



SY-3000 Three Phase Smart Meter

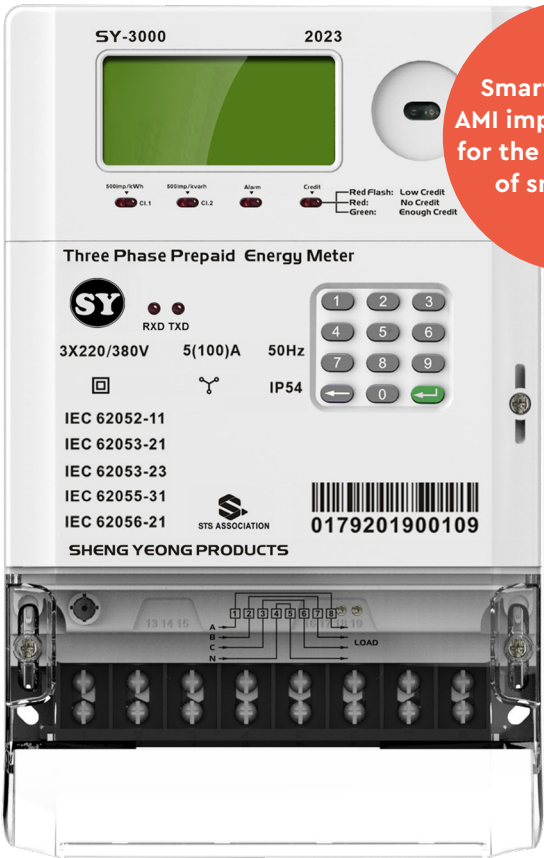
Full DLMS/COSEM package to be ready for AMI implementation, ensuring immediate interoperability with enriched HAN application, whereas the latest STS compliance for next 10 yeras smart grid and Internet of Things.

SY-3000 is a highly accurate, robust, system ready meter that is ideally suited for commercial and light industrial metering applications. With its standard communication protocol, SY-3000 meter can be integrated into any metering system. The SY-3000 meter can be easily upgraded and offers our customers the flexibility to keep pace with their changing metering requirements and business growth.

The meter adopts the latest STS standards for prepayment, with variant to accommodate the CTS configuration used in some countries.

It offers high security features including main and terminal cover removal detection and magnetic field manipulation detection protect the meter and module from fraud or tampering.

SY-3000 provides modular communication platforms, including GSM/GPRS, PLC and Low Power Radio for WAN/LAN communications. Options for HAN communications can be included such as M-Bus or ZigBee. It has also an internal RF transceiver to communicate with the Customer Interface Unit (CIU).



Smart meter for AMI implementation for the next decade of smart grid.

SY-3000 includes all the high functionality: four-quadrant metering; active, reactive, and apparent energy and demand measurements; standard event logs and time-of-use metering; LCD with optional backlight provides a flexible interface to the user for displaying meter data; and non-volatile memory for both billed and non-billed interval data.

SY-3000 offers multiple anti-tampering and advanced security features that ensures revenue protection for our customers. The site diagnostic capability continuously

monitors the service, verifying that all phases are present and that the wiring configuration is correct. Adverse or abnormal conditions, such as phase outages and reverse energy events, are logged.

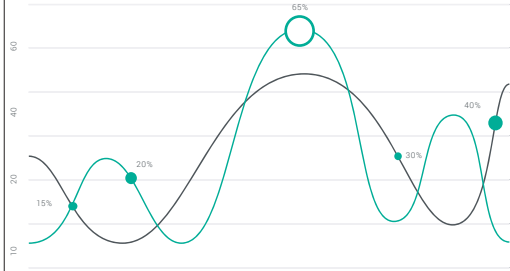
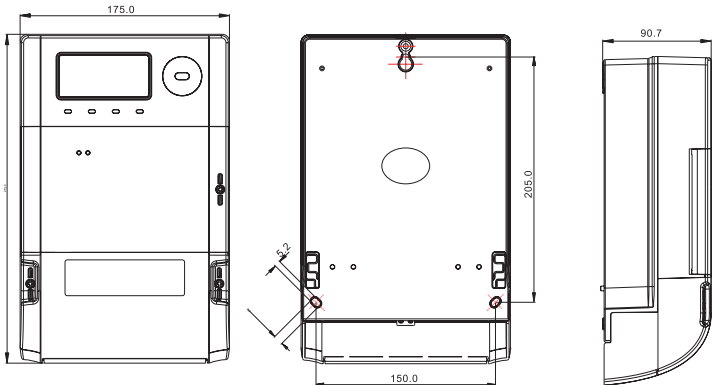
SY-3000 offers high security with various useful security features. The meter stores all registration and configuration data to nonvolatile memory. All data is retained for the life of the meter. The data can be read out by local and remote communication. Recordable security features are provided.

COMMUNICATION ADAPTABILITY

Type of Communication	Type	Modulation	Protocol	Application
Optical	Local	—	IEC 62056-21	Local reading/ writing
RS-485	LAN	—	IEC 62056-21	Parameterization
RF	HAN	SFSK/LoRa	DLMS	Downlink to CIU
wMbus	HAN	—	Proprietary	Water/gas meter
PLC	LAN	SFSK/G3/ Broadband	DLMS	Uplink to DCU
RF	LAN	SFSK/LoRa	DLMS	Uplink to DCU
GSM	WAN	GPRS/3G/4G/ NB-IoT	DLMS	Uplink to HES

Technical Specification

Electrical	Data
Network	3 Phase 4 Wires network
Normanative Standard	IEC 62053-21 IEC 62053-23 IEC 62056-21/46/53/61/62 IEC 62055-31 EN 50470
Accuracy Class	kWh: Class 1.0 Kvarh: Class 1.0
Reference Voltage	3×110-120/190-208V AC , L-N 3×220-240/380-415V AC , L-N
Operating Voltage	70% – 120% Un
Basic Current Ib	5A/10A
Maximum Current Imax	100A
Starting Current Ist	0.4%/0.2% Ib
Reference Frequency	50/60Hz +/- 5%
Power Consumption	Voltage circuit <1W, <2.5VA Current circuit < 0.25VA
Temperature	Operation: -40° to + 55° C Storage: -40° to + 85° C
Local Communication	Optical, RS485
Communication to CIU	G3-PLC
Remote Communication	G3-PLC
Enclosure	IP54 IEC 60529:1989
Tariff Structure	Number
Time-of-Use (TOU) Register	8
Maximum Demand (MD)	4
Switching Times	48
Seasons	4
Change of Season Days	12
Exclusion Days	32
End of Billing Dates	12
Daylight Saving	30



The Stats

PLC Carrier Frequency:
35.9K – 90.6K

RF Frequency:
432MHz – 915MHz

Communication Baud Rate:
2,400 bps – 19,200 bps

Immunity to ESD:
8kV

Immunity to Surge:
8kV

RTC Frequency:
32.768 KHz



Advanced Feature AMI Readiness

SY-3000 is fully ready for any implementation of AMI. With high security features, it delivers unparalleled metering data as scheduled or on-demand. With selectable and configurable ToU and Load Profile, SY-3000 offers the complete set of crucial metering data requires now and future. It is also made ready for Internet of Things as a hub for smart home application. Mbus, wMbus or P1 for HAN application as well as LAN communication.

With our featured Head End System or any standardized DLMS HES, the meter is a future ready and investment return guaranteed for your business for the next decade.

