



DIN Square kWh Meters

Kilowatt hour meters are suitable for the monitoring of active energy (kWh) in all types of sub-metering applications. Models are available for single phase and three phase, balanced and unbalanced loads, as well as DC systems. The panel mounting kWh meters are accurate to class 1 to IEC1036 and AC models have a user selectable CT ratio through a rotary switch accessible from a removable cover on the meter.

The meters are housed in a compact DIN96 enclosure measuring only 61mm in depth and are available combined with an analogue instantaneous reading wattmeter (EL96GTW) if required. All meters have an electromechanical counter eliminating the need for any auxiliary power supply on the AC models. All meters are available with an optional voltage free pulsed output for input to data loggers, PLC's, building management systems or computers.

Models Available

EL96GT DIN96 kWh Meter

EL96GTW DIN96 kWh Meter with Wattmeter

Product Features

- Active energy (kWh) measurement
- Standard DIN square size
- Single phase, 3 phase and DC versions
- Accuracy class 1 (1%)
- Non-resettable
- Pulsed output option

kWh Meters – for measuring energy (kWh) consumption

General Specification

Design complies with:

- IEC1036, IEC521

Accuracy:

- kWh counter class 1 to IEC1036
- Wattmeter class 1.5 to IEC51

Counter:

- 6 digit (4mm high) electromechanical

Scales (EL96GTW):

- 0-1 to 0-1000W, kW or MW

Front Panel LED's:

- Energy LED indicates correct connection of voltage and current
- Pulse LED indicates rate of energy measurement and pulse output

Enclosure Code:

- Case IP52 (IP65 option)

Weight:

- EL96GT 370g, EL96GTW 420g

Markings:

- CE marked

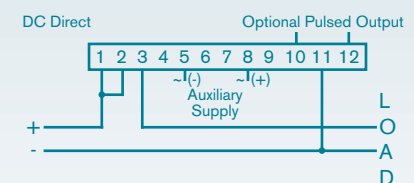
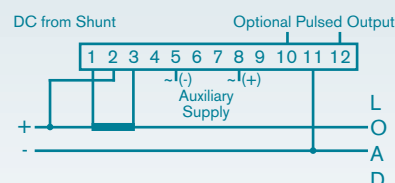
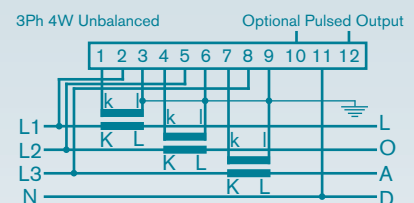
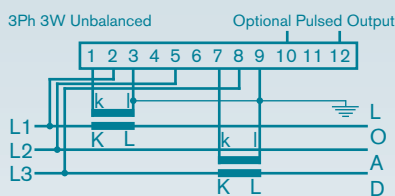
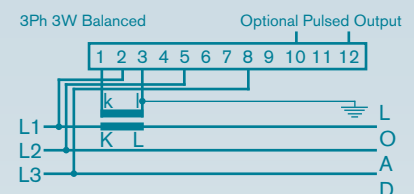
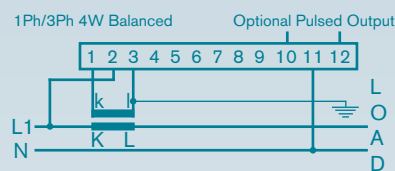
Pulsed Output:

- Voltage free isolated relay
- 5A contacts at 250Vac, 200msec

Pulsed Output Ratio:

- Once every counter increment

Connections



Notes:

1. Ensure that current transformers are mounted such that K faces the supply and L faces the load.
2. Secondary windings of the current transformers should be earthed.
3. The Wattmeter on all EL96GTW meters will be scaled as calculated by Eltime unless specified otherwise.

Ordering information

Model	Code	Description
	EL96GT	96 x 96mm kWh Meter
	EL96GTW	96 x 96mm kWh Meter with Wattmeter

Current or CT Ratio	Code	Description
	1L	25/1 to 800/1A (selectable) - see table below *
	1H	200/1 to 6000/1A (selectable) - see table below **
	5L	25/5 to 800/5A (selectable) - see table below *
	5H	200/5 to 6000/5A (selectable) - see table below **
	Specify	Other CT ratio (specify)
	Specify	0.5 to 5 Amps direct (specify)
DC	Specify	0.1 to 10 Amps DC direct (specify) or 10 to 5000 Amps DC from 50, 60, 75mV shunt (specify)***

Wiring System	Code	Description
	/1	Single Phase
	/2	3 Phase 3 Wire Balanced
	/3	3 Phase 3 Wire Unbalanced
	/4	3 Phase 4 Wire Balanced
	/5	3 Phase 4 Wire Unbalanced
DC	/DC	DC System

Input Voltage	Code	Description
	Specify	110, 230 or 415Vac (specify L-N or L-L)
	Specify	50 to 440Vac upon request (specify)
DC	Specify	12, 24, 48Vdc or up to 600Vdc upon request

Auxiliary Power (DC)	Code	Description
DC	Specify	110, 230 or 415Vac (specify)
DC	Specify	12, 24 or 48Vdc (specify)

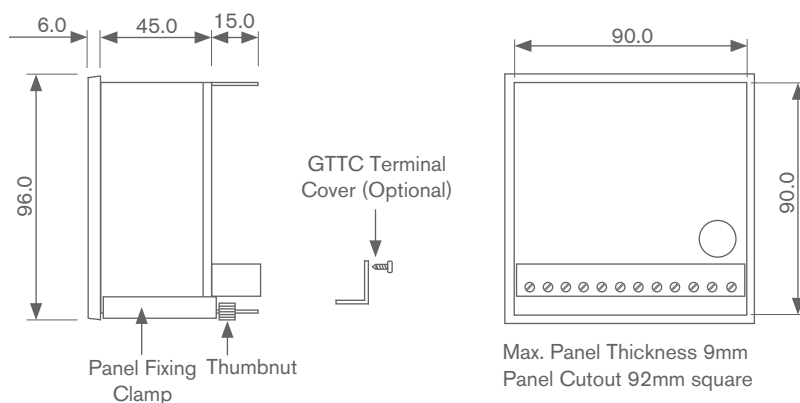
Options	Code	Description
	/P	Voltage Free Pulsed Output
	GTTC	Terminal Cover

Example EL96GT - 5H - /5 - 415VL-L - /P

Current Transformer Primary Currents (Selectable)

- * L 25, 40, 50, 60, 75, 80, 100, 120, 150, 200, 250, 300, 400, 500, 600, 800A
- ** H 200, 250, 300, 400, 500, 600, 800, 1000, 1200, 1500, 1600, 2000, 2500, 3000, 4000, 6000A
- *** Standard Shunt Values
10, 15, 20, 25, 30, 40, 50, 60, 75, 80, 100, 120, 150, 200, 250, 300, 400, 500, 600, 800, 1000, 1200, 1500, 2000, 2500, 3000, 4000, 5000A

Dimensions



Specification (AC Measurement)

- Input Current, I_n :**
- 0-0.2A to 0-5A direct connected
 - 1A or 5A CT operated

- Input Voltage, U_n :**
- 110, 230, 415V or VT ratio
 - (50 to 440V upon request)

- Voltage Variation:**
- $\pm 20\%$ of U_n

- Frequency:**
- 50/60Hz

- Overload:**
- $1.2 \times I_n$ or U_n for 2 hours
 - $6 \times I_n$ for 5 seconds

- Test Voltage:**
- 2kV rms for 1 minute

- Burden:**
- Voltage circuit < 3VA per phase
 - Current circuit < 0.1VA per phase

- Counter & Pulse Resolution:**
- 1 kWh (L CT ratio model)
 - 10 kWh (H CT ratio model)
 - Other resolutions available on request to suit direct connected units or VT ratios

Specification (DC Measurement)

- Input Current, I_n :**
- 0-0.1A to 0-10A direct connected
 - 0-10A to 0-5000A from 50, 60 or 75mV shunt

- Input Voltage, U_n :**
- 12, 24 or 48Vdc
 - (upto 600V upon request)

- Voltage Variation:**
- 0-120% of U_n

- Overload:**
- $1.2 \times U_n$ continuous, $2 \times U_n$ for 3 sec
 - $1.2 \times I_n$ continuous, $10 \times I_n$ for 3 sec

- Test Voltage:**
- 1kV rms for 1 minute

- Counter & Pulse Resolution:**
- 1 Wh, 10Wh, 0.1kWh or 1kWh
 - Other resolutions available on request

- Auxiliary Power Supply:**
- 12, 24, 48Vdc, 110, 230 or 415Vac

- Auxiliary Power Supply Variation:**
- -10% to +20% of nominal

Specification subject to change without notice.