

Installer / User Guide for Solar PV

The emlite single phase meter provides a compact solution for many metering applications. Fully approved in accordance with the Measuring Instruments Directive (MID), this highly accurate meter may be used for utility billing or micro-generation metering.



Features -

- Fully MID and MIR approved
- Measures Import and Export Active Energy (Configurable)
- Easy-to-read LCD Display
- Optical port for configuration or meter reading
- Pulsed Output version available
- Special Net register variant is available for co-located battery storage

Thank you for purchasing the Emlite ECA2 single phase meter. The following information explains various features of the meter.

The meter, dependant on configuration, provides measurement of active (kWh) energy in both import and export directions with registers shown on the large easy to read LCD display. The display can be configured to auto cycle any of the available registers or remain static with only a single register viewable. For the majority of micro-generation installations without battery storage this will record the generation into a single import register as shown below:



NB. Dependant of where you purchase this display could show 1, 2 or no decimal places.

The flashing light on the meter is used for calibration by the manufacturer. The light will flash proportionally to the amount of generation. i.e. the faster it flashes the more energy is being generated. The light will sometimes be permanently on when there is no generation at all. To measure 1kWh of energy generated the LED will flash 1000 times.

To enable the connection of energy management systems, an electronic pulsed output version is available (ECA2.v) The pulsed output connects onto two auxiliary terminals in the main terminal block.

DC coupled battery storage

Where customers have DC couple battery storage the ECA2.nz or ECA2.nv should be installed. This will automatically cycle through the Import, Export and a Net readings. The Net reading is the PV benefit for FIT payments where applicable. Please note this meter will require different wiring and that the installer should check this prior to installation.



Smart Export Guarantee Tariff (SEG)

Many PV users are now registering to receive payments for exported energy. When doing this the utility will ask for an export reading. Many customers and utility staff believe this comes from the generation meter (Solar PV Meter) but, this is not the case. You will find your export reading at the utility meter, dependant of what type of meter you have installed. Most smart meters will give you this reading but, older types of meter might not provide this therefore your utility meter will need to be changed.

Technical Data

Electrical	Voltage	Nominal voltage	220V—240V
		Maximum	276V
		Voltage withstand	415V (maximum 6 hours)
	Frequency	Nominal frequency	50Hz
		Frequency variation	± 5%
	Current	Basic current (Iref)	5, 10, 15 and 20A
Maximum (Imax)		100A (140% overcurrent)	
Metrology	Accuracy	Active energy	Class B (1%), to EN 50470 1-3

The meter meets the essential requirements of the Measuring Instruments Directive (MID) 2004/22/EC and the UK Measurement Instrument Regulations 2016 (MIR)

