

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

Datasheet

- Four module DIN rail mounted
- Energy pulse LED
- Monitor multi parameters for 4 loads and 12 loads
- Independently programmable CT ratios (Load 1, 2, 3, 4)
- RJ12 socket for fast connection between CT and meter
- RJ45 socket & Plug-in terminal for Modbus connection
- Multiple display modes
- RS485 communication MODBUS RTU Protocol
- True RMS measurement
- High definition backlit LCD display
- Touch button operation



The SDM630MCT-ML series is an advanced multifunction three-phase energy monitoring solution with RS485 RTU Modbus and Modbus TCP. Equipped with configuration and display buttons for ease of navigation through the various parameters and settings. Housed for DIN rail mounting, IP51 protection and 100mA or 100mV current transformer operated. Selectable measurement modes using our free configurations software for kWh display

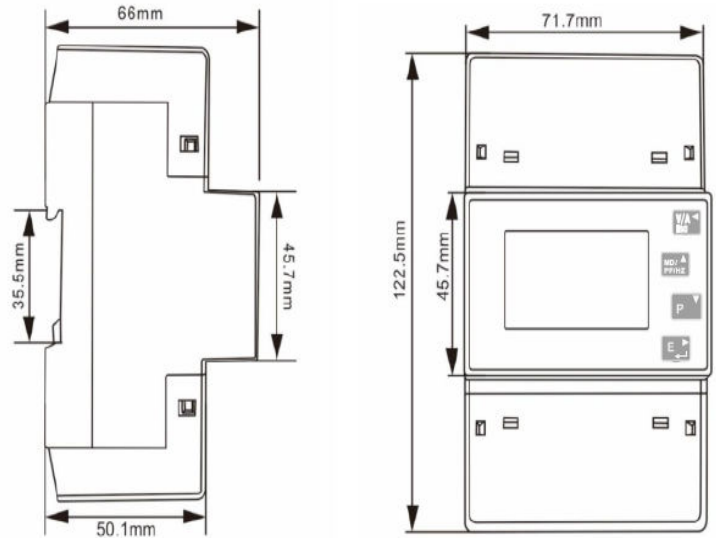
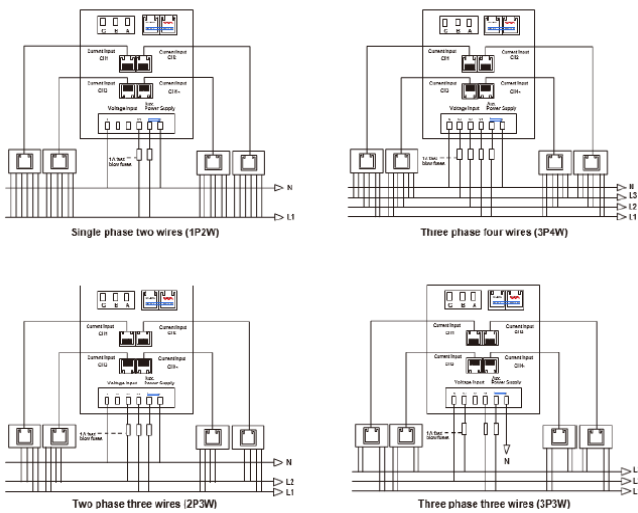
Single Load option 3 phase 4 wire or 3 x 1 phase circuits (SDM630MCT-1L) Dual load option 2 x 3 phase 4 wire or 6 x 1 phase circuits (SDM630MCT-2L) Tri load option 3 x 3 phase 4 wire or 9 x 1 phase circuits (SDM630MCT-3L) Quad load option 4 x 3 phase 4 wire or 12 x 1 phase circuits (SDM630MCT-4L) Up to 124 x 3 phase 4 wire channels or 372 x 1 phase channels on one Modbus network (32 SDM630MCT) Certified in the UK according to EU Directive 2014/32/EU. MID Certificate number 0120 / SGS0534,

Specification table

Specification		Accuracy	
Nominal voltage(Un)	3x230/400 V ac	Voltage	0.5%
Operational voltage	80% - 120% of Un.	Current	0.5%
Aux. power supply	85-276V AC or 120-380V DC	Frequency	0-2% of mid-frequency
Insulation capabilities		Power factor	1% of unity (0.01)
- AC voltage withstand	4KV for 1 minute	Active power	±1% of range maximum
- Impulse voltage withstand	6KV-1.2μS	Apparent power	±1% of range maximum
Rated current (Ib)	100mA or 100mV CT input	Reactive power	±1% of range maximum
Operational current range	0.4% Ib-I _{max}	Reactive energy(Varh)	Class 2
Over current withstand	20 I _{max} for 0.01s	Active energy (Wh)	Class 1
Operational frequency range	50 or 60Hz		
Power consumption	≤ 2W/10VA	Modbus	
Pulse output indicator	LED	Bus type	RS485(semi-duplex)
Pulse output rate	1000 imp/kWh	Protocol	Modbus RTU
Display	LCD	Baud rate	2400/4800/9600/19200/38400bps
Max reading	9999999.9 kWh/kVarh	Address range	1-247
		Max. Bus loading	64pcs
		Communication distance	1000M
		Parity	EVEN/ODD/NONE
		Data bit	8
		Stop bit	1
Performance criteria		Enclosure	
Operating humidity	≤ 90%	Mounting	DIN rail (DIN3880)
Storage humidity	≤ 95%	Dimension	70.9 x 122.5 x 66mm (W x H x D)
Operating temperature	-25°C - +55°C	Protection rating	IP51(indoor)
Storage temperature	-40°C - +70°C	Matanal	UL94 V-0
Reference temperature	23°C± 2°C	Weight	330g
International standard	IEC 62053-21		
Accuracy class	Class1		
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		

Wiring Configuration

Dimension Drawing



Ordering Options

Meter Type	Description of Meter
SDM630MCT-1L Single Load 3 phase meter	Single Load, 3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 100mA or 100mV CT input, Class 1.0 50/60Hz, backlighted LCD display, Modbus RS485 Modbus RTU or Modbus TCP. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.
SDM630MCT-2L Dual Load 3 phase meter	Dual Load, 3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 100mA or 100mV CT input, Class 1.0 50/60Hz, backlighted LCD display, Modbus RS485 Modbus RTU or Modbus TCP. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.
SDM630MCT-3L Tri Load 3 phase meter	Tri Load, 3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 100mA or 100mV CT input, Class 1.0 50/60Hz, backlighted LCD display, Modbus RS485 Modbus RTU or Modbus TCP. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.
SDM630MCT-4L Quad Load 3 phase meter	Quad Load, 3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 100mA or 100mV CT input, Class 1.0 50/60Hz, backlighted LCD display, Modbus RS485 Modbus RTU or Modbus TCP. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.

Conformity References

Electromagnetic Compatibility: IEC/EN61326-1, IEC/EN55011 Class A, IEC/EN61000-4-2,-3-4-5-6-8-11 IEC/EN50470-1/3

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

MID DIRECTIVE: 2014/32/EU

Please contact our Sales team at sales@eastroneurope.com or reach out to our technical experts at technical@eastroneurope.com Alternatively, you can call us at (+44) 0203 758 3494.