stelmec®
beyond boundaries

SMART GRID & POWER IT

STEM 01 / 03 – OP

SINGLE PHASE / THREE PHASE ENERGY METER

Stelmec offers STEM01 & STEM03 - IR/ OP single & three phase meters are designed to measure accurate energy consumption for residential and commercial applications. These meters are communicable type for remote reading and monitoring. These meters comply with Indian/ International standards and are an ideal choice for distribution companies for revenue realization.

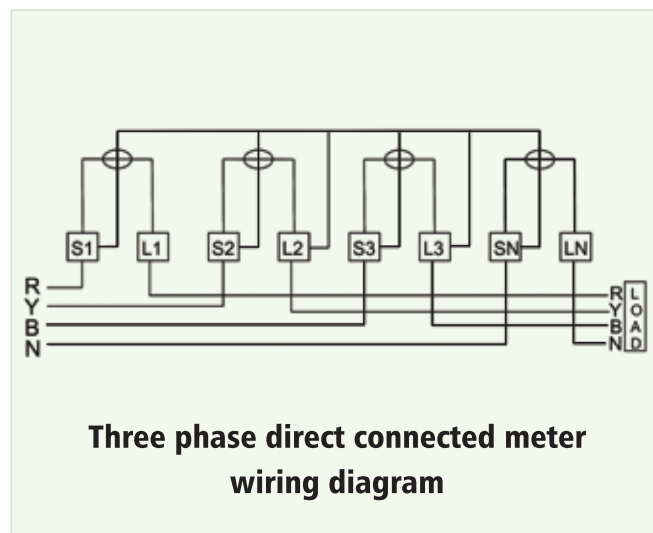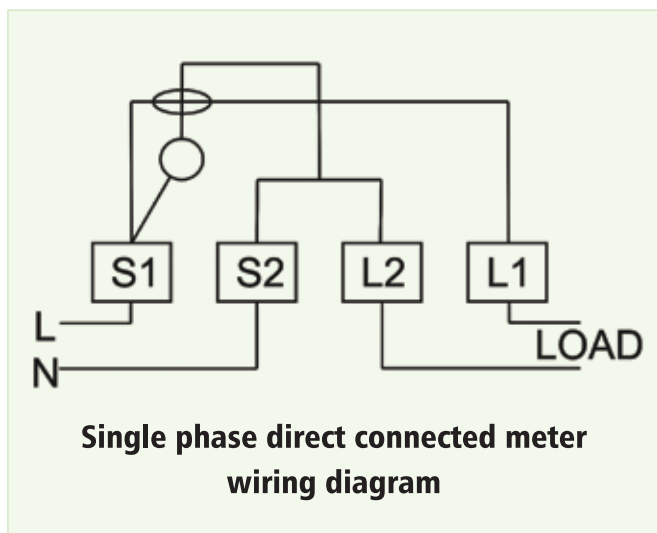## Applications

- Residential Buildings
- Commercial Buildings

Salient Features

- IR/ IrDA / Optical communication port for data retrieval
- RS232 for external communication device
- High intensity LED for calibration
- LCD display with legends & icons
- Open protocol (DLMS option available)
- Auto scroll, push button and high resolution modes
  Programmable TOD & load profile for 15/30/60 min interval
- Historic billing data registration for 12 months
- Meter reading in power off condition (battery/ super capacitor options available)
- Accurate measurement in 'single wire mode'
- Immune/ resistant to 31 tamper/ fraud conditions
- Tamper detection and event logging
- Proximity reading in field through CMRI (LOS)

Technical Specifications

Connection type and wiring configuration	Single phase two wire/ Three phase four wire (Direct connected/ C.T. operated)
Temperature range	-10°C to 60°C
Humidity	< 95% non condensing
Accuracy class	Class 1.0
Compliance standards	IS13779:1999/2020, CBIP325, IEC 62056, IS15959:2011
Reference voltages	230 - 240V (Ph - N)/ 415V (Ph - Ph)
Current rating	5-30 A, 10-40 A, 10-60 A
Power factor range	Zero Lag – Unity – Zero Lead
Frequency	50 Hz ± 5 %
Impulse withstand	10 kV (1.2/ 50 usec)
Starting current	0.2% Ib at Vref and Unity P.F.
Burden/ Power consumption	As per the standards (< 8VA & 1.5W)
Communication interfaces	(Utility specific) IEC62056-21/ DLMS (IS15959)/IR/ IrDA port/ RS232 port for external communication
Maximum Demand (MD)	Programmable MD integration period (15 min or 30 min)
Time OF Day	Programmable 8 registers
Event logging/ Immune to:	▪ Single wire mode ▪ Current reversal ▪ Earth load (Full/Partial) ▪ Magnetic influence ▪ Cover open ▪ Spark discharge (35kV) ▪ Neutral disturbance (resistive, capacitive, diode)
Enclosure	IP51/ IP54, Polycarbonate (Glass reinforced)

Single phase direct connected meter wiring diagram

Three phase direct connected meter wiring diagram

There is a continuous effort at Stelmec to keep abreast of latest technology in line with customers' requirements and hence the product specifications are subject to change.

▪ Products described in this catalogue are manufactured and supplied according to Certified Management System ISO 9001:2015.
▪ Product variants provide different combinations of features / specifications listed above & need not necessarily be a part of single variant.