SINGLE PHASE ENERGY METER

Two Wires, Din Rail

ENGLISH

PE - DESDNN011 04/21

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1SDSD05CEM/2

1- Safety Instructions

● Information for your own safety

This manual does not contain all of the safety measures for operation of the equipment(module,device),because special operating conditions, and local code requirements or regulations may necessitate further measures. However, it does contain information which must be read for your personal safety and to avoid material damages. This information is highlighted by a warning triangle and is represented as follows, depending on the degree of potential danger.

Read this manual carefully before using the product as it provides important guidelines regarding safety, installation and use. The manual must be preserved with care for future reference. The manufacturer reserves the right to introduce any technical and/or constructive changes deemed necessary, with no prior notice.

● Warning

This means that failure to observe the instruction can result in death, serious injury or considerable material damage.

● Caution

This means hazard of electric shock and failure to take the necessary safety precautions will result in death, serious injury or considerable material damage.

● Qualified personnel

Operation of the equipment (module, device) described in this manual may only be performed by qualified personnel. Qualified personnel in this manual means person who are authorized to commission, start up, ground and label devices, systems and circuits according to safety and Regulatory standards.

● Use for the intended purpose

The equipment (device, module) may only be used for the application specified in the catalogue and the user manual, and only be connected with devices and components recommended and approved by PERRY.

● Proper handling

The prerequisites for perfect, reliable operation of the product are proper transport, proper storage, installation and assembly, as well as proper operation and maintenance. When operating electrical equipment, certain parts of this equipment automatically carry dangerous voltages. Improper handling can therefore result in serious injuries or material damage.

- Use only insulating tools
- Do not connect while circuit is live (230V~).
- Place the meter only in dry surroundings.
- Do not mount the meter in an explosive area or expose the meter to dust, mildew and insects.
- Make sure the used wires are suitable for the maximum current of this meter.
- Make sure the AC wires are connected correctly before activating the current/voltage to the meter.
- Make sure the used wires are suitable for the maximum current of this meter.
- Do not touch the meter connecting clamps directly with your bare hands, with metal, blank wire or other material as you may get an electrical shock.
- Make sure the protection cover is placed after installation.
- Installation, maintenance and reparation should only be done by qualified personnel.
- Never break the seals and open the front cover as this might influence the functionality of the meter, and will avoid any warranty.
- Do not drop, or allow physical impact to the meter as there are high precision components inside that may break.

2 - Introduction

The single phase two wire energy meters (1P2W) they are used to measure single phase energy in residential and commercial applications.

1SDSD05CEM/2:
Energy meter with analog register

All models has a pulse output, which is passive type.
The constant is 1000imp/kWh.

3 - Technical Data

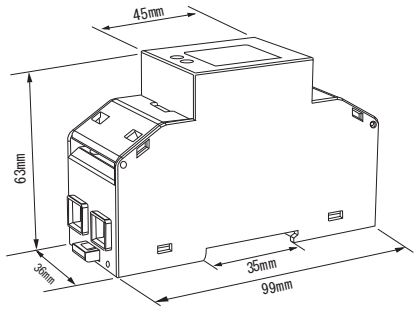
● Specifications

Nominal voltage(Un)	230V AC
Operational voltage	80%~120% Un
Insulation capabilities:	
- AC voltage withstand	4KV for 1 minute
- Impulse voltage withstand	6KV-1.2μS
Basic current Ib (Iref)	10A
Maximum rated current (Imax)	100A
Starting current	0.4% Ib (Iref)
Over current withstand	30Imax per 0.01s
Operational current range	50-60Hz ±10%
Internal power consumption	≤ 2W/10VA
Test output flash rate (pulse LED)	1000imp/kWh
Test pulse output rate:	1000imp/kWh
- type	transistor open collector
- pulse duration	*80 ms*
- operating voltage	*5...27 V d.c.*
- maximum current	*27 mA d.c.*
Max. reading	999999.9 kWh

● Performance criteria

Operating humidity	≤ 90%
Storage humidity	≤ 95%
Operating temperature	-25°C - +55°C
Storage temperature	-40°C - +70°C
Active energy accuracy	Class 1 IEC 62053-21
Protection against penetration of dust and water	IP51
Protective class	class II ⧈
Warm up time	10s
Mechanical environment	M1
Electromagnetic environment	E2
Degree of pollution	2
Sealable	yes
Section of the cables to the terminals	4 ÷ 16 mm²

4 - Dimensions



2 mod. DIN

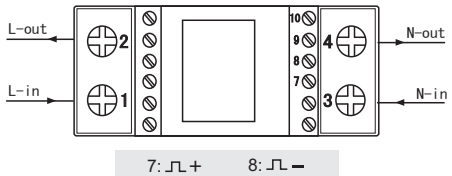
Height	99mm
Width	36mm
Depth	63mm

5 - Operation

● Display info

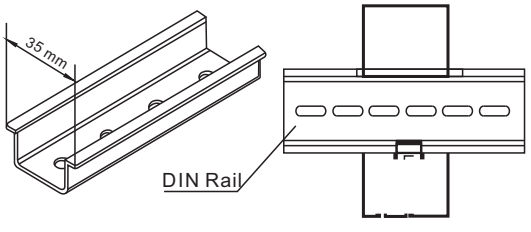
1SDSD05CEM/2: equipped with a 6+1 register counter, measures and displays active energy (kWh).

6 - Wiring Diagram



7 - Installation

The digital energy meter has to be installed in switchboards granting an protection degree of at least IP51 or superior.



DISPOSING OF OLD ELECTRICAL AND ELECTRONIC EQUIPMENT

This symbol on the product or on its packaging indicates that this product cannot be treated as household waste. On the contrary, it must be taken to a specific collection centre for recycling electrical and electronic equipment, such as: - outlets, if a similar product to the one being disposed of is being purchased - local collection centres (waste collection centres, local recycling centres, etc.). By making sure the product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inadequate disposal of this product. Recycling materials will help conserve natural resources. For more detailed information about recycling this product, please contact the local office in your area, the household waste disposal service in your area or the shop where you purchased this product.