

## Charging Rectifier type PRM1



- **Compact modular** charging rectifier with built-in monitoring and rectifier modules in cabinet for mounting in 19" rack, width 483 mm, depth 312 mm, height 133 mm. Also available as a complete 19" wall cabinet unit.
- **Plug-in rectifier modules** for output power flexibility, easy service due to hot swap modules and high availability due to parallel operation.
- **Monitoring** of battery, rectifier and distribution. Status and alarms distinctly on display, settings via clear menus for easy handling. Remote alarms via relays. Battery circuit test and monitoring of battery symmetry for early warning of battery faults.
- **Safe operation and high availability**  
we support you with commissioning and service as well as education in handling and maintenance.
- **Our product range for uninterruptible power** also covers complete DC systems, inverters, uninterruptible motor drive (UMD), distribution boards and batteries. We support you with design and education.

# Charging Rectifier type PRM1

## Technical data

### General

PRM1 is a complete charging rectifier in 19" rack version including rectifier and monitoring unit. The rectifier can be equipped with up to four rectifier modules of plug-in type.

The monitoring unit is a functionally separate unit who communicates with the rectifier modules via a serial interface. It has two parts, the display module integrated into the rack unit and an I/O module that can be placed freely on a guide rail or flat surface.

PRM1 with rack and I/O module is aimed to be built in, but is also available as a complete unit for wall mounting (PRM1-W).

### Enclosure PRM1

#### Rack

Type: Rack 3HE for 19" rack frame  
 Dimensions (h/w/d): 133/483/312 mm  
 Weight: 18 kg (fully equipped)  
 Colour: RAL 7035 light grey  
 Class of enclosure: IP20  
 Ventilation: Temperature controlled fans in rectifier modules

#### I/O module

Type: Box for mounting on guide rail or flat surface.  
 Dimensions (h/w/d): 117/224/66 mm  
 Weight: 0.5 kg  
 Colour: Zinkified steel sheet  
 Class of enclosure: IP20  
 Ventilation: Natural convection

### Enclosure PRM1-W

Type: Wall mounted cabinet  
 Cable inlet: From beneath and above  
 Dimensions (h/w/d): 604/600/500 mm  
 Weight: 50 kg (fully equipped)  
 Colour: RAL 7035 light grey  
 Class of enclosure: IP21  
 Ventilation: Temperature controlled fans in rectifier modules, otherwise natural convection

### Complete charging rectifier

PRM1			Rectifier module		
Model	U <sub>NOM</sub> (V <sub>DC</sub> )	I <sub>MAX</sub> (A)	Num-ber	I <sub>RATED</sub> (A)	Model
PRM1 24/80	24	80	1-4	20	L0500B-IW
PRM1 24/240		240	1-4	60	V1500B
PRM1 48/48	48	48	1-4	12	L0600A-IW
PRM1 48/100		100	1-4	25	L1250A-IW
PRM1 48/200		200	1-4	50	L2500A-IW
PRM1 110/40	110	40	1-4	10	L1250K-IW

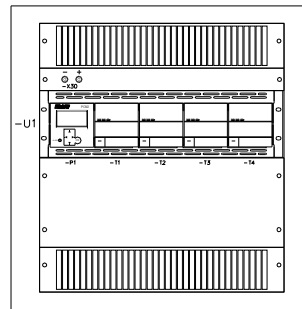


### Rectifier module

Output data				Input data			Power loss** W	Model designation
U <sub>NOMINAL</sub> V <sub>DC</sub>	U <sub>RANGE</sub> V <sub>DC</sub>	I <sub>RATED</sub> A	Output power W <sub>MAX</sub>	Input voltage range V <sub>AC</sub>	Mains power* VA	Mains current* A <sub>rms</sub>		
24	21-28	20	560	85-295	670	3.4	92	L0500B-IW
		60	1680	180-264	1960	10.0	187	V1500B
48	42-56	12	672	85-295	800	4.1	92	L0600A-IW
		25	1400	85-295	1600	8.2	156	L1250A-IW
		50	2800	150-295	3150	16.1	312	L2500A-IW
110/125	97.5-145	10	1250	90-300	1410	7.2	139	L1250K-IW

\* maximum at 195 V<sub>AC</sub>

\*\* type at 230 V<sub>AC</sub> and full load



PRM1 in wall cabinet, PRM1-W

### Environmental data

Ambient temperature: Operation, 0 to +40 °C  
 Storage, -40 to +70 °C  
 Humidity: < 90 % RH, non-condensed  
 Altitude a.s.l.: < 2000 m

### Input AC

Frequency: 47 – 63 Hz  
 Power factor: > 0.95 at 230 V<sub>AC</sub>, full load  
 Connection PRM1: 2 m cable, 1.5 mm<sup>2</sup>  
 Connection PRM1-W: Screw terminal, 0.2 – 6 mm<sup>2</sup>  
 Other: See table

### Output DC

Output voltage, nominal: 24/48/110/125 V<sub>DC</sub>  
 Connection PRM1: 2 m cable; 16 mm<sup>2</sup> (24V), 10 mm<sup>2</sup> (48V), 2.5 mm<sup>2</sup> (110V)  
 Connection PRM1-W: Double screw terminal, 0.75 – 35 mm<sup>2</sup>  
 Voltage regulation: < 0.5 % of nominal output voltage  
 < 1 % within 3 seconds, 0-100 / 100-10 % load change  
 Current regulation: < 1 % of rated current  
 Current limit range: 0 – 100 % of rated current  
 Ripple voltage: < 0.1 %<sub>rms</sub>  
 Other: See table

### Monitoring unit type PCM2

Monitoring of the complete DC system.  
 Clear graphical display for showing and setting of alarms, operating data, etc.  
 Remote alarm via 4 freely configurable relays.



Distribution: Fuse monitoring, earth fault monitoring, external alarm  
 Battery: Temperature monitoring, battery circuit test, battery symmetry monitoring  
 Rectifier: Over/under voltage, rectifier fault, temperature compensated float charge, automatic equalising charge

### Standards

Safety: EN 50178  
 EMC, immunity: EN 61000-6-2  
 EMC, emission: EN 61000-6-4