

Secure Liberty 100 Electricity

Part Code	Name
SE100EL	Liberty 100 Electricity with Pipet
SY910CO	Liberty 100 Commissioning
SY911CO	Liberty 100 Installation
SE100CH	Secure Liberty Pipet Charger
SE100AN	Wall Mounted Antenna - 2G/3G/4G
SE300PP	Secure Pipet In Home Display Unit
SE200EL	Sycous Liberty 100 Unit NO Pipet



The Secure Liberty 100 Electricity meter is a utility-grade PAYG solution, offering functionality for dual fuel (electricity + gas) and single fuel (electricity) domestic customers. This device operates in either a PAYG or credit mode and can be remotely switched between the two.

Application	Features	Benefits
Smart electricity meter with communication hub for dual fuel (electricity + gas) and single fuel (electricity) domestic customers in both credit and PAYG modes	Meets requirements of SMETS1 and SSWG	Multiple WAN communication options - GPRS, long range radio
Metering for small commercial premises including credit and PAYG modes	Four-quadrant measurement with import/export registration	Modular communication module allows multiple WAN and HAN options for different communication providers
Import and export metering for local generation	Time of use/complex tariffs and maximum demand	Liberty 100 communication hub acts as a coordinator for Zigbee HAN and mirror for gas meter data
	Logging of multi parameter load survey, billing data, events including power outage and abnormalities	Credit and PAYG modes (meter maintains account and tariffs)
	Integrated contactor	Keypad to enable local entry of Pay as You Go token if WAN not available
		Remote firmware upgrade (not metrology)

Technical Specifications

Electrical

Connection type	Direct connected
Wiring configuration	Single phase, two wire
Voltage range	230 Vac (nom)
Current range	0.5-20 (100) A
Accuracy	Active energy MID class B, reactive energy class 2.0
Mains frequency	50 Hz \pm 5%
Burden	Compliant with relevant standard

Compliance

Standards	MID class B En 50470-1,3; IEC62053-23
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Mechanical

Modular design	Field replaceable communication module
Dimensions (W x H x D)	140 x 175 x 60 mm
Terminals	Tunnel type with 2 screws compliant to Bs7856
Weight	1 kg (approx.)
Enclosures	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% non-condensing

Features

Firmware	Remote firmware upgrade with rollback
Tariff	Time of use (TOU) and complex (slab with TOU) supported Pending tariff structures supported
Load survey	13 months, 4 channels
Display	Backlit 10-character alphanumeric starburst display with icons for status
Keypad	12 way - 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 (avoids disconnection during unsocial hours or weekends) Debt recovery
Security	AES128 encryption
Tamper detection	Removal of terminal cover, main meter cover, communications hub Excessive magnetic field

Communication

Local diagnostic port	Optical 1107 hardware-compatible port
Communication module options	GPRS WAN + ZigBee HAN (SEP 1.x) Multi operator (roaming) SIMs supported



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