

i-Credit 510

Single-phase smart meter - open protocol



Remote
disconnect



Modular
communication



Power outage
notification

Modular 2-way communication with optional load control

The i-Credit 510 single phase meter provides communications flexibility using a modular design and DLMS/COSEM to readily accommodate the latest communication technologies. The communication module can be factory installed or field installed/replaceable. This allows for greater flexibility by utilising best of breed technologies and future proofing your investment.

i-Credit 510 paves the way for easy and convenient data transfer from the meter to the utility's back office and is the perfect solution for AMI applications. Provision for a range of communication technologies including Mesh Radio, 3G/4G devices, among others, ensures the i-Credit 510 will meet your current and future needs.

Application

- Domestic single phase metering
- Small commercial premises
- AMI (Advanced Metering Infrastructure) and AMI ready
- Suitable for co-generation metering applications

Benefits

- Modular communication for easy integration with AMI system
- Front mounted communications module for easy access
- Better information on usage to manage energy consumption
- Multiple configurations: up to 16 pre-loaded in the meter and executed in the field (variant specific) - ease of inventory management
- Ripple Control Receiver (twin element only) - better demand management (build options)

Options and Accessories

- Integrated mains supply contactor
- Auxiliary load control terminals - various
- Customer supply monitoring
- Various terminal cover sizes
- Build option for single or twin element
- Twin element with load control and multi-protocol ripple receiver
- Communication devices: factory fitted (3G/4G/RF Mesh) or without (AMI Ready)
- Mounting: Australian legacy fixing footprints or BS fixing footprints
- ZigBee compliant in-home display
- Optical communications probe

Software:

- M-Cubed 100 software suite - meter reading and configuration tool



Feature

- Four quadrant metering with import/export registration
- Remote and local de-energisation and energisation
- Support for AMI features: TOU based switching, boost, supply capacity control (variant specific)
- Remote firmware upgrades
- Large capacity power supply to support high communications demands
- Modular communications front belly design with support for a range of communication devices
- Enhanced load profile capability with primary load profile for energy data and secondary load profile for supply quality
- Logging and remote notification (alarm) of events
- Quality of Supply (QoS) monitoring
- Provision for tamper detection

Standards/Regulatory:

- DLMS/COSEM - Open protocol compliant
- Meets the minimum services specifications (Australian National Electricity Rules)



Technical specifications

Electrical

Connection type	1 Phase, 2 wires, active-neutral, direct connected
Measuring elements	1 or 2 elements
Rated voltage	230 V AC, -20% to +15%
Maximum voltage	300 V (L-N) continuous
Impulse withstand	10 kV, 0.5Joule (as per IEC) 12 kV, 9Joule (as per NMI M6)
Current range	10 A Ib, 100 A I _{max}
Accuracy	Class 1.0 (active energy), class 2.0 (reactive energy)
Metrology lamp	Two metrological LEDs for active and reactive energy (configurable pulse rate)

Compliance

Standards*	AS 62052.11, AS 62052.21, AS 62053.21, AS 62053.23, NMI M6-1 IEC 62052.11, IEC 62052.21, IEC 62053.21, IEC 62053.23, IEC62056 series (DLMS/COSEM) Exceeds minimum services specification, as per the Australian National Electricity Amendment (expanding competition in metering and related services)
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Mechanical

Dimensions (W x H x D)	145mm x 190mm x 112mm (standard terminal block cover) 145mm x 230mm x 112mm (extended terminal block cover)
Enclosure	Fire-retardant polycarbonate
Sealing	Terminal cover, meter main cover, config button, communication module
Weight	1.4 to 1.6 kg (approx) depending on variant
Display	7-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	Up to 95%, non condensing

Data storage capacity

Energy/demand load profile	1680 days (single channel) @ 30 minute interval (configurable interval)
Quality of Supply (QoS) parameters (variant specific)	minimum 3000 days (single parameter) @ 30 minute interval (configurable interval)

Switches/outputs

Mains supply contactor	100 A (build option)
Auxiliary load control	31.5 A, 2 A (build options)

Measurement

Energy types	Active, reactive
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Communication

Local	ANSI or IEC optical port
Remote	LAN, HAN, WAN. Support for most communication topologies Hot swappable interchangeable modules sealable separately
Security	AES128 encryption, cover open detection

Outage notification

Reserve power supply (build option)

Time clock

RTC type	Crystal or mains-synchronised
Power source	Mains supply
Backup source	Lithium battery, 15years life
Compliance	AS 62054.21, IEC/BS EN 62054.21

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