



Model EM5100
Electricity Meter



EM5100 Electricity Meter

Extended current range for more site applications

The EM5100 offers increased flexibility by fulfilling more of your varied site requirements in the one meter, including:

- The extended range 125A whole current option designed for the extreme Australian environment.
- 5-20Amp Current Transformer option for applications larger than 125A.
- 2 Amp volt free contactor for driving modem power supplies and contactors in demand management applications.
- Optional 30 Amp internal load control relay providing easy to install cost effective load management.
- 4 programmable solid state relay retransmission pulsed outputs providing easy energy management system interfacing.

Advanced energy analysis & management

The advanced measurement & analysis capabilities of the EM5100 deliver crucial decision making tools to your energy management team. With a broad range of energy measurement features, the EM5100 meter contributes to more efficient energy management by providing:

- Comprehensive measuring quantities including kWh, kvarh, & kVAh (import/export / per phase/per quadrant) plus pulse inputs selectable in 8 energy & 4 demand (up to 8 rate TOU) registers
- Up to 12 load profile channels (2 separately secure groups of 6 channels) with interval length & memory allocation per channel
- Quality of Supply registers for voltage, current, power factor & frequency
- CT ratios for Primary Rating applications
- Programmable load control for external equipment energy management.

Cost effective communications options

The EM5100 meter guarantees cost effective monitoring & precise control of meter installations by utilising advanced data compression protocols and remote communications technology to deliver functionality including:

- Large easy to read backlit LCD
- Programmable display plus 2 alternate display groups
- Optical & RS232 communication ports for PSTN, GSM and CDMA modems
- In field upgradeable RS485 and TCP/IP interface boards for network communication solutions
- RS232 powered port option allows for cost effective modem connectivity without the need for additional wiring or power supplies.
- EMPro HHU, EMPWin and Itron compatibility

Advanced design for performance & longevity

A breakthrough in user-friendly energy metering & demonstrating remarkable durability under harsh conditions, the EM5100 meter exceeds all international and local design requirements.

- Lower installation costs by maintaining the Landis+Gyr footprint (SDM, Q3,Q4)
- Reliable security with all data saved into non volatile memory & three levels of encrypted password protection plus lockout function
- 10kV lightning withstand, IP53 enclosure rating & EMC conformance to all IEC requirements



EM5100 Specifications*

Mass

1.8kg

Dimensions

235mmH x 173mmW x 78mmD

Measurement Quantities

kWh per phase & total import/export
 kvarh per quadrant & total import/export
 kVA total import/export
 Auxiliary inputs (optional)

Accuracy

Wh Class1 to AS/IEC62053.21
 Kvarh Class 2 to AS/IEC62053.23

Voltage Range

192-288V (phase-neutral)

Current Range

In(I_{max}) 10-125A Whole Current
 40mA starting current
 Ib(I_{max}) 5-20ACT
 20mA starting current

Frequency Range

49-51Hz

Temperature Range

Ambient -10°C to 60°C
 Storage -25°C to 85°C

Display

12mm high, 8 digit register
 Backlight
 4 separate programmable display lists
 Programmable display ID
 180 concurrent items

Time Keeping

1s/day whilst off-supply
 Mains synchronised with crystal backup
 On board 10 year shelf life battery
 Optional field replaceable battery
 3 years backup off supply

TOU

Up to 8 energy and Demand rates
 Up to 8 TOU billing rates
 20 Total registers
 Up to 32 previous billing periods

Load Profiling

12 channels of Load Profile
 2 independently secure groups
 511 days of 30 minute data
 Programmable per channel interval and memory allocation
 Inst, Min, Max, Ave. profiling of current and voltage

Humidity Range

0-95%

IP rating

IP 53 to AS60529

Quality of Supply

Per phase voltage, current, power factor, frequency monitoring
 4 threshold channels
 Programable levels and duration settings
 Time, date, duration and extreme value recording

Communication

ANSI optical port
 RS232
 RS485 in field option board
 PSTN / GSM / CDMA modems
 MV90 & MVRS compatible

Pulsed inputs/outputs

4 programmable solid state relay pulsed outputs
 2 pulsed input in field option board
 2A volt free contact standard
 Optional 30A load control relay

* Continuing product improvement is Landis+Gyr policy, specifications are subject to change without notice.

Model EM5100

Electricity Meter

Product features:

10–125 Amp Whole Current
& 5-20 Amp CT Current Range

Quality of Supply monitoring -
sags + swells

Flexible interval data recording – up
to 12 channels in 2 separately secure
groups

Fully programmable pulse output
relays for energy management
systems

Load control relays for demand
management applications

Backlit display for ease of reading

Off-supply display mode

Cost effective AMR options

In Field replaceable battery

Optional powered RS232

Optional pulsed inputs for gas and
water services metering



EM5100 Metering Solutions



Contacts:

Melbourne +61 3 8368 1600
Sydney +61 2 9690 7409
Brisbane +61 7 3265 4344
Perth +61 8 9244 3523

Customer Service Toll Free

Australia 1800 337 957

New Zealand

Auckland +64 9 579 1155

www.landisgyr.com