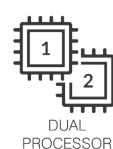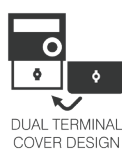**ELECTRICITY**

EN12B

NEOS – Class 1 and Class 2

Single Phase Smart Meter with Two-Element Feature

Built on the advanced NEOS metering platform, the EN12B is a single phase smart meter with integrated 100A and 63A UC3 compliant relays allowing remote disconnection and reconnection of electrical services. Flexible communication and I/O options are possible with the modular POD design.
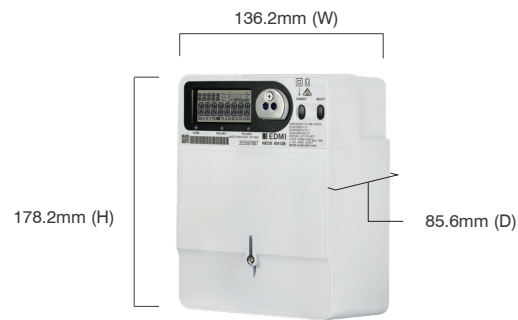
I Key Features

| EXPANDABLE FUNCTIONALITY | BLUETOOTH AND NFC | LCS/SCS RELAY | INTEGRATED MODEM | DUAL TERMINAL COVER DESIGN | FCAS HARDWARE READY | DUAL PROCESSOR |

EN12B

NEOS - Class 1 and Class 2

Single Phase Smart Meter with

Two-Element Feature

136.2mm (W)

178.2mm (H)

85.6mm (D)

Weight: 1.15 kg

Standards and Compliance

- Class 1 Wh and Class 2 varh
- IEC 62052-11, 62052-21, 62052-31, 62053-21, 62053-24, 62054-21, 62059-32
- AS 62052.11, 62052.21, 62052.31, 62053.21, 62053.24, 62054.21
- EIPC 2010 Part 10 Schedule 10.8 (Data storage clauses)
- NMI M13-1 2022

Measurement

- 1 phase 2 wire, 2 element

Voltage

- Nominal voltage: 220V to 240V
- Operating range: 176V to 276V

Current

- WC range: 5/100A, 10/100A
- Max voltage: 456V

Safety

- Temperature monitoring
- Overvoltage category III (up to 3500m)
- Overvoltage category IV (up to 2000m)
- Insulation protective class II
- Surge voltage 6 kV
- Impulse voltage 12 kV (as per SPM161B)
- Overload current 128A (as per IEC 62052-31)
- Two terminal covers segregating mains terminals and SELV circuits
- Disconnect relay - failure detection

Terminal

- Terminal hole diameter: 9.5mm
- Maximum 35mm^2 cable

Power Consumption

- Voltage circuit:
  - Maximum consumption with full POD load: less than 12W or 20 VA | maximum consumption without accessories: less than 2W or 10VA
- Current circuit (Burden): <0.5VA/phase

Frequency

- 50Hz/60Hz +/- 6% variation from fn for accuracy

Inputs/Outputs Configuration

- Up to 3 x LED indicators
- Expandable I/O with PODs

Relay

- 100A SCS, 63A LCS

Battery

- Replaceable lithium battery (550 mAh, 3.0V)
- Internal super capacitor*
- Backup time: 10 years without power (lithium battery)

Real-time Clock

- Clock accuracy: 15 seconds per month at 23˚C
- High accuracy clock*
- Supports Daylight Saving Time

Data Memory

- 8MB of non-volatile memory
- EEPROM*

Display

- Starburst-segment alphanumeric display
- Display available without main power
- White LED backlight

Measured Values

- 2 element 4 quadrants
- Import / Export
- Wh, varh and VAh
- Fundamental / Total power
- Vrms, Irms, Phase Angle, Frequency

Load Survey/Profile

- Up to 64 channels and 4 independent surveys
- Intervals programmable from 1 to 60 minutes
- Energy, instantaneous readings, pulsing inputs, temperature as channel sources
- Ability to store average/minimum/maximum/boundary values for interval duration

Time of Use

- Up to 8 rates plus unified rate
- Up to 32 separate import and export registers
- Daily, weekly, monthly, yearly and special days
- Up to 200 programmable special days
- Up to 61 previous periods plus period totals
- Block or rolling maximum demand
- Time of maximum demand
- Energy, Pulsing Inputs

Tamper Detection and Alarms

- Terminal sealing with conventional wire or plastic seals
- Reverse current detection
- Cover removal
- Magnetic field detection

Security

- Multi-level security (username and password including encrypted log-in)
- Up to 7 independent security levels
- Up to 6 individual users

Communications

- Optical port: FLAG / ANSI (IEC 62056-21)
- Multiple communication options available

Protocol

- EDMI command line

Environmental

- Specified operating range:
  -25˚C to +60˚C
- Operating range limit:
  -40˚C to +70˚C
- Storage range limit:
  -40˚C to +80˚C
- Relative humidity:
  Up to 75% mean, 95%, non-condensing for 30 days
- Ingress protection: IP54
- Solar Radiation IEC 62052-11 / 60068-2-5

* Optional

www.edmi-meters.com

EDMI

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