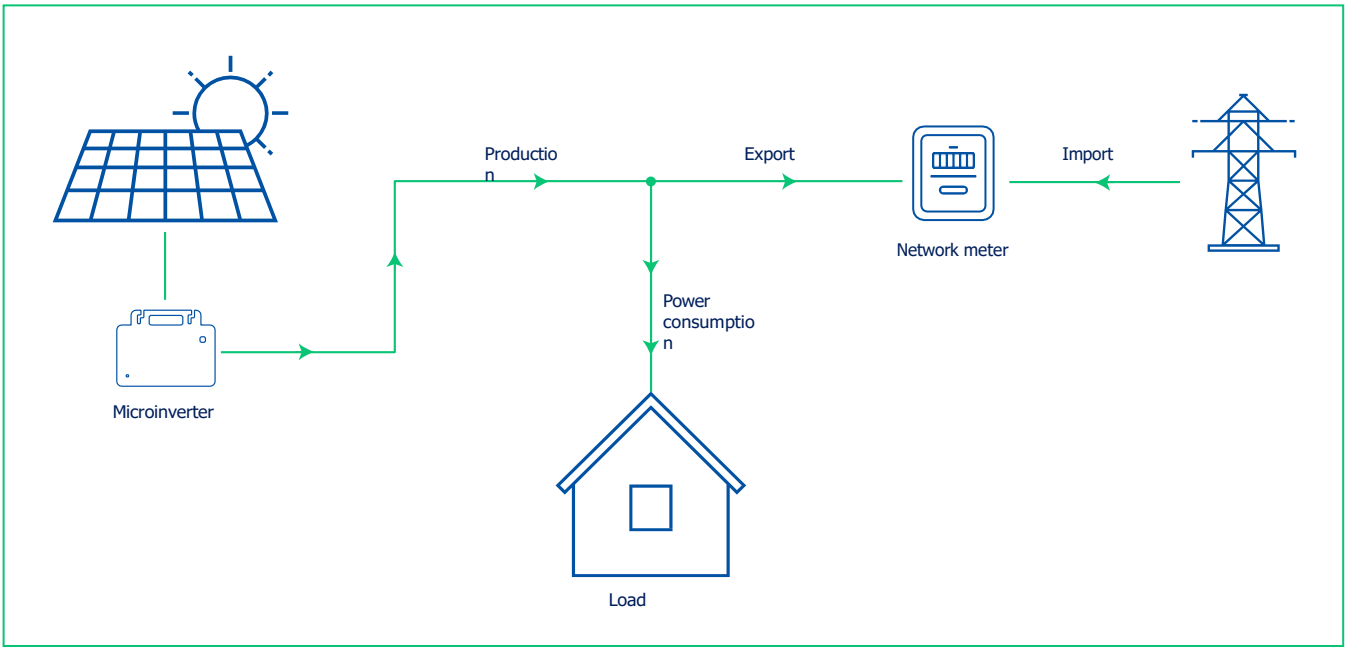
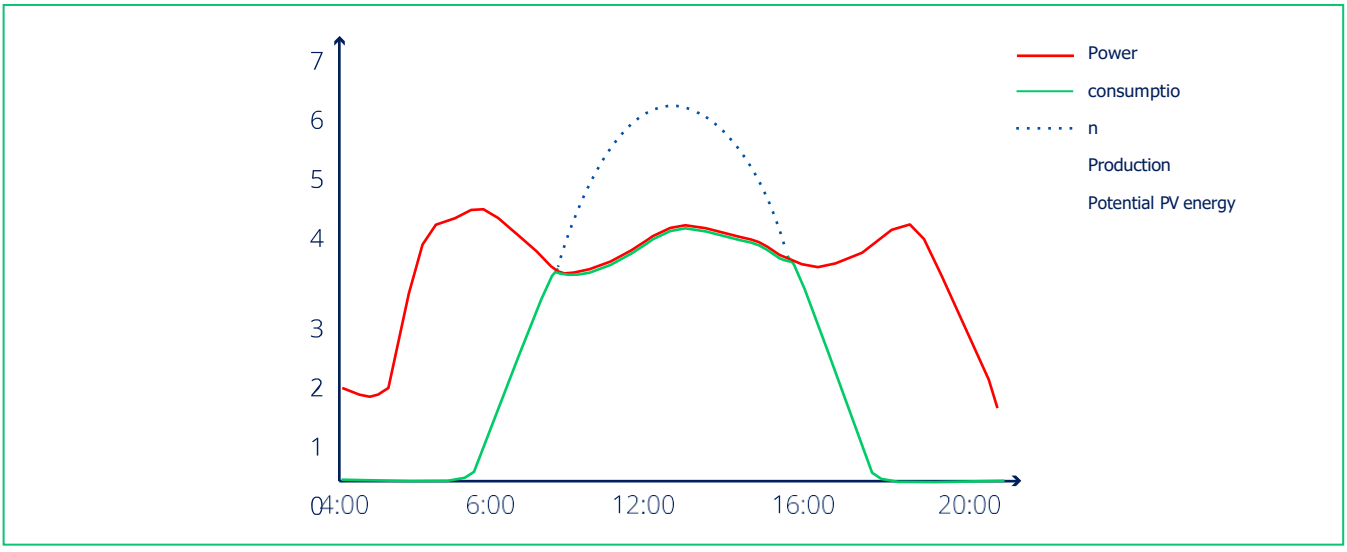
Intelligent management system energy exports



Hoymiles' intelligent power export management allows users to control the output of their photovoltaic system and maximize user profits from the electricity generated without violating the electric grid's power export regulations. With a metering meter, the system is able to simultaneously display precise power and production data for the photovoltaic system, allowing users to conduct online sales of generated photovoltaic energy based on data from S-miles Cloud.

The Hoymiles export management solution requires the Hoymiles Gateway: DTU-Pro (or DTU-Pro-S) and an additional meter (CT current transformer is optional). If export restriction is required, the meter can be installed after the
Load side or grid side. The DTU gateway will then dynamically regulate the energy generated by the PV system to ensure that the power export does not exceed the set limit, shown below, taking into account the power export data or the load measured by the meter. To display the generated photovoltaic energy, the meter should be installed at the output of the PV system. This will allow remote reading of the energy generated by the PV system.



PV energy consumption and production curves throughout the day

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System components

DTU-Pro/DTU-Pro-S

Serving as the central unit of the export management solution, the DTU receives data from the meter and regulates microwave output.

Single-phase electricity meter

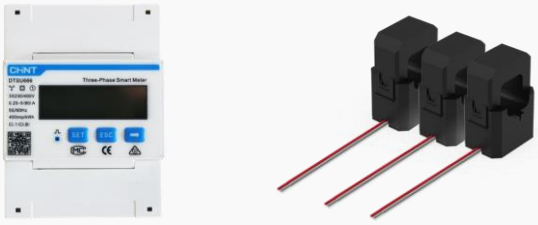
A single-phase electricity meter can be connected directly to a circuit and used to measure PV energy generated, load or power exported.

Suitable for single-phase mains supply

Three-phase electricity meter

A three-phase electricity meter can be connected directly to a circuit and used to measure PV energy generated, load or power exported.

Suitable for three-phase or split-phase mains supply



Three-phase electricity meter (via current transformer)

When it is not possible to directly connect the meter to the circuit or when the efficiency of the system is somewhat higher, it is preferable to use a three-phase meter with an external current transformer.

Suitable for three-phase or split-phase mains supply

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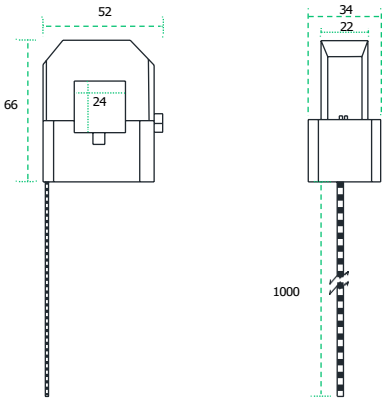
Technical data

Model (counter)	DDSU666	DDSU666	DTSU666 (viaCT)
Power supply			
Network type	1P2W	3P4W	
Input voltage (phase voltage)		176-288 V AC	
Energy consumption		≤1,5 W	
Measurement range			
Phase voltage		176-288 V AC	
Intensity	0-80 A		0-100/300/600 A[1]
Measurement accuracy			
Voltage	±0,5%		±0,5%
Current/power	±0,5%		±1%
Energy	±0,5%		±1%
Communications			
Interface		RS485	
Communication protocol		Modbus-RTU	
Mechanical data			
Wiring typeDirect connection	via CT[1]		
Ambient temperature range from -25℃ to +55℃			
Mounting methodDIN35 rail Dimensions (W × H × D mm)	36 × 100 × 65,5	72 × 100 × 65,5	

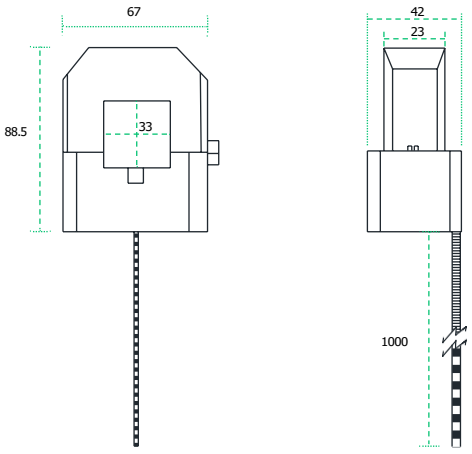
*1:Requires the use of a current transformer offered by Hoymiles.

Model (CT)	CT-100A/5A-1m	CT-300A/5A-1m	CT-600A/5A-1m
Electrical specifications			
Rated primary current	100 A	300 A	600 A
Rated secondary current		5 A	
Accuracy class	2%@10% amperage rated	1%@5% of rated current	
Measurement range		5%Input-120%Input.	
Operating frequency50/60 Hz			
Mechanical data			
Thread		One turn	
Mounting		Snap-on	
Ambient temperature range from -25℃ to +65℃ Dimensions (W × H × D mm)	52 × 66 × 34		67 × 88,5 × 47
Cable length		1 m	

Unit: mm



CT-100A/5A-1m / CT-300A/5A-1m



CT-600A/5A-1m