

Electric Energy Meter

Meter-1S-G3
Meter-2S-G3
Meter-1T-G3
Meter-2T-G3

Description

The DIN-rail mounted multifunctional electric energy meter with external current transformers (CTs) is an intelligent instrument. Designed for new energy power generation systems, such as photovoltaic grid-tied systems, microinverter systems, energy storage systems, and AC-coupled systems, it is characterized by high accuracy, small size, fast response, and easy installation.

It can sample, meter, and monitor power parameters, and transmit the data to inverters. Based on real-time power and accumulated electrical energy, it supports export management, regulates power generation, and can manage the battery charging and discharging processes. Additionally, it supports bidirectional metering. These functions can optimize the energy management of residential energy storage systems.

Features

01 Supports CT reverse detection and adaptive phase sequence

02 Features two CT terminals for flexible application in AC-coupled systems

03 Uses CTs with RJ45 plugs to simplify the installation process

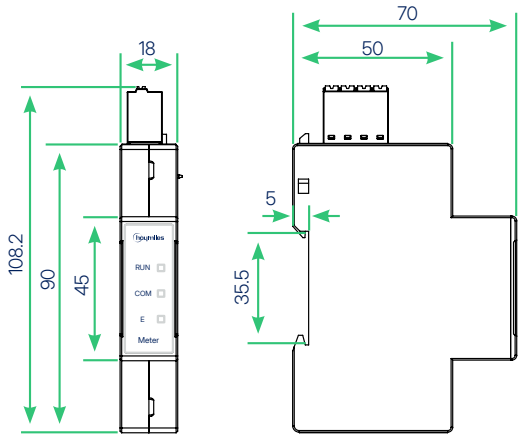
04 Compatible with 120 A/40 mA CT

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sales@hoymiles.com

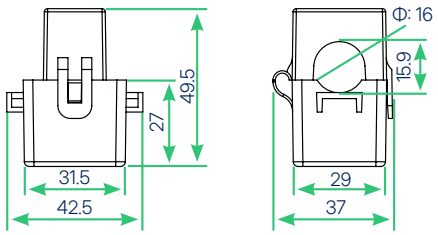
Technical Specifications

Model	Meter-1S-G3	Meter-2S-G3	Meter-1T-G3	Meter-2T-G3
Basic Data				
Grid type	Single-phase		Three-phase four-wire	
Rated input voltage (V)	230		3 × 230/400	
Input voltage range (V)	230±20%		3 × 230/400±20%	
Overload voltage (V)	1.2 times rating (continuous)/2 times rating (1s)			
Rated input current (A)	120			
Overload current (A)	1.2 times rating (continuous)/2 times rating (1s)			
Power consumption (VA)	<0.2			
Grid frequency (Hz)	50 (±0.5%)			
Response rate	≤100 ms (voltage, current, power) ≤1s (electrical energy)			
Measurement Accuracy				
Voltage	±0.5%			
Current	±0.5%			
Active power	±0.5%			
Reactive power	±0.5%			
Apparent power	±0.5%			
Active energy	Class B (split-core current transformer)			
Reactive energy	Class 2			
Electromagnetic Compatibility				
Electrostatic discharge immunity	Class III			
Electrical fast transient burst immunity	Class IV			
Surge (shock) immunity	Class IV			
Safety				
Power frequency withstand voltage (Vac)	3000, 1 min (between communication and signal input)			
Insulation resistance (MΩ)	>100 (input and output terminals to enclosure)			
Communication				
Interface	RS485			
Communication protocol	Modbus RTU			
Communication address range	Modbus RTU: 1-247			
Baud rate (bps)	1200-38400			
Environment				
Operating temperature (°C)	-40 to +70			
Storage temperature (°C)	-40 to +70			
Relative humidity	≤95%, no condensing			
Altitude (m)	≤2000			
Mechanical Data				
Dimensions (W × H × D [mm])	18 × 108.2 × 70			
Weight (g)	63.15			
Mounting	DIN rail			
Protection degree	IP20			

Unit: mm



Electric Energy Meter



CT-120 A/40 mA

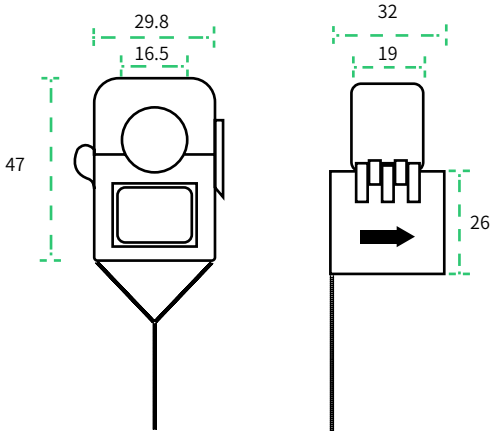
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Technical Specifications

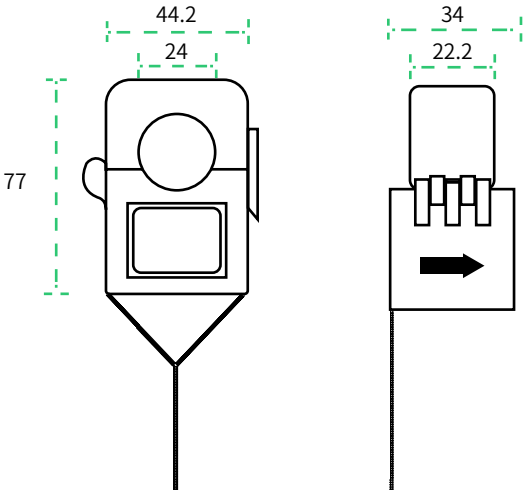
Model (Meter)	DDSU666 (CT-100 A)	DTSU666 (CT-3 × 100 A)	DTSU666 (CT-3 × 250 A)
Power Supply			
Grid type	1P2W	3P4W	
Input voltage (phase voltage)	154 Vac - 286 Vac	154 Vac - 253 Vac	
Power consumption		≤ 1.5 W	
Measuring Range			
Phase voltage	154 Vac - 286 Vac	154 Vac - 253 V ac	
Current	0 - 100 A	0 - 100 A	0 - 250 A
Measuring Accuracy			
0.01 In ≤ I < 0.05 In[1]		±1.5 %	
0.05 In ≤ I ≤ In[1]		±1.0 %	
Communication			
Interface		RS485	
Communication protocol		Modbus-RTU	
Mechanical Data			
Wiring type[2]		Via-CT	
Ambient temperature range		-25 ℃ - 70 ℃	
Dimensions (W × H × D)	36 x 100 x 65 mm	72 x 100 x 65 mm	
Mounting Type		DIN35 Rail	
CT Data			
Thread		Single turn	
Install		Buckle	
Ambient temperature range		-25 ℃ - 70 ℃	
Dimensions (W × H × D)	30 x 45 x 32 mm	44 x 77 x 33 mm	
Cable length		6 m	

1: Secondary rated current of the current transformer.
2: Note that three-phase CTs and single-phase CTs can not be used interchangeably. Single-phase CT work only with single-phase meters.

Unit: mm



CT-100 A / 40 mA-6 m



CT-250 A / 50 mA-6 m

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