

DIN Rail Mounted / Three Phase / DRTCT [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

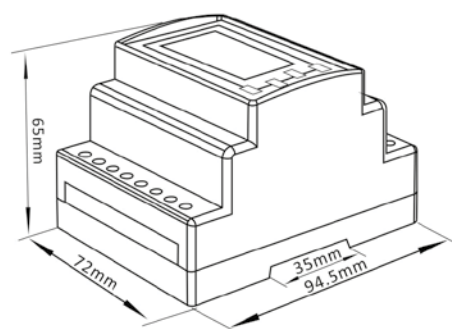
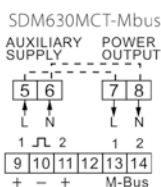
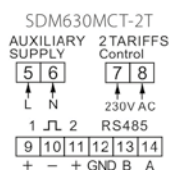
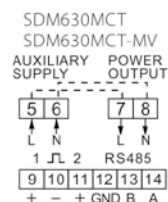
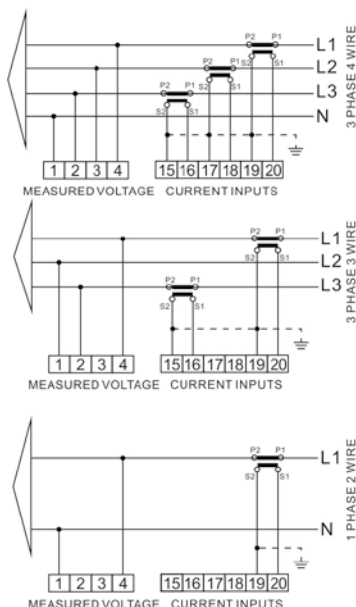
Specification table

Specification		Accuracy	
Nominal voltage(Un)	3x230/400 V ac	Voltage, Current	1.0 % or 0.5% option available
Operational voltage	80% - 120% of Un.	Frequency	0-2% of mid-frequency
Insulation capabilities		Power factor	1% of unity (0.01)
- AC voltage withstand	4KV for 1 minute	Active power , Apparent power	±1% of range maximum
- Impulse voltage withstand	6KV-1.2μS	Reactive power	±1% of range maximum
Rated current (Ib)	5A CT or 333mV CT input	Reactive energy(Varh)	Class 2
Operational current range	0.4% Ib-I _{max}	Active energy (Wh)	Class 1
Over current withstand	20 I _{max} for 0.01s		
Operational frequency range	50 or 60Hz	Modbus	
Power consumption per phase	≤ 2W/10VA	Bus type	RS485(semi-duplex)
Pulse output 1	Configurable	Protocol	Modbus RTU
Pulse output 2	3200 imp/kWh	Baud rate	2400/4800/9600/19200/38400bps
Display	LCD	Address range	1-247
Max reading	9999999.9 kWh/kVarh	Max. Bus loading	64pcs
Performance criteria		Communication distance	1000M
Operating humidity	≤ 90%	Parity	EVEN/ODD/NONE
Storage humidity	≤ 95%	Data bit	8
Operating temperature	-25°C - +55°C	Stop bit	1
Storage temperature	-40°C - +70°C		
Reference temperature	23°C± 2°C	M-bus	
International standard	IEC 62053-21 / EN50470-1/3	Bus type	M-bus
Accuracy class	Class1/Class B	Protocol	EN13757-3
Installation category	CAT III	Baud rate	300/600/1200/2400/4800/9600
Mechanical environment	M1	Parity	NONE/EVEN/ODD
Electromagnetic environment	E2	Stop bits	1 or 2
Degree of pollution	2	Primary Address	1 to 250
Protection against penetration of dust and water	IP51(indoor)	Secondary Address	00 00 00 01 to 99 99 99 99
Insulating encased meter of protective class	II		
Electrostatic discharges	8kV contact / 15kV air gap		
Radiated & conducted emissions	EN 55022		

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Wiring Configuration



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