

# Liberty 170

## Single-phase pre-payment electricity meter



Pay as you go  
(PAYG)



Intuitive



Revenue  
protection

Liberty 170 is a single-phase pre-payment electricity meter that provides information on account balance and consumption patterns, together with alerts and notifications that help consumers save energy and budget effectively. Consumers can easily interact with the meter via a user-friendly mobile app. The Liberty system provides peace of mind to utilities by ensuring completeness of revenue through operational efficiency. It is simple to manage, and enables the utility to provide hassle-free consumer services.

The vending system is intuitive, with flexible architecture, to provide integration options with POS terminals, utility web portals, e-wallets / kiosks and through mobile app. The highly secure and robust implementation is designed in accordance with the international ISO 27001 standard.



### Application

- Domestic metering
- Temporary connection metering
- Commercial establishment
- Government establishments
- Sub-metering

### Benefits

- Effective energy budgeting through monetary consumption displays
- Hassle-free electricity purchase options and transfer to meter
- No need for separate in-home display unit (IHD)
- Easy meter recharging through mobile app
- Upfront revenue collection and revenue assurance for utility
- Improves billing and collection efficiency
- Break to open meter enclosure to avoid tampering
- Extensive revenue protection features for detection and analysis of tamper attempts
- Long-range meter (5-60 A, 10-100 A) for all domestic and commercial application

### Features

- Meter with disconnection switch in Phase and Neutral (mechanically ganged)
- Enables data collection over BLE
- Encrypted data using AES128 security
- Authenticated billing code (ABC) with time-stamp
- Easy token transfer over Bluetooth
- Intuitive, user-friendly eight-digit display
- Display in absence of mains supply
- Emergency credit facility to help consumers manage their account
- Quality-of-supply information - voltage monitoring and Customer Average Interruption Duration Index (CAIDI)
- Capacitive, phone-style touchpad with multiple parameter navigation
- Ease of disconnection / settlement mechanism
- Fixed and variable 'Friendly Credit' days for no disconnection
- Time-of-use (ToU) tariff support for customisable seasons and days



## Technical specifications

### Electrical

Connection type	Direct connected
Wiring configuration	1-phase 2-wire
Voltage reference	240 / 230 V (L-N), -40% to +30%
Current range	5-60 A, 10-100 A
Accuracy	Class 1.0
Frequency	50 Hz $\pm$ 5%, 60 Hz $\pm$ 5%

### Compliance

Standards	IS 13779, IS 15884, IS 15959 and IEC 62055-31
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### Mechanical

Dimensions (W x H x D)	150 mm x 196 mm x 66 mm [with extended terminal cover] + tolerance
Weight	0.95 kg
Enclosure	Engineering plastic
Sealing provision	Sealed for life, additional sealing provision at meter cover and terminal cover

### Environmental

Ingress protection	IP 54
Temperature	-10 °C to +60 °C (operating) -25 °C to +70 °C (storage)
Humidity	95%, non-condensing

### Features

Tariff	Up to 8 rates (slab or time-of-use)
Maximum demand register	Active and apparent energy
Load survey	240 parameter days with 30-minute integration period
Energy supported	7 energy parameters (factory configurable)
Histories	12 historical sets of values
Reading data	Details of all the energy charges for all 12 histories

### Communications

Optical port for local communications
BLE for remote access

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