

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

General Certificate of Approval NMI 14/4/0

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:

Electric vehicle supply equipment.

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 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	DD/MM/YY

CONDITIONS OF APPROVAL

General

This approval is initially published to support the implementation of a metrological control framework for electric vehicle supply equipment used to measure active electrical energy.

All electric vehicle supply equipment used to measure active electrical energy shall operate within the base maximum permissible errors specified under Accuracy and in Table 1.

Electric vehicle supply equipment manufactured on or after 1 April 2026 and used to measure active electrical energy must comply with this approval in all respects.

Instruments purporting to comply with this Certificate of Approval shall be marked NMI 14/4/0 in addition to other required markings (see clause 1.2 – Markings). It is the manufacturer's responsibility to ensure that all instruments purporting to comply with this approval are constructed as described in this Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the *National Measurement Act 1960*.

The National Measurement Institute reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

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

Darryl HinesManager
Policy and Regulatory Services

TECHNICAL SCHEDULE No 14/4/0

1. Description of Pattern

Electric vehicle supply equipment (EVSE), AC or DC, used to measure active electrical energy (kWh) supplied to or from an electric vehicle.

1.1 Construction

1.1.1 Design

The EVSE shall be designed in accordance with *OIML G 22:2022 - Electric Vehicle Supply Equipment*.

1.1.2 Verification Provision

Provision shall be made for the application of a verification mark.

1.1.3 Sealing

The EVSE shall be sealed appropriately to prevent any unauthorised access to components which may affect the metrological performance.

1.2 Markings

EVSE shall be marked with the following data:

Manufacturer's name or mark

Manufacturer's model

Year of manufacture

Serial number

Voltage range (minimum and maximum output voltage)

Current range (starting current, minimum current, transitional current and maximum current)

Frequency

Temperature range

Minimum measured quantity (MMQ)

Accuracy class

Certificate of Approval No. 'NMI 14/4/0'

TEST PROCEDURES No 14/4/0

Verification

Verification shall be carried out individually as described in OIML G 22 clause 9 and the accuracy requirements detailed below.

Accuracy

The EVSE shall operate accurately within the base maximum permissible errors stated in Table 1 for the specified current ranges under typical environmental conditions.

Accuracy shall be determined at the connection point to the vehicle.

EVSE not marked with an accuracy class shall be treated as class A.

Table 1: Base maximum permissible errors

Quantity		Base maximum permissible errors (%) for class		
Current, I	Power factor	A (2%)	B (1%)	C (0.5%)
$I_{\text{st}} \leq I < I_{\text{min}}$	> 0.9	±25	±15	±10
$I_{\min} \leq I < I_{\text{tr}}$	> 0.9	±2.5	±1.5	±1.0
$I_{\rm tr} \leq I \leq I_{\rm max}$	> 0.9	±2.0	±1.0	±0.5