

Three Phase Energy Meter

Type:DCT3100L

Order No.: 6010005



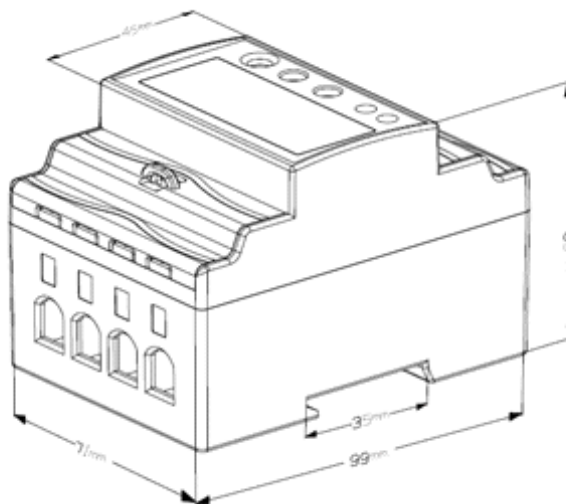
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Dimensions(mm)



Highlight

- Maximum current 100A direct access
- DIN Rail mounting, standard 4 modulus width.
- Multi-function parameter measurement, providing voltage, current, active power, reactive power, apparent power, power factor, phase Angle, etc.
- To provide the analytical data of the total harmonic contents of voltages and currents
- Provide a variety of statistical data and local storage functions
- Support RS485 communication function, baud rate up to 38400bps, Modbus RTU protocol.
- Supports one optocoupler pulse output interface, and output parameters can be set.
- LCD refresh time is 1 second, support manual or automatic scroll display (configurable)

Three Phase Energy Meter

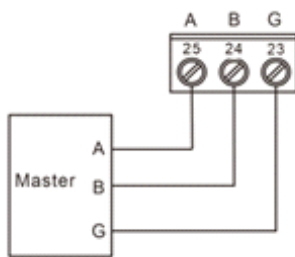
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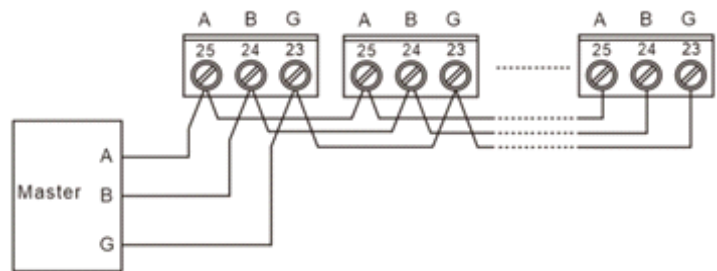
Dimensions(mm)



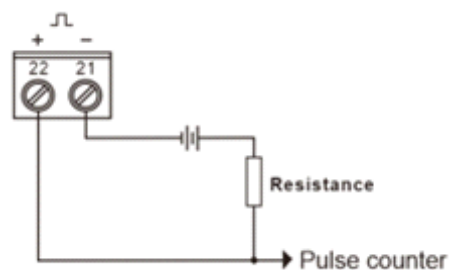
Measurement input wiring



Single meter wiring



Multiple meters wiring



Pulse output terminal wiring

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Electrical Characteristics

Type of measurement

RMS including harmonics on AC system, support 1P2W, 3P3W, 3P4W

Accuracy

Voltage, Current	Class 0.5, according IEC 61557-12
Active power	Class 1 / 0.5, according IEC 61557-12
Reactive power	Class 2, according IEC 61557-12
Apparent power	Class 1, according IEC 61557-12
Active energy	Class 1 / 0.5S, according IEC 62053-22, IEC 61557-12
Reactive energy	Class 2, according IEC 62053-23, IEC 61557-12
Power factor	Class 1, according IEC 61557-12
Frequency	Class 0.2, according IEC 61557-12
Harmonic distortion	Class 2, according IEC 61557-12

Data update rate

1 second. Optional 100 ms

Input-Voltage

Rate voltage (Un)	230 Vac (L-N) / 400 Vac (L-L)
Direct connection	Measured range : 85 to 275 Vac (L-N), 85 ~ 480 Vac (L-L)
Frequency range	45 to 65 Hz
Overload capacity	2Un for 1 second

Input-Current

Measured range	0.005 to 100 A, basic current (Ib) is 10A
Overload capacity	30I _{max} for 0.01 second

Pulse output

Interface type	Open collector optocoupler
Pulse constant	400 / 100 / 10 / 1 imp/kWh(kvarh) (Configurable)
Pulse width	60/100/200 milliseconds (Configurable), default is 100milliseconds
Pulse output type	Import/export/total active energy, Import/export/total reactive energy (Configurable)
Class	Class A, according IEC 62053-31
Input voltage	5 ~ 27 Vdc

Pulse indicator light on the panel

Pulse constant is 400imp/kWh

Real-time clock accuracy

0.5 s/d

measure and display

Active energy	0 to 9999999.999 kWh
Multi-Tariff active energy (T1 - T4)	0 to 9999999.999 kWh
Apparent Energy (total)	0 to 9999999.999 kVAh
Multi-Tariff reactive energy(T1 - T4)	0 to 9999999.999 kvarh

Mechanical Characteristics

IP Degree of Protection	Designed to IP51 front display, IP30 meter body
Dimensions (W X H X D)	99 x 71 x 65 mm
Mounting Position	DIN Rail mounting
Material of meter case	UL 94 V-0

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Environmental Characteristics

Operating Temperature	-25 to +55°C
Storage Temperature	-40 to +80°C
Humidity	< 90%, non-condensing
Pollution Degree	2
Altitude	Up to 2000m
Vibration	10 Hz to 150Hz, IEC 60068-2-6

Electromagnetic Characteristics

Electrostatic Discharge	Level 4, according IEC 61000-4-2
Immunity to Radiated Fields	Level 3, according IEC 61000-4-3
Immunity to Electrical Fast Transients	Level 4, according IEC 61000-4-4
Immunity to Surges	Level 4, according IEC 61000-4-5
Immunity to Conducted Disturbances	Level 3, according IEC 61000-4-6
Immunity to Magnetic Fields	IEC 61000-4-8
Immunity to Voltage Dips	IEC 61000-4-11
Radiated Emissions	Class B, according EN55011
Conducted Emissions	Class B, according EN55011
Harmonics	IEC 61000-3-2

Safety

Measurement Category	CAT III, according IEC 61010-1
Overvoltage Category	CAT III, according IEC 61010-1
Insulation	AC Voltage Test: 4kV for 1 minute; Impulse Voltage Test: 6kV - 1.2/50μS waveform
Protective Class	II, according IEC61010-1

Communications

Interfaces standard and protocols	2-wire RS485, Modbus RTU
Baud rate	1200 to 38400 bps, default is 9600 bps
Parity bit	None, Even, Odd, default is None
Stop bit	1 or 2, default is 1
Response time	<100ms
Transmission mode	half-duplex
Transmission distance	Up to 1000m
Max. Bus loading	64 pcs