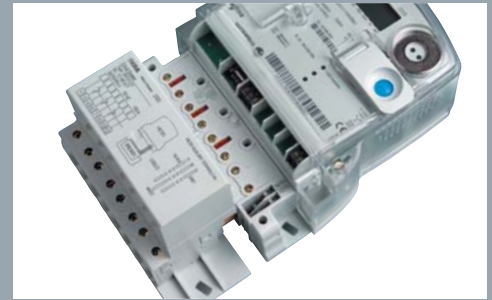











MT372

Poly-phase meter with GSM/GPRS modem for AMR and remote control



MT372 – is targeted on deregulated energy markets and enables provision of an AMR service. MT372 is a poly-phase meter intended for use in residential, commercial and industrial applications. MT372 incorporates a fully integrated, GSM/GPRS modem. Integrated GSM/GPRS modem can be exchanged with integrated RS485 communication interface for block installations. It is a perfect combination of well-proven metering technology and state-of-the-art GSM/GPRS communication modem, all integrated and sealed under the 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, achieved on 60-year experiences of meter manufacturing and 55 million meters on the field installed worldwide.



	Active power
	Single or double direction
	Multi-rate registration
	Real-time clock synchronized by comm.
	Multiphasing
	Load profile – 1 & 2 channel
	Meter's Log-book
	Communication protocol
	AMR communication: GSM, GPRS

- Fully Integrated GSM/GPRS modem
- AMR on demand and alarm call-backs
- 'Fit and go' – simple, fast and easy installation procedure
- Multi-utility inputs for water, district heating or gas meters reading
- Relays for remote and local load control
- Optional external contactor for remote client disconnection/limitation
- Indication of operational status
- Very high EMC immunity

FUNCTIONAL AND TECHNICAL DATA

AMR communication – GSM/GPRS:

GSM modem is fully integrated into the meter.

Comm. frequency: multiple bands are supported: 1800 MHz, 900 MHz, 800 MHz and 1900 MHz. High performance antenna is integrated into the meter.

Option for block installations - meter with RS485

comm. bus: Up to 32 meters can be connected to one communication (1 km) loop.

SIM card exchange:

SIM card can be hot-swapped and automatically registered with the service provider. The SIM connector is designed for high reliability contacting and is positioned under the meter terminal cover.

Indications:

LED 1 (red): kWh impulses (imp/kWh)

Illuminated: meter is powered, no load current

Pulsating: load current is higher than starting value

Not illuminated: meter is not powered

LCD :

Modem comm. statuses:

– Indication of the GSM signal level of the: 3-segment indicator

– Modem is registered with the GSM network

– GSM communication indication

Other parameters: phase voltage presence, tamper parameters, self-diagnose parameters.

Alarm call-backs (self-triggered):

The meter can send alarm messages after power failure.

Communications:

GSM/GPRS: Integrated GSM/GPRS modem.

Communication protocol is IEC62056–46 (DLMS)

RS485 (option): Integrated GSM/GPRS modem.

Communication protocol is IEC62056–46 (DLMS)

Opto-port (IEC 62056 – 21): for local meter reading and programming. Communication protocols are IEC 62056 – 21 (IEC 61107) or IEC62056 – 46 (DLMS)

Local data display (LCD):

Automatic Scroll mode

Manual Scroll (with a black button) Programmable data set and sequence

Data codification: OBIS (IEC 62056 - 61)

Tamper-proof features:

The meter detects main cover and terminal cover opening and records it in a logbook, and (optionally) triggers an alarm call.

Multi-phasing metering operation: the meter can be connected as a single, double or three-phase meter.

Installation procedure:

Step 1: Install and connect the meter to the mains voltage (check phase sequence on LCD)

Step 2: check correct installation indicated on LCD: phase voltage presence (L1, L2, L3) and sequence RST, phase current reversal

Step 3-a: check communication established – correct operation indicated by a cursor on LCD.

Step 3-b: if a communication signal is not sufficient (check the GSM signal indication on LCD), connect external antenna.

Step 4 (optional): communication verification -call the meter by dedicated HHU and check the meter ID and/or read the desired register.

External antenna option: available for installations with insufficient GSM signal.

Measured and recorded quantities:

Energy-active: import (A+), export (A-), and absolute IAI,

Maximum Demand (Ti = programmable)

Power quality parameters: instantaneous V, A; under/over voltages, power-downs, cos fi,

Multi-rate registration:

Programmable tariff structure (1.... 4 rates)

Day-light saving time, 4 seasons

Real-time clock:

Accuracy: according to IEC 62052-21

Power-down back up options: Super-cap up to 10 days. Synchronization: periodically by GSM communication.

Load Profile:

One or two channels with four capture objects.

Capacity up to 380 days at Ti = 30 min

LP period - programmable: 15, 30, 60 minutes or 1 day. Other periods on demand.

Log-book:

128 meter events with the time stamps

Meter programming: all programming modes including meter SW down-loading can be done locally (by HHU) or remotely (by GSM) under the pre-defined security level access.

Load control relays: relay outputs

R1 - mechanical relay: 6 A

R2 – solid-state (opto-mos) relay: 0,1A

Accuracy Class(IEC 61036)	2 or 1
Ib	5 or 10 A
I _{max}	85 A,
U _n	3x230/400V
Voltage range	0,8 U _n ... 1,15 U _n
f _n	50 Hz, 60Hz
Temperature range	-25°C ... +60°C
Extended Temp. range	-40°C ... +70°C
Storage Temperature	-45°C ... +85°C
Self-consumption current c.	<0,5 VA
Self-consumption voltage c.	<2 W / 10 VA
Isolation voltage	4 kV, 50 Hz, 1 min
Voltage shock	12 kV, 1,2/50 μs
Short current	50 I _{max}
EMC: burst test (IEC 801-4)	6 kV
Optical port	IEC 62056-21
Dimensions	250 x 178 x 86 mm
Mass	1,3kg

Contactor control output (poly-phase 100 A contactor block is available as a separate optional unit):

R3 – set output

R4 – reset output

Multiutility AMR (impulse inputs)

P1: Active impulse input S0

P2: Active impulse input S0

Alarm input:

P3: signal input (open collector type)

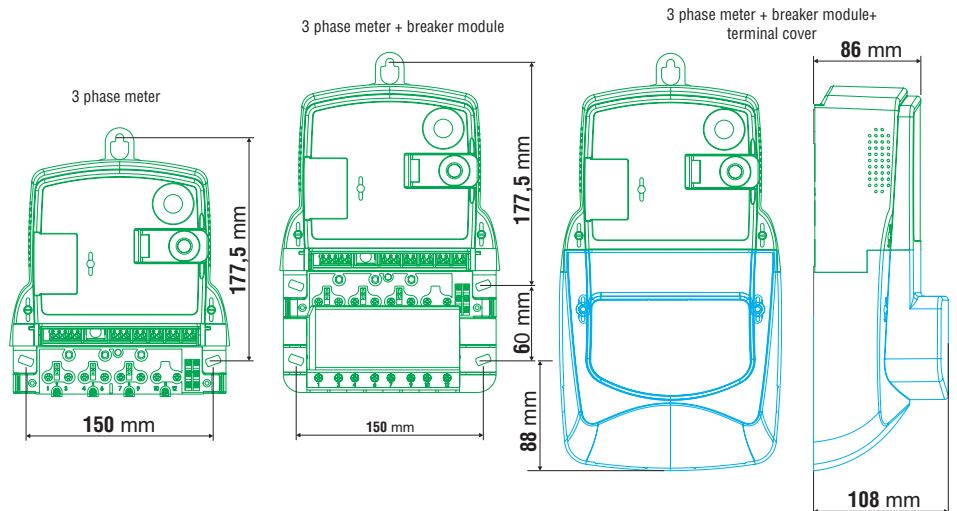
Current terminals: universal clamping type for all types of wires (D = 8,5 mm).

Enclosure:

Polycarbonate self-extinguish

Protection against water and dust: IP 54

CASING DIMENSIONS



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

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