

Liberty 101

Single-phase single element SMETS2 electricity meter



Installation efficiency



Remote firmware upgrade



Pay as you go (PAYG)

Liberty 101 is a single-phase single element SMETS2 compliant electricity meter. Its event reading capabilities like power outage and other abnormalities and temper detection design provides data for revenue protection.

It also supports firmware upgrade, allowing communication features and functionality to be updated in the field. This enhances flexibility and makes the investment future-proof.



Application

- Smart SMETS2-compliant electricity meter for use in Credit and PAYG modes
- Import and export metering for local generation
- Metering for domestic and small commercial premises

Benefits

- Fail-safe installation and commissioning process – reduced site opex and time
- 15+ years of asset life- low cost of ownership
- Remotely switchable between credit and PAYG modes
- Facilitates supply connection/disconnection remotely

Features

- SMETS2 version 3.1, GBCS version 2.1, RED, MID Class B complaint
- ICHIS complaint meter
- Supports Time of use / complex tariffs and maximum demand
- Logging of multi parameter load survey, billing data, events (including power outage and abnormalities)
- COG LCD, simple yet comprehensive parameter list: Rich consumer experience
- Credit and PAYG modes maintain accounting (account and tariffs).
- Keypad to enable local entry of PAYG UTRN token if WAN is not available
- Remote firmware upgrade
- Integrated contactors
- Terminal, module and meter cover open detection as well as Magnet detection.



Technical specifications

Electrical

Connection type	Direct connected
Wiring configuration	Single-phase, single-element, two-wire
Voltage and current range	Voltage 230 V AC (nom), current range 0.5-10(100) A
Accuracy	Active Energy MID Class B, Reactive Energy Class 2.0
Mains frequency	50 Hz ± 5%
Burden	Compliant with EN 50470-1,3
Contactors	100A UC3

Compliance

Standards	MID Class B, EN 50470-1&3, BS7856, IEC62052-31, RED DLMS, ZSEP 1.4,CPA,
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Mechanical

Modular design	ICHIS-compliant interface to DCC communications modules
Dimensions (W x H x D)	130 x 118 x 67 mm (without communications module)
Terminals	Tunnel type, with 2 screws
Weight	0.70 kg (approx.)
Enclosure	Flame-retardant polycarbonate

Environmental

Ingress protection	IP 54
Insulation class	Protective class II
Temperature	-25 °C to +55 °C (operating), -25 °C to +70 °C (storage)
Humidity	95% RH non-condensing

Features

Firmware	Remote firmware upgrade
Tariff	Slab, Time of Use (TOU) and Complex (Slab within TOU) supported Pending tariff structures supported
Load Survey	13 months for active import, 3 months active export 3 months reactive import and export
Display	Large dot matrix COG (128*64 pixel) backlit display
Keypad	12 key 0-9, A, B for local entry of PAYG code and access to displays
PAYG functionality	Credit and PAYG modes (meter maintains account and tariffs) Display of current and historical consumption with cost of consumption data Emergency Credit with optional load limiting Friendly Credit (no disconnection during unsocial hours, weekends or special days)
Tamper	Debt recovery Security seal on body Terminal, module and meter cover open detection Magnet detection

Communications

Local diagnostic port	Optical port for refurbishment purposes (Disabled in field scenario)
HAN	ZigBee® HAN(SEP1.4)

Specifications are subject to change without prior notice. (Iss 1 10-18)



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