

DIGITAL USER GUIDE

Six readings on one single-phase meter.

amiciSense 6-in-1 digital energy meter · SKU 1xD69-DIN (also 1xD69-DIN-M with mount)



100 A

AC 40–300 V single phase

Current **0–100 A**

Power, energy, frequency, power factor

35 mm DIN rail

Shows voltage, current, active power, energy (kWh), frequency and power factor at the same time.

Scope: SKU **1xD69-DIN** (meter) and **1xD69-DIN-M** (same meter supplied with a mounting enclosure).
One meter model: AC 40–300 V, 45–65 Hz, up to 100 A through the built-in current sensor.

Mains voltage. Installation must be done by a qualified electrician with the supply switched off and isolated. The meter is for 45–65 Hz AC mains only.

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SKU 1xD69-DIN / 1xD69-DIN-M · Version 1.0

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This guide is based on the supplier instruction sheet for this meter and the product photographs. Where the store listing differs from the supplier sheet, the supplier values are used.

01 · OVERVIEW

Know the meter before you wire it

Front of the meter, display and terminals



Display (six values)

Top to bottom: active power **W**, energy **kWh**, voltage **V**, frequency **Hz**, current **A** and power factor **PF**. The meter updates about twice per second.

RESET button

Used only to clear the energy (kWh) total: press and hold for 5 seconds while the meter is powered. See page 7.

Terminals

1 and **2** (bottom): measured voltage, which also powers the meter.

3 and **4** (top): only for an optional external current transformer.

Built-in current sensor

The current is measured by passing the **live (phase) conductor** through the hole in the meter body. No conductor is screwed into the meter for current measurement up to 100 A.

Variants

1xD69-DIN: meter only. **1xD69-DIN-M**: the same meter with a small surface-mount enclosure with a clear hinged cover. The wiring and operation are identical.

02 · SAFETY

Check these before installation

If any point is uncertain, stop and get advice from an electrician.

1 · Voltage and frequency

Use only on single-phase **AC 40–300 V, 45–65 Hz** mains. Do not connect to DC or to a voltage above 300 V.

2 · Current up to 100 A

The built-in sensor measures up to **100 A**. The circuit itself must still be protected by a correctly rated breaker (MCB/RCBO) upstream.

3 · Isolate before working

Switch off and isolate the supply, then prove the conductors dead with a suitable tester before connecting terminals 1–2 or routing the live conductor through the meter.

4 · Install inside a board or enclosure

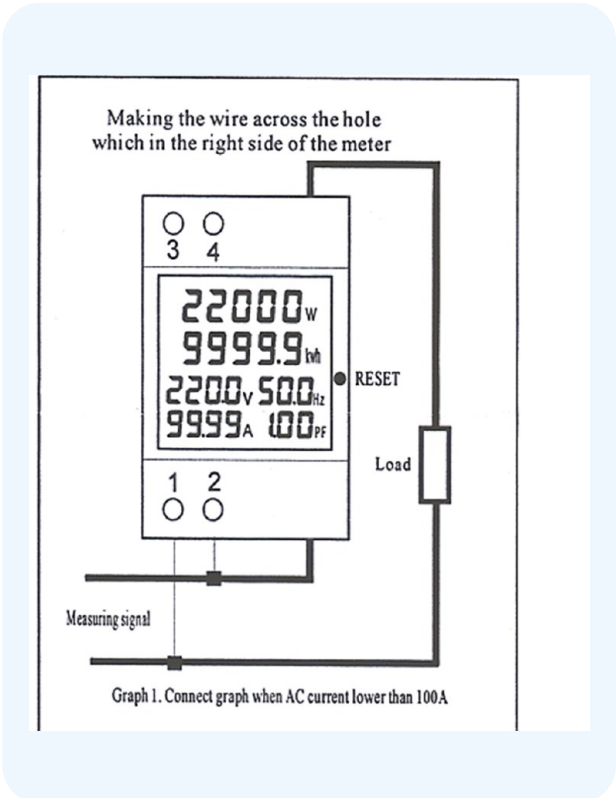
Mount on a 35 mm DIN rail inside a distribution board, or in the enclosure supplied with 1xD69-DIN-M. The terminals must not be accessible when the supply is on. No dust or water rating is stated for this meter: install it indoors and keep it dry.

Electrician installation only

Mains wiring must follow local wiring rules. Use conductors sized for the circuit current and tighten the screw terminals firmly. Do not open the meter.

Voltage on 1–2, live conductor through the hole

Standard connection for currents up to 100 A (supplier graph 1)

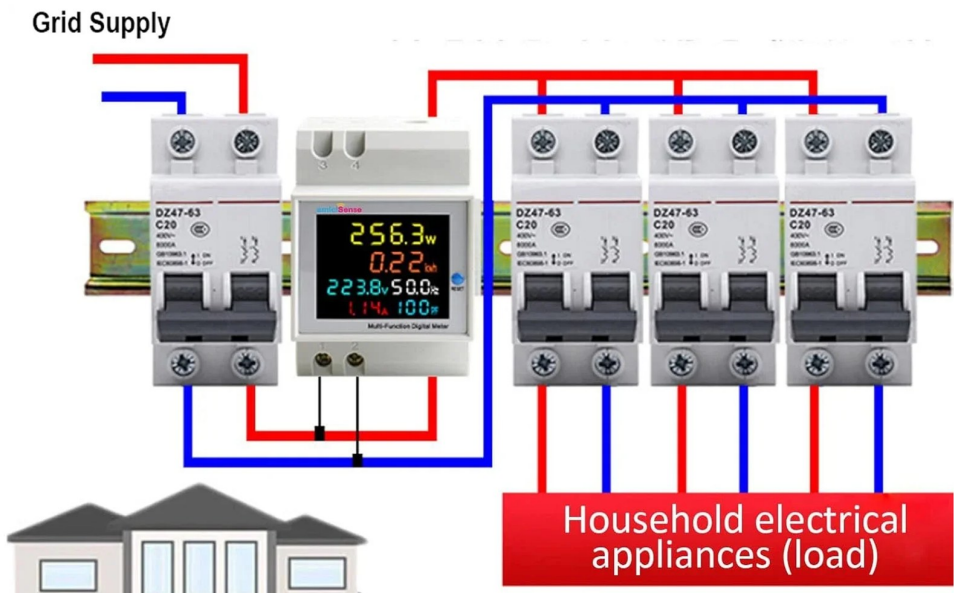


Supplier diagram (graph 1): measuring signal on 1–2, load conductor through the hole.

Connection	What to do
Terminal 1	Measured supply: live (store wiring diagram)
Terminal 2	Measured supply: neutral (store wiring diagram)
Hole in the body	Pass the live conductor to the load through the hole. Either direction is acceptable (supplier sheet).
Terminals 3 / 4	Leave empty unless an external CT is used (page 6)

Steps

1. Isolate the supply.
2. Connect the supply live and neutral to terminals 1 and 2.
3. Route the load live conductor through the hole.
4. Check the work, close the board and switch on.

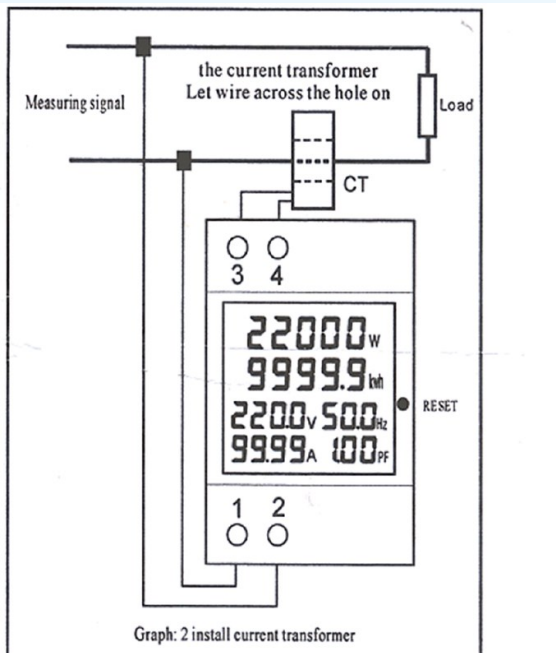


Store wiring diagram: meter after the incoming 2-pole breaker, live conductor through the meter to the load breakers.

04 · EXTERNAL CT AND MOUNTING

Optional external CT, DIN rail and enclosure

Supplier graph 2 and the 1xD69-DIN-M enclosure



Supplier diagram (graph 2): conductor through an external CT, CT secondary on 3–4.

External current transformer

The supplier sheet also shows an external CT: pass the conductor through the CT and connect the two CT secondary wires to terminals **3** and **4**. No CT is included and the supplier sheet does not state which CT ratio the meter expects. Do not fit an external CT without confirming the type with amiciKart support.

Measuring range with a CT

The 100 A current range on page 8 applies to the built-in sensor. Readings with an unconfirmed external CT may be wrong.



Meter and enclosure (1xD69-DIN-M), store photo.

DIN rail

Clip the meter onto a 35 mm DIN rail. Size: 54 × 80 × 64 mm (supplier sheet). Leave room above for the conductor through the hole.

Enclosure (1xD69-DIN-M)

The mount variant adds a small surface-mount enclosure with a clear hinged cover (see photo). Fit and wire the meter the same way.

05 · OPERATION

Reading the display and resetting energy

The meter starts measuring as soon as terminals 1–2 are powered

Value	Unit	Meaning
Active power	W	Power being used now
Energy	kWh	Total energy since the last reset
Voltage	V	Supply voltage at terminals 1–2
Frequency	Hz	Supply frequency
Current	A	Current in the conductor through the hole
Power factor	PF	0.00 to 1.00

Reset the energy total

1. With the meter powered, press and hold **RESET** for **5 seconds**.
 2. Release the button: energy restarts from zero and begins counting again.
- Only the kWh total is cleared. The other values are live readings.

Power cuts

The meter keeps the energy total when power is lost and continues counting from that value when power returns.

When the total reaches its limit

The energy display goes up to 99,999 kWh. Record the reading and reset it if it is near the limit.

Technical specifications

From the supplier instruction sheet (AC 40–300 V version)

Parameter	Value
Voltage range	AC 40.0–300.0 V
Current range	0–100.00 A, resolution 0.01 A (built-in sensor)
Active power	0–30,000 W; resolution 0.1 W up to 9,999.9 W, 1 W above
Energy	0–99,999 kWh; resolution 0.01 kWh (0–999.99), 0.1 kWh (1,000–9,999.9), 1 kWh above
Frequency	45.0–65.0 Hz
Power factor	0.00–1.00
Accuracy	±1 % ± 2 digits
Update rate	2 readings per second
Size	54 × 80 × 64 mm
Installation	35 mm DIN rail
Supply	Powered from the measured voltage on terminals 1–2
Use	Single-phase AC mains, 45–65 Hz only

The supplier also makes a 250–450 V version of this meter. This product (1xD69-DIN) is the 40–300 V version. No IP (dust/water) rating, operating temperature or certification is stated in the supplier sheet, so none is given here.

07 · TROUBLESHOOTING

What you see, and what to check next

Isolate the supply before touching terminals

What you see	Possible cause	Next step
Display stays blank	No voltage on terminals 1–2, or a loose terminal	Isolate, check the connections to 1 and 2, then check the supply voltage is 40–300 V AC.
Current, power and energy stay at zero	Load off, or the live conductor is not through the hole	Switch a load on. Check that the live conductor passes through the hole.
Current near zero although a load is on	Live and neutral both pass through the hole, so their currents cancel	Pass only the live conductor through the hole.
Energy total went back to zero	RESET held for 5 seconds	The reset cannot be undone. Note readings regularly if you need records.
Readings wrong with an external CT	CT type not matched to the meter	Remove the CT and use the built-in sensor, or contact support for the correct CT.
Terminal or body hot or discoloured	Loose terminal	Isolate and stop using it. Have an electrician inspect the wiring.

Still unsure? Contact amiciKart support with a photo of the display and the wiring.

[Contact support](#)

[Product page](#)