www.edmi-meters.com

⚡ **ELECTRICITY**

ES-30C

Class 1 and Class 2

Three Phase SMETS2 Electricity Smart Meter

Designed for the smart meter rollout in Great Britain, this polyphase electricity meter is the second generation within our range of SMETS2 compliant solution.

ES-30C is a refined SMETS2 compliant direct current three phase electricity meter with a 100A disconnect relay and two 2A auxiliary load control switches, dedicated secure microcontroller and with multiple interfaces including Zigbee and DLMS.

I Key Features

MULTIPLE COMMS OPTIONS	ZIGBEE ALLIANCE	ANTI TAMPER	HIGH ACCURACY	PREPAYMENT	DLMS READY	DISCONNECT RELAY	ALCS

ES-30C

Class 1 and Class 2

Three Phase SMETS2 Electricity Smart Meter

174mm (W)

196.5mm (H)

86mm (D)

Weight: 1.6kg
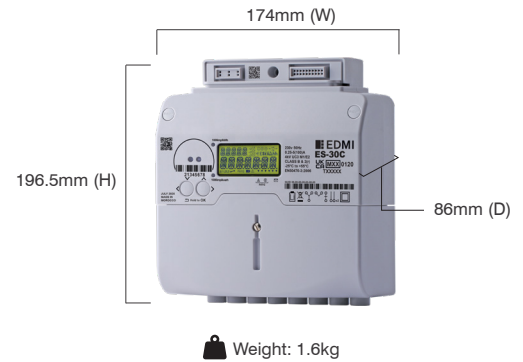
Standards and Compliance

- MIR Class B
- GBCS v3.2, SMETS2 v4.2, CPA v1.2, DLMS CTT 3.0
- Zigbee 1.4, ICHIS v2.3
- RoHS 2012, WEEE 2013
- BS EN 50470-1, 50470-3, 62052-11, 62055-31:2005-UC3
- IEC 62053-21, 62053-23, CLC/TR 50579
- ETSI EN 301 489-1, EN 301 489-17 V3.1.1
- EN 300328, 301489
- SMDA compliant

Voltage

- Nominal voltage: 230V, 50Hz, 5(100) Class 1/(MIR Class B)
- Operating range: 176V – 276V
- Minimum Current: 0.25A
- Reference Current: 5A
- Maximum Current: 100A
- Withstand: 460V
- Meter Constant [imp/kWh]: 1000

Current

- WC Range: 0.25/100A, 5/100A
- WC Limit: 3000A for 0.5 cycle
- Disconnect Relay: 100A
- Disconnect Rating: IEC 62052-31 UC3 @ Imax, 240 VAC

Frequency

- 47Hz - 52Hz

Inputs/Outputs Configuration

- 1000 imp/kWh pulsing LED Indicator
- 1000 imp/kvarh pulsing LED Indicator
- 2 x Relay auxiliary load control switches (ALCS) (240V, 2A)

Battery

- Clock Battery for minimum 5 years unpowered backup

Real-time Clock

- Accuracy (internal) within 10 seconds per month

Data Memory

- Up to 8 megabytes of Non-Volatile Memory

Display

- Backlit starburst liquid crystal display

Measured Values

- Active energy import (Wh)
- Reactive energy import (varh)
- Active energy export (Wh)
- Reactive energy export (varh)
- Voltage RMS (V)
- Maximum Demand Active Power Import and Export (W)

Power Quality Indication

- Sag/Swell
  - Records power events on configurable thresholds
  - RMS Voltage (over, under, swell, sag)
  - Supply Outage
  - Supply Interruption
  - Alerts

Calendar

- Supports Daylight Saving time as per GBCS

Tamper Detection and Alarms

- Tamper detection for terminal cover and Communication Hub removal
- Tamper evident seals
- Wire seals for terminal cover and Communication Hub

Billing Data Log

- GBCS Compliant
  - Tariff TOU Register Matrix
    Up to forty 48 plus unified rate
  - Tariff Block Count Matrix
    4 x 8 matrix for storing block counters and pricing
- Active Import Registers
- Prepayment
  - Prepayment Credits
  - Payment-based debt payments
  - Meter Balance
  - Emergency Credit Balance
  - Accumulated Debt Registers
  - Payment Debt Registers
  - Time Debt Registers

Security

- WOLF-SSL Cryptographic Library
  - GBCS security approaches, ECDH, SHA-256, AES-128 GCM
- Dedicated A7001 secure microcontroller
- 9 Trust Anchor Cells (TACs)
- Secure unlock mechanism for triage
- Commercial Product Assurance (CPA)
  - Secure provisioning process through EDMI supply chain

Communications

- Local optical port
- DLMS COSEM
- Zigbee Smart Energy Profile 1.4
- GBCS object support

Environmental

- Operating range: -25˚C to +55˚C
- Storage range limit: -40˚C to +70˚C
- Relative operating humidity: Up to 75%
- Storage humidity: 30% to 95%, non-condensing for 30 days
- Ingress protection: IP53 (without suction)

Visit our website at www.edmi-meters.com to find our other locations.