

Datasheet

DIN Rail Mounted / Three Phase /DRTCT-MF (SDM630MCT) (CT) Series

- 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

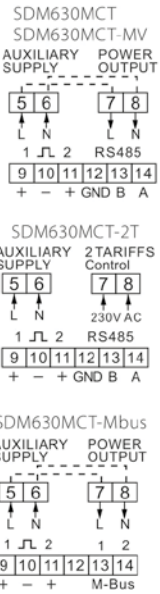
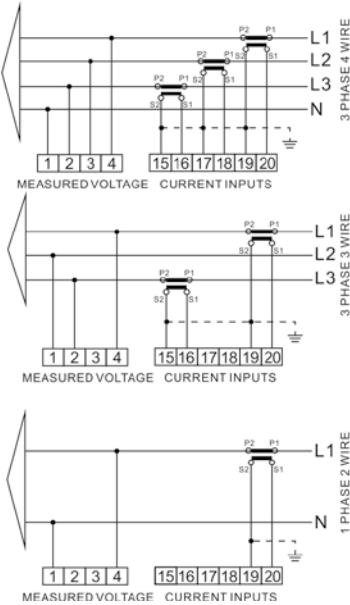


Specification table

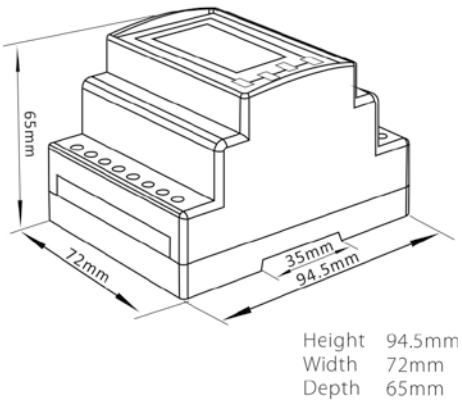
Specification		Accuracy	
Nominal voltage(Un)	3x230/400 V ac	Voltage, Current	1.0 % or 0.5% option available
Operational voltage	80% - 120% of Un.	Frequency	0-2% of mid-frequency
Insulation capabilities		Power factor	1% of unity (0.01)
- AC voltage withstand	4KV for 1 minute	Active power , Apparent power	±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-Imax	Active energy (Wh)	Class 1
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		Modbus	
Operating humidity	≤ 90%	Bus type	RS485(semi-duplex)
Storage humidity	≤ 95%	Protocol	Modbus RTU
Operating temperature	-25°C - +55°C	Baud rate	2400/4800/9600/19200/38400bps
Storage temperature	-40°C - +70°C	Address range	1-247
Reference temperature	23°C± 2°C	Max. Bus loading	64pcs
International standard	IEC 62053-21 / EN50470-1/3	Communication distance	1000M
Accuracy class	Class1/Class B	Parity	EVEN/ODD/NONE
Installation category	CAT III	Data bit	8
Mechanical environment	M1	Stop bit	1
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		
		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



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