ICG

MT880-I

High precision integrated meter

kWh	kvarh	kVAh	Active, Reactive and Apparent Energy

| Q P | | | 4 Quadrant measurement |

| MID C | IEC 0,5S | | Accuracy class |

| | | | Multiple connection types |

| CT/VT | | | Direct or transformer connection |

| Q | | | Power quality according to EN 50160 |

| max | | | Maximum demand |

| | | | Load profile |

| | | | Load control |

| | | | Event log |

| | | | Real-time clock |

| tariff 8 | | | Multi-rate registration |

| dlms | | | DLMS – COSEM compliance |

| IP54 | | | Ingress protection |

| RS485 | | | RS485 interface |

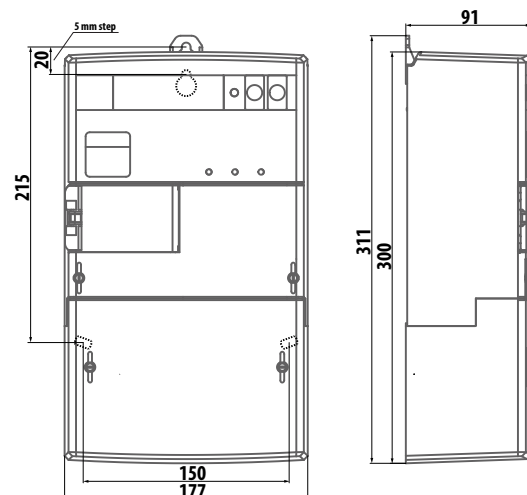| RS232 | | | RS232 interface |

| | | | IR (optical port) interface |

| | | | Photo-voltaic ready |

Iskraemeco **MT880** is a precision multi-functional meter ideally suited for large and mid-size commercial and industrial applications. It is designed to provide its users a comprehensive functionality set:

- "No power reading" option via optical port
- Voltage cut, sag and swell detection
- Internal and external power supply
- Extensive anti-tampering features
- Integrated power quality monitoring
- Multiple log books
- Photo-voltaic friendly design
- DLMS protocol for easy integration
- Enhanced TOU structure

Meter dimensions

5 mm step
20
215
150
177
91
311
300

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Type overview

Type overview		MT880-D2..-I directly connected	MT880-T1..-I CT connected	MT880-T1..-I CT & VT connected
Network	High voltage		●	●
	Medium voltage	●	●	●
	Low voltage	●	●	
Connection type	3P4W	●	●	●
	3P3W	●	●	●
	3P3W (two systems)		●	●
Communication type	RS-232	●	●	●
	RS-485	●	●	●
	RS485 (RJ45) – RS485	●	●	●
Input – output options	3 OPTOMOS outputs + 5A bistable relay	●	●	
	5 OPTOMOS outputs + 5A bistable relay			●

Technical specifications

Technical specifications		MT880-D2..-I directly connected	MT880-T1..-I CT connected	MT880-T1..-I CT & VT connected
Nominal voltage U_n		3 x 110/190 V ... 3 x 240/415 V	3 x 110/190 V ... 3 x 240/415 V	3 x 57.7/100 V ... 3 x 110/190 V
Voltage range		0.8 – 1.15 U_n		
Reference frequency		50 Hz ±2 % or 60 Hz ±2 %		
Current	Nominal current I_n	–	1 A, 1.5 A, 2 A, 5 A, 5//1 A	
	Base current I_b	5 A, 10 A	–	–
	Maximal current I_{max}	120 A	Version 1: 6 A, 10 A Version 2: 20 A (I_n = 5A)	6 A, 10 A
Accuracy class	Active energy	B (EN 50470 - 3) Class 1 (IEC 62053-21) Calibrated to 0,5%	B or C (EN 50470 - 3) Class 1 (IEC 62053-21) Class 0.5S (IEC 62053-22)	
	Reactive energy	Class 1 (IEC 62053-24), Class 2 (IEC 62053-23)		
	Apparent energy	Calibrated up to 1%		
Real-time clock	Accuracy	Crystal: < 5 ppm = ≤ ± 3 min./year (T = +25 °C)		
	Back-up power supply	Super-Cap: > 15 days, charging time 250 hours Super – Cap + Li battery : 10 years		
External power supply	Value	–	57.7 – 240 V AC/DC	
	Tolerance	–	0.8 – 1.15 U_n	
	Frequency (only for AC)	–	50 Hz or 60 Hz	
Temperature ranges (IEC 62052-11)	Operation	-40 °C ... +70 °C		
	Storage	-40 °C ... +85 °C		
Ingress protection IEC 60529		IP 54		
Liquid Crystal Display				

Basic functionality

Measurement features

- Active (import/export) and Reactive energy (import/export), 4Q Reactive, Apparent energy & demand
- Phase and three phase energy/demand measurements
- Maximum demand with programmable integration period

Tariff functions

- Complex time-of-use (TOU)

Load profiles

- Two independent Load profiles
- Programmable and independent Load profiles period
- Eight separate Event logs

Communication

- IEC 62056-46 (DLMS) and IEC 62056-21 on optical port
- IEC 62056-46 (DLMS) on other communication interfaces
- Independent communication channels

Power quality

- Measurement of RMS phase current
- RMS phase voltage
- Power factor
- Network frequency
- Phase angles
- Voltage interruptions

Specifics

- Backlit LCD display
- Detection of opening main and terminal cover
- External magnetic field detector
- Photo-voltaic ready
- Secured communication channels
- Network anomalies detection

Optional

- Enhanced Power quality measurement features (Harmonic components, Total harmonic distortion factor, Voltage sags and swells)
- Load control
- SMS call back functionality
- RTC (Li battery or Super-Cap)