

DIN Rail Mounted / Three Phase / SDM630MCT (CT) Series

Datasheet

- Three Phase 1/5A Current Transformer operated
- MID B+D Certified
- UL Registered
- Accuracy Class 1.0 (Active Energy) or Accuracy Class 0.5 (SDM630MCT-MOD-MID-0.5)
- Bi-directional Measurement for kW and kWh
- Configurable Pulsed output (Import/ Export / Nett kWh)
- Modbus (SDM630MCT) or Mbus (SDM630MCT-Mbus)
- Multi Parameter measurement
- Multi-Tariff
- 0.333mV Current Transformer input option (NON MID)
- Free Configuration software



The SDM630MCT series is an advanced multifunction three-phase energy monitoring solution with optional outputs such as Pulsed, RS485 RTU Modbus and Mbus. Equipped with configuration and display buttons for ease of navigation through the various parameters and settings. Housed for DIN rail mounting, IP51 protection and 1/5A current transformer operated. Selectable measurement modes using our free configurations software for kWh display, Total kWh (Import + Export), Import kWh and Net kWh (Export - Import) Certified in the UK according to EU Directive 2014/32/EU. MID Certificate number 0120 / SGS0142

Specification table

| Specification | |
|-----------------------------|-------------------------|
| Nominal voltage(Un) | 3x230/400 V ac |
| Operational voltage | 80% - 120% of Un. |
| Insulation capabilities | |
| - AC voltage withstand | 4KV for 1 minute |
| - Impulse voltage withstand | 6KV-1.2μS |
| Rated current (Ib) | 5A CT or 333mV CT input |
| Operational current range | 0.4% Ib-Imax |
| Over current withstand | 20 Imax for 0.01s |
| Operational frequency range | 50 or 60Hz |
| Power consumption per phase | ≤ 2W/10VA |
| Pulse output 1 | Configurable |
| Pulse output 2 | 3200 imp/kWh |
| Display | LCD |
| Max reading | 9999999.9 kWh/kVarh |

| Performance criteria | |
|--|----------------------------|
| Operating humidity | ≤ 90% |
| Storage humidity | ≤ 95% |
| Operating temperature | -25°C - +55°C |
| Storage temperature | -40°C - +70°C |
| Reference temperature | 23°C± 2°C |
| International standard | IEC 62053-21 / EN50470-1/3 |
| Accuracy class | Class1/Class B |
| Installation category | CAT III |
| Mechanical environment | M1 |
| Electromagnetic environment | E2 |
| Degree of pollution | 2 |
| Protection against penetration of dust and water | IP51(indoor) |
| Insulating encased meter of protective class | II |
| Electrostatic discharges | 8kV contact / 15kV air gap |
| Radiated & conducted emissions | EN 55022 |

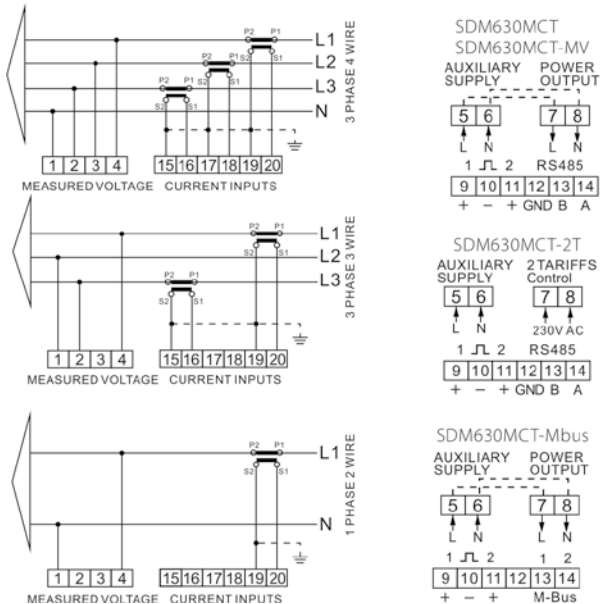
| Accuracy | |
|-------------------------------|--------------------------------|
| Voltage, Current | 1.0 % or 0.5% option available |
| Frequency | 0-2% of mid-frequency |
| Power factor | 1% of unity (0.01) |
| Active power , Apparent power | ±1% of range maximum |
| Reactive power | ±1% of range maximum |
| Reactive energy(Varh) | Class 2 |
| Active energy (Wh) | Class 1 |

| Modbus | |
|------------------------|-------------------------------|
| Bus type | RS485(semi-duplex) |
| Protocol | Modbus RTU |
| Baud rate | 2400/4800/9600/19200/38400bps |
| Address range | 1-247 |
| Max. Bus loading | 64pcs |
| Communication distance | 1000M |
| Parity | EVEN/ODD/NONE |
| Data bit | 8 |
| Stop bit | 1 |

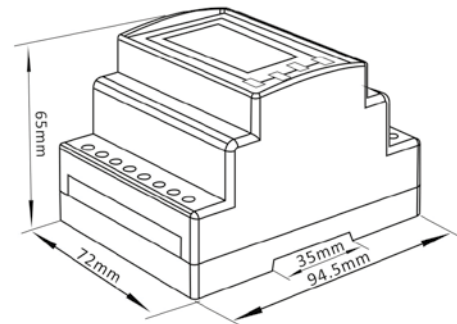
| M-bus | |
|-------------------|-----------------------------|
| Bus type | M-bus |
| Protocol | EN13757-3 |
| Baud rate | 300/600/1200/2400/4800/9600 |
| Parity | NONE/EVEN/ODD |
| Stop bits | 1 or 2 |
| Primary Address | 1 to 250 |
| Secondary Address | 00 00 00 01 to 99 99 99 99 |

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Wiring Configuration



Dimension Drawing



Height 94.5mm
Width 72mm
Depth 65mm

Ordering options

| Meter Type | Description of Meter |
|-----------------------------|---|
| SDM630MCT-Modbus | 3PH-4W, 3PH-3W, 1PH-2W,, 3x230(400)V, 1A or 5A CT input, Class 1.0 50/60Hz, backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc. |
| SDM630MCT-MODBUS-0.5 | 3PH-4W, 3PH-3W, 1PH-2W,, 3x230(400)V, 1A or 5A CT input, Class 0.5 50/60Hz, backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc. |
| SDM630MCT-Mbus | 3PH-4W, 3PH-3W, 1PH-2W,, 3x230(400)V, 1A or 5A CT input, 50/60Hz, backlighted LCD display, 2 pulse outputs, M-Bus EN13757-3. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc |
| SDM630MCT-2T | 3PH-4W, 3PH-3W, 1PH-2W,, 3x230(400)V, 1A or 5A CT input, 50/60Hz, backlighted LCD display, 2 pulse outputs, Rs485 Modbus RTU, 2 Tariffs. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp kWh, Exp_kWh etc. |
| SDM630MCT-MV | 3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 333mV CT input, 50/60Hz, backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc. |

Conformity References

Electromagnetic Compatibility: EN61326-1:2013 & EN61326-2-3:2013

Low Voltage Directive: EN61010-1-2010 & EN61010-2-30-2010

MID DIRECTIVE: 2014/32/EU

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