

# M880-DMF DIN RAIL POWER METERS

# HOBUT

## DESCRIPTION

The new range of Hobut DIN rail mounting power meters feature seven selectable colour backlight LCD screens. The range is easy to use and features user-programmable CT & VT ratios that can be used on any single or 3 phase system. The products feature a unique set point relay trip output that can be assigned to eight different measurements.

## APPLICATION

The range is a cost effective replacement for traditional panel meters and is suitable for low, medium and high voltage control panels, gensets, building management systems, power management and more.



## RANGE

### STANDARD FUNCTIONS:

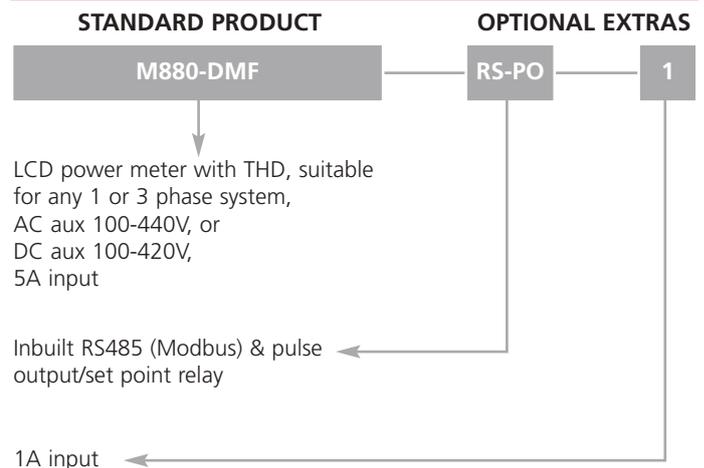
Phase Voltage (V)	Export Reactive Energy (Var.H)
Phase to Neutral Voltage (V)	VA Energy (VA.h)
Phase Current (I)	Amp Hour (A.h)
Neutral Current	System Amp Demand (A Dmd)
Frequency (Hz)	System Import Active Power Demand (W Dmd)
Average Power Factor (PF)	System Export Active Power Demand (W Dmd)
Import Active Power (W)	System Apparent Power Demand (VA Dmd)
Import Active Power per phase L1 L2 L3 (W)	System Amp Maximum Demand (A Max Dmd)
Export Active Power (W)	System Import Active Power Max Dmd (W Max Dmd)
Export Active Power per phase L1 L2 L3 (W)	System Export Active Power Max Dmd (W Max Dmd)
Import Reactive Power (Var)	System Apparent Power Max Dmd (VA Max Dmd)
Export Reactive Power (Var)	THD Voltage 1% upto 32st
Apparent Power (Va)	THD Current 1% upto 31st
Import Active Energy (W.h)	
Export Active Energy (W.h)	
Import Reactive Energy (Var.H)	

## PROGRAMMABLE FUNCTIONS

All models feature the following user-programmable functions:

- Selectable Screen Colour
- Current Transformer Ratio
- Voltage Transformer Ratio
- Baud Rate, Parity, Stops
- AC or DC AUX
- Single or 3 phase system
- Input voltage range 28-570V
- RS485 address, 1-247
- Security code access for programming
- Programmable set point relay output

## ORDERING INFORMATION



**Order example:** a standard product with RS485 (Modbus) and pulsed output is part number M880-DMF-RS-PO

## SET POINT RELAY

The relay output can be programmed to be used as a pulsed output or instead as a set point relay.

When used as a set point relay:-

- up to 8 parameters can be assigned to the relay
- whichever parameter reaches the set point will cause the relay to trip

Relay Mode:	can be set to over, under or window mode
Trip:	can be set from 1% to 250% of input
Reset (differential):	can be adjusted from 1% to 250% of input
Group Logic:	can be set to 1, 2 or 3 phases or the sum or the average
Time Delay:	can be programmed from 1 to 1800 seconds
Colour:	LCD backlight can be set to change colour when relay as tripped
Relay State:	can be programmed to energise on trip or de-energise on trip

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## SPECIFICATIONS

### ACCURACY

Volts/Amps: 0.5% of reading  
 Frequency: 0.1 Hz  
 Active Power: 1% of reading  
 Apparent Power: 1% of reading  
 Power Factor: 1% of range  
 Energy: Class 1 to IEC EN 62053-21:2003

### INPUT

Rated Un: 28-330V LN, 48-570V L-L  
 Overload: 800V continuous  
 Burden: 0.5VA per phase  
 Rated In: 0.5-6A (5A nominal)  
 Overload: 4 In for 1 sec  
 Burden: 0.5VA per phase  
 Auxiliary: 100-440V AC / 100-420V DC  
 Frequency: 45/65Hz

### DISPLAY

Digits: 4 lines 9999  
 Custom LCD  
 Brightness/Colour: User adjustable

### OUTPUT RELAY

Wh or VArh: SPNO rated 50V  
 Pulse output: 120mA 5W AC/DC  
 Pulse duration: Programmable

### INSULATION

Installation category: III (480 V AC ph/ph)  
 Degree of pollution: 2  
 Rated impulse withstand voltage: IEC 60947-1-V imp: 4kV  
 Meters front: Class II  
 Electrical security: IEC 61010-1  
 Inputs + Aux to case: 4kV rms 50Hz for 1 min  
 Inputs + Aux to RS485 port: 3kV rms 50Hz for 1 min  
 Inputs + Aux to relay output: 1k5V rms 50Hz for 1 min  
 Low voltage dc Aux to Inputs: 1k5V rms 50Hz for 1 min

### ELECTROMAGNETIC COMPATIBILITY

Immunity to:  
 electrostatic discharges: IEC 61000-4-2-Level III  
 radiated radio-Hz fields: IEC 61000-4-3-Level III  
 electrical fast transient/bursts: IEC 61000-4-4-Level III  
 impulse waves: IEC 61000-4-5-Level III  
 conducted disturbances: IEC 61000-4-6-Level III  
 voltage dips & short interruptions: IEC 61000-4-11

Emissions to:  
 conducted and radiated: CISPR11-Class A

### ENVIRONMENT

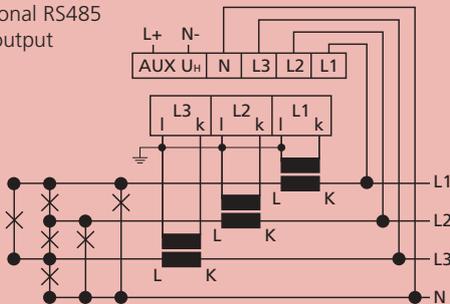
Working temp: -20 to +70°C  
 Storage temp: -30 to +80°C  
 Relative humidity: 0-95% non condensing  
 Shock: 30G in 2 planes

### ENCLOSURE

Polycarbonate case to UL94V0  
 Weight: 0.2kg  
 IP Rating: IP52 (front)

## CONNECTION DIAGRAM

+ optional RS485  
 relay output



### VOLTAGE

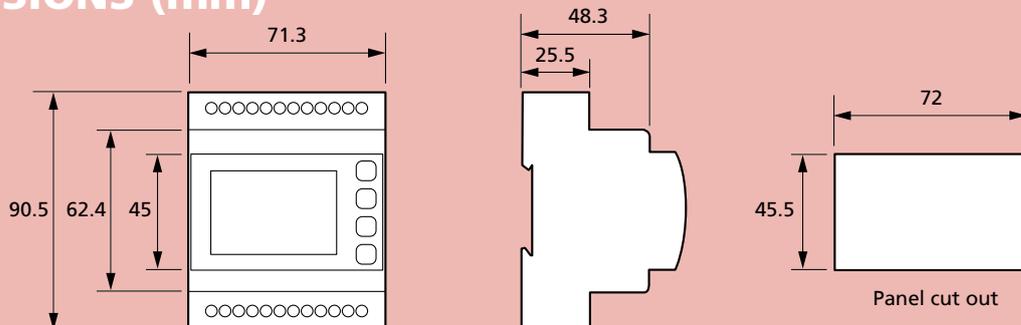
	L1	L2	L3	N
1ph	✓	-	-	✓
3ph 3W	✓	✓	✓	-
3ph 4W	✓	✓	✓	✓

### CURRENT

	L1	L2	L3
1ph	✓	-	-
3ph 3W	✓	-	✓
3ph 4W	✓	✓	✓

Unused Voltage terminals are internally connected  
 Secondary of CTs must be connected to earth

## DIMENSIONS (mm)



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