Australian Government
Department of Industry, Innovation and Science

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

# Certificate of Approval

# NMI 14/2/108

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.

K-Mac Powerheads Pty Ltd model KMP3-100 Class 1 Electricity Meter

submitted by K-Mac Powerheads Pty Ltd.
3/10 Crown Street
GEELONG VIC 3220

**NOTE:** This Certificate relates to the suitability of the pattern of the instrument for use as a legal measuring instrument 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 *Electricity Meters. Part 1: Metrological and Technical Requirements*, July 2012.

This approval becomes subject to review on 01/07/2025, and then every 5 years thereafter.

DOCUMENT HISTORY

| Rev | Reason/Details | Date |
|---|---|---|
| 0 | Pattern approved – Certificate issued | 15/06/20 |
| | | |

CONDITIONS OF APPROVAL

## General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 14/2/108' and only by persons authorised by the submittor.

It is the submittor'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.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate No S1/0B.

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

**Darryl Hines**
Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No 14/2/108

## 1. Description of Pattern approved on 15/06/20

A K-Mac Powerheads Pty Ltd model KMP3-100 polyphase 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 3
- Number of wires 4
- Reference frequency 50 Hz
- Reference ambient temperature ranges:
  - specified range of operation -20 to 65˚C
  - limit range of operation -20 to 70˚C
- Rated voltage 3x240/415 V AC
- Rated currents: Basic current, $I_b$ 5 A
  Maximum current, $I_{max}$ 100 A
- Meter constant 100 imp/kWh
- Accuracy class 1

### 1.2 Features/Functions

- Digital indicators having a maximum display of 999999.9 kWh.
- DIN-rail mounting.
- Indoor meter.
- No internal clock.

Note: Meter is not approved for use for tariff calculation, load control or any billing based on time of use.

- Measurement in positive and negative direction.

### 1.3 Verification Provision

Provision is made for the application of a verification mark.

### 1.4 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 14/2/108 |
| Number of phases | ... |
| Number of wires | ... |

| | |
|---|---|
| Reference frequency | ... Hz |
| Temperature limits (if other than -10 to 60 °C) | .... to …. °C |
| Meter constant | ... |
| Rated voltage | ... AC |
| Rated currents: | $I_b$ ... A |
| | $I_{max}$ ... A |
| Accuracy index | Class … |
| Use | For indoor use only |

### 1.5 Sealing Provision

Provision is made for the calibration adjustments to be sealed by the application of a mechanical seal (Figure 2).

TEST PROCEDURE No 14/2/108

Instruments tested for initial 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.

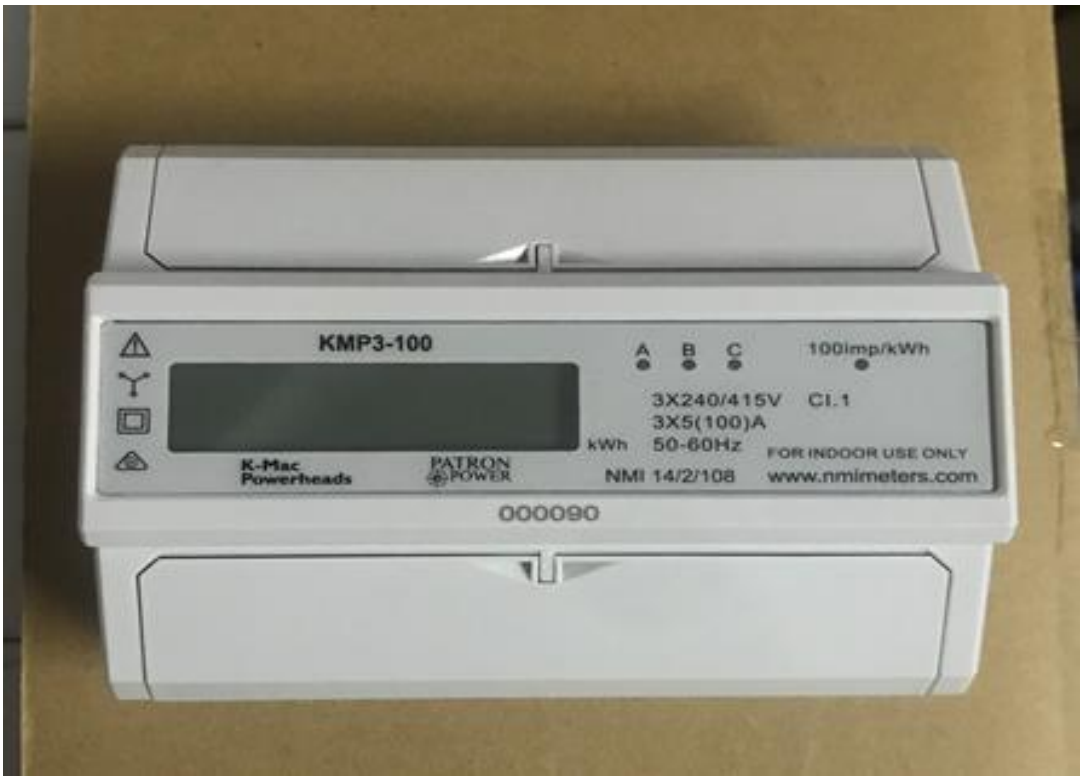
The maximum permissible errors are specified in the *National Trade Measurement Regulations 2009* (Cth).

Meters shall be verified in accordance with NITP 14 *National Instrument Test Procedures for Utility Meters*.

Evidence of verification shall be confirmed via the meter serial number and certificate of verification issued by a utility meter verifier in accordance with NITP 14.

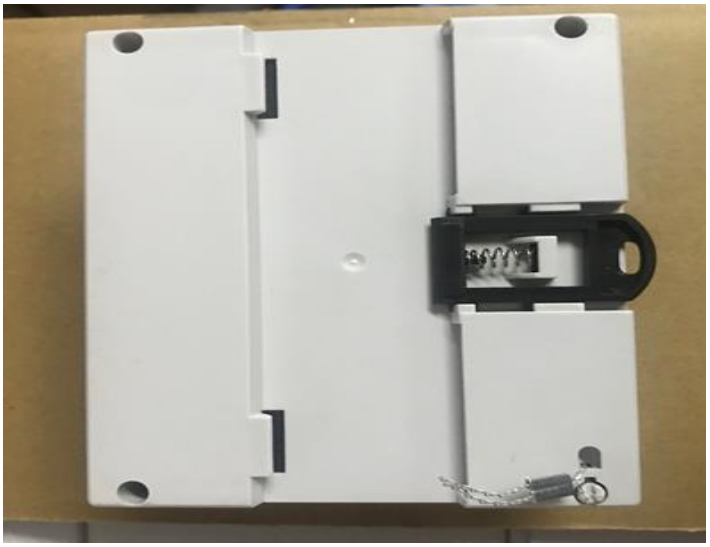
NOTE: NMI reserves the right to vary this procedure. Any such variation shall be notified in writing by NMI.

FIGURE 14/2/108 – 1




K-Mac Powerheads Pty Ltd model KMP3-100 Electricity Meter
(The Pattern)

FIGURE 14/2/108 – 2



K-Mac Powerheads Pty Ltd model KMP3-100 Electricity Meter with mechanical seal

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