

A1100

Electronic Polyphase Meter



Advanced, cost-effective polyphase metering...

Features

- Accuracy Class 1 or Class 2
- kWh import or kWh import/export
- 3 phase, 4 wire or 3 phase, 3 wire
- 16 year product life
- Large figure display
- Extensive security data
- IrDA (Infrared Data Association) output for transmitting billing, security and status data
- 12kV impulse withstand
- Compact design
- Double insulated, glass filled polycarbonate case to DIN 43857 Part 2 and Part 4 (except for top fixing centres)
- IP53 in accordance with IEC 60529:1989

Options

- Liquid Crystal Display or mechanical stepper register
- One or two rates controlled by an external device (LCD meter only)
- Auxiliary terminals configured for rate selection (two rate meters), pulsing output or serial data output
- SO pulsed output (IEC 62053-31)
- Extended terminal cover with or without cut-out
- CT variant (under development)

The use of innovative metering technology provides cost-effective metering that is highly secure and maintains a high degree of accuracy over its full operating range. The A1100 meter is suitable for domestic, commercial and light industrial polyphase applications.

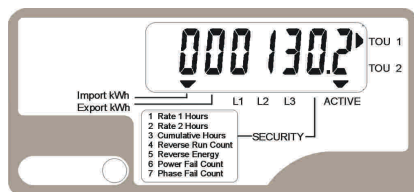
Two main versions of the A1100 meter are available. The liquid crystal display version of the meter can be supplied as a one or two rate meter. The meter is available as import only or import and export. The display has a customer defined display sequence that can include security information. Chevrons and legends on the nameplate identify the data being displayed.

The mechanical register version of the meter is available for kWh import one rate applications only. Five LED's are used to identify the status of the meter.

Communications are provided via the IrDA port allowing the meter registers and security data to be read electronically using a hand-held device. This greatly reduces the possibility of manual meter reading errors. As an option the same absolute data as the IrDA port, or a pulsed output, can be transmitted via the meter's auxiliary terminals.

Meters can be supplied to meet accuracy Class 1 or Class 2 requirements. They are approved to EN 61036:1996 plus Amendment 1 2000 and have an ingress protection of IP53 to IEC 60529:1989.

Display



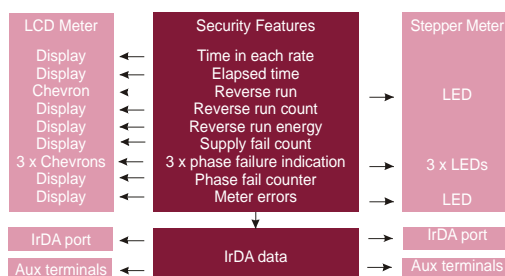
The LCD version of the A1100 displays register and security information by the use of chevrons and digits. The mechanical register version has five LED's for reporting status information.

Meter nameplates can be printed in any language.

Security

The A1100 offers high security with many useful security features. The meter stores all registration and configuration data to non-volatile memory. All data is retained for the life of the meter.

Recordable security features are illustrated below.



As an option the kWh register can increment in power flow insensitive mode i.e. it increments regardless of energy flow direction.

Pulse Output

An opto-isolated pulse output can provide the basis for an energy management system or AMR. These pulses are output via the meter's auxiliary terminals. The output conforms to IEC 62053-31.

System Connections

2 Element	3 phase 3 wire
3 Element	3 phase 4 wire 2 phases of a 3 phase 4 wire 2 phase 3 wire 1 phase 3 wire 1 phase 2 wire (LCD meter only)

IrDA Communications

The IrDA (Infrared Data Association) communications port provides one way communications, transmitting a continual data stream from the meter to an external device. An error checking algorithm protects the integrity of the data. As an option the same absolute data is available via the meter's auxiliary terminals. The port uses the OBIS: IEC 62056-61 data identifiers.



Important information is provided:

Meter registers

Security features

Status information

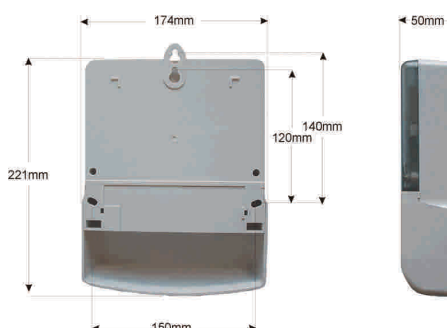
Identification

The port transmits over a distance of 250mm.

Technical Data

Current Range	10-100A, 5-85A
Voltage Range	220-240V (L-N) or 220-240V (L-L)
Frequency	50 Hz
Burden	
Voltage Circuits (230V)	0.9W, 9VA capacitive burden/phase [max]
Current Circuits	2VA @ 100A/phase [max]
Insulation	4kV RMS 50Hz
Impulse Withstand	12kV 1.2/50µs 500ohm source
Display LCD	9.8 x 3.5mm characters High contrast, wide angle
Stepper Motor	6.7 x 3.5mm characters
IrDA Baud Rates	2400, 4800 or 9600 (Without serial port)
Serial Baud Rates	2400 or 4800
Product Life	16 years
Certified Product Life	10 years
Temperature	-40° to + 55° C (Operational range) -40° to + 85° C (Storage)
Humidity	Annual mean 75% (For 30 days spread over one year, 95%)
Pulse Width	10 to 250ms or equal mark/space
Wh/pulse	1, 2, 4, 5, 10, 20, 25, 40, 50, 100
Weight	860 grams
Specifications	kWh Class 1 or 2 IEC 61036:1996 (plus Amendment 1:2000)
Case	IP53 to IEC 60529:1989

Dimensions and Fixing Centres



Our policy is one of continuous product development and the right is reserved to modify the specification contained herein without notice.



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