

# C&D TECHNOLOGIES

## Power Solutions

### PSMC 1525

#### Power System Monitor and Controller

##### DESCRIPTION

The PSMC 1525 is a telecommunications DC Power Systems Monitor and Control panel intended for use in Central Office, PBX, Fiber, Wireless, Outside Plant and other telecom applications. The economical PSMC 1525 offers more than a conventional Meter and Alarm Panel, which provides only minimal monitoring and control. The PSMC 1525 monitors up to nine feeder currents, a variety of fuse alarms, CEMF cells, plant voltage and current, load voltage, rectifier alarms and more. The 15 front panel LEDs and the LCD display lets you see the status of your plant at a glance. A complete set of output alarm relay contacts provide office-sending alarms. The Equalize function can be configured for Manual, Auto or No equalize, giving you a highly flexible system for battery recharge. The rectifier HVSD and Restart controls help maintain your plant in a safe operating condition until service personnel can get to the site and correct any plant malfunctions.



PSMC 1525 • 103-3870-01

##### FEATURES AT A GLANCE

- COST EFFECTIVE
- MICROPROCESSOR CONTROLLED
- COMPACT SIZE (ONLY ONE RACK SPACE)
- EASE OF OPERATION
  - STATUS MONITORING
  - SYSTEM CONFIGURATION
  - CALIBRATION
  - CONTROL FUNCTIONS
- LCD ALPHANUMERIC DISPLAY
  - DATA MEASUREMENT
  - PROGRAMMING INFORMATION
- FULL SET OF FRONT-PANEL ALARM/STATUS LEDES
- FULL SET OF ALARM RELAY CONTACTS
- MANUAL AND AUTO EQUALIZE FUNCTION
- AUDIBLE ALARM WITH ACO
- USER PASSWORD PROTECTED
- BUILT IN TESTS AND CALIBRATION MODES
- LUGLESS CUSTOMER WIRE CONNECTIONS

##### MONITORING

- PLANT VOLTAGE AND CURRENT
- LOAD VOLTAGE
- CEMF CELLS
- FEEDER CURRENTS
- FUSE ALARMS
- RECTIFIER FAIL ALARMS
- TEMPERATURE ALARMS
- LOW-VOLTAGE DISCONNECT STATUS

##### CONTROL

- EQUALIZE
  - MANUAL
  - AUTO
- RECTIFIER HIGH-VOLTAGE SHUTDOWN
- RECTIFIER RESTART
- USER-DEFINED AUXILLARY OUTPUT

# PSMC 1525 POWER SYSTEM MONITOR AND CONTROLLER

## DETAILED FEATURES

### COMPACT SIZE:

1 RACK SPACE

### EASE OF OPERATION:

FOUR PUSH BUTTONS AND AN ALPHANUMERIC LCD DISPLAY GUIDE YOU THROUGH SIMPLE SETUP AND CALIBRATION PROCEDURES, PLANT STATUS/ALARMS, AND CONTROL FUNCTIONS.

### LCD DISPLAY:

DISPLAYS: PLANT AND INDIVIDUAL ALARM STATUS; CONFIGURATION AND CALIBRATION DATA.

### PARAMETERS MONITORED:

PLANT VOLTAGE  
LOAD VOLTAGE  
PLANT CURRENT  
UP TO NINE FEEDER CURRENTS:  
SCALED TO MATCH SHUNT RATINGS  
UP TO TWO CEMF CELLS  
FIVE SEPARATE FUSE ALARM TYPES:  
CHARGE  
MULTIPLE DISCHARGE  
SENSE/CONTROL  
BATTERY  
SPARE (CIRCUIT BREAKER, ETC.)  
STATUS OF EXTERNAL LOW-VOLTAGE DISCONNECT  
UP TO 16 RECTIFIER FAIL ALARMS  
TEMPERATURE ALARMS\*:  
TWO BATTERY STRINGS  
ONE AMBIENT

\*EACH PARAMETER HAS A HIGH- AND LOW-THRESHOLD SETTING AND THE BATTERY STRINGS HAVE DIFFERENTIAL TEMPERATURE THRESHOLDS RELATIVE TO AMBIENT.

### PARAMETERS CONTROLLED:

RECTIFIER HIGH-VOLTAGE SHUTDOWN:  
SETS OUTPUT SIGNAL FOR RECTIFIERS TO SHUT DOWN IF RECTIFIER IS DELIVERING OUTPUT CURRENT.  
  
RECTIFIER RESTART SIGNAL:  
SETS OUTPUT SIGNAL FOR RECTIFIERS TO TRY TO RESTART WHEN THE PLANT VOLTAGE DROPS BELOW THE LOW-VOLTAGE ALARM SETTING.  
  
RECTIFIER EQUALIZE:  
SETS FLOAT/EQUALIZE MODE OF RECTIFIERS

### AUDIBLE ALARM WITH ALARM CUT-OFF STATUS AND ALARM FRONT PANEL LEDS:

MAJOR  
MINOR  
FUSE ALARM  
VERY LOW-VOLTAGE  
LOW-VOLTAGE DISCONNECT  
HIGH-VOLTAGE SHUTDOWN

WATCHDOG (CONTROLLER FAIL)  
RECTIFIER FAIL  
TEMPERATURE ALARM  
CEMF ACTIVE  
LOW-VOLTAGE ALARM  
HIGH-VOLTAGE ALARM  
AUDIBLE CUT-OFF STATUS  
EQUALIZE STATUS  
CONTROL INHIBIT STATUS

### STATUS AND ALARM FORM C RELAY CONTACTS:

MAJOR: 2 SETS OF FORM C CONTACTS  
MINOR: 2 SETS OF FORM C CONTACTS  
HIGH-VOLTAGE ALARM  
LOW-VOLTAGE ALARM  
VERY LOW-VOLTAGE ALARM  
FUSE FAIL ALARM  
LOW-VOLTAGE DISCONNECT ACTIVE  
TEMPERATURE ALARM  
CEMF ACTIVE  
RECTIFIER FAIL ALARM  
AUXILIARY ALARM (USER DEFINED)

### CONTROL FORM A RELAY CONTACTS:

EQUALIZE  
HIGH-VOLTAGE SHUTDOWN  
RESTART

## SPECIFICATIONS

ELECTRICAL: +24vdc@ 400 mA (worst case)  
-48vdc@ 200 Ma (worst case)  
+/-130vdc@ 75 Ma (worst case)

PHYSICAL: 19" OR 23" RACK MOUNT, 1 RACK SPACE  
W=16.75" (42.55 cm)  
H=1.75" (4.45 cm)  
D=12.0" (30.48 cm)  
WEIGHT=10.0 LBS (4.6 kgm)

OPERATING TEMPERATURE: 0C TO 50C (+32F TO +122F)

HUMIDITY: 0 TO 95% NON-CONDENSING

ALTITUDE: 10,000 FEET (3048 METERS)

HEAT DISSIPATION: APPROX. 150 BTU/hour MAX.

COOLING: NATURAL CONVECTION

SEISMIC: UBC ZONE 4

DISPLAY: 2 ROWS, 16 ALPHANUMERIC CHARACTERS PER ROW  
VOLTAGE READINGS: 0.05% ACCURACY  
CURRENT READINGS: 1.0% ACCURACY

## ORDERING

+24VDC AND -48VDC UNIT: P/N 103-3870-01

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