



Charging Rectifier type PRX1

24/48/110/220V_{DC}

PRX1 is a complete module-based device consisting of rectifier and monitoring unit for battery systems with high demands on reliability, suitable as replacement for older rectifiers.

Plug-in rectifier modules

Gives output power flexibility, easy service due to hot swap modules and high availability due to parallel operation.

Safe operation and high availability

We support you with commissioning and service as well as education in handling and maintenance.

DC-system monitoring

Includes battery, rectifier and distribution. Status and alarms distinctly on display and settings via clear menus for easy handling.

Battery status

Battery circuit test and monitoring of battery symmetry for early warning of battery faults. Battery temperature is monitored and will automatically adjust the float charging voltage.

Charging Rectifier type PRX1

General

PRX1 is a complete charging rectifier including rectifier and monitoring unit, suitable as replacement for older rectifiers. The rectifier can be equipped with up to four PCS rectifier modules of plug-in type.

Enclosure

Type: Floor-standing with 19" rack frame
 Cable inlet: From below or above
 Dimensions (h/w/d): 1361/600/600 mm
 Colour: RAL 7035 light grey
 Class of enclosure: IP21
 Ventilation: Temperature controlled fans in rectifier modules, otherwise natural convection

Input AC

Voltage: 230 V_{AC} single-phase
 Frequency: 50/60 Hz
 Power factor: > 0.99 vid 230 V_{AC}, full load
 Connection: 6 mm² screw terminal for each rectifier module
 Other: See tables below

Output DC

Voltage, nominal: 24/48/110/220 V_{DC}
 Connection: Twin screw terminal, 2x35/95 mm² per pole, see table below

Voltage regulation

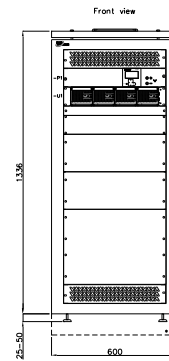
Static: < 0.5 % of nominal voltage
 Dynamic: < 1 % within 3 seconds, 0-100 /100-10 % load change

Current regulation:

Current limit range: < 1 % of rated current
 Ripple voltage: < 0.1 %_{RMS}
 Ripple current: < 0.1 % of rated current
 Other: See tables below



Rectifier module type PCS



F27

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

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 four freely configurable relays.



Monitoring unit type PCM2

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 charging, automatic equalising charging

Standards

Safety: EN 50178
 EMC, immunity: EN 61000-6-2
 EMC, emission: EN 61000-6-4
 Class of enclosure: EN 60529

Options

Alarm outputs: Relay 5-8
 Cabinet plinth

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 GB
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| Charging Rectifier PRX1 | | | | Rectifier Module PCS | |
|-------------------------|-------------------------------------|-------------------------|---|----------------------|---------------------------|
| Model | U _{NOM} V _{DC} | I _{MAX} (A) | Conn. DC _{OUT} mm ² | Qty | I _{RATED} (A) |
| PRX1 24/108 | 24 | 108 | 2x35 | 1-4 | 36 |
| PRX1 24/280 | | 280 | 2x95 | 1-4 | 70 |
| PRX1 48/54 | 48 | 54 | 2x35 | 1-4 | 18 |
| PRX1 48/200 | | 200 | 2x95 | 1-4 | 50 |
| PRX1 110/32 | 110 | 32 | 2x35 | 1-4 | 8 |
| PRX1 110/64 | | 64 | 2x35 | 1-4 | 16 |
| PRX1 110/88 | | 88 | 2x35 | 1-4 | 22 |
| PRX1 220/40 | | 40 | 2x35 | 1-4 | 10 |

Table 1, Rated data Charging Rectifier PRX1

| Output data PCS | | | Input data PCS | | | Power loss** |
|--|-------------------------|-----------------------|---|---------------------|------------------------------------|--------------|
| U _{NOM} (U _{RANGE}) V _{DC} | I _{RATED} A | P _{MAX} W | Input voltage range*** V _{AC} | Mains power * VA | Mains current* A _{RMS} | |
| 24 (22-33) | 36 | 1000 | 90-290 | 1150 | 6 | 150 |
| | 70 | 2000 | 90-290 | 2200 | 12 | 175 |
| 48 (42-63) | 18 | 1000 | 90-290 | 1150 | 6 | 135 |
| | 50 | 2700 | 90-290 | 2900 | 15 | 210 |
| 110 (100-158) | 8 | 1000 | 90-290 | 1150 | 6 | 135 |
| | 16 | 2000 | 90-290 | 2200 | 12 | 160 |
| | 22 | 2700 | 90-290 | 2900 | 15 | 200 |
| 220 (187-292) | 10 | 2475 | 90-290 | 2700 | 14 | 200 |

Table 2, Rated data Rectifier Module PCS
 * maximum at 195 V_{AC}; ** type at 230 V_{AC};
 *** derating at voltages below 190 V_{AC}



Specifications given herein may be changed at any time without prior notice

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