



Libra3

ANSI Socket Smart Energy Meter

Designed for residential and industrial energy management

Providing flexible solution for your AMI initiatives

Protection degree	IP54
Breaker	Optional
Lifetime	Bi-stable relay 10000 cycles at I_{max} PF=1 and PF=0.5L
Performance	UC3
Maximum switching Voltage	250VAC
Maximum switching current	100/200A for 1Phase and 2Phase. 100A for 3 Phase
Maximum switching power	30kVA
Lifetime	\cong 15 years

■ Main Functionalities

➤ Measurement

- 4 quadrant measurement
- Instantaneous Vrms, Irms, Frequency, Power Factor.
- +Kwh, -Kwh, 4 quadrant Kvarh.
- Support Demand. Demand Source can be programmed.

➤ RTC

- Clock accuracy (daily deviation): $\leq 0.5s/day$
- Temperature compensation
-

➤ Tariff

- Up to 4 Tier, 4 Season, 4 Day-Type
- Up to 104 Tou Schedule Setting
- Up to 5 billing & 4 demand measures per TOU period
- Support DST, Self Read, Demand Reset

➤ Battery backup

- Flexible backup power for RTC, including replaceable
- Battery life 10 year (Typical value).

➤ Load control

- Remote control command support
- Over current/voltage control support
- Power limit support

➤ Firmware upgrading

- The firmware can be upgraded via local interface and WAN interface(OTA).
- Roll-back last version image support

➤ Load profile

- Energy profiles (Typical value : 5min, 16 channels, capacity is 120days)
- 1~60 minutes interval time is programmable.
- Each channels of data source is programmable.
- Output to *.csv format file by software. Easy to make graph.

➤ Power quality monitor

- Under voltage / Over voltage / Over Current
- Voltage imbalance
- Power failure monitor

➤ Event record

- Tamper detect (Meter remove/cover open, current reverse etc.)
- Failure detect (Memory error, relay error, battery low voltage, clock invalid etc.)
- Power quality event (Under voltage / Over voltage / Over current/ Voltage imbalance, Power failure, etc.)
- Security event (Parameters change, clock adjust, etc.)

➤ Relay Control

- Disconnect or reconnect control by remote system or local optical

➤ WAN Communication

- Plug and play module to support kinds of communication technology
- RPMA/2G/3G/4G/PLC/RF
- Protocol: ANSIC12.18/ANSIC12.19/Modbus-RTU

➤ **Optical port**

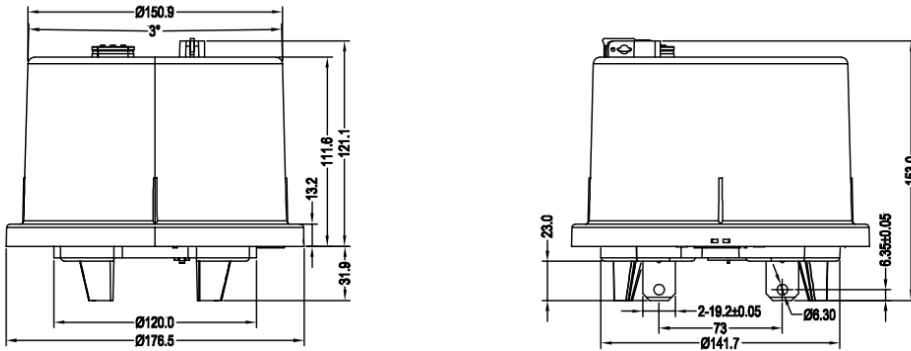
- Comply with ANSIC12.18 standard
- Protocol: ANSIC12.18

- HLS support authentication and encryption for local and remote communication (with ANSIC12.22 module in side)

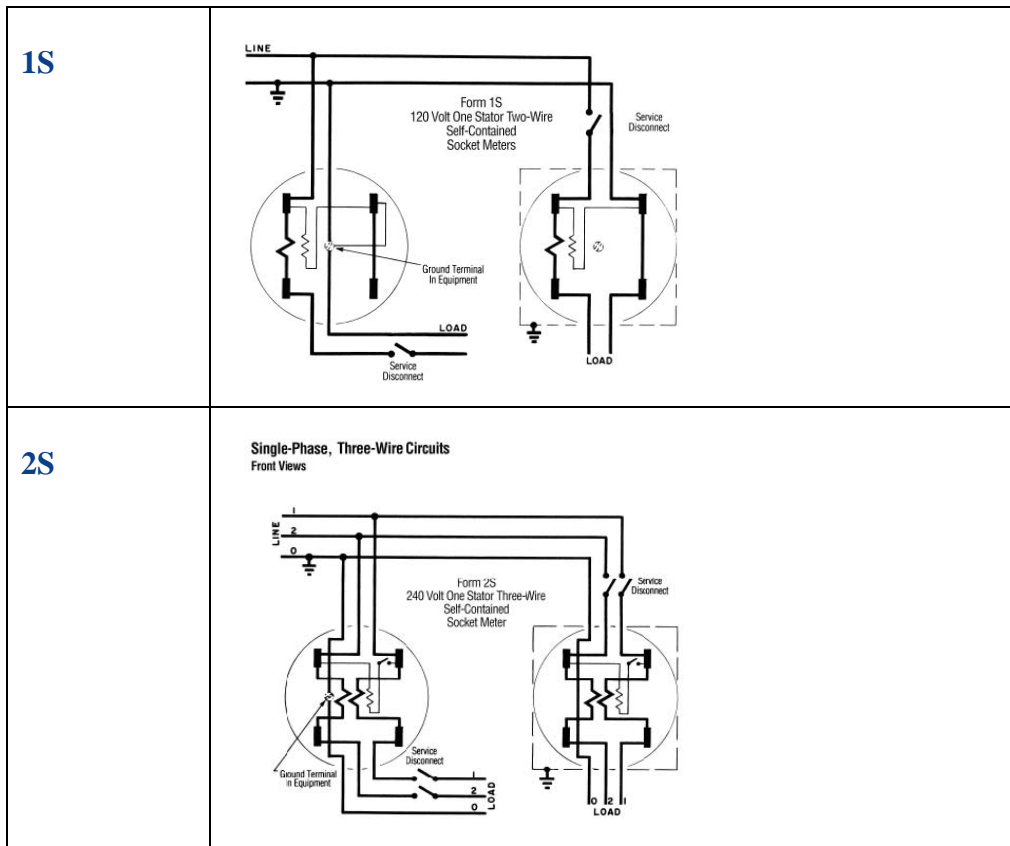
➤ **Security (LLS or HLS)**

- LLS support 3 level passwords for local and remote communication

Meter Installation Dimensions

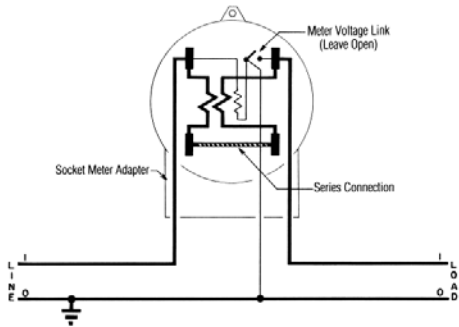


Meter Wiring



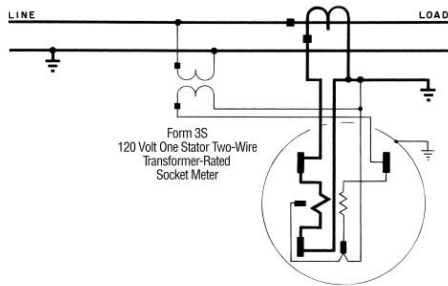
2S

Form 2S
240 Volt One Stator Three-Wire
Self-Contained Socket Meter
Connected to Single-Phase Two-Wire 120 Volt Service
Using an "A" Base Socket Meter Adapter



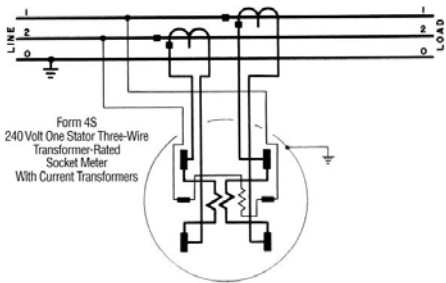
3S

Single-Phase, Two-Wire Circuits
Front Views

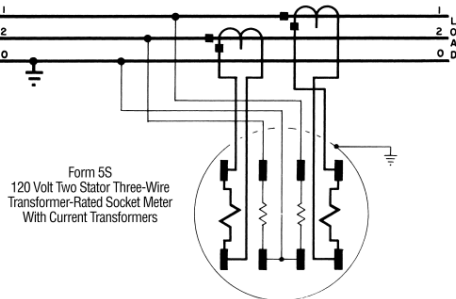


4S

Single-Phase, Three-Wire Circuits
Front Views

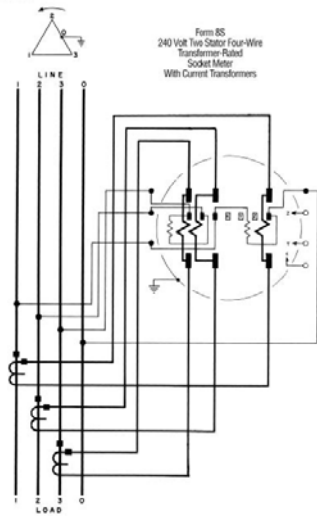


5S



8S

Three-Phase, Four-Wire Delta Circuits
Front View



9S

Three-Phase, Four-Wire Wye Circuits
Front View

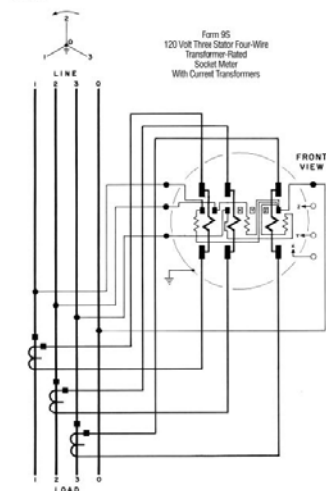
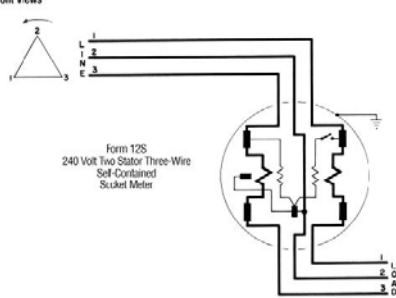


Figure 13-46. Current Transformers.

12S

Three-Phase, Three-Wire Circuits
Front Views



<p>12S</p>	<p>Three-Wire Network Circuit Front Views</p> <p>120 Volt One Stator Three-Wire Self-Contained Network Socket Meter</p> <p>Note: Phase sequence must be correct. Right meter circuit must lead left meter circuit.</p>
<p>15S</p>	<p>Three-Phase, Four-Wire Delta Circuits Front Views</p> <p>Form 15S 240 Volt Two Stator Four-Wire Self-Contained Socket Meter</p>
<p>16S</p>	<p>Form 16S 120 Volt Three Stator Four-Wire Self-Contained Socket Meter</p>

➤ Certificates

