



UNIQUE M180D

Single-Phase 20(80)A DIN Rail Meter with Display

Innovative solutions to ensure revenue collection and energy efficiency

Unique's smart-meters provide the state of the art solution for measuring power usage in real-time. Advanced two-way PLC (Power Line Communications), and fully controllable remote configurations are just some of the benefits of Unique's meters to help you manage your energy distribution with maximum efficiency.

Advanced Anti-Theft Features

- Theft detection by comparison of energy supplied by transformer to energy billed to region



Power Line Communication (PLC)

PLC is used to transmit and receive data through the existing power network, with two-way communication that allows for:

- Remote meter readings
- Remote disconnection, reconnection and power limitation for demand side management and payment failure response



ADDITIONAL FEATURES

❖ STATE OF THE ART ENERGY MEASUREMENT:

- 20(80)A Class 1 direct measurement static watt-hour meter
- Multiple tariff calculation based on time of use
- All data readings recorded with time stamps
- Meters send readings to concentrator at 15 minute intervals

❖ DEPENDABLE AND EFFICIENT DATA TRANSMISSION:

- Two way Power Line Communication
- Repeats and amplifies signals sent by other units effectively eliminating distance limitations

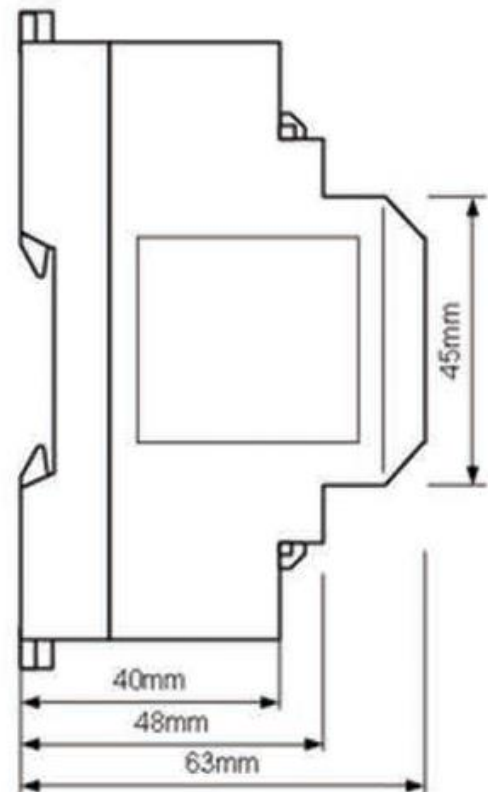
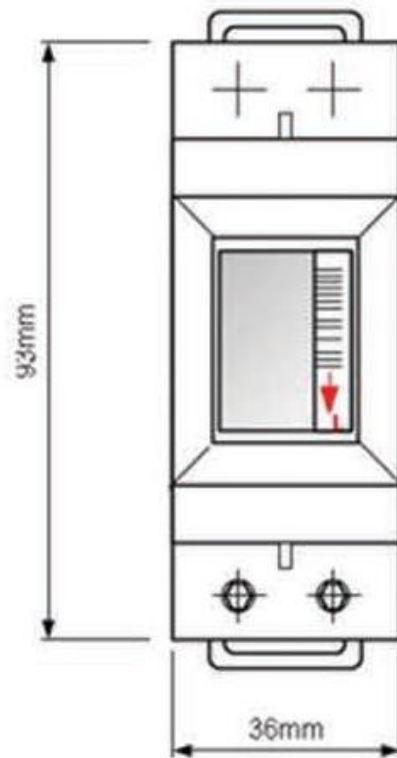
❖ EASE OF INSTALLATION AND USE:

- Compact size: 2 DIN, designed for DIN standard rail on distribution boards or in locked standard cabinet with protection of at least class IP51 according to IEC 60259.
- Automatic calibration with no need for physical adjustment
- Compatible with AMR and AMI systems
- Compatible with billing software systems

❖ DISPLAY FEATURES:

- 2 line 16 character LCD display
- IrDA optical port

M180D Meter Dimensions

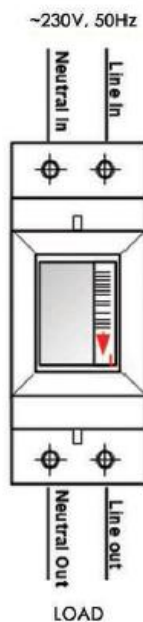


TECHNICAL SPECIFICATIONS

GENERAL	
Nominal voltage (Un)	230V AC
Supply voltage range	80%-115% Un
Nominal frequency (fn)	50Hz
Consumption at Un	1.2 W – 8 Var
System connections	1 phase 2 wire
MEASUREMENT	
Class index according to IEC62053-21	Class 2
Basic current (Ib)	20A
Maximum continuous current (Imax)	80A
ENVIRONMENTAL	
Temperature range	
Operation	-10° C to 55° C
Storage	-25° C to 70° C
Relative humidity (R.H.) for annual mean	< 75%
R.H. occasionally on some days	85%
INSULATION STRENGTH	
Protective class acc. to IEC62052-11	Class II
DISPLAY	

Type	LCD
Format	8 characters x 2 lines
Character size	4.3 mm x 2.95 mm
LED INDICATOR	
Flash rate	1000 imp/kWh
COMMUNICATION INTERFACES	
PLC frequency range	A-band
PLC method	Spread FSK
IrDA communication port (read only)	9600 bps
WEIGHT AND DIMENSION/CASE PROTECTION	
Weight	195 g
Width	36 mm
Height	93 mm
Depth	63 mm
Enclosure protection (IEC60529)	IP51
Protection for connection terminals	IP20

Connection Diagram



CONNECTIONS	
Connection system type	Clamping yoke connection
Maximum conductor cross-section	16 mm ²
Minimum conductor cross-section	4 mm ²
Clamping screw	M5x17
Head of clamping screw	Socket hex cap 4 mm
Tightening torque, min	3.5Nm
Tightening torque, max	4.5Nm

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