

2013 2014 2015



## Landis+Gyr U-Series E350

The first Intelligent Endpoint  
Be future ready



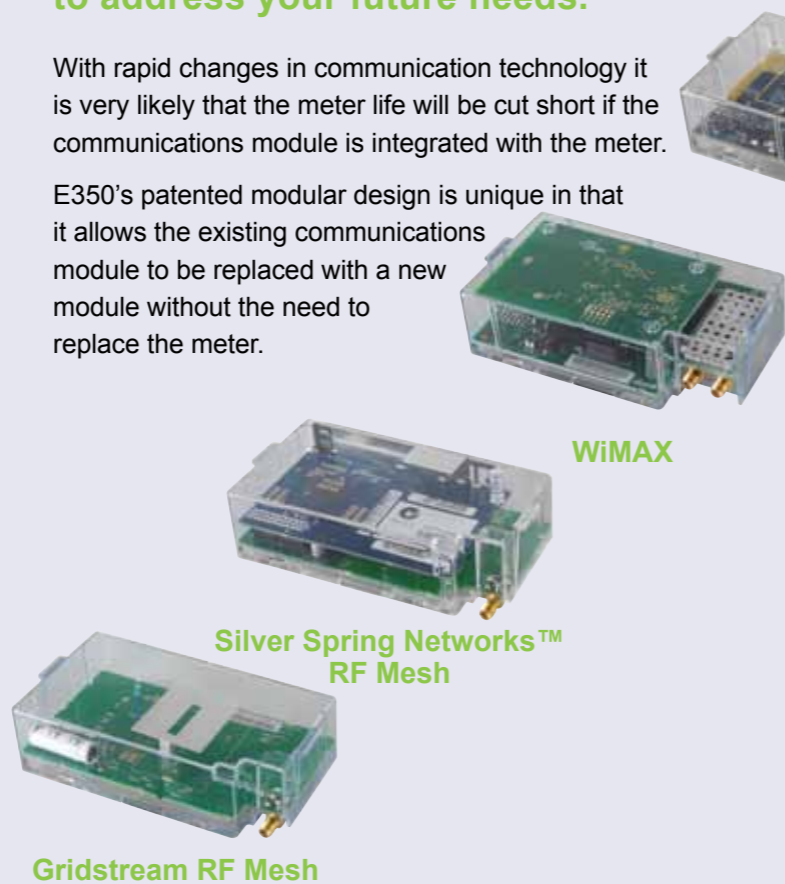
The first Intelligent Endpoint, E350 is now available and ready to become a key component of your smart grid.



**E350 is designed to allow field-upgradeable communication to address your future needs.**

With rapid changes in communication technology it is very likely that the meter life will be cut short if the communications module is integrated with the meter.

E350's patented modular design is unique in that it allows the existing communications module to be replaced with a new module without the need to replace the meter.



Gridstream RF Mesh

Silver Spring Networks™ RF Mesh

WiMAX

3G

When the time comes to replace the communications module this can be done without disconnecting customer supply.

Communications module can be replaced without breaking main terminal cover seals. This allows replacement to be carried by unskilled labour instead of skilled technicians reducing re-installation costs.

**Communications modules from new AMI solution vendors can be interfaced easily.**

E350 supports the key ANSI (American National Standards Institute) communication standards chosen by leading module manufacturers.

- ANSI C12.19 - ANSI standard for extracting and organising meter data in a specific format.
- ANSI C12.18/12.21 - ANSI standards that describe protocols used for two-way communications between meter and module.

These standards have enabled E350's interoperability with the SSN (RF Mesh), Gridstream (RF Mesh) and WiMAX (4G) modules. New modules can be easily interfaced as your requirements change.

**Quick Facts**

- Single Phase variant (available in 1 element and 2 element) – U1200/U1300.
- Three phase variant (available in whole current U3300 and CT U3350).
- Remote reading of interval data, TOU and Events.
- Local reading by hand-held device.
- Local and remote disconnect relay.
- Time-of-use (TOU) tariff.
- Ripple control - U1300.



**E350 can also be used as a traditional meter.**

What if you are not ready for a smart meter now? What if you want to invest in smart meters 4 years down the line, but have a meter replacement coming up now? Do you need to invest twice?

E350 is designed to function as a traditional meter (standard type 5 or 6) by leaving the module section vacant. You have the flexibility of inserting the communications module to upgrade the E350 into a smart meter at any later date.

- Under Frequency Load Control – U1300
- Tamper detection and event logging.
- Quality of Supply monitoring.
- Loss of supply and outage detection.
- Supports Type 4, 5 and 6 meter readings.
- Controlled load management.
- ANSI C12.18/21 protocol for communications module.
- ANSI C12.19 data structures.



# Local expertise in R&D, Engineering and Support makes E350 a truly world class 'local product'.



## E350 meets all local requirements.

Developed at Landis+Gyr's Centre of Excellence based in Sydney, and manufactured locally, E350 is built to withstand Australian and New Zealand harsh conditions.

- As expected from a product designed by the local design team who have years of experience designing meters for Australian and New Zealand market, E350 meets all key Australian standards including AS:62052.11, AS:62053.21, AS:62052.21 and AS 62054.11 (ripple control - U1300).
- E350 is calibrated, verified and certified by NATA accredited facilities in Australia.

## E350 undergoes a comprehensive reliability test program before it is released for manufacture.

To ensure that E350 meets your minimum requirements on defects and product life, it is subjected to the JEDEC A101 Meter Accelerated Life Test and IPC9701 Meter Reliability Test . These tests provide early prevention of potential problems in field endpoints and permit analytical prediction of reliability.



## E350 is engineered to be installed quickly and safely.

E350 is mounted on the same footprints and mounting holes as most of existing meters in Australia and New Zealand.

- The design reduces the need to drill additional holes in existing metering panel when replacing old meters with the E350.
- Some of the earlier Landis+Gyr models include M1, M3b, EM1000, EM1200, A11, SDM, EM5100 and EM5300. Full list and footprint overlays can be viewed at [www.landisgyr.com](http://www.landisgyr.com)

The care taken by the design team provides the savings in labour cost for you but more importantly the design also reduces the health risks for your installers when they are faced with the need to install new meters on old meter boards.



## Local support.

Landis+Gyr provides local technical assistance and troubleshooting on all supplied products via our three - tier support structure. These include a dedicated 1300 helpdesk number, local Project Engineers/on - site support, and experts from our technology centre of competence.



# E350 Specifications

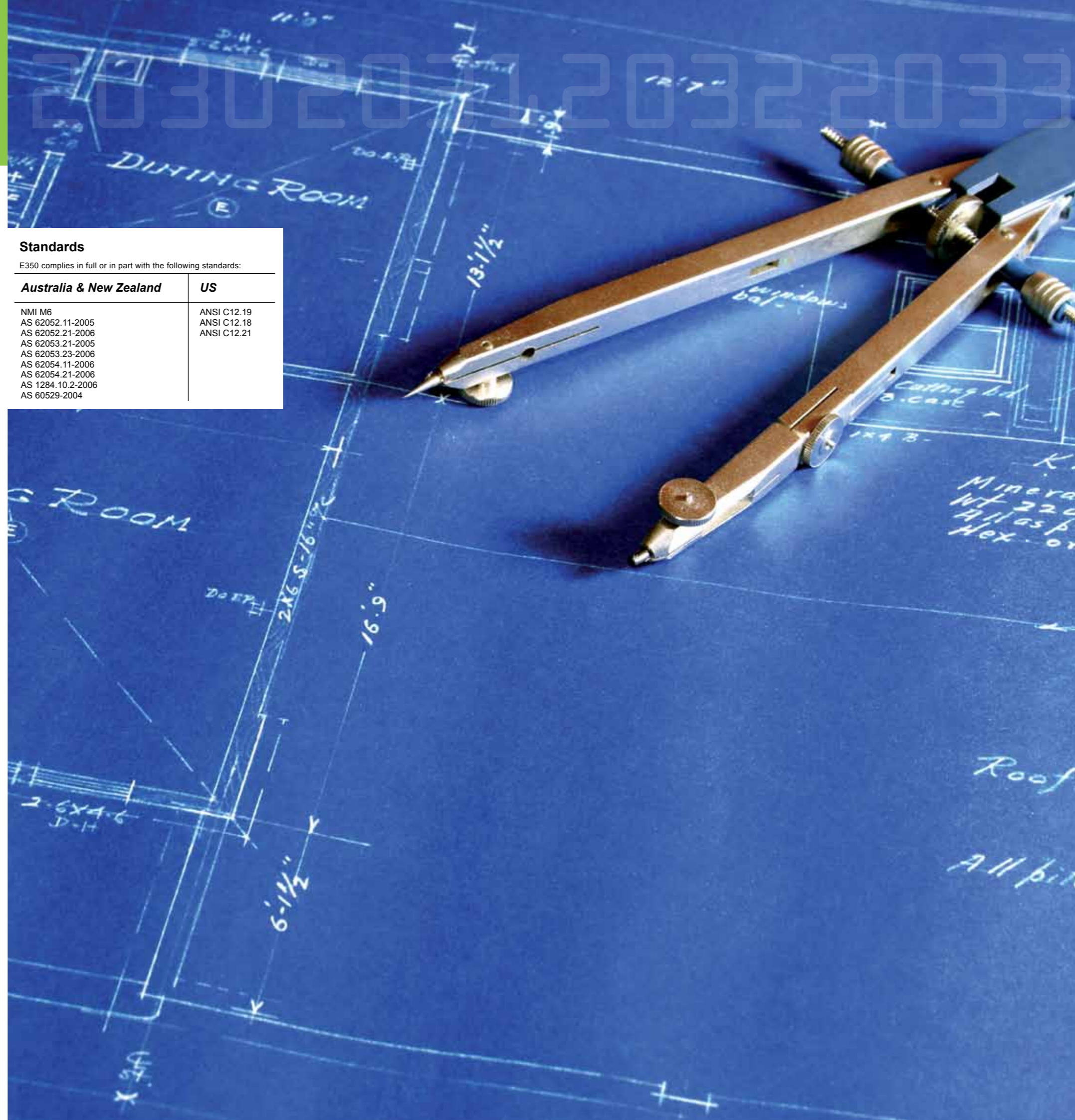
## Fact Sheet

<b>Network connection types</b>	<b>U1200/U1300</b> 1-phase 1 element <b>U1200/U1300</b> 1-phase 2 element <b>U3300</b> 3-phase Whole current <b>U3350</b> 3-phase CT																													
Local communication	Optical port compliant with AS 1284.10.2 Meter readable using Itron hand held units and MVRs software Local baud rates from 1200 to 38400 baud Supports three levels of passwords																													
Load profile	Up to 4 sets of load profile, with each set having up to 4 channels Each set with individual interval length of 10min, 15min, 30min or 60min  <b>Load Profile Storage in Days when using only 1 set</b> <table border="1"> <thead> <tr> <th rowspan="2">Number of Channels selected</th> <th colspan="4">Storage (Days)</th> </tr> <tr> <th>60 min</th> <th>30 min</th> <th>15 min</th> <th>10 min</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2364</td> <td>1182</td> <td>591</td> <td>394</td> </tr> <tr> <td>2</td> <td>2168</td> <td>1084</td> <td>542</td> <td>361.3</td> </tr> <tr> <td>3</td> <td>1632</td> <td>816</td> <td>408</td> <td>272</td> </tr> <tr> <td>4</td> <td>1118</td> <td>594</td> <td>297</td> <td>198</td> </tr> </tbody> </table>	Number of Channels selected	Storage (Days)				60 min	30 min	15 min	10 min	1	2364	1182	591	394	2	2168	1084	542	361.3	3	1632	816	408	272	4	1118	594	297	198
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Measurement quantity	kWh per element total import/export kvarh & total import/export																													
Time-of-use (TOU)	6 TOU billing rates 8 rolling day snapshots 12 end of billing period snapshots																													
Ripple Control (U1300 only)	Pulsadis (Enertec) Decabit Semagyr (Landis & Gyr) Ricontic (Brown Boveri)																													
Tamper detection	Reverse energy detection Detection of terminal cover removal All tampering events recorded in event log																													
Remote disconnect	Built-in 100A disconnect relay U1200, U1300 and U3300																													
Load control	Option for a fully integrated 40A relay																													
Quality of supply (QoS)	Voltage swell & sag monitoring																													
Accuracy	Wh class 1 and varh class 2																													
Operating range	Current (Ib) 10A – (Imax) 100A Starting current 40mA Voltage 240Vac ± 20% (phase to neutral) Frequency 49-51Hz Voltage burden <10 VA, < 2W at 240V Current burden 0.07VA																													
Absolute maximum ratings	Current, continuous 100A Current, short duration 3000A for 0.5 cycle Voltage, continuous - 288Vac Insulation withstand - 4kV for 1 min Impulse voltage withstand - 10kV Max. load control relay switches - 30,000 operations Max. disconnect relay switches - 10,000 operations																													
Energy output LED	Pulse rate - once every 1Wh/1varh																													
Battery Life	10+ years (mains connected) 5+ years (no power supply)																													
Hardware	Terminal cable size range 4 - 35mm <sup>2</sup> M1 mounting for 1-ph, C4,SD,SDM mounting for 3-ph Slotted terminal screws																													
Temperature	Specified operating range: -10 to 60°C Limit range of operation: -20 to 70°C Storage: -25°C to 70°C storage																													
Enclosure rating, AS60529	Complies to IP53 (without suction)																													
Enclosure construction	Polycarbonate																													
Energy register resolution	1 Wh for active energy, 1 varh for reactive energy																													
Dimensions & weight	<b>U1200/U1300</b> Standard terminal cover - 238 X 147 X 107mm Extended terminal cover - 253 X 147 X 107mm Weight - 1.4 kg <b>U3300/U3350</b> Standard terminal cover - 229 X 175 X 109mm Extended terminal cover - 271 X 175 X 109mm Weight - 1.6 kg																													

## Standards

E350 complies in full or in part with the following standards:

Australia & New Zealand	US
NMI M6 AS 62052.11-2005 AS 62052.21-2006 AS 62053.21-2005 AS 62053.23-2006 AS 62054.11-2006 AS 62054.21-2006 AS 1284.10.2-2006 AS 60529-2004	ANSI C12.19 ANSI C12.18 ANSI C12.21



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Landis+Gyr is the leading global provider of integrated energy management products tailored to energy company needs and unique in its ability to deliver true end-to-end advanced metering solutions. Today, the Company offers the broadest portfolio of products and services in the electricity metering industry, and is paving the way for the next generation of smart grid.

With annualised sales of more than US\$1.6 billion, Landis+Gyr, an independent growth platform of the Toshiba Corporation (TKY:6502) and 40% owned by the Innovation Network Corporation of Japan, operates in 30 countries across five continents, and employs 5,200 people with the sole mission of helping the world manage energy better. More information is available at [landisgyr.com](http://landisgyr.com)

**Australia & New Zealand Headquarters**

60 O'Riordan Street  
Alexandria NSW 2015  
Sydney, Australia

**South East Asia Headquarters**

229 Mountbatten Road  
#02-38/39 Mountbatten Square  
Singapore 398007

[sales.au@landisgyr.com](mailto:sales.au@landisgyr.com)  
[www.landisgyr.com](http://www.landisgyr.com)

Landis+Gyr Pty Ltd  
ABN 78 002 894 224

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