

DESCRIPTION

UNIPOWER Telecom's PCM500 Series Power Control and Monitor System (PCMS) is a one mounting position high (1.75 inches) basic control and monitoring system for DC power plants. It controls up to 16 rectifiers in up to 4 shelves, precisely setting the float voltage and equalize voltage (optional) on all rectifiers simultaneously. It monitors the battery voltage and current by means of front panel test points or optionally by a front panel digital voltmeter and ammeter.

A front panel yellow LED indicates that the controller is in the optional equalize voltage mode. Front panel red LEDs give the following alarms: rectifier fail alarm-minor, indicating a single rectifier failure; rectifier fail alarm-major, indicating two or more rectifier failures; AC input failure on any rectifier; failure on any fuse or circuit breaker; failure on one or both low voltage disconnects; battery overvoltage; and battery undervoltage. These alarms all have isolated Form C relay contact outputs.

The PCM500 is available in either 48 or 24VDC versions and will operate with a positive or negative polarity plant. It comes with brackets that permit mounting in either a 19- or 23-inch relay rack and can be mounted from the front of the rack with offsets every quarter-inch from front to back to align with existing rack-mounted equipment. The front panel has voltage adjustment potentiometers for float voltage, equalize voltage (option), battery overvoltage and undervoltage, and temperature compensation set (option). A front panel switch puts the PCMS in either float or equalize voltage mode. A front panel green/red LED indicates the controller is operating or has failed. The PCMS 500 mates with UNIPOWER Telecom's rectifiers and shelves.

SAFETY CERTIFICATIONS

UL1950
CSA 22.2, No. 950
EN60-950

TWO-YEAR WARRANTY



POWER CONTROL & MONITOR SYSTEM

MODEL	FUNCTION
PCM500	Basic Power Controller

FEATURES

- ◆ One Mounting Position High: 1.75"
- ◆ 19- or 23-Inch Rack Mounting
- ◆ Positive or Negative Polarity Plant
- ◆ Reverse Polarity Protected
- ◆ 48 or 24VDC Versions
- ◆ Controls & Monitors Up to 16 Rectifiers
- ◆ Centralized Plant Float Voltage Adjust
- ◆ Centralized Plant Equalize Voltage Adjust Option
- ◆ Battery Temp. Compensation Option
- ◆ Optional Digital Voltmeter and Ammeter Panel
- ◆ 8 LED Alarm Indicators
- ◆ 8 Form C Relay Contact Alarm Outputs
- ◆ Over & Under Battery Voltage Alarms
- ◆ Battery Voltage & Current Test Points
- ◆ Compatible with Mercury & Vanguard Rectifiers
- ◆ Easy Wire Connections on Rear
- ◆ Alarm Enable on Back Panel

SPECIFICATIONS, PCM500

INPUTS

Voltage¹ 48VDC or 24VDC Nominal
 Polarity Positive or Negative Plant
 Monitoring Inputs Low Voltage Disconnects 1 & 2
 Fuse Alarms 1 through 5
 Battery Voltage & Current Metering
 Temperature Compensation
 Battery Sense
 Battery Supply

OUTPUTS

Control Outputs Current Share
 Remote Adjust
 Alarms, Form C Relay Contacts EQA = Equalize
 RFA-MIN = Rectifier Failure-Minor
 RFA-MAJ = Rectifier Failure-Major
 ACFA = AC Failure
 FA = Fuse or Breaker Failure

..... LVDA = Low Voltage Disconnect
 OVA = Battery Overvoltage
 UVA = Battery Undervoltage
SAFETY STANDARDS UL1950, CSA22.2 No.950, EN60-950

ENVIRONMENTAL

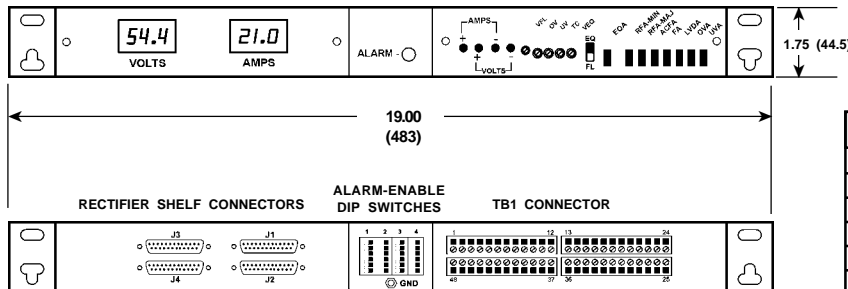
Operating Temperature Range 0°C to 50°C
 Storage Temperature Range -40°C to +85°C
 Humidity 0% to 95%, Non-Condensing

PHYSICAL SPECIFICATIONS

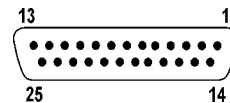
Case Material Steel
 Finish Powder Coat Gray
 Dimensions, Inches (mm) 1.75 H x 19.00 W x 9.00 D
 (44.5 x 483 x 229)
 Rack Mounting Width 19 or 23 Inches

NOTE: 1. Model must be specified for operating voltage.

FRONT VIEW



J1-J4



J1-J4 SIGNAL CONNECTORS			
PIN	FUNCTION	PIN	FUNCTION
1	Remote Enable	14	AC Good-1
2	Thermal Alarm-1	15	DC Good-1
3	Current Monitor-1	16	AC Good-2
4	Thermal Alarm-2	17	DC Good-2
5	Current Monitor-2	18	AC Good-3
6	Thermal Alarm-3	19	DC Good-3
7	Current Monitor-3	20	AC Good-4
8	Thermal Alarm-4	21	DC Good-4
9	Current Monitor-4	22	Signal Common
10	Current Share	23	-Sense
11	+ Sense	24	Remote Adjust-1
12	Remote Adjust-2	25	Remote Adjust-3
13	Remote Adjust-4		

NOTE: J1-J4 Connectors are for rectifier shelves 1-4 respectively. Numbers following functions refer to rectifier modules 1-4 in each shelf.

REAR VIEW

Model No.: PCM500 - [] - [] - [] - [] - []

CODE	VOLTAGE
1	-48V (Pos. Gnd.)
2	+48V (Neg. Gnd.)
3	-24V (Pos. Gnd.)
4	+24V (Neg. Gnd.)

CODE	OPTION
EV	EQUALIZE VOLTAGE MODE
MP	METER PANEL
TC*	BATTERY TEMP. COMPENSATION

*This option includes a temperature probe with 20 foot cable. For longer cable, contact factory.

NOTE: The ammeter requires an external 50mV shunt with the current rating shown in the table. The shunt code must be specified as a suffix for the MP Option.

50mV Shunt

CODE	AMMETER SHUNT RATING
25	25A
30	30A
50	50A
75	75A
100	100A
150	150A
200	200A
250	250A
300	300A
500	500A
1000	1000A
1500	1500A
2000	2000A

CONTROL & MONITORING INPUT & OUTPUT

LV Disconnect 1	Current Metering
LV Disconnect 2	Temp. Comp. Input
Fuse Alarm 1	Battery Supply
Fuse Alarm 2	Battery Sense
Fuse Alarm 3	Current Share Output
Fuse Alarm 4	Remote Adjust Output
Fuse Alarm 5	

FORM C RELAY CONTACT ALARM

Equalize Failure	Fuse or Breaker
Rectifier Failure-Minor	Low Voltage Disconnect
Rectifier Failure-Major	Battery Overvoltage

ALL DIMENSIONS IN INCHES (mm).
 All specifications subject to change without notice.