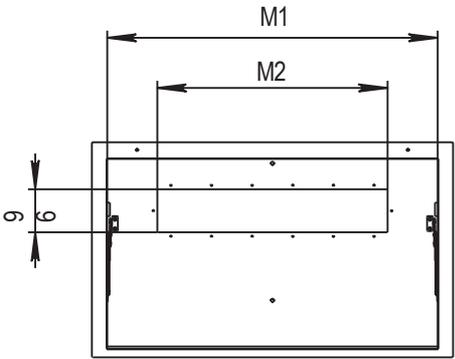
Control consoles MCS, MCD

Middle section MCS 27.XX.49 D

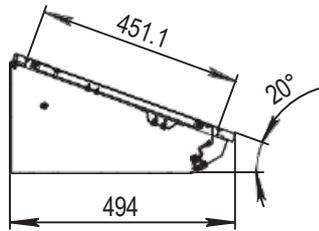


View w/o cover

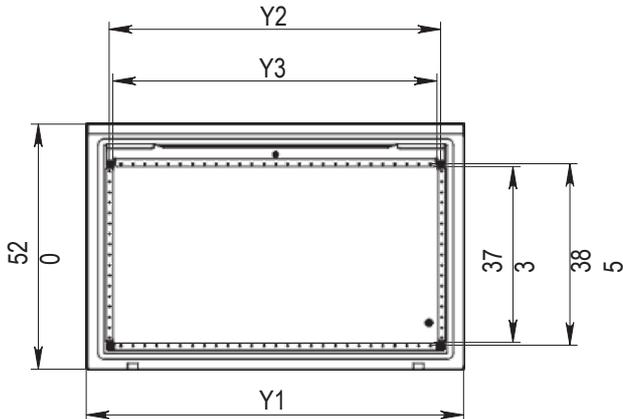
View w/o cover



A-A



Cover



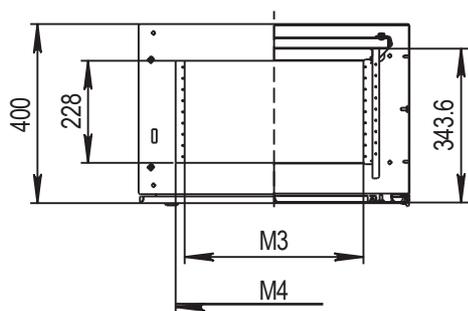
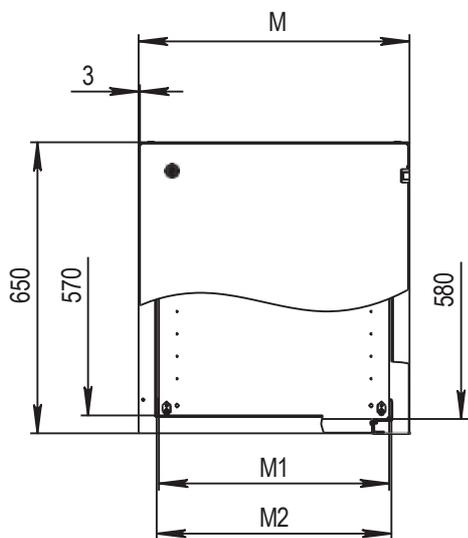
Console code	Height (L), mm	Width (M), mm	Depth (N), mm	M1, mm	M2, mm	Y1, mm	Y2, mm	Y3, mm
MCS 27.60.49 D	270	600	494	532	310	594	497.5	482
MCS 27.80.49 D		800		732	510	794	697.5	682
MCS 27.120.49 D		1200		1132	310	1194	1097.5	1082

## ENCLOSURE DIMENSIONS

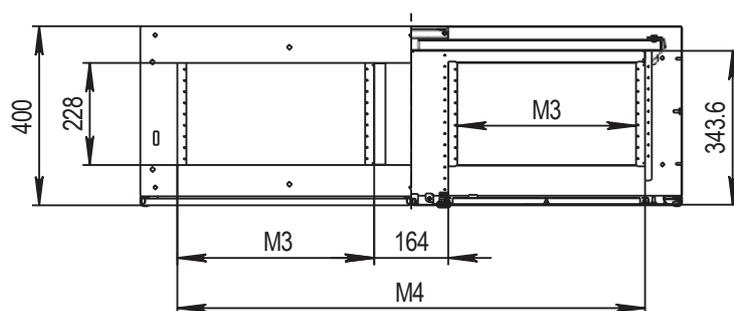
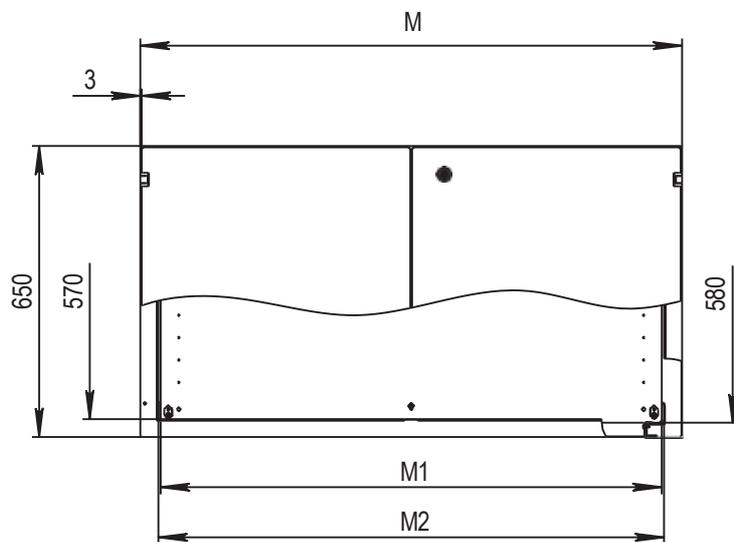
## Control consoles MCS, MCD

Bottom sections MCS 65.XX.40 B, MCD 65.XX.40 B

Width: 600 and 800 mm



Width: 1200 mm



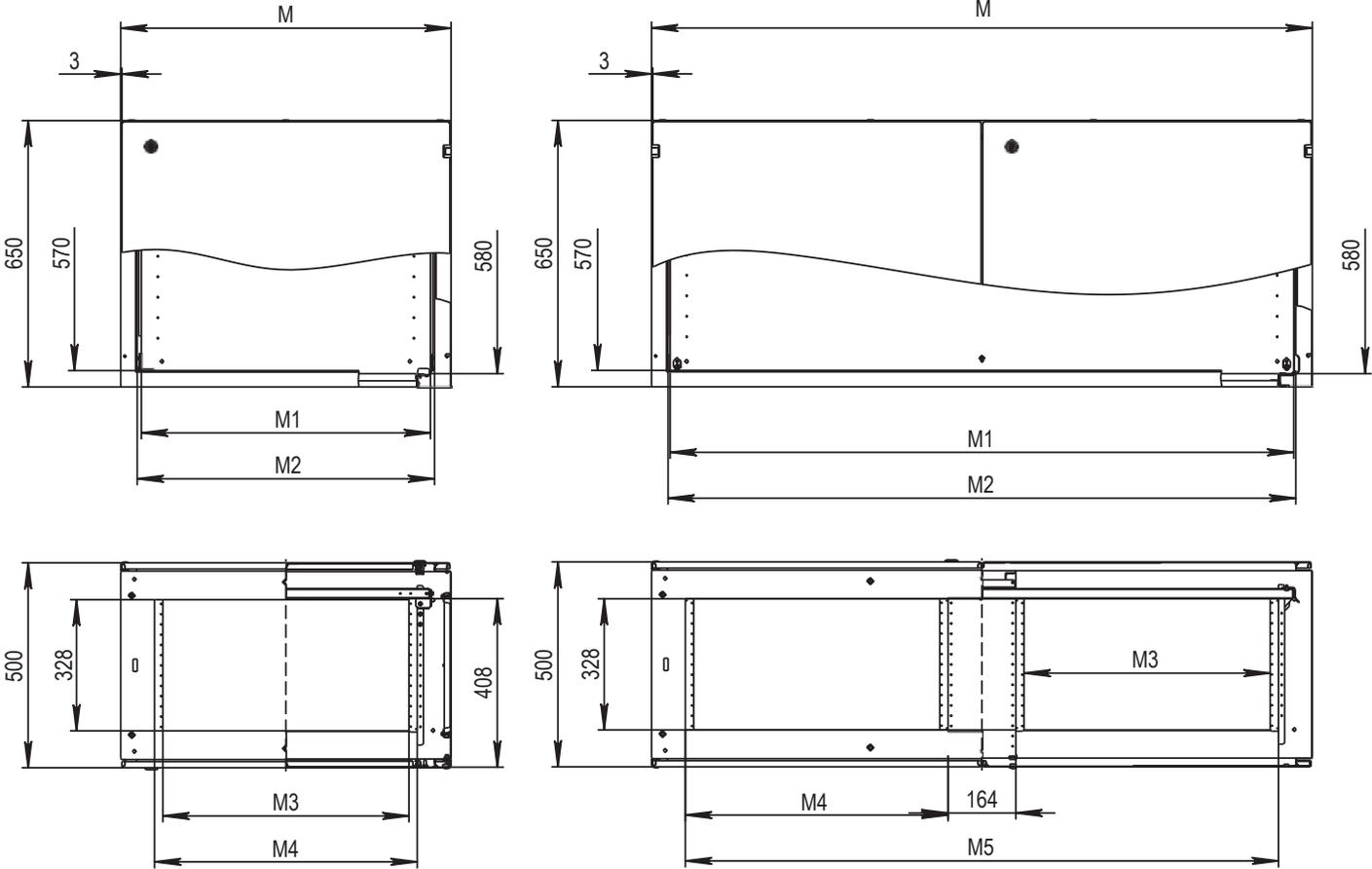
Console code	Height (L), mm	Width (M), mm	Depth (N), mm	M1, mm	M2, mm	M3, mm	M4, mm
MCS 65.60.40 B	650	600	400	510	520	396	436
MCS 65.80.40 B		800		710	720	596	636
MCD 65.120.40 B		1200		1110	1120	396	1036

Control consoles MCS, MCD

Bottom sections MCS 65.XX.50 B, MCD 65.XX.50 B

Width: 800 mm

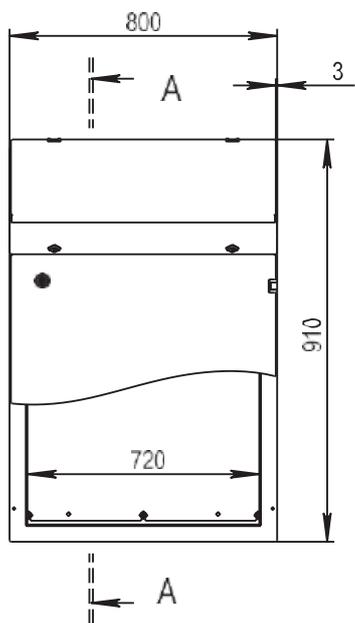
Width: 1200 and 1600 mm



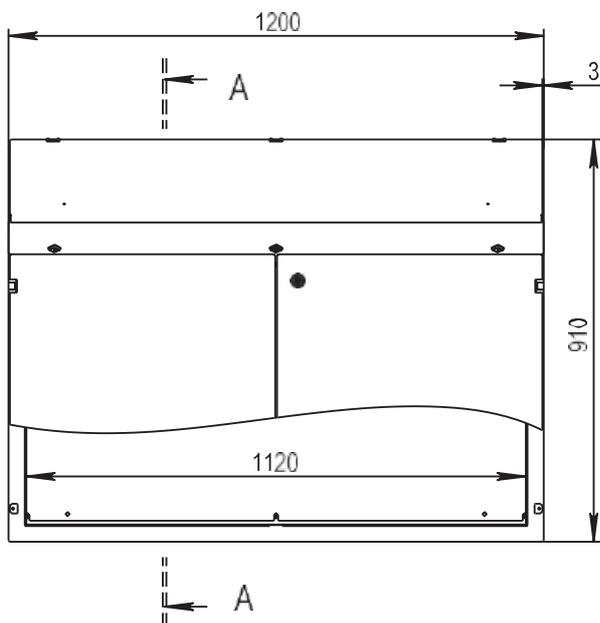
Console code	Height (L), mm	Width (M), mm	Depth (N), mm	M1, mm	M2, mm	M3, mm	M4, mm	M5, mm
MCS 65.80.50 B	650	800	500	710	720	596	636	-
MCD 65.120.50 B		1200		1110	1120	396	436	1036
MCD 65.160.50 B		1600		1510	1520	596	636	1436

# ENCLOSURE DIMENSIONS

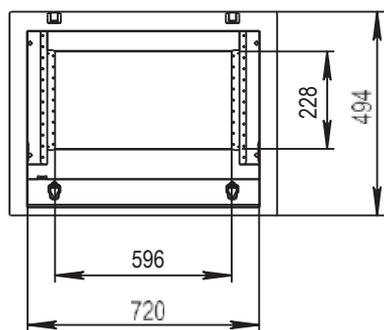
## Control consoles SCS, SCD



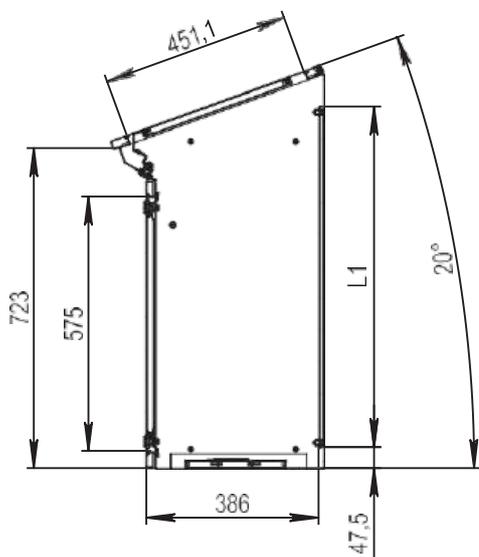
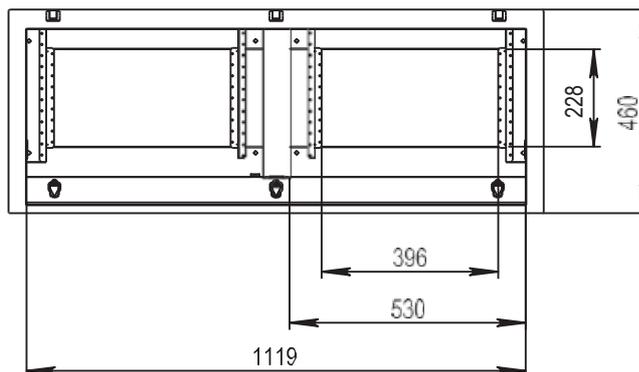
View w/o cover



View w/o cover



A-A (1 : 16)



Console code	Height (L), mm	Width (M), mm	Depth (N), mm	L1, mm
SCS 91.60.49	912	600	494	770
SCS 91.80.49		800		742
SCS 91.120.49		1200		1142

## Unique client service PDS (Provento Data System)

PDS service helps to monitor the entire sales chain and to work with distributors or directly with Provento. Contains complete product information, selection and comparison services, a custom cabinet designer. All processes are as automated as possible allowing to speed up all activities.



PDS service main functions and features:

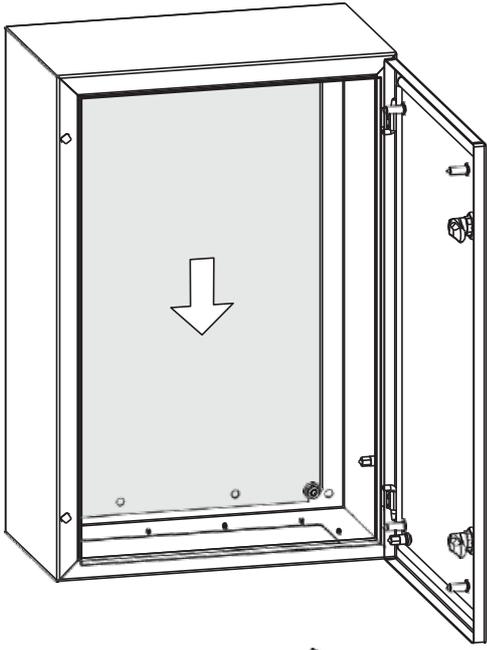
- Product price list;
- Order management;
- View all balances on-line and reserve products at Provento warehouses;
- Planning shipments;
- Block to handle complaints;
- Detailed product catalog with technical descriptions, drawings and certificates;
- CC (custom cabinet) designer. You can choose MPx or IPx floor cabinet composition from standard components;
- Comparison With Competitors service (detailed technical and commercial comparison of Provento products with main competing brands in terms of design, quality, technology, price);
- Specification translator.

You can submit a request for access to the PDS service  
to the Customer Support.

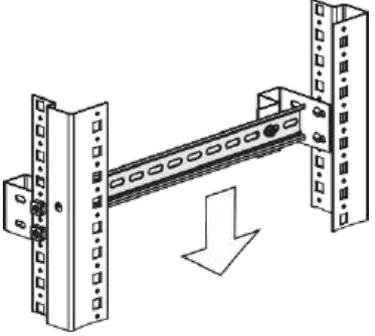
[spk@provento.ru](mailto:spk@provento.ru)

Enjoy all the advantages and convenience of using PDS!!

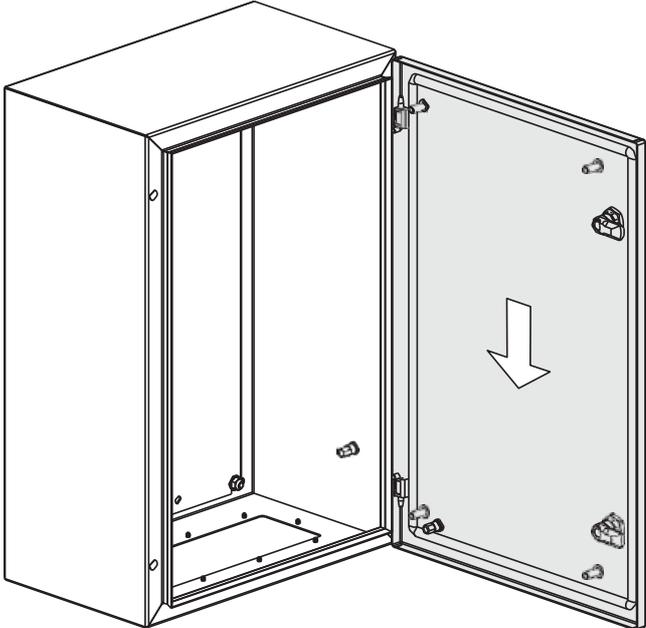
# PERMISSIBLE LOAD



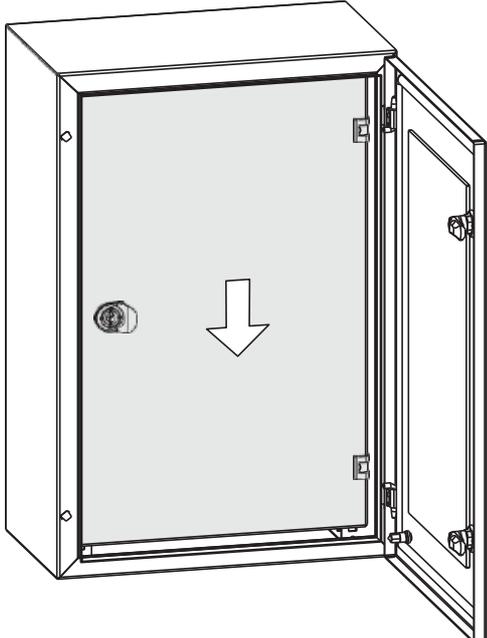
Mounting panel load	3000 N
---------------------	--------



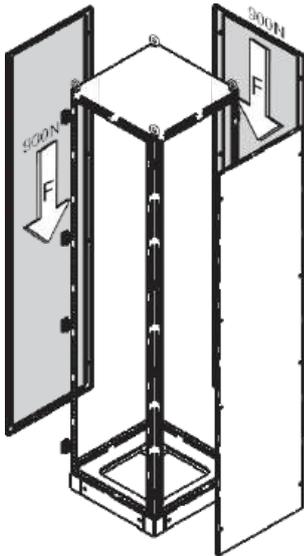
DIN rail load	50 N
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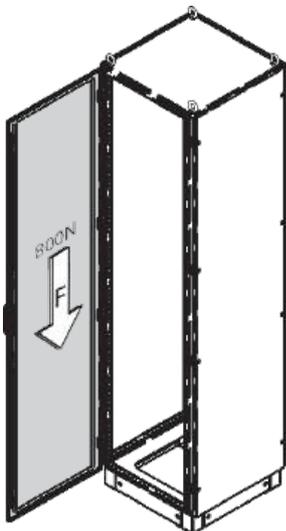
Door load	300 N
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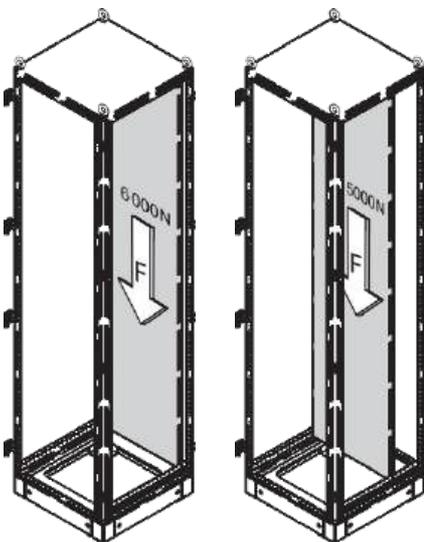
Internal door load	300 N
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Side and rear wall load	900 N
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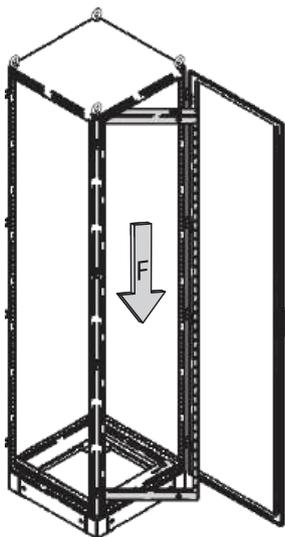


Blind door load	800 N
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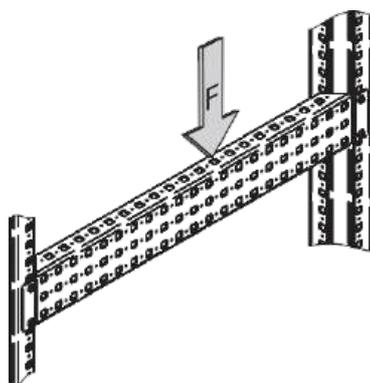


Load to mounting panel installed directly at rear panel	6000 N
Load to mounting panel installed at any other place	5000 N

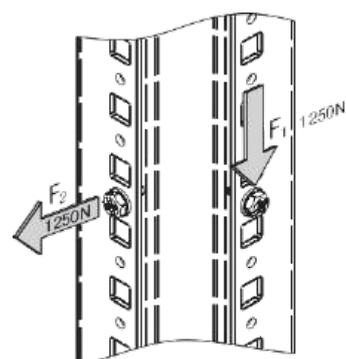
# PERMISSIBLE LOAD



Modular frame load	1500 N
Rotary frame load	1200 N



Rail code	Rail width, mm	Cabinet size, mm	Load, N
MG 40.03	24	400	700
MG 50.03		500	
MG 60.03		600	
MG 80.03		800	
MG 40.06 (L)	49	400	2400
MG 50.06 (L)		500	2000
MG 60.06 (L)		600	1700
MG 80.06 (L)		800	1400
MG 100.06 (L)		1000	1000
MG 120.06 (L)		1200	800
MG 40.09 (L)	74	400	2400
MG 50.09 (L)		500	
MG 60.09 (L)		600	
MG 80.09 (L)		800	
MG 100.09 (L)		1000	
MG 120.09 (L)	1200	1200	
MG 40.04 CL	38	400	700
MG 50.04 CL		500	
MG 60.04 CL		600	
MG 80.04 CL		800	



Load to screws	1250 N
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WALL TYPE  
Ex  
FLOOR TYPE  
IT  
CONTROL  
TERMINALS  
IP  
MODIFIED  
ACCESSORIES  
INFORMATION

Lots of electronic and power equipment with high heat output are installed into modern electrical cabinets. In this regard, cabinet design demands to maintain equipment microclimate parameters and to observe degree of protection standards.

Equipment duration and uninterrupted operation directly depend on cabinet internal humidity and temperature. Optimal operating temperature is 10 to 45°C at 30 to 90% relative humidity. The choice of solution for maintaining these conditions depends on the environment and the type of devices installed.

In one case, it is enough to use a larger cabinet or install a fan, it is necessary to use a cooler in another case, a heater is required in the third case.

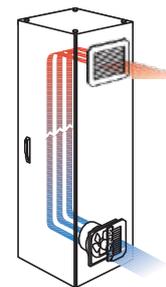
### Natural heat dissipation

<p><b>Cabinet replacement.</b> Using a larger cabinet can solve the problem of switchboard overheating</p>	<p>It is effective at low heat transfer of the equipment installed at the cabinet and at normal environmental conditions</p>
<p><b>Natural ventilation.</b> When cold air enters through ventilation grilles, natural convection ensures dissipation of cabinet internal heat</p>	

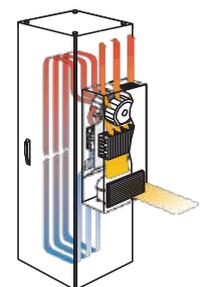


### Forced ventilation

<p><b>Fan use.</b> Fans provide better air circulation allowing to evenly release the heated air from the cabinet and preventing equipment overheat. This significantly enhances equipment service life and ensures uninterrupted operation</p>	<p>Effective at high heat output of the equipment installed in the cabinet, when the cabinet interior temperature exceeds ambient temperature by more than 5°C</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------



<p><b>Use of cooling devices.</b> Cooling devices are used to lower the temperature inside the cabinet. These devices use causes no effect to switchboard degree of protection. A built-in filter ensures use in unfavorable conditions of polluted production facilities where dust and oil particles saturate the air</p>	<p>Effective for removing significant amounts of heat at ambient temperatures 20°C to 55°C</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------



### Heating

<p><b>Heater use.</b> Resistive heaters are used to provide the required cabinet temperature and to prevent condensation able to cause short circuits, contact oxidation, corrosion. Heaters provide uniform and rapid cabinet temperature raise, promote natural convection and guarantee reliability and durability of the equipment installed in the cabinet</p>	<p>Effective at low ambient temperatures.</p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------



# THERMAL CALCULATIONS

Temperature control device choice depends on what power generate the operating components and what natural heat transfer occurs through the cabinet walls.

It is possible to calculate the cabinet interior temperature and to determine whether additional temperature control devices are needed considering required external and internal temperatures. The method to select this equipment is described below.

## 1. Cabinet specifications

Cabinet position	Cabinet location	S calculation formula (m <sup>2</sup> ) H = height, W = width, D = depth
	access from any side	$S = 1.8 \times H \times (W + D) + 1.4 \times W \times D$
	near the wall	$S = 1.4 \times W \times (H + D) + 1.8 \times D \times H$
	outermost in a row	$S = 1.4 \times D \times (H + W) + 1.8 \times W \times H$
	outermost in a row near the wall	$S = 1.4 \times H \times (W + D) + 1.4 \times W \times D$
	in the middle of a row	$S = 1.8 \times W \times H + 1.4 \times W \times D + D \times H$
	in the middle of a row near the wall	$S = 1.4 \times W \times (H + D) + D \times H$
	in the middle of a row near the wall, with closed top section	$S = 1.4 \times W \times H + 0.7 \times W \times D + D \times H$

$$S = \text{_____ m}^2$$

## 2. Power output from operating components

Unit power output is determined adding up powers of each installed device. If a component power is unknown, use the table at page 259 to determine the average value

$$P_{\text{tot}} = \text{_____ W}$$

## 3. Environmental parameters

Maximum ambient temperature

$$T_{\text{amb max}} = \text{_____ } ^\circ\text{C}$$

Minimum ambient temperature

$$T_{\text{amb min}} = \text{_____ } ^\circ\text{C}$$

Average relative humidity

$$rH = \text{_____ } \%$$

Dew point (see page 258)

$$TrH = \text{_____ } ^\circ\text{C}$$

## 4. Required internal temperature average values

Depend on equipment type and on environmental parameters.  
Maximum internal temperature

$$T_{\text{dp max}} = \text{_____ } ^\circ\text{C}$$

Minimum internal temperature (the maximum value is set between dew point temperature and equipment minimum operating temperature)

$$T_{\text{dp min}} = \text{_____ } ^\circ\text{C}$$

### Example

MPS 200.80.60  
H = 2.0 m, W = 0.8 m, D = 0.6 m

Location:  
the cabinet is located in the middle of a row

$$S = 5.42 \text{ m}^2$$

Assume that the equipment emits 1000 W

$$P_{\text{tot}} = 1000 \text{ W}$$

Temperature conditions are as follows:

$$T_{\text{amb max}} = 30^\circ\text{C}$$

$$T_{\text{amb min}} = 15^\circ\text{C}$$

$$rH = 80\%$$

$$TrH = 26^\circ\text{C}$$

$$T_{\text{dp max}} = 35^\circ\text{C}$$

$$T_{\text{dp min}} = 26^\circ\text{C}$$

### 5. Final calculation of cabinet temperature without temperature control system

Max. internal temperature  $T_{max} = P_{tot} / K \times S + T_{amb\ max}$

$T_{max} = \underline{\hspace{2cm}} \text{ } ^\circ\text{C}$

Min. internal temperature  $T_{min} = P_{tot} / K \times S + T_{amb\ min}$

$T_{min} = \underline{\hspace{2cm}} \text{ } ^\circ\text{C}$

where  $K = 5.5 \text{ W / m}^2 / \text{ } ^\circ\text{C}$  for painted metal cabinets;  
 $K = 3.7 \text{ W / m}^2 / \text{ } ^\circ\text{C}$  for stainless steel cabinets

#### Example

$T_{max} = 64^\circ\text{C}$

$T_{min} = 49^\circ\text{C}$

Heater not required

$P_{cool} = \sim 850 \text{ W}$

### 6. Determination of temperature control system type and capacity

$T_{dp\ min} < T_{min}$  No temperature control system is required, but a circulation fan can be installed to equalize the temperature

$T_{dp\ min} > T_{min}$  Required: resistive heater  
 a) Switchboard continuous operation  
 $P_{heat} = K \times S (T_{dp\ min} - T_{amb\ min}) - P_{tot}$   
 b) Switchboard intermittent operation  
 $P_{heat} = K \times S (T_{dp\ min} - T_{окр\ мин})$

$T_{dp\ max} < T_{max}$  Required: circulation fan or cooling device  
 $P_{cool} = P_{tot} - K \times S (T_{dp\ max} - T_{amb\ max})$

$T_{dp\ max} > T_{max}$  No temperature control system is required, but a circulation fan can be installed for circulation to avoid local overheat

### Dew point (standard atmospheric pressure)

Rel. ambient humidity (%)	Ambient temperature, °C								
	20	25	30	35	40	45	50	55	
40	6	11	15	19	24	28	33	37	
50	9	14	19	23	28	32	37	41	
60	12	17	21	26	31	36	40	45	
70	14	19	24	29	34	38	43	48	
80	16	21	26	31	36	41	46	51	
90	18	23	28	33	38	43	48	53	
100	20	25	30	35	40	45	50	55	

Dew point: minimum temperature of moisture condensation

## Tables for quick calculation of equipment heat transfer

### Amount of generated heat P:

from frequency converters

Motor power, kW	Generated heat, W
1.1	85
2.2	110
5	195
11	360
15	480
22	650
37	850
45	1100
75	1700
90	2000
110	2400

from power supplies

Current, A	Generated heat(24 V), W	Generated heat(48 V), W
2.5	18	26
5	35	45
10	50	85
15	110	100
20	120	160
25	–	210

from transformers  
at maximum power (cos = 0.8)

Power, VA	Generated heat, W
63	15
100	25
250	45
400	70
1000	110
1600	140
2000	300
4000	445
6300	550
10000	1000
12500	1390
16000	1600
20000	2000
25000	2500

from 1 m long busbars

Permissible current, A	Busbar number	Copper busbar cross-section, mm <sup>2</sup>	Generated heat (90°C), W
220	1	20 x 3	33
400	1	30 x 5	50
600	1	50 x 5	96
700	1	63 x 5	104
900	1	80 x 5	136
1000	2	50 x 5	134
1050	1	100 x 5	148
1200	1	125 x 5	154
1150	2	63 x 5	141
1450	2	80 x 5	176
1600	2	100 x 5	171

from circuit breakers

Rated current, A	Generated heat, W	Generated heat, W
16	3	6
25	4	9
50	8	17
100	11	50
160	16	70
250	18	85
500	35	220
800	45	290
1000	50	370
1600	110	800
2500	175	1050
3200	233	1350

from contactors  
w/o inductive load

All values shown in the tables are approximate values

## Surface protection

(according to нефтвфквы GOST 28207-89, EN ISO 9227: 2006)

### Standard protection

(240-hour salt mist test): Double surface treatment (phosphating, powder coating) provides enclosure surface good anti-corrosion protection and UV resistance.

### Enhanced protection\*

(720-hour salt mist test): Triple surface treatment (phosphating, passivation with containing zirconium composition, powder coating) provides the best enclosure surface anti-corrosion protectionю

#### \* – on request

Standard surface treatment is resistant to: mineral oils, greases, solvents (short-term exposure, e.g. when the surface is cleaned), weak acidic and alkaline solutions.



Process	Technical specifications
DEGREASING	chemical composition at 65°C
PHOSPHATING	phosphating with iron salts
WASHING	2-stage washing with water + washing with demineralized water
PASSIVATION WITH CONTAINING ZIRCONIUM COMPOSITION	720-hour salt mist test
BLOWING	liquid removal from hard-to-reach places
DRYING	drying in an oven at 110°C
PAINTING	powder coating
POLYMERIZATION	polymerization in an oven at 180°C

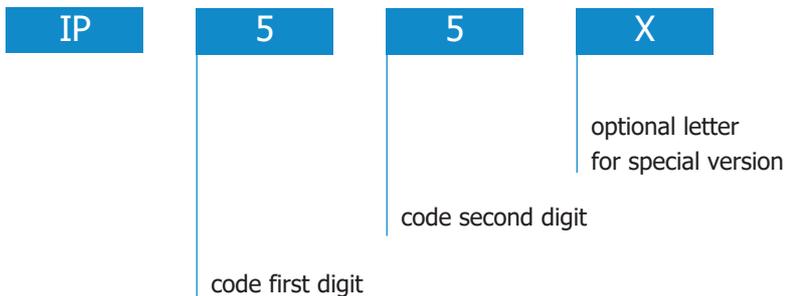
## Degree of protection against mechanical impacts IK (according to EN 50 102 standard)

IK code	Impact energy, J
00	no protection
01	0.15
02	0.2
03	0.35
04	0.5
05	0.7
06	1
07	2
08	5
09	10
10	20

# DEGREE OF PROTECTION DETERMINATION

## IP protection rating (according to GOST 14254-2015, EN 60 529/IEC 529 standards)

### Encoding:

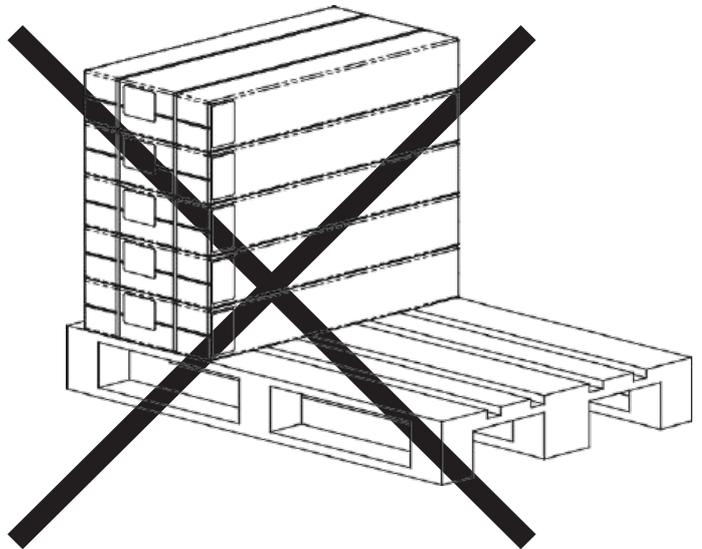
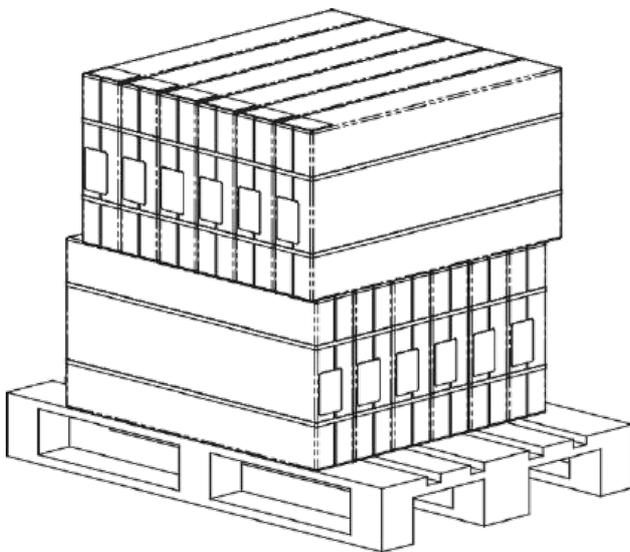
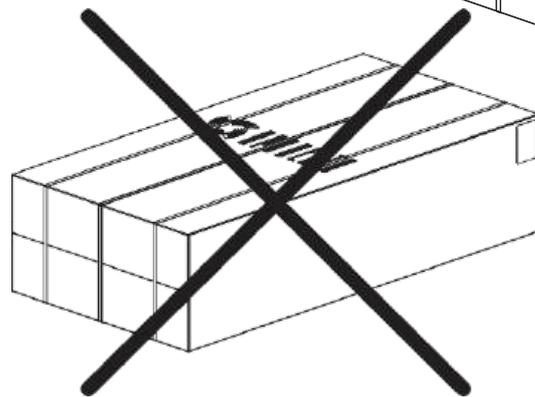
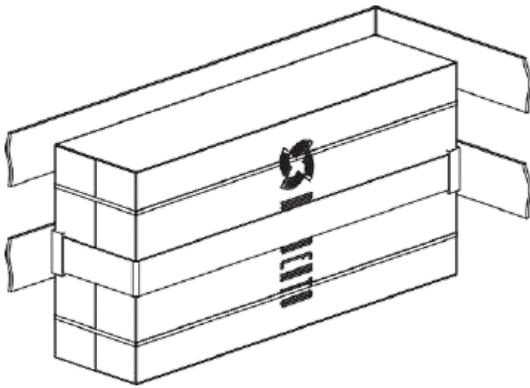
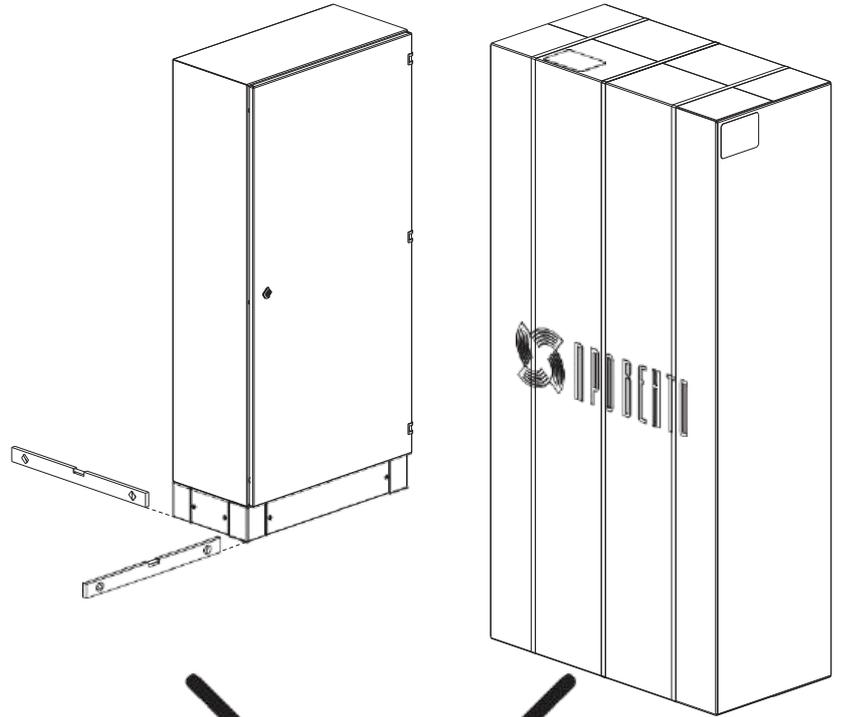
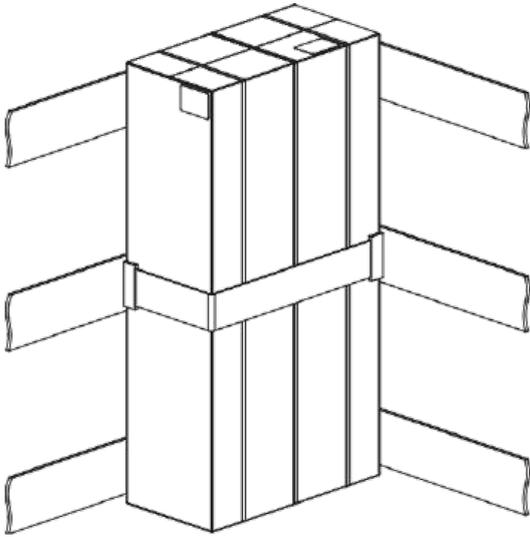


Code first digit	Degree of protection against contact and penetration of foreign bodies		Code first digit	Degree of protection against liquid ingress	
	Description	Explanation		Description	Explanation
0	no protection	no special protection is provided	0	no protection	no protection is provided
1	protection against penetration of solid bodies larger than 50 mm	impossibility to penetrate a large surface of the human body, like a hand, or solid objects with diameter larger than 50mm	1	protection against vertically falling water droplets	vertically falling water droplets must not cause damage to the product
2	protection against penetration of solid bodies larger than 12 mm	impossibility to penetrate fingers or similar objects with a maximum length of 80 mm or solid objects over 12 mm in diameter	2	protection against dripping water falling at an angle < 15° to the vertical	dripping water falling at any angle ≤ 15° to the vertical must not cause damage to the product
3	protection against penetration of solid bodies larger than 2.5 mm	impossibility to penetrate for tools wire, etc. with > 2.5 mm diameter or thickness or solids with > 2.5 mm diameter	3	protection against rain	rain falling at any angle ≤ 60° to the vertical must not cause damage to the product
4	protection against penetration of solid bodies larger than 1.0 mm	impossibility to penetrate for wire or plates > 1.0 mm thick or solids with > 1.0 mm diameter	4	protection against splashing water	water splashing onto the enclosure from any direction must not cause damage to the product
5	protection against harmful deposits of dust	incomplete protection against dust, however, dust penetrates in amounts that cause no impairment to the product normal operation	5	protection against water jets	water jets hitting the enclosure from any direction must not cause damage to the product
6	complete dust tightness	complete prevention of dust penetration	6	protection against waves	water waves or powerful jets must not penetrate the enclosure in amounts sufficient to damage the product
			7	protection against water penetration at temporary immersion	if the enclosure is immersed into water at a certain pressure and for a certain time, water must not penetrate in amounts sufficient to damage the product
			8	protection against water penetration at prolonged immersion	the product is able to be constantly immersed into water at conditions established by the manufacturer

Wall cabinets and boxes

**Attention!**

Install enclosures using a construction level

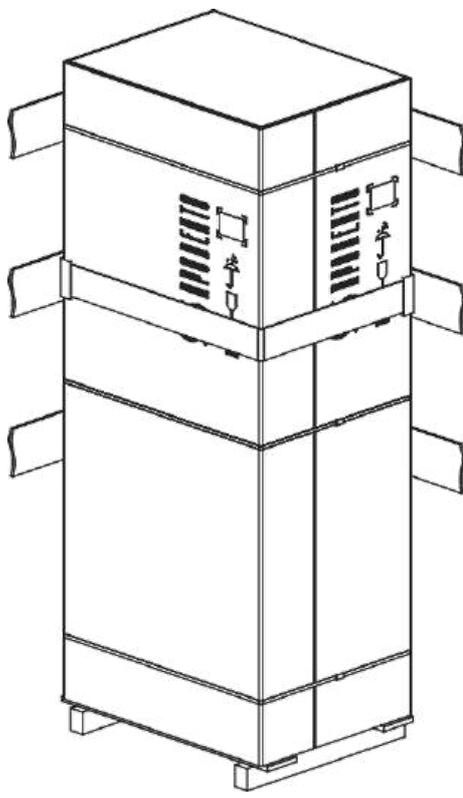
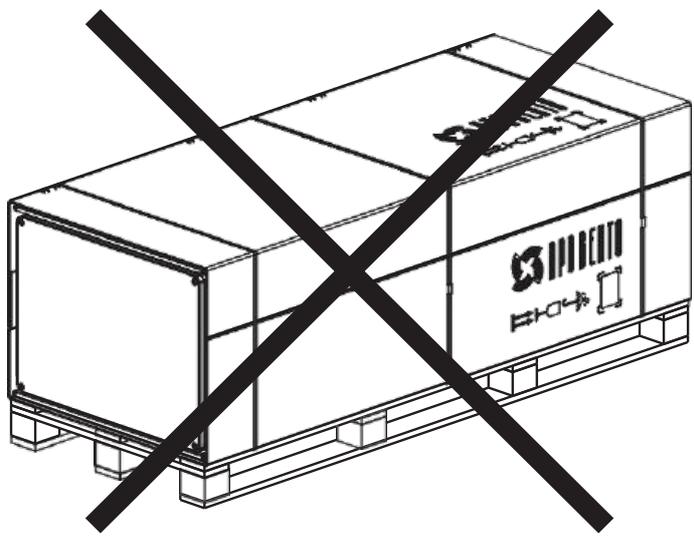
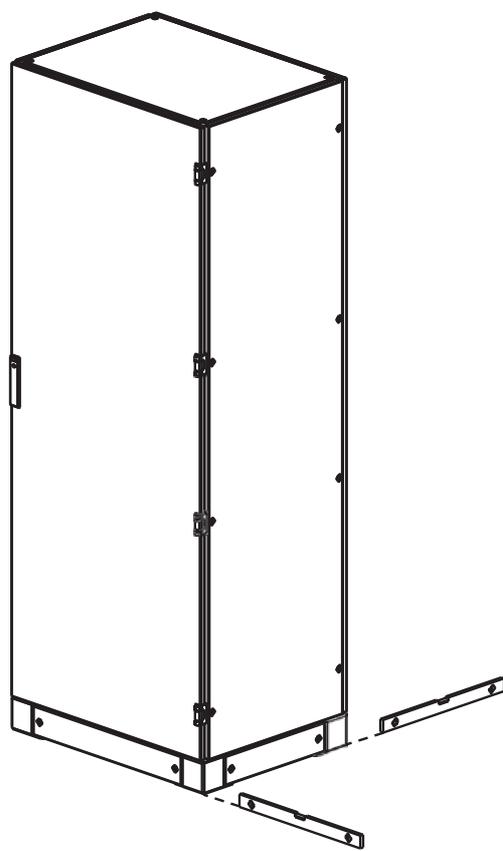


# TRANSPORTATION AND INSTALLATION

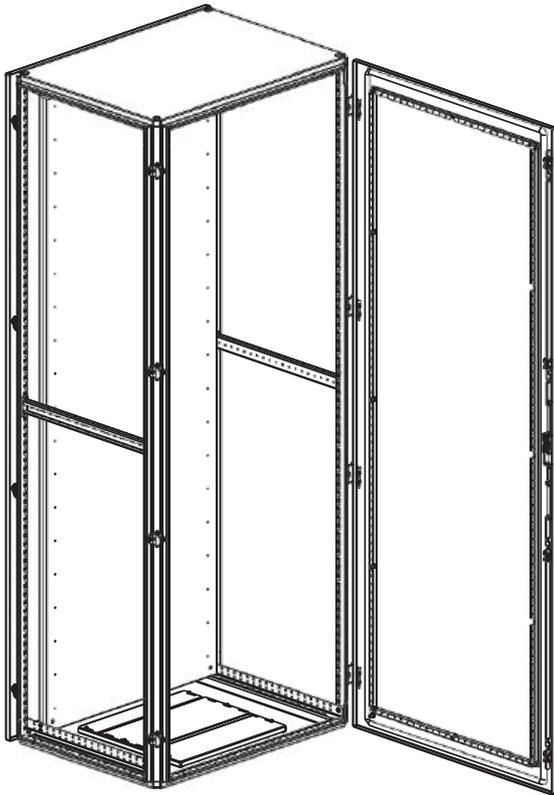
## Floor cabinets

### Attention!

Install enclosures using a construction level



## 2d and 3d models of electrical enclosures



To simplify the design process and save time, as well as to promote a unified design of projects, PROVENTO prepared 2d and 3d models of all electrical products:

- Automation enclosures
- Explosion-proof enclosures
- Enclosures for distribution and automation systems
- Enclosures for control equipment
- Enclosures for network and telecommunications equipment
- Accessories

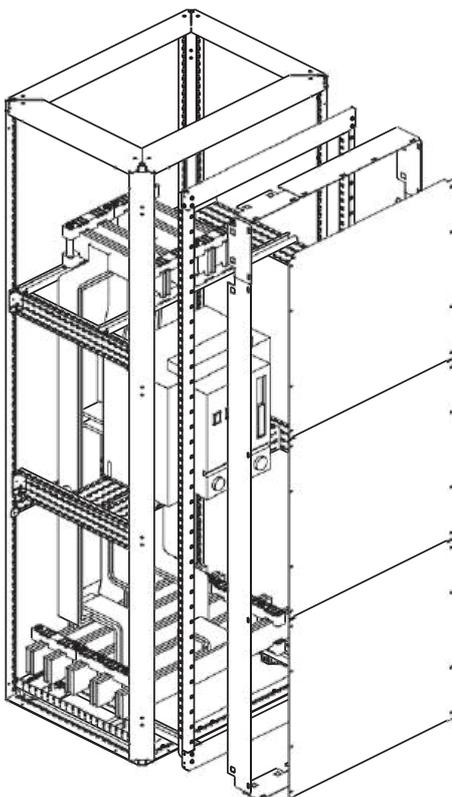
These models are prepared for use in CAD systems. You benefit from easy and fast integration of PROVENTO products into your CAD project. Due to their universal format, 2D and 3D models can be opened in all major CAD systems. You can request 2D and 3D models via the company website or by contacting our managers. In addition, a library of models was developed for the format of EPLAN end-to-end design platform.

## Guide to select standard LVP solutions

PROVENTO developed a Guide to Select Standard LVP Solutions to help you design your solutions more efficiently. This publication contains solutions to create LVPs in the field of electricity distribution made according to Form 1 of internal partitioning as per GOST R 51321.1-2007 and based on PROVENTO components. The solutions take into account the main features of constructing main distribution boards (MDB) and incoming switchgears (ISG):

- Possibility of using devices and busbar systems with currents up to 4000 A
- Possibility to install devices from different manufacturers
- Possibility to install commercial and technical grade energy meters
- Solutions to install equipment for automatic transfer systems (ATS)

You can download the Guide from the company website or by contacting our managers.



## PRODUCT CODE TABLE

Product code	Description	Page	Product code	Description	Page
AC X R	Ceiling air conditioner	241		Fan module	
B 0 B	Cover holder	185	FI X.230 (D)	Viewing window	245
B 10 IC	Cable organizer	251	FT X.Y (S)	Self-adhesive expandable seal	192
B 5.35 DR	DIN rail holder	210	G 20.40 G	Flat brush entry Corner	252
B 6 DP	Rod system gripper	227	G Y.3 B	brush entry Protective	249
B 6 DR		210	G Y.4 B GB	plank Separation plank	249
B 6 G	Console for 19" vertical rails at Mpx series cabinets (MF frame)	260	X R (S) GB		229
B 6 IG	Console for 19" vertical rails at Ipx series cabinets (IF frame)	260	Y		183
B 6 SP	Panel holder	227	GK X	Cable entry	246
B 8 MG	Crossbeam holder	201	GK X PG (M)	Polyamide cable entry	250
B 8.8 MG	Crossbeam holder	201	GKB X M	Brass cable entry	250
B X MP	Mounting panel retainer	199	GKS X M	Brass cable entry	251
BB 10 E (N)	Earthing and neutral grounding busbars	207	HD 122.40 P	Handle	227
BI 1.115 N	Neutral grounding busbars	207	HD 250.45 Z	Handle	227
BI 1.45 E (N)	Earthing and neutral grounding busbars	207	HD 180.45 ZP	Zinc hinge	191
BI 2	Busbar assembly holder	255	HD 180.90 ME	Steel hinge	191
BI 3	Busbar assembly holder	256	HD 180.90 SE	Stainless steel hinge	191
BI 3 U	Busbar assembly holder	258	HS 5.230 D	Hygrostat	236
BI 3.3	Busbar assembly holder	257	HT X D	Heater	234
BI X	Support insulator	258	IBS X.48.26 M	Crate	127
BP X.Y	Rear panel	108	ID X.Y	Internal door (floor cabinets)	184
C 12.82 F	Reinforced travel roller	222	ID X.Y	Internal door (wall cabinets)	186
C X.Y	Roller	222	IES X.60.54	Compact telecommunications cabinet	123
C X.Y T	Roller with brake	222	IEV X.60.54	Compact telecom. cabinet with viewing door	123
CK 05 (10).X	Busbar clamp	259	IEV X.60.55	3-section with viewing door	124
CL X EMC	Cable hold down clamp with EMC contact	259	IF X.Y.Z	Telecommunications frame	121
CL X	Cable clamp	259	IFO 24.57.74	Mounting rack telecommunications	126
CL X EMC	Cable hold down clamp with EMC contact	259	IFO X.57.00	Additional frame for telecom. rack	126
CR X.20	Cable panel	252	IG X (L)	Vertical rail 19" IT	260
CS 7035.01 (02)	Tinting paint	180	IK 01 (I)	Joint kit	223
D X.Y	Door	109	IK 01 C	Crossbeam join bracket	218
D X.Y D	Double door	109	IK 01 EQ X.Y.Z	Earthquake-resistant reinforcement kit	201
D X.Y I	Telecommunications door	121	IK 01 O	Exterior joint kit	225
D X.Y IK	Short telecommunications door	122	IK 01 ZA v.2	Plinth joint kit	226
D X.Y IP	Telecommunications door	121	IK 02 I	IFO rack joint kit	224
D X.Y IV	Viewing telecommunications door	121	IK 03	Control console joint kit	223
D X.Y M	Sectional door	181	IK 03 MP	Mounting panel joint kit	225
D X.Y MV	Sectional viewing door	181	IK 06 MP	at interior surface	199
D X.Y P	Perforated door	110	IK 06 MPO	at exterior surface	199
D X.Y V	Viewing door	110	IK 08 MG	Joint kit	199
DIODE-24/48DC-X	Diode module	167	IPV X.Y.Z	Telecom. cabinet with viewing door	119
DP 10.Y	End panel	183	KY 1C.Z	Cylinder lock key	189
DP 20.60 MK	Sectional flap door	182	KY 5DB.Z	Double bit zinc key	189
DP X.Y	Sectional panel	182	LA 5 LED	Luminaire	215
DP Y M	Document pocket	186	LA 5 LED M	Luminaire with magnetic holder	215
DP Y P	Plastic pocket	186	LA 5 LED S	Luminaire with motion sensor	215
DR X.Y	DIN rail	209	LA 5.024 LED M	Luminaire with magnetic holder 24 V	215
EK 6 (8)	Earthing kit	207	LC 1C.ZH	Zinc cylinder lock with rotary handle	189
EK 8 E	External earthing kit	207	LC 2C.Z	Handle w/o cylinder	190
EK 8 GP	Central earthing point	208	LC 3C.Z	Double bit handle	190
F X G3 (4)	Replacement filter	232	LC 4C.Z	Handle with triangle	190
F X.Y	Screw type support	221	LC 5 DB.Z (S)	Double bit zinc lock	189
FA 12.230 I	Fan	233	LE 12	Eye bolt	176
FA X.230 FD	Filter fan	230	LH 1C.Z	Rotary handle with cylinder	190
FC 02.230 P (PD)	Fan panel	237	LL 12	Bracket for transporting floor cabinets	226
FC X.230 (D)	Fan panel	238			
FF X D	Filter grid	230			

## PRODUCT CODE TABLE

Product code	Description	Page	Product code	Description	Page
MB 10.48 CLG	IT luminaire bracket	215	MP X.11	Intermediate mounting panel	205
MB 10.48 IC	19" panel with cable organizers	253	MP X.Y	Floor cabinet mounting panel	108
MB 10.48 IK	19" panel with brush cable entry	268	MP X.Y	Wall cabinet mounting panel	196
MB X.48 I	19" panel	268	MP X.Y B	Mounting panel for junction boxes	197
MB X.Y	Floor cabinet mod. blind panel	205	MP X.Y M	Sectional mounting panel	195
MB X.Y	Wall cabinet mod. blind panel	206	MP X.Y MP	Sectional mounting panel with perforation for floor cabinets	108
MB X.Y P	Mod. blind panel with cutout	205	MP X.Y P	for floor cabinets	108
MBS X.Y.Z	Junction box	17	MP X.Y PE	for wall cabinets	196
MBS X.Y.Z Ex	Explosion-proof box	63	MPD X.Y.Z	Two-door distribution cabinet	97
MBV X.Y.Z	Junction box with viewing cover	24	MPP X.Y.Z	Server cabinet	112
MBV X.Y.Z Ex	Explosion-proof junction box with viewing cover	67	MPS X.Y.Z	Distribution cabinet	81
MC 03 I	19" distribution enclosure	269	MPV X.Y.Z	Distribution cabinet with viewing door	93
MC 200.80 ID	Double-sided frame 19"	263	N X MF	Flanged nut	273
MC 200.80 IR	Rotary frame 19" for telecommunications cabinet	266	N X MR	Rectangular captive nut	273
MC 200.80 IRP	Rotary frame 19"	263	N X MS	Captive nut	273
MC 80.80 IRP	Rotary partial frame 19»	263	OK X EP	Pole mount kit	228
MC X.Y	Modular frame	202	PC 1 L.S	Lock protective cover for lead seals	191
MC X.Y	Modular chassis	186	PC 1 LH.M v.2	Lead sealing kit	191
MC X.Y R	Rotary modular frame	202	PK X.Y	Cable entry panel with knock out holes	253
MCS 56.Y.24 U	Console top section	135	PK Y.08 P	Cable entry panel	246
MCS 65.Y.40 B	Console bottom section	138	PK Y.13 G	Blind cable entry panel for compact cabinets	247
MCS X.Y.Z D (DK)	Console middle section	137	PK Y.Z GP (S)	Blind cable entry panel	247
MED X.Y.Z	Two-door compact distribution cabinet	44	PKV Y B	Narrow cable entry panel	249
MES 60.40.21 OD	FOCL compact cabinet	125	PKV Y P (PH)	Sliding cable entry panel	248
MES X.Y.Z	Compact distribution cabinet	26	PKV Y S (SH)	Stationary cable entry panel	248
MES X.Y.Z Ex	Compact explosion-proof cabinet	68	PL 09	Plastic blanking plug	273
MES X.Y.Z U	Control panel	131	PP X.Y MC	Touch protection	204
MEV X.Y.Z	Compact distrib. cabinet with viewing door	35	PS-1AC-24DC-X	Single-phase power supply	165
MF X.Y.Z	Frame	107	PV 38.21 IK	Panel with brush cable entry	244
MF X.Y.Z D	Frame with additional top entry	109	PV 38.Y I	Ventilation panel	243
MF Z D	Frame beam	248	PV 38.Y IF	Ventilation panel with filter	243
MG 48.03 I	Horizontal rail 19"	267	PV 38.Y IS	Blind panel 19"	244
MG X E	Internal mounting rail MG E	214	PV X.20	Ventilation louvre panel	236
MG X IT	Vertical rail 19"	260	PV X.20 S	St. steel vent. louvre panel	236
MG X MC	Modular vertical rail	203	PV Y.Z	with brush cable entry	242
MG X.02	Mounting crossbeam for external surface	200	PK R X FA (S)	Fan protective casing	232
MG X.04 C	Mounting crossbeam	200	R X.Y	for wall cabinets	178
MG X.04 CL	C Mounting crossbeam	200	R X.Y S	St. steel protective visor for wall cabinets	178
MG X.05 MP	CL Mounting panel reinforcement	213	R Y.24 C	End panel of console middle section	136
MG X.10 I	IF frame mounting rail	267	R Y.40 C	End panel of console bottom section	136
MG X.Y	Mounting rail MG	212	R Y.Z	for floor cabinets	177
MG X.Y IL	Mounting rail MG Z.09 IL	213	R Y.Z G	Blind ceiling panel	176
MG X.Y L v.2	Mounting rail MG L	212	R Y.Z I	Telecommunications ceiling panel	122
MG Y	Cable rail	251	R Y.Z IP	with brush cable entry	122
MG Y EMC	Cable rail with EMC contact	252	R Y.Z IK	Telecom. ceiling panel with perf.	122
MG Y.03 IL	Support rail	267	R Y.Z IP	Telecom. ceiling panel with perf.	122
MKM X.Y.Z	Computer cabinet	103	R Y.Z P	Ceiling panel with perforation	176
MN X.Y	Mounting grid	198	R Y.Z PK	Ceiling panel with perf. and cable entry	176
MN X.Y M	Sectional mounting grid	198	R Y.Z S	St. steel protective visor for floor cabinets	177
MP X.10 P	Flat mounting panel	214			
MP X.10 PL	Corner mounting panel	214			

# PRODUCT CODE TABLE

Product code	Description	Page	Product code	Description	Page
RV 32.23 L	Fan panel	240	T X.10 FB	Screw jumper	143
RV 38.38	Fan panel	239	T X.10 IB	Comb-shaped jumper	143
RV 38.38 L	Fan panel	240	T X-10 EC (N)	End cap	143
S 5.11	Self-tapping mounting screw	271	T X-16 PP	Terminal group separator	144
S 5.12 FT	Mounting screw thread forming	271	T X-16 SP	Jumper separator	143
S 5.12 FTS	Mounting screw thread forming	271	TB 4 D	Double clamp terminal	150
S 5.13 T	Self-tapping mounting screw	271	TB 4 DC	Terminal with knife disconnecter lever type	154 153
S 5.35 MBS	Mounting screw	270	TB 4 F	with disconnecter	152
S 6.25 MXS	Mounting screw	270	TB 6 T	Universal terminal	143
S X.16 M	Mounting screw	270	TB X (N)	Two-level terminal	151
S X.Y MX	Mounting screw	270	TB X DL	Universal earthing terminal	147
SBS X.Y.Z	St. steel junction box	21	TB X E	Universal earthing terminal	147
SBS X.Y.Z Ex	St. steel explosion-proof junction box	65	TS 6.230 NCD (NOD)	Temperature controller	235
SCD 91.120.49	St. steel control console	139	UPS-24DC- 24DC-20	Uninterruptible power supply	169
SCS 91.Y.49 SD	Mpx cabinet door stopper	139	VB X	Blind door rail for wall cabinets	188
SD 2 v2	Compact distribution cabinet door stopper	187	VB X G	Blind door rail for floor cabinets	188
SD P	Door stopper quick release	187	VB X GE	Blind door rail for wall cabinets	188
SD1	Control console door stopper	187	W X.Y.Z.L	Earth wire	208
SES X.Y.Z	St. steel compact distrib. cabinet	48	WB 12	Wall mount	180
SES X.Y.Z Ex	St. steel compact ex-proof cabinet	72	WB 6 (S), WB 8 (B),	C-clamps	179 179
SES X.Y.Z U	Stainless steel control panel	132	WB 8 S (8 BS)	Stainless steel wall mounting brackets	179
SH 45.Z I	Shelf 19"	264	WD 01	Cable duct support base	199
SH 48.Z I2	19" shelf attached at one plane	264	Z 100 (200)	Plinth corner component	217
SH 48.Z IM	19" pull-out shelf	265	Z 100 (200) D	Plinth double corner component	217
SH 48.Z IM2	attached at one plane	265	Z 100 (200) I	Telecom. plinth corner component	219
SH X.Z	Shelf	211	Z 100.Y I	Plinth side panel telecommunications	219
SH X.Z M	Pull-out shelf	211	Z 100.Y IK	telecommunications plinth	219
SH Y D	Rest	185	Z 100.Y IP	telecommunications	219
SK 12.25 (50)	Ceiling panel spacer	211	ZA 00.Z K v.2	Plinth side components wit brush cable entry	216
SK 6.70	Spacer	211	ZA 00.Z S v.2	Plinth side components stainless steel	216
SK 8.25 (50)	Compact cabinet spacer	211	ZA 00.Z v.2	Plinth side components	216
SK X D	Flap shelf for keyboard	193	ZA 60.100 IM	Telecom. plinth with roll-over protection	218
SP X.Y	Side panel for Mpx series cabinet (MF frame)	108	ZA X.00 P v.2	Plinth front and rear components with ventilation	216
SP X.Y I	Side panel with plinth ventilation	121	ZA X.00 S v.2	Plinth front and rear components stainless steel	216
SP X.Y N	Partition panel	194	ZA X.00 v.2	Plinth front and rear components	216
SP X.Z I	Telecommunications side panel	122	ZA Y.Z EQ	Earthquake-resistant plinth	201
SP X.Z IP	Telecommunications side panel with perf.	122	ZA Y.Z I	Telecommunications plinth	218
SPD X.Y.Z	Two-door distribution cabinet st.	101	ZH X.Y	Extended plinth	221
SPS X.Y.Z	St. steel distribution cabinet	90	ZL 150 G	Control panel horizontal mounting rack	229
SW 01	Limit switch	206	ZL 350 V	Control panel mounting rack vertical	229
T 10 MH	DIN rail marking holder	145	ZL X.Y G (V)	Mounting rack	229
T 10 MH CL	Marking holder at stopper of DIN rail	143	ZL Y.21	Mounting rack	228
T 2,5-4 SP DL	Spacer	151	AC X D	Wall mounted air conditioner	241
T 30 CL	Stopper for DIN rail	143			
T X MT	Marking strip	143			

<b>Frame beam</b>	<b>MF Z D</b>	<b>248</b>	<b>Plastic blanking plug</b>	<b>PL 09</b>	<b>273</b>
<b>Plinth side components</b>	<b>ZA 00.Z v.2</b>	<b>216</b>	<b>Double bit zinc lock</b>	<b>LC 5 DB.Z (S)</b>	<b>189</b>
– stainless steel	ZA 00.Z S v.2	216	– with cylinder and rotary handle	LC 1C.ZH	189
– with brush cable entry	ZA 00.Z K v.2	216	<b>Rod system gripper</b>	<b>B 6 DP</b>	<b>227</b>
			<b>Touch protection</b>	<b>PP X.Y MC</b>	<b>204</b>
<b>Flat brush entry</b>	<b>G Y.3 B</b>	<b>249</b>			
Corner brush entry	G Y.4 B	249	<b>Single-phase power supply</b>	<b>PS-1AC-24DC-X</b>	<b>165</b>
<b>Fan</b>	<b>FA 12.230 I</b>	<b>233</b>	<b>Uninterruptible power supply</b>	<b>UPS-24DC-24DC-20</b>	<b>169</b>
- filter	FA X.230 FD	230			
<b>Console top section</b>	<b>MCS 56.Y.24 U</b>	<b>135</b>	<b>Cable entry</b>	<b>GK X</b>	<b>246</b>
<b>Mounting screw</b>	<b>S X.16 M</b>	<b>270</b>	– polyamide	GK X PG (M)	250
	S X.Y MX	270	– brass	GKB X M	250
	S 5.35 MBS	270	– brass	GKS X M	251
	S 6.25 MXS	270	<b>Cable clamp</b>	CL X	<b>259</b>
– self-tapping	S 5.11	271	– organizer	B 10 IC	251
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