

### Datasheet

- Three phase 100A direct fed
- MID B+D certified
- ETL registered
- Accuracy better than Class 1
- Bi-directional measurement for kW and kWh
- Configurable pulsed output (Import/ Export/ Net kWh)
- Modbus (SDM630Modbus) or Mbus (SDM630Mbus)
- Multi-parameter measurement
- Multi-tariffs
- Free configuration software
- 2 digital inputs

The SDM630 series is an advanced multi-function three phase energy monitoring solution with optional outputs such as pulses, 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 direct connection up to 100A. 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 / SGS0151.



## 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           |
| Basic current (Ib)           | 10A                 |
| Maximum rated current (Imax) | 100A as per page 11 |
| Operational current range    | 0.4% Ib-Imax        |
| Over current withstand       | 30 Imax for 0.01s   |
| Operational frequency range  | 50 or 60Hz          |
| Power consumption per phase  | ≤ 2W/10VA           |
| Display                      | LCD                 |

| Performance criteria                             |                                    |
|--------------------------------------------------|------------------------------------|
| Operating humidity                               | ≤ 90%, no condensing               |
| Storage humidity                                 | ≤ 95%, no condensing               |
| Operating temperature                            | -25°C - +55°C/-40 - + 70(optional) |
| 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         |
| Electromagnetic HF fields                        | IEC 61000-4-3                      |
| Electrical fast transients                       | 4kV                                |

| Multi-tariffs       |         |
|---------------------|---------|
| time clock accuracy | <1s/day |
| Tariff              | 4       |
| Time segments       | 10      |

| 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         | 300/600/1200/2400/4800/9600bps |
| 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     |

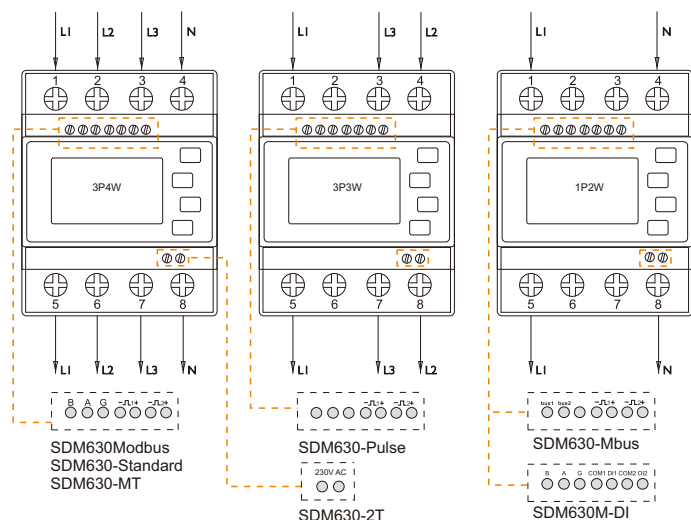
| Pulse output      |                       |
|-------------------|-----------------------|
| Pulse outputs     | 2                     |
| Pulse output type | Passive               |
| Pulse Output 1    | Configurable          |
| Pulse width       | 200/100(default)/60ms |
| Pulse output 2    | 400imp/kWh            |

For more information on these products, please contact our sales team on 86 0573 83698881 or email [sales@eastrongroup.com](mailto:sales@eastrongroup.com)

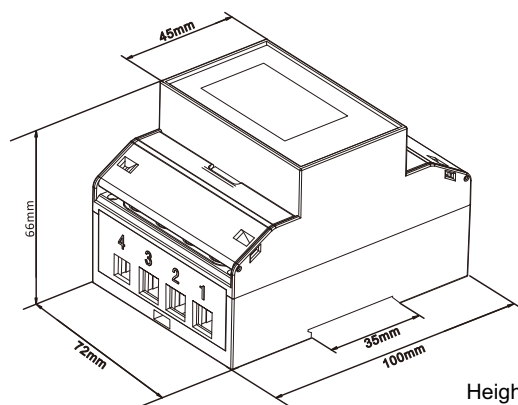
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## Datasheet

### Wiring Configuration



### Dimension Drawing



Height 100mm  
Width 72mm  
Depth 66mm

### Ordering Options

| Meter Type           | Description of Meter                                                                                                                                                                                                      |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SDM630-Modbus</b> | 3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(100)A, 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.                |
| <b>SDM630-Mbus</b>   | 3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, M-Bus EN13757-3 communication. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.   |
| <b>SDM630-MT</b>     | 3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU, multi-tariffs. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc. |
| <b>SDM630-Std</b>    | 3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU. Measures kWh, kVarh, Imp_kWh, Exp_kWh etc.                                                        |
| <b>SDM630-Pulse</b>  | 3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs. Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.                                  |
| <b>SDM630-2T</b>     | 3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(100)A, 50/60Hz, backlighted LCD display, 2 pulse outputs, RS485 Modbus RTU, dual source, Measures kWh, kVarh, W, Var, VA, V, A, PF, THD, Hz, Max.DMD, Imp_kWh, Exp_kWh etc.   |
| <b>SDM630M-DI</b>    | 3PH-4W, 3PH-3W, 1PH-2W, 3x230(400)V, 0.5~10(100)A, 50/60Hz, backlighted LCD display, RS485 Modbus RTU, 2 digital inputs. 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:** EN 61010\_1:2010+A1:2019 & EN 61010-2-30:2010

**MID DIRECTIVE:** 2014/32/EU

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