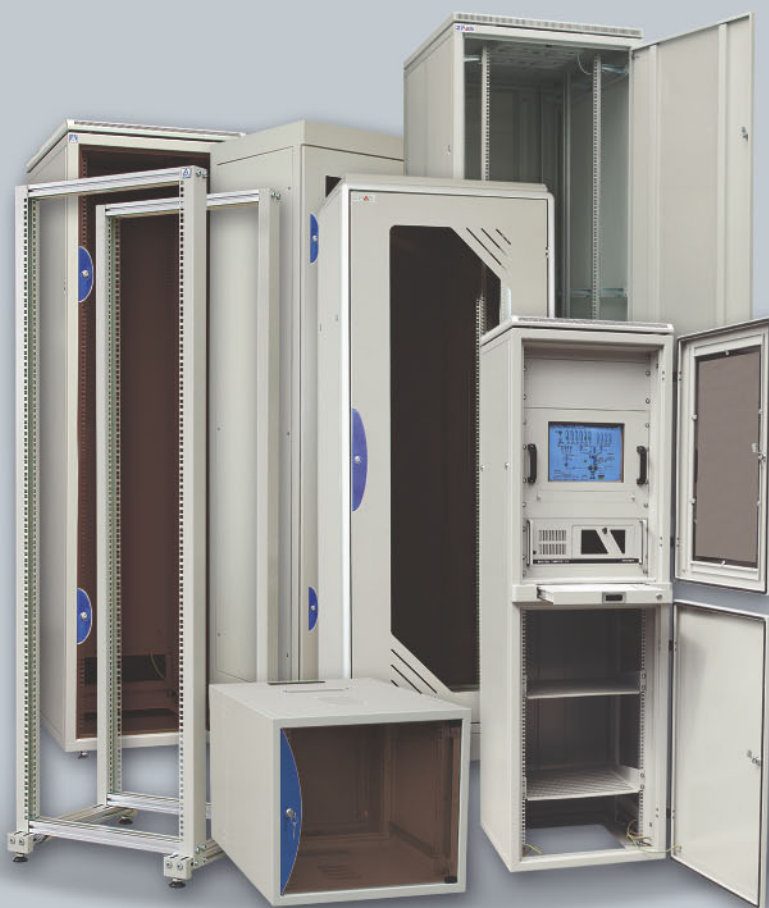


DATA AND TELECOMMUNICATION ENCLOSURES



CATALOGUE

2004



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DATA AND TELECOMMUNICATION ENCLOSURES

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DATA AND TELECOMMUNICATION ENCLOSURES

Zakład Produkcji Automatyki Sieciowej S.A.



Company Overview

Zakład Produkcji Automatyki Sieciowej (ZPAS) is located in Przygórze, the commercial area of the picturesque Nowa Ruda valley, situated in southwest Poland. A good transportation infrastructure allows for quick and easy access to all major European cities.

ZPAS was founded in 1973 on the former site of the Świdnica Rail Wagon Factory and the Nowa Ruda coal mine "Bolesław". ZPAS has over 30 years' experience as a technology-based company, with its core roots in power system automation including EMC research and development, and quickly progressed to be a key Research and Manufacturing Centre in Poland - when originally formed, ZPAS was the Experimental Department of the Power System Automation Institute based in the neighbouring city Wrocław, then in the 1980s it became a part of the Research and Manufacturing Centre for Power System Automation.

During 1989 the company was privatised and in 1992 it became a joint-stock company. In 2004 the company was split into two separate entities, one called ZPAS S.A. and ZPAS-NET Sp. z o.o., each one focusing on different product lines.

Modern, high-tech equipment and highly-educated, fully-trained personnel ensure that the highest quality standards and flexibility is maintained throughout the company. During 2000-2003 ZPAS S.A. built 2 new production facilities (with a total production area of 10 000 m²) which doubled the size of the previous production area. These new facilities maintain the historical character of the 19th century industrial architecture of the former site, and the buildings house an automated production line for sheet metal fabrication, an automated powder paint shop (close to 2 000 m²), and a fully integrated technical production facility.

ISO

ZPAS S.A. has achieved both Quality Assurance System certification to ISO 9001:2000 and Environmental Management System certification to ISO 14001:1996.



Gateway to the plant



Administration Building

Product line-up

ZPAS and ZPAS-NET's main focus of business activity is aimed at the IT Industry. The physical products are typically used to house and protect technology equipment in the telecommunications, datacommunications and power industry systems.



View of the upper part of the plant

Company Overview



Lower part of the plant - view from northwest

ZPAS product line-up:

- 19" and 21" data telecom enclosures (incl. server, telecommunication, EMC and other floor standing and wall-mounted cabinets),
- industrial enclosures without electrical wiring (SZE2 cabinets and wall-mounted SWN cabinets),
- tailor made enclosures,
- products made of stainless and acid-proof steel.

ZPAS-NET product line-up:

- structured cabling and telecommunication accessories,
- outdoor cabinets,
- switch cabinets with electrical wiring,
- dispatch and control desks,
- mosaic mimic systems,
- system of climatic control "ZPAS-Control M-Bus",
- supervising system "ZPAS Control Overseer".



Lower part of the plant - view from southwest

Company Overview



Company Overview

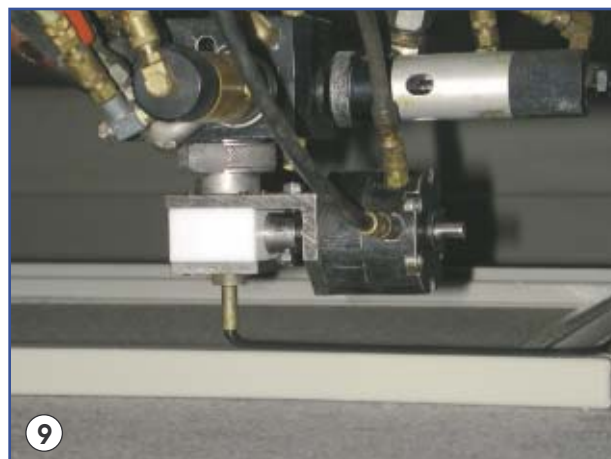


photo 6: automated powder paint shop, photo 7: numerically controlled punching machinery, photo 8-9: robotic sealant machinery.

ISO 9001, ISO 14001

INTEGRATED SYSTEM OF QUALITY, ENVIRONMENTAL, SAFETY AND OCCUPATIONAL HYGIENE MANAGEMENT

All manufacturing processes are included in the "Audit of Integrated System of Quality, Environmental, Safety and Occupational Hygiene Management", based on guidelines from the following standards: PN-EN ISO 9001:2001, PN-EN ISO 14001 and PN-N-18001. The aforementioned Audit ensures that all processes are documented and adhered to within ZPAS S.A. The certificates awarded to ZPAS S.A. - ISO 9001 (since 1998) and ISO 14001 (since 2001) - validates our compliance to these standards.



INTEGRATED POLICY OF QUALITY, ENVIRONMENT AND INDUSTRIAL SAFETY

As a manufacturer we follow an integrated policy that promotes confidence and peace-of-mind as a reliable partner, providing high product quality, excellent service, quick lead-times, all at a reasonable price level.

The quality of our products, as well as their production process is planned to protect the environment while maintaining the maximum safety to our employees and the satisfaction of our customers, suppliers and local environment surrounding our facilities.



GUARANTEE

*** GUARANTEE ***

5 YEARS

Both ZPAS and ZPAS-NET offer a 5 year Guarantee on all manufactured products.

Note: ZPAS S.A. reserves the right to change the construction of its products without prior notice.

References



Collocation racks DSR installed in the internet server room by OVH in Paris (France).



Server room equipped with SZB SE cabinets. Installation was done by MCP Ltd. from Kraków, Poland (<http://www.mcp.pl>).



References



Main distribution room in Stock Exchange Warsaw building. The whole system is designed and manufactured on the basis of SZB cabinets. Installation done by ALMA SA. from Poznań (Poland) - <http://www.alma.biz.pl>



Stub-end station in the branch of Telefonía Polska - Zachód Sp. z o.o. in Stargard Szczeciński. Installation is designed and manufactured using SZB cabinets, done by VECTOR Sp. z o.o. from Gdynia (Poland) - <http://www.vector.com.pl>



SZB cabinets installed in headquarters of BPT "TELBANK" S.A. in Warsaw (Poland).

As a manufacturer of data & telecom enclosures ZPAS S.A. is collaborating with well-known names in Poland and abroad, such as:

- ALMA,
- ALSTOM,
- C&C PARTNERS TELECOM,
- CERN,
- CITY BANK HANDLOWY,
- COMPUTERLAND,
- ELEKTROSKANDIA,
- ELTEK,
- ELTEL NETWORKS,
- EMERSON,
- ERICSSON,
- IBM,
- LUCENT TECHNOLOGIES,
- MOLEX,
- OPTIMUS,
- OSP POLPAGER,
- PCSS,
- PKN ORLEN,
- POLKOMTEL,
- PROKOM SOFTWARE,
- QUMAK INTERNATIONAL,
- SIEMENS,
- SOFTBANK,
- SOLIDEX,
- TALEX,
- TEL ENERGO,
- TELEKOMUNIKACJA POLSKA,
- WINUEL,
- ZAKŁAD SYSTEMÓW KOMPUTEROWYCH ZSK.

In many places in Poland, it is possible to see enclosures produced by ZPAS S.A. with installed equipment and elements of structural cabling, which are parts of data communication system. There are placed in:

- Bank Spółdzielczy,
- Bank Zachodni,
- Stock Exchange in Warsaw,
- Lukas Bank,
- NASK Warsaw and Wrocław,
- Polish Olympic Committee in Warsaw,
- PKP (Polish Railways),
- Airport in Wrocław,
- PKO bank,
- PKN Orlen petrol stations,
- TVP (Polish TV),
- Cable TV,
- TV Polsat in Warsaw,
- TVN24 in Warsaw,
- ZUS (Polish social insurance company).

Floor-standing cabinets



SZB



SZBk



SZB PC



SZB SE



DSR



SZA



SZT



SZT-1



SZT-2

FLOOR-STANDING CABINETS

SZB 19" cabinet

STANDARD UNIVERSAL DATA COMMUNICATION CABINET

- Intended for indoor applications.
- Offered in 44 variations of size (look at chart on page 13), among which 17 variations are in constant sale from our warehouse.
- Individual configuration:
 - multiple door, panel, roof options for maximum flexibility,
 - ability to join cabinets in a row,
 - levelling feet, castor, or plinth options,
 - multiple alternative cable entry options (brush, foam),
 - 21" mounting profiles also possible (in 800 mm wide cabinets),
 - individual configuration using simple coding
- Wide range of supplementary accessories: shelves, drawers, fan units, power distribution units, blanking plates etc.
- Flexibility in manufacturing tailor made cabinets.

SUPPLY INCLUDES

Cabinet in standard configuration
(cat. no. SZB-xxx-17AA-11-0000):

- frame,
- safety glass front door,
- two side panels,
- steel rear door shortened with 3 U module panel with brush strip, lockable,
- standard roof, raised, with perforated sides,
- 2 pairs of 19" mounting profiles,
- grounding bar and cables,
- cabinet placed on levelling feet.

*) other configuration - see page 13.

TECHNICAL DATA

Material:

Frame	- 2.0 mm thick sheet steel
Side panels	- 1.0 mm thick sheet steel
Steel doors:	
- solid door	- 1.0 mm thick sheet steel
- steel door with Plexiglas	- 1.5 mm thick sheet steel, 4.0 mm thick Plexiglas
- steel door with glass	- 2.0 mm thick sheet steel, 6.0 mm thick safety glass
Glass door	- 6.0 mm thick safety glass
Mounting profiles	- 2.0 mm thick sheet steel

Protection degree:

IP 20 in accordance with PN 92/E-08106 / EN 60529 / IEC 529.

On request, IP 41 can be achieved.

Surface finishing:

Frame, roof, panels, doors, plinth - textured powder paint, light grey (RAL 7035).

All other colour options on request.

Mounting profiles - Al-Zn coated.

Outriggers for 800 mm wide cabinets - galvanised.



SZB cabinet 600 mm wide, glass front door



SZB cabinet 600 mm wide, steel front door with Plexiglas

SZB 19" cabinet



SZB cabinet 600 mm wide, steel front door with glass and rod-latch lock



SZB cabinet 800 mm wide, steel front door with perforation

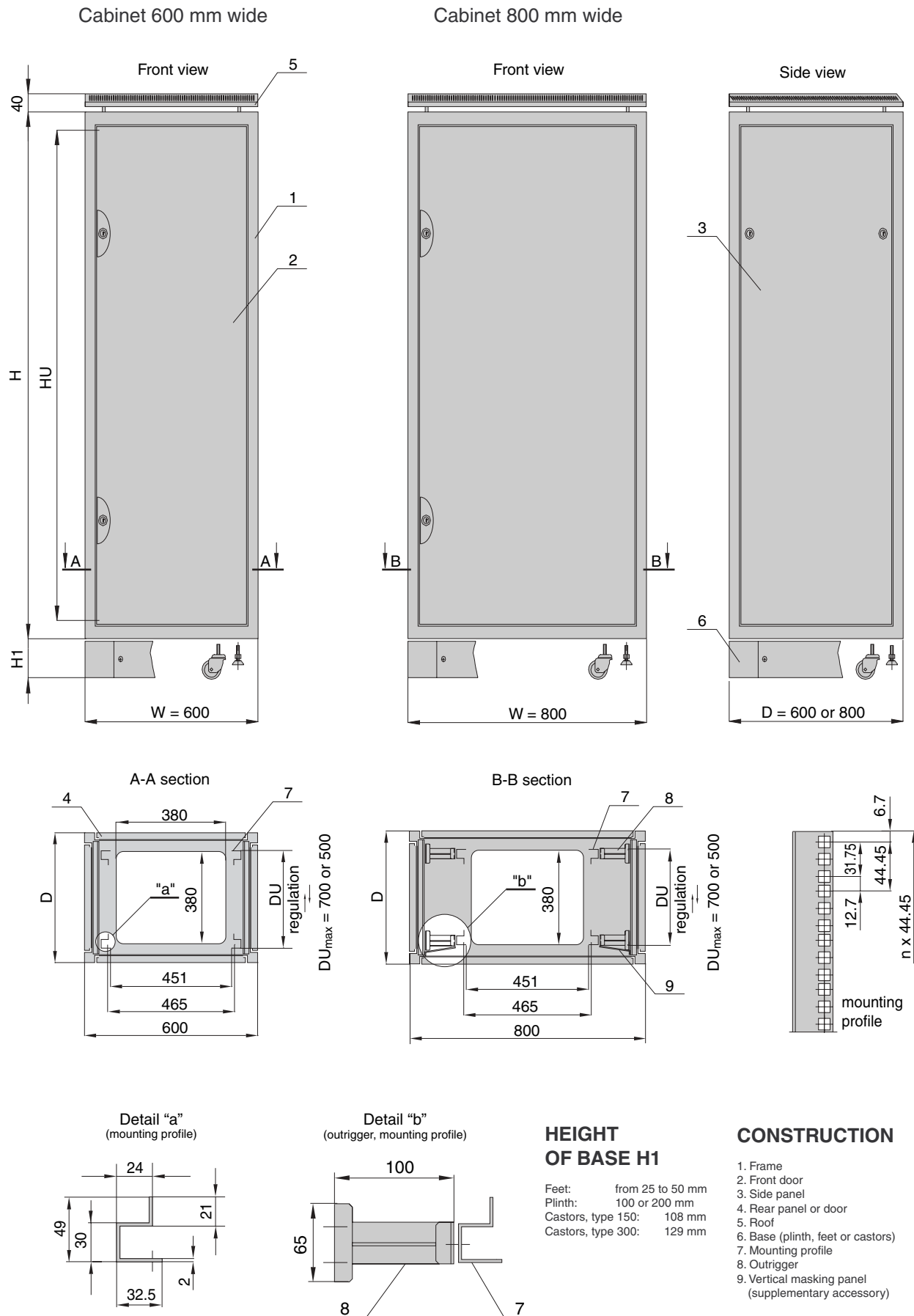


SZB cabinet 600 mm wide, glass front door.
Right side - steel door shortened with 3 U module panel with brush strip



SZB cabinet 800 mm wide, steel front door with Plexiglas and perforation

SZB 19" cabinet



SZB 19" cabinet

REFERENCE CHART

Total width W [mm]	Total depth D [mm]	Reference number										
800	800	5	17	145	53	149	153	157	89	161	101	113
	600	6	18	146	54	150	154	158	90	162	102	114
600	800	9	21	147	57	151	155	159	93	163	105	117
	600	10	22	148	58	152	156	160	94	164	106	118
Usable height HU [U = 44.45 mm]		45 U	42 U	39 U	36 U	33 U	30 U	27 U	24 U	21 U	18 U	15 U
Frame height H [mm]		2096	1963	1830	1696	1563	1430	1296	1163	1030	896	763

- Note:
- Cabinet options in the red shaded fields are available in constant supply from ZPAS S.A.'s warehouse (this refers to cabinets with the following configuration: frame, four adjustable mounting profiles, two side panels, front glass door, lockable steel rear door shortened with 3 U module panel with brush strip, standard roof with perforation, four levelling feet, grounding bar and grounding cables for the door, panels and roof).
 - Lead time of other cabinets to be agreed upon with ZPAS Marketing and Sales Department.

CATALOGUE NUMBER OF SZB CABINET

Reference number
specifies cabinet's overall dimensions (see reference chart). Zeros should be added before single-digit or double-digit numbers. (Note: Cabinets with expanded side panels are only manufactured in the following ref. numbers 9, 21 and 147.)

Roof type:
1 - standard roof,
2 - roof with extra perforation,
3 - tight roof IP 41,
4 - roof with opening for blanking/cable entry plate*,
5 - roof with brush opening*,
6 - roof with two brush openings*,
7 - roof with rear brush opening**.

*) PWD fan unit is not allowed.
) The option of simultaneous cable entry through the roof and PWD fan unit mounting.

SZB - XXX - XXXX - XX - XXXX

FRONT REAR LEFT SIDE RIGHT SIDE

Door or panel type:
0 - without any doors or panels,
1 - glass door,
2 - steel door,
3 - steel door with perforation,
4 - steel door with Plexiglas,
5 - steel door with Plexiglas and perforation,
6 - steel door, shortened + 3 U module panel with blanking plate,
7 - steel door, shortened + 3 U module panel with brush strip,
8 - steel door, shortened + 6 U module panel with 2 blanking plates,
9 - steel door, shortened + 6 U module panel with 2 brush strips,
A - steel panel,
B - steel panel, shortened + 3 U module panel with blanking plate,
C - steel panel, shortened + 3 U module panel with brush strip,
D - steel panel, shortened + 6 U module panel with 2 blanking plates,
E - steel panel, shortened + 6 U module panel with 2 brush strips,
F - expanded steel side panel (specially designed for SZB cabinets with expanded side panels - see page 16),
G - steel door with glass and rod-latch lock (specially designed as front or rear door for cabinets higher than 18 U).

Base type:
0 - without any base (cabinet set directly on bottom plate),
1 - levelling feet,
2 - castors - type 150 (see page 58),
3 - castors - type 300 (see page 58),
4 - plinth 100 mm,
5 - plinth 100 mm with levelling ability,
6 - plinth 200 mm,
7 - plinth 200 mm with levelling ability,
8 - plinth 200 mm, widened (specially designed for SZB cabinets with expanded side panels - see page 16).

FRONT REAR LEFT SIDE RIGHT SIDE

Configuration of plinth's sides:
Four digits which specify plinth's side type.
Four zeros (0000) for cabinet without any plinth.

Each side can be:

1 - solid		
2 - with perforation		
3 - with double perforation*		
4 - with brush opening		
5 - with two brush openings		
6 - with brush opening and perforation*		

*) Only for plinths 200 mm.
Detailed description of plinths - see pages 56-57.

NOTE:
Delivery of standard SZB cabinet (except the elements listed in cat. no.) includes the following: four mounting profiles, grounding bar and grounding cables for doors, panels and roof.

Example:
The cat. no. SZB-018-1AAA-14-2422 means SZB cabinet, usable height 42 U, width 800 mm, depth 600 mm. Cabinet is equipped with front glass door, rear door and side panels are made of removable steel panels. The top is covered with the standard roof. Cabinet is situated on 100 mm plinth. Rear side of the plinth with brush opening for cable entry, all other sides are perforated. Doors, panels and roof are grounded. Cabinet interior is equipped with four mounting profiles installed to the frame by means of 8 outriggers.

ORDERING INSTRUCTION

1. When ordering the SZB cabinet, please provide the appropriate **catalogue number according to the above information**, which specifies the overall dimensions, type of doors, panels, roof and base.
2. Next step is to specify **catalogue numbers of supplementary accessories** (such as: shelves, blanking plates, power distribution units, fan units etc. - see pages 55-84). Supplementary accessories are delivered in separate packaging including fixing hardware. On request it is also possible to mount supplementary accessories in the cabinet.

Examples of SZB cabinets



Rear door shortened and 3 U module panel with removable blanking plate



Rear door shortened and 3 U module panel with removable brush strip



Module panels can be equipped with removable blanking plates, brush strips or foam strips - see pages 60-61



Rear door shortened and 6 U module panel with two removable brush strips

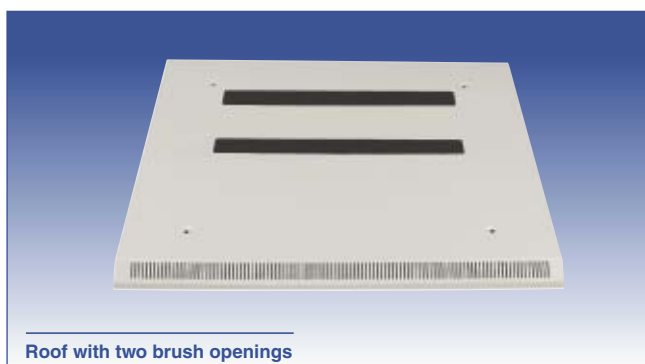
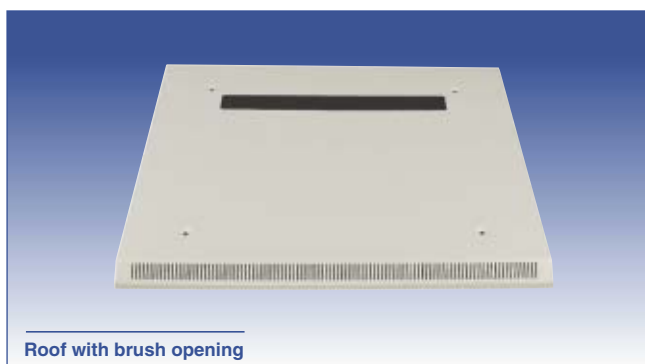
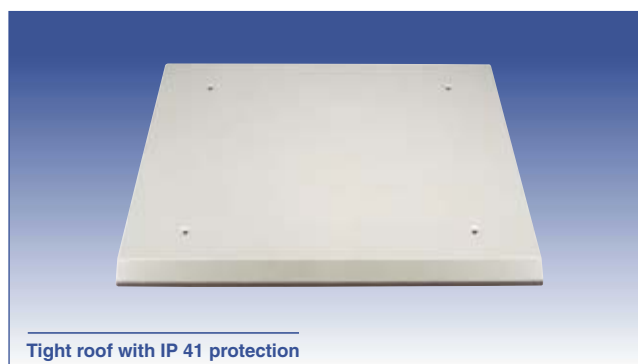
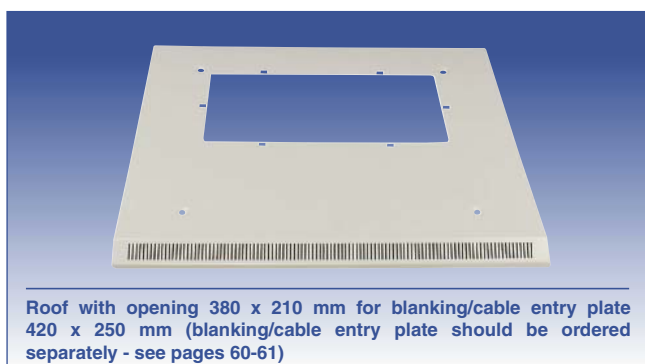
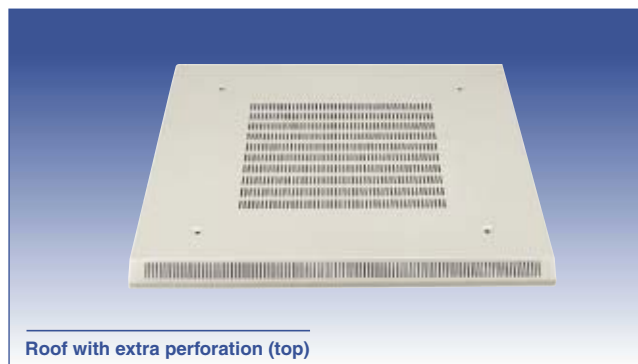
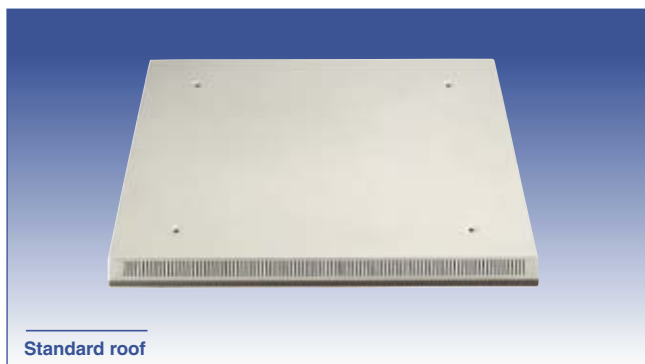


3 U module panel with removable blanking plate - view from the interior of the cabinet

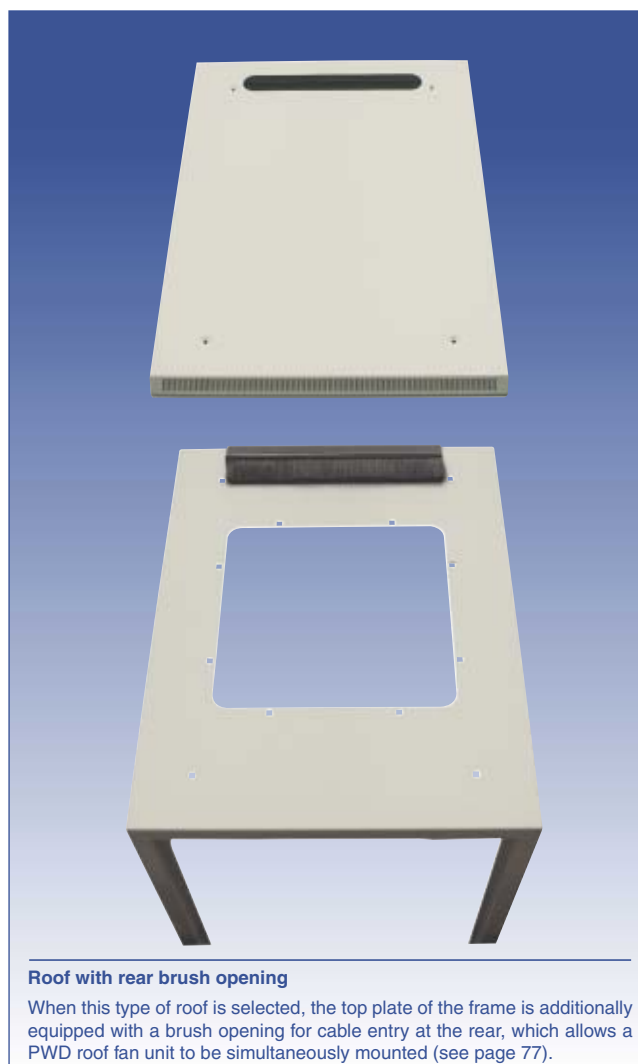


6 U module panel with two removable brush strips - view from the interior of the cabinet

Examples of SZB cabinets



In the above three roofs, the cables can enter through the 380 x 380 or 380 x 210 mm openings in the top plate of the frame, which could be additionally equipped with fibre cable entry plate (page 61). With these configurations, it is not possible to mount a PWD fan unit in the roof (page 77).



SZB cabinets with expanded side panels

SPECIAL DATA TELECOM CABINET

- Designed for installing in rooms with limited outside access.
- The construction of the cabinet is based on the SZB 600 x 800 mm frame, while the expanded panels widen the cabinet to 800 mm.
- Cabinets are manufactured in 3 dimensions (in accordance with the reference chart shown below).
- Base of the cabinet - specially widened plinth 200 mm (to fit the side panels to).
- Usage of feet or castors is not recommended due to its stability.
- Wide range of supplementary accessories - shelves, drawers, fan units, power distribution units, grounding bar, blanking plates etc.
- Possibility to choose various types of front and rear door, as well as roofs, like in standard SZB cabinet.

REFERENCE CHART

Reference number of SZB cabinet	Usable height of SZB cabinet [U = 44.45 mm]	Dimensions of frame height x width x depth [mm]
9	45 U	2096 x 600 x 800
21	42 U	1963 x 600 x 800
147	39 U	1830 x 600 x 800

NOTE:

Ordering instruction for SZB cabinets with expanded side panels is in accordance with the one on page 13 and enables to identify particular elements of the cabinet.



Brush opening in the rear side of the plinth (optional configuration)



SZB cabinet with expanded side panels

Examples of non-standard SZB cabinets



SZB cabinet 1000 mm wide, double-sectioned. Left section equipped with 19" mounting profiles. Right section with mounting angles in 300 mm spacing. Tailor made.



SZB cabinets 42 U height, 800 mm wide with 10 U swing frame. Non-standard version (detailed description of swing frames - see page 70).



SZB cabinet 800 mm wide divided into two parts - tailor made

SZBk 19" cabinet compatible with EMC standard

SHIELDED CABINET FOR APPLIANCES WHICH REQUIRE PROTECTION FROM HIGH ELECTROMAGNETIC INTERFERENCE

- Cabinet designed for indoor usage in rooms with working appliances which emit electromagnetic waves.
- Compatible with EMC requirements.
- Cabinet has received independent certification which acknowledges its shielding protection effectiveness:
 - certificate of Institute of Telecommunication and Acoustic, Polytechnic of Wrocław,
 - certificate the Agency of Security, Warsaw.
- Cabinet can be equipped with optional ventilation and power cabling system, EMC protected.
- Cabinet can be equipped with some elements of supplementary accessories of SZB cabinets - plinths or castors, shelves, power distribution units etc.
- Non-standard versions on customer's request.

SUPPLY INCLUDES

- frame,
- solid steel front door,
- two side panels,
- rear panel,
- standard roof,
- blanking plates for top and bottom plate of the frame,
- 2 pairs of 19" mounting profiles,
- grounding bar and cables,
- set on levelling feet,
- doors, panels, and roof fitted with a special conductive EMC seal.

CERTIFICATE OF ELECTROMAGNETIC PROTECTION

FAC-006

JEDNOSTKA CERTYFIKUJĄCA
DEPARTAMENT BEZPIECZEŃSTWA TELEINFORMATYCZNEGO
AGENCJA BEZPIECZEŃSTWA WYMNĘTRZNEGO

**CERTYFIKAT OCHRONY
ELEKTROMAGNETYCZNEJ nr 393/2002**

Certyfikowany wyrób: Obudowa ekranująca typ SZBK 42Ux600x800

Producent wyróbu: Zakład Produkcji Automatyki Sieciowej S.A.
Przygórze 209, 57-431 Wolińsk k. Nowej Rudy

Wzrostkodowca: Zakład Produkcji Automatyki Sieciowej S.A.
Przygórze 209, 57-431 Wolińsk k. Nowej Rudy

Kryteria oceny: Norma MIL-STD 285
Procedura pomiarowa PPL0E-3

Data wykonania badań: 22 - 24.10.2002 r.
Dokumentacja badań: Protokół nr 17/2002/A z dnia 29.10.2002 r.
Protokół nr 17/S/2002/A z dnia 29.10.2002 r.

Podmiot ochrony: - poziom tłumienia promieniowania elektromagnetycznego, dla składowej elektrycznej, jest nie mniejszy niż 30 dB,
- poziom tłumienia promieniowania elektromagnetycznego, dla składowej magnetycznej, jest nie mniejszy niż 21 dB

Data ważności certyfikatu: bezterminowo

Wykorzystanie certyfikowanego wyróbu jako środka ochrony elektromagnetycznej dla przeciwdziałania interferencji szkodliwych w rozumieniu przepisów Ustawy z dnia 22 stycznia 1999 r. o ochronie informacji niejawnych (Dz. U. nr 11, poz. 95, z 1999 r. z zm.) wymaga przeprowadzenia jego badań wraz z wyposażeniem.

KIEROWNIK JEDNOSTKI CERTYFIKUJĄCEJ
mgr inż. Grzegorz Małacki

DYREKTOR DEPARTAMENTU BEZPIECZEŃSTWA TELEINFORMATYCZNEGO AGW
mgr inż. Krzysztof Jaszczyński

Warszawa, 2002-10-30

DEPARTAMENT BEZPIECZEŃSTWA TELEINFORMATYCZNEGO AGW, ul. ŚW. KRZYŻA 2A, 00-908 WARSZAWA
TEL. 664-71-75, 66-46-21, 66-46-22, FAX 66-46-23

Strona 1 z 8



SZBk cabinet 600 wide

TECHNICAL DATA

Material:

Frame	- 2.0 mm thick sheet steel
Side panels	- 1.5 mm thick sheet steel
Doors	- 1.5 mm thick sheet steel
Mounting profiles	- 2.0 mm thick sheet steel
Roof	- 1.0 mm thick sheet steel

Protection degree:

IP 61 in accordance with PN 92/E-08106
/ EN 60529 / IEC 529.

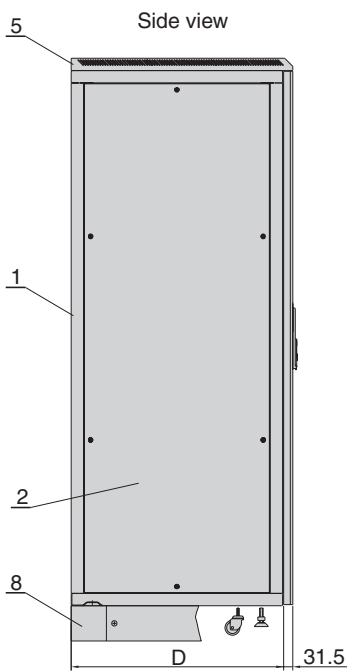
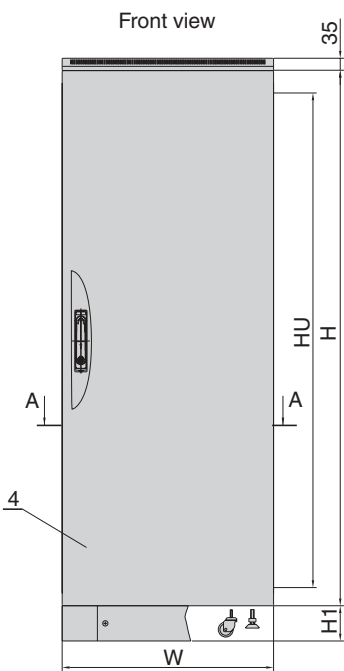
Surface finishing:

Frame, roof, panels, doors, plinth - textured powder paint, light grey (RAL 7035).

All other colour options on request.

Mounting profiles - Al-Zn coated.

SZBk 19" cabinet compatible with EMC standard

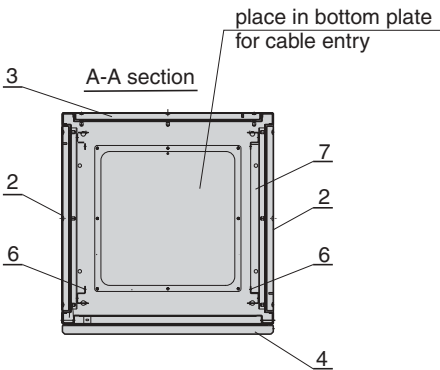


CONSTRUCTION

1. Frame
2. Side panel
3. Rear panel
4. Front door
5. Roof
6. Mounting profile
7. Grounding bar
8. Base (plinth, levelling feet or castors)

HEIGHT OF BASE H1

- Feet: from 25 to 50 mm
Plinth: 100 or 200 mm
Castors, type 150: 108 mm
Castors, type 300: 129 mm



CATALOGUE NUMBER OF SZBk CABINET

SZBk - XXX

Reference number
specifies dimensions of the cabinet
(see reference chart). Zeros should
be added before single-digit
or double-digit numbers.

Note:
Plinth or castors are optional supplementary accessories in SZBk cabinet and should be ordered separately (see page 56-58).

REFERENCE CHART

Total width W [mm]	Frame's depth D [mm]	Reference number					
800	800	1	5	9	13	17	21
	600	2	6	10	14	18	22
600	800	3	7	11	15	19	23
	600	4	8	12	16	20	24
Usable height HU [U = 44.45 mm]		45 U	42 U	40 U	38 U	32 U	24 U
Frame's height H [mm]		2096	1963	1874	1785	1519	1163

SZB PC 19" computer cabinet

DESIGNED FOR COMPUTER EQUIPMENT PROTECTION AND PREVENTS FROM UNAUTHORIZED ACCESS

- Designed for indoor usage.
- Wide range of supplementary accessories: keyboards, shelves, drawers, fan units, power distribution units, blanking plates etc.
- Optional cable entries.
- Easy coding system enables quick configuration (see page 22).
- Non-standard versions on customer's request.

SUPPLY INCLUDES

Standard configuration*
(cat.no. SZBPC-xxx-16AA-11-0000-4):

- frame with fixed universal keyboard drawer,
- two side panels,
- double front door: lower - solid, upper - with Plexiglas,
- steel rear door, shortened with 3 U solid module panel with blanking plate,
- standard roof,
- 2 pairs of 19" mounting profiles,
- grounding bar and cables,
- set on levelling feet.

*) For other configuration see chart on page 22.



SZB PC cabinet 600 mm wide

TECHNICAL DATA

Material:

- | | |
|-----------------------|-----------------------------|
| Frame | - 2.0 mm thick sheet steel |
| Side panels, | |
| roof and solid doors | - 1.0 mm thick sheet steel |
| Steel door with glass | - 1.5 mm thick sheet steel, |
| | 4.0 mm thick safety glass |
| Mounting profiles | - 2.0 mm thick sheet steel |

Protection degree:

IP 20 in accordance with PN 92/E-08106
/ EN 60529 / IEC 529.

Surface finishing:

- Frame, roof, panels, doors, plinth
- textured powder paint, light grey (RAL 7035).
All other colour options on request.

Mounting profiles - Al-Zn coated.

Outriggers - galvanised.



SZB PC 19" computer cabinet



SZB PC cabinet 800 mm wide

SZB PC 19" computer cabinet

REFERENCE CHART

Total width W [mm]	Frame depth D [mm]	Reference number			
800	800	1	5	9	13
	600	2	6	10	14
600	800	3	7	11	15
	600	4	8	12	16
Usable height HU [U = 44.45 mm]		45 U	42 U	39 U	36 U
Frame height H [mm]		2096	1963	1830	1696

CATALOGUE NUMBER OF SZB PC CABINET

Reference number
specifies cabinet's overall dimensions
(see reference chart). Zeros should
be added before single-digit
or double-digit numbers.

Front doors:
1 - upper: with glass
window, lower: solid,
2 - upper and lower with
glass window.

Roof type:
1 - standard roof,
2 - roof with extra perforation,
3 - tight roof IP 41,
4 - roof with opening for blanking/cable entry plate*,
5 - roof with brush opening*,
6 - roof with two brush openings*,
7 - roof with rear brush opening*.
*) PWD fan unit is not allowed.
**) The option of simultaneous cable
entry through the roof and PWD
fan unit mounting.

SZB PC - XXX - XXXX - XX - XXXX - X

REAR

LEFT SIDE

RIGHT SIDE

Door or panel type:

- 0 - without any doors or panels,
- 1 - glass door,
- 2 - steel door,
- 3 - steel door with perforation,
- 4 - steel door with Plexiglas,
- 5 - steel door with Plexiglas and perforation,
- 6 - steel door, shortened + 3 U module panel with blanking plate,
- 7 - steel door, shortened + 3 U module panel with brush strip,
- 8 - steel door, shortened + 6 U module panel with 2 blanking plates,
- 9 - steel door, shortened + 6 U module panel with 2 brush strips,
- A - steel panel,
- B - steel panel, shortened + 3 U module panel with blanking plate,
- C - steel panel, shortened + 3 U module panel with brush strip,
- D - steel panel, shortened + 6 U module panel with 2 blanking plates,
- E - steel panel, shortened + 6 U module panel with 2 brush strips.

Base type:

- 0 - without any base (cabinet set directly on bottom plate),
- 1 - levelling feet,
- 2 - castors - type 150 (see page 58),
- 3 - castors - type 300 (see page 58),
- 4 - plinth 100 mm,
- 5 - plinth 100 mm with levelling ability,
- 6 - plinth 200 mm,
- 7 - plinth 200 mm with levelling ability.

FRONT

REAR

LEFT SIDE

RIGHT SIDE

Configuration of plinth's sides:

Four digits which specify plinth's side type.
Four zeros (0000) for cabinet without any plinth.

Each side can be:

- 1 - solid
- 2 - with perforation
- 3 - with double perforation*
- 4 - with brush opening
- 5 - with two brush openings
- 6 - with brush opening and perforation*

*) Only for plinths 200 mm.

Detailed description of plinths - see pages 56-57.

Type of drawer and keyboard:

- 1 - drawer with touchpad keyboard,
 - 2 - drawer with trackball keyboard,
 - 3 - drawer with keyboard without pointing device,
 - 4 - universal drawer without keyboard.
- (Detailed description of drawers and keyboards - see page 64)

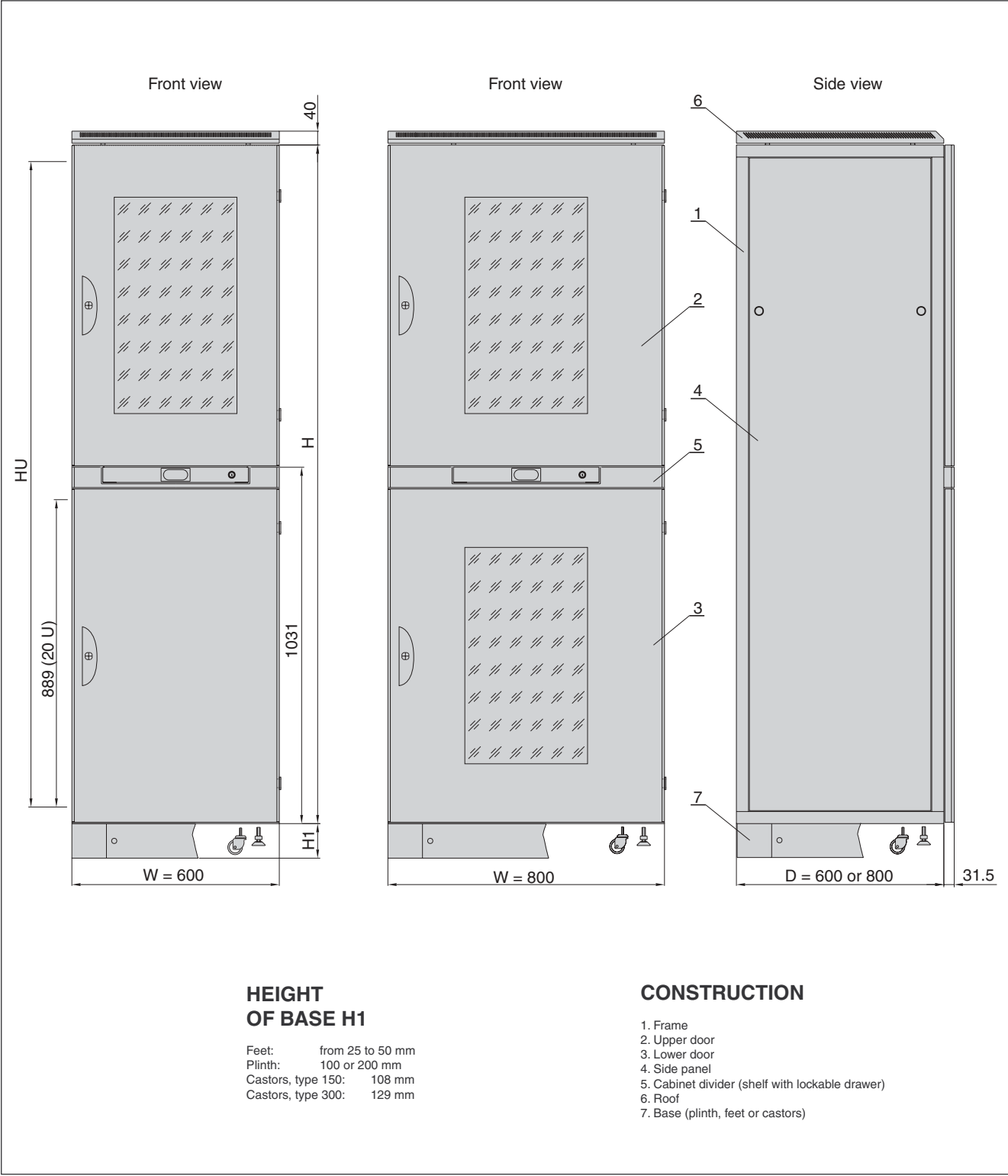
NOTE:

- Delivery of standard SZB PC cabinet (except the elements listed in ref. no.) includes the following: four mounting profiles, grounding bar and grounding cables for doors, panels and roof.
- Monitor housing and other equipment shall be ordered separately.

NOTE:

Non-standard SZB PC cabinets (other dimensions, different height of keyboard mounting etc.) on individual customer's request.

SZB PC 19" computer cabinet



ORDERING INSTRUCTION

1. When ordering the SZB PC cabinet, please provide the appropriate **catalogue number according to the above information**, which specifies the overall dimensions, type of doors, panels, roof, base and the type of keyboard drawer.
2. Next step is to specify **catalogue numbers of supplementary accessories** (such as: shelves, blanking plates, power distribution units, fan units etc. - see pages 55-84). Supplementary accessories are delivered in separate packaging including fixing hardware. On request it is also possible to mount supplementary accessories in the cabinet.

SZB SE 19" server cabinet

PROVIDES THE PROTECTION OF INSTALLED EQUIPMENT IN SERVER ROOMS

- Offered in 14 standard dimensions.
- Expanded configuration system:
 - multiple door, panel, roof options for maximum flexibility,
 - ability to join cabinets in a row,
 - possibility of optional cable entry,
 - easy coding system enables quick configuration of the cabinet.
- Possibility of controlling ventilating air flow by application of proper type of doors, side panels and fan units.
- Standard cabinet is equipped with six 19" mounting profiles, stabilising mounting plinth, grounding bar and grounding cables for doors, side panels and raised roof.
- Wide range of supplementary accessories: shelves, drawers, fan units, power distribution units, blanking covers etc.
- Non-standard cabinets on individual customer's request.

SUPPLY INCLUDES:

Cabinet in standard configuration (cat. no. SZBSE-xxx-2422-1):

- frame on stabilising mounting plinth,
- front and rear door with perforation,
- 2 side panels with perforation,
- standard roof,
- 3 pairs of 19" mounting profiles,
- grounding bar and cables.

*) other configurations - see instructions on page 27.

TECHNICAL DATA

Material:

Frame	- 2.0 mm thick sheet steel
Side panels	- 1.0 mm thick sheet steel
Steel doors:	
- solid door	- 1.0 mm thick sheet steel
- steel door with glass	- 2.0 mm thick sheet steel, 6.0 mm thick safety glass
Glass door	- 6.0 mm thick safety glass
Mounting profiles	- 2.0 mm thick sheet steel

Protection degree:

IP 20 in accordance with PN 92/E-08106 / EN 60529 / IEC 529.

Surface finishing:

Frame, roof, panels, doors, plinth
 - textured powder paint, light grey (RAL 7035).
 All other colour options on request.

Mounting profiles - Al-Zn coated.

Outriggers - galvanised.



SZB SE cabinet 600 mm wide with front glass door

SZB SE 19" server cabinet



Cabinet 600 mm wide



Cabinet 600 mm wide - rear view
Rear plinth side with brush cable entry

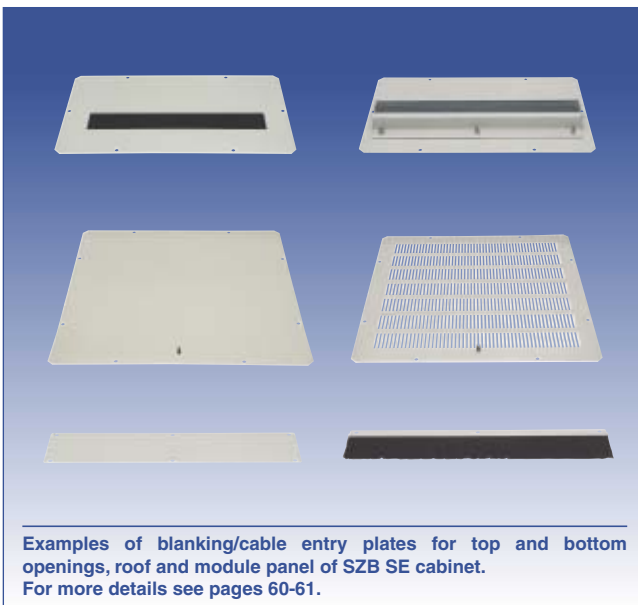
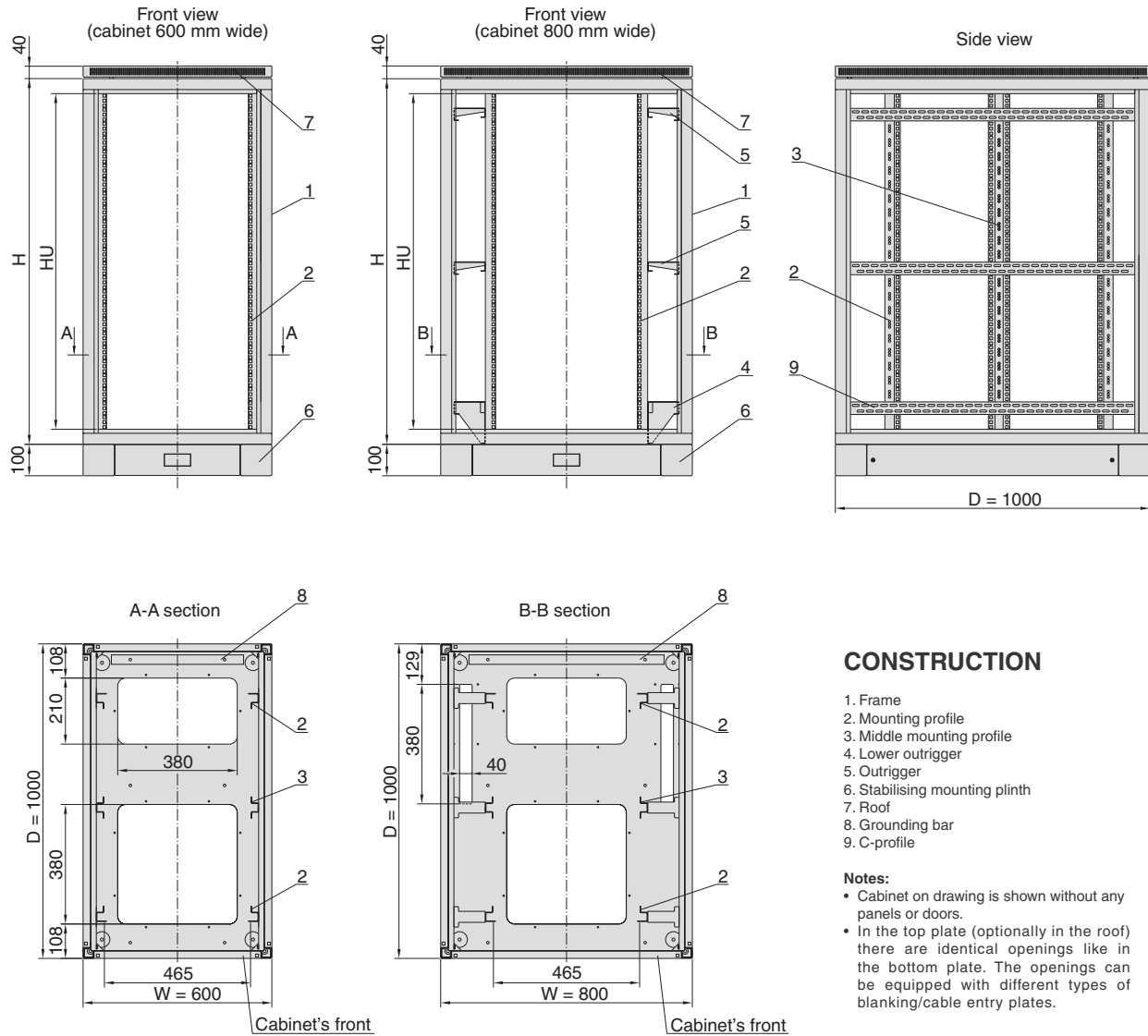


Cabinet 800 mm wide, painting in black (RAL 9005) on request



Cabinet 800 mm wide - rear view
Beneath rear door - 3 U module panel

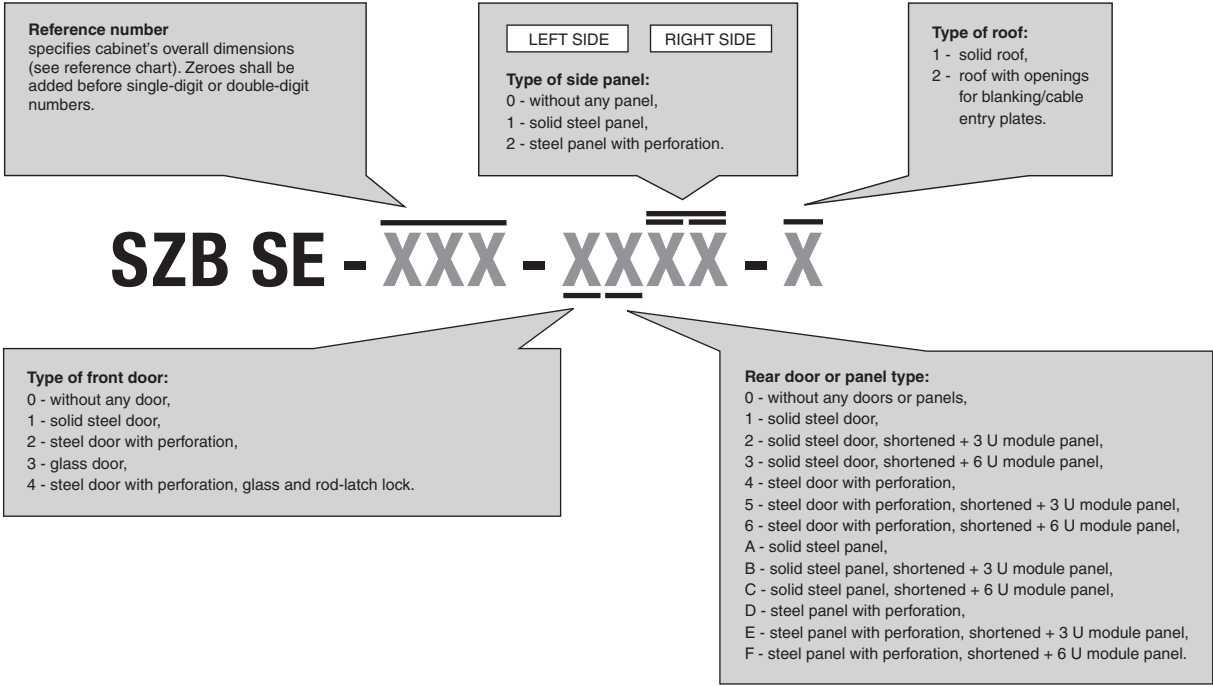
SZB SE 19" server cabinet



SZB SE 19" server cabinet

REFERENCE CHART								
Total width W [mm]	Frame depth D [mm]	Reference number						
800	1000	1	3	5	7	9	11	13
600		2	4	6	8	10	12	14
Usable height HU [U = 44.45 mm]		47 U	45 U	42 U	39 U	36 U	33 U	24 U
Frame height H [mm]		2186	2096	1963	1830	1696	1563	1163

CATALOGUE NUMBER OF SZB SE CABINET



- NOTES:**
- Delivery of standard SZB SE cabinet (except the elements listed in ref. no.) includes the following: six supporting bars, grounding strip and grounding cables for doors, shields and roof.
 - Blanking/cable entry plates for top plate, bottom plate and roof as well as other elements of supplementary accessories shall be ordered separately.

Example:
The catalogue number SZBSE-004-2622-2 means SZB SE cabinet with useful height 45 U, width 600 mm, and depth 1000 mm. Both front doors and rear doors are made of perforated sheet steel. Rear door is shortened with 6 U universal masking cover with 2 openings that can be filled with various cable entries. Sides of the cabinet are equipped with perforated panels. The top is covered with the roof that has identical cut-outs as in the top and bottom plates of the frame. Cabinet is situated on 100 mm plinth with telescopic console frame.

ORDERING INSTRUCTION

1. When ordering the SZB SE cabinet, please provide the appropriate **catalogue number according to the above information**, which specifies the overall dimensions, type of doors, panels, and roof.
2. Next step is to specify **catalogue numbers of supplementary accessories** (such as: shelves, blanking plates, power distribution units, fan units etc. - see pages 55-84). Supplementary accessories are delivered in separate packaging including fixing hardware. On request it is also possible to mount supplementary accessories in the cabinet.

DSR 19" colocation cabinet

ALLOWS FOR PLACING MULTIPLE INDEPENDENT SERVERS IN ONE CABINET

Colocation cabinets are typically used for indoor applications and the primary use of colocation cabinets is where multiple users have access to the comms room or cabinets. There is one standard overall dimension with 6 different combination options for the colocation cabinets.

When designing DSR cabinets ZPAS used unique construction principals normally found in tailor made cabinets with ventilation systems.

Main characteristics

- Front and rear door made of perforated sheet steel, offered in 3 standard heights of 47 U, 23 U, 11 U. Rear of the cabinet can be also fitted with perforated sheet.
- Colocation cabinets come with steel perforated side panels, these side panels can double up as cabinet dividers when cabinets are bayed together.
- Doors and panels are fitted with standard single point locks, on request multiple point locks can be applied.
- Individual compartments are separated with horizontal dividers that are fixed directly to the frame. Each compartment has its own set of 19" mounting profiles and split cable ducts. These ducts are on both sides of the cabinet. Cable entry points are possible from either the top or bottom of the cabinet.
- Both top and bottom plate have 380 x 210 mm opening that might be used either for a fan unit or cable entry. These access points can be covered using various blanking plates. Additionally there are 2 slim, side cable openings. For top cable leading it is necessary to use roof with cable openings instead of the solid roof.



DSR cabinets bayed together

TECHNICAL DATA

Material:

Frame	- 2.0 mm thick sheet steel
Side panels	- 1.0 mm thick sheet steel
Door	- 1.0 mm thick sheet steel
Roof	- 1.0 mm thick sheet steel
Mounting profiles	- 2.0 mm thick sheet steel

Protection degree:

IP 20 in accordance with PN 92/E-08106 / EN 60529 / IEC 529.

Surface finishing:

Frame, roof, panels, doors, plinth
- textured powder paint, light grey (RAL 7035).
All other colour options on request.

Mounting profiles and cable ducts - Al-Zn coated.

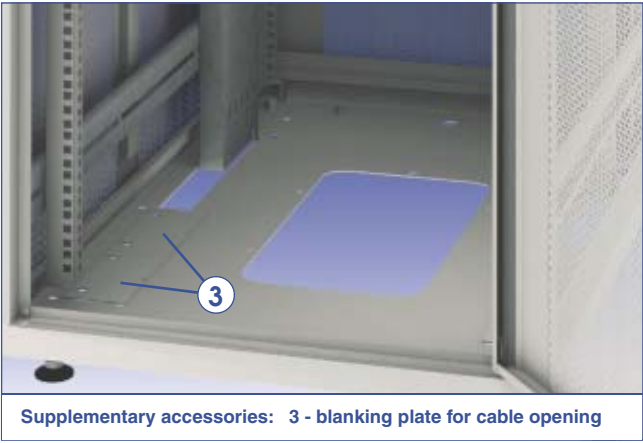
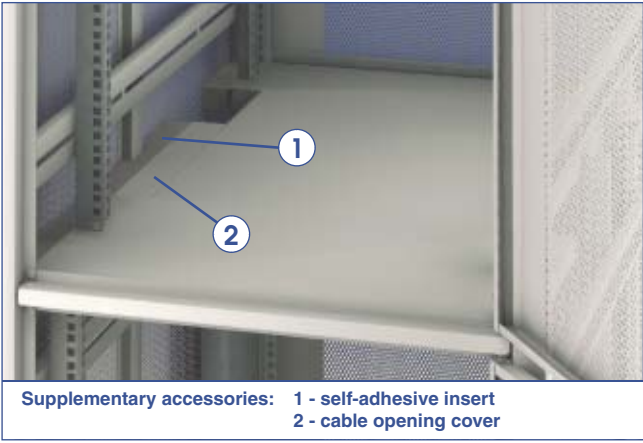
SUPPLY INCLUDES

Cabinet in standard configuration*
(cat. no. DSR-00x-x600-1):

- frame,
- horizontal dividers (quantity dependent on number of compartments within the cabinet),
- individual front door for each compartment,
- rear single panel for the full height of the cabinet,
- 2 pairs of 19" mounting profiles for each compartment,
- cable ducts (does not refer to cabinet without any compartments),
- standard roof,
- grounding cables.

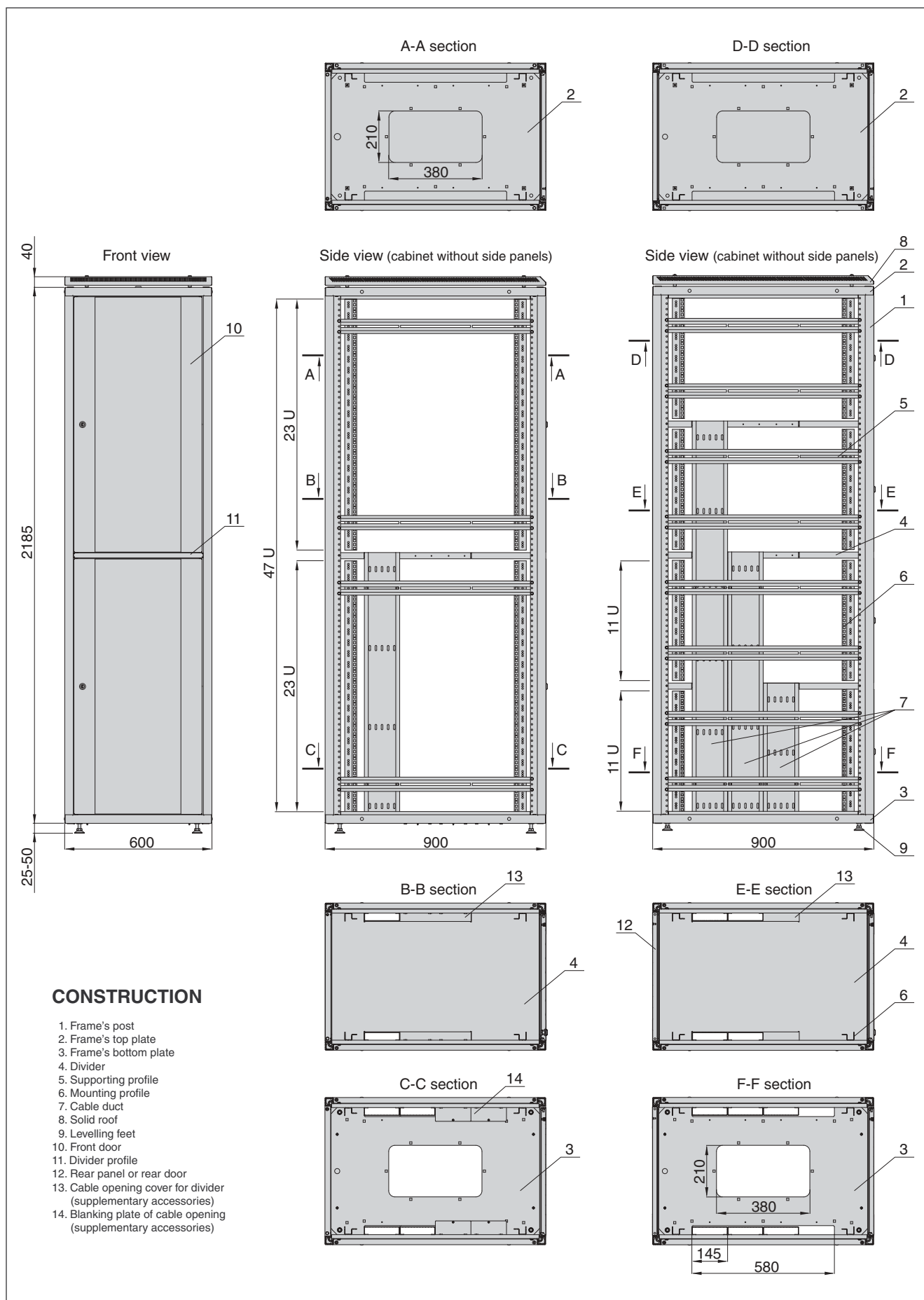
*) Other configurations - see instructions on page 31.

DSR 19" colocation cabinet



FLOOR-STANDING CABINETS

DSR 19" colocation cabinet



DSR 19" colocation cabinet

CATALOGUE NUMBER OF DSR CABINET

Split of cabinet's interior:

NOTES:
Height of horizontal dividers is 1 U.
Each compartment has individual 19" mounting profiles.

Type of side panel :

0 no side panel A perforated side panel

LEFT SIDE RIGHT SIDE

Type of roof:

1 solid roof 2 roof with cable openings

DSR - 00 \bar{x} - $\bar{x}\bar{x}\bar{x}\bar{x}$ - $\bar{x}\bar{x}$

FRONT REAR

Split of front and rear door/panel:

Perforated door

1 2 3 4 5 6 A

Perforated side panel

A

NOTES:
Split of front and rear door/panel does not have to match with interior split of the cabinet.
Normally doors are fitted with single point locks without handle.
On request it is possible to use handle locking system.

Type of base:

- 1 - levelling feet,
- 2 - 100 mm plinth,
- 3 - 100 mm plinth with levelling ability,
- 4 - 200 mm plinth,
- 5 - 200 mm plinth with levelling ability.

NOTES:
Detail description of plinths on page 56.

ORDERING INSTRUCTION

1. When ordering the DSR cabinet, please provide the appropriate **catalogue number according to the above information**, which specifies the interior split of the cabinet, as well as type of doors, panels, roof and base.
2. Next step is to specify **catalogue numbers of supplementary accessories** (such as: shelves, blanking plates, power distribution units, fan units etc. - see pages 55-84). Supplementary accessories are delivered in separate packaging including fixing hardware. On request it is also possible to mount supplementary accessories in the cabinet.

Supplementary accessories:

Cable opening cover for DSR divider
- page 59

Self-adhesive insert of DSR divider
- page 59

Blanking plate of cable opening
- page 59

Grounding bar
- page 72

Set of fixing/spacer bolt
- page 73

SZA 19" cabinet

UNIVERSAL DATA AND TELECOM CABINET DESIGNED FOR OFFICE APPLICATIONS

- Offered in 24 standard dimensions (see chart on page 34).
- Levelling feet, castor, or plinth options.
- Easy coding system enables quick configuration.
- Multiple alternative cable entry options.
- Multiple door, panel, roof options for maximum flexibility.
- Wide range of supplementary accessories: shelves, drawers, fan units, power distribution units, blanking plates etc.
- Non-standard cabinets on individual customer's request.

SUPPLY INCLUDES

Standard configuration*
(cat. no. SZA-xxx-1AAA-11-0000):

- frame made of aluminium profiles,
- two steel side panels,
- steel front door with safety glass,
- steel rear panel at full cabinet's height,
- standard roof,
- 2 pairs of 19" mounting profiles,
- grounding bar and cables,
- cabinet set on levelling feet,
- cabinets 800 mm wide are equipped with 2 vertical masking panels.

*) for other configurations see chart on page 34.

TECHNICAL DATA

Material:

Frame	- aluminium profiles
Side panels and roof	- 1.0 mm thick sheet steel
Doors	
- solid door	- 1.0 mm thick sheet steel
- door with glass	- 1.5 mm thick sheet steel, 4.0 mm thick safety glass
Bottom plate	- 2.0 mm thick sheet steel
Top plate	- 1.5 mm thick sheet steel
Mounting profiles	- 2.0 mm thick sheet steel

Protection degree:

IP 20 in accordance with PN 92/E-08106 / EN 60529 / IEC 529. Protection degree IP 41 is achieved with cabinets equipped with solid roof without any vents. Cables should be entered from the bottom cable duct situated in foundation or through the cable entry plate with rubber glands.

Surface finishing:

Frame - anodised aluminium.
Mounting profiles - Al-Zn coated.
Outriggers - galvanised.
Other elements
- textured powder paint, light grey (RAL 7035).
All other colour options on request.



SZA 19" cabinet



SZA cabinet 800 mm wide, front door with glass and 3-point rod-latch lock

Standard SZA cabinets 800 mm wide are equipped with two vertical masking panels which cover the space between the front mounting profiles and the cabinet's sides.



In the top frame under the roof this is a top plate with a 380 x 380 mm cut-out intended for installation of a PWD fan unit (see page 77) or a blanking plate (see pages 60-61).



Bottom part of the cabinet - 380 x 380 mm cut-out in the bottom plate, with the aluminium frame visible.

SZA 19" cabinet

REFERENCE CHART

Total width W [mm]	Total depth D [mm]	Reference number					
800	800	1	5	9	13	17	21
	600	2	6	10	14	18	22
600	800	3	7	11	15	19	23
	600	4	8	12	16	20	24
Usable height HU [U = 44.45 mm]		45 U	42 U	36 U	32 U	28 U	24 U
Height of the cabinet without the base H [mm]		2164	2130	1764	1586	1408	1230

CATALOGUE NUMBER OF SZA CABINET

Reference number

specifies cabinet's overall dimensions
(see reference chart). Zeros should be added
before single-digit or double-digit numbers.

Roof type:

- 1 - standard roof,
- 2 - roof with extra perforation,
- 3 - tight roof IP 40.

NOTE:

Delivery of standard SZA cabinet
(except the elements listed in ref. no.)
includes the following: four mounting
profiles and grounding bar; additionally
for cabinet 800 mm wide - two vertical
masking panels.

SZA - XXX - XXXX - XX - XXXX

FRONT

REAR

LEFT SIDE

RIGHT SIDE

Door or panel type:

- 0 - without any doors or panels,
- 1 - door with glass and rod-latch lock,
- 2 - solid steel door with rod-latch lock,
- 3 - solid steel door with single point locks,
- 4 - solid steel door with single point locks, shortened + 3 U module panel with blanking plate,
- 5 - solid steel door with single point locks, shortened + 3 U module panel with brush strip,
- 6 - solid steel door with single point locks, shortened + 6 U module panel with 2 blanking plates,
- 7 - solid steel door with single point locks, shortened + 6 U module panel with 2 brush strips,
- A - steel panel at full cabinet's height,
- B - steel panel, shortened + 3 U module panel with blanking plate,
- C - steel panel, shortened + 3 U module panel with brush strip,
- D - steel panel, shortened + 6 U module panel with 2 blanking plates,
- E - steel panel, shortened + 6 U module panel with 2 brush strips.

Base type:

- 0 - without any base (cabinet set directly on bottom plate),
- 1 - levelling feet,
- 2 - castors - type 150 (see page 58),
- 3 - castors - type 300 (see page 58),
- 4 - plinth 100 mm,
- 5 - plinth 100 mm with levelling ability,
- 6 - plinth 200 mm,
- 7 - plinth 200 mm with levelling ability.

FRONT

REAR

LEFT SIDE

RIGHT SIDE

Configuration of plinth's sides:

Four digits which specify plinth's side type.
Four zeros (0000) for cabinet without any plinth.

Each side can be:

- 1 - solid
- 2 - with perforation
- 3 - with double perforation*
- 4 - with brush opening
- 5 - with two brush openings
- 6 - with brush opening and perforation*

*) Only for plinths 200 mm.

Detailed description of plinths - see pages 56-57.

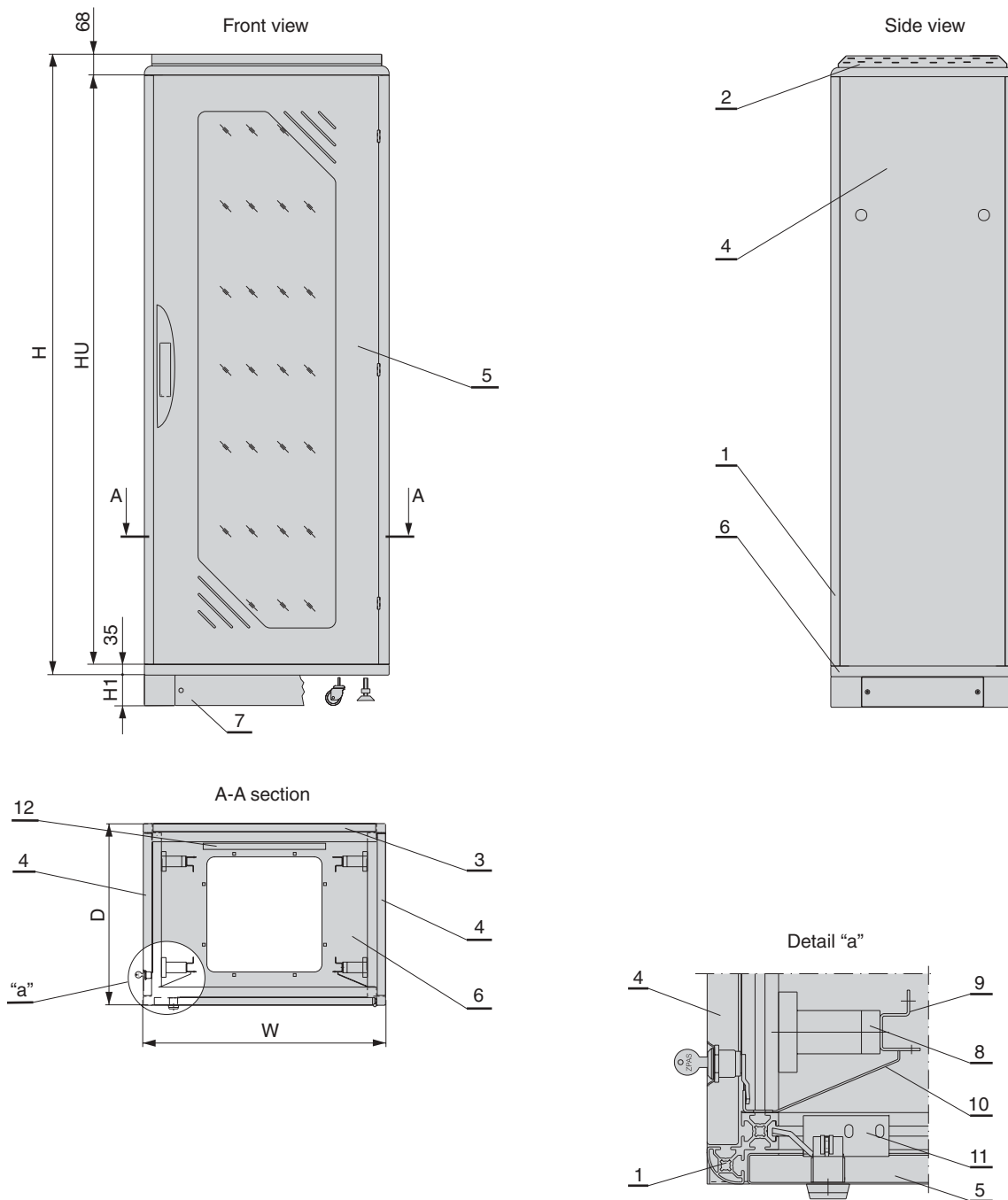
Example:

The cat. no. SZA-005-13AA-14-1411 means SZA cabinet, usable height 42 U, width and depth 800 mm. Cabinet is equipped in front door with safety glass and 3-point rod-latch lock, steel rear door with two single point lock and two side panels. The top is covered with the standard roof. Cabinet sets on 100 mm plinth. Rear side of the plinth with brush cable entry, all other plinth sides are solid. Doors, panels and roof are grounded. Cabinet interior is equipped with four mounting profiles, installed to the frame by means of eight outriggers, and two vertical masking panels.

ORDERING INSTRUCTION

- When ordering the SZA cabinet, please provide the appropriate **catalogue number according to the above information**, which specifies the overall dimensions, type of doors, panels, roof and base.
- Next step is to specify **catalogue numbers of supplementary accessories** (such as: shelves, blanking plates, power distribution units, fan units etc. - see pages 55-84). Supplementary accessories are delivered in separate packaging including fixing hardware. On request it is also possible to mount supplementary accessories in the cabinet.

SZA 19" cabinet



CONSTRUCTION

1. Frame made of aluminum profiles
2. Roof
3. Rear panel
4. Side panel
5. Front door
6. Bottom plate
7. Base (plinth, castors or levelling feet)
8. Outrigger
9. Mounting profile
10. Vertical masking panel
11. Rod-latch lock striker
12. Grounding bar

HEIGHT OF BASE H1

Feet:	from 25 to 50 mm
Plinth:	100 or 200 mm
Castors, type 150:	108 mm
Castors, type 300:	129 mm

SZT 21" telecommunication cabinet

SPECIAL TELECOMMUNICATION CABINET

- Intended for indoor usage.
- Designed in accordance with ETS 300119-3.

SUPPLY INCLUDES

- frame,
- two side panels,
- steel front door with Plexiglas,
- steel rear door with Plexiglas or rear panel,
- two 21" mounting profiles, fixed directly to frame's posts,
- brush cable entry in the rear at bottom part of cabinet,
- cable entry plate with foam strip in cabinet's top plate (only in cabinets 600 mm deep; it is possible to change the cable entry plate into fan unit PD-2W),
- grounding bar and cables.

TECHNICAL DATA

Material:

- | | |
|-------------|---|
| Frame | - 2.0 mm thick sheet steel |
| Side panels | - 1.0 mm thick sheet steel |
| Doors | - 1.5 mm thick sheet steel,
4.0 mm thick Plexiglas |

Protection degree:

IP 10 in accordance with PN 92/E-08106 / EN 60529 / IEC 529.

On request, IP 41 can be achieved.

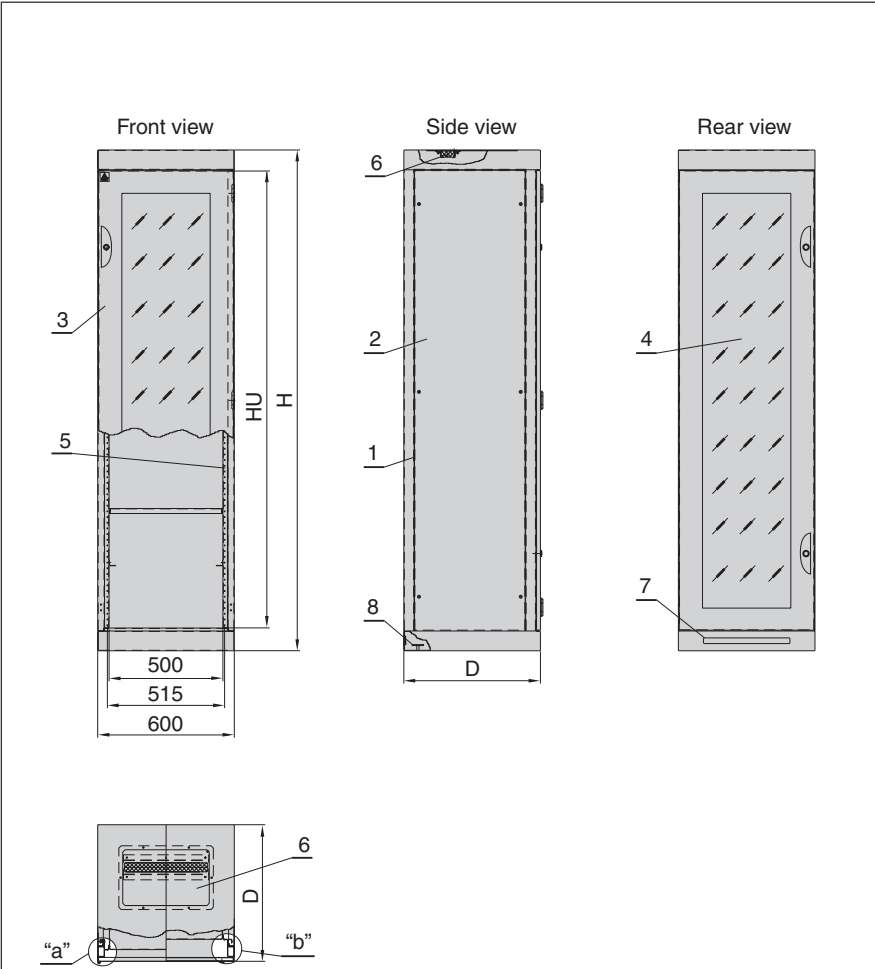
Surface finishing:

Textured powder paint, light grey (RAL 7035).
All other colour options on request.



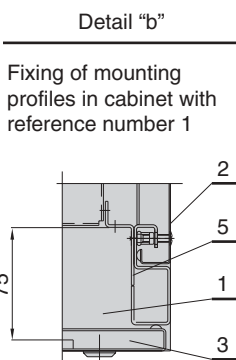
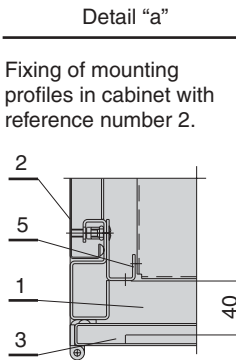
Cable entry plate with foam strip in cabinet's roof

SZT 21" telecommunication cabinet



CONSTRUCTION

- 1. Frame
- 2. Side panel
- 3. Front door
- 4. Rear door
- 5. Mounting profile
- 6. Cable entry plate with foam strip
- 7. Brush opening
- 8. Grounding bar



REFERENCE CHART

Reference number	Dimensions [mm]			Catalogue number	
	D	HU	H	Cabinet with rear door	Cabinet with rear panel
1	600	2000	2200	SZT-001-1	SZT-001-2
2	300			—	SZT-002-2

SZT-1 19"/21" cabinet

TELECOMMUNICATION CABINET WITHOUT INTERNAL FRAME

- Intended for indoor usage.
- At the front - the cabinet has cut-outs intended for 19" or 21" appliances (depending on reference number).
- Side panels are fitted for quick assembly of mounting plates.
- Foam entry points are included in both top and bottom plates.
- Without front door.
- Some supplementary accessories of SZB cabinets (shelves, drawers, power distribution units etc.) can be used.

SUPPLY INCLUDES

- bottom plate,
- top plate,
- two side panels,
- rear panel,
- cabinet set on levelling feet.

TECHNICAL DATA

Material:

- Side panels - 1.5 mm thick Al-Zn coated sheet steel
- Top plate - 1.5 mm thick Al-Zn coated sheet steel
- Bottom plate - 1.5 mm thick sheet steel
- Rear panel - 1.0 mm thick Al-Zn coated sheet steel

Surface finishing:

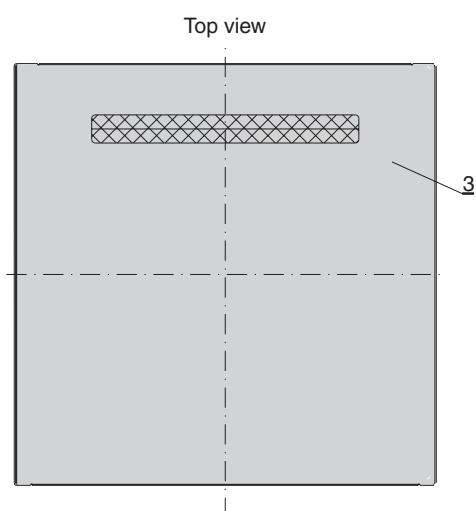
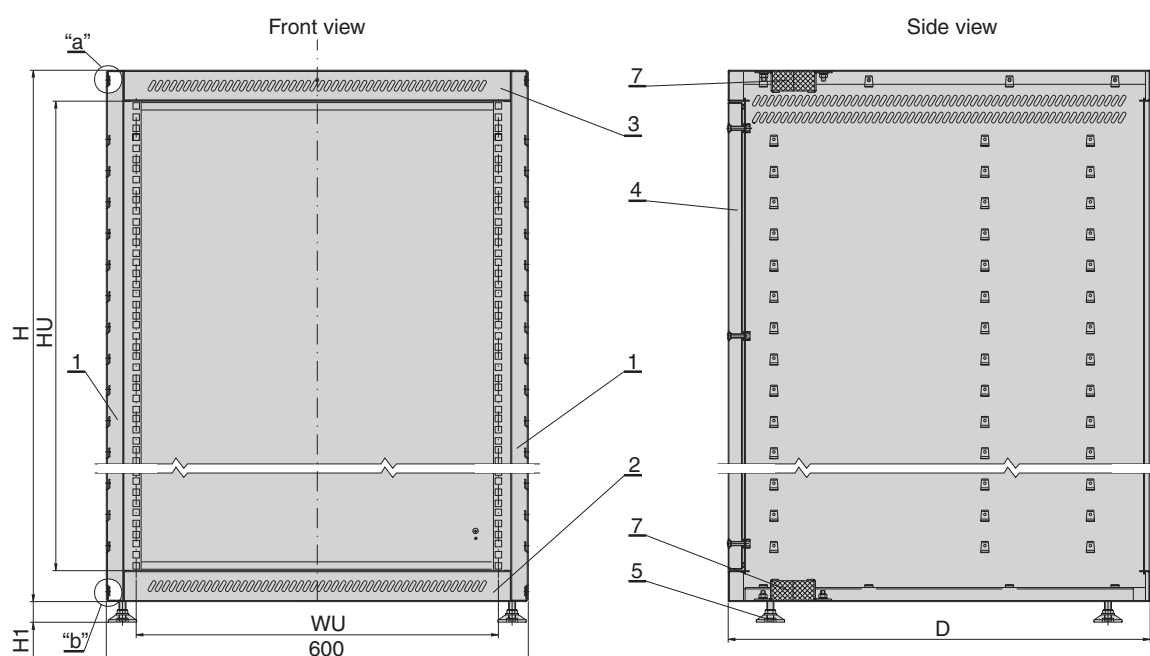
- Textured powder paint, light grey (RAL 7035).
- All other colour options on request.



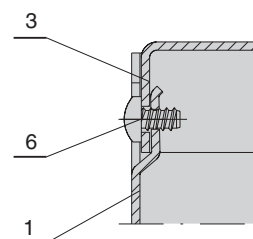
REFERENCE TABLE

Reference number	Catalogue number	Dimensions				
		H [mm]	HU [U = 44.45 mm]	D [mm]	WU [mm]	
1	SZT1-001	2089	45 U	600	465 (19")	
2	SZT1-002	1956	42 U			
3	SZT1-003	1778	38 U			
4	SZT1-004	1511	32 U			
5	SZT1-005	1156	24 U			
6	SZT1-006	2089	45 U	400		465 (19")
7	SZT1-007	1956	42 U			
8	SZT1-008	1778	38 U			
9	SZT1-009	1511	32 U			
10	SZT1-010	1156	24 U			
11	SZT1-011	2089	45 U	600	515 (21")	
12	SZT1-012	1956	42 U			
13	SZT1-013	1778	38 U			
14	SZT1-014	1511	32 U			
15	SZT1-015	1156	24 U			
16	SZT1-016	2089	45 U	400		515 (21")
17	SZT1-017	1956	42 U			
18	SZT1-018	1778	38 U			
19	SZT1-019	1511	32 U			
20	SZT1-020	1156	24 U			

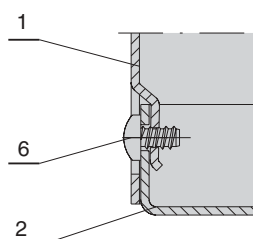
SZT-1 19"/21" cabinet



Detail "a"



Detail "b"

**CONSTRUCTION**

1. Side panel
2. Bottom plate
3. Top plate
4. Rear panel
5. Levelling feet
6. Screw
7. Cable foam entry

HEIGHT OF BASE H1

Feet: from 25 to 50 mm

SZT-2 19" cabinet

TELECOMMUNICATION CABINET

- Intended for indoor usage.
- At the front - the cabinet has cut-outs intended for 19" installations.
- Without front door.
- Ability to place cabinet on castors, type 150
- see page 58.
- Some supplementary accessories of SZB cabinets (shelves, plinths, drawers, power distribution units etc.) can be used.
- Non-standard cabinets on individual customer's request.

SUPPLY INCLUDES

- frame with foam opening in the bottom plate,
- two side panels,
- rear panel,
- roof with lifting eyes and foam cable opening,
- grounding cables,
- set on levelling feet.

TECHNICAL DATA

Material:

- Cabinet's frame - 1.5 mm thick sheet steel
- Side and rear panels - 1.0 mm thick sheet steel
- Roof - 1.0 mm thick sheet steel

Surface finishing:

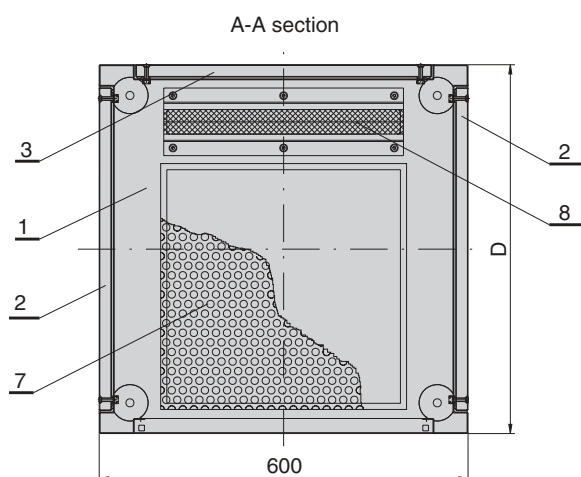
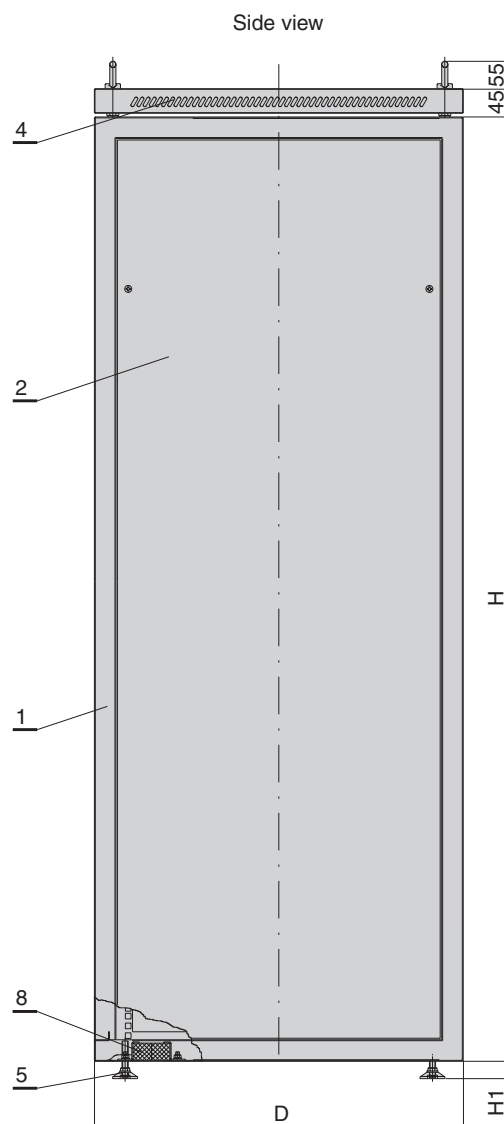
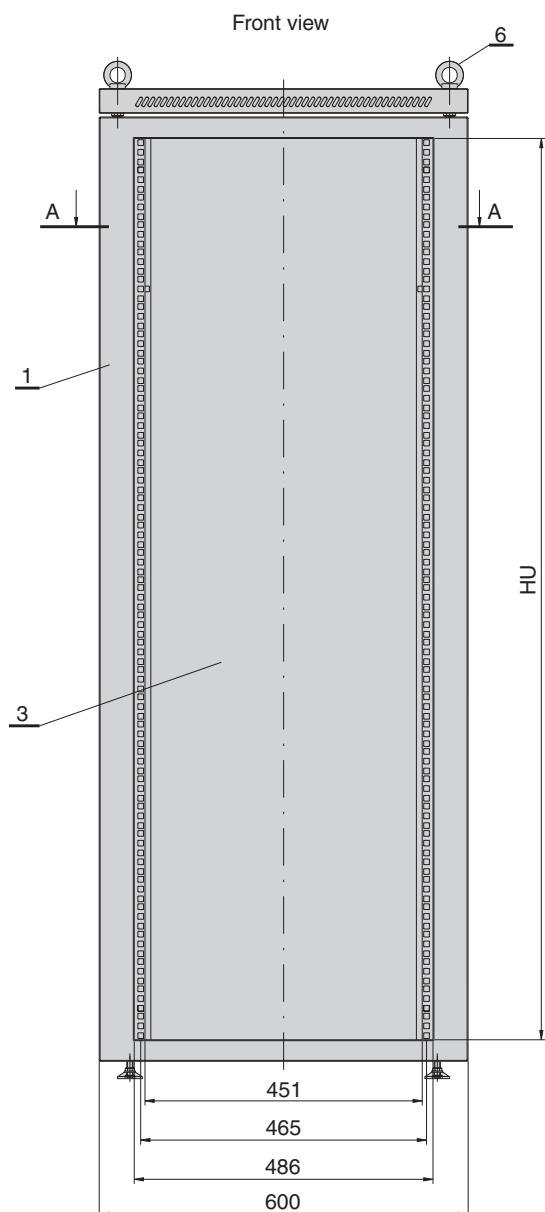
- Textured powder paint, light grey (RAL 7035).
- All other colour options on request.



REFERENCE TABLE

Reference number	Catalogue number	Dimensions		
		D [mm]	H [mm]	HU [U = 44.45 mm]
1	SZT2-001	600	2071	45 U
2	SZT2-002	400		
3	SZT2-003	600	1938	42 U
4	SZT2-004	400		
5	SZT2-005	600	1760	38 U
6	SZT2-006	400		
7	SZT2-007	600	1493	32 U
8	SZT2-008	400		
9	SZT2-009	600	1138	24 U
10	SZT2-010	400		

SZT-2 19" cabinet

**CONSTRUCTION**

1. Frame
2. Side panel
3. Rear panel
4. Roof
5. Levelling feet
6. Lifting eye
7. Metal grid
8. Foam cable opening

HEIGHT OF BASE H1

Feet: from 25 to 50 mm
 Castors, type 150: 108 mm

Castors are supplementary accessories - see page 58.

Plinth is supplementary accessories - see pages 56-57.

Examples of cabinets with equipment



SZB cabinet equipped with structured cabling elements



SZA cabinet equipped with tele-mechanic devices of the SYNDIS system



SZT-2 cabinet with voltage supply unit and a fan unit



Cabinet for central signalisation of power plant using our SZA cabinet

Cabinets can be equipped with telecommunication or electric devices in accordance with customer's project or designed by ZPAS S.A.

Wall-mounted cabinets



SKI



SWT



SJ



SD

SKI 10" wall-mounted cabinet

WALL-MOUNTED CABINET DESIGNED FOR SMALL NETWORK INSTALLATIONS (SOHO)

- Usable height 7 U.
- 10" standard is made of two mounting angle profiles fixed to the cabinet's side walls.
- On the rear wall there is a threaded bolt for fastening fibre optic splice cassette - base for fibre optic welded joints.
- Brush openings in the top and bottom plate enable cable entry.
- Standard version is equipped with shelf, brush panel and universal patch panel (see drawing on opposite page).

TECHNICAL DATA

Material:

Sheet steel - 1.5 mm thick

Surface finishing:

Textured powder paint, light grey (RAL 7035).
All other colour options on request.

Protection degree:

IP 20 in accordance with PN 92/E-08106 / EN 60 529 / IEC 529.

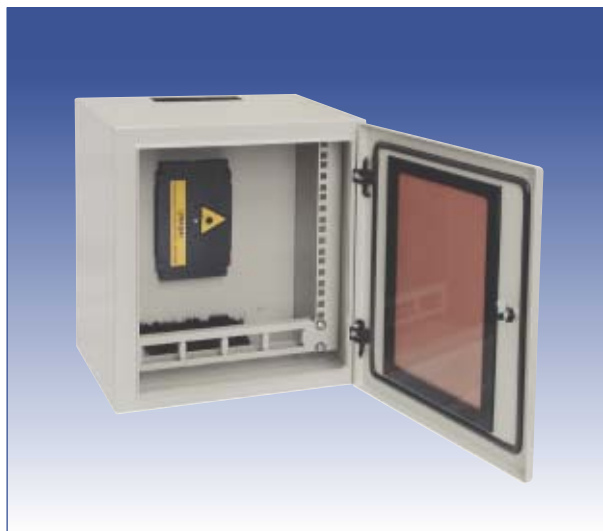
SUPPLY INCLUDES

Shelf, brush panel and universal patch panel (see drawing on opposite page).

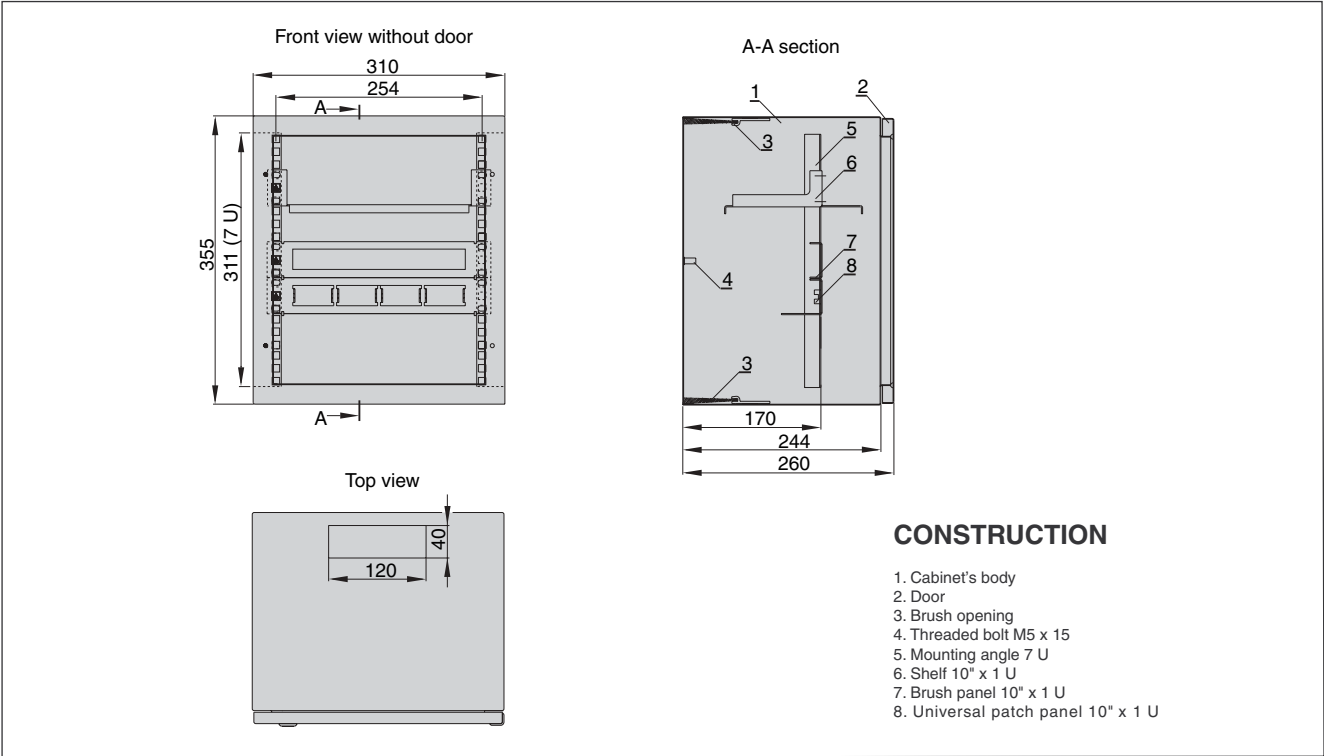
CATALOGUE NUMBER

Cabinet in standard version:

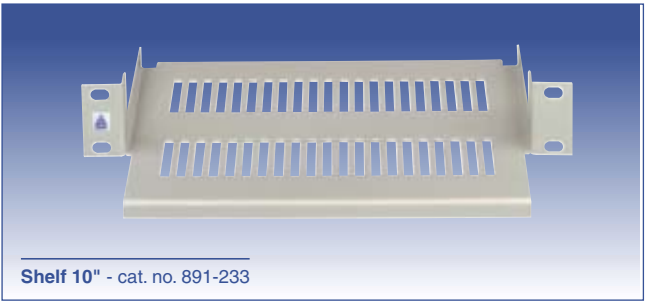
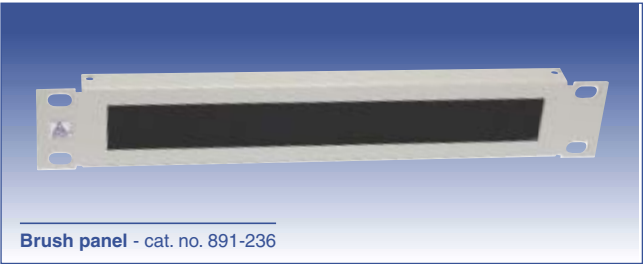
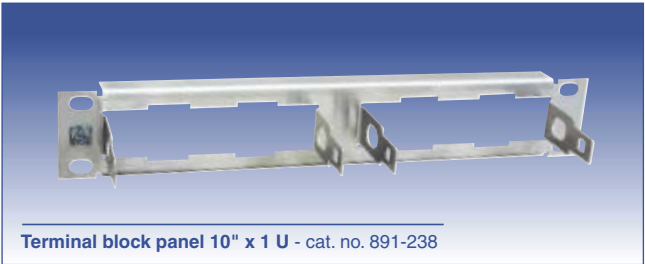
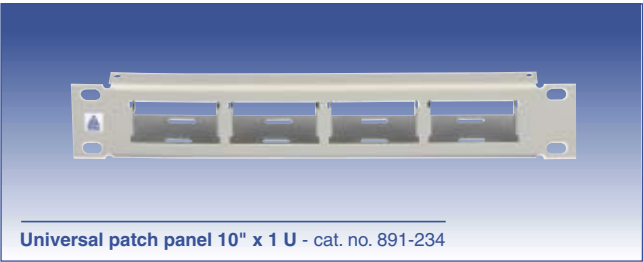
- steel door with Plexiglas - cat. no. 891-200
- solid steel door - cat. no. 891-201



SKI 10" wall-mounted cabinet



10" supplementary accessories



NOTE:
Full overview and detailed description of 10" accessories are listed in our separate catalogue "Structured Cabling Elements and Telecommunication Accessories".

SD 19" wall-mounted cabinet

TWO-SECTION WALL-MOUNTED CABINET

- Intended for indoor usage.
- Available in 5 usable heights (see reference chart).
- Consists of two basic parts:
 - 19" part with safety glass door,
 - wall-mounted part with removable rear panel.
- Standard version equipped with two adjustable 19" mounting angles, three solid blanking plates and a top rear brush opening (potential cable entry points).
- Wide range of supplementary accessories: shelves, drawers, fan kit, power distribution units, blanking covers etc.
- Cabinet can be equipped with additional rear adjustable 19" mounting angles or mounting profiles.



SD wall-mounted cabinet 10 U - front view

TECHNICAL DATA

Material:

Body	- 1.25 mm thick sheet steel
Rear panel	- 0.8 mm thick sheet steel
Mounting angles	- 1.5 mm thick sheet steel
Solid blanking plate	- 1.0 mm thick sheet steel
Door - glass	- 4.0 mm thick safety glass
Door - steel	- 1.0 mm thick sheet steel

Surface finishing:

Textured powder paint, light grey (RAL 7035).
All other colour options on request.

Protection degree:

IP 30 in accordance with PN 92/E-08106 / EN 60529 / IEC 529.



SD cabinet - rear view

SUPPLY INCLUDES

Cabinets are packed in cartons. Pattern for making cutouts in the wall is included into the packaging.

As **supplementary accessories** it is possible to order additional 19" mounting angles or mounting profiles, mounting plate, fan kit, cross profiles for cable mounting, grounding bar or cables, wall brackets.

REFERENCE CHART

Catalogue number		Usable height [U = 44.45 mm]	Total height [mm]	Total depth [mm]	Depth of 19" part [mm]	Total width [mm]
Cabinet with glass door	Cabinet with steel door					
SD-118	SD-218	18 U	871	500	350	600
SD-115	SD-215	15 U	737			
SD-112	SD-212	12 U	604			
SD-110	SD-210	10 U	515			
SD-106	SD-206	6 U	337			



Bottom plate of SD



Top plate of SD

SJ 19" wall-mounted cabinet

ONE-SECTION WALL-MOUNTED CABINET

- Intended for indoor usage.
- Available in 6 usable heights (see reference chart).
- The construction of the cabinet is based on a metal body with safety glass door and removable rear panel.
- Standard version equipped with two adjustable 19" mounting angles, a solid blanking plate and a brush opening (potential cable entry point).
- Wide range of supplementary accessories: shelves, drawers, fan kit, power distribution units, etc.
- Cabinet can be equipped with additional rear adjustable 19" mounting angles or mounting profiles

TECHNICAL DATA

Material:

Body	- 1.25 mm thick sheet steel
Rear panel	- 0.8 mm thick sheet steel
Mounting angles	- 1.5 mm thick sheet steel
Solid blanking plate	- 1.0 mm thick sheet steel
Door - glass	- 4.0 mm thick safety glass
- steel	- 1.0 mm thick sheet steel

Surface finishing:

Textured powder paint, light grey (RAL 7035).
All other colour options on request.

Protection degree:

IP 30 in accordance with PN 92/E-08106 / EN 60529
/ IEC 529.



SUPPLY INCLUDES

Cabinets are packed in cartons. Pattern for making cutouts in the wall is included into the packaging.

As **supplementary accessories** it is possible to order additional 19" mounting angles or mounting profiles, mounting plate, fan kit, cross profiles for cable mounting, grounding bar or cables, wall brackets.

REFERENCE CHART

Catalogue number		Usable height [U = 44.45 mm]	Total height [mm]	Total depth [mm]	Total width [mm]
Cabinet with glass door	Cabinet with steel door				
SJ-118	SJ-218	18 U	871	400	600
SJ-115	SJ-215	15 U	737		
SJ-112	SJ-212	12 U	604		
SJ-110	SJ-210	10 U	515		
SJ-106	SJ-206	6 U	337		
SJ-104	SJ-204	4 U	248		



Supplementary accessories for SD and SJ wall-mounted cabinets

MOUNTING ANGLE, MOUNTING PROFILE

Four mounting profiles are used for example, when it is needed to mount shelves which require 4 fixing points (see page 62). Standard SD and SJ wall-mounted cabinets are equipped with 2 adjustable 19" front mounting angles.

Material:

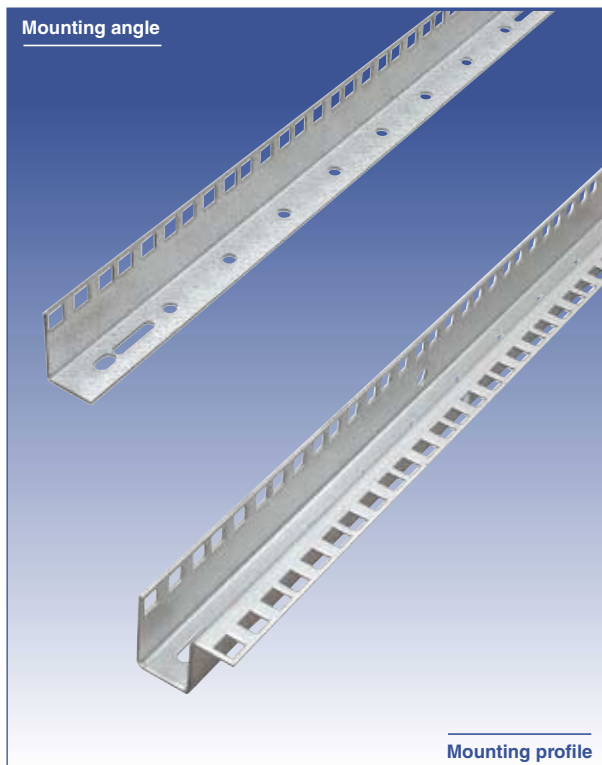
1.5 mm thick Al-Zn coated sheet steel.

Supply includes:

Mounting angle or mounting profile with fixing accessories.

Type of element	Length [U = 44.45 mm]	Catalogue number
Mounting angle	4 U	2048-9-1
	6 U	2048-9-2
	10 U	2048-9-3
	12 U	2048-9-4
	15 U	2048-9-5
	18 U	2048-9-6
Mounting profile	4 U	750-9-1-1
	6 U	750-9-1-2
	10 U	750-9-1-3
	12 U	750-9-1-4
	15 U	750-9-1-5
	18 U	750-9-1-6

Package: 1 pc.



MOUNTING PLATE

Fixed on mounting angles or mounting profiles in 19" spacing.

Material:

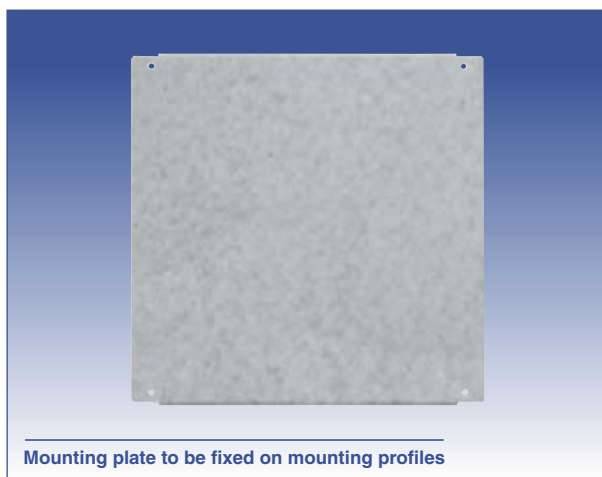
2.5 mm thick Al-Zn coated sheet steel.

Supply includes:

Mounting plate with fixing accessories.

Height [U = 44.45 mm]	Catalogue number
4 U	750-10-1-1
6 U	750-10-1-2
10 U	750-10-1-3
12 U	750-10-1-4
15 U	750-10-1-5
18 U	750-10-1-6

Package: 1 pc.



CROSS PROFILE

Intended for fixing cables in SD and SJ wall mounted cabinets. Horizontally mounted to the rear wall of the cabinet.

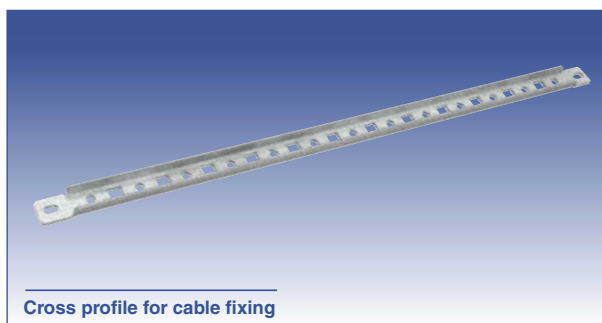
Material:

1.5 mm thick Al-Zn coated sheet steel.

Supply includes:

Cross profile with fixing accessories.

Packing	Catalogue number
1 pc.	2048-24-1



Supplementary accessories for SD and SJ wall-mounted cabinets

FAN KIT

Mounted it the top or bottom plate of SD and SJ cabinets.
Supply: 230 V, 50 Hz; power: 15 W; capacity: 160 m³/h.

Supply includes:

Set: 1 fan with protection grid, power lead 1.0 m long, fixing accessories.

Package	Catalogue number
1 set	2048-19-1



GROUNDING SET

Grounding bar

- Fixed to the bottom plate of the cabinet by means of screws.
- With threaded openings M5 for fixing ducts.
- Material: Zinc coated steel bar 30 x 4 x 170 mm.

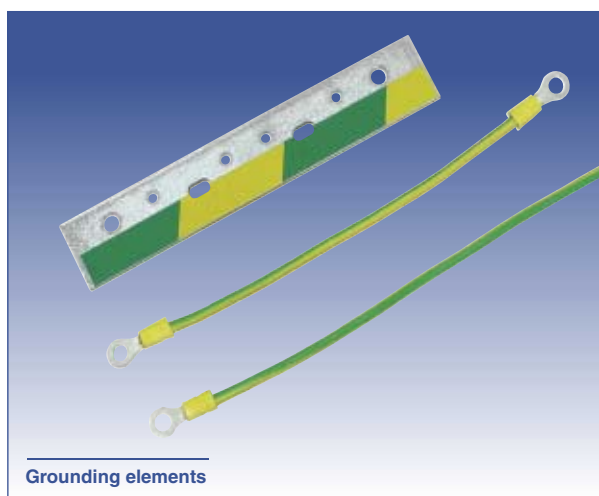
Grounding cables:

- Insulated copper cables with contact eyes.
- Available in two lengths 200 and 350 mm.
- Material: copper wires 6 mm².

Supply includes:

Grounding set with fixing accessories.

Description of set	Package	Catalogue number
Grounding bar - 1 pc. Grounding cable 200 mm - 1 pc. Grounding cable 350 mm - 1 pc.	1 set	2048-16-2



WALL-FASTENING BRACKETS

Fixed to the openings in rear wall of SD and SJ wall mounted cabinets. For one cabinet it is necessary to use 4 brackets with the same depth. Cabinets can be fastened also directly to the wall without usage of brackets.

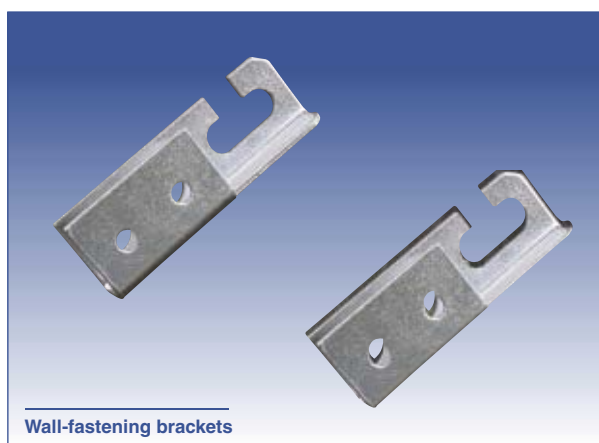
Material:

2.5 mm thick zinc coated sheet steel.

Supply includes:

Bracket with screws, washers and nuts for fixing the cabinet's wall.

Type of element	Package	Catalogue number
Bracket 20 mm deep	1 pc.	672-21-2
Bracket 40 mm deep	1 pc.	672-22-2



SWT 19"/21" wall-mounted cabinet

TELECOMMUNICATION WALL-MOUNTED CABINET

- Intended for indoor usage.
- Front of the cabinet adapted for appliances in 19" or 21" standard (depending on reference number).
- Side walls are adapted for quick assembly of mounting plates.
- In the top and bottom plate foam cable opening is available.
- The SWT cabinet is without front door.

SUPPLY INCLUDES

- bottom plate,
- top plate,
- body made of two side walls and rear wall,
- 2 foam cable openings,
- wall brackets.



REFERENCE CHART

Reference number	Catalogue number	HU [U = 44.45 mm]	H [mm]	WU [mm]
1	SWT-001	18 U	889	465 (19")
2	SWT-002	15 U	756	
3	SWT-003	12 U	623	
4	SWT-004	10 U	533	
5	SWT-005	6 U	356	
6	SWT-006	18 U	889	515 (21")
7	SWT-007	15 U	756	
8	SWT-008	12 U	623	
9	SWT-009	10 U	533	
10	SWT-010	6 U	356	

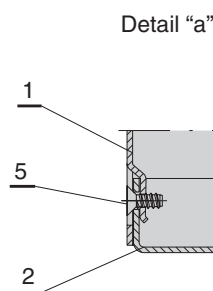
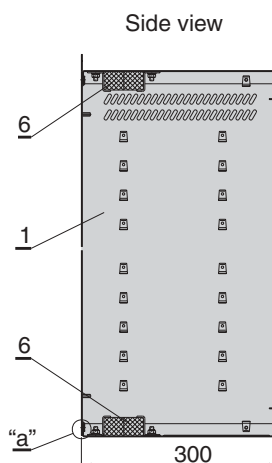
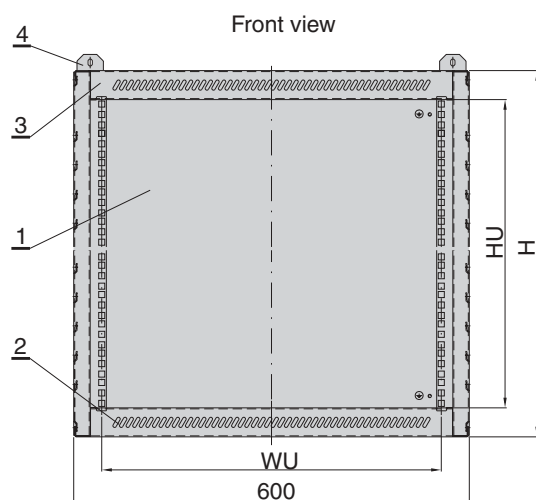
TECHNICAL DATA

Material:

Enclosure made of 1.5 mm Al-Zn coated sheet steel.

Surface finishing:

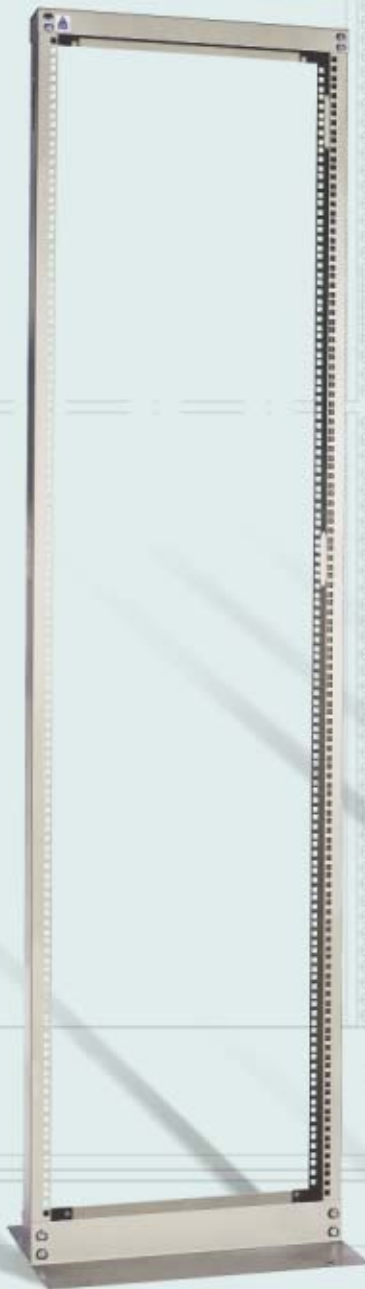
Outer mantle textured powder paint, light grey (RAL 7035).
All other colour options on request.



CONSTRUCTION

1. Cabinet's mantle
2. Bottom plate
3. Top plate
4. Wall-fastening brackets
5. Screw
6. Foam cable opening

Open racks



SRC



SRD



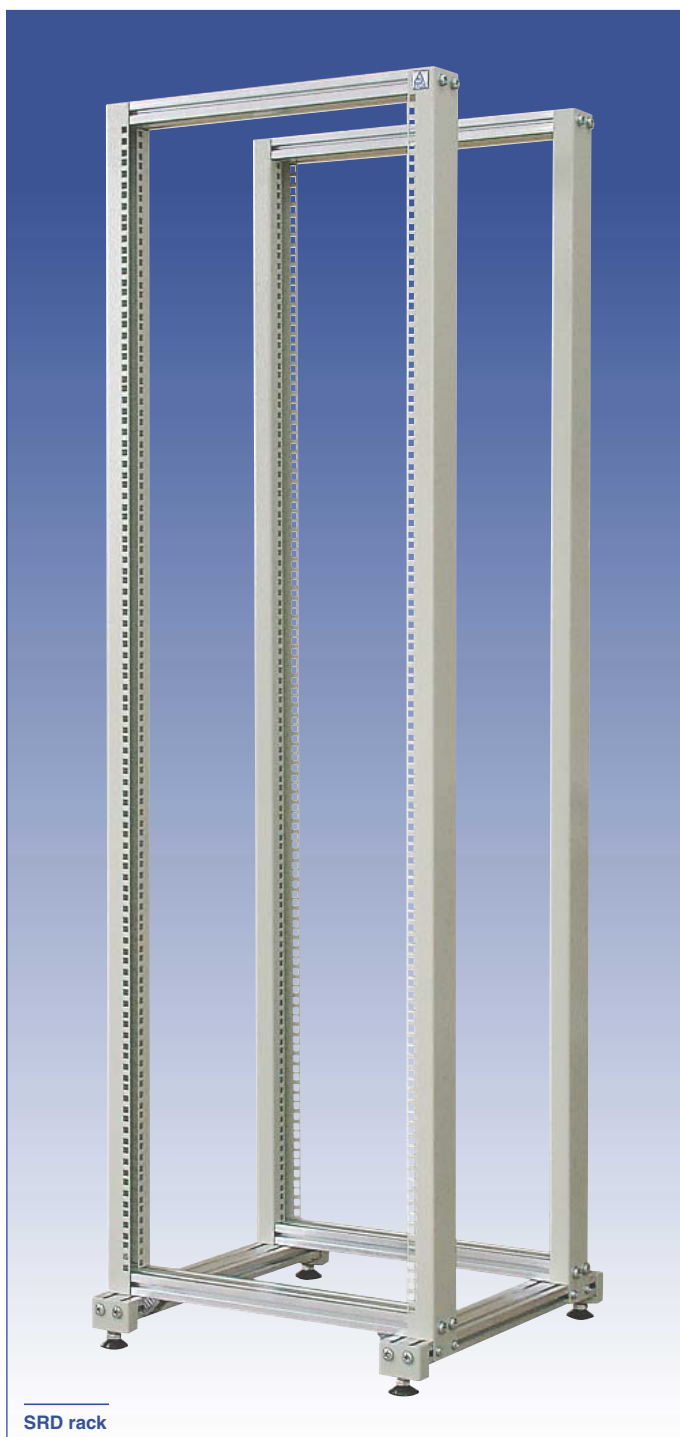
SRS

OPEN RACKS

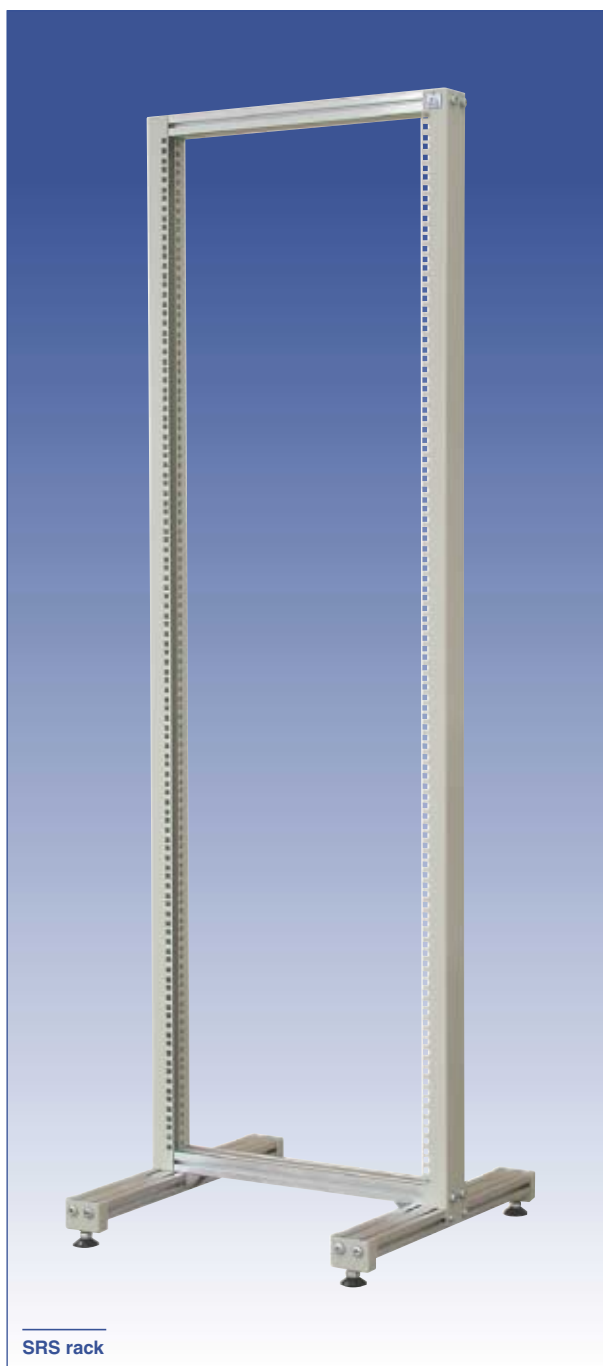
SRS, SRD 19" open racks

INTENDED FOR APPLIANCES, WHICH DO NOT REQUIRE FULL HOUSING

- SRS rack has one 19" frame, while SRD rack has double 19" frame.
- In both types of racks it is possible to have optional adjustment of 19" frame position.
- Screwed construction on basis of horizontal aluminium profiles and vertical steel posts.
- In standard - racks are set on levelling feet.
- It is possible to use some supplementary accessories as for data telecom cabinets - castors, shelves, drawers, power distribution units etc.



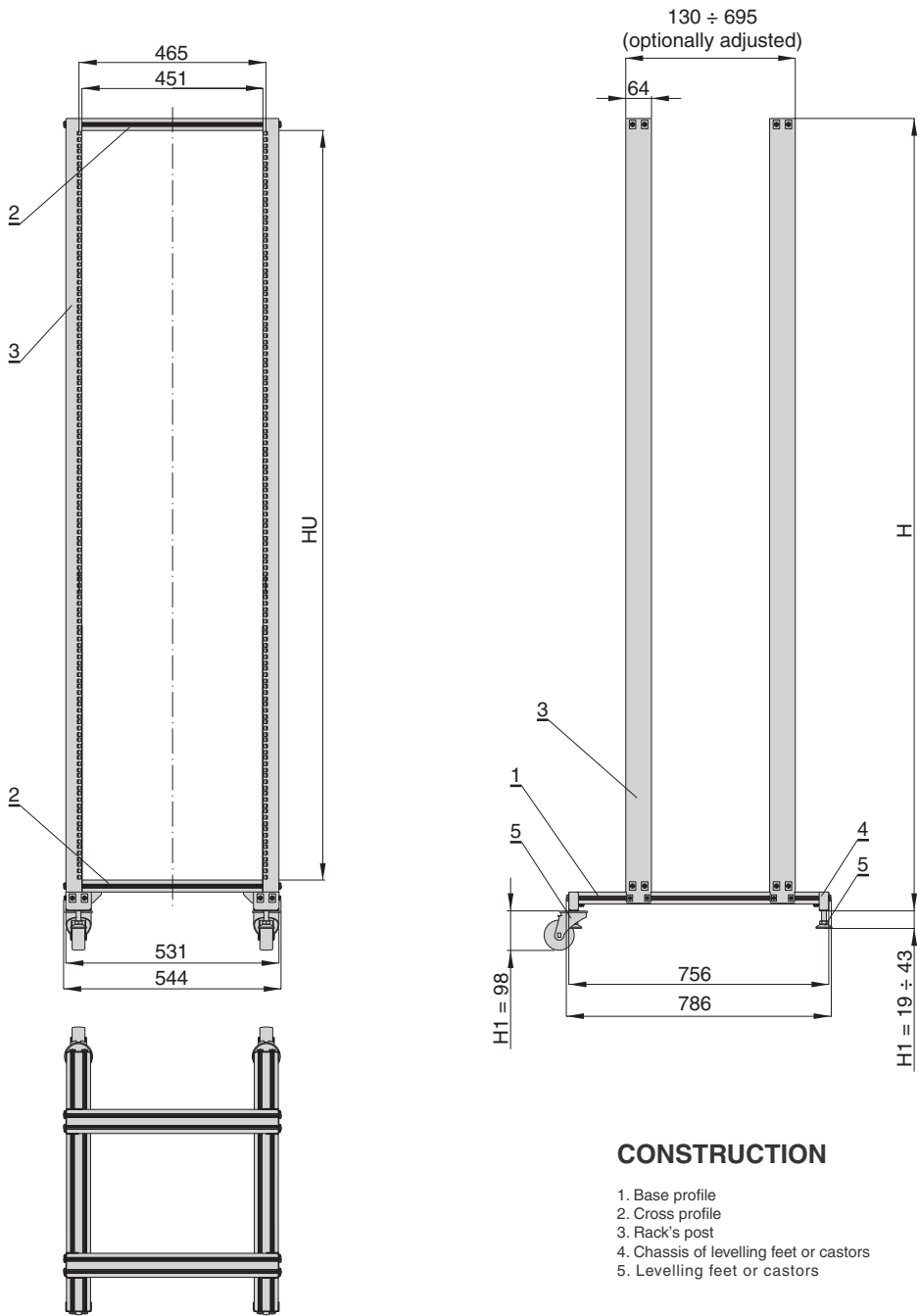
SRD rack



SRS rack


 Supplementary accessories - castors type 150
- see page 58

SRS, SRD 19" open racks



CONSTRUCTION

1. Base profile
2. Cross profile
3. Rack's post
4. Chassis of levelling feet or castors
5. Levelling feet or castors

TECHNICAL DATA

Material:

1.5 mm sheet steel,
aluminium profile 60 x 30 mm.

Surface finish:

Textured powder paint, light grey (RAL 7035).
All other colour options on request.

REFERENCE CHART

Catalogue number	Number of 19" frames	H [mm]	HU [U = 44.45 mm]
SRS-124	1	1177	24 U
SRS-136	1	1709	36 U
SRS-142	1	1975	42 U
SRS-145	1	2109	45 U
SRD-224	2	1177	24 U
SRD-236	2	1709	36 U
SRD-242	2	1975	42 U
SRD-245	2	2109	45 U

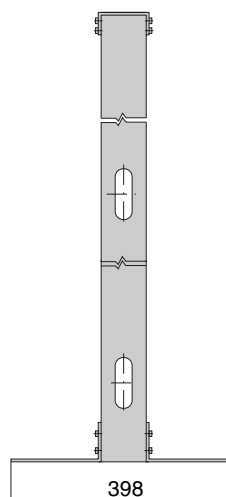
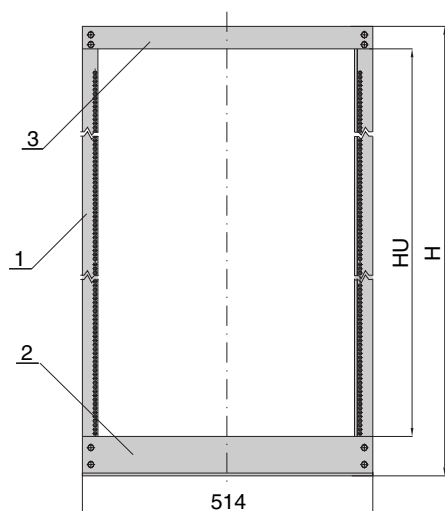
SRC 19" open rack

INTENDED FOR APPLIANCES, WHICH DO NOT REQUIRE FULL HOUSING

- Construction is based on screwed single 19" frame, fixed by screws to two steel mounting angles forming base.
- Chassis has openings to brace the rack to the floor.
- Optionally the rack can be equipped with wall-fastening brackets.
- It is possible to use some supplementary accessories as for data telecomm cabinets: shelves, drawers, power distribution units etc.

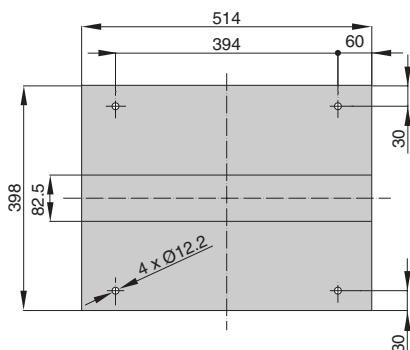
REFERENCE CHART

Reference number	Catalogue number	H [mm]	HU [U = 44.45 mm]
1	SRC-001	1542	31 U
2	SRC-002	1987	41 U
3	SRC-003	2200	45 U
4	SRC-004	2600	54 U



CONSTRUCTION

1. Vertical post
2. Chassis
3. Cross profile



TECHNICAL DATA

Material:

2.0 mm sheet steel.

Surface finish:

Textured powder paint, light grey (RAL 7035).
All other colour options on request.

Supplementary accessories



**DRAWER WITH COMPACT
KEYBOARD**



PW FAN UNIT



PWD FAN UNIT



POWER DISTRIBUTION UNIT



**MICROPROCESSOR PANEL
FOR FAN CONTROL**



PULL OUT SHELF II

Levelling feet

Levelling feet for cabinets and racks.

Thread: M12x38

Maximum load capacity of installed equipment in the cabinet set on adjustable feet: 300 kg.

Ways of adjustment:

- with 19 mm open ended spanner,
- with 5 mm wrench spanner (imbus).

Material:

Adjustable screw - zinc coated steel.

Base - plastic.

Supply includes:

Adjustable feet - 1 pc.

Package	Catalogue number
1 pc.	SZB-10-00-00



Levelling feet for cabinets and racks

Plinths with solid covers

Simple plinth

- Possibility of fixing into the room's floor.
- Possibility of adding rubber vibro-shock absorbers.
- Supply includes:
 - Plinth 100 mm high: 4 corners 100 mm high, 4 solid covers, set of fixing accessories.
 - Plinth 200 mm high: 4 corners 200 mm high, 8 solid covers, set of fixing accessories.

Plinth with levelling ability:

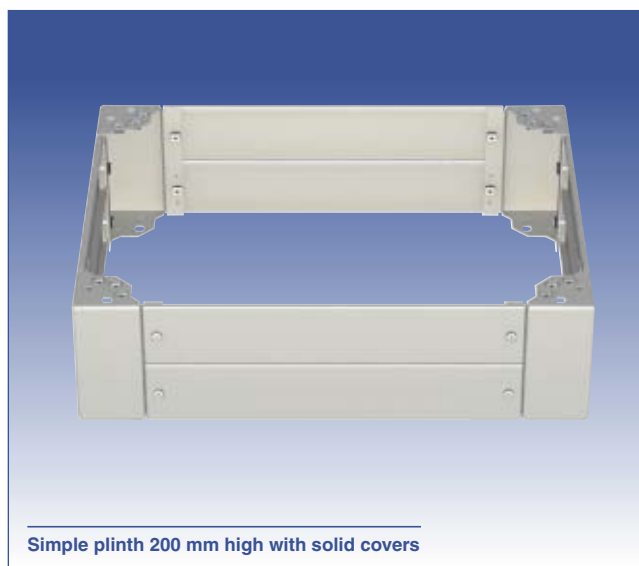
- Levelling by means of feet.
- Supply includes:
 - Plinth 100 mm high: 4 corners 100 mm high with levelling ability (with feet), 4 solid covers, set of fixing accessories.
 - Plinth 200 mm high: 4 corners 200 mm high with levelling ability (with feet), 8 solid covers, set of fixing accessories.

Construction of plinth enables to remove and replace covers even when the cabinet is heavily loaded with equipment.

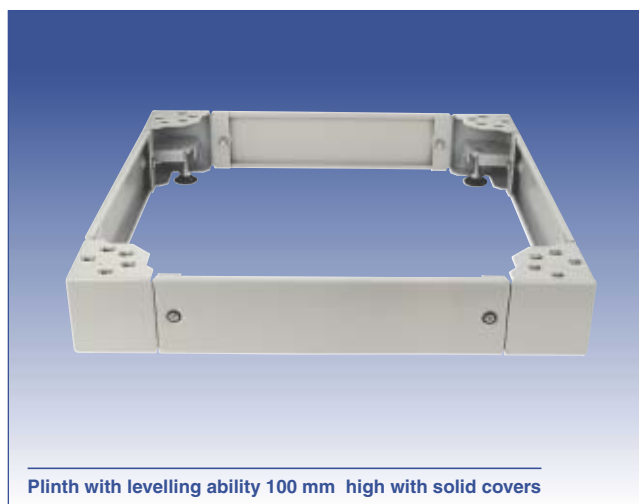
Standard colour of plinths: light grey (RAL 7035).

Dimensions [mm]			Catalogue number	
Height	Width	Depth	Simple plinth	Plinth with levelling ability
100	800	800	1C8080	1CP8080
		600	1C8060	1CP8060
	600	900	1C6090	1CP6090
		800	1C8060	1CP8060
		600	1C6060	1CP6060
200	800	800	2C8080	2CP8080
		600	2C8060	2CP8060
	600	900	2C6090	2CP6090
		800	2C8060	2CP8060
		600	2C6060	2CP6060

Package: 1 pc.



Simple plinth 200 mm high with solid covers



Plinth with levelling ability 100 mm high with solid covers

Plinths' elements

COVERS

There are available three types of covers - see the picture.
Each type has standard height 99 mm.
Covers can be removed even when the cabinet is loaded with equipment.

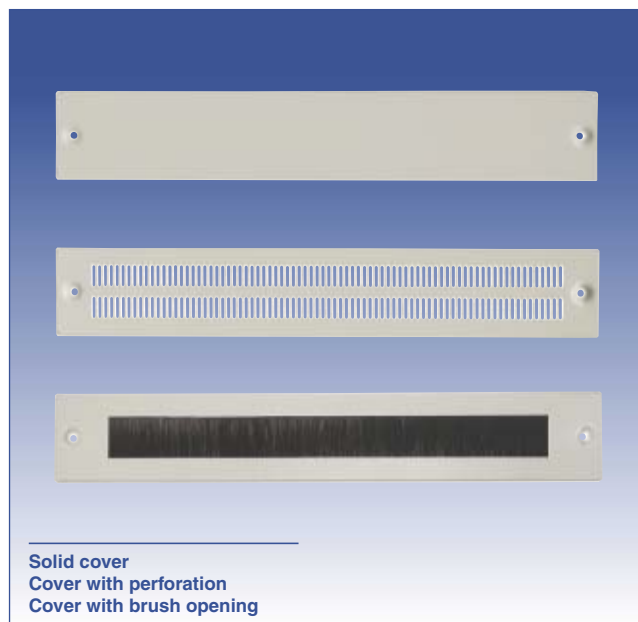
Material:

1.25 mm thick sheet steel, powder painted in light grey (RAL 7035).

Supply includes:

Cover without fixing accessories (screws and nuts for fixing the plinth are added to the corners).

Type of cover	Length of cover [mm]	Length of plinth's side [mm]	Catalogue number
Solid cover	600	800	1982-3/7
	400	600	1982-3/5
Cover with perforation	600	800	1982-5-1/7
	400	600	1982-5-1/5
Cover with brush opening	600	800	1982-4-1/7
	400	600	1982-4-1/5



CORNERS

They are available in two types:

- Simple corners - it is possible to fix them into the room's floor and adding rubber vibro shock absorbers.
- Corners with levelling ability - with feet.

Material:

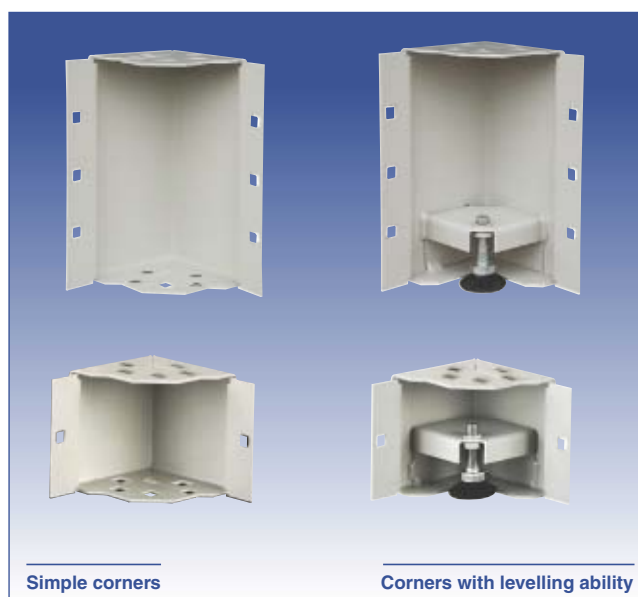
Corners: 2.5 mm thick sheet steel powder painted in light grey (RAL 7035).

Levelling feet: see page 52.

Supply includes:

Corners with fixing accessories for covers and assembling plinth into the cabinet. Corners with levelling ability are delivered with adjustable feet.

Type of element	Height [mm]	Package	Cat. no.
Simple corner	200	1 pc.	2174-2
	100	1 pc.	1982-2
Corner with levelling ability	200	1 pc.	2402-2-2
	100	1 pc.	2401-2-2



VIBRO-SHOCK ABSORBERS

The simple plinths can be optionally equipped with vibro-shock absorbers. Plinth with vibro-shock absorbers should be fixed into the room's floor. Four vibro-shock absorbers are needed for one plinth.

Material:

10 mm thick rubber.

Supply includes:

Vibro-shock absorber (1 pc.) without fixing accessories.

Package	Catalogue number
1 pc.	1951-43



Castors

CASTORS 150

For cabinets SZB, SZBk, SZB PC, SZA and SZT-2 as well as racks SRS and SRD.

One cabinet or rack requires two locking and two non-locking castors.

Maximum load capacity of 4 castors: 400 kg

Supply includes:

Single castor with screws and washers for fixing into the cabinet or rack.

Type of element	Package	Catalogue number
Locking castor 150	1 pc.	SZB-72-00-01
Non-locking castor 150	1 pc.	SZB-72-00-02



Castors 150

CASTORS 300

For cabinets SZB, SZBk, SZB PC and SZA.

One cabinet requires two locking, two non-locking castors and two strenghtening bars. One bar with locking castors is fixed at the cabinet's front, and the other bar with non-locking castors at the rear.

Maximum load capacity of 4 castors: 600 kg

Surface finish:

Strenghtening bar for castors - textured powder painted light grey (RAL 7035).

Supply includes:

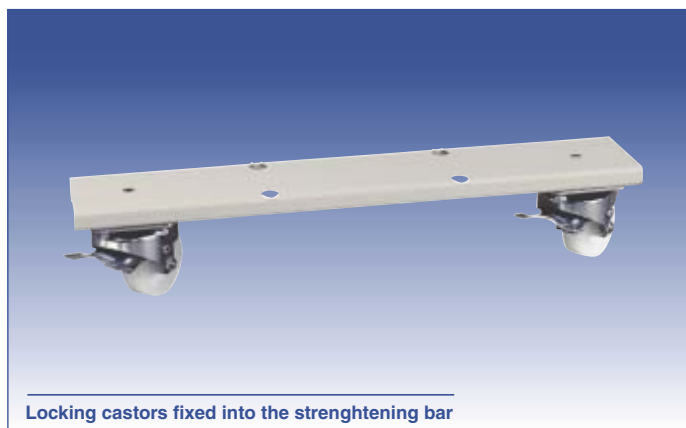
There are sold single elements:

- castors with screws and washers for fixing into the strenghtening bar,
- supporting bar for castors with screws and washers for fixing into the bottom plate of the cabinet.

Type of element	Package	Catalogue number
Locking castor 300	1 pc.	SZB-73-00-01
Non-locking castor 300	1 pc.	SZB-73-00-02
Strenghtening bar for cabinet's width	600 mm	1 pc.
	800 mm	1 pc.
		SZB-74-00-00/1
		SZB-74-00-00/2



Castors 300



Locking castors fixed into the strenghtening bar



Strenghtening bar for castors 300

Blanking plate for DSR cable opening

For concealing unused cable openings in the top and bottom plate of DSR cabinet.

Material:

1.0 mm thick sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Blanking plate complete with self-tapping screw for fixing to the top or bottom plate of the cabinet.

Dimensions [mm]	Package	Catalogue number
145 x 70 x 6	1 pc.	2645-12-1



Cable opening cover for DSR divider

For covering unused cable opening in the horizontal divider of DSR cabinet.

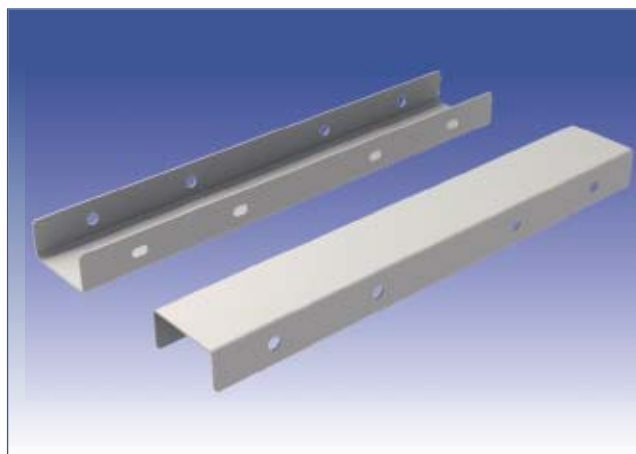
Material:

1.0 mm thick sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Cable opening cover with self-tapping screw for fixing to the divider.

Dimensions [mm]	Package	Catalogue number
300 x 46 x 23	1 pc.	2645-11-1



Self-adhesive insert of DSR divider

The self-adhesive insert is used to seal horizontally between the dividers and the side panels within colocation cabinets. This prevents foreign objects passing between compartments.

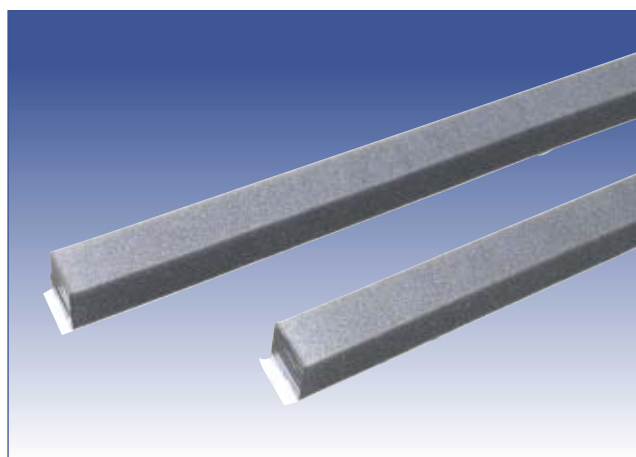
Material:

Polyurethane gasket 30 x 30 mm.

Note:

One 2,5 m length is sufficient for sealing 3 dividers within colocation cabinet.

Package	Catalogue number
2.5 m	2645-9



Module panel for cable entry

Intended for assembly under shortened door or panel in cabinet SZB, SZB PC and SZB SE.

Depending on height (3 U or 6 U), the module panel is equipped with one or two openings for cable entries. Openings can be equipped with blanking plates, brush strip or foam strip. Fixing instructions - see page 14 and 25.

Material:

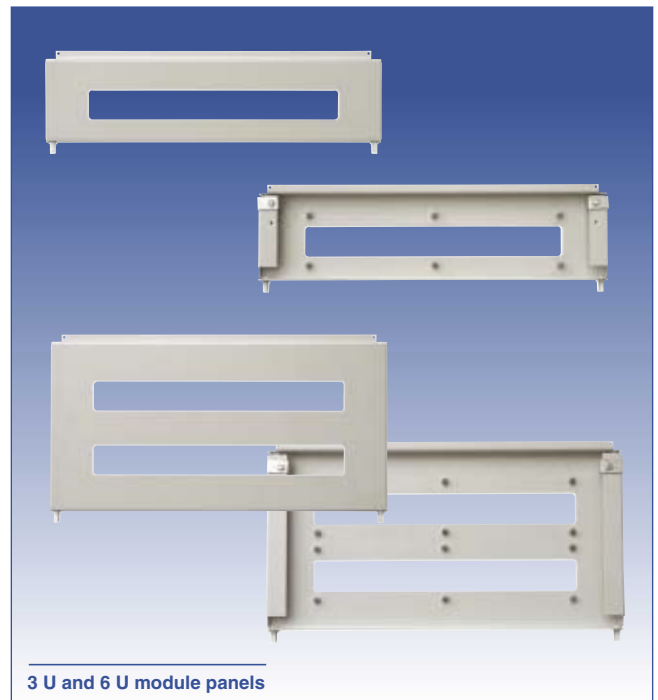
2.0 mm thick sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Module panel with fixing accessories for assembly into the cabinet and for fixing blanking plates or brush/foam strips. Blanking plates and brush/foam strips should be ordered separately.

Cabinet's width [mm]	Masking cover height [U = 44.45 mm]	Reference number
800	6 U	1718-49-2-1
	3 U	1718-46-2-1
600	6 U	1718-49-2-2
	3 U	1718-46-2-2

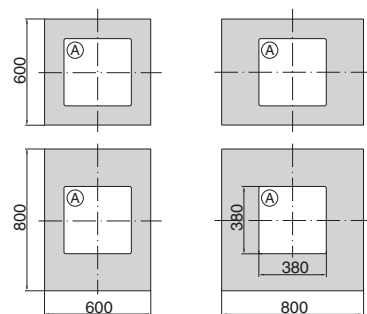
Package: 1 pc.



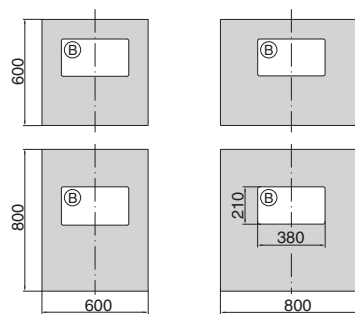
Blanking/cable entry plates and strips for bottom or top plate, roof and module panel

SZB and SZB PC cabinets

Top and bottom plate

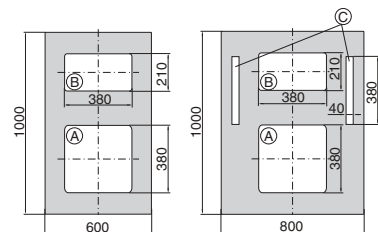


Roof with opening

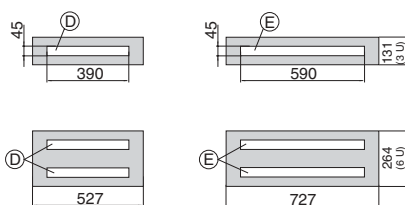


SZB SE cabinet

Top plate, bottom plate, roof with openings



Module panels intended for assembly under shortened door or panel in cabinet

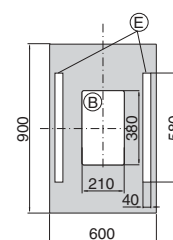


Module panels for 600 wide cabinets

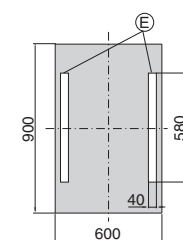
Module panels for 800 wide cabinets

DSR cabinet

Top and bottom plate



Roof with cable openings



Blanking/cable entry plates and strips for bottom or top plate, roof and module panel

Appliances in accordance with drawings on page 60.

Material:

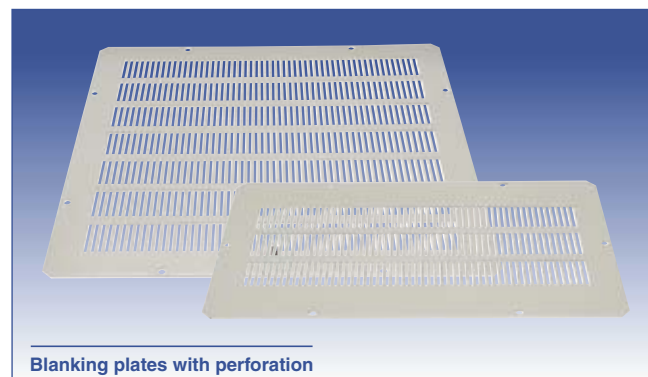
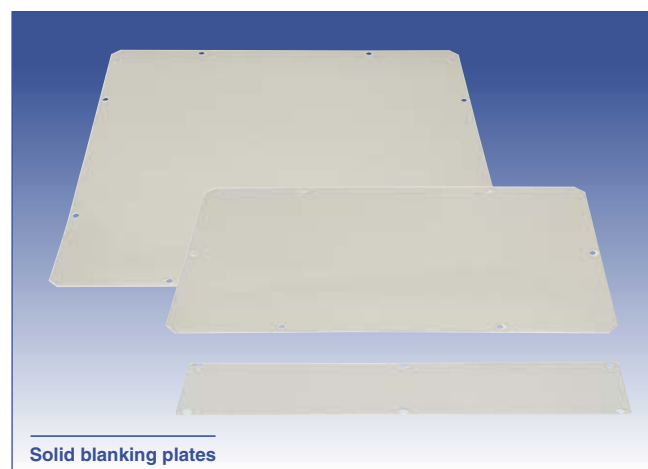
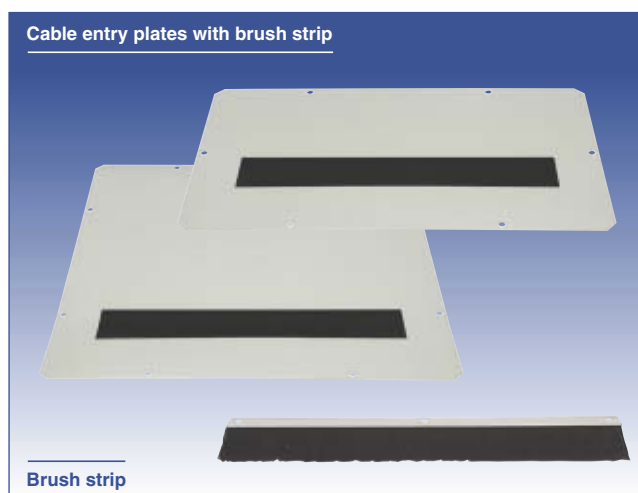
1.5 mm thick sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Blind covers with fixing accessories.

Type of element	For opening	Catalogue number
Solid blanking plate	A	1718-38-1-1
	B	1718-38-1-2
	C, D	1718-9-1-2
	E	1718-9-1-1
Blanking plate with perforation	A	1718-39-1-1
	B	1718-39-1-2
Blanking plate with fabric filter	A	1718-42-2-1
	B	1718-42-2-2
Cable entry plate with brush strip	A	1718-37-2-1
	B	1718-37-2-2
Brush strip	C, D	1718-8-2-2
	E	1718-8-2-1
Cable entry plate with foam strip	A	1718-40-2-1
	B	1718-40-2-2
Foam strip	C, D	1718-7-2-2
	E	1718-7-2-1
Cable entry plate with fabric filter and brush strip	B	SZB-76-00-00

Package: 1 pc.



Shelves

SHELVES FIXED ON TWO 19" MOUNTING PROFILES

Available in fixed and pull out version.

19" assembly, 2 U height.

Maximum static load capacity:

- Fixed shelf: 25 kg (superficial weight)
- Pull out shelf: 20 kg (superficial weight)

Material:

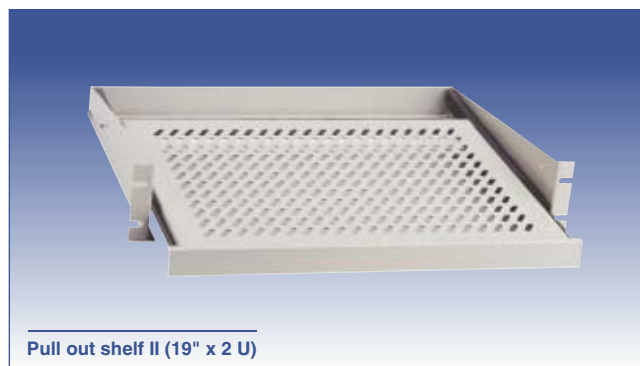
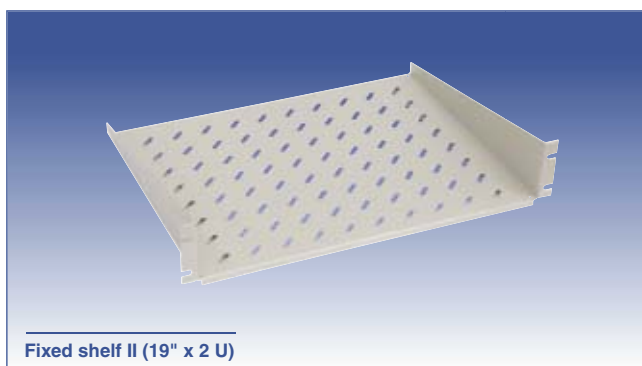
1.5 mm thick sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Fixed or pull out shelf with fixing accessories for assembling into the mounting profiles.

Type of shelf	Dimensions [mm]		Catalogue number
	Usable width	Total depth	
Fixed shelf II	446	650	SZB-00-00-49/1
		550	SZB-00-00-49/2
		450	SZB-00-00-49/3
		350	SZB-00-00-49/4
		250	SZB-00-00-49/5
Pull out shelf II	450	555	SZB-28-00-00/1
		455	SZB-28-00-00/2
		405	SZB-28-00-00/3
		355	SZB-28-00-00/4

Package: 1 pc.



SHELVES FIXED ON FOUR 19" MOUNTING PROFILES

Available in fixed and pull out version.

Fixing on two pairs of 19" mountig profiles (to the side openings).

Maximum static load capacity:

- Fixed shelf: 100 kg (superficial weight)
- Pull out shelf: 35 kg (superficial weight)

Material:

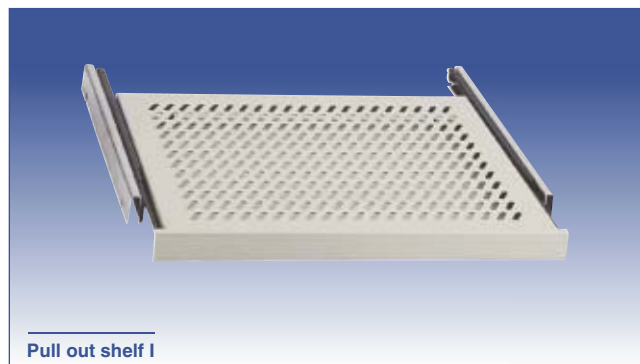
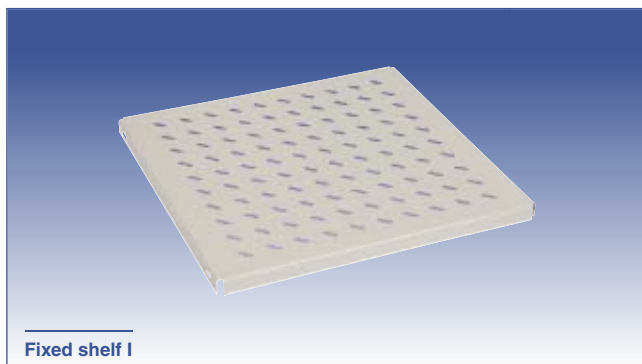
1.5 mm thick sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Fixed or pull out shelf with fixing accessories for assembling into the mounting profiles.

Type of shelf	Dimensions [mm]		Catalogue number
	Usable width	Total depth	
Fixed shelf I	465	650	SZB-00-00-48/1
		550	SZB-00-00-48/2
		450	SZB-00-00-48/3
		350	SZB-00-00-48/4
		250	SZB-00-00-48/5
Pull out shelf I	450	555	SZB-27-00-00/1
		455	SZB-27-00-00/2
		405	SZB-27-00-00/3
		355	SZB-27-00-00/4

Package: 1 pc.



SUPPLEMENTARY ACCESSORIES

Shelves

SHELVES FIXED ON SIX 19" MOUNTING PROFILES

For SZB SE server cabinets.

Available in fixed and telescopic version.

Fixing on three pairs of 19" mounting profiles (to the side openings; special middle mounting bars).

Maximum static load capacity:

- Fixed shelf: 200 kg (superficial weight)
- Telescopic shelf: 140 kg (superficial weight)

Material:

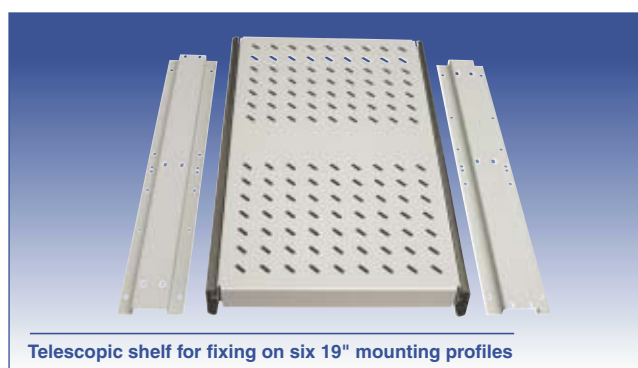
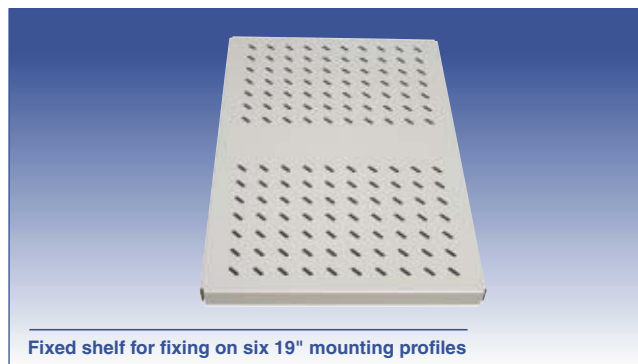
1.5 mm thick sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Fixed or telescopic shelf with fixing accessories for assembling into the mounting profiles.

Type of shelf	Dimensions [mm]		Catalogue number
	Usable width	Total depth	
Fixed shelf	465	700	1718-51-2
Telescopic shelf	392	700	1718-31-2

Package: 1 pc.



Document drawer and pocket

DOCUMENT DRAWER

Equipped with lock with patent insert.

19" assembly, height 2 U, depth 415 mm.

Internal dimensions: 460 x 413 x 55 mm.

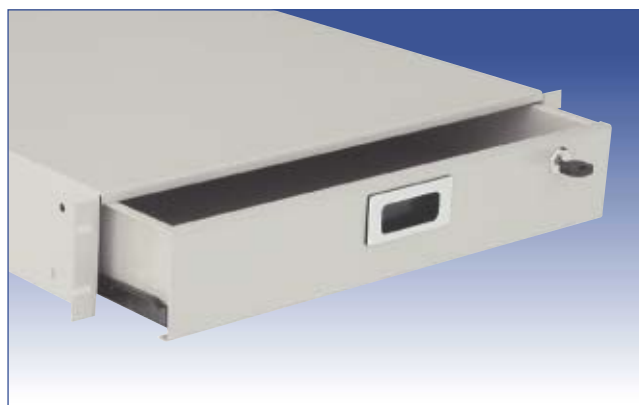
Material:

1.5 mm thick sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Drawer with fixing accessories for assembling into the mounting profiles.

Package	Catalogue number
1 pc.	SZB-67-00-00



DOCUMENT POCKET

For fixing on the cabinet's door.

A4 size, light grey colour (similar to RAL 7035).

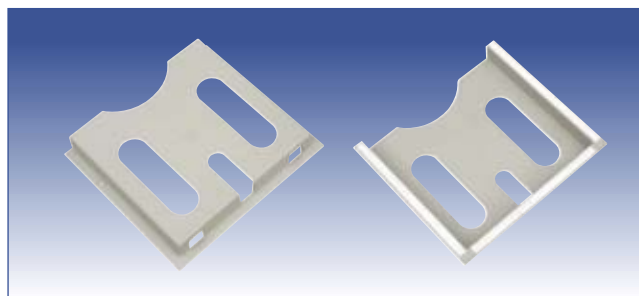
Material:

Plastic.

Supply includes:

Drawer with self-adhesive fixing tape.

Package	Catalogue number
1 pc.	SZB-00-00-40



Keyboard drawers

DRAWER WITH TOUCHPAD KEYBOARD

Drawer 19" x 1 U x 400 mm with compact touchpad keyboard.
Drawer equipped with lock with patent insert.

Material of drawer:

Sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Drawer with keyboard set, fixing accessories for assembling into the cabinet.

Package	Catalogue number
1 pc.	SZB-78-00-00/1



Drawer 19" x 1 U with touchpad keyboard

DRAWER WITH TRACKBALL KEYBOARD

Drawer 19" x 1 U x 400 mm with compact trackball keyboard.
Drawer equipped with lock with patent insert.

Material of drawer:

Sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Drawer with keyboard set, fixing accessories for assembling into the cabinet.

Package	Catalogue number
1 pc.	SZB-78-00-00/2



Drawer 19" x 1 U with trackball keyboard

DRAWER WITH KEYBOARD WITHOUT POINTING DEVICE

Drawer 19" x 1 U x 400 mm with compact keyboard without pointing device.

Drawer equipped with lock with patent insert.

Material of drawer:

Sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Drawer with keyboard set, fixing accessories for assembling into the cabinet.

Package	Catalogue number
1 pc.	SZB-78-00-00/3



Drawer 19" x 1 U with keyboard without pointing device

UNIVERSAL DRAWER WITHOUT KEYBOARD

Drawer 19" x 1 U x 400 mm without keyboard.

Internal dimensions: 378 x 262 x 36 mm.

Drawer equipped with lock with patent insert.

Material of drawer:

Sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Drawer with fixing accessories for assembling into the cabinet.

Package	Catalogue number
1 pc.	SZB-78-00-00/4



Universal drawer 19" x 1 U without keyboard

Monitor housing

Housing for 14", 15", 17" monitors.
19" assembly, height 9 U or 10 U, depth 383 mm.

Housing characteristic:

- Screen window with brown tinted Plexiglas.
- Bottom plate with height adjustment ability.
- Access to monitor control by 370 x 43 mm opening with blind cover.

Material:

Front plate - 3.0 mm thick sheet aluminium.
Sides and bottom plate - 1.5 mm thick sheet steel.
Housing - textured powder painted in light grey (RAL 7035).

Supply includes:

Housing with fixing accessories for assembling into the 19" mounting profiles.

Monitor	Height [U = 44.45 mm]	Package	Catalogue number
14" - 15"	9 U	1 pc.	SZB-80-00-00/1
17"	10 U	1 pc.	SZB-80-00-00/2



Brush panels

Make easier to organise cables in data cabinets.
19" assembly, height 1 U.
With 341 x 21.5 mm brush opening.
Support plate can be used in order to keep cross cables which are in excess.

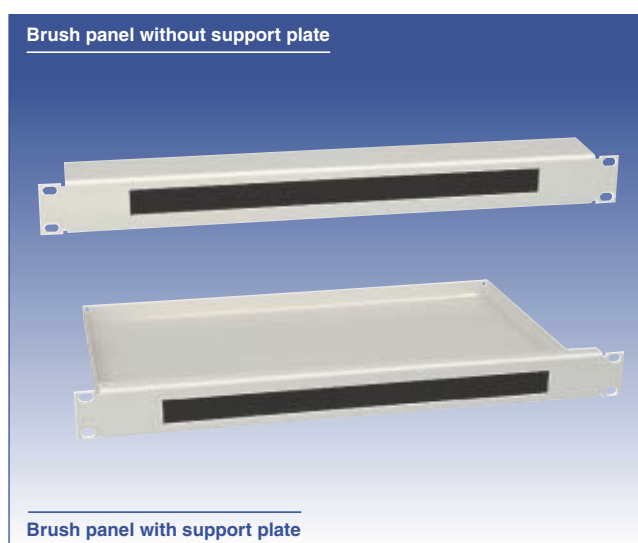
Material:

1.5 mm thick sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Brush panel with fixing accessories for assembling into the 19" mounting profiles.

Type of panel	Depth [mm]	Package	Catalogue number
Without support plate	50	1 pc.	SZB-63-00-00/1
With support plate	400	1 pc.	SZB-63-00-00/2



19" blanking plates

For covering empty 19" space.

Material:

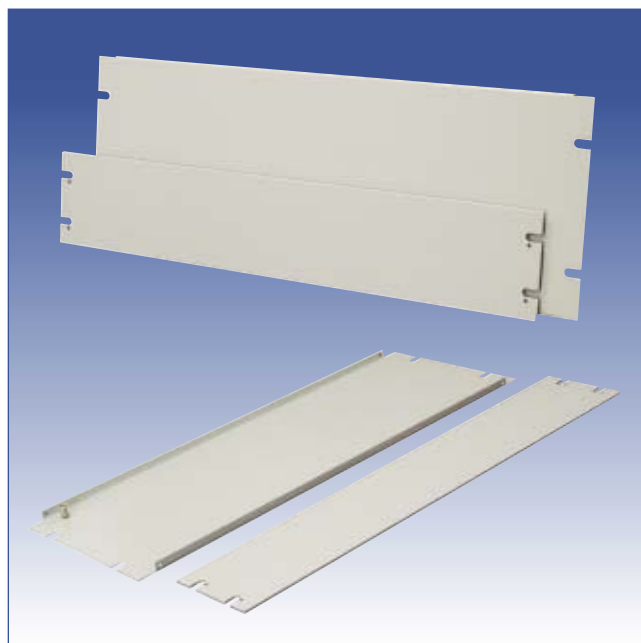
1.5 mm thick sheet steel or 3.0 mm thick sheet aluminium textured powder painted in light grey (RAL 7035).

Supply includes:

Blanking plate with fixing accessories.

Height [U = 44.45 mm]	Catalogue number	
	Steel blanking plate	Aluminium blanking plate
1 U	SZB-00-00-33/1	SZB-00-00-32/1
1.5 U	SZB-00-00-33/1,5	SZB-00-00-32/1,5
2 U	SZB-00-00-33/2	SZB-00-00-32/2
3 U	SZB-00-00-33/3	SZB-00-00-32/3
4 U	SZB-00-00-33/4	SZB-00-00-32/4
5 U	SZB-00-00-33/5	SZB-00-00-32/5
6 U	SZB-00-00-33/6	SZB-00-00-32/6

Package: 1 pc.



Vertical masking panel

For covering space between front 19" mounting profiles and cabinet's sides (see pictures on pages 21 and 31).

Material:

1.5 mm thick sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Vertical masking panel with fixing accessories.

Height [U = 44.45 mm]	Catalogue number
45 U	SZB-00-00-34/1
42 U	SZB-00-00-34/2
40 U	SZB-00-00-34/3
39 U	SZB-00-00-34/13
38 U	SZB-00-00-34/4
36 U	SZB-00-00-34/5
33 U	SZB-00-00-34/14
32 U	SZB-00-00-34/6
30 U	SZB-00-00-34/15
27 U	SZB-00-00-34/16
24 U	SZB-00-00-34/8
21 U	SZB-00-00-34/17
18 U	SZB-00-00-34/9
15 U	SZB-00-00-34/10

Package: 1 pc.



Vertical masking panels for cabinets 800 mm wide

Cable clamps

Intended for fixing:

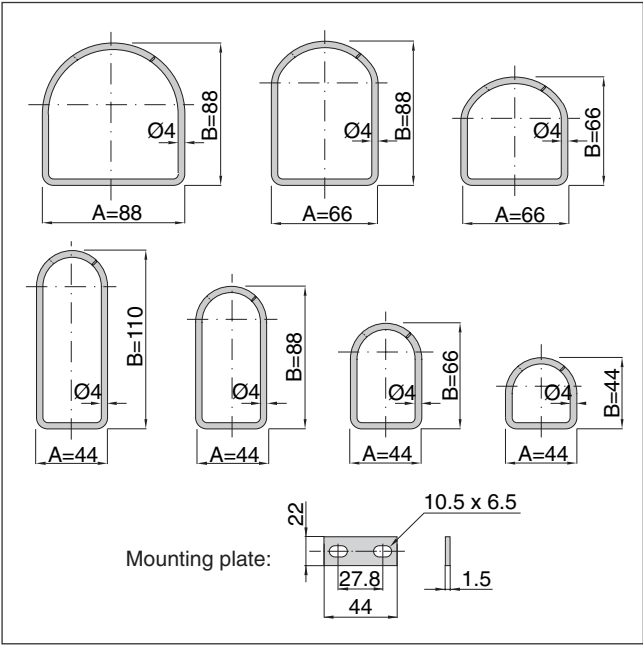
- on cable management bars (see below),
- on mounting profiles.

Material:

Zn coated steel.

Supply includes:

The cable clamps are sold in sets: 5 pcs. of clamps and fixing accessories.



Type of cable clamp	Package	Dimensions A x B [mm]	Catalogue number
	5 pcs.	88 x 88 mm	SZB-52-00-00/1
		66 x 88 mm	SZB-52-00-00/2
		66 x 66 mm	SZB-52-00-00/3
		44 x 110 mm	SZB-52-00-00/4
		44 x 88 mm	SZB-52-00-00/5
		44 x 66 mm	SZB-52-00-00/6
		44 x 44 mm	SZB-52-00-00/7
	5 pcs.	88 x 88 mm	SZB-53-00-00/1
		66 x 88 mm	SZB-53-00-00/2
		66 x 66 mm	SZB-53-00-00/3
		44 x 110 mm	SZB-53-00-00/4
		44 x 88 mm	SZB-53-00-00/5
		44 x 66 mm	SZB-53-00-00/6
		44 x 44 mm	SZB-53-00-00/7
	5 pcs.	88 x 88 mm	SZB-54-00-00/1
		66 x 88 mm	SZB-54-00-00/2
		66 x 66 mm	SZB-54-00-00/3
		44 x 110 mm	SZB-54-00-00/4
		44 x 88 mm	SZB-54-00-00/5
		44 x 66 mm	SZB-54-00-00/6
		44 x 44 mm	SZB-54-00-00/7

Cable management bar

19" assembly, height: 1 U or 2 U.

With slots for mounting cable clamps.

Material:

1.0 mm thick sheet steel textured powder painted in light grey (RAL 7035).

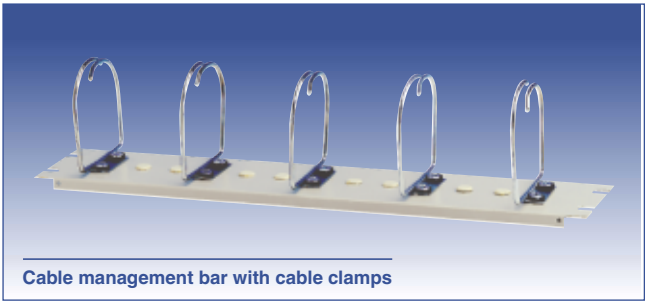
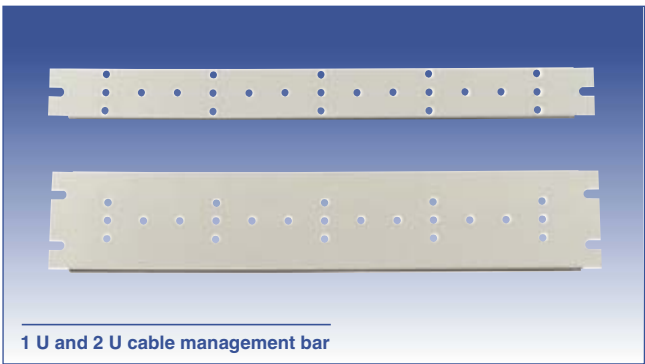
Supply includes:

Cable management bar, 8 rubber covers for not used slots, fixing accessories.

Note:

Cable clamps should be ordered separately.

Height [U = 44.45 mm]	Package	Catalogue number
1 U	1 pc.	SZB-55-00-00
2 U	1 pc.	SZB-56-00-00



Mounting profiles, mounting angle

For installing 19" equipment in cabinets SZB, SZBk, SZB PC, SZB SE, DSR and SZA. In cabinets 600 mm wide, mounting profiles bars are fixed directly to the frame; in cabinets 800 mm wide, in order to achieve 19" spacing, it is necessary to use outriggers.

Material:

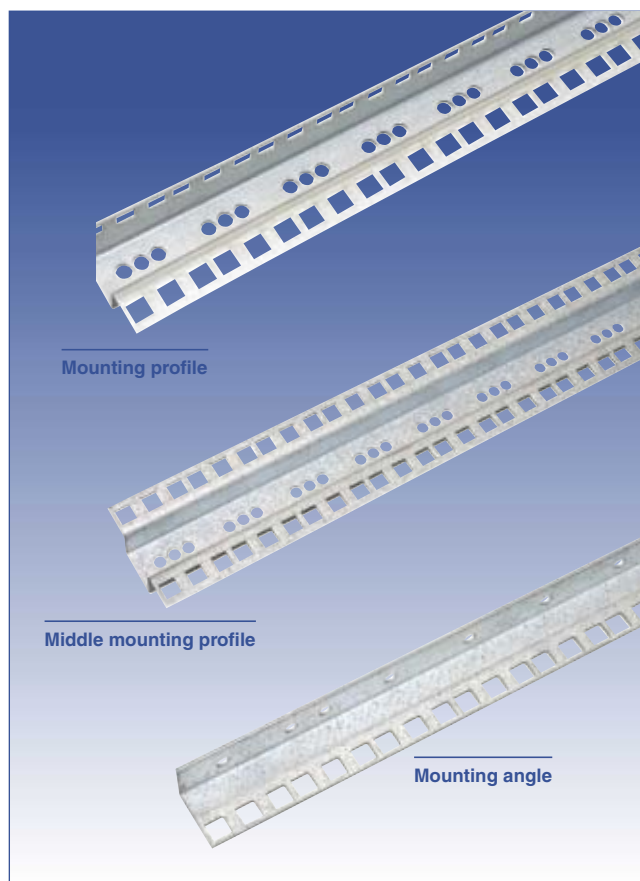
2.0 mm thick Al-Zn coated sheet steel.

Supply includes:

Mounting bar or mounting angle without fixing accessories.

Height [U = 44.45 mm]	Mounting profile	Middle mounting profile	Mounting angle
47 U	1391-1-3/A/1	SZB-00-00-53/A/13	SZB-00-00-30/13
45 U	SZB-00-00-01/1	SZB-00-00-53/A/1	SZB-00-00-30/1
42 U	SZB-00-00-01/2	SZB-00-00-53/A/2	SZB-00-00-30/2
40 U	SZB-00-00-01/3	SZB-00-00-53/A/3	SZB-00-00-30/3
39 U	SZB-00-00-01/13	SZB-00-00-53/A/14	SZB-00-00-30/14
38 U	SZB-00-00-01/4	SZB-00-00-53/A/4	SZB-00-00-30/4
36 U	SZB-00-00-01/5	SZB-00-00-53/A/5	SZB-00-00-30/5
33 U	SZB-00-00-01/14	SZB-00-00-53/A/15	SZB-00-00-30/15
32 U	SZB-00-00-01/6	SZB-00-00-53/A/6	SZB-00-00-30/6
30 U	SZB-00-00-01/15		SZB-00-00-30/16
28 U	SZB-00-00-01/7	SZB-00-00-53/A/7	SZB-00-00-30/7
27 U	SZB-00-00-01/16		SZB-00-00-30/17
24 U	SZB-00-00-01/8	SZB-00-00-53/A/8	SZB-00-00-30/8
21 U	SZB-00-00-01/17		SZB-00-00-30/18
18 U	SZB-00-00-01/9	SZB-00-00-53/A/9	SZB-00-00-30/9
15 U	SZB-00-00-01/10	SZB-00-00-53/A/10	SZB-00-00-30/10
12 U	SZB-00-00-01/11	SZB-00-00-53/A/11	SZB-00-00-30/11
10 U	SZB-00-00-01/12	SZB-00-00-53/A/12	SZB-00-00-30/12

Package: 1 pc.



Outriggers

For fixing mounting profiles in cabinets 800 mm wide, in order to achieve 19" or 21" spacing.

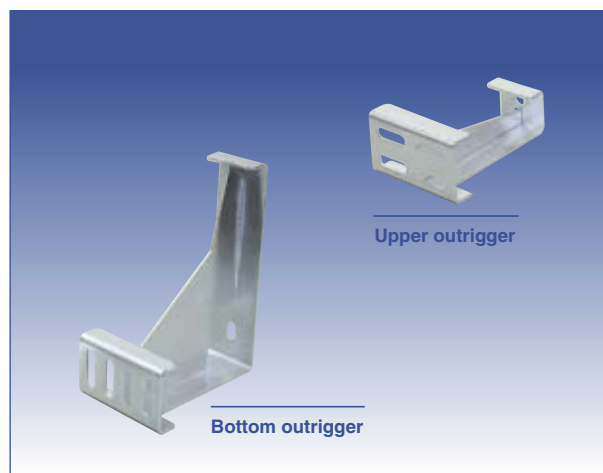
Material:

2.0 mm thick Zinc coated sheet steel.

Supply includes:

One outrigger with fixing accessories to install the outrigger to the mounting profile and cabinet's frame.

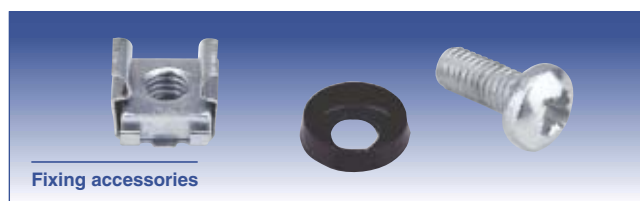
For cabinets	Spacing	Type of outrigger	Package	Catalogue number
SZB, SZBk, SZB PC, SZB SE	19"	upper	1 pc.	SZB-24-00-00
		bottom	1 pc.	1610-6-1/A
	21"	upper	1 pc.	1600-25-2
		bottom	1 pc.	1600-27-2
SZA	19"	universal	1 pc.	1034-7



Fixing accessories set

For fixing appliances to the mounting profiles. Offered in sets: 1 set = 10 pcs. of each element.

Description of set	Package	Catalogue number
Screw M6x16 - 10 pcs. Cage nut M6 - 10 pcs. Plastic washer - 10 pcs.	1 set	SZB-00-00-35



Cross bar

Fixed to the rear mounting profiles in 19" cabinets.
For installing cables or supporting appliances in the cabinet.

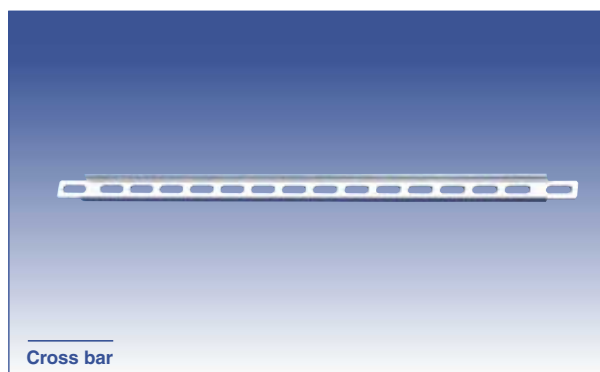
Material:

1.5 mm thick zinc coated sheet steel.

Supply includes:

Cross bar with fixing accessories.

Length [mm]	Package	Catalogue number
500	1 pc.	SZB-00-00-28/1
335	1 pc.	SZB-00-00-28/2



Guide bar

Fixed horizontally to the front and rear mounting profile, parallel to the cabinet's side.

For supporting appliances in the cabinet.

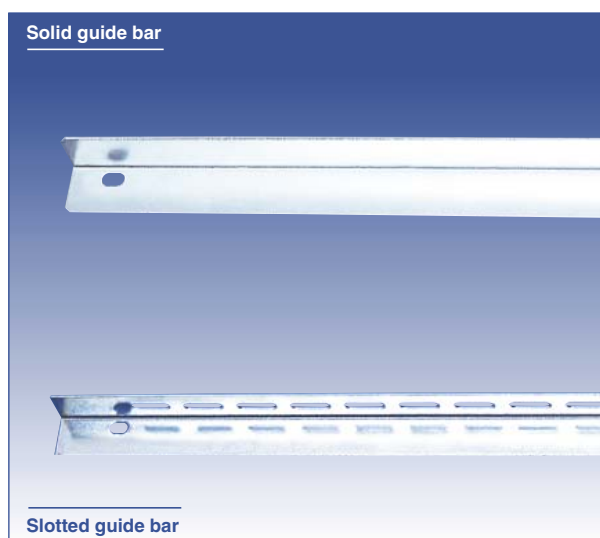
Material:

1.5 mm thick zinc coated sheet steel.

Supply includes:

Guide bar (solid or perforated) with fixing accessories.

Length [mm]	Catalogue number	
	Solid guide bar	Slotted guide bar
650	SZB-00-00-26/1	SZB-00-00-27/1
550	SZB-00-00-26/2	SZB-00-00-27/2
450	SZB-00-00-26/3	SZB-00-00-27/3
350	SZB-00-00-26/4	SZB-00-00-27/4
250	SZB-00-00-26/5	SZB-00-00-27/5



Cable holder

Fixed horizontally to the front and rear mounting profiles, parallel to the cabinet's side.

For installing cable bundle.

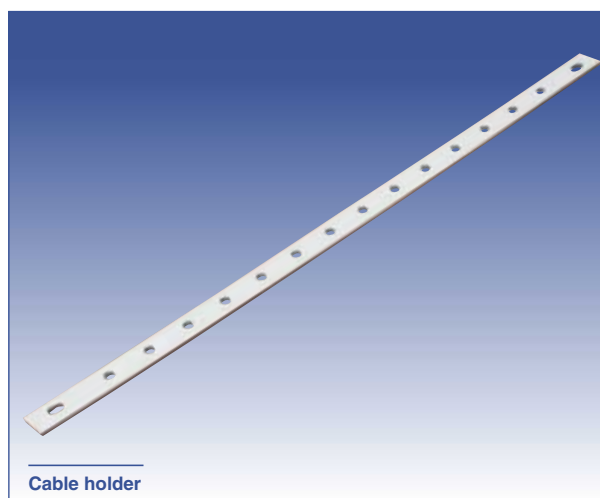
Material:

3.0 mm thick zinc coated sheet steel.

Supply includes:

Cable holder with fixing accessories.

Length [mm]	Catalogue number
500	SZB-00-00-29/1
410	SZB-00-00-29/2
335	SZB-00-00-29/3
310	SZB-00-00-29/4
210	SZB-00-00-29/5



Swing frame

For installing 19" equipment in SZB cabinets 800 mm wide.

Position of frame: middle.

Maximum depth of appliances mounted into the frame: 350 mm.

Standard construction of SZB cabinets enables to use swing frames for full usable height of the cabinet (see cabinet's heights in the chart below).

When smaller swing frames are used - it is necessary to use special brackets, so it is needed to order SZB in special configuration (see photo).

Material:

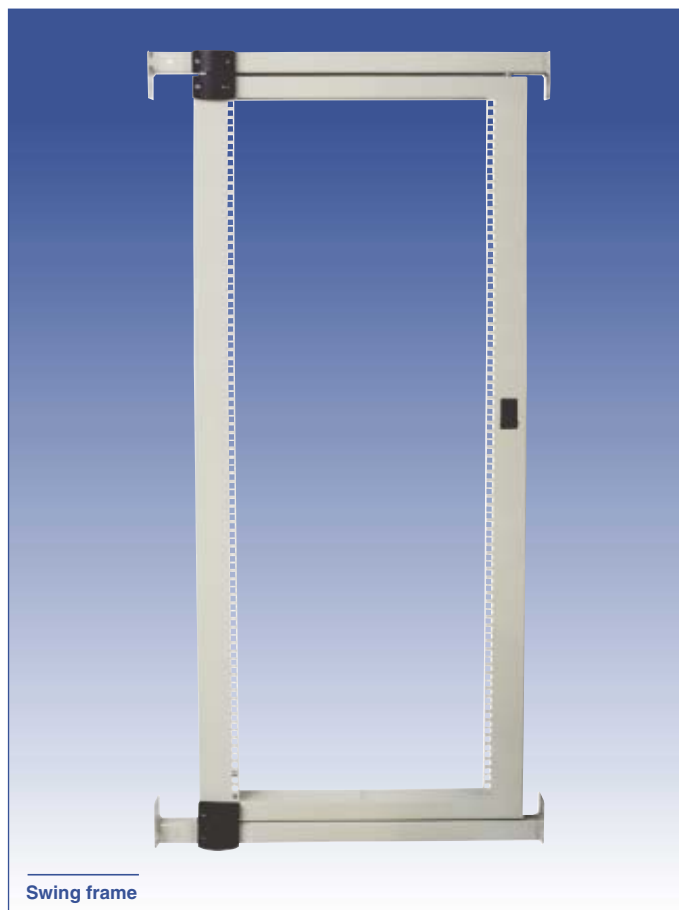
Sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

Swing frame set with fixing accessories.

Swing frame's height [U = 44.45 mm]	For cabinet SZB height [U = 44.45 mm]	Catalogue number
6 U	for custom order cabinets	SZB-23-00-00/1
8 U		SZB-23-00-00/2
10 U	15 U	SZB-23-00-00/3
12 U	15 U, 18 U	SZB-23-00-00/4
14 U	18 U	SZB-23-00-00/5
16 U	21 U	SZB-23-00-00/6
18 U	21 U, 24 U	SZB-23-00-00/7
20 U	24 U	SZB-23-00-00/8
22 U	27 U	SZB-23-00-00/9
24 U	27 U, 30 U	SZB-23-00-00/10
26 U	30 U	SZB-23-00-00/11
28 U	33 U	SZB-23-00-00/12
30 U	33 U, 36 U	SZB-23-00-00/13
32 U	36 U	SZB-23-00-00/14
34 U	39 U	SZB-23-00-00/15
36 U	39 U, 42 U	SZB-23-00-00/16
38 U	42 U	SZB-23-00-00/17
40 U	45 U	SZB-23-00-00/18

Package: 1 pc.



Swing frame



Swing frame 10 U installed in the upper part of the SZB cabinet (on special request).

Cable ducts

On customer's request, both floor-standing and wall-mounted cabinets, can be equipped with cable ducts (in accordance with specification provided by customer or prepared by ZPAS S.A.). Cable ducts are available in the following dimensions (W x D): 60 x 120, 60 x 100, 60 x 80, 40 x 60, 40 x 40 mm.

U-PROFILE FOR CABLE DUCTS STIFFENING

Fixed together with cable duct to the frame's cross bars.

Material:

1.5 mm sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

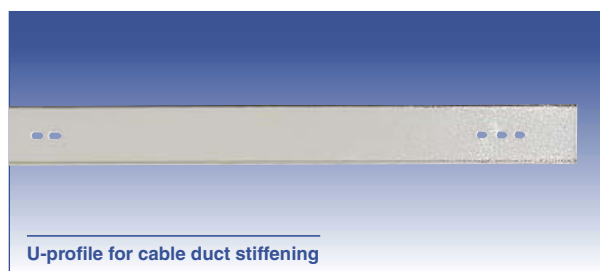
U-profile with fixing accessories.

Height [U = 44.45 mm]	U-profile - catalogue numbers	
	Width 61 mm	Width 41 mm
47 U	SZB-00-00-31/25	SZB-00-00-31/31
45 U	SZB-00-00-31/1	SZB-00-00-31/13
42 U	SZB-00-00-31/2	SZB-00-00-31/14
40 U	SZB-00-00-31/3	SZB-00-00-31/15
39 U	SZB-00-00-31/26	SZB-00-00-31/32
38 U	SZB-00-00-31/4	SZB-00-00-31/16
36 U	SZB-00-00-31/5	SZB-00-00-31/17
33 U	SZB-00-00-31/27	SZB-00-00-31/33
32 U	SZB-00-00-31/6	SZB-00-00-31/18
30 U	SZB-00-00-31/28	SZB-00-00-31/34
28 U	SZB-00-00-31/7	SZB-00-00-31/19
27 U	SZB-00-00-31/29	SZB-00-00-31/35
24 U	SZB-00-00-31/8	SZB-00-00-31/20
21 U	SZB-00-00-31/30	SZB-00-00-31/36
18 U	SZB-00-00-31/9	SZB-00-00-31/21
15 U	SZB-00-00-31/10	SZB-00-00-31/22
12 U	SZB-00-00-31/11	SZB-00-00-31/23
10 U	SZB-00-00-31/12	SZB-00-00-31/24

Package: 1 pc.



Cable duct in SZB cabinet



U-profile for cable duct stiffening

Frame with grid

It is intended for covering the perforation in panels and doors of SZB cabinet from the inside.

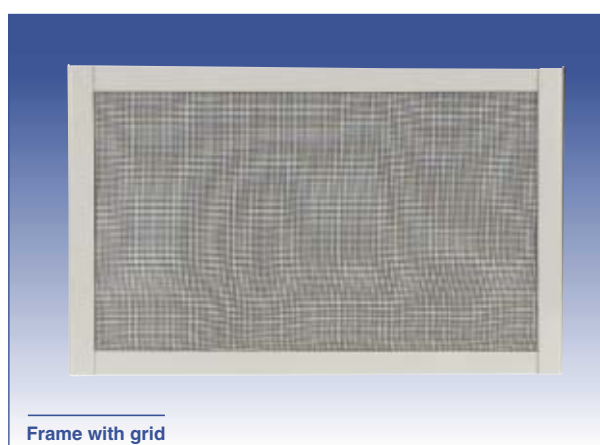
Material:

Frame - sheet steel, grid - steel; all element textured powder painted in light grey (RAL 7035).

Supply includes:

Frame and grid with fixing accessories.

Dimensions [mm]	Package	Catalogue number
459 x 245	1 pc.	SZB-39-00-00/1
356 x 350	1 pc.	SZB-39-00-00/2
228 x 222	1 pc.	SZB-39-00-00/3



Frame with grid

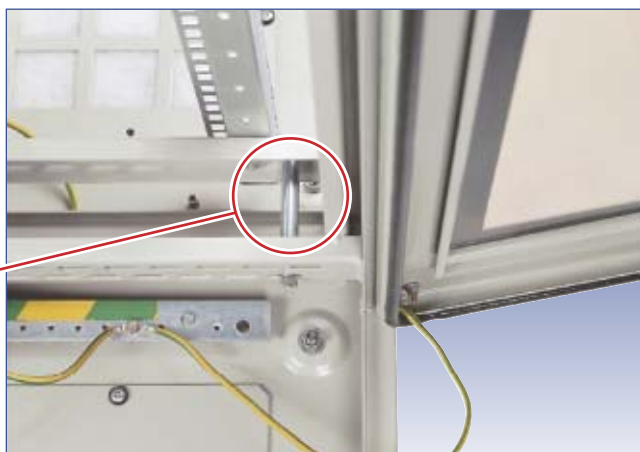
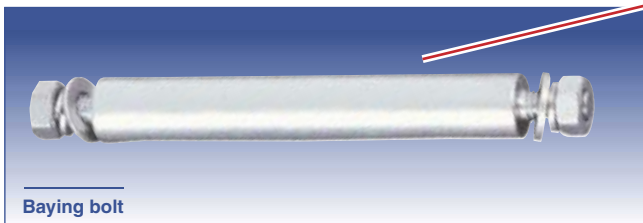
Baying bolt

For SZB joining or SZB SE cabinets in rows.
In order to join two cabinets, there are needed 4 baying bolts.

Supply includes:

Baying bolt - 1 pc. with nuts and washers.

Package	Catalogue number
1 pc.	SZB-25-00-00



Joining manner of SZB cabinets

Grounding bar

For floor-standing cabinets.
Fixed to the bottom plate.

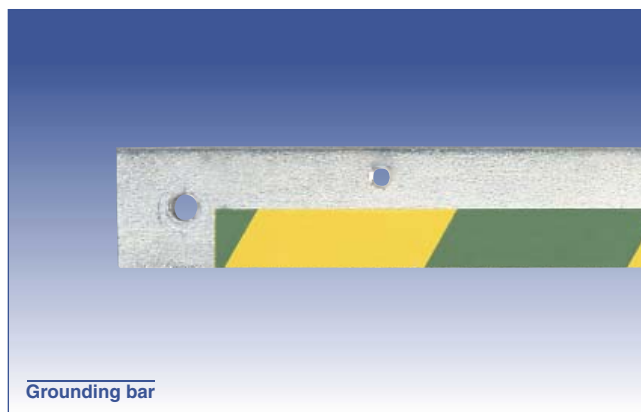
Material:

30 x 4 mm zinc coated steel bar.

Supply includes:

Grounding bar with fixing accessories.

Length [mm]	Package	Catalogue number
620	1 pc.	SZB-13-00-00/1
420	1 pc.	SZB-13-00-00/2
270	1 pc.	SZB-13-00-00/3
170	1 pc.	SZB-13-00-00/4



Grounding cables set

Insulated copper cables for joining removable elements of the cabinet with grounding bar.
Equipped with contact eyes \varnothing 6 mm.

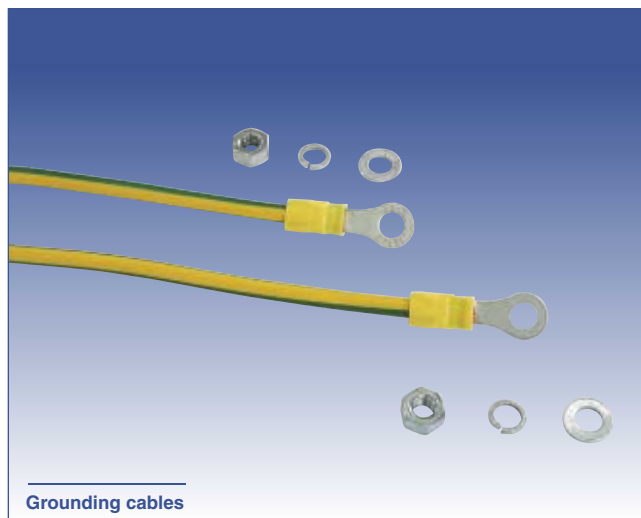
Material:

Copper cables 6 mm².

Supply includes:

Grounding cables are sold in sets in accordance with the chart below.

Description of set	Package	Catalogue number
Cable 300 mm long - 4 pcs. Cable 400 mm long - 2 pcs. Cable 600 mm long - 1 pc. Fixing accessories	1 set	SZB-12-00-00/1
Cable 300 mm long - 2 pcs. Cable 400 mm long - 2 pcs. Cable 600 mm long - 1 pc. Fixing accessories	1 set	SZB-12-00-00/2



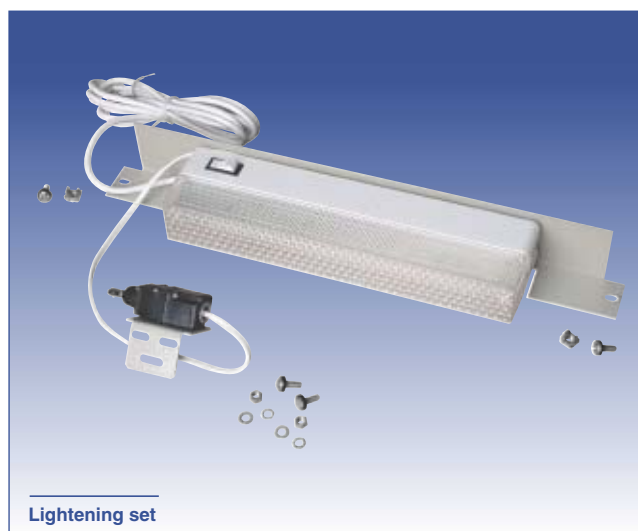
Lightening set

For floor-standing cabinets.
19" assembly, height 2 U.

Set includes:

- electric light fitting with fluorescent lamp 230 V, 8 W and switch,
- bracket for fixing the electric light fitting on the 19" mounting profiles,
- microswitch (automatically switches on and off the light when the door opens and closes),
- bracket for fixing the microswitch to the cabinet's frame,
- power supply cable,
- fixing accessories.

Package	Catalogue number
1 set	SZB-71-00-00



Fixing/spacer bolts

For fixing grounding bar to the frame of DSR colocation cabinet

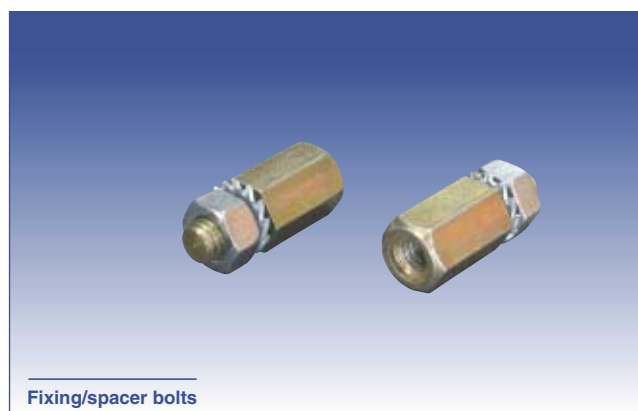
Material:

Galvanised steel.

Supply includes:

Fixing/spacer bolts are sold in sets: 2 bolts with nuts and washers.

Package	Catalogue number
1 set	2645-15-1



Spray paint

Spray paint for renovation and corrections of painted surfaces.

Colour	Supply includes	Catalogue number
RAL 7035	400 ml package	SZB-65-00-00/7035

Other colours on request.



Power distribution units

Characteristics:

- Optimum height of 19" units - 1 U (44.45 mm).
- Possibility of fixing the units by different angles.
- 35° rotated position of outlet box enables unlimited usage of angular plugs (possibility of fixing strip directly one over another).
- Body of the units made of anodized aluminium profile.
- Colour of outlets and front: light grey (RAL 7035).

Fixing way of power strips:

- 440 mm long strips - 19" assembly or fixing in vertical position to one mounting profile (4 positions of mounting bracket by 90°).
- More than 440 mm long units - only in vertical position (12 positions of mounting brackets by 30°).

Technical data:

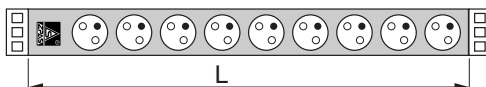
- Voltage rating 230 V AC
- Maximum current 16 A
- Attach power 16 A / 3600 W
- Conductor 3 m, black, 1.5 mm² section
- Protection system 2P+Z
- Protection degree IP 20
- Surge current 6,5 kA

Supply includes:

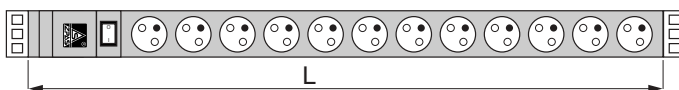
Power distribution unit with brackets and set of fixing accessories.



19" unit



Unit for fixing
in vertical position



	Dimensions [mm]			Accessories						Catalogue number [type of strip]
	Length L [mm]	Width W [mm]	Depth D [mm]	Check lamp	Illuminated switch	Overvoltage protection with net filter	Miniature circuit breaker 2 x C10	Number of plug- sockets with earth-pin 2P+Z	Number of computer sockets	
19" units	440	44	44					9		LZ-30/9
	440	44	44		●	●		5		LZ-30F
	440	44	44	●					7	LZ-114
	440	44	44		●			6		LZ-211
	440	44	44		●				7	LZ-214
	440	44	44	●			●	3	2	LZ-312
Units for fixing in vertical position	660	52	44		●			12		LZ-221
	830	52	44	●		●	●	9	1	LZ-521
	915	52	44	●				18		LZ-131
	915	52	44		●			18		LZ-231
	1040	52	44	●			●	15	3	LZ-331
	1040	52	44			●	●	15	1	LZ-531
	1090	52	44	●		●	●	12	4	LZ-532

Package: 1 pc.

Type of sockets								
Standard sockets			Socket available on special request					
2P+Z 230 V; 10/16 A	Computer 230 V; 10 A	Schuko 230 V; 10/16 A	Switzerland 230 V; 10 A	USA 125 V; 10 A	Denmark 230 V; 10 A	England 230 V; 13 A	Italy 230 V; 10/16 A	Australia 240 V; 10 A

Power distribution units

19" units

LZ-30/9

LZ-30F

LZ-114

LZ-211

LZ-214

LZ-312



LZ-221

LZ-521

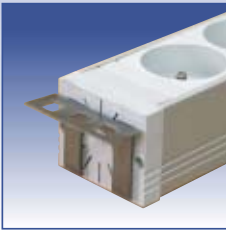
LZ-131

LZ-231

LZ-331

LZ-531

LZ-532



Units for fixing
in vertical position

SUPPLEMENTARY ACCESSORIES

PW fan units - 19" assembly

Fan units 1 U high, intended for assembly on 19" mounting profiles or in 19" swing frames.

In standard, they are equipped in from 2 to 6 fans, illuminated switch and fuse.

PW fan units can be controlled by thermostat or microprocessor panel for fan control.

Technical data:	Type of fan unit			
	PW-1.2	PW-1.3	PW-2.4 PW-3.4	PW-2.6 PW-3.6
Power supply	230 V, 50 Hz			
Rated current [A]	0.24	0.36	0.48	0.72
Quantity of fans	2	3	4	6
Power rating [W]	30	45	60	90
Capacity [m ³ /h]	320	480	640	960
Ambient temperature [°C]	from -20 to +70			
Relative humidity [%]	from 20 to 80			
Protection degree	IP 20			
Electric shock protection	neutralization			

Material of enclosure:

Rear part

- 1.5 mm thick sheet steel textured powder painted in light grey (RAL 9005).

Front panel

- 3.0 mm thick sheet aluminium textured powder painted in light grey (RAL 7035).

Supply includes:

Fan unit with fixing accessories.

Type of fan unit	Possibility of controlling fan units by		Catalogue number
	KTO or KTS thermostat*	microprocessor panel for fan control**	
PW-1.2	●		PW-1.2
	●	●	PW-1.2/A
PW-1.3	●		PW-1.3
PW-2.4	●	●	PW-2.4
	●		PW-2.4/A
PW-2.6	●		PW-2.6
PW-3.4	●		PW-3.4
PW-3.6	●		PW-3.6

Package: 1 pc.

*) Thermostat - see page 78

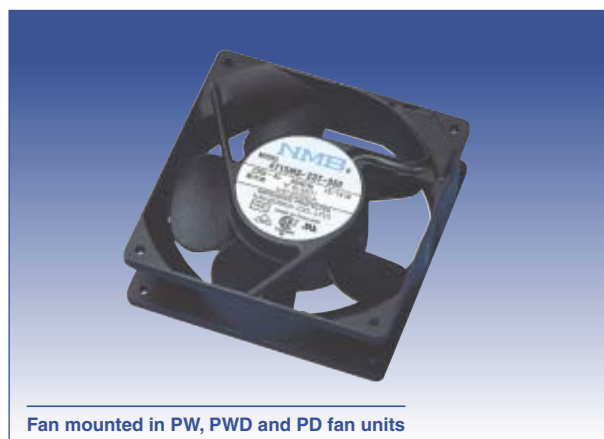
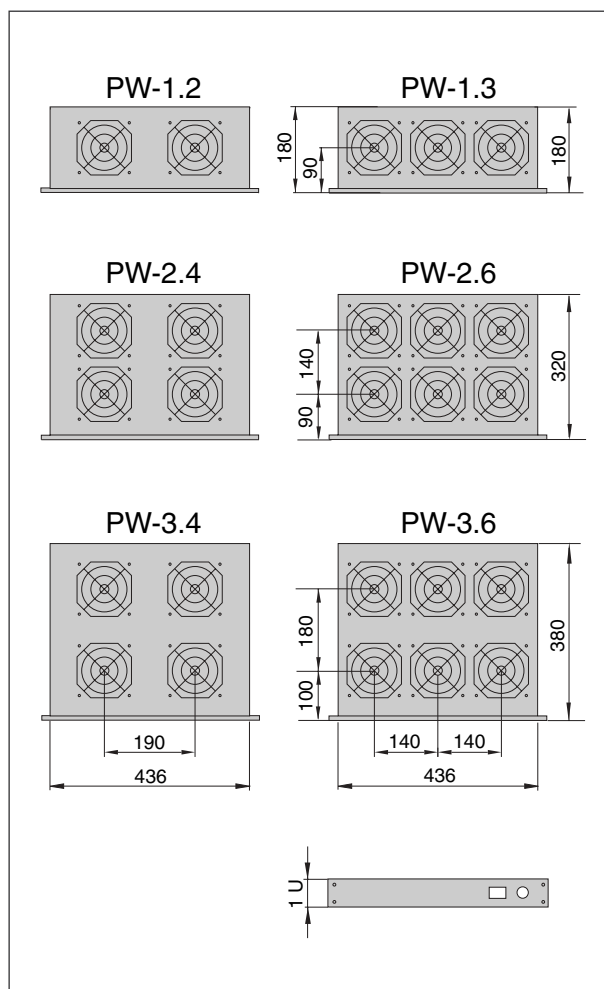
**) Microprocessor panel for fan control - see page 80

Fans used in fan units:

In PW, PWD and PD fan units there are used high quality fans with ball bearings.

Technical data of one fan:

- voltage rating	230 V
- frequency	50 Hz
- power rating	15 W
- rated current	0.24 A
- speed of rotation	2 600 rotations/min
- level of noise	37 dB
- pressure	75 Pa
- capacity	162 m ³ /h
- durability	min. 50 000 h
- dimensions	119 x 119 x 38 mm



PWD and PD roof fan units

PWD-4W and PWD-2W fan units are intended for assembly to openings 380 x 380 mm, which are in top plates of SZB, SZB PC, SZB SE and SZA cabinets.

PD-2W fan unit can be assembled to opening 380 x 210 mm, which is in top plate of SZB SE cabinet and SZT cabinet 600 mm deep.

In standard, the units are equipped with 2 or 4 fans, illuminated switch and safety device.

PWD-4W fan units can be controlled by thermostat or microprocessor panel for fan control.

PWD-2W and PD-2W fan units can be controlled only by thermostat.

Technical data:	Type of fan unit		
	PWD-4W	PWD-2W	PD-2W
Power supply	230 V, 50 Hz		
Rated current [A]	0.48	0.24	0.24
Quantity of fans	4	2	2
Power rating [W]	60	30	30
Capacity [m ³ /h]	640	320	320
Ambient temperature [°C]	from -20 to +70		
Relative humidity [%]	from 20 to 80		
Protection degree	IP 20 (refers to fan units mounted in the cabinet)		
Electric shock protection	neutralization		

Material of enclosure:

PWD-4W and PWD-2W fan units - plastic.

PD-2W fan unit - sheet steel.

Enclosure colour:

Light grey (RAL 7035).

Supply includes:

Fan unit with fixing accessories.



PWD-4W fan unit



PWD-2W fan unit



PD-2W fan unit

Type of fan unit	Quantity of fans	For opening's dimensions [mm]	Possibility of controlling fan units by		Catalogue number
			KTO or KTS thermostat*	microprocessor panel for fan control**	
PWD-4W	4	380 x 380	●	●	PWD-4W/A
PWD-2W	2	380 x 380	●		PWD-2W
PD-2W	2	380 x 210	●		PD-2W

Package: 1 pc.

*) Thermostat - see page 78

**) Microprocessor panel for fan control - see page 80

Thermostat

Application:

Thermostats are used for controlling fan units, heaters and heat exchangers, also can be used as a signal generator for monitoring the enclosure internal temperature.

Technical data:

Sensor element:

thermal bimetal.

Temperature range:

0-60 °C, hysteresis ca. 7 °C.

Contact types:

snap action contact.

Power carrying capacity:

6A (1) 250V AC.

Radio frequency interference:

N (according to VDE 0875).

Supply includes:

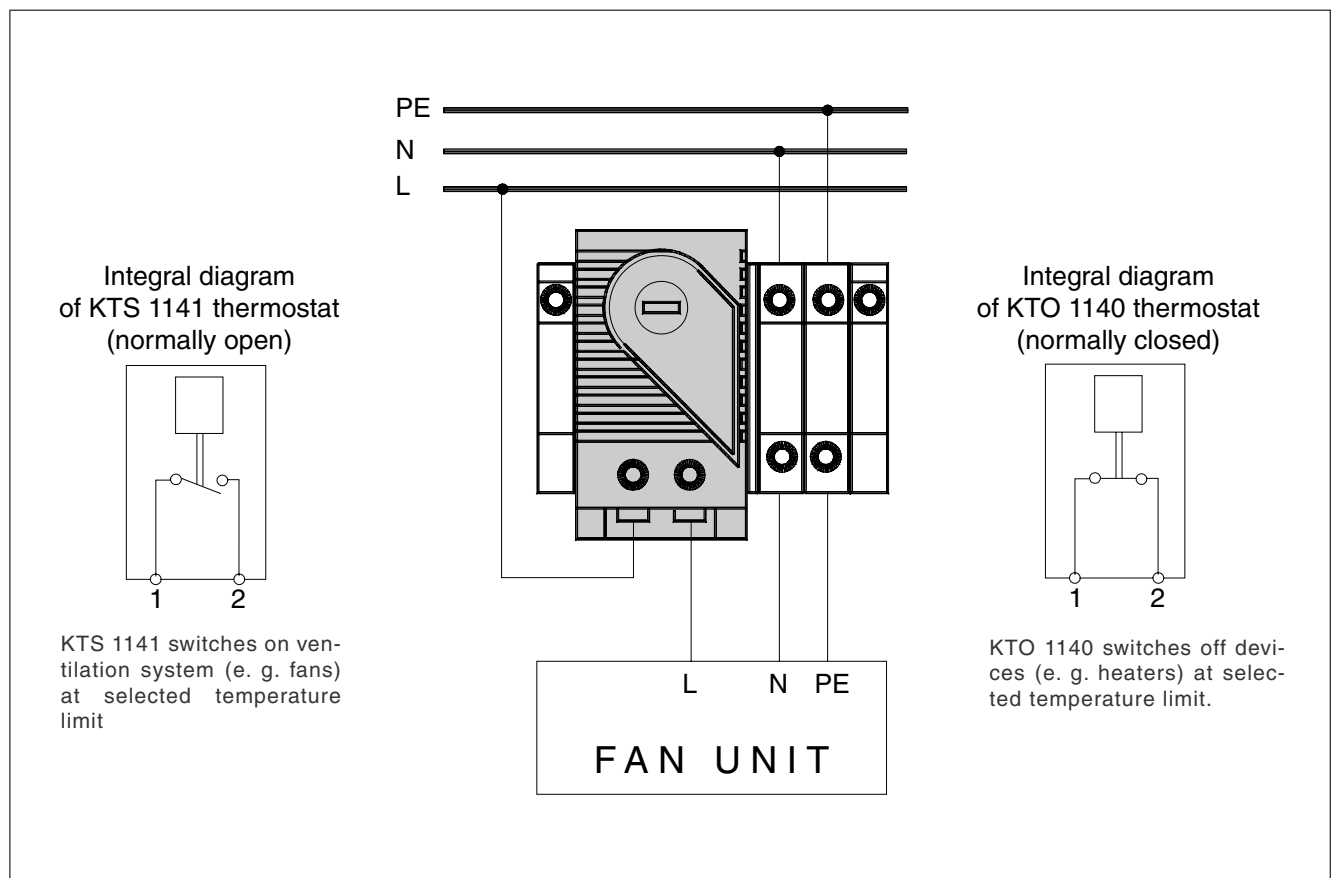
- KTS 1141 or KTO 1140 thermostat,
- TS-35/7.5 bus,
- two holders,
- two screw clamps.

Type of thermostat	Colour of handwheel	Package	Catalogue number
KTO 1140 - normally closed	●	1 pc.	SZB-48-00-00/KTO
KTS 1141 - normally open	●	1 pc.	SZB-48-00-00/KTS



KTO 1140 - thermostat normally closed

CONNECTION DIAGRAM



Hygrostat

Application:

Electric regulator of humidity controls air humidity, switches on fans, heaters or air conditioning units.

Technical data:

Measuring range:

50-100 % of relative humidity.

Measuring accuracy:

±3 % of relative humidity.

Operating range:

50-90 % of relative humidity.

Deviation of switching referred to 50 % of relative humidity:

about 4 % of relative humidity.

Maximum voltage:

250 V AC.

Maximum load:

100 mA 20 V DC/AC.

Maximum load:

resistive 5 A, 230 V,

inductive cos ϕ = 0.8: 0.2 A 230 V AC,

inductive L/R = 3 ms: 1 A to 50 V DC,
0.5 A to 75 V DC.

Supply includes:

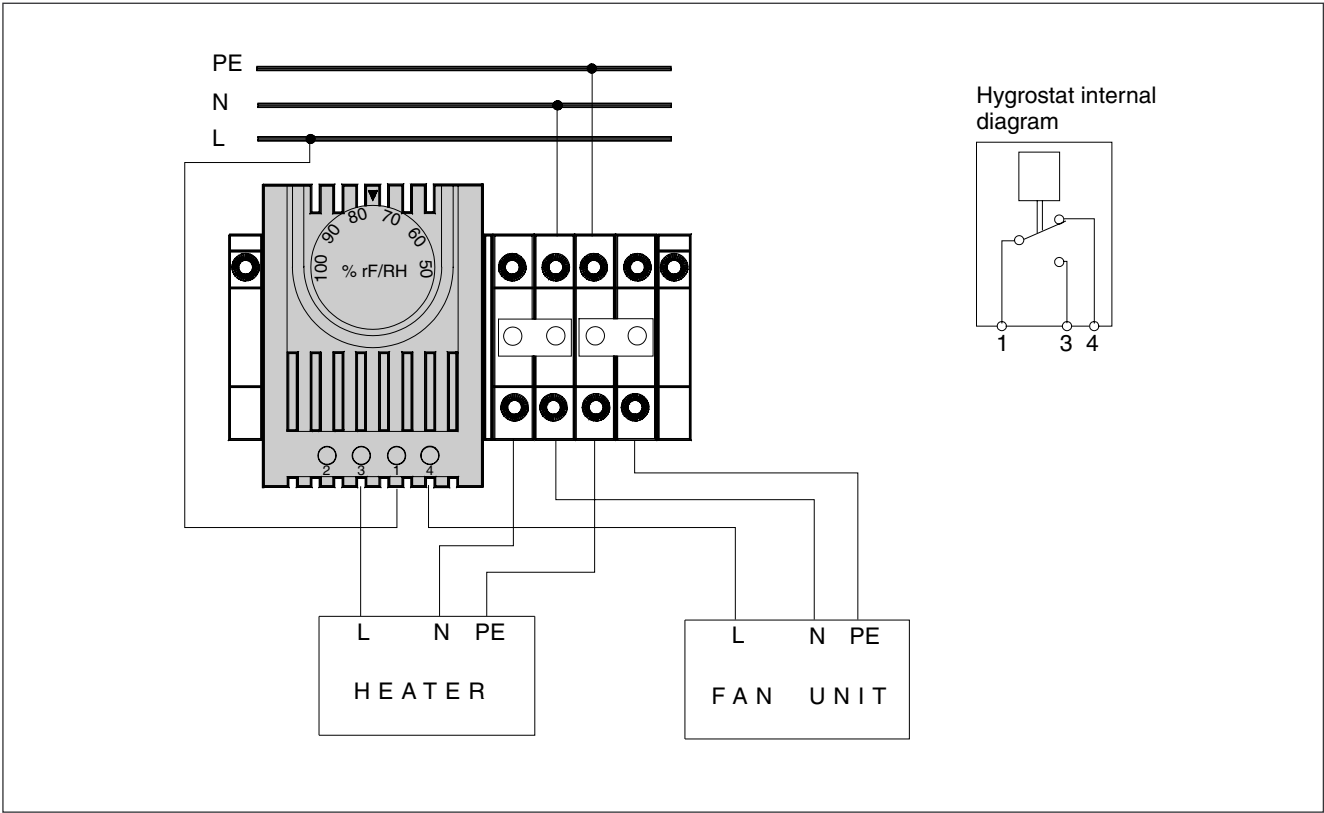
- hygrostat MFR 012i,
- TS-35/7.5 bus,
- two holders,
- two screw clamps.

Hygrostat	Package	Catalogue number
MFR 012i	1 pc.	SZB-57-00-00



MFR 012i hygrostat

CONNECTION DIAGRAM



Microprocessor panel for fan control

Application:

Microprocessor panel for fan control is designed for measurement, control and automatic cabinet temperature maintenance at the pre-set threshold in 19" cabinets.

Principle of operation:

Panel temperature sensor continuously monitors and compares current temperature with pre-set threshold value, and causes switch on the fans of alternating current in four sequences.

Function possibilities:

- continuous temperature measurement,
- automatic fan selection for maintenance of pre-set parameters,
- ability of service from PC by using RS 232 interface (data transmission in both directions),
- memory storage of pre-set parameters in case of power supply interruption,
- priority signalling (ex. alarm signal) on RS 232 interface in the event of switched all fans sequences (LED display blinks).

Supply includes:

Microprocessor panel for fan control, temperature sensor with 2 m conduct, fixing accessories.

Package	Catalogue number
1 pc.	SZB-66-00-00

Technical data:

Temperature measurement:

- measurement range from +5 °C to +80 °C,
- indication resolution ± 1 °C
- measuring accuracy ± 1 °C

Setting parameters:

- control range of pre-set temperature threshold value from +5 °C to +80 °C,
- tolerance range from the temperature threshold value from +1 °C to +10 °C,
- delay range of swithcing on/off fans from 1 s to 99 s.

Displaying of measuring parameters:

Two-digit module LED:

- didits' height 14 mm,
- green colour,
- improved quality.

Housing form:

- 19" panel 1 U height, light grey colour (RAL 7035).

Communication protocol with computer:

Parameters of RS 232 interface:

- transmission speed rate 9600 b/s,
- 8 bits, without even parity bit,
- 1 stop bit.

Temperature sensor:

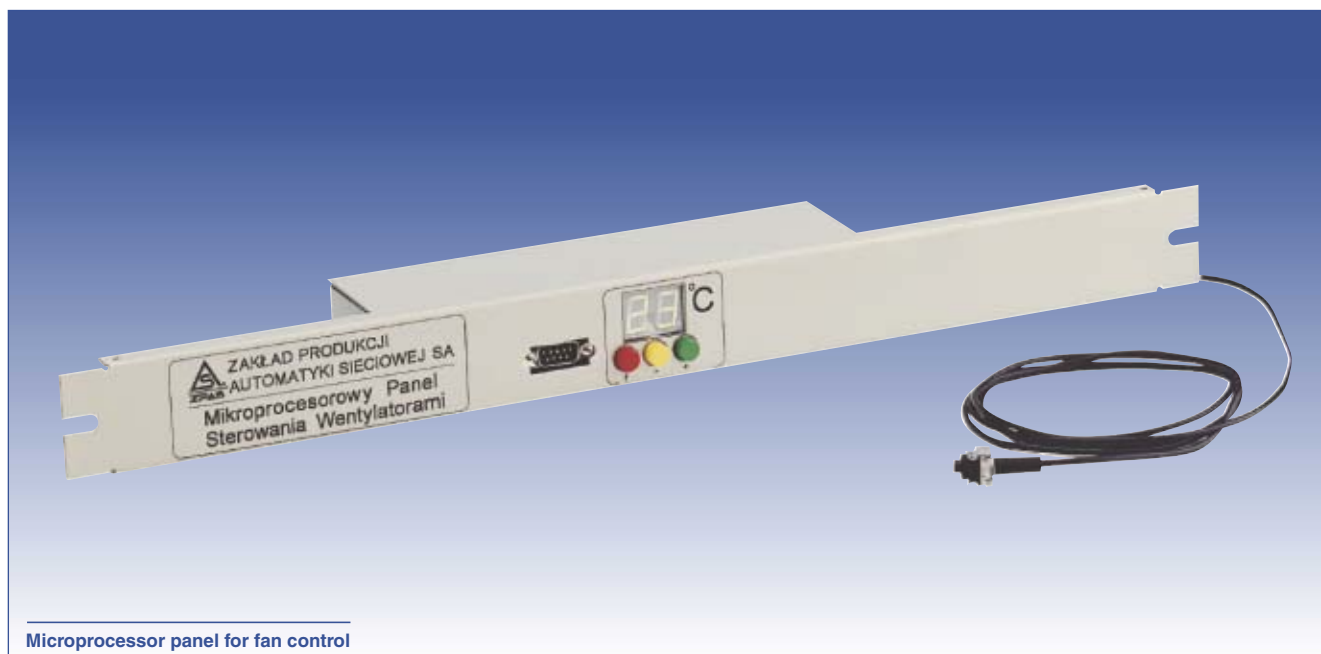
Miniature, fixed to metal structure by means of latch, flexible conductor length - 2 m.

Fan connections:

- number of inputs - 4,
- power supply - 230 V; 50 Hz,
- input's power carrying capacity - 100 W.

Power supply of the panel: 230 V; 50 Hz.

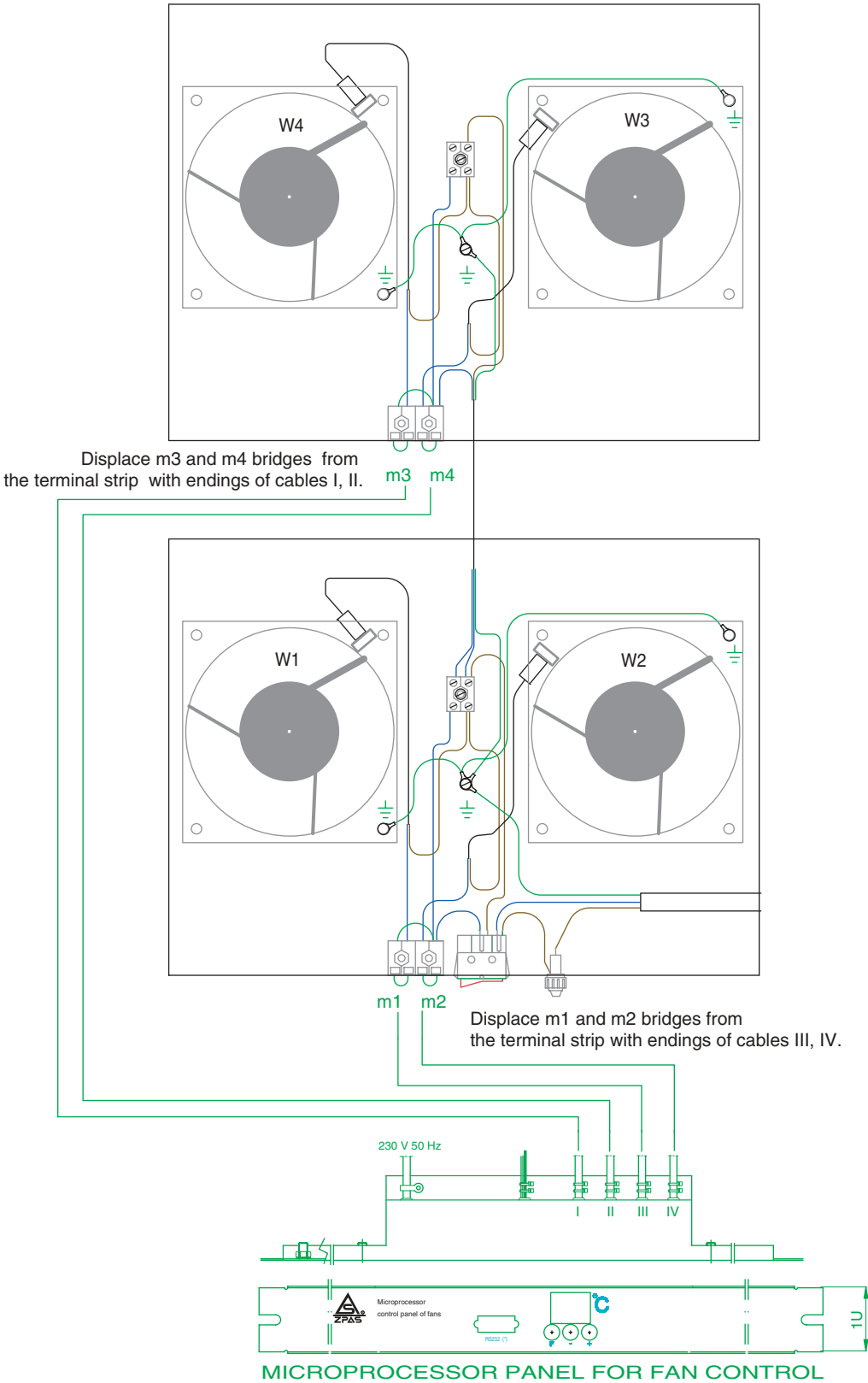
Max. power consumption: 2 W.



Microprocessor panel for fan control

Microprocessor panel for fan control

CONNECTION DIAGRAM OF PWD-4W FAN UNIT
WITH MICROPROCESSOR PANEL FOR FAN CONTROL

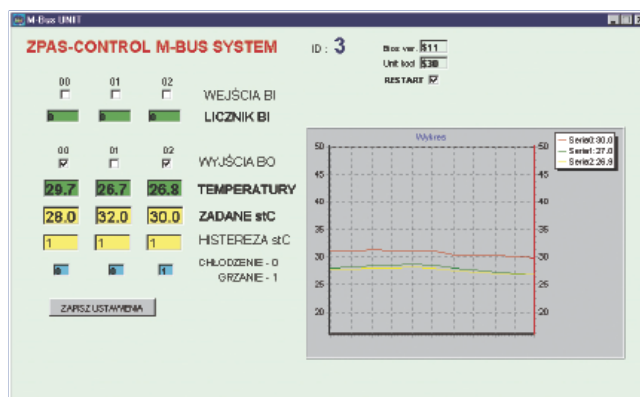


System of supervising climatic conditions

ZPAS-CONTROL M-Bus

ZPAS-CONTROL M-Bus system is a software based on elements digital system of automatics, which allows designing effective, cheap and reliable regulating and measuring systems. It is designed for application in professional systems of supervising climatic conditions in outdoor cabinets, data and telecommunication cabinets, power industry cabinets, mimic panels and in industrial buildings. Possibility of different configurations of ZPAS-CONTROL M-Bus enables to use the system in e. g. intelligent buildings, heat engineering, water and sewage disposal, calculating individual usage of heat in municipal housing estates and others.

Designing systems of automatics based on ZPAS-CONTROL M-Bus is easy thanks to application of universal hardware elements and software modules designed for controlling and regulating by typical controlling equipment. The system comprises of central units, data transmission converters, facility modules, hardware modules and sensors of temperature, humidity, smokiness, movement vibrations, access. Communication between central unit and other modules is based on standard M-Bus enlarged by operation possibilities.



Basic parameters of M-Bus data transmission bus:

- optional topology of cabling (the medium is two-wires spiral),
- connection of up to 250 appliances in one exchange,
- protection data bus from change of poles,
- power supply of end appliances directly from M-Bus

ZPAS-CONTROL M-Bus system is accompanied by attractive software for graphic visualisation working in Windows operating system. It is compatible with superordinated systems SCADA type. Moreover, ZPAS-CONTROL M-Bus system allows to create individual, adjusted to specific needs operating panels.



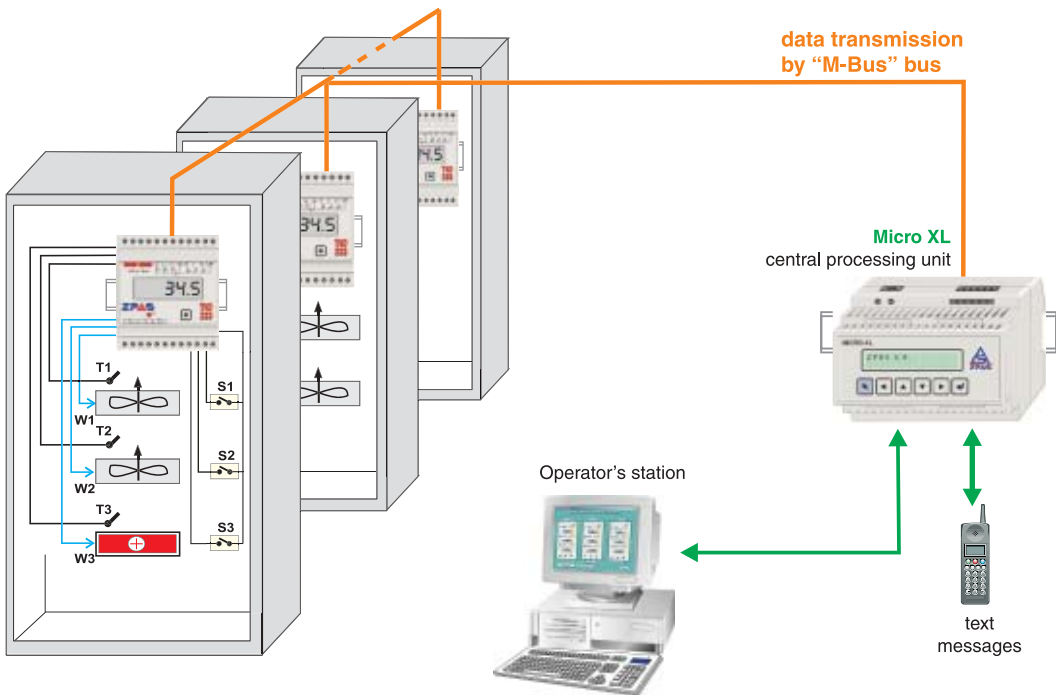
CONFIGURATION WITH PROGRAMMER AND GSM DATA TRANSMISSION

ZPAS-CONTROL M-Bus system in basic configuration enables constant measurement of three temperatures in the range from -55 to +125 °C by means of DST temperature sensors (the length of conduct 10m), which are connected to temperature controller TIO 333. Programming of temperature controller TIO 333 (setting up the value of temperature and hysteresis with precision of regulation up to 1 °C) for this configuration of the system is provided by the producer.

Hardware controller (P2 relay or TRIAC 2 power module) designed to control elements like fans, heaters or others on customer's request can be connected to two-state outputs of the TIO 333 temperature controller (three outputs - transistor keys, max. 30 V, 500 mA). The controller is supplied by 15-30 V DC power feeder (in accordance with instruction). Configuration of the system in its basic version enables to enlarge the construction of the system by adding modules according to the catalogue or project prepared on customer's request.

System of supervising climatic conditions

Configuration of the system with the programmer and GSM data transmission



- T1 - temperature sensor 1
- T2 - temperature sensor 2
- T3 - temperature sensor 3

- W1 - controlling output 1
- W2 - controlling output 2
- W3 - controlling output 3

- S1 - signalling device of door open
- S2 - signalling device of smokiness
- S3 - signalling devices of vibrations and humidity

Configuration	Quantity
MICRO-XL programmer	1
TIO 333 temperature controller	1
DST temperature sensor	3
Triac 2	1
24 V DC power supplier	1
GSM modem	1
LMC Logic Master Control software	1

Enlarging basic configuration by:

- MICRO-XL programmer,
- GSM data transmission modem and
- LMC Logic Master Control software,

we additionally achieve:

- possibility of multiple programming of the demanded temperature values as well as hysteresis (precision of regulation - 1 °C) by means of attached PC computer or directly from MICRO-XL programmer,
- possibility of connecting up to three two-state signalling devices (for example microswitch, smokiness sensor, movement sensor, humidity sensor, vibration sensor and others) with registration of their activity on a graphic panel,
- possibility of graphic visualisation of the appliances at work (the states of inlets and outlets) as well as registration of the temperatures on the charts,
- possibility of storing data - long term registration of the parameters with possibility of importing them into the data base on PC computer,

- possibility to get connected to the facilities from any place on earth via GSM cell phone or stationary telephone connection. It allows for monitoring and remote supervising of the facilities,
- previewer of registered charts allowing for mathematical working and creating new channels on the basis of already existing records,
- possibility of configuration archive data from different periods which allows to analyse changes in technological lines in the long run,
- software, providing graphic representation in Windows environment, adjusted to co-operation with different superordinated systems. It allows to create own operator's panels adjusted to particular needs.

Configuration of the system in such version allows its further enlargement by adding modules according to the catalogue or to the project prepared on customer's request.

More info about the system and available elements of the system can be found in the separate catalogue, Marketing and Sales Department of ZPAS or web site www.zpas.com.

Voltage distribution panel

Universal 19" enclosure for modular devices.

In standard equipped with TS-35 bus and housing with 402.5 x 45.5 mm opening.

Dimensions:

- height:133 mm (3 U),
- width:19" (internal width: 446 mm),
- depth:60 mm.

Capacity of panel - maximum quantity of built in modules S type (width of module 17.5 mm): 18 pcs.

On individual request, the panel can be filled with electrical equipment, in accordance with technical documentation made by ZPAS S.A. or by customer.

Material:

1.5 mm thick sheet steel textured powder painted in light grey (RAL 7035).

Supply includes:

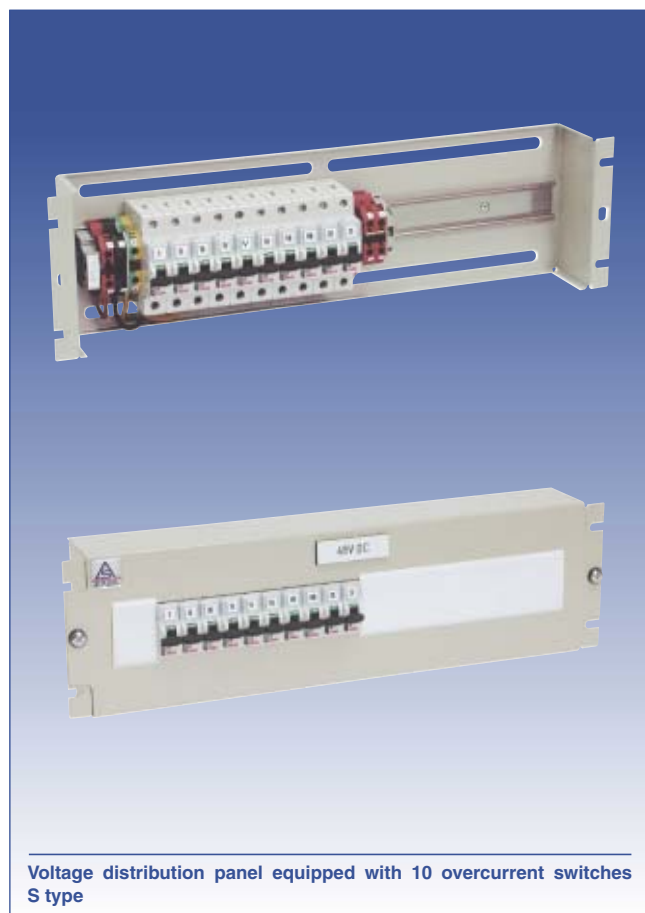
Panel in standard version is sold as an empty enclosure, with:

- mounting base,
- TS-35 bus,
- housing,
- fixing accessories.

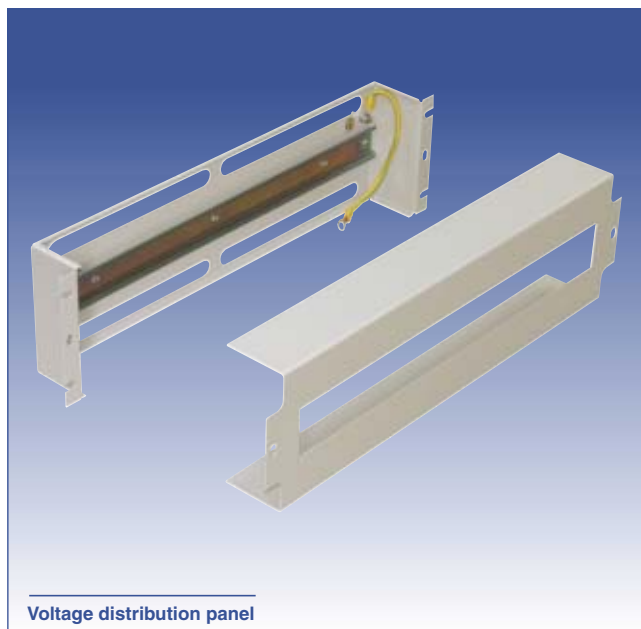
Package	Catalogue number
1 pc.	PS-3U



Voltage distribution panel equipped with 6 switch disconnectors with fuse elements 6 and 10 A and terminal strip. Cable duct is attached to the rear wall of panel.



Voltage distribution panel equipped with 10 overcurrent switches S type



Voltage distribution panel





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