

i-Credit 511

a part of Liberty Online



Remote disconnect



Supports multi-operator SIMs



Modular communication



Power outage notification

single phase smart meter with cellular communications

The i-Credit 511 is a single phase two element smart meter to facilitate independent recording of multiple loads resulting in greater tariff flexibility. The modular design accommodates the latest cellular communication technologies and paves the way for reliable data transfer making it the ideal solution for AMI applications.

The meter supports remote firmware upgrade, allowing metering and communications features and functionality to be updated in the field. This enhances flexibility, and makes the investment future-proof. The i-Credit 511 smart meter forms part of the Secure's Liberty Online smart metering solution. Refer Liberty Online brochure for system details.



Applications

- Domestic and small commercial premises
- Two element with load control and ripple control receiver
- Advanced metering infrastructure (AMI)
- Suitable for co-generation metering applications

Benefits

- Better information on usage to manage energy consumption
- Improve billing cycle and accuracy through remote reading
- Facilitates supply connection/disconnection remotely
- Power outage management – quick response time
- Remote re-configurations
- Reduced cost of ownership
- Removes cost of manual read
- Designed to serve long life in field
- Remote firmware upgrade

Key features

- Meets the minimum services specification as per Australian National Electricity Rules (NER).
- Multi operator (roaming) SIM support – ensures maximum network coverage
- Peak and off-peak tariff management
- Remote de-energisation and energisation
- Alerts to identify potential anomalies
- Ripple control receiver (RCR)
- Quality of supply (QoS) monitoring
- Modular communication

Options and accessories

- Auxiliary load control
- External antenna
- Support of home area network (HAN)
- ZigBee® compliant in-home display



Technical specifications

Electrical

Connection type	1-phase 2-wires, active-neutral, direct connected
Measuring elements	2 elements
Rated voltage	230V, -20% to +15%
Maximum voltage	460V (L-N) continuous
Impulse withstand	12 kV, 9 J, as per NMI M6
Current range	10-100A
Frequency	50 Hz ±5%
Accuracy class	Class 1.0 (active energy), class 2.0 (reactive energy)
Metrology lamp	Two metrological LEDs for active and reactive energy

Compliance

Standards	NMI M6-1, AS 62052.11, AS 62053.21, AS 62053.23, AS 62052.21, AS 62054.11 Exceeds minimum services specification as per the National Electricity Amendment (expanding competition in metering and related services. Rule 2015 No. 12)
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Data storage capacity

Energy/demand load profile	395 days (per channel) at 30-minute interval (configurable), up to 12 channels
Quality of supply (QoS) parameters	90 days (per parameter) at 30-minute interval (configurable), up to 8 parameters, including average voltage, current, phase angle, temperature

Switches/outputs

Mains supply contactor	100A
Auxiliary load control	31.5A

Mechanical

Dimension W x H x D	145 mm x 230 mm x 112 mm
Enclosure material	Flame retardant poly-carbonate
Weight	1.6 kg (approx.)
Sealing provisions	Terminal cover, meter main cover, communications module
Display	8-character alphanumeric LCD with backlight and icons for status

Environmental

Ingress protection	IP 53
Insulation class	Protective class II
Temperature	Operating: -10 °C to +60 °C Storage: -25 °C to +70 °C
Humidity	95%, non-condensing

Time clock

RTC type	Crystal or mains-synchronised
Power source	Mains supply
Backup source	Lithium battery, 15-year life
Compliance	AS 62054.21

Measurement

Energy types	Active, reactive
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Communication

Local	ANSI optical port
Remote	3G/4G WAN, build option for ZigBee® HAN Hot-swappable field interchangeable module, sealable separately
Security	AES128 encryption, security of metering data , secure remote reads , cover open detection
Outage notification	Reserve power supply