

# Smart X96-5 Series

Panel Mounted / Three Phase / CT Operated -SMART X96 Series



# Panel Mounted / Three Phase / CT Operated -SMART X96 Series

## 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

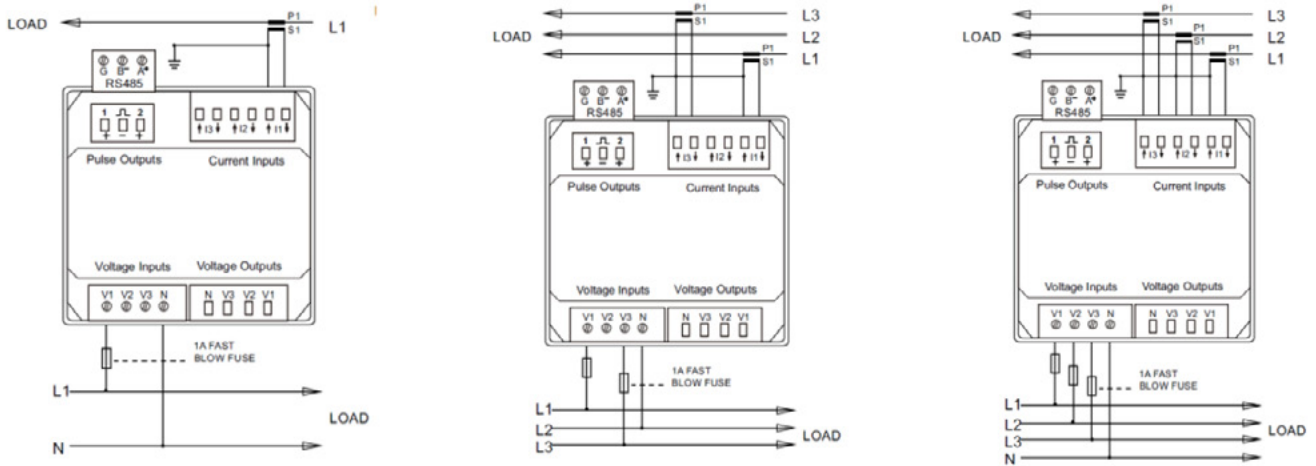


The SMART X96 series is an advanced multifunction three-phase energy monitoring solution with optional outputs such as Pulsed, RS485 RTU Modbus and Mbus. Equipped with configuration and display buttons for ease of navigation through the various parameters and settings. Housed for 96mm panel mounting, 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.

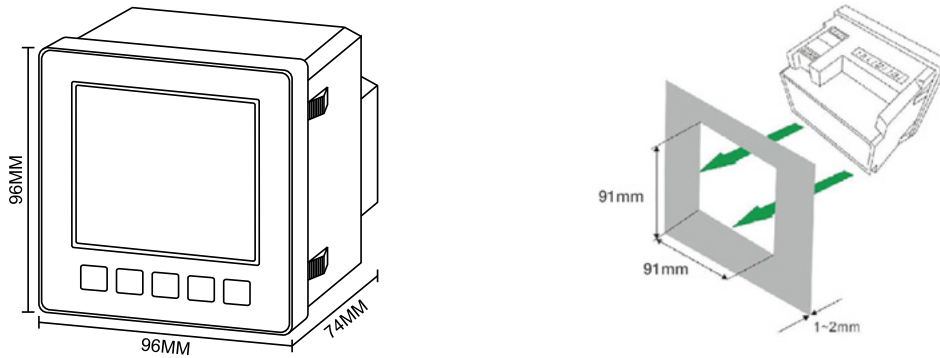
## Specification table

Input		Relative humidity	
Nominal input voltage	3x230/400 V ac		0 to 95%, non-condensing
Max. continuous input overload voltage	80% - 120% of Un.	Shock	30g in 3 planes
Max. short duration input voltage	2 x nominal voltage for 1 second	Vibration	10Hz to 50Hz, IEC 60068-2-6, 2g
Nominal input voltage burden	< 0.2VA per phase	Dielectric Voltage	4kV between voltage and current to earth
Nominal input current	1/5A	Altitude	3000m
Nom. Input current burden	< 0.1 VA	Warm-up	1 minute
Max. continuous input overload current	120% of nominal	Outputs	
Max. short duration input current	20 x nominal current for 1 second	Pulsed output relay (configurable)	Opto-coupled, potential-free SPST-NO contact
Power supply		Contact Rating current	2-27mA at 27V DC
Operating range	Self powered (from any of the three phases)	Contact Rating voltage	5-27V DC
Supply burden	< 2W / 10 VA	Pulse Width	60 / 100 / 200 ms
Accuracy		Pulse rate of S0 1	0.01 / 0.1 / 1 / 10 / 100 kWh/kVarh
Voltage (V)	0.5% of range maximum	Pulsed output of S0 2 (non-configurable)	3200IMP/kWh
Current (A)	0.5% of range maximum	Communications	Modbus RTU (RS485)
Frequency (Hz)	0.2% of mid-frequency	Type	2-wire half duplex
Power factor (PF)	1% of unity (0.01)	Baud rate	2400,4800, 9600, 19200, 38400
Active power (W)	1.0% of range maximum	Address	1 to 247
Reactive power (VAr)	1.0% of range maximum	Enclosure	
Apparent power (VA)	1.0% of range maximum	Enclosure Style	DIN 96 panel mount
Active energy (kWh)	Class 0.5S IEC62053-22 Class 1.0 IEC62053-21	Dimensions	96x96x62 mm
Reactive energy (kVarh)	1.0% of range maximum to IEC 62053-24	Panel cut-out	92x92mm
THD	2% to 63rd harmonic	Panel thickness	1-2 mm
Environment		Protection rating	Ip51 (Indoor)
Operating temperature	- 25°C to +55°C	Material	UL 94-V0
Storage temperature	-40°C to +70°C	Weight	340 g
		Cable size	0.05mm-4mm stranded wire
		Terminals	Voltage: Shrouded screw-clamp. Current: RJ12

## Wiring Configuration



## Dimension Drawing



## Ordering Options

Meter Type	Description of Meter
<b>SMART X96-5</b>	Active Import/Export (kWh) 3x230/400V, 0.25-5(6)A, Transformer operated, Multifunction, RS485 Modbus RTU
<b>SMART X96-5E</b>	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