



Libra1C

Single Phase ANSI Meter

Designed for residential and industrial energy management



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Description	Value
Voltage	
Reference voltage	120V/240V
operating voltage range	80% ~ 120%Un
Current	
Basic current	15A/30A
Maximum current	100A/200A
Starting current	50mA for Class 100, 100mA for Class 200
Accuracy	
	0.5
Frequency	
Rated frequency(fn)	50Hz/60Hz
Frequency range	±5%
Pulse constant	
	Default: Kh=1
Temperature	
Normal Operation range	-25°C to +55°C
Limit operation range	-40°C to +70°C
Limit range for storage and transport	-40°C to +85°C
Humidity	
	≤95% non-condensing
Power Consumption	
Power consumption in voltage circuit (active)	≤2 W
Power consumption in voltage circuit (apparent)	≤10 VA
Power consumption in current circuit	≤1VA
Insulation Strength	
AC voltage test	4kV
Surge Withstand	6kV
Protection class	Class II
Electromagnetic Compatibility	
Electrostatic discharges	Contact 8kV, air 15kV
Fast transient burst	4kV
Immunity to Impulse voltage	8kV
Immunity to electromagnetic RF fields	10V/m at reference current, 30V/m without current
Protection degree	
	IP54
Clock accuracy	≤ 0,5 s/day
Lifetime	
	≥ 10 years

■ Main Functionalities

➤ Measurement energy

- Import/export active energy, reactive energy
- Q1,Q2,Q3,Q4 for reactive energy is optional

➤ Measured Instantaneous Value

- Voltage, current, active/reactive power and power factor

➤ Billing

- Billing data output as standard tables in ANSI C12.19. Including Total and Tier register, Including energy and demand register.

➤ Event

- Up to 300 items logs, Meter supports Event Log function, such as Power Down, Power Up, Time Changed(old time), Time Changed(new time), Event log cleared, Demand Reset Occurred, etc.

➤ Display

- Display of Energy configurable to 4, 5 or 6 digits
- Energy and instantaneous power are displayed on LCD
- Three display modes:
 - Normal, display energy and instantaneous power
 - Test, display data for testing the meter
 - Alternate, display all measurement items

➤ Firmware upgrading

- The firmware can be upgraded.

➤ Detection and Alarm

- Current Circuit Inversion, Under voltage/Over voltage, etc.

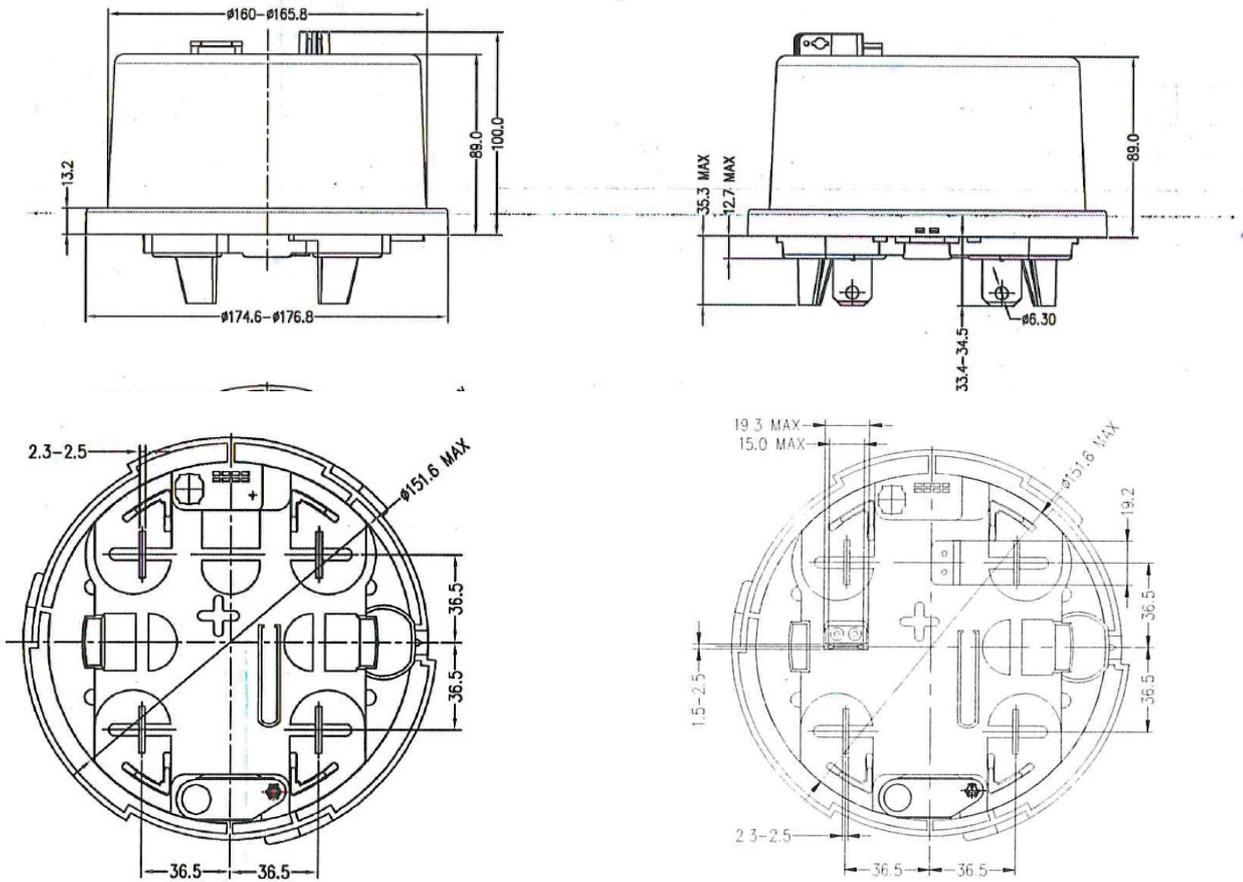
➤ Relay Control(Optional)

- Under voltage / Over voltage or over power limit disconnect and reconnect
- Disconnect by tamper detection
- Disconnect or reconnect control by system

➤ Communication

- ANSI type 2 optical port, ANSI C12.18 protocol
- Remote communication, Modbus protocol based on RS485

➤ Meter Installation Dimensions



➤ Meter Wiring

Form	Volts/Services	SC/TR	Class	TA	CA	Kh
1S	120V, 2-wire, 1 element	SC	100	15	0.5	1.0
2S	240V, 3-wire, 1.5 element	SC	200	30	0.5	1.0
12S	120V, 3-wire, 2 element	SC	200	30	0.5	1.0

