14/2/27
8 March 2012

Australian Government
National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

Cancellation

Certificate of Approval

No 14/2/27

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

This is to certify that the approval for use for trade granted in respect of the

Atlas Measurement Model GEMINI MDC A Electricity Meter

submitted by Atlas Measurement (Electricity)
7 Fowler Road
DANDENONG VIC 3175

has been cancelled in respect of new instruments as from 1 May 2012.

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

Australian Government

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Certificate of Approval

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Atlas Measurement Model GEMINI MDC A Electricity Meter

submitted by Atlas Measurement (Electricity)
7 Fowler Road
DANDENONG VIC 3175.

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, *Pattern Approval and Initial Verification of Electricity Meter and Associated Transformers: Definitions, Metrological and Technical Requirements*, July 2004.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 March 2012, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 14/2/27' and only by persons authorised by the submittor.

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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.

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

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

DESCRIPTIVE ADVICE

Pattern: approved 23 February 2007

- An Atlas Measurement model GEMINI MDC A poly phase Class 1 direct connected static watt hour meter used to measure electrical energy.

Technical Schedule No 14/2/27 describes the pattern.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 14/2/27 dated 2 March 2007
Technical Schedule No 14/2/27 dated 2 March 2007 (incl. Test Procedure)
Figures 1 and 2 dated 2 March 2007

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

TECHNICAL SCHEDULE No 14/2/27

Pattern: Atlas Measurement Model GEMINI MDC A Electricity Meter

Submittor: Atlas Measurement (Electricity)
7 Fowler Road
DANDENONG VIC 3175

1. Description of Pattern

An Atlas Measurement model GEMINI MDC A electronic poly phase Class 1 direct connected static watt hour meter (Figure 1) used to measure electrical energy.

1.1 Field of Operation

• Number of phases		3
• Number of wires		4
• Reference frequency		50 Hz
• Reference ambient temperature ranges:		
specified range of operation		-10 to 60°C
limit range of operation		-20 to 70°C
• Rated voltage		230/400 V AC
• Rated currents:	Basic current, I_b	10 A
	Maximum current, I_{max}	100 A
• Accuracy index		1

1.2 Features/Functions

- 3 elements.
- AS 1284.10.2 optical interface (IEC 61107 communications protocol).
- Liquid crystal digital indicator having a maximum display of 99999999.9 kW h.
- Import and export active energy measurement (Class 1.0).
- 4 time-of-use registers.
- Load profiling memory (log intervals of 5, 10, 15, 30, 45 or 60 minutes).
- Internal, replaceable batteries.
- 2 input pulse counters with load profile (e.g. for water and gas meter pulses).
- RS 232 or RS 485 communications.
- Bottom connect rectangular base.

1.3 Verification/Certification

Provision is made for the application of a verification/certification mark.

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1.4 Sealing Provision

Provision is made for the calibration adjustments to be sealed by the application of mechanical seals and one or more destructible adhesive labels (Figure 2).

1.5 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 14/2/27
Number of phases	...
Number or wires	...
Reference frequency	... Hz
Temperature limits (if other than -10 to 45^{o}C)	... to ...^{o}C
Meter constant	...
Rated voltage	... AC
Rated currents:	I_b ... A
	I_{max} ... A
Accuracy index	Class 1

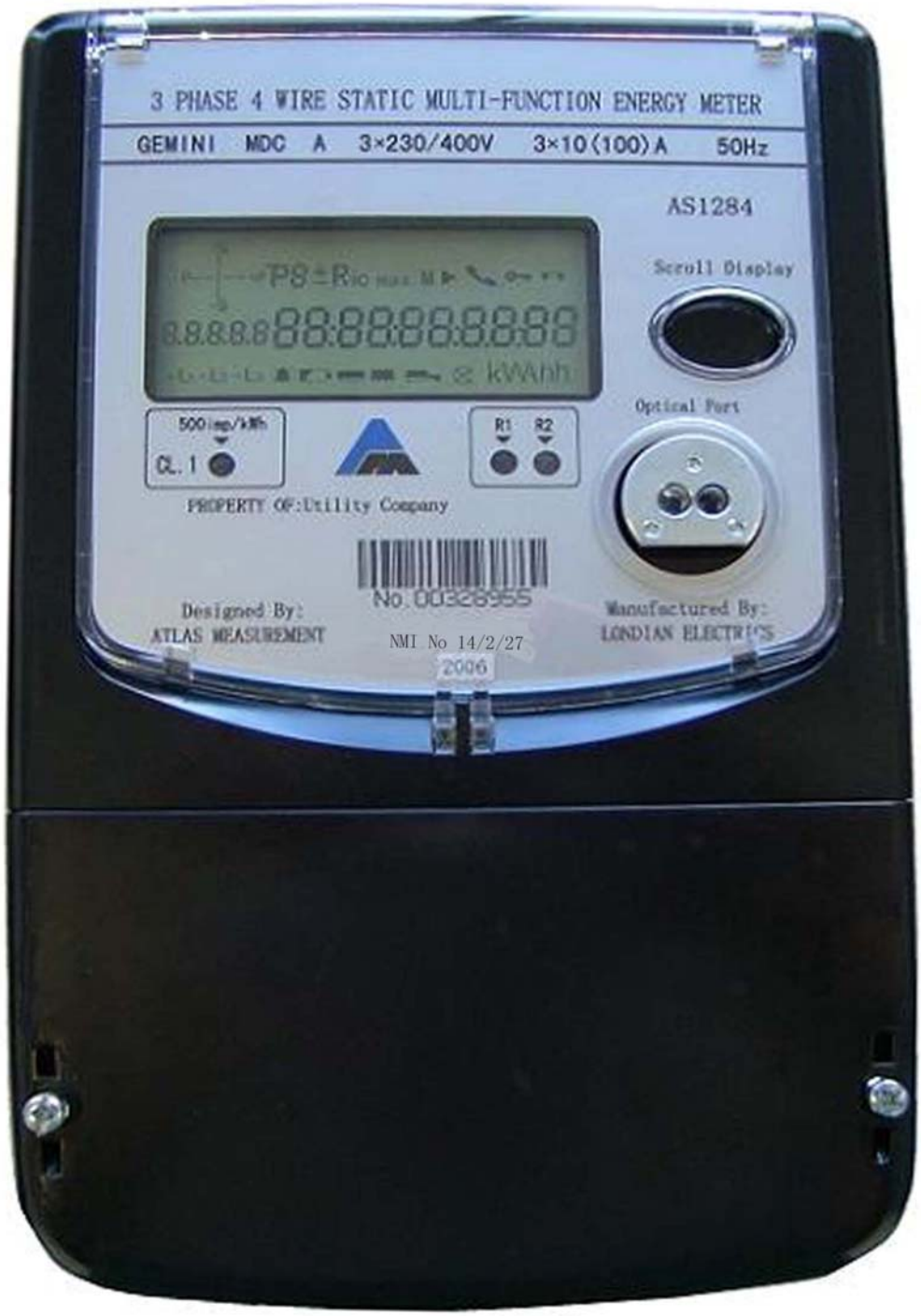
TEST PROCEDURE

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

TESTS

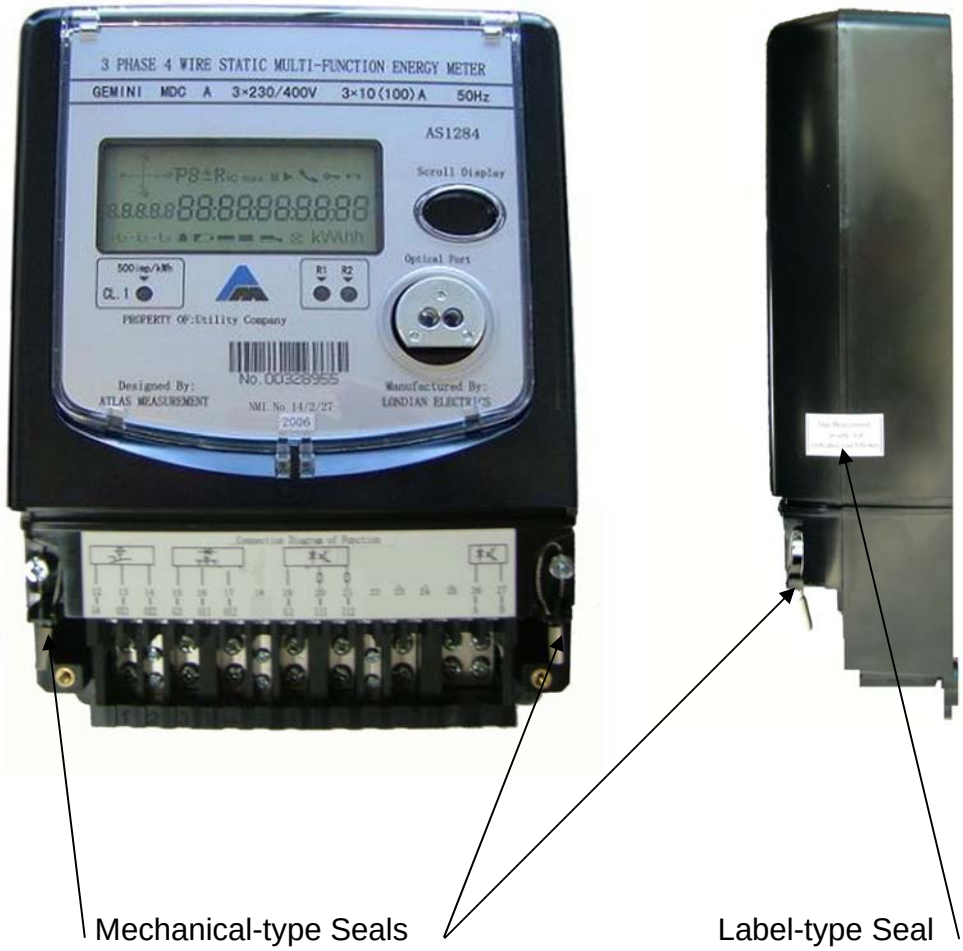
1. AC Voltage Test - at initial verification only.
2. Running With No Load - at subsequent verifications/certifications.
3. Starting.
4. Accuracy.

FIGURE 14/2/27 – 1



Atlas Measurement Model GEMINI MDC A Electricity Meter

FIGURE 14/2/27 – 2



Showing Typical Sealing