RECTIFIER PBI M/MC

DEVICE DESCRIPTION

PBI MC (module with integrated controller) and PBI M (module without integrated controller) type rectifiers are dedicated for installation in industrial cabinets. The devices can operate individually or in n+1 configuration.

PBI MC and PBI M are used in rectifier cabinets, switchgears, UPSs and battery charging systems.

PBI M modules are suitable for simultaneous operation using an external controller.

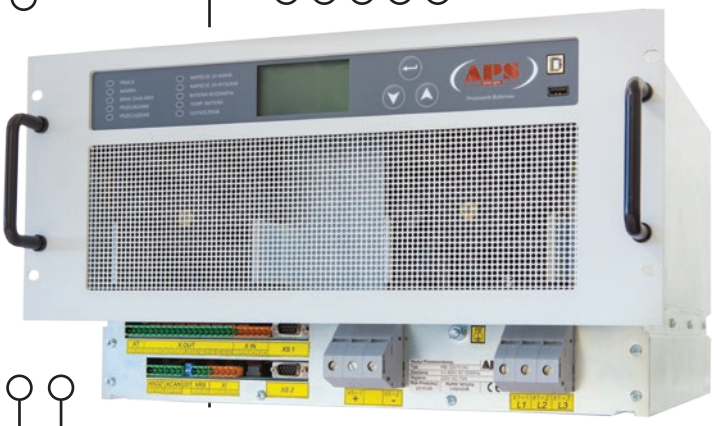
PBI MC

The power supply features:

- High stability of voltages and output currents;
- Electromagnetic compatibility – EMI filters;
- Very low current ripple and output voltage;
- Compact dimensions and weight;
- High efficiency;
- Silent operation;
- RS485, USB integrated communication interface;
- Electronic protection against short-circuit, overload, overheating;
- High reliability – self-diagnosis system implemented;

The rectifier provides:

- Temperature compensation of the battery voltage;
- Galvanic insulation of the DC circuits from the mains supply;
- Monitoring of battery charging current;
- Logging of events and operating states (SD card);
- Continuous measurement of input and output electrical parameters and battery and ambient temperature;
- Monitoring of the ground isolation status of each pole;
- Communication with SCADA master system and TCPIP network;
- UI charging characteristics and cooperation with battery accordant with EUROBAT characteristics (DIN 41773);
- A choice of Modbus RTU, IEC communication protocol;



Rectifier module series:

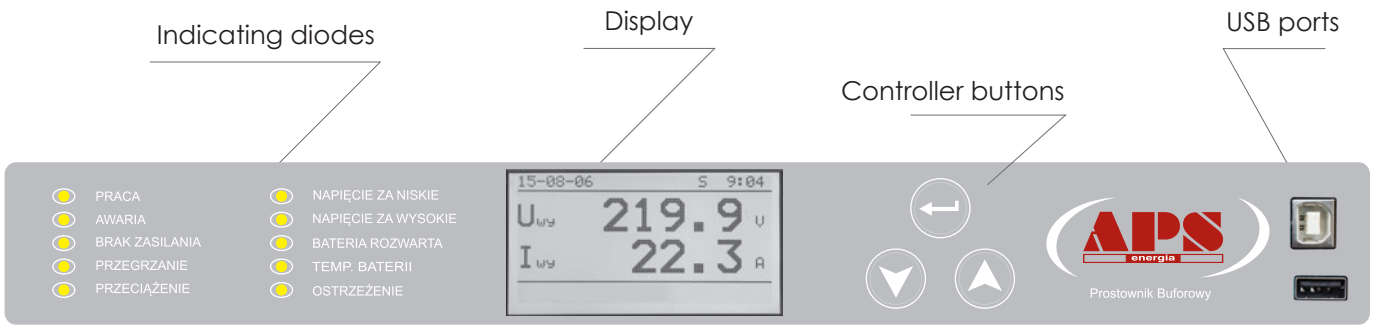
DC OUTPUT VOLTAGE, V	AC INPUT VOLTAGE, V	OUTPUT CURRENT, A	HOUSING TYPE
24	3x400	25, 50, 100, 200, 300, 350	4U
48	3x400	25, 30, 50, 75, 100/125, 150, 200	4U
60	3x400	25, 50, 75, 100	4U
110	3x400	25, 50, 75, 100 / 200	4U / 6U
220	3x400	10, 20, 25, 30, 40, 50 / 75, 100	4U / 6U
400	3x400	10, 20 / 30, 40, 50, 60	4U / 6U
700	3x400	10, 25	6U

EXTERNAL COMMUNICATION – DIRECT CURRENT SYSTEM

The rectifiers and DC inverters are equipped with an extensive communication system with the user and superordinate systems – HMI (Human Machine Interface).

The communication system consists of:

1. A local user panel with an indicator diode system, an LCD screen for displaying messages and reading parameters and a knob or cursors for navigating the console menu.
2. A set of potential-free relay contacts for binary signals.
3. External communication links. Data transmission via RS485 and Ethernet ports and USB (reading the archive buffer) is possible.



CHARACTERISTICS:	
Supply voltage	380/400/415 VAC
Supply voltage frequency	50/60 ±10% Hz
Output voltage stability	+/- 0.6%
Output voltage ripple (*)	+/- 0.6%
Buffer voltage temperature adjustment range	-10 – +50°C
Temperature compensation of the buffer charging voltage (*)	0–10 mV/°C/cell
Overload capacity	1.1 In for 3 sec.
Output current stability (**)	+/- 1%
Output current ripple (**)	+/- 1%
Battery charging characteristics	IU as per DIN 41773
Total efficiency	> 92%
Charging voltage in the buffer mode	2.2–2.4 V/cell
Charging voltage in the automatic/manual mode	2.2–2.7 V/cell

(*) With resistive load (**) Battery charge, current regulator

#10427052024PBIMC

APS Energia SA
ul. Strużańska 14
05-126 Stanisławów Pierwszy

tel.: +48 (22) 762 00 00
fax: +48 (22) 762 00 01
aps@apsenergia.pl
www.apsenergia.pl