

### Datasheet

- Direct connection up to 100A
- Support load control
- Support abnormal power consumption monitoring
- Support lo-lo power alarm
- Support multi-measurement
- S0 output for energy pulse emission
- RS485 Modbus communication
- Class 0.5S
- LCD display with 8 main digits



## Introduction

SDM320C Series is Eastron's new generation of single phase multi-function remote control energy meter. It measures all important electrical parameters, such as active energy (kWh), current (A), voltage (V), frequency(Hz), power factor, power demand, import and export energy etc. It fully complies with the class 0.5S level accuracy technical requirements of the IEC62053-22 standard for energy meters. With built-in relay inside, the meter can be remotely controlled to turn on or off the electricity supply via RS485.

The user can also set alarm objects and alarm level, once the alarm is activated the relay will be turned off automatically.

### Multi-measurement

- Current-instantaneous : I
- Voltage & Frequency-instantaneous : V, F
- Power-instantaneous : P
- Power Factor-instantaneous : PF
- Active energy : kWh
- Reactive energy : kVarh

### Conformity to Standards

- Active energy Class 0.5s according to IEC 62053-22
- Active energy Class 1.0 according to IEC 62053-21
- Reactive energy Class 2.0 according to IEC 62053-23

### Applications

- Measurement of energy generated by renewable source such as solar, eolic etc.
- Accounting and billing of consumptions in camp in camp sites, mails, residential areas, naval ports, etc.
- Realization of energy monitoring systems.
- Accounting of the consumption in buildings with executive office services.
- Internal allocation of the consumption in timeshare civilian and industrial buildings.
- Totalization of the electric consumption in hotel, congress centers, exhibition fairs.

## Datasheet

Specification	
Nominal voltage(Un)	<b>230V ac</b>
Operational voltage	<b>80%~120% of Un</b>
Insulation capabilities	
- AC voltage withstand	<b>4KV for 1 minute</b>
- Impulse voltage withstand	<b>6KV-1.2μS</b>
Basic current (Ib)	<b>10A</b>
Operational current range	<b>0.4% Ib-Imax</b>
Over current withstand	<b>30 Imax for 0.01s</b>
Operational frequency range	<b>50 or 60Hz</b>
Power consumption per phase	<b>≤ 2W/10VA</b>
Display	<b>LCD</b>
Max reading	<b>999999.99 kWh/kVarh</b>

Performance criteria	
Operating humidity	<b>≤ 90%, no condensing</b>
Storage humidity	<b>≤ 95%, no condensing</b>
Operating temperature	<b>-25°C - +55°C</b>
Storage temperature	<b>-40°C - +70°C</b>
Reference temperature	<b>23°C±2°C</b>
International standard	<b>IEC 62053-22</b>
Accuracy class	<b>Class0.5S</b>
Installation category	<b>CAT III</b>
Mechanical environment	<b>M1</b>
Electromagnetic environment	<b>E2</b>
Degree of pollution	<b>2</b>
Protection against penetration of dust and water	<b>IP51(indoor)</b>
Insulating encased meter of protective class	<b>II</b>
Electrostatic discharges	<b>8kV contact / 15kV air gap</b>
Electromagnetic HF fields	<b>IEC 61000-4-3</b>
Electrical fast transients	<b>4kV</b>

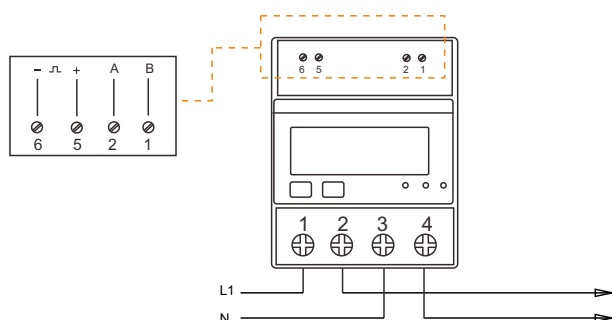
Accuracy	
Voltage,Current	<b>0.2%</b>
Frequency	<b>0.2% of mid-frequency</b>
Power factor	<b>1% of unity (0.01)</b>
Active power, Apparent power	<b>±0.5% of range maximum</b>
Reactive power	<b>±1% of range maximum</b>
Reactive energy(Varh)	<b>Class 2</b>
Active energy (Wh)	<b>Class 0.5s / Class 1.0</b>

Modbus	
Bus type	<b>RS485(semi-duplex)</b>
Protocol	<b>Modbus RTU</b>
Baud rate	<b>1200/2400/4800/9600bps</b>
Address range	<b>1-247</b>
Max. Bus loading	<b>64pcs</b>
Communication distance	<b>1000M</b>
Parity	<b>EVEN/ODD/NONE</b>
Data bit	<b>8</b>
Stop bit	<b>1</b>

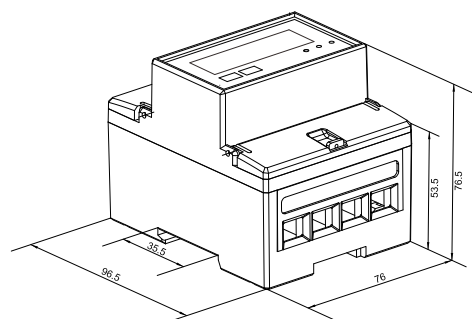
Communication	
Terminal wire area	<b>0.5-1mm²</b>
Recommended tightening torque	<b>0.25Nm</b>

Pulse Output	
Pulse outputs	<b>1</b>
Pulse output type	<b>Passive</b>
Pulse output 1	<b>Configurable</b>
Pulse width	<b>200/100(default)/60ms</b>
Pulse output 2	<b>1000imp/kWh</b>

### Wiring diagram



### Dimensions



Height 76.0mm  
Width 96.5mm  
Depth 76.5mm

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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