

Liberty 116

Single-phase, multi-element, multi-switch SMETS2 smart electricity meter



Installation efficiency



Remote firmware upgrade



Pay-as-you-go and accounting mode

Liberty 116 is a SMETS2-compliant smart electricity meter available in single and dual element and multiple switch variants. It is explicitly designed to serve the UK government's mandated smart metering rollout programme.

It is suitable for a variety of heating loads and EV charging applications. The auxiliary switches provide more advanced power scheduling compared to Economy 7/10 meters.

Application

- Aux-1 and Aux-3 (both 100A) are suitable for use with installations that have switched heating appliances, such as storage heaters, underfloor heating, heat pumps and electric radiators
- Aux-2 (31.5A) can be used for hot water or EV charging applications.
- SMETS2-compliant electricity meter for use in credit and pay-as-you-go (PAYG) mode

Benefits

- 10+ years product life
- Quick installation along with auto-join feature
- Supports mains and auxiliary switch remote connection / disconnection
- Maintains user privacy by allowing only authorised access to meter data
- Single meter caters to various types of heating loads and separate measuring elements



Features

- SMETS2 version 5.2, GBCS version 4.2, RED, MID Class B compliant
- ICHIS-compliant meter
- Supports comprehensive tariff: Time of use (TOU), Block and Hybrid
- 12-keys keypad allows quick access to the necessary information on the display and manual entry of UTRNs if required, in the absence of PPMID and / or WAN
- Clear instructive display screens
- COG LCD with multi-line display for a rich consumer experience
- Tamper detection for the terminals, meter cover, hub removal and presence of a magnet
- Approved triage mechanism
- Remote firmware upgrade facility

Details of variants as per switch current ratings (E-Element, S-Switch)

Switch Variants	Single element	Dual / Twin element		
	Single element, two switch (1E2S)	Dual element, two switch (2E2S)	Dual element, three switch (2E3S)	Dual element, four switch (2E4S)
Mains switch	100A	100A	100A	100A
Auxiliary 1 (Terminal no 7)	100A	100A	100A	100A
Auxiliary 2 (Terminal no 6)			31.5A	31.5A
Auxiliary 3 (Terminal no 5)				100A





Technical specifications

Electrical

Connection type	Direct connection
Wiring configuration	Single-phase, single / dual-element, two-wire
Voltage and current range	Voltage 230 V AC (nom), current range 0.5-10 (100) A
Accuracy	Active energy class 1.0, Reactive energy class 2.0
Mains frequency	50 Hz ± 5%
Burden	Compliant with EN 50470-1, 3

Compliance

Standards	MID Class B, BS7856, IEC62052-31, RED, DLMS, ZSEP 1.4, CPA
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Mechanical

Modular design	ICHIS-compliant interface to DCC communication modules
Dimensions	140(L) x 130(W) x 77(H) (without communication module)
Terminals	Brass material, tunnel type with minimum internal bore diameter of 9.5 mm Aux 2 - terminal no 6, internal bore diameter of 6.5 mm
Weight	0.9-1.15 Kg approx. as per switch variant
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	Up to 95% non-condensing

Features

Firmware	Remote firmware upgrade
Primary element tariff	Supports 48 x standard time of use (TOU) registers, 4 x 8 Block registers and Hybrid (combination of TOU and Block) tariff
Secondary element tariff	48 x standard time of use (TOU)
Load survey	13 months for active import, three months active export, three months reactive import and export
Display	Large dot matrix COG (128*64 pixel) backlit display
Keypad	12 keys 0-9, A, B for local entry of PAYG code and access to displays
PAYG functionality	Can be switched to credit or prepayment mode as per remote configuration, Supports time based and payment-based debt Supports emergency credit, friendly credit calendar, current and historical consumption and cost of consumption, Display of tariff and cumulative consumption register
Tamper	Terminal, module and meter cover open detection, magnet detection Security seal for terminal and meter cover

Communication unit/module

Local diagnostic port	IEC 1107 Optical port for refurbishment purpose (disabled in the field)
HAN	ZigBee® 2.4 GHz and supports SEP 1.4

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