

# SIEMENS

**MM7000**

**MF7000**

**MUX/DEMUX System**

**Mechanical Assembly**

**Fire & Security Products**

Siemens Building Technologies

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<b>1</b>	<b>Mechanical Assembly</b>	<b>1</b>
1.1	MF/MM7033 Cabinet	2
1.2	Racks for MF7033 or MM7033	3
1.2.1	R2M 030 Universal Rack	3
1.3	Various Racks	4
1.3.1	G1E 010 Universal Rack for K1G 011 Relay Cards (mounted on rear panel of 19" enclosure)	4
1.3.2	R1L 040 Rack for K1G 011 Relay Cards (mounted in front-frame of 19" enclosure)	4
1.3.3	R1F 010 Rack with mounting guides for MF7033 Display Test Field	5
1.3.4	G1E 010 Universal Rack with Terminal Strips (mounted on rear panel of 19" enclosure)	6
1.3.5	R1L 040 Rack with Terminal Strips (mounted in front-frame of 19" enclosure)	6
1.3.6	B1G 030 Line Monitoring Adapter for MM7033 (no longer on sale)	7
1.3.7	B1G 040 Relay Adapter Type 24VDC (no longer on sale)	8
1.4	Power Supply Racks	9
1.4.1	R1P 060 Power Supply Rack for MN7001 (no longer on sale)	9
1.4.2	R1P 061 Power Supply Rack for MN7002	9
1.4.3	G1E 010 Universal Mounting Frame with Battery Holders (mounted on rear panel of 19" enclosure)	10
1.4.4	R1L 040 Rack with Battery Holders (mounted in front-frame of 19" enclosure)	10
1.4.5	R1L 020 Rack with Battery Holders (no longer on sale)	11
1.4.6	R1L 020 Rack with Battery Holders and Battery Charger (no longer on sale)	11
1.5	Ribbon Cable F34D 530	12
<b>2</b>	<b>Mechanical and Electrical Modules</b>	<b>13</b>
2.1	MUX/DMUX Units MF/MM7033	13
2.1.1	Modules for Detector and Control Lines	14
2.2	Superseded Modules	15



# 1 Mechanical Assembly

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*This section provides fixed guidelines for the installation of the module chassis and individual electrical modules in the housing or cabinet selected for the particular applications. Service and maintenance personnel soon become familiar with a standard design leading to increased efficiency in their work. The completed standard design sheets serve as site-documentation. They are invaluable for maintenance purposes and for subsequent retrofitting. This documentation must be kept with the equipment concerned.*

The vertical sub-division of the housings/free-standing cabinet and modules is given in height units (HU).

$$1 \text{ HU} = 44,45\text{mm} = 1 \frac{3}{4} \text{ inches}$$

The horizontal sub-division of the module chassis is 84 DU. This sub-division is used for the installation of guide rails.

$$1 \text{ DU} = 5,08\text{mm} = 0,2 \text{ inches}$$

## Equipping the free-standing cabinets

In general, the equipment is installed in a 19" housing/free-standing cabinet (IEC protection category min. IP 30)

The number of housings/cabinets required depends on the following criteria:

- degree of extension of the equipment
- spare space for later extension
- required emergency power operating time
- power dissipation of equipment

To prevent undue overheating of the electronics the power supply should always be located in the upper part of the cabinet and the selection criteria specified in User Manual MN7000 should be strictly adhered to.

To minimise mutual interference between the modules, the standard chassis layout should be used at all times.

The same mechanical constraints also apply to physically separated operating units.

## Design of module chassis

The universal module chassis permits a modular design approach, allowing various pieces of equipment to be assembled by fitting out the same chassis with the relevant electronics modules.

As for the free-standing cabinets/housings, the vertical space requirements are given in height units HU.

- |  |     |
|--|-----|
| – module chassis for European cards/modules        | 3HU |
| – module chassis for double European cards/modules | 6HU |
| – cables trays for each module chassis             | 1HU |

# 1.1 MF/MM7033 Cabinet

- ALS 2000 2)
- EMC shielded enclosure 3)
- H98G 600 2)

HE

front view

1	<b>R1P 061</b>	Power Supply	
2			
3			
4	<b>R1L 040</b>	Distribution / Installation	
5		DMX-Module (option)	<input type="checkbox"/>
6			
7	<b>G1S 510</b>		
8	<b>R2M 030</b>	MM/MF7033	
9			
10			
11			
12			
13	<b>G1S 510</b>		
14			
15	<b>R1F 010</b> 4)	Display Test Field	
16		(option)	<input type="checkbox"/>
17			
18	<b>G1S 510</b>		<input type="checkbox"/>
19	<b>R1L 040</b>	Terminal Strips	
20			<input type="checkbox"/>
21			
22	<b>R1L 040</b>	Terminal Strips	
23			<input type="checkbox"/>
24			
25	<b>R1L 040</b>	Terminal Strips	
26			<input type="checkbox"/>
27			
28	<b>R1L 040</b>	Terminal Strips	
29			<input type="checkbox"/>
30			
31	<b>R1L 040</b>	Terminal Strips	
32			<input type="checkbox"/>
33			
34	<b>R1L 020</b>	Emergency Power 24Ah	
35			<input type="checkbox"/>
36			
37	<b>R1L 020</b>	Emergency Power 24Ah	
38			<input type="checkbox"/>
39			
40			
41			
42			

rear panel equipped with mounting frame 1)

1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19	<b>G1E 010</b>	Terminal Strips	<input type="checkbox"/>
20	<b>B1G</b> ____	____-Adapter	<input type="checkbox"/>
21			
22	<b>G1E 010</b>	Terminal Strips	<input type="checkbox"/>
23	<b>B1G</b> ____	____-Adapter	<input type="checkbox"/>
24			
25	<b>G1E 010</b>	Terminal Strips	<input type="checkbox"/>
26	<b>B1G</b> ____	____-Adapter	<input type="checkbox"/>
27			
28	<b>G1E 010</b>	Terminal Strips	<input type="checkbox"/>
29	<b>B1G</b> ____	____-Adapter	<input type="checkbox"/>
30			
31	<b>G1E 010</b>	Terminal Strips	<input type="checkbox"/>
32	<b>B1G</b> ____	____-Adapter	<input type="checkbox"/>
33			
34	<b>G1E 010</b>	Emergency Power 24Ah	
35	<b>YAH 00</b>	2 Battery Holders	<input type="checkbox"/>
36			
37	<b>G1E 010</b>	Emergency Power 24Ah	
38	<b>YAH 00</b>	2 Battery Holders	<input type="checkbox"/>
39			
40			
41			
42			

- 1) For rear panel installation the front panel must remain free.  
(exception: special cabinet with hinged front panel)
- 2) CE-conformity for industrial environment (EN 61000-6-4, EN 50130-4, EN 60950-1)
- 3) CE-conformity for residential, commercial or light-industrial environment (EN 61000-6-3, EN 50130-4, EN 60950-1)  
for any details see maintenance info MI347e
- 4) No longer available, RF010 can be replaced by a commercial 19" rack (3HU/84HP)

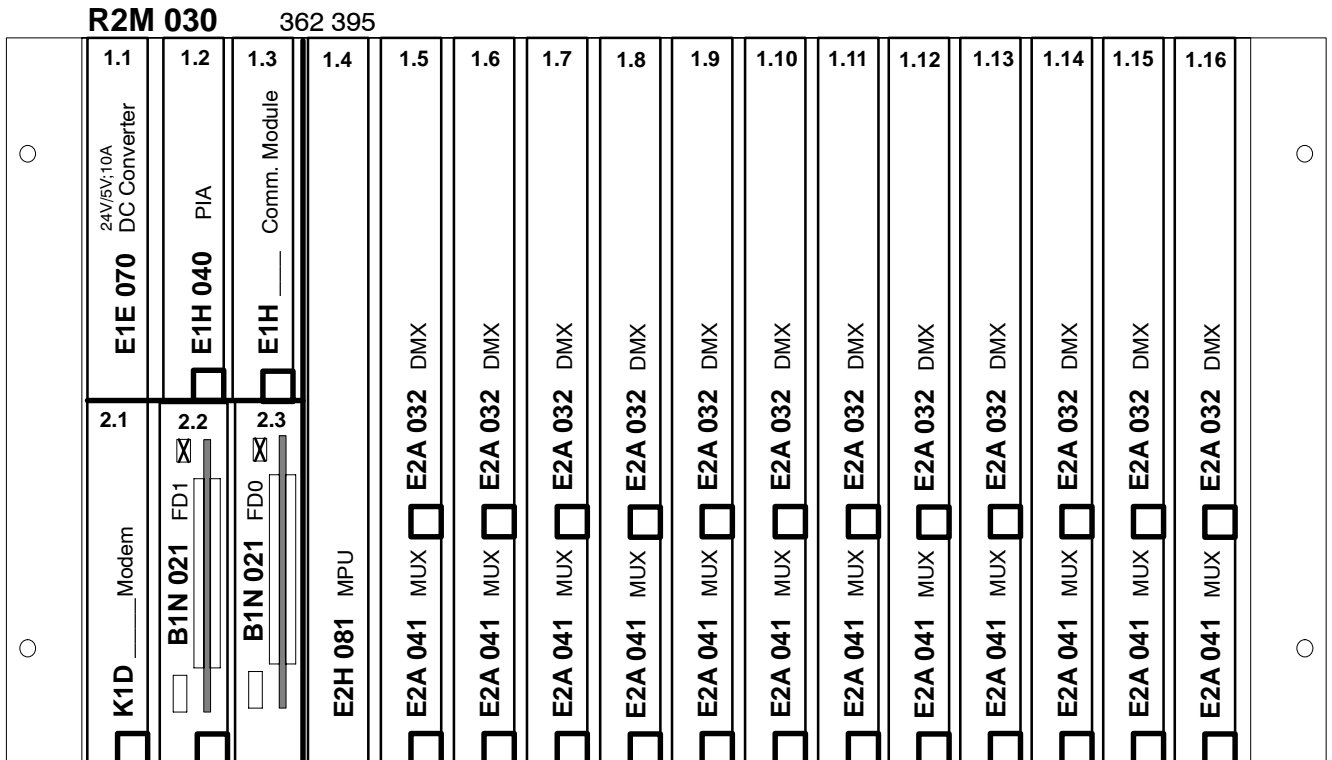
## 1.2 Racks for MF7033 or MM7033

With few exceptions the racks for

**MM7033** MUX/DMX Control Unit and  
**MF7033** Digital PLC-Unit

are equipped with the same modules.

### 1.2.1 R2M 030 Universal Rack

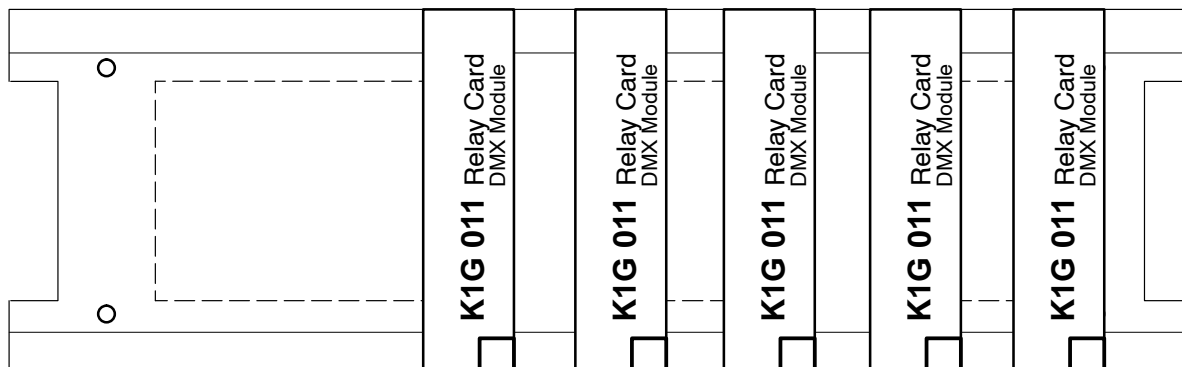


## 1.3 Various Racks

### 1.3.1 G1E 010 Universal Rack for K1G 011 Relay Cards (mounted on rear panel of 19" enclosure)

**G1E 010**

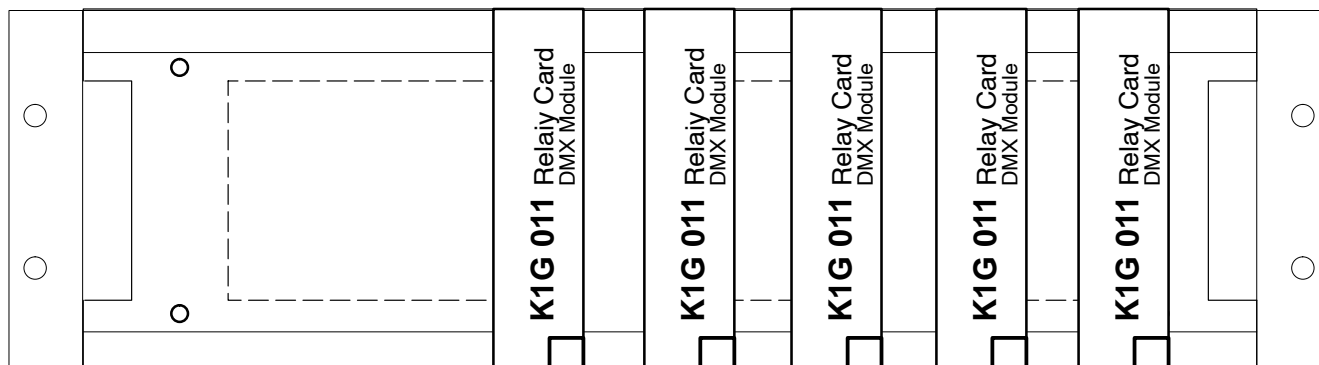
384 276



### 1.3.2 R1L 040 Rack for K1G 011 Relay Cards (mounted in front-frame of 19" enclosure)

**R1L 040**

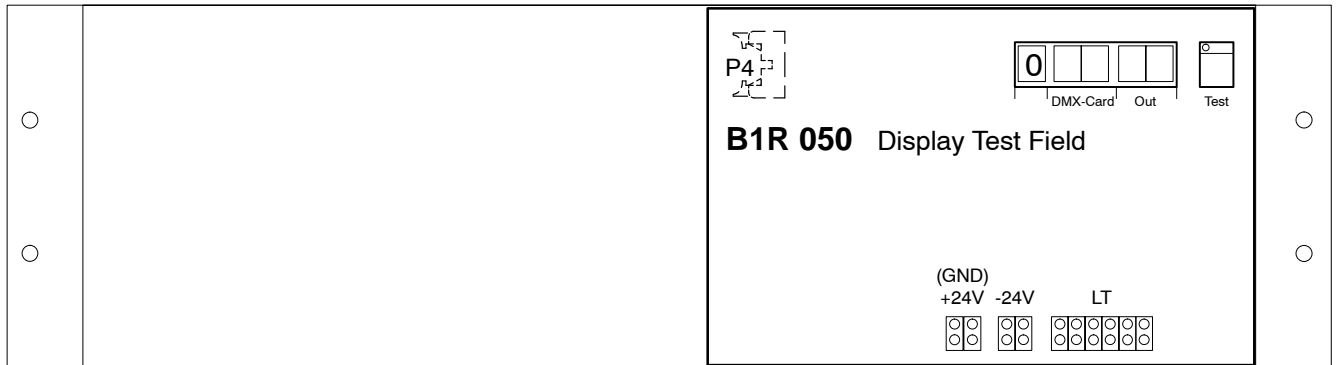
433 648





### 1.3.3 R1F 010 Rack with mounting guides for MF7033 Display Test Field

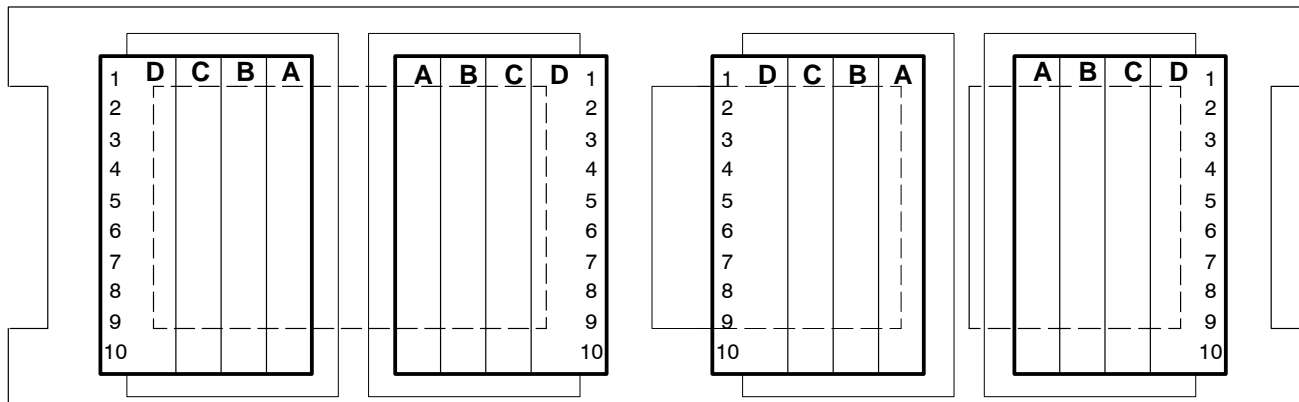
**R1F 010** 316 820



### 1.3.4 G1E 010 Universal Rack with Terminal Strips (mounted on rear panel of 19" enclosure)

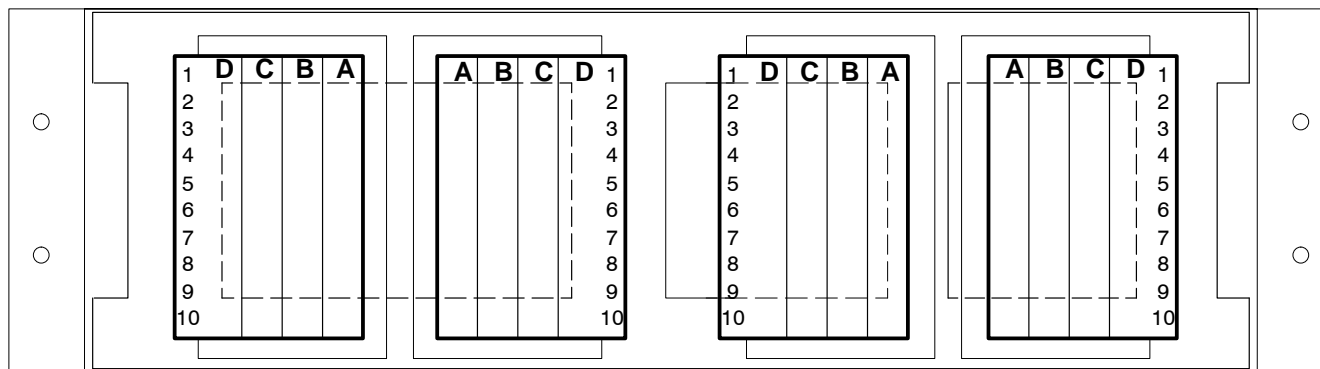
*This rack may only be used together with a rear panel mounting frame.*

**G1E 010** 384 276



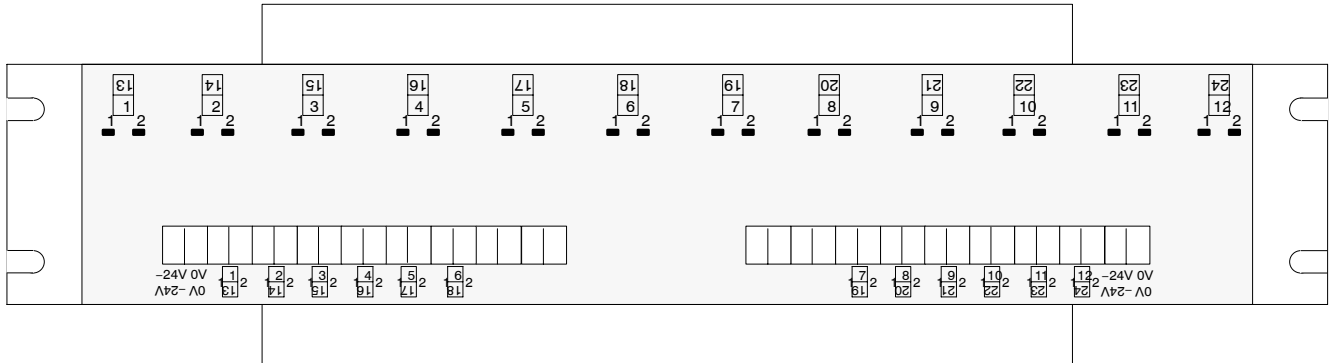
### 1.3.5 R1L 040 Rack with Terminal Strips (mounted in front-frame of 19" enclosure)

**R1L 040** 433 648

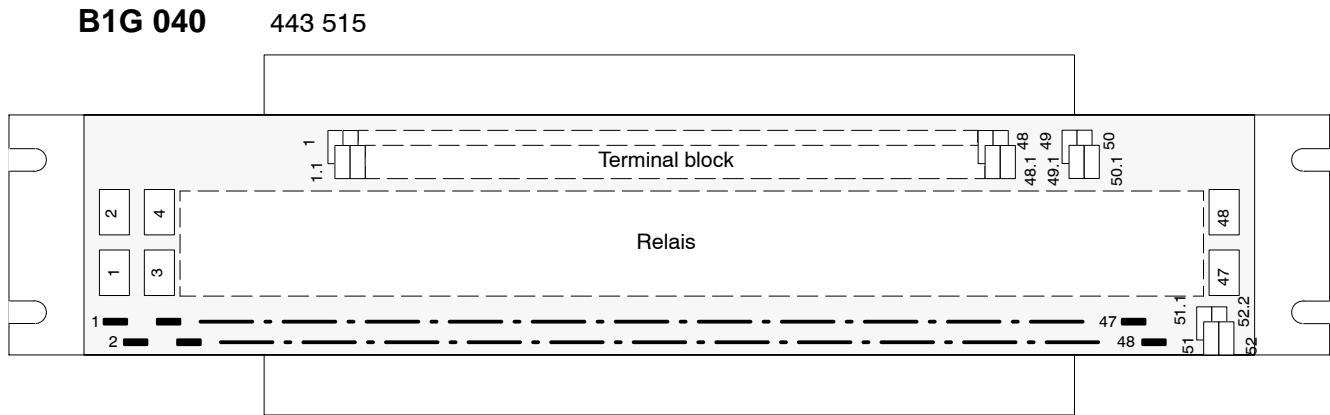


### 1.3.6 B1G 030 Line Monitoring Adapter for MM7033 (no longer on sale)

**B1G 030** 355 315



### 1.3.7 B1G 040 Relay Adapter Type 24V<sub>DC</sub> (no longer on sale)

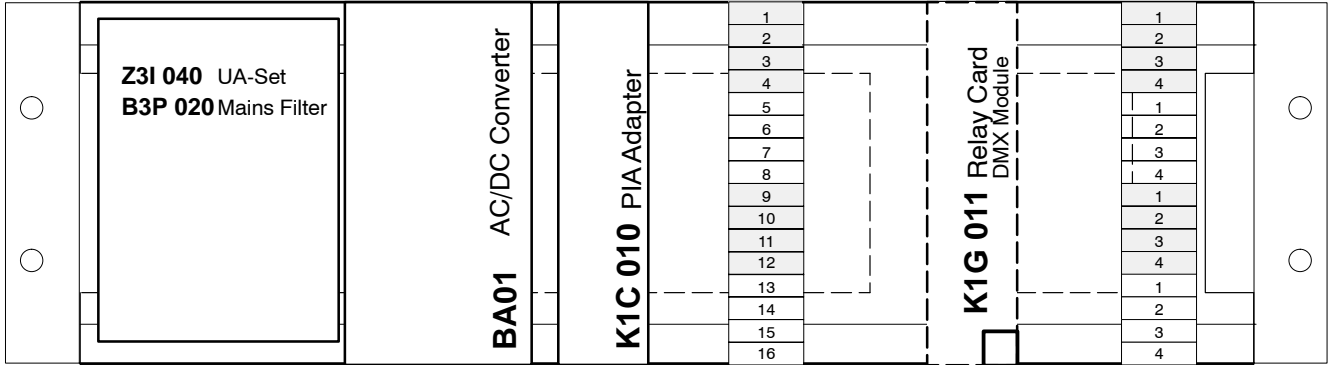


# 1.4 Power Supply Racks

for power supply details see MN7001 Handbook

## 1.4.1 R1P 060 Power Supply Rack for MN7001 (no longer on sale)

R1P 060 462 428

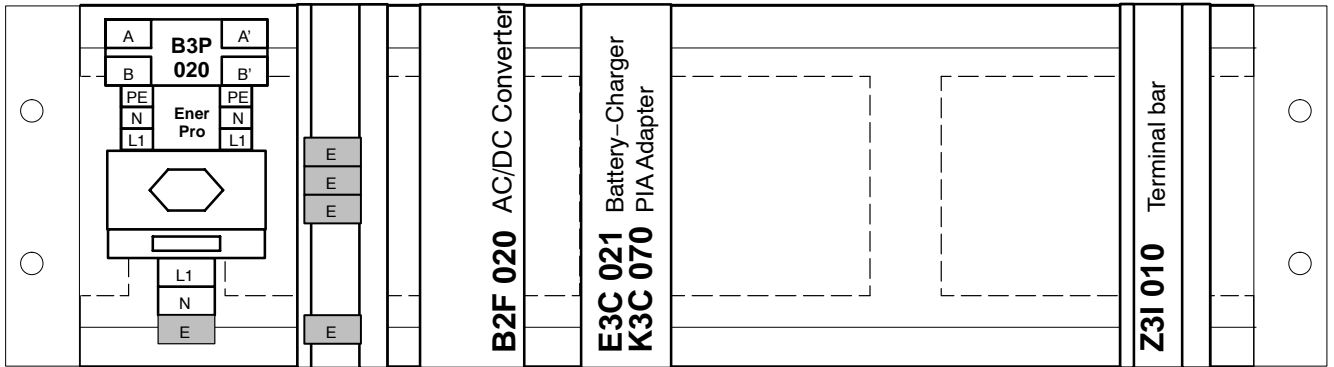


1

- 1 **Z3I 020** 4 Isolating Terminal Set
- Z1I 010** 1 Terminal Mounting Bar

## 1.4.2 R1P 061 Power Supply Rack for MN7002

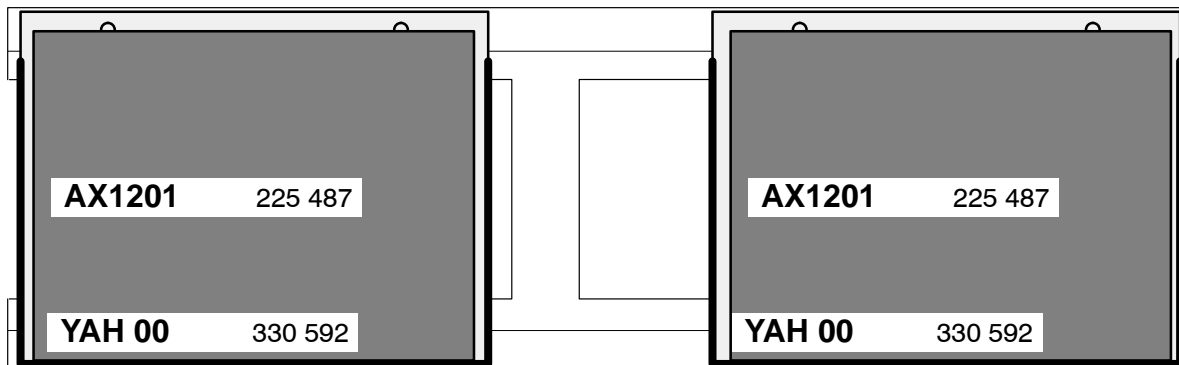
R1P 061 496 711



E Earthing terminal

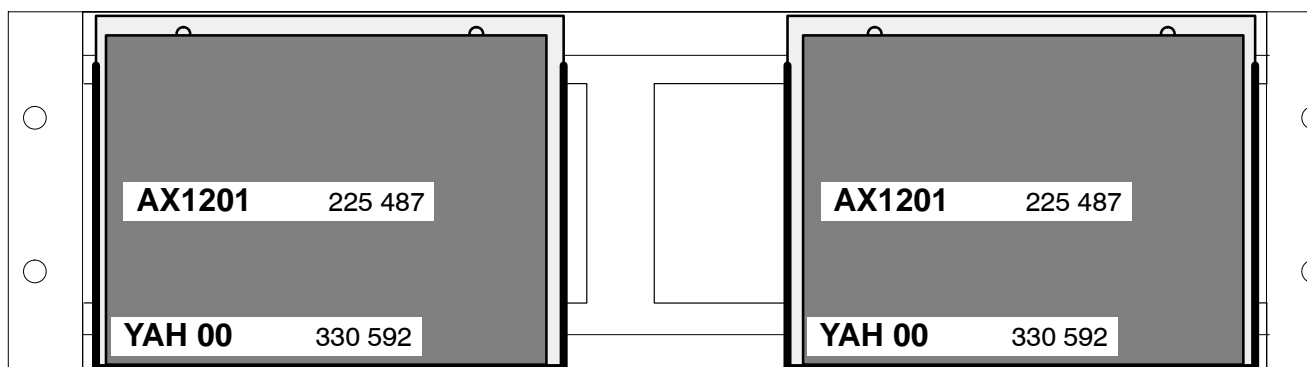
**1.4.3 G1E 010 Universal Mounting Frame with Battery Holders  
(mounted on rear panel of 19" enclosure)**

**G1E 010** 384 276 (Requiem rear panel mounting frame)



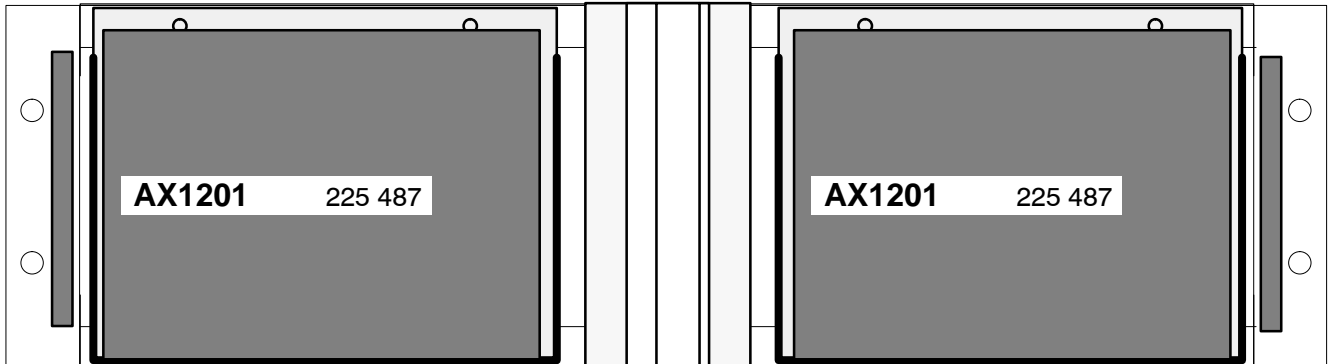
**1.4.4 R1L 040 Rack with Battery Holders  
(mounted in front-frame of 19" enclosure)**

**R1L 040** 433 648



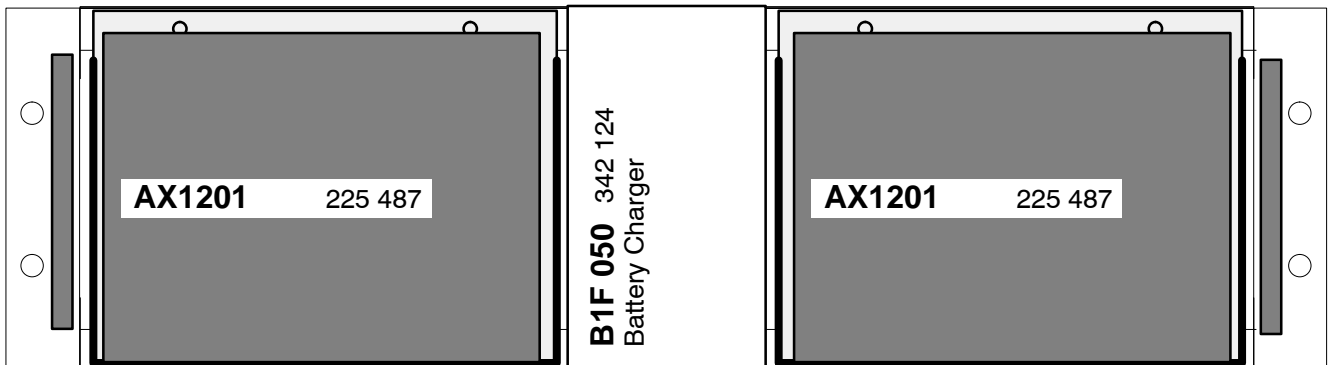
### 1.4.5 R1L 020 Rack with Battery Holders (no longer on sale)

**R1L 020** 342 496 (mounted in front-frame of 19" enclosure)



### 1.4.6 R1L 020 Rack with Battery Holders and Battery Charger (no longer on sale)

**R1L 020** 342 496 (mounted in front-frame of 19" enclosure)

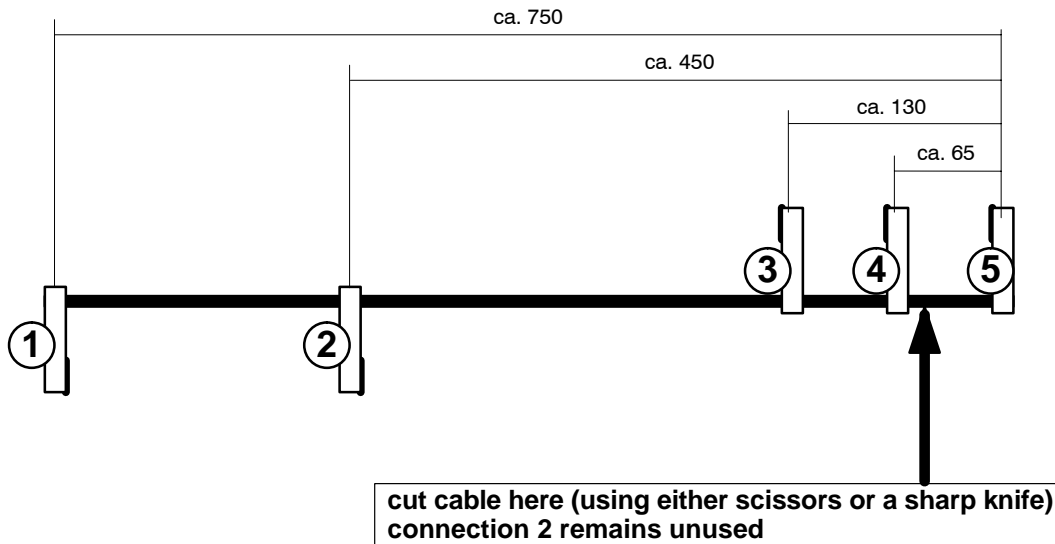


## 1.5 Ribbon Cable F34D 530

**The new B1N 021 floppy disk drive has no drive selector jumpers and is preset as drive DK1. Thus any drive addressing must be made via the bus wiring itself.**

**When FD-types with drive select jumpers are connected using this ribbon cable, the jumpers must be always be set as "Drive 1".**

**Ribbon cable modify according to the chassis requirement (R2M 030).**







## 2.1.1 Modules for Detector and Control Lines

Item	Designation	Type	Part No.	Delivery	Quantity										Note			
								per 48 SLA	per 48 MLE	DMX-Module	LED-Test							
1.	Multiplexer Module	E2A 041	370 808								1							
2.	Demultiplexer Module	E2A 032	427 162					1										
3.	Inteconnection cable per module E2A ...	V52C 010	362 379					1	1									
4.	Universal mounting frame (rear panel)	G1E 010	384 276							2)								
5.	Universal Rack (front-frame mounting)	R1L 040	433 648							2)								
6.	Terminal strip block 10x4	---	453 479							3)								
7.	Relay Adapter 24Vdc	B1G 040	443 515					1										8)
8.	Line monitoring adapter	B1G 030	355 315							2								4)7
9.	Relay Card (max. 4, without LED-Test max.5)	K1G 011	505 437								1)							7)
10.	Ribbon cable 1,5m per card K1G 011	F14A 470	316 299									1)	1					
11.	PIA Module	E1H 040	306 652										1					
12.	Display Test Field	B1R 050	444 200											5)				
13.	Rack with guides	R1F 010	316 820												1			6)
14.	Looping-in floor	G1S 510	306 283												1			

- 1) as required
- 2) Terminal Strips or Relay Cards may be mounted on universal rack G1E 010 (rear panel mounting) or in rack R1L 040 (front-frame mounting).
- 3) max. 4 terminal strips per G1E 010 or R1L 040
- 4) 24 lines per Multiplexer-Module (48 MLE) may be monitored
- 5) in MF7033 only
- 6) no longer available, RF010 can be replaced by a commercial 19" rack (3HU/84HP)  
e.g.  
ELMA Electroic AG ([www.elma.com](http://www.elma.com)) Economic 3HU/84HP, no. 11-11312-.0  
Distrelec ([www.distrelec.com](http://www.distrelec.com))  
Schroff ([www.schroff.de](http://www.schroff.de)) Europac spezial 3HU/84HP. no. 30732, type 20824-006
- 7) no longer available
- 8) no longer available, B1G040 can be replaced by GFR006 (275893), GFR008 (319720, GFR011 (399630) type relay cards.  
Relais cards must be used for conformity (Immunity of in- and outputs)

## 2.2 Superseded Modules

**NB:**

**Only currently available modules are included in the block diagrams and configuration guidelines.**

Superseded Modules				Replacements			Notes
	Designation	Type	Part No.	Designation	Type	Part No.	
1.	Floppy Drive	B1N 020	383 785	Floppy Drive	B1N 021	542 881	B1N 020 no longer available B1N 021 operates with both DD and HD-Disks. <b>NB:</b> HD-Disks require MPU E2H 081!!
2.	Comm. Module	E1H 120	423 357	Comm. Module	E1H 130	451 620	local interface: <b>parallel</b> <b>NB:</b> only possible with MPU E2H 081 <b>Application: in CERLOOP-network only !</b>
3.	Comm. Module	E1H 120	423 357	Comm. Module	E1H 121	452 292	local interface: <b>serial</b> <b>Application: in CERBAN or CERLOOP-networks!</b>
4.	DMX-Module	E2A 031	370 798	DMX-Module	E2A 032	427 162	Output characteristics 5 .... 29 VDC
5.	MUX/DMX Module	E2H 050	356 848	MUX-Module or DMX-Module	E2A 041 E2A 032	370 808 427 162	E2H 050-Module no longer supported by current software.
6.	MPU Module	E2H 080	414 955	MPU Module	E2H 081	449 933	E2H 080 no longer manufactured <b>NB:</b> wiring must be modified !
7.	Relay Card	E3G 020	318 132	Relay Card	K1G 010	462 444	connection via 25-pin sub-D connector (male) now possible. Terminal block available)
8.	Modem V24/V28	K1D 011	362 094	Modem V24/V28	K1D 012	463 760	radiates less EM-interference and permits higher baud rates
9.	Dual Modem V24/V28 Relay Card for CERLOOP	K1D 080 K3G 030	361 066 428 030	Dual Modem V24/V28 4 Relays for CERLOOP	K1D 081 ---	463 773 463 498	radiates less EM-interference and permits higher baud rates
10.	Dual Modem FSK/PSK 2 Relays for CERLOOP	K1D 120 ---	403 322 452 072	Dual Modem FSK/PSK 2 Relays for CERLOOP	K1D 121 ---	470 601 463 498	<b>NB:</b> K1D 090 may not be used in the same network.
11.	Modem FSK incl. translator	K1D 090 M3B 010	369 932 369 901	Modem FSK/PSK	K1D 140	470 614	<b>NB:</b> communicating pairs must be replaced simultaneously. PTT-Approval currently available for K1D 090 only!
12.	Relay Card	K1G 010	462 444	Relay Card	K1G 011	505 437	CE-Norm
13.	Power supply rack	R1P 060	462 428	Power supply rack	R1P 061	496 711	CE-Norm

Siemens Building Technologies AG  
Alte Landstrasse 411  
CH-8708 Männedorf  
Phone +41 1 - 922 61 11  
Fax +41 1 - 922 64 50  
[www.cerberus.ch](http://www.cerberus.ch)