























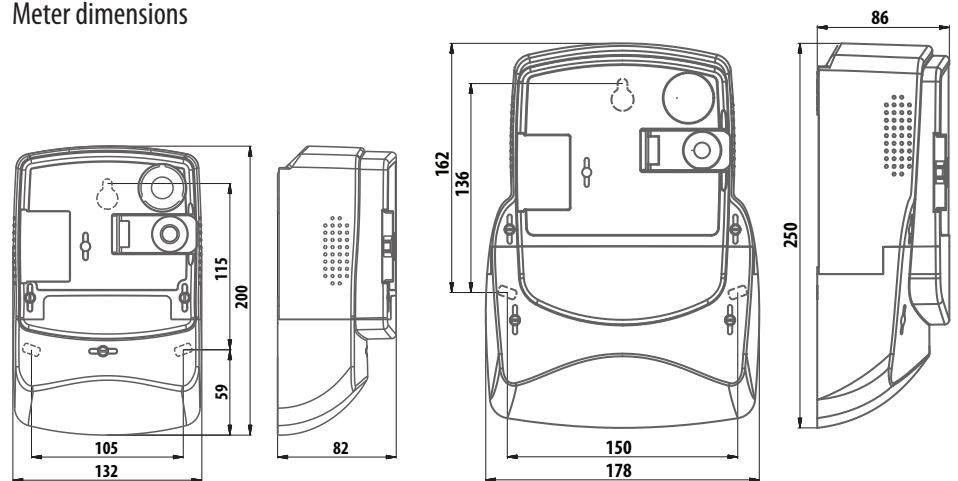
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-  4 Quadrant measurement
-   BS / DIN housing
-  Multiple connection types
-  Direct or current transformer connection
-  Ingress protection
-  Load profile
-  Optical port
-  Real-time clock
-  Event logs
-  DLMS – COSEM compliance
-  Multi-rate registration
-   Accuracy class
-  Remote connection/disconnection
-  Photovoltaic ready
-  M-Bus communication
-  Power line communication
-  Alarming
-  IDIS interoperability

Single and Polyphase smart electricity meter, based on PLC communication is the cost optimal solution for smart residential and mid-size commercial environments. This future-proof investment includes:

- IDIS interoperability
- Remote connection/disconnection
- Multi-Energy management (gas, water, heat)
- Extensive anti-tampering features
- Customer port for in-house display (RJ11)
- Secure communication with encryption and authentication
- Photovoltaic friendly design
- Integrated demand/response functions
- DLMS protocol for easy integration

### Meter dimensions



		ME381-D3 BS	ME381-D1 DIN	MT381-D1 DI	MT381-D2 DIN	MT381-T1 CT – DIN	
<b>Type overview</b>							
<b>Network</b>	Low voltage	●	●	●	●	●	
<b>Connection type</b>	1P2W	●	●				
	3P4W			●	●	●	
<b>Communication</b>	Optical port, RJ11 port, M-Bus, PLC						
<b>Input – output options</b>	Output 6 A/230 V relay, Output OPTOMOS 0.1 A, Input alarm, External key input						
<b>Technical specifications</b>							
<b>Nominal voltage</b> $U_n$	240 V			3 x 240/415 V			
<b>Voltage range</b>	0.8 – 1.15 $U_n$						
<b>Reference frequency</b>	50 Hz or 60 Hz						
<b>Current</b>	Nominal current $I_n$	–	–	–	–	5 A	
	Base current $I_b$	5 or 10 A				10 A	–
	Maximal current $I_{max}$	100 A	85 A			120 A	6 A
<b>Accuracy class</b>	Active energy	Class 2 or Class 1 (IEC62052 - 11, IEC62053 - 21) A or B (EN 50470 - 3, EN 50470 - 1)					
	Reactive energy	Class 3 or Class 2 (IEC62053 - 23)					
	Apparent energy	Calibrated up to 3%					
<b>Real-time clock</b>	Accuracy	< 5ppm or <±3 min/year					
	Back-up power supply	Super-Cap: > 7 days; Li battery : 10 years, life time up to 20 years					
<b>Switching device</b>	Integrated			External		–	
<b>Temperature ranges</b> (IEC 62052 - 11)	Operation	-25 °C ... +70 °C; extended -40 °C ... +70 °C					
	Storage	-40 °C ... +80 °C					
<b>Ingress protection IEC 60529</b>	IP 54						
<b>Liquid Crystal Display</b>							
<b>Basic functionality</b>							
<b>Measurement</b>	Two way ("energy") measurements, Active energy & power, 4Q Reactive energy & power, Apparent energy & power, Instantaneous value of voltage, Current, Power factor, Frequency and Power, Absolute measurement of active energy & power						
<b>Tariff functions</b>	Time-of-use (TOU) measurement of active energy and maximum demand (up to 8 tariffs, 12 seasons, 12 weekly programs, 16 masks, 16 switches)						
<b>Load profiles</b>	Two Load profiles with different daily and hourly registration periods with up to 32 objects, Four separate profiles for sub-metering (M-bus), Seven independent Event logs for different functionalities						
<b>Communication</b>	Full DLMS-COSEM and IEC 1107 compliance, Four independent communication interfaces: Optical port, RJ11 (for in-house display), M-bus (wired), PLC						
<b>Power quality</b>	Voltage sag, swell and cut, Daily peak and minimum, Voltage and current asymmetry, Power failure						
<b>Specific</b>							
Backlit LCD display, Detection of opening main and terminal cover, External magnetic field detector, Detection of meter wiring, Prepayment, In-house display support, Power quality supervision, Secured communication channels, Switching device up to 3x100A (UC3), Remote FW upgrade, RTC (Super-Cap)							
<b>Optional</b>							
RTC (Li battery), M-Bus (wireless with external dongle), ZigBee (wireless with external dongle)							