

## Power Monitor

# M850-MPD

MultiPower metering system for DC applications



- Complete digital, universal metering system. Covers a majority of applications without any modifications.
- Measures a standard range of 9 different parameters
- Four easy to access front control buttons to scroll up or down through the parameters
- Blue LED display is designed to be sunlight readable over a very wide viewing angle
- Plug-in communications modules for RS485, pulsed output and Ethernet
- MODBUS RTU and BACnet MS/TP communications protocols for use with PC, PLC, RTU, Data Loggers and SCADA programs
- Plug-in Ethernet module for 10/100 Base-T connectivity
- Communicate with up to 31 other meters or controllers
- UL listed
- Non-volatile eprom memory retains all current ratios, demand time periods, and calibration data in power down (power loss) conditions
- Auxiliary power supply is a universal supply for both AC and DC volts
- Free software for monitoring and logging

## ELECTRICAL SPECIFICATIONS

### INPUTS

<b>Voltage (Un)</b>	80V to 800V,DC; 30V to 300V,DC; 15V to 150V,DC; 6V to 60V,DC
<b>Overload</b>	Un x 1.25 indefinitely In x 5 for 1 sec.
<b>Burden</b>	0.5VA per phase
<b>Rated Input</b>	1A-10A or mV input (50mV, 60mV, 75mV, or 100mV,DC)
<b>Input Burden</b>	<0.5VA per phase
Voltage (-) is internally connected to L1 (I)	

### ACCURACY

<b>Voltage</b>	0.5% of reading $\pm$ 2 digits
<b>Current</b>	0.5% of reading $\pm$ 2 digits
<b>Power (W)</b>	1% of reading $\pm$ 2 digits
<b>Energy</b>	IEC 1036 Class I

### AUXILIARY VOLTAGE

100 to 440V,AC; 100 to 420V,DC; 19V to 69V,DC (optional)  
45-65Hz, Burden <10VA

### INSULATION

<b>Insulation Category</b>	III (480V)
<b>Degree of Pollution</b>	2
<b>Rated Impulse</b>	IEC 60947-1-V
<b>Withstand Voltage</b>	imp: 4kV
<b>Meters, Front</b>	Class II
<b>Electrical Security</b>	IEC 61010-1

### ELECTROMAGNETIC COMPATIBILITY

Immunity to:

<b>Electrostatic Discharges</b>	IEC 61000-4-2-Level III
<b>Radiated Radio-Hz Fields</b>	IEC 61000-4-3-Level III
<b>Electrical Fast Transient/Bursts</b>	IEC 61000-4-4-Level III
<b>Impulse Waves</b>	IEC 61000-4-5-Level III
<b>Conducted Disturbances</b>	IEC 61000-4-6-Level III
<b>Voltage Dips &amp; Short Interruptions</b>	IEC 61000-4-11-Level III

Emissions to:

<b>Conducted and Radiated</b>	CISPR11-Class A
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For more information on this product, please contact:  
PC&S, Inc. at +1 (800) 523-9194 or +1 (973) 448-9400  
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# M850-MPD MultiPower metering system for DC

## GENERAL SPECIFICATIONS

### DISPLAY

<b>Digits</b>	3 lines 9999, Blue LED standard
<b>Size</b>	14.2 mm high, 7 segment
<b>Update Time</b>	1 second
<b>Brightness</b>	8 user-selectable levels

### ENVIRONMENTAL

<b>Working Temperature</b>	32°F to +140°F (0°C to +60°C)
<b>Storage Temperature</b>	-40°F to +185°F (-40°C to +85°C)
<b>Relative Humidity</b>	0-95% non-condensing
<b>Shock</b>	30G in 2 planes

### APPROVAL

<b>UL</b>	File No. E337752
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### ENCLOSURE

<b>Standard DIN Case</b>	DIN 96 x 96 x 80mm
<b>Panel Mount</b>	via 4 retaining brackets
<b>Panel Cutout</b>	92 + 0.8 mm x 92 + 0.8 mm
<b>Materials</b>	Black Polycarbonate
<b>Terminals</b>	Current: 6 mm <sup>2</sup> All others 2.5 mm <sup>2</sup>
<b>IP rating</b>	Front: IP52; NEMA 12 and 12X Case: IP30; NEMA 3 and 3X
<b>Weight</b>	0.66 lbs; 0.25kg

## ORDERING INFORMATION

Part Number	Description	Input / Aux Supply*
M850MPDV16	Standard DC MultiPower unit, 50mV shunt operated	80-800V,DC
M850MPDV17	Standard DC MultiPower unit, 50mV shunt operated	30-300V,DC
M850MPDV18	Standard DC MultiPower unit, 50mV shunt operated	15-150V,DC
M850MPDV19	Standard DC MultiPower unit, 50mV shunt operated	6-60V,DC
M850MPDV*V2	Standard DC MultiPower unit, 100mV shunt operated	80-800V,DC
M850MPDV*V14	Standard DC MultiPower unit, 60mV shunt operated	80-800V,DC
M850MPDPE	Standard DC MultiPower unit, 50mV shunt operated	80-800V,DC / 19-69V,DC
M850Pulsed	Plug-in output module for pulsed output	
M850RS485	Plug-in output module for RS485 (MODBUS protocol)	
M850ET	Plug-in output module for Ethernet (10-100 Base-T)	
M850P1RTV	NEMA4 with RTV internal sealing and panel gasket	
M850**RED	any standard MultiPower unit with red LED display	

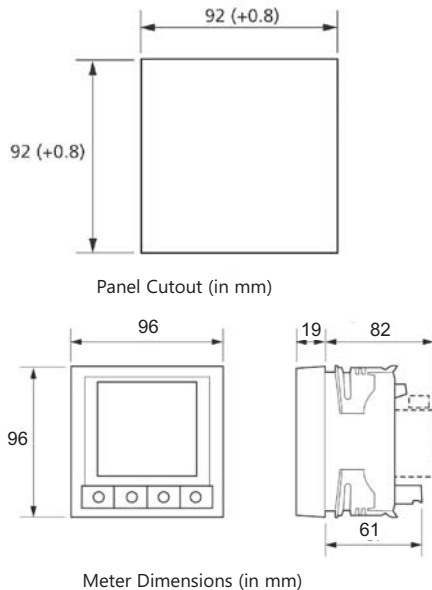
\* Indicates desired input voltage range.

\*\* Indicates desired model number required.

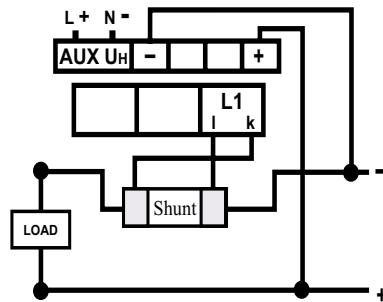
## MEASURED PARAMETERS

DC Amps  
DC Volts  
DC Power (Watts)  
DC Energy (Watt Hours)  
Amp Demand  
Power Demand  
Max. Amp Demand  
Max. Power Demand  
A.h (Ampere Hours)

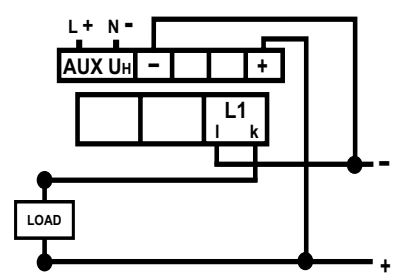
## CUTOUTS, DIMENSIONS AND CONNECTIONS



### External Shunt



### Direct Connection



Voltage (-) is internally connected to L1 (I)



www.pc-s.com

For more information and certifications, please contact:

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