



Smart X96 Series

SMART ENERGY ANALYZER FOR SINGLE AND THREE PHASE SYSTEMS

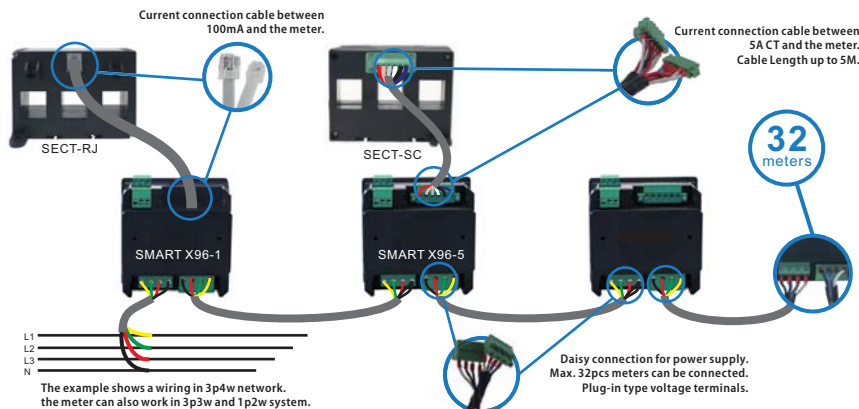
- Measures kWh, kVarh, kW, kVar, kVA, P, F, PF, Hz, dmd, V, A, etc.
- Bi-directional Measurement IMP & EXP
- Energy Information of Each Phase
- Total Harmonic Distortion of Voltage and Current
- 2nd~63rd Individual Harmonic Distortion
- RS485 Modbus RTU & Two Pulse Outputs
- Bar Graph for Power Indication
- Three phase self-power supply
- Backlit LCD Display for Full Viewing Angles
- Accuracy Class 1 / 0.5S
- Plug-in Play solution

Introduction

The Smart X96 digital smart meter from Eastron is an ideal solution for the measurement and display of all important electrical parameters including harmonic distortion of total and individual, up to 63rd. The meter uses a high definition screen with programmable backlight for high visibility in dark area and from all viewing angles. New sector icons shows the percentage of the power load on 3 phases. Modbus RS485 RTU and 2 pulse outputs are equipped as standard.

The Smart X96 and 3-in-1 Current transformers provide a simple and fast installation solutions. With pre-cut wiring looms, the meters and CTs can be easily connected. This solution reduces lot of wiring and installation time, and save wrong wiring troubles.

"Plug-in Play Solution"



Input	
Nominal input voltage	100-276V AC (L-N) 173-480V AC (L-L)
Max. continuous input overload voltage	120% of nominal
Max. short duration input voltage	2 x nominal voltage for 1 second
Nominal input voltage burden	< 0.2VA per phase
Nominal input current	100mA / 5A
Nom. Input current burden	< 0.1VA
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 / 10VA

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

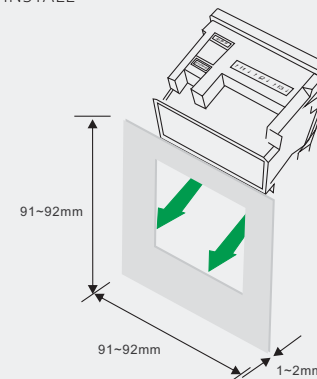
Measured Range	
Voltage (V)	5 – 120% of nominal (Min 100V -self powered)
Current (A)	5 – 120% of nominal
Frequency (Hz)	45 – 66 Hz
Power (W, VAr, VA)	5 – 144% of nominal (bi-directional)
Energy	8digit, upto 9999999.9 kWh
Power factor	4 quadrant
THD	0 – 40% upto 63rd harmonic

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 S0 1	0.01 / 0.1 / 1 / 10 / 100 kWh/kVarh
Pulsed output of S0 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

INSTALL



Dimensions

