PMi-C

SYSTEM CONTROLLER FOR PMi DC POWER SYSTEMS

PMi-C is the advanced monitoring and control device for PMi DC Power Systems. It delivers intelligence, an easy user interface and a comprehensive set of features for DC Power System management. PMi-C architecture is based on PowerCAN-Bus communication and a modular design, which enables excellent system expandability, selectable additional features and flexibility in design. The PMi-C controller is the universal solution for all MIP family DC Power Systems from 24 VDC up to 220 VDC, and for other modules in the family.

System features

PMi-C includes key features such as measurements of the individual rectifiers (AC input voltage, DC output current and voltage, temperature) as well as battery and load currents. Plug and play support, system parameters upload and download in XML format, PowerCAN-Bus interface to MRC rectifiers and smart peripheral modules as well as inventory management for installed modules.

Measurements:
- System output voltage measurement
- DC output current, total rectifiers

Functions:
- Energy saving mode with PMi rectifiers
- Rectifier runtime counter
- Alarm configuration
- Real time clock with battery backup
- Automatic module configuration
- Site information text input

Battery management features

PMi-C offers a battery management system that allows for battery testing (manual/periodic), different charging modes such as floating, manual/periodic/automatic boost charge, all with temperature compensation. Multiple configurable alarms as well as a comprehensive data log (512 alarm occurrences, 100 events, and a battery temperature graph and system power log).

- Natural battery tests, starts on mains fault
- Charge current limiting
- Discharged Ah-counter
- Time window for battery test
- Alarms:
  Mains fault, phase fault, rectifier low/over voltage, system low/over voltage, rectifier over current, system over temperature, high battery temperature, low battery temperature, rectifier fault, module communication error/module fault, load fuse fault, battery LVD or load LVD contactor failure, battery temperature sensor fault, rectifiers no redundancy alarms/rectifiers overload (configurable limits), load disconnect warning (configurable limits), load disconnect, battery fuse fault, battery discharge test fault, boost charge fault, battery disconnect warning (configurable limit), earth fault detection.

AEG
POWER SOLUTIONS

PMi-C
TECHNICAL DATA

PMi-C & PMi-C I/O

		PMi-C	PMi-C I/O
Power input voltage range		18 – 280 VDC	
Communication ports	**- LAN**	10/100 Ethernet, RJ45 connector	
	- Serial	RS232, 9600 – 115200 kbps	
REMOTE MONITORING AND CONTROL			
Remote PC connection		Connect via LAN	
Local PC connection		Connect directly with serial port RS232 or LAN port	
Alarms		E-mail or SNMP traps	
Remote user interface		Web interface, 3 access levels	
Remote terminal		Text mode interface over Telnet/SSH	
Supported protocols		HTTP, HTTPS, Telnet, SSH, SMTP, SNMPv2, NTP, DHCP, Modbus TCP/IP	
Languages		English, Russian, Finnish, German	
SYSTEM FEATURES			
Connections	**- Battery or load LVD's**	1 pcs	
	- Alarm/temperature inputs	4	12
	- Alarm relay output	4	12
Supported max. number of all modules		48	
Limitations per modules type		Local user interface panel: 1 Rectifiers, supported max. amount: 47 PMi-C-LVD low voltage disconnection modules, supported max. amount of connections: 8 PMi-C-SAM battery management modules, supported max. amount: 16 PMi-C-SAM modules; supported max. amount: 1	
MECHANICAL			
Dimensions (H x W x D)		105 x 40 x 205 mm	
Protection		IP20/IEC 529	
CONNECTORS			
Alarm/temperature input		Screw terminals	
Internal PowerCAN-Bus connector		User interface modules RJ11 / other PowerCAN connectors RJ45	
PowerCAN termination plug		RJ45 plug	
ENVIRONMENTAL			
Cooling		Natural convection	
Acoustic noise		<40 dB (A)	
Operating temperature (min/max)		-20/+50 °C	
Storage temperature (min/max)		-40/+70 °C	
Humidity (max)		95 % (relative humidity, non-condensing)	
Altitude (max)		2000 m above sea level	
STANDARDS			
EMC		Emissions: EN/IEC 61000-6-4 / Immunity: EN/IEC 61000-6-2 Harmonic currents: EN/IEC 61000-3-2 / Voltage fluctuations & flicker: EN/IEC 61000-3-3	
Safety		IEC/EN 60950-1	

USER INTERFACE MODULE

MONITORING AND CONTROL	
Local display	128 x 64 graphical LCD with backlight
Local operation	Dial button, info button and cancel button
Local LED indication	3 color system status LED
Info	Dedicated button to open info text
Default view	Charge mode, system voltage, number of active alarms
Languages	English, Russian, Finnish, German, French, Czech
MECHANICAL	
Dimensions (H x W x D)	80 x 80 x 20 mm
Protection	IP43/IEC 529