ISKRAEMECO

Metering is our Business

BASIC

MT174

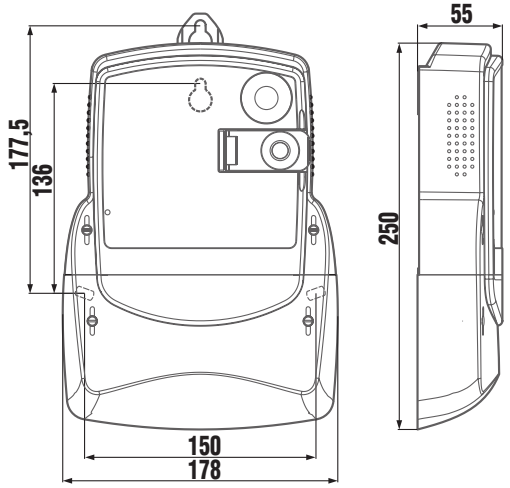
Polyphase multi-tariff meter

- kWh kvarh kVAh — Active, Reactive and Apparent Energy
- DIN — DIN housing
- Multiple connection types
- CT — Direct or current transformer connection
- IP54 — Ingress protection
- Load profile
- Optical port
- Real-time clock
- Event log
- RS485 — RS485 interface
- tariff 4 — Multi-rate registration
- MID B IEC 1 — Accuracy class
- Magnetic field detection
- Photovoltaic ready
- max — Maximum demand
- Q P — 4 Quadrant measurement

With a future-proof design the Polyphase MT174 is ready to suit many diverse customer requirements. High quality manufacturing process enables the meter to deliver the performance, expected in residential and small commercial environments. It includes a wide variety of functionalities:

- Extensive anti-tampering features
- Photovoltaic friendly design
- RS communication interface (RS485)
- Up to four tariff schemes
- Extended load profile
- Time-of-use (TOU) – internal tariffication

Meter dimensions



BASIC MT174 Polyphase multi-tariff meter

		MT174-D1 DIN	MT174-D2 DIN	MT174-T1 DIN
Type overview				
Network	Low voltage	●	●	●
Connection type	1P2W	●	●	
	3P3W	●	●	
	3P4W	●	●	●
Communication		RS485, Optical port		
Input – output options		Output S0, Output OPTOMOS, Tariff input (1 or 2)		
Technical specifications				
Nominal voltage Un		3 x120 V, 3 x 230/400 V, 3 x 230 V, 230 V, 3 x 400 V		3 x 230/400 V, 3 x 230 V
Voltage range		0.8 – 1.15 U_n		
Reference frequency		50 Hz or 60 Hz		
Current	Base current Ib	5 A or 10 A		1 A
	Starting current Ist	5A => Class 2: 0.025 A, Class 1: 0.02 A 10A => Class 2: 0.05 A, Class 1: 0.04 A		2 mA
	Maximal current Imax	85 A	120 A	6 A
Accuracy class	Active energy	Class 2 or Class 1 (IEC 62053 - 21 or IEC 62053 - 23) A or B (EN 50470 - 3)		
	Reactive energy	Class 3 or Class 2		
	Apparent energy	Class 3 or Class 2		
Real-time clock	Accuracy	Better than ±3 min/year at 23 °C		
	Back-up power supply	Li battery: 5 years life time up to 20 years		
Temperature ranges (IEC 62052 - 11)	Operation	-40 °C ... +60 °C; extended -40 °C ... +70 °C		
	Storage	-40 °C ... +80 °		
Ingress protection IEC 60529		IP 54		
Liquid Crystal Display				
Basic functionality				
Measurement		Two way ("energy") measurements, Active, Reactive and Apparent energy and demand in 3-phase 4- and 3-wire networks, Measurement by phases and polyphase, quantities of measurement: Voltages by phases, Currents by phases, Power factors by phases, Frequency, Measurement of instantaneous power		
Tariff functions		Time-of-use (TOU) measurement of active energy and maximum demand (up to 4 tariffs, 10 seasons, 10 weekly programs, 10 daily definitions, 10 tariff change over inside individual daily tariff programs, 46 holidays)		
Load profiles		Load profile recorder with up to 8 channels, Possibility to set the recording period on 5, 10, 15, 30 or 60 minutes		
Communication		IEC 1107 compliance, Two communication interfaces: Optical port, RS485		
Real-time clock (RTC)		Compliant with IEC 62054 - 21 standard, RTC with calendar, based on 32 kHz quartz crystal, RTC accuracy: better than ±3 min/year, operation reserve: 5 years, expected Li battery life time: 20 years, Counter of elapsed time of RTC operation, Li battery enables data display on LCD when meter is in no-power state		
Specific				
Backlit LCD display, Detection of opening main and terminal cover, External magnetic field detector, Detection of meter wiring, Secured communication channels, "Scroll" pushbutton and covered "Reset" pushbutton				
Optional				
RTC, Load profile, RS485 interface, Inputs/Outputs				

ISKRAEMECO

Iskraemeco, Energy Measurement and Management
4000 Kranj, Savska loka 4, Slovenia
Telephone: +386 4 206 40 00
http://www.iskraemeco.com, e-mail: info@iskraemeco.com

1701/01–1