WASION

Libra3

ANSI Socket Smart Energy Meter

Designed for residential and industrial energy management

Providing flexible solution for your AMI initiatives

Description	Value
Voltage	
Reference voltage	120, 240V, 120/277V, 120-480V
operating voltage range	80%-120%Un
Current	
Basic current	2.5A / 15A/30A
Maximum current	20A / 100A / 200A
Starting current	0.01A/0.05A/0.1A According to ANSIC12.20
Accuracy	CA0.2, CA0.5
Frequency	
Rated frequency (fn)	50Hz or 60Hz
Frequency range	$\pm$2%
Pulse constant	
Temperature	
Normal Operation range	-25℃ to +55℃
Limit operation range	-40℃ to +70℃
Limit range for storage and transport	-40℃ to +85℃
Humidity	Up to 95% non-condensing
Power Consumption	
Power consumption in voltage circuit	≤5 W According to ANSIC12.20
Power consumption in current circuit	≤20 VA According to ANSIC12.20
Insulation Strength	
AC voltage test	4kV
Surge Withstand	6kV
Protection class	UL50-TYPE3
Electromagnetic Compatibility	
Electrostatic discharges	Contact 8kV, air 15kV
Fast transient burst	4kV
150KHZ Surge(ANSI/IEEE C62.41)	6 kV
Immunity to electromagnetic RF fields	10V/m at reference current, 30V/m without current

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	$\geqq$ 15 years

■ Main Functionalities

➢ Measurement

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

➢ RTC

- Clock accuracy (daily deviation): ≤ 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 playmodule to support kinds of communication technology
- RPMA/2G/3G/4G/PLC/RF
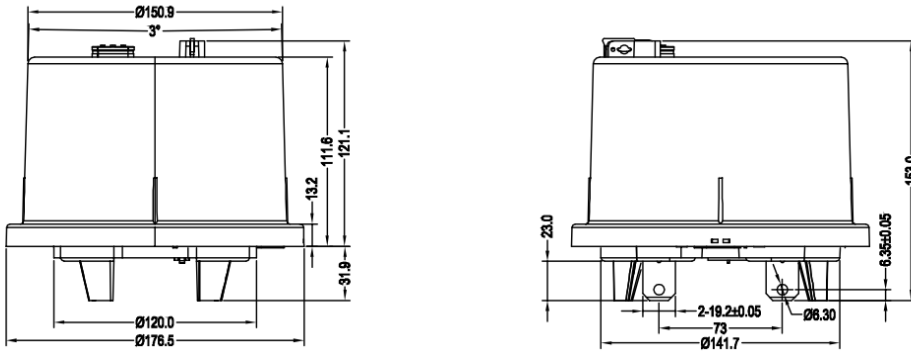- Protocol: ANSIC12.18/ANSIC12.19/Modbus-RTU

Optical port

- Comply with ANSIC12.18 standard

- Protocol: ANSIC12.18

Security(LLS or HLS)

- LLS support 3 level passwords for local and remote communication

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

➤ Meter Installation Dimensions
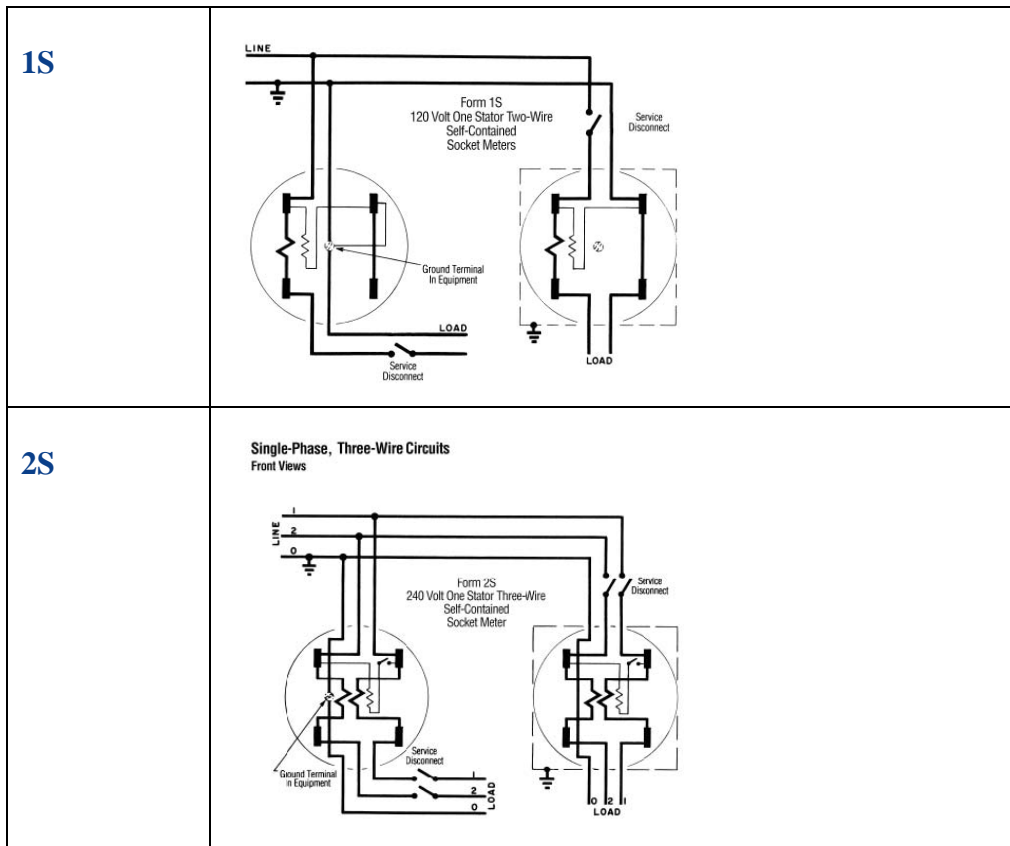

➤ Meter Wiring

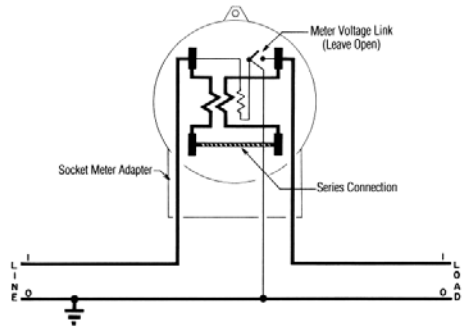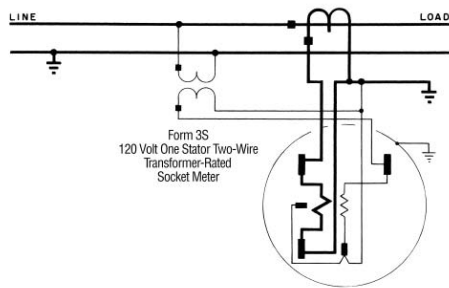|	
1S	
2S	

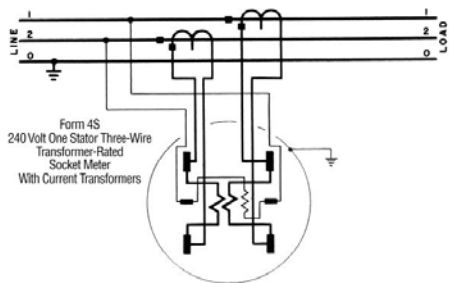| 2S	Form 2S 240 Volt One Stator Three-Wire Self-Contained Socket Meter Connected to Single-Phase Two-Wire 120 Volt Service Using an "A" Base Socket Meter Adapter Meter Voltage Link (Leave Open) Socket Meter Adapter — Series Connection LINE — LOAD
3S	**Single-Phase, Two-Wire Circuits** Front Views LINE — LOAD Form 3S 120 Volt One Stator Two-Wire Transformer-Rated Socket Meter
4S	**Single-Phase, Three-Wire Circuits** Front Views LINE — LOAD Form 4S 240 Volt One Stator Three-Wire Transformer-Rated Socket Meter With Current Transformers
5S	LINE — LOAD Form 5S 120 Volt Two Stator Three-Wire Transformer-Rated Socket Meter With Current Transformers
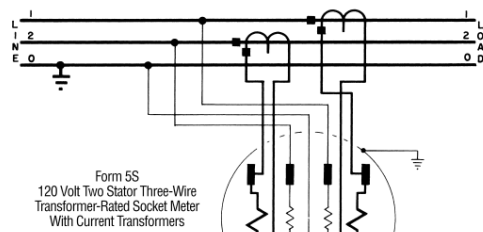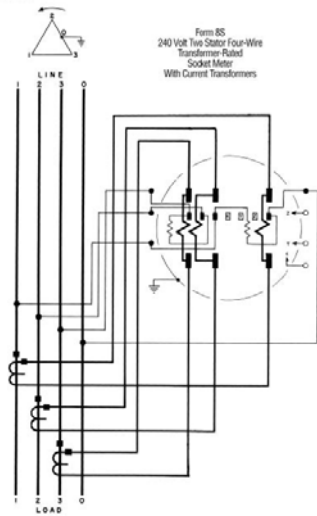
8S	Three-Phase, Four-Wire Delta Circuits Front Views Form 8S 240 Volt Two Stator Four-Wire Transformer-Rated Socket Meter With Current Transformers
9S	Three-Phase, Four-Wire Wye Circuits Front View Form 9S 120 Volt Three Stator Four-Wire Transformer-Rated Socket Meter With Current Transformers FRONT VIEW Figure 12-48. Current Transformers.
12S	Three-Phase, Three-Wire Circuits Front Views Form 12S 240 Volt Two Stator Three-Wire Self-Contained Socket Meter
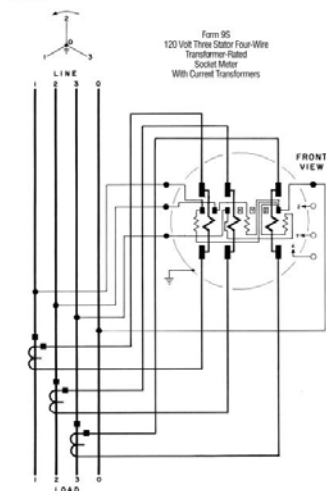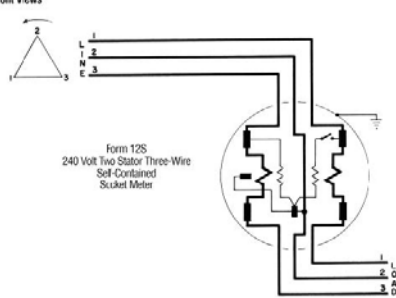
12S	**Three-Wire Network Circuit** Front Views 120 Volt One Stator Three-Wire Self-Contained Network Socket Meter *Note:* Phase sequence must be correct. Right meter circuit must lead left meter circuit.
15S	**Three-Phase, Four-Wire Delta Circuits** Front Views Form 15S 240 Volt Two Stator Four-Wire Self-Contained Socket Meter
16S	Form 16S 120 Volt Three Stator Four-Wire Self-Contained Socket Meter

➢ **Certificates**

MET CERTIFIED

ENL REN ENERGI
INNOVACIÓN EN TECNOLOGÍA

A+M
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