

**Australian Government** 

Department of Industry, Science, Energy and Resources

## National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

# Certificate of Approval NMI 14/2/111

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.

Landis & Gyr Pty Ltd T/A Landis+Gyr model E355 Type S3300 Electricity Meter

submitted by Landis & Gyr Pty Ltd T/A Landis+Gyr 241 O'Riordan St, Level 10 MASCOT NSW 2020

**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 Pathway 1 in the document NMI M 6-1 Active-Energy Electricity Meters, Part 1: Metrological and Technical Requirements, July 2020.

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.

Rev	Reason/Details	Date
0	Pattern and variants 1 & 2 approved – certificate issued	29/07/21

#### DOCUMENT HISTORY

#### CONDITIONS OF APPROVAL

#### General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 14/2/111' 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.

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 14/2/111

#### 1 Description of Pattern

#### approved on 29/07/21

A Landis & Gyr model E355 Type S3300 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 frequen	50 Hz			
Reference ambient temperature ranges:				
spec	-10 to 60°C			
limit	range of operation	-25 to 70∘C		
<ul> <li>Rated voltage</li> </ul>	3 x 230/400 V AC or			
		3 x 240/415 V AC		
<ul> <li>Rated currents:</li> </ul>	Basic current, I <sub>n</sub>	10 A		
	Maximum current, I <sub>max</sub>	100 A		
<ul> <li>Meter constant</li> </ul>		1000 imp/kWh		
<ul> <li>Accuracy class</li> </ul>		1		

#### **1.2 Features/Functions**

- Liquid crystal digital indicator
- 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 terminal cover to be sealed 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 at right:

Manufacturer's name or mark	
Model designation	
Serial number	
Pattern approval mark	NMI 14/2/111
Number of phases	
Number or wires	
Reference frequency	Hz
Meter constant	
Rated voltage	AC

Rated currents:

Accuracy class

#### 1.6 Harmonics

Instruments purporting to comply with this approval are suitable for use where the harmonics do not exceed those specified in pathway 1 of NMI M 6-1:2020.

I<sub>b</sub> ... A I<sub>max</sub> ... A

#### 2 Description of Variant 1

A Landis & Gyr model E360 (Series 1) Type S3300 polyphase Class 1 direct connected static watt hour meter (Figure 2) used to measure electrical energy.

This variant has the same Field of Operations and Features/Functions as the pattern.

#### 3 Description of Variant 2

### approved on 29/07/21

approved on 29/07/21

Type S3301, Class 1 direct connected static watt hour meter (Figure 3) used to measure electrical energy.

This variant has the same Field of Operation and Features/Functions as pattern and variant 1, except for the following:

• One 40 A relay

#### TEST PROCEDURE

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 14/2/111 – 1



Landis+Gyr Pty Ltd model E355 Type S3300 Electricity Meter with 230 V (Including Typical Mechanical Sealing)

#### FIGURE 14/2/111 – 2



Landis+Gyr Pty Ltd model E360 (Series 1) Type S3300 Electricity Meter (Variant 1)

#### FIGURE 14/2/111 - 3



Landis+Gyr Pty Ltd model E360 Type S3301 Electricity Meter (Variant 2)

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