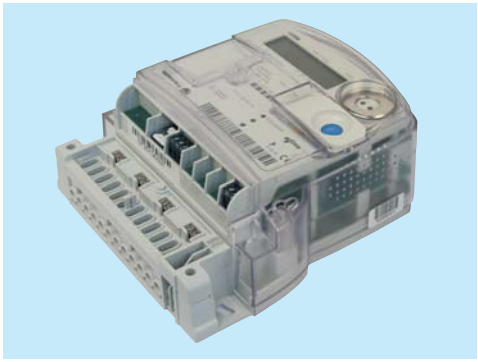
ISKRAEMECO

Energy Measurement and Management

MT375

Polyphase AMR meter with GSM/GPRS modem

MT375 is targeted at deregulated energy markets and enables provision of an AMR service. It is a polyphase meter intended for use in Commercial/Industrial and CoP5 applications. The meter incorporates a fully integrated GSM modem. The integrated GSM modem can be exchanged with integrated RS485 communication interface for multisite installations. It is a perfect combination of well-proven metering technology and state-of-the-art GSM communication modem, all integrated and sealed in a single enclosure. The integrated solution attains the same high quality and reliability of Iskraemeco meters. The meter is approved according to IEC 62052-11 and IEC 62053-21, ISO 9001, and designed according to even higher internal Iskraemeco standards, based on 60 years of experience of meter manufacturing and more than 55 million meters installed worldwide.



kWh kvarh	Active/Reactive energy
	Single or double direction
	CT operated meter
T(8)	Multirate registration
	Real-Time Clock synchronised by comm.
	Load profile (LP1, LP2)
	Log-book
dlms	Communication protocol
GSM	AMR communication: GSM/GPRS/SMS

- Fully integrated GSM modem
- AMR on demand and alarm call-backs
- CoP5 compatible
- 'Fit and go' – simple and fast installation procedure
- Multi-utility input for water, heat or gas meters reading
- Active/reactive, multi-rate metering
- Indication of operational statuses
- Very high EMC immunity

FUNCTIONAL AND TECHNICAL DATA

Measured and recordered quantities

Active and reactive energy, optionally apparent energy in both energy flow directions – import (A+, R+, S+) and export (A-, R-, S-), accuracy class 1 or 2

Maximum demand with programmable integration period (typically 5, 10, 15, 30 or 60 minutes)

Power quality parameters
- Instantaneous voltage and current
- Under/over voltages
- Phase voltage faults
- Voltage unbalance
- Daily peak and minimum voltage for each phase
- Number of short power-downs (less than 3 minutes), total time without power supply

Multirate registration
- Programmable tariff structure, up to 8 rates
- Up to 4 seasons, up to 4 weekly programs
- Up to 4 day types, up to 8 daily changeovers

Load profile
- Two independent Load profiles (LP1, LP2), up to 16 channels each
- Programmable LP period (typically 15, 30 or 60 minutes, 1 day)
- Capacity (one measurement value with a time stamp and status, period 1 hour): 144 days

Log book: up to 64 events with a time stamp

Communication

GSM/GPRS
- Fully integrated GSM/GPRS modem
- Dual-band EGSM 900/1800 MHz is supported
- High performance internal antenna is integrated into the meter

External antenna option

Available for installation in case of insufficient GSM signal. An external antenna can be connected via a special inductive coupler – no need to open a meter or a terminal cover.

SIM card exchange

A SIM card can be hot-swapped and automatically registered in a GSM network. The SIM connector is designed for high reliability contact and is positioned under the meter terminal cover.

RS485

Optionally, instead of a GSM modem, the meter can be equipped with RS485 interface. Up to 31 meters can be connected to one communication loop at a distance up to 1200 m.

Communication protocols

Two protocols are supported:
- IEC 62056-46 (DLMS) on a GSM modem and optionally on RS485
- IEC 62056-46 (DLMS) and IEC 62056-21 (former 61107) on optical port

Metrological LED

LEDs are built in, indicating active and reactive energy flow. Blinking frequency is related to energy consumption.

Real time clock

- Accuracy according to IEC 62052-21
- Day-light saving feature
- Remote synchronization available
- Super Cap for backup power supply (up to 10 days)

LCD display

- Data can be displayed in automatic or manual scroll mode
- Programmable data set and sequence
- Data identification according to IEC 62056-61 (OBIS)

Phase voltage presence, energy flow direction, self-diagnosis parameters as well as some communication parameters are also shown on the LCD display:
- 3-state GSM signal level indicator (high, low, too low)
- Registration to the GSM network
- Communication in progress

Tamper-proof features

- The meter detects the main cover and the terminal cover opening, records it in a logbook and optionally triggers an alarm call
- Neutral line break-off detection

Output relays: Two relays are built in:
- 6 A electromechanical (for load control)
- 100 mA Opto-mos

Multiutility

- Two S0 impulse inputs or
- M-Bus micromaster on which up to 4 gas, heat or water meters can be connected

Alarm input

The meter is equipped with an additional input to which an external alarm device can be connected.

Programming

Programming of the meter as well as Firmware upgrade can be done locally (via optical port) or remotely (via GSM modem) in compliance with the predefined security levels.

Terminals for current circuits

- Universal clamping type:
  D = 5.5 mm,
  D = 8.5 mm or D = 9.5 mm

Accuracy class (IEC 6205321)	2 or 1
Max. current (direct connected)	85 A or 120 A
Max. current (CT connected)	5 (6) A
Nominal voltage Un	3 x 230/400 V
Voltage range	0.8 Un ... 1.15 Un
Nominal frequency fn	50 Hz or 60 Hz
Temperature range	-25°C ... +60°C
Extended temperature range	-40°C ... +70°C
Storage temperature	-45°C ... +80°C
Self-consump. current circuit	<0.5 VA
Self-consump. voltage circuit	<2 W / 10 VA
Isolation voltage	4 kV, 50 Hz, 1 min
Voltage shock	12 kV, 1.2/50 µs
Short circuit current	30 Imax
EMC burst test	(IEC 61000-4-4) 6 kV
Optical port	IEC 62056-21
Dimensions	250 x 178 x 86 mm
Mass	1.3 kg

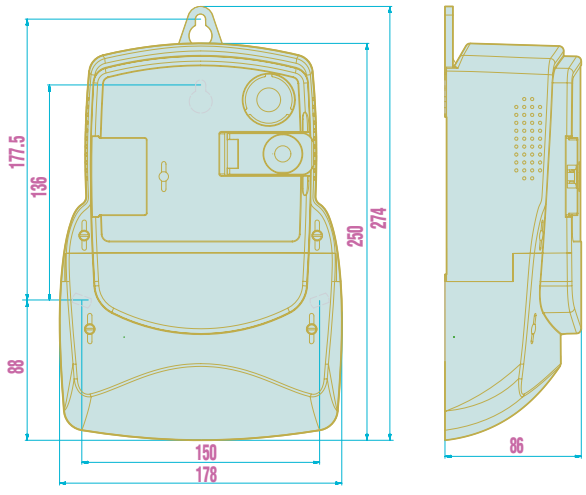
Call-back

The meter can perform a call and send a message to the centre:
- After installation
- If a pre-defined alarm condition exists (e.g. after Power Down/Up event)
- If a signal appears on the alarm input

Housing

- Self-extinguishing polycarbonate
- IP 54 protection against water and dust

OVERALL DIMENSIONS (mm)



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Owing to periodical improvements of our products the supplied products may differ in some details from the data stated in the prospectus material.

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