

Premier 520

Transformer operated smart energy meter



Security



Upgradeable



AMI ready

Premier 520 is a new generation, three-phase transformer operated smart electricity meter. It's equipped with a bi-directional communication unit to interact with the Head-End System (HES) and plays a vital role in cost management.

It supports 4G communication that ensures network redundancy by having GPRS as a fall-back option to suppress the black spots in the AMI network.

It also works as a common assets in import-export or forwarded mode. The firmware can be upgraded remotely without affecting the usual meter operations.

This smart meter is combination of a reliable, secured metering platform and a smart 4G communication unit, making it ideal for a smart metering-connected solution. It provides billing energies, history values, interval data and event alerts to the utility for billing cycle optimisation, effective network planning and revenue protection.



Application

- Industrial and commercial consumer segment
- Distribution transformer metering
- MV feeder and boundary metering
- Renewable farms / Net metering

Benefits

- Periodic remote data availability from all smart endpoints improves billing efficiency
- On-demand data collection to serve critical utility use cases, e.g. vigilance etc.
- Network parameters monitoring helps to improve network assets planning
- Better utilisation of field crew by having power down information of specific node point
- Common asset for HV3, HV4 network
- Compatible for import-export or forwarded mode metering
- Reduced operational cost (low cost of ownership)

Features

- Four quadrant energy measurement
- Intuitive, legible and user-friendly display
- Back-end alerts and event logging on tamperers
- Actuators for display access
- Enable meter data collection through optical port for no-WAN nodes
- Analysis of interval data.
- Local reading provision in the absence of mains
- Parameters in line with IS 15959 part 3
- Supply quality parameters

Highlights

- Reliable bi-directional communication unit
- Data delivery through smart push architecture
- Extensive firmware features to serve multiple applications of utility
- Better security features for utility
- Revenue protection measures for detection and analysis of tamper attempts



Technical Specification

Electrical

Connection type	CT, CT / VT operated
Wiring configuration	3P4W for LT and 3P3W, 3P4W for HT
Rated voltage & variation	LT: 240V P-N, -30% to +20% of Vref HT: 63.5 P-N/110V P-P, $\pm 20\%$ of Vref
Current range	-/5(10)A for LT and -/5(10)A or -/1(2)A for HT
Accuracy	Class 0.5s for LT and Class 0.2s / Class 0.5s for HT
Frequency	50 Hz $\pm 5\%$
Burden	As per IS 16444 Part 2

Compliance

Standards	IS 16444 Part 2, IS 15959 Part 3
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Mechanical

Dimension H x W x D (approx.)	285 mm x 179 mm x 70 mm, Tolerance ± 5 mm
Weight (approx.)	1.35 \pm 0.2 Kg
Enclosure	Engineering Plastic
Sealing	Break to open enclosure, Provision of sealing on meter cover, terminal cover, communication module cover and optical port

Environmental

Ingress protection	IP 54
Temperature	0 °C to +55 °C (Operating) and -25 °C to +70 °C (Storage)
Humidity	95% non-condensing RH

Features

Energy channels	as per category D3 and D4 of IS 15959 part 3
Maximum demand	as per category D3 and D4 of IS 15959 part 3
Tariff rate registers	as per category D3 and D4 of IS 15959 part 3
Load survey	Up to 120 days load profile for 15 parameters (configurable), with 30 minute integration period
Communication options	Optical port for local and WAN (Cellular) communication for remote data acquisition
Communication	4G fallback to 2G
SIM Card	4G enabled Nano SIM card
Antenna	Inbuilt antenna, optional high gain extended antenna
Supported frequencies	850, 900, 1800, 2100 MHz

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