



Australian Government
Department of Industry,
Science and Resources

**National
Measurement
Institute**

36 Bradfield Road, West Lindfield NSW 2070

**Certificate of Approval
NMI 14/2/125**

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that an approval for use for trade has been granted in respect of the instruments herein described.

EDMI Pty Ltd model NEOS EN12B Class 1 Electricity Meter

submitted by EDM I Pty Ltd
Level 7, 51 Alfred Street
FORTITUDE VALLEY QLD 4006

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

This approval has been granted with reference to document NMI M 13-1 *Active-Energy Electricity Meters. Part 1: Metrological and Technical Requirements*, June 2022.

This approval is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern approved – certificate issued	20/02/26

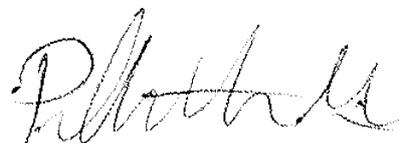
CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 14/2/125' and only by persons authorised by the submitter.

It is the submitter's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with document NMI P 106.

Signed by a person authorised by the Chief Metrologist
to exercise their powers under Regulation 60 of the
National Measurement Regulations 1999.



Phillip Mitchell
A/g Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No 14/2/125

1. Description of Pattern

approved on 20/02/26

An EDM I Pty Ltd model NEOS EN12B single phase class 1 direct connected static watt hour meter (Figure 1) used to measure electrical energy.

1.1 Field of Operation

The field of operation of the measuring system is determined by the following characteristics:

- Number of phases 1
- Number of wires 2
- Reference frequency 50 Hz
- Reference ambient temperature ranges:
 - specified range of operation -25 to 60 °C
 - limit range of operation -40 to 70 °C
- Rated voltage 220 / 230 / 240 V AC
- Rated currents:
 - Basic current, I_b 5 A or 10 A
 - Maximum current, I_{max} 100 A
- Meter constant 1000 imp/kWh
- Accuracy class 1

1.2 Features/Functions

- Liquid crystal digital indicators having a maximum display of 9 999 999.9 with any of the following units of measurement Wh, kWh, MWh or GWh.
- Internal crystal and synchronous clock
- Measurement in both positive and negative directions (export and import).

1.3 Verification Provision

Provision is made for the application of a verification mark.

1.4 Sealing Provision

Provision is made for the sealing devices and parameters that have a metrologically significant effect and that determine the measurement result by the application of mechanical seals (Figure 1) and solid state sealing.

1.5 Descriptive Markings

Instruments are clearly and permanently marked with the following data, in the vicinity of the indicating device, in the form shown right:

Manufacturer's mark, or name written in full
Model designation
Serial number
Pattern approval mark	NMI 14/2/125
Number of phases
Number or wires
Reference frequency Hz

Temperature limits to °C
Meter constant ⁽¹⁾
Rated voltage AC
Rated currents:	I _b A
	I _{max} A
Accuracy class	...
Year of manufacture	...
Environment ⁽²⁾	AOM

Note (1): The meter constant is not marked on the meter, but is accessible on the meter display. See clause 1.6.

Note (2): The pattern is an Australian Outdoor Meter (AOM).

1.6 Meter constant

The meter constant for active energy is accessible on the meter display. To access the meter constant, repeatedly press the 'select' button on the meter until the display shows "PUL 1" (see Figure 2).

The meter constant is fixed to the value of 1000 imp/kWh.

1.7 Power consumption

The pattern complies with the power consumption limits given in the table below, where the plug on devices are accessories (e.g. communication modules).

Meter configuration	Voltage circuit	Current circuit
Meter without plug on devices	2 W	4 VA
Meter with plug on devices	12 W	20 VA

The power consumption limits without plug on devices are the limits specified in AS 62053.21:2018.

1.8 Harmonics

Instruments purporting to comply with this approval are suitable for use where the harmonics do not exceed those specified in AS 62053.21:2018.

TEST PROCEDURE No 14/2/125

Instruments tested for verification shall comply with the certificate of approval and technical schedule, and the maximum permissible errors for verifications at the operating conditions in effect at the time of verification.

The maximum permissible errors are specified in the *National Trade Measurement Regulations 2009* (Cth).

Electricity meters shall be verified in accordance with the following National Instrument Test Procedures:

- NITP 14.0 – Utility Meters – general requirements
- NITP 14.2 – Utility Meters – electricity meters

NOTE: NMI reserves the right to vary this procedure. Any such variation shall be notified in writing by NMI.

FIGURE 14/2/125 – 1



EDMI Pty Ltd model NEOS EN12B Class 1 Electricity Meter (the pattern, including typical mechanical sealing)

FIGURE 14/2/125 – 2



The meter constant for active energy accessible on the meter display.

~ End of Document ~