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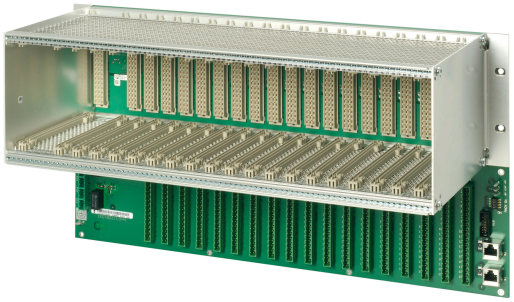
Remote Terminal Units - Data sheet

Rack 560MPR03

RTU560 product line



Mounting panel rack for optional redundant power supply and flexible configuration for I/O, CMU and power supply.

Application

The 560MPR03 rack is designed to be used with or without redundant power supply. Therefore, it has 2 slots for redundant power supply units (PSU). Up to 18 slots can be used for I/O boards, communication units (CMU) or a mixture of both. It is interfaced to other racks via the RTU560 serial peripheral bus. Up to 7 560MPR03 racks can be connected to an I/O bus segment. By using the bus connection unit 560BCU04, the 560MPR03 becomes a rack with up to 8 communication units (560CMR01/ 560CMR02).

Also for some functions the usage of 560BCU04 is required, even if only one communication unit is inserted The rack 560MPR03 is mounted on a mounting plate in a cubicle. Only in slot 19 the second PSU can be inserted and will be operated. It is not allowed to put in other modules. Slot 18 is available when the option of the second PSU is not used.

Characteristics

On the mounting plate with height of 6 HE is mounted a 19" rack height 3 HE for single Euro-card format boards (DIN 41494). There are 20 slots available for the installation of boards.

Each power supply unit has a predefined slot allocated to it (slot 21 and slot 19). A second redundant PSU must be operated in slots 18 and 19. These slots can be used only with PSU modules.

Slot 1 to 17 can be used for I/O boards and/or CMU modules. If no redundant power supply is used, slot 18 can be used for an additional I/O board.

Allocation of the slots:

Two slots for:

- 1 or 2 power supply units (each 2 slots wide)

17 slots for:

- Up to 8 communication units
- Up to 17 I/O boards (with redundant power supply)
- Up to 18 I/O boards (if only one PSU is used)

For the physical interfacing of boards edge connectors of type F (DIN 41612) are used. Rows 2 to 20 of the edge connectors connect the RTU560 system bus and are soldered directly to printed circuit board. The 18 connection points of an F female connector for the connection of the process signals are located on a plug-in socket block on the mounting panel. The process signal cables are connected to plug-in sockets with screw terminals or to connection pins for ‚Standard Termi Point'. The process signals can therefore be disconnected from the plug-in socket block at any time.

A monitoring circuit on the rack 560MPR03 checks the supply voltages of the board (24 V DC, 5 V DC). Supply voltage failure is indicated by a status relay contact.

An additional circuit shows the status of the power supplies. Power supply failure is also indicated by a status relay contact.

Besides to the process signal connections, the following interface possibilities are located on the rear side of the printed circuit board:

- Interface to the serial peripheral bus
- Status relay contact for monitoring the internal voltages (24 V DC and 5 V DC) and status of PSU´s.
- Interface and supply power for the 560BCU04

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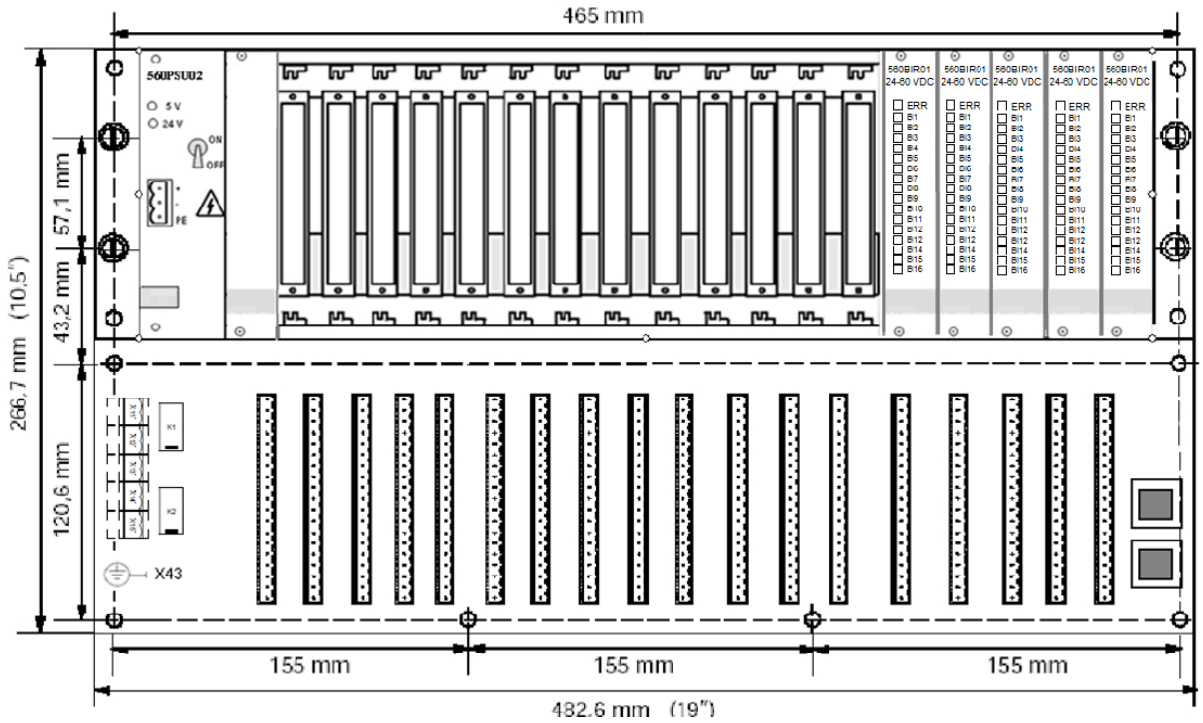

Figure 1: Front view (only one 560PSU02 shown)

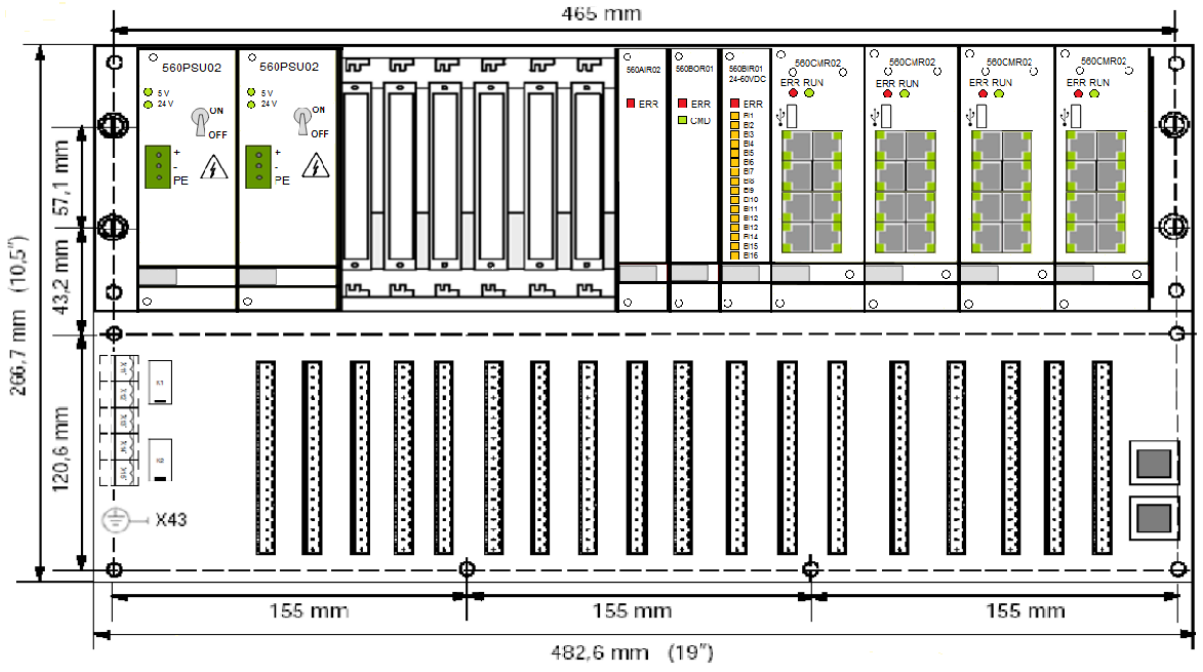

Figure 2: Configuration example (redundant power supply, four 560CMR02, three I/Os)

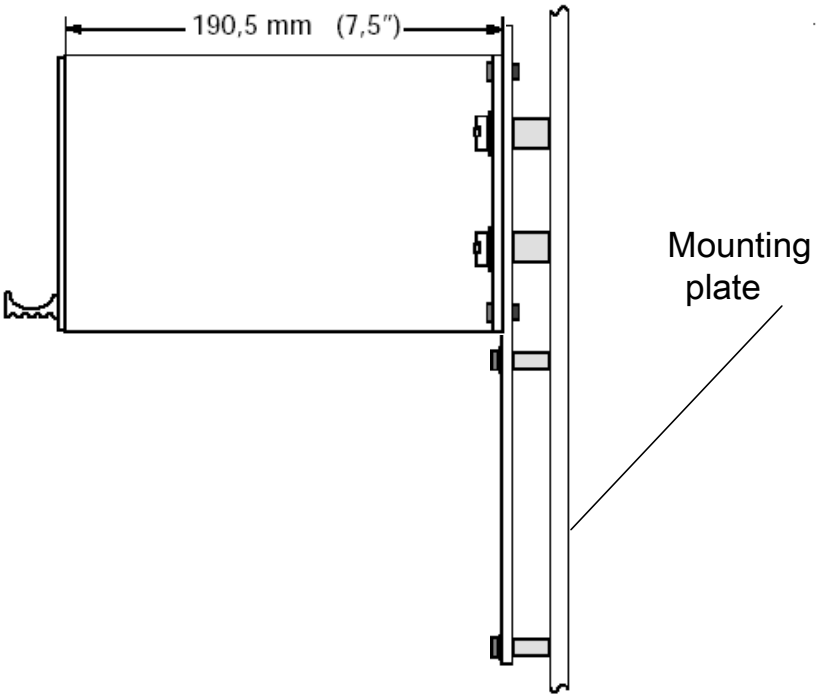

Figure 3: Rear view

Technical data

In addition to the RTU500 series general technical data, the following applies:

Rack	
	19“, 3 U, 21 s according DIN 41494; 1 s = 20,.2 mm.
Dimensions	132.8 x 482,6 x 190.5 mm (H x W x D)
Mounting depth with boards	212 mm (D)
Mounting depth with boards and front plugs	260 mm (D)
Weight	3.7 kg

Printed circuit board	
Dimensions	6 HE, 265,6 x 482,6 mm (H x W)

Type of Connection	
Peripheral boards	Indirect, 48-pole, Type F DIN 41612
Process signal connections	Plug-in terminal strips, 19-pole, 18 signals

Serial Interfaces	
SPB I/O bus (X1, X2)	2x RJ45 jack

Compliances	
EMC	EN550011, EN61000
Environmental	EN60255, IEC60870
Safety	EN60950

Redundant power supply monitoring	
X13, X14, X15	Plug-in terminal strip, 2-pole each
Relay contact	Normal closed contact 1 A / 60 V DC / 30 W

Power supply 5V, 24V monitoring	
X11, X12	Plug-in terminal strip, 2-pole each
Relay contact	Normal closed contact 1 A / 60 V DC / 30 W

Protection Earth	
PE	2 * Fasten 6,3 mm

Environmental conditions - climatic	
Operating temperature EN 60068-2-14	-25 °C ... 70 °C
Start up EN 60068-2-1	-40 °C

Environmental conditions - climatic	
Max. operating temperature, max. 96h EN 60068-2-2	+85 °C
Relative humidity EN 60068-2-30	5 ... 95 % (non condensing)

Ordering information	
560MPR03 R0001	1KGT022100R0001

Accessories ordering information 560BCU04 Bus connection unit	
560BCU04 R0001	1KGT022300R0001
Basic module	
560BCU04 R1002	1KGT022300R1002
Extension module, 10 pcs per package	
560BCU04 R0003	1KGT022300R0003
Termination module, 1 pc	

Accessories ordering information 23XS20 Process connector for 560MPR01/03	
23XS20 R2019	1KGN000556R2019
19 pole, 50 pcs	
23XS20 R2017	1KGN000556R2017
17 pole, 50 pcs	
23XS20 R2002	1KGN000556R2002
2 pole, 100 pcs	

Accessories ordering information 560FPR01 Blanking front plate	
560FPR01 R1002	1KGT007700R1002
100 pcs	

Hitachi Energy Germany AG

P.O. Box 42 01 30
68280 Mannheim, Germany

hitachienergy.com/rtu

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