

Liberty 116

Single-phase 5 Terminal SMETS2 smart electricity meter



Installation efficiency



Remote firmware upgrade



Pay as you go (PAYG)

Liberty 116 is a single-phase, single-element SMETS2-compliant electricity meter that is specifically designed to serve the UK government's mandated smart meter rollout programme.

The five-terminal Liberty 116 smart electricity meter is suitable for use with installations that have switched heating appliances, such as storage heaters, underfloor heating and heat pumps, etc. The 5th terminal enables more advanced power scheduling compared to Economy 7/10 meters.



Application

- Separate 100A auxiliary switch for controlling heat pump, domestic hot water and heating loads
- Small-scale commercial and domestic metering
- SMETS2 compliant electricity meter for use in credit and pay-as-you-go (PAYG) mode

Benefits

- 15+ 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

Features

- SMETS2 version 4.2, GBCS version 3.2, RED, MID Class B compliant
- ICHIS-compliant meter
- Supports comprehensive tariff: Time of use (TOU), Block and Hybrid
- Keypad with 12 keys allows quick access to the necessary information on the display and local entry of UTRNs, if required, in the absence of PPMID and / or WAN.
- Clear instructive display screens
- COG LCD with multi-line display
- Tamper detection for terminal, meter cover, hub removal and presence of magnet
- Remote firmware upgrade facility



Technical specifications

Electrical

| | |
|---------------------------|--|
| Connection type | Direct connection |
| 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 | 2 x 100A UC3 |

Compliance

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

Mechanical

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|----------------|---|
| 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 |
| Weight | 0.9 kg (+/- 0.05) approximately |
| 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

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|--------------------|---|
| Firmware | Remote firmware upgrade |
| Tariff | 48 x standard time of use (TOU) registers 4 x 8 Block registers Supports Hybrid (combination of TOU and Block) tariff |
| 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, support time based and payment-based debt Support 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 |

Communications

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

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