



Australian Government
Department of Industry,
Science and Resources

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval NMI 14/2/89

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.

Schneider Electric Model iEM3350 Class 1 Electricity Meter

submitted by Schneider Electric (Australia) Pty Ltd
78 Waterloo Road
Macquarie Park NSW 2113

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 6-1 *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 & variant 1 approved – interim certificate issued	19/08/15
1	Pattern & variant 1 approved – certificate issued	21/01/16
2	Variant 2 approved – interim certificate issued	5/07/16
3	Variant 2 approved – certificate issued	8/02/17
4	Pattern amended, variant 3 approved – certificate issued	28/07/20
5	Variants 4 & 5 approved, certificate updated – certificate issued	12/02/26

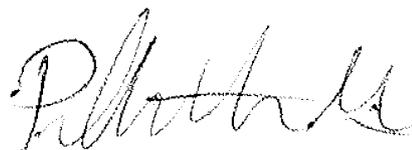
CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 14/2/89' 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
Acting Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No 14/2/89

1. Description of Pattern **approved on 19/08/15**
amended on 28/07/20

A Schneider Electric model iEM3350 class 1 direct connect 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 3
- Number of wires 4
- Reference frequency 50 Hz
- Reference ambient temperature ranges:
 - specified range of operation -25 to 60 °C
 - limit range of operation -25 to 70 °C
- Reference voltage 3×100/173 to 277/480 V AC
- Reference currents:
 - Basic current, I_b 20 A
 - Maximum current, I_{max} 125 A
- Meter constant 200 imp/kWh
- Accuracy class 1

1.2 Features/Functions

- Electronic (LCD) digital indicator
- Internal crystal clock
- One (1) × three-phase or three (3) × single phase configuration
- Measurement in positive and negative direction

1.3 Descriptive Markings

Instruments are marked with the following data, together in one location, in the form shown at right:

Manufacturer's name or mark	...
Model designation	...
Serial number	...
Pattern approval mark	NMI 14/2/89
Number of phases	...
Number or wires	...
Reference frequency	... Hz
Meter constant	...
Rated voltage	... AC
Basic current, I_b	... A
Maximum current, I_{max}	... A
Accuracy class	Class 1

1.4 Verification Provision

Provision is made for the application of a verification mark.

1.5 Sealing Provision

Provision is made for the instrument to be sealed by the application of one or more destructible adhesive labels (Figure 2).

1.6 Harmonics

Instruments purporting to comply with this approval are suitable for use where the harmonics do not exceed those specified in NMI M 6-1:2022.

2. Description of Variant 1 approved on 19/08/15

Certain other models of the iEM3300 series as listed below:

- iEM3300 basic energy meter
- iEM3310 energy meter with pulse output
- iEM3350 (the pattern) energy meter & electrical parameter plus RS485 comm port
- iEM3355 advanced multi-tariff energy meter & electrical parameter plus RS485 comm port.
- iEM3365 advanced multi-tariff energy meter & electrical parameter plus BACnet MS/TP comm port
- iEM3375 advanced multi-tariff energy meter & electrical parameter plus LON TP/FT-10 comm port

All of the models have the same field of operation. The differences relate to features and functions.

3. Description of Variant 2 approved on 5/07/16

Certain other models of the iEM3100 series having the same Field of Operation as the pattern, except as listed below:

- Reference currents:

Basic current, I_b	10 A
Maximum current, I_{max}	63 A

The approved models of the iEM3100 series are listed below:

- iEM3100 basic energy meter
- iEM3110 energy meter with pulse output
- iEM3115 multi-tariff energy meter
- iEM3150 energy meter & electrical parameter plus RS485 comm port
- iEM3155 advanced multi-tariff energy meter & electrical parameter plus RS485 comm port.
- iEM3165 advanced multi-tariff energy meter & electrical parameter plus BACnet MS/TP comm port
- iEM3175 advanced multi-tariff energy meter & electrical parameter plus LON TP/FT-10 comm port

4. Description of Variant 3 approved on 28/07/20

The pattern, or any of the models listed under variant 1 and variant 2, configured for use as three single-phase meters.

5. Description of Variant 4 **approved on 12/02/26**

A Schneider Electric model EM3424 direct connect static watt hour meter (Figure 4) used to measure electrical energy. This variant has the same field of operation as the pattern and model iEM3355 as described in Variant 1 with revised communication functionality and associated firmware.

6. Description of Variant 5 **approved on 12/02/26**

A Schneider Electric model EM3224 direct connect static watt hour meter (Figure 5) used to measure electrical energy. This variant has the same field of operation as model iEM3150 or model iEM3155 as described in Variant 2 with revised communication functionality and associated firmware.

TEST PROCEDURE

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 14/2/89 – 1



Schneider Electric Model iEM3350 Electricity Meter

FIGURE 14/2/89 – 2



Showing Typical Mechanical Sealing

FIGURE 14/2/89 – 3



Typical Schneider Electric iEM3150 Series Electricity Meter

FIGURE 14/2/89 – 4



Schneider Electric model EM3424 Electricity Meter (Variant 4)

