



Environmental Complex Solution



ECSO Server Cabinets |

EC SO – Environmental Complex Solution

Complex solution for the engineering infrastructure

Increasing the number of data centers is a very noticeable trend in the development of modern IT infrastructure. The consolidation of computing resources in the data center is usually caused by the need to increase the capacity of resource use, increasing requirements for reliability and resilience of information systems, as well as the need to streamline equipment maintenance of IT systems of the company. Possession of own data center or hosting of server equipment in a commercial data center is inevitable for any serious company or organization.

A key element of any data center is a engineering infrastructure, as it is on its reliability and fault tolerance depends primarily on the operation of servers, storage systems and network equipment. Creating an optimum engineering infrastructure, in full conformity with the planned IT systems, development plans, customer requirements, the specific features of buildings or isolated areas, is possible only through an integrated approach that takes into account the close relationship between all facility engineering systems.

Understanding the importance of an integrated approach, the company EC SO GmbH, a German manufacturer of HVAC and engineering equipment , has developed a comprehensive solution named Environmental Complex Solution to equip data centers and communication centers by the following engineering systems:

- Precision cooling system
- Uninterruptible power system
- Emergency power system
- Server and telecommunication cabinets
- Raised floor system



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Server cabinets general requirements

Server cabinets are important part of the data center engineering infrastructure. In order to allow the normal placement and subsequent operation of the server hardware, the cabinets must meet certain mandatory requirements, without complying them the server cabinets will not be able to perform its functions.

- Mechanical characteristics of cabinet must be able to download the full cabinet equipment and guarantees to exclude the possibility of strain during prolonged exercise. Load capacity of server cabinets, depending on the design may vary in the range from 800 kg to 1500 kg.
- Server cabinets have to be adapted for installation of equipment from different manufacturers. The depth of cabinets shall be not less than 1000 mm
- The equipment in server cabinets should not overheat under normal operation of air conditioning in the server room. To ensure proper cooling equipment using the scheme of “cold” and “hot” aisles, the percentage of perforation of the front and rear doors must not be substantially less than 60%.
- Server cabinets should be equipped with sufficient number of electrical outlets to connect both main and backup server power supply equipment.

When choosing server cabinets and determining their configuration, in terms of the subsequent operation of data centers is useful to consider the possibility of monitoring the power and environment parameters in the server cabinet.



ECSO Server and Telecom Cabinets

ECSO server cabinets can be used in large data centers and in small server rooms as well. Depending on your requirements and budget of the project can be selected as high-quality cabinets series ESC-F or cost-effective cabinets series ESC-C.

Mechanical characteristics of cabinet series ESC-F allow to carry a full load of hardware, eliminating the possibility of strains during prolonged exercise. Load capacity of server cabinets ESC-F for a balanced load is 1500 kg.

Percentage of perforation of the front and rear door for server cabinets ESC-F exceeds 75%, which fully meet modern requirements for the cabinets intended to house server equipment.

Server and telecom ECSO cabinets are adapted for the installation of equipment from different manufacturers, for your purposes you can choose the cabinets of different depths: 600/800/900/960/1000 mm.

For power distribution for server and telecom cabinets, our company offers a PDUs series ECSO PDU Basic. With their help, you can connect to the power supply any equipment installed in the server or telecom cabinet. As a possible choice of PDUs is very large, in this catalog there are the main components of the ECSO PDU Basic series and only a few types of the most common units. We can produce according to your needs almost all types of PDUs, both in horizontal and vertical versions.

Remote monitoring of the electrical parameters (current, voltage, power) and environmental parameters in the cabinet (temperature, humidity, smoke, opening the door) can be done with the use of our equipment. For the monitoring purposes you can apply manageable PDUs from the ECSO PDU Managed series, materials on which we can give you further.



ECSO server cabinets

ESC-F series: high-quality server cabinets

ECSO ESC-F series 19" server cabinets were designed to house the server equipment in data and telecom centers.

ECSO ESC-F cabinets comply with ANSI/EIA RS-310-D, IEC297-2, DIN41494 part 1, DIN41494 part 7, ETSI.

Server cabinet ECSO ESC-F has a front and rear hinged steel doors with a high level of perforation 75% and locks with a comfortable handle, easily removable and easy to install side panels.

Loading capacity of the ECSO ESC-F server cabinet is 1500 kg.

Color:
RAL9004/ RAL9005/ RAL7035/ RAL7044 (optional).

Packing: disassembled, flat pack.



Rear door

ESC-F server cabinets dimensions

Height (U)	Height (mm)	Width (mm)	Depth/Model		
			600 mm	800 mm	1000 mm
47U	2200	600	ESC-F6647	ESC-F6847	ESC-F61047
42U	2000		ESC-F6642	ESC-F6842	ESC-F61042
37U	1800		ESC-F6637	ESC-F6837	ESC-F61037
32U	1600		ESC-F6632	ESC-F6832	ESC-F61032
27U	1400		ESC-F6627	ESC-F6827	ESC-F61027
22U	1200		ESC-F6622	ESC-F6822	ESC-F61022
47U	2200	800	ESC-F8647	ESC-F8847	ESC-F81047
42U	2000		ESC-F8642	ESC-F8842	ESC-F81042
37U	1800		ESC-F8637	ESC-F8837	ESC-F81037
32U	1600		ESC-F8632	ESC-F8832	ESC-F81032
27U	1400		ESC-F8627	ESC-F8827	ESC-F81027
22U	1200		ESC-F8622	ESC-F8822	ESC-F81022

ESC-F cabinet includes

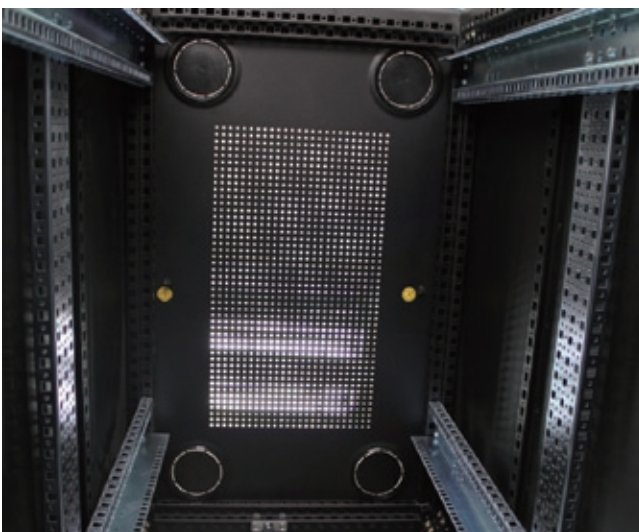
№	Part Name	Quantity		Unit	Steel gauge (mm)	Remark
		Width 600 mm	Width 800 mm			
1	Frame	1	1	set	1,5	
2	Front door	1	1	pc	1,2	Perforation: hexagonal holes Ø=6,9 mm, hole distance. 2 mm
3	Rear door	1	1	set	1,2	Perforation: hexagonal holes Ø=6,9 mm, hole distance. 2 mm
4	Side panel	2	2	pcs	1,2	
5	Top	1	1	pcs	1,2	Top could be ventilated or smooth
6	Mounting profile	4	4	pcs	2,0	Powder coated or zinc plated (optional)
7	Mounting beam	2	2	pcs	1,5	
8	Jacking feet	4	4	pcs		
9	2,5" wheel	4	4	pcs		
10	Screws and nuts	20/40	20/40	set		M6 cross head screw 20 sets 22U-32U, 40 sets 37U-47U
11	Vertical cable manager	-	2	pcs	1,5	



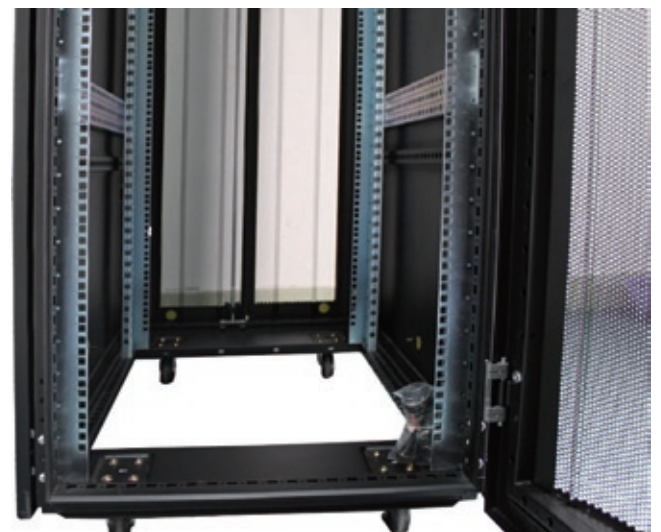
Front door



Rear door



Top panel



Bottom view



Inside



Mounting profile & Frame

ESC-C series: cost-effective server cabinets

ECSO ESC-C series 19" server cabinets were designed to house the server and telecom equipment.

ECSO ESC-C cabinets comply with ANSI/EIA RS-310-D, IEC297-2, DIN41494 part 1, DIN41494 part 7.

Server cabinet ECSO ESC-C has a front and rear hinged steel doors with a high level of perforation 75% and locks with a comfortable handle, easily removable and easy to install side panels.

Loading capacity of the ECSO ESC-C server cabinet is 800 kg.

Color: RAL9004/RAL7035/ RAL7044 (optional).

Packing: disassembled, flat pack.



ESC-C server cabinets dimensions

Height (U)	Height (mm)	Width (mm)	Depth/Model				
			600 mm	800 mm	900 mm	960 mm	1000 mm
47U	2272	600	ESC-C6647	ESC-C6847	ESC-C6947	ESC-C6A47	ESC-C61047
42U	2005		ESC-C6642	ESC-C6842	ESC-C6942	ESC-C6A42	ESC-C61042
37U	1828		ESC-C6637	ESC-C6837	ESC-C6937	ESC-C6A37	ESC-C61037
32U	1605		ESC-C6632	ESC-C6832	ESC-C6932	ESC-C6A32	ESC-C61032
27U	1383		ESC-C6627	ESC-C6827	ESC-C6927	ESC-C6A27	ESC-C61027
22U	1158		ESC-C6622	ESC-C6822	ESC-C6922	ESC-C6A22	ESC-C61022
18U	983		ESC-C6618	ESC-C6818	ESC-C6918	ESC-C6A18	ESC-C61018
47U	2272	800	ESC-C8647	ESC-C8847	ESC-C8947	ESC-C8A47	ESC-C81047
42U	2005		ESC-C8642	ESC-C8842	ESC-C8942	ESC-C8A42	ESC-C81042
37U	1828		ESC-C8637	ESC-C8837	ESC-C8937	ESC-C8A37	ESC-C81037
32U	1605		ESC-C8632	ESC-C8832	ESC-C8932	ESC-C8A32	ESC-C81032
27U	1383		ESC-C8627	ESC-C8827	ESC-C8927	ESC-C8A27	ESC-C81027
22U	1158		ESC-C8622	ESC-C8822	ESC-C8922	ESC-C8A22	ESC-C81022
18U	983		ESC-C8618	ESC-C8818	ESC-C8918	ESC-C8A18	ESC-C81018

ESC-C cabinet includes

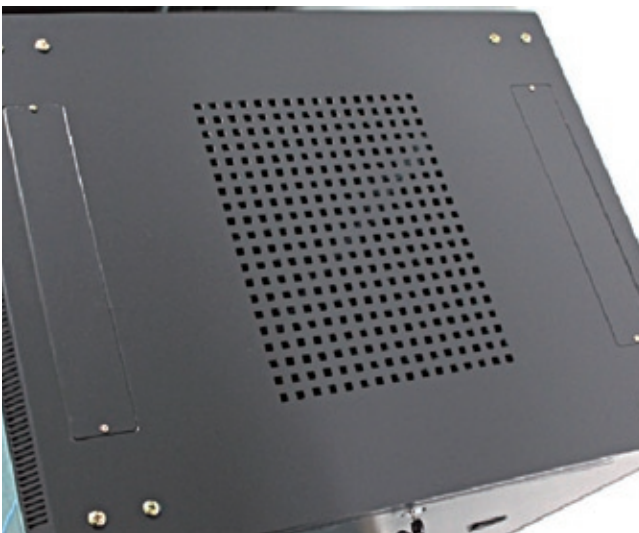
№	Part Name	Quantity		Unit	Steel gauge (mm)	Remark
		Width 600 mm	Width 800 mm			
1	Frame	1	1	set	1,5	
2	Front door	1	1	pc	1,2	Perforation: hole Ø=5 mm, 2 mm spacing
3	Rear door	1	1	set	1,2	Perforation: hole Ø=5 mm, 2 mm spacing
4	Side panel	2	2	pcs	1,2	
5	Top	1	1	pc	1,2	With 2 round cable inlets
6	Bottom	1	1	pc	1,2	
7	Mounting profile	4	4	pcs	2,0	Powder coated or zinc plated (optional)
8	Mounting beam	2	2	pcs	1,5	22U-32U 4 pcs, 37U-47U 6 pcs
9	Jacking feet	4	4	pcs		
10	2" wheel	4	4	pcs		
11	Screws and nuts	20/40	20/40	set		M6 cross head screw, 20 sets 18U-32U 40 sets 33-47U
12	Vertical cable manager	-	2	pcs	1,5	



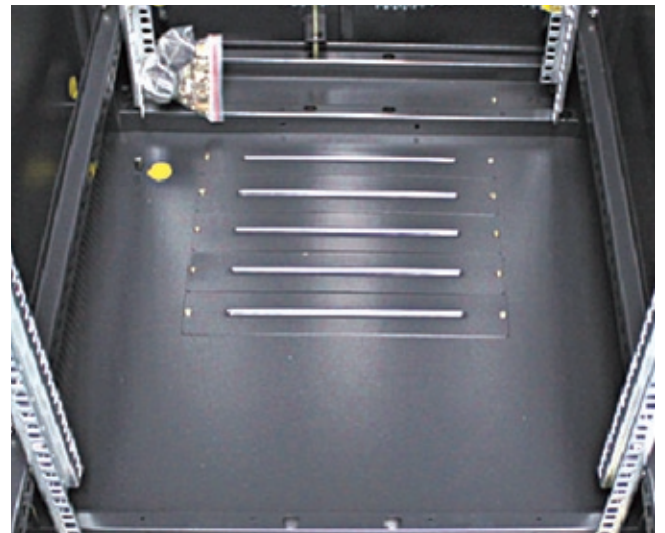
Front door



Rear door



Top panel



Bottom view



Side panel



Mounting profile & Frame

ESC-T series: telecom cabinets

ECISO ESC-T 19" telecom cabinets were designed to house networking and cross-connecting equipment.

ECISO ESC-T cabinets comply with ANSI/EIA RS-310-D, IEC297-2, DIN41494 part 1, DIN41494 part 7.

Telecom cabinet ECISO ESC-T has front glass and steel rear doors, locks with a comfortable handle, easily removable and easy to install side panels.

Loading capacity of the ECISO ESC-T telecom cabinet is 800 kg.

Color: RAL9004/RAL7035/ RAL7044 (optional)

Packing: disassembled, flat package.



ESC-T telecom cabinets dimensions

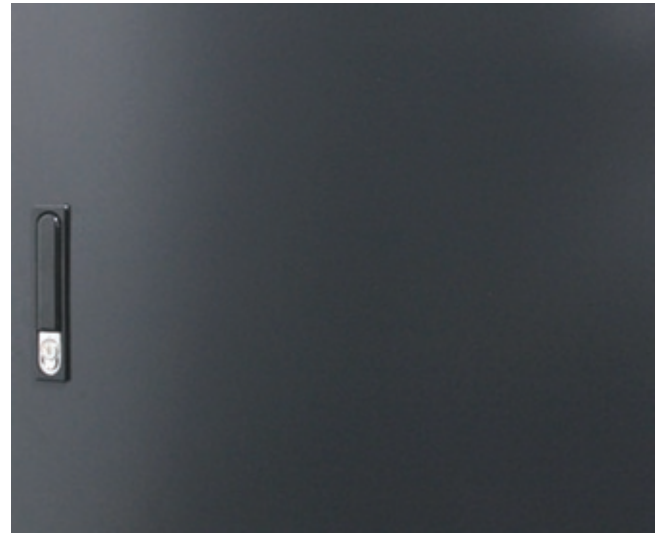
Height (U)	Height (mm)	Width(mm)	Depth/Model				
			600 mm	800 mm	900 mm	960 mm	1000 mm
47U	2272	600	ESC-T6647	ESC-T6847	ESC-T6947	ESC-T6A47	ESC-T61047
42U	2005		ESC-T6642	ESC-T6842	ESC-T6942	ESC-T6A42	ESC-T61042
37U	1828		ESC-T6637	ESC-T6837	ESC-T6937	ESC-T6A37	ESC-T61037
32U	1605		ESC-T6632	ESC-T6832	ESC-T6932	ESC-T6A32	ESC-T61032
27U	1383		ESC-T6627	ESC-T6827	ESC-T6927	ESC-T6A27	ESC-T61027
22U	1158		ESC-T6622	ESC-T6822	ESC-T6922	ESC-T6A22	ESC-T61022
18U	983		ESC-T6618	ESC-T6818	ESC-T6918	ESC-T6A18	ESC-T61018
47U	2272	800	ESC-T8647	ESC-T8847	ESC-T8947	ESC-T8A47	ESC-T81047
42U	2005		ESC-T8642	ESC-T8842	ESC-T8942	ESC-T8A42	ESC-T81042
37U	1828		ESC-T8637	ESC-T8837	ESC-T8937	ESC-T8A37	ESC-T81037
32U	1605		ESC-T8632	ESC-T8832	ESC-T8932	ESC-T8A32	ESC-T81032
27U	1383		ESC-T8627	ESC-T8827	ESC-T8927	ESC-T8A27	ESC-T81027
22U	1158		ESC-T8622	ESC-T8822	ESC-T8922	ESC-T8A22	ESC-T81022
18U	983		ESC-T8618	ESC-T8818	ESC-T8918	ESC-T8A18	ESC-T81018

ESC-T cabinet includes

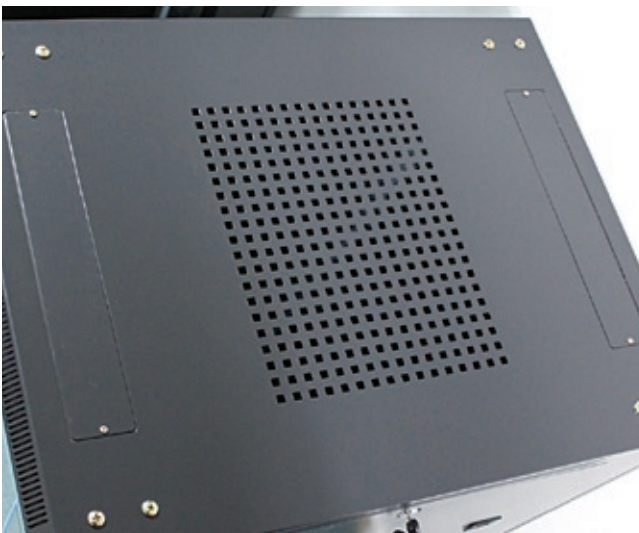
№	Part Name	Quantity		Unit	Steel gauge (mm)	Remark
		Width 600 mm	Width 800 mm			
1	Frame	1	1	set	1,5	
2	Front door	1	1	pc	1,2	Glass door
3	Rear door	1	1	set	1,2	Plain metal door
4	Side panel	2	2	pcs	1,2	
5	Top panel	1	1	pc	1,2	With 2 rectangle cable inlets
6	Bottom panel	1	1	pc	1,2	
7	Mounting profile	4	4	pcs	2,0	Powder coated or zinc plated (optional)
8	Mounting beam	2	2	pcs	1,5	22U-32U 4 pcs, 37U-47U 6 pcs
9	Jacking feet	4	4	pcs		
10	2" wheel	4	4	pcs		
11	Screws and nuts	20/40	20/40	set		M6 cross head screw, 18U-32U 20 sets 37U-47U 40 sets
12	Vertical cable manager	-	2	pcs	1,5	



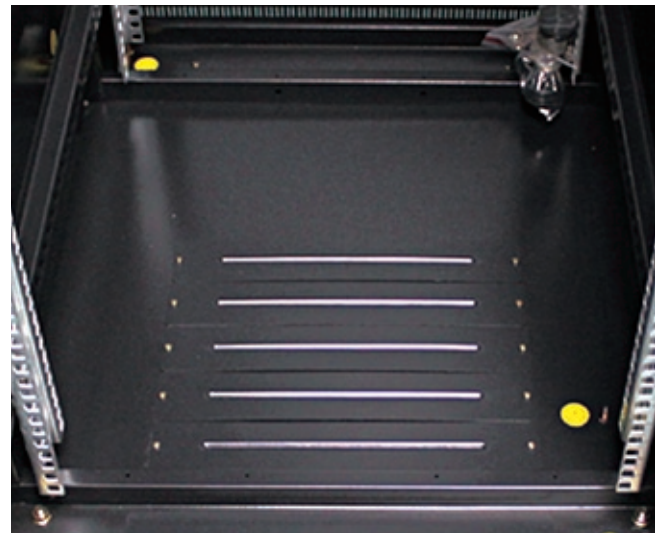
Front door



Rear door



Top panel



Bottom view



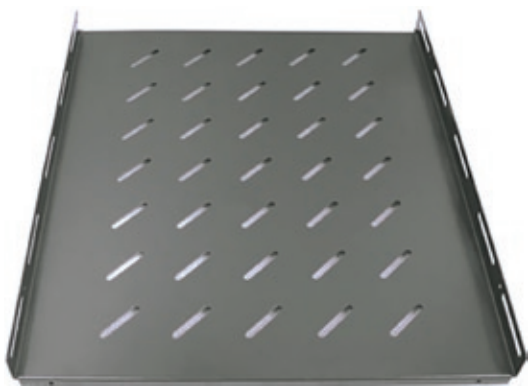
Side panel



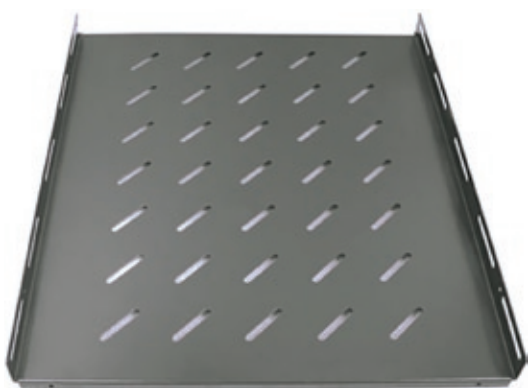
Mounting profile & Frame

Аксессуары

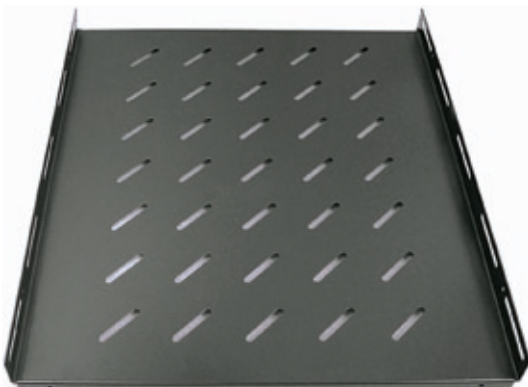
■ Fixed Shelf for ESC-F Server Cabinet

ESC-FS-A600	DP=350 mm, Fixed shelf for 600 mm, depth cabinets, t=1.2 mm	
ESC-FS-A800	DP=550 mm, Fixed shelf for 800 mm, depth cabinets, t=1.2 mm	
ESC-FS-A1000	DP=750 mm, Fixed shelf for 1000 mm, depth cabinets, t=1.2 mm	

■ Fixed Shelf for ESC-C and ESC-T Cabinets

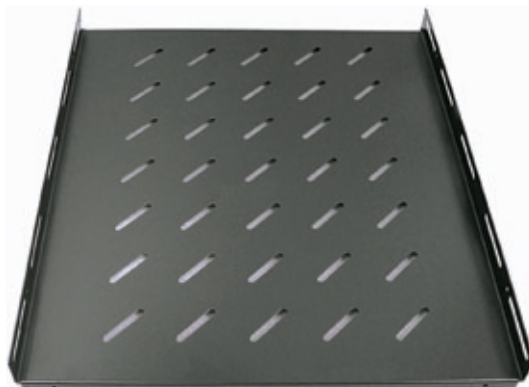
ESC-FS-E600	DP=350 mm, Fixed shelf for 600 mm, depth cabinets, t=1.2 mm	
ESC-FS-E800	DP=550 mm, Fixed shelf for 800 mm, depth cabinets, t=1.2 m	
ESC-FS-E900	DP=650 mm, Fixed shelf for 900 mm, depth cabinets, t=1.2 mm	
ESC-FS-E1000	DP=750 mm, Fixed shelf for 1000 mm, depth cabinets, t=1.2 mm	

■ Heavy duty Fixed Shelf for ESC-F Server Cabinets

ESC-FSHD-A600	DP=350 mm, Heavy duty fixed shelf for 600 mm, depth cabinets, t=2.0 mm	
ESC-FSHD-A800	DP=550 mm, Heavy duty fixed shelf for 800 mm, depth cabinets, t=2.0 mm	
ESC-FSHD-A1000	DP=740 mm, Heavy duty fixed shelf for 1000 mm, depth cabinets, t=2.0 mm	

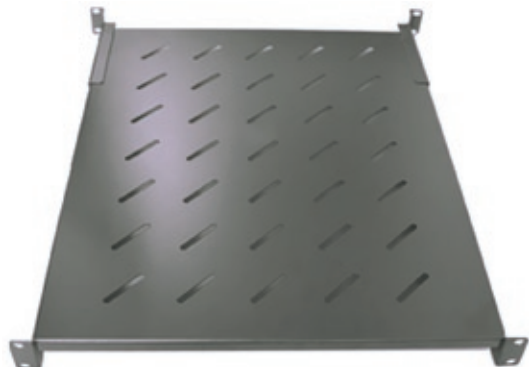
■ Heavy duty Fixed Shelf for ESC-C and ESC-T Cabinets

ESC-FSHD-E600	DP=350 mm Heavy duty fixed shelf for 600 mm, depth cabinets, t=2.0 mm
ESC-FSHD-E800	DP=550 mm Heavy duty fixed shelf for 800 mm, depth cabinets, t=2.0 mm
ESC-FSHD-E900	DP=650 mm Heavy duty fixed shelf for 900 mm, depth cabinets, t=2.0 mm
ESC-FSHD-E1000	DP=740 mm Heavy duty fixed shelf for 1000 mm, depth cabinets, t=2.0 mm



■ Fixed Shelf with Mounting Ears

ESC-FS-A600	DP=350 mm, Fixed shelf with mounting ears for 600 mm, depth cabinets, 19" installation, t=1.2 mm
ESC-FS-A800	DP=550 mm, Fixed shelf with mounting ears for 800 mm, depth cabinets, 19" installation, t=1.2 mm
ESC-FS-A900	DP=650 mm, Fixed shelf with mounting ears for 900 mm, depth cabinets, 19" installation, t=1.5 mm
ESC-FS-A1000	DP=740 mm, Fixed shelf with mounting ears for 1000 mm, depth cabinets, 19" installation, t=1.5 mm



■ Выдвижные полки


ESC-SS-600	DP=350 mm, Sliding shelf for 600 mm, depth cabinets, t=1.2 mm
ESC-SS-800	DP=550 mm, Sliding shelf for 800 mm, depth cabinets, t=1.2 mm
ESC-SS-900	DP=650 mm, Sliding shelf for 900 mm, depth cabinets, t=1.5 mm
ESC-SS-1000	DP=710 mm, Sliding shelf for 1000 mm, depth cabinets, t=1.5 mm




■ Sliding Shelf with Mounting Ears

ESC-SS-E600	DP=350 mm, Sliding shelf with mounting ears for 600 mm depth cabinets, 19" installation, t=1.2 mm	
ESC-SS-E800	DP=550 mm, Sliding shelf with mounting ears for 800 mm depth cabinets, 19" installation, t=1.2 mm	
ESC-SS-E900	DP=650 mm, Sliding shelf with mounting ears for 900 mm depth cabinets, 19" installation, t=1.5 mm	
ESC-SS-E1000	DP=710 mm, Sliding shelf with mounting ears for 1000 mm depth cabinets, 19" installation, t=1.5 mm	


■ Cantilever Shelf

ESC-CS-600	DP=350 mm, Cantilever shelf for 600 mm depth cabinets, 19" installation, t=1.5 mm	
ESC-CS-800	DP=550 mm, Cantilever shelf for 800 mm depth cabinets, 19" installation, t=1.5 mm	


■ Keyboard tray with mouse panel

ESC-KP-MP	DP=350 mm keyboard tray with mouse panel, with mounting ears, 19" installation, t=1.2 mm	
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■ **"L" Bracket**

ESC-LB-600	L shape bracket for 600 mm deep cabinet (2 pcs)	
ESC-LB-800	L shape bracket for 800 mm deep cabinet (2 pcs)	
ESC-LB-900	L shape bracket for 900 mm deep cabinet (2 pcs)	
ESC-LB-1000	L shape bracket for 1000 mm deep cabinet (2 pcs)	


■ **Fan Units for ESC-F Cabinets**

ESC-FU-A600	2 fans unit for 600 mm depth cabinets	
ESC-FU-A800	4 fans unit for 800 mm depth cabinets	
ESC-FU-A1000	4 fans unit for 1000 mm depth cabinets	


■ **Fan Units for ESC-C and ESC-T Cabinets**

ESC-FU-600	2 fans unit for 600 mm depth cabinets	
ESC-FU-800	4 fans unit for 800 mm depth cabinets	
ESC-FU-900	4 fans unit for 900 mm depth cabinets	
ESC-FU-1000	4 fans unit for 1000 mm depth cabinets	

■ Fan Units with Thermostat

ESC-FUTM-2	2 fans unit with thermostat, 19" 1U	
ESC-FUTM-3	3 fans unit with thermostat, 19" 1U	
ESC-FUTM-4	4 fans unit with thermostat, 19" 1U	


■ Blanking Panel

ESC-BP-1U	19" 1U Blanking panel	
ESC-BP-2U	19" 2U Blanking panel	
ESC-BP-3U	19" 3U Blanking panel	
ESC-BP-4U	19" 4U Blanking panel	

■ Brush Cable Inlet

ESC-CEB-B	Brush cable inlet	
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■ Vertical Cable Manager

ESC-VCM	Vertical cable manager (optional size: 18U-47U)	
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■ Fasteners

ESC-BK-A	Baying kit for ESC-F server cabinets
ESC-BK-E	Baying kit for ESC-C and ESC-T cabinets
ESC-SNL-PL6	M6 Cross head "+" screws and nuts

EC SO PDU Basic Main Features

Purpose of the product.

EC SO PDU Basic are designed to connect the server and network equipment that is installed in server and telecom 19" cabinets.

Composition and functionality. The units consist of groups of sockets (Schuko, C13, C19) and elements of control. For monitoring and control purposes, units can be equipped with power indicator, power switch, circuit breaker protection device, a digital ammeter and other devices.

EC SO PDU Basic units can be made in both horizontal and vertical versions. Number and type of installed sockets can be arbitrary and limited only by the physical dimensions of frames and the presence of control elements. Connecting the units to the mains sockets can be done in different ways (cables with standard Schuko, C14 or C20 plug, C14 or C20 connector on the PDU frame, cables with industrial connector IEC309, wire terminal connection box).

EC SO PDU Basic Advantages

- ▶ Low cost of the units.
- ▶ A wide range of PDUs on the number and type of outlets and the presence of additional devices.
- ▶ Ability to produce according to your needs almost all versions of PDUs, both in horizontal and vertical versions.

EC SO PDU Basic Components

■ Socket types

EC SO PDU Basic can be fitted with sockets C13, C19 and Schuko. Also in accordance with your wishes can be installed any other type of sockets.



C13



C19



Schuko

■ Input connect types

Connecting the power devices to PDU can be done either through a connecting cable with plug-type C20, C14, Schuko or IEC309 or through wire terminal connection box.



C14



C20



Schuko

ECSO PDU Basic: Power distribution units for cabinets



IEC309



Wire terminal connection box

■ Устройства контроля и управления

Система розеточных блоков ECSO PDU Basic отличается большим разнообразием самых различных устройств, позволяющих контролировать розеточный блок.



Master switch



Lighted master switch



Circuit breaker



Leakage circuit breaker



Power indicator



Power indicator with fuse device



Power indicator with overload protector



Surge protection device



Various digital devices can be used to measure the electrical parameters.



Digital AC ammeter



Slot for modular units



Modular unit with LED



Modular unit with LCD

Modular unit with LED can display information about current strength and voltage.

Modular unit with LCD can display data about the strength of current, voltage and power consumption.

■ Horizontal and vertical versions

ECSO PDU Basic units are available in horizontal and vertical versions.

The length of units in the horizontal version without fasteners is 430 mm.

The length of units in a vertical version can be relatively arbitrary and limited only by the size of the cabinet.

Examples of PDUs



PDU 19" 1U 9 sockets Schuko with power indicator



PDU 19" 1U 12 sockets C13 with power indicator and overload protection



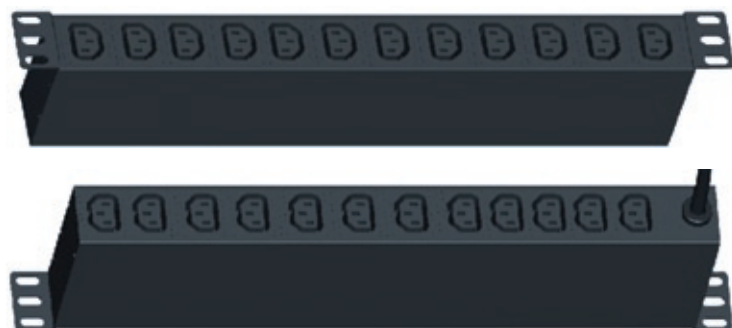
PDU 19" 1U 6 sockets C19



PDU 19" 1U 7 sockets C13 with circuit breaker



PDU 19" 1U 8 sockets C13, modular unit with LCD



PDU 19" double-sided 1U 24 sockets C13



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