

MeterLink



MAINSCOM-3

Programmable Multi-Mode Meter

Mainscom-3 is a Polyphase 80A meter designed for use with the MeterLink Smart Metering and Control System

Integral power-line-carrier transceiver compatible with MeterLink

Internal switchgear for prepayment mode or remote interrupt/enable

Remotely-programmable tariffs using 4 rates or blocks

AMR capability includes half-hour demand profile recording

Optional IEC 61107 optical port and water/gas meter interfaces

Meter status monitoring and tamper detection

MeterLink

Networks Under Control.

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SPECIFICATION

DESCRIPTION

Three-phase four-wire kilowatt-hour smart meter, programmable for credit or remote prepayment metering modes and tariffs, plus demand profiling and demand control. MAINSCOM-3 meters are part of the MeterLink system and also handle water and gas metering via optional interfaces

STANDARDS

IEC 61036 Ed 2: indoor static watt-hour meters
CENELEC EN 50065: power-line carrier signalling
IEC 61107 Ed 2: the opto communications port

DIMENSIONS

W170mm x H280mm x D75mm (approx)

WEIGHT 1.95Kg

ELECTRICAL

Rated Voltages: 3 x 220V, 230V, or 240V

Operating Range: 3 x 220V -20% to 240V +15%

System Frequency: 50 Hz

Supply Burden: 2 watts or 10 VA per phase

Basic Current: 20 A (other values upon request)

Maximum Current: 80 A

Overload Current Withstand: 100 amps 8.5 hours
200 amps 500 secs

METERING

Three Hall elements, IEC 61036 Accuracy Class 2,

LED Pulse rate - 500/kWh, calibration at 230V

DISPLAY

8 digit LCD with min 50% contrast after 15 years

Maximum Value: 999999.99 kWh

Character Height: Numerical 6.0 mm (min)

Alpha 1.5 mm (min)

Manual display lists for programmed mode/tariff

CLOCK

Accuracy 10 ppm (+/- 6 minutes per year) plus

remote synchronisation via MeterLink

BATTERY

Standby: 3 years (nominal)

Power Outages: 2 Years Life: 15 years.

OPERATING TEMPERATURE

-20 to + 65 Deg C

SWITCHGEAR

Load switch rating: 80 A

POWER-LINE CARRIER TRANSMISSION

to CENELEC 50065 max 4800 Bd Ph-N

OPTO COMMS PORT (OPTIONAL)

IEC 61107 mode C (FLAG)

WATER/GAS METERING INTERFACES (OPTIONAL)

Pulse or serial data, valve control

The MAINSCOM range of smart meters feature two-way power-line carrier communications via the low-voltage electricity distribution network. They are part of the MeterLink system providing an end-to-end system solution that includes automatic meter reading (AMR). In addition MAINSCOM-3 data collected via the MeterLink system includes demand recording for 30-minute intervals and monitoring of reverse energy detection and terminal tampering. MAINSCOM-3 meters also support remote time synchronisation from the MeterLink system.

MAINSCOM-3 includes two pushbuttons for navigation through the display lists:

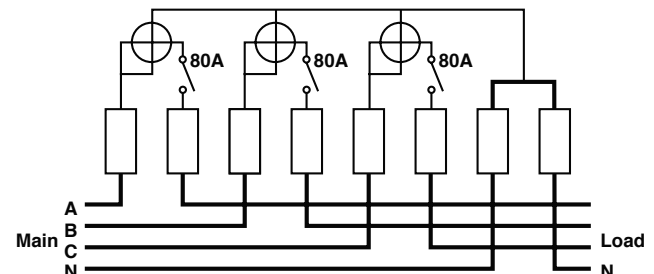
Blue: Display Sequence - Main List for Mode and Tariff in use

Orange: Display Sub-lists, and any Emergency Credit operation

Credit Meter Mode	Remote Prepayment Mode
Total energy kWh Energy rates 1-4kWh Reverse energy kWh Maximum load kW Date, Time Tariff times Supply status	Credit Mode list plus: Credit or Debit Emergency Credit Credit Limit and either: Standing Charge Rate charges 1-4 Rate times or: Block charges 1-4 Block units kWh Taxes
Options: Water/Gas	Options: Water/Gas
Additional Displays: Total volumes Current period Previous period Supply status	Credit Mode list plus: Credit or Debt Credit alarm Standing charge Block charges Block volumes

Basic Circuit Diagram

MAINSCOM-3 can also provide for up to 6 auxiliary terminals (under the terminal lid) for control options and/or interfaces to other metering (water, gas).



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MC3-MDS

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