

Datasheet

- Three Phase 1/5A Current Transformer operated
- MID B+D Certified
- UL Registered
- Accuracy Class 0.5 (Active Energy)
- Bi-directional Measurement for kW and kWh
- Configurable Pulsed output (Import/ Export / Nett kWh)
- Modbus (SMART X96-5) or Mbus (SMART X96-5-Mbus)
- Multi Parameter measurement
- Phase Sequence indication
- Phase Summary Page
- 2nd-63rd Individual Harmonic Distortion
- Internal three phase supply
- Multi-Tariff
- Free Configuration software

The SMART X96 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 96mm panel 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 / SGS0288.



Specification table

| Input | |
|--|---|
| Nominal input voltage | 3x230/400 V ac |
| Max. continuous input overload voltage | 80% - 120% of Un. |
| Max. short duration input voltage | 2 x nominal voltage for 1 second |
| Nominal input voltage burden | < 0.2VA per phase |
| Nominal input current | 1/5A |
| Nom. Input current burden | < 0.1 VA |
| Max. continuous input overload current | 120% of nominal |
| Max. short duration input current | 20 x nominal current for 1 second |
| Power supply | |
| Operating range | Self powered (from any of the three phases) |
| Supply burden | < 2W / 10 VA |
| Accuracy | |
| Voltage (V) | 0.5% of range maximum |
| Current (A) | 0.5% of range maximum |
| Frequency (Hz) | 0.2% of mid-frequency |
| Power factor (PF) | 1% of unity (0.01) |
| Active power (W) | 1.0% of range maximum |
| Reactive power (VAr) | 1.0% of range maximum |
| Apparent power (VA) | 1.0% of range maximum |
| Active energy (kWh) | Class 0.5S IEC62053-22 Class 1.0 IEC62053-21 |
| Reactive energy (kVArh) | 1.0% of range maximum to IEC 62053-24 |
| THD | 2% to 63rd harmonic |
| Environment | |
| Operating temperature | - 25°C to +55°C |
| Storage temperature | -40°C to +70°C |

| | |
|--------------------|--|
| Relative humidity | 0 to 95%, non-condensing |
| Shock | 30g in 3 planes |
| Vibration | 10Hz to 50Hz, IEC 60068-2-6, 2g |
| Dielectric Voltage | 4kV between voltage and current to earth |
| Altitude | 3000m |
| Warm-up | 1 minute |

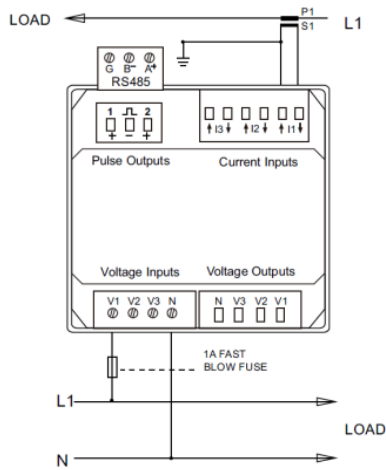
| Outputs | |
|--|--|
| Pulsed output relay (configurable) | Opto-coupled, potential-free SPST-NO contact |
| Contact Rating current | 2-27mA at 27V DC |
| Contact Rating voltage | 5-27V DC |
| Pulse Width | 60 / 100 / 200 ms |
| Pulse rate of SO 1 | 0.01 / 0.1 / 1 / 10 / 100 kWh/kVArh |
| Pulsed output of SO 2 (non-configurable) | 3200IMP/kWh |
| Communications | Modbus RTU (RS485) |
| Type | 2-wire half duplex |
| Baud rate | 2400, 4800, 9600, 19200, 38400 |
| Address | 1 to 247 |

| Enclosure | |
|-------------------|--|
| Enclosure Style | DIN 96 panel mount |
| Dimensions | 96x96x62 mm |
| Panel cut-out | 92x92mm |
| Panel thickness | 1-2 mm |
| Protection rating | Ip51 (Indoor) |
| Material | UL 94-V0 |
| Weight | 340 g |
| Cable size | 0.05mm-4mm stranded wire |
| Terminals | Voltage: Shrouded screw-clamp. Current: RJ12 |

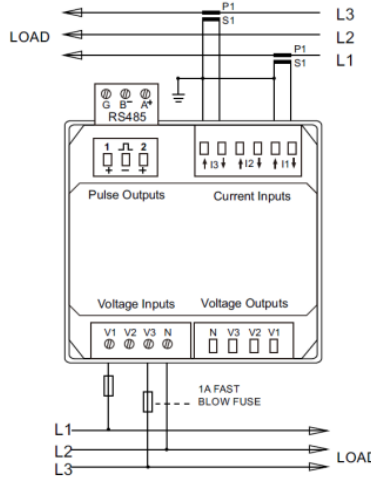
For more information on these products, please contact our sales team on 0203 758 3494 or email sales@eastroneurope.com

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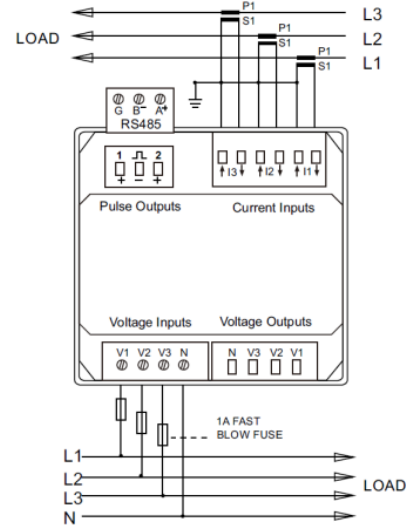
Wiring Configuration



Single phase two wires
(No Voltage Output on SMART X96-5E Model)

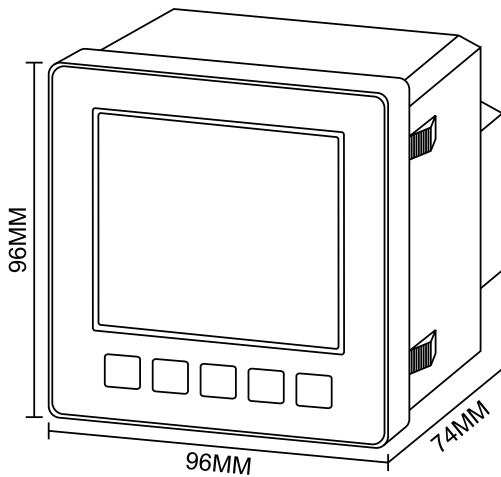


Three phase three wires
(N/A for SMART X96-5E Model)



Three phase four wires
(No Voltage Output on SMART X96-5E Model)

Dimension Drawing



Ordering options

| Meter Type | Description of Meter |
|---------------------|---|
| SMART X96-5 | Active Import/Export (kWh) 3x230/400V, 0.25-5(6)A, Transformer operated, Multifunction, RS485 Modbus RTU |
| SMART X96-5E | Active Import/Export (kWh) 3x230/400V, 0.25-5(6)A, Transformer operated, Multifunction, RS485 Modbus RTU, No THD, No Voltage Output and 1P2W and 3P4W only. |

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

For more information on these products, please contact our sales team on 0203 758 3494 or email sales@eastroneurope.com