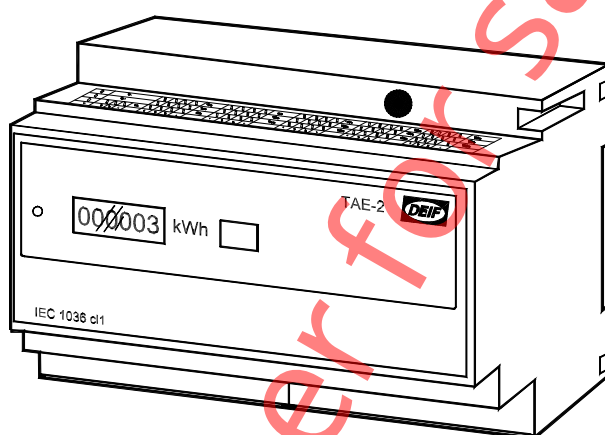


# Energy meters

Type TAE-2

4921220030D



- **Direct reading of up to 2000A/1 or 5A**
- **Pulse output via relay contact**
- **LED for indication of correct connection and correct function**
- **User setting of current transformer ratio**
- **For 35 mm DIN rail**

## Application

The energy meter type TAE-2 is applied to kWh measurement, measuring the electricity consumption in 3 phase or single phase networks. The meter is applicable to 3 phase 3 wire, 3 phase 4 wire and single phase networks.

The unit is provided with a microprocessor-based circuit, which is connected to a mechanical counter for registration of the consumption in kWh.

The TAE-2 is furthermore provided with a relay contact output. The unit can consequently be connected to various measuring terminals, tariff units, computers, etc.

The measuring range of the energy meter depends on the ratio of the external current transformers. The measuring range is set by the user on the front of the meter.

On the front the TAE-2 is equipped with a LED for indication of correct connection of the unit. At correct connection the LED flashes at a frequency corresponding to 125Wh, irrespective of the selected current transformer ratio. If the TAE-2 has been incorrectly connected, the LED is lit continuously.

The TAE-2 is CE marked to EN 61036 and IEC 1036.

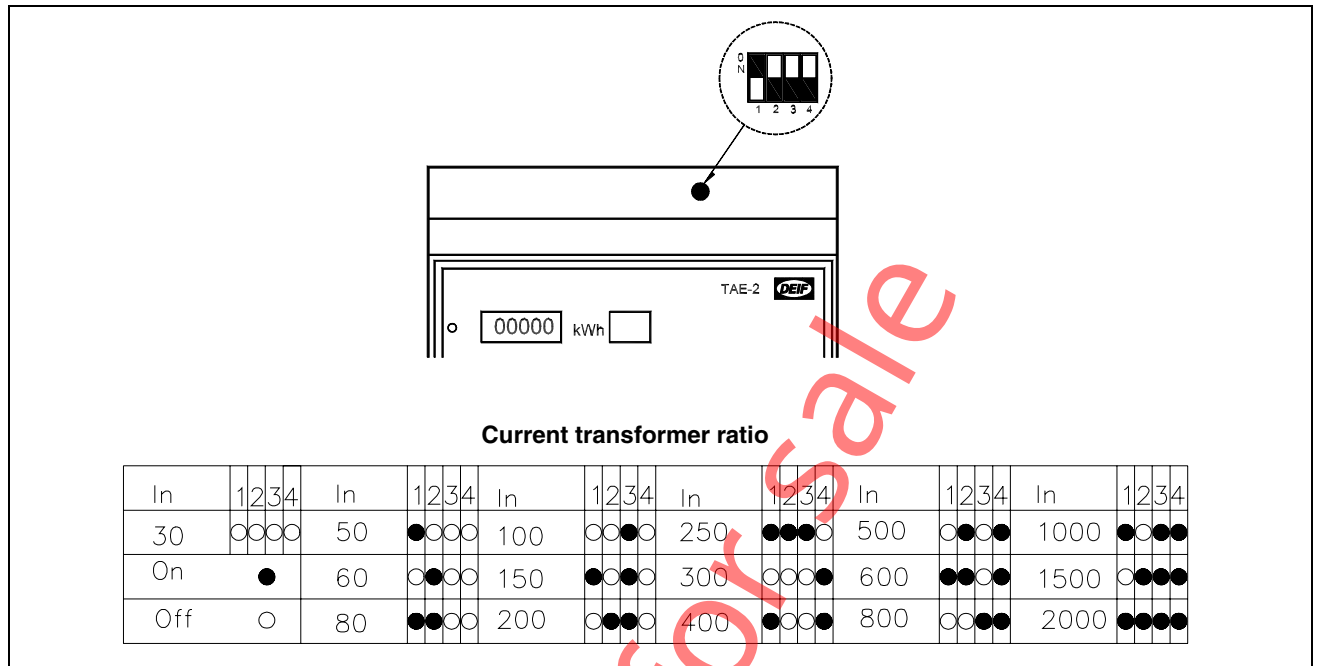
## Technical specifications

Connection		3 phase 3 wire (2 external current transformers), or: 3 phase 4 wire (3 external current transformers), or: single phase (1 external current transformer)
Measuring voltage		230V/400V AC -20/+20% or: 132/230 V AC -20/+20% Consumption < 3VA.
		The measuring voltage is internally connected to the supply voltage.
Measuring current		Consumption: 0.1VA. $I_n = 1A$ or $5A$ , $I_b = 0.05 \times I_n$ , $I_{max} = 1.2 \times I_n$
Overcurrent		$25 \times I_n$ for 3 s/ $50 \times I_n$ for 1 s
Measuring range		30-50-60-80-100-150-200-250-300-400-500-600-800-1000-1500-2000/1A or 5A
		Determined by the current transformer ratio.
Measuring frequency		45...65Hz
Read-out		6 digit mechanical counter. No reset function.
Output		Relay contact output.
	Pulse ratio	1 pulse per kWh. Max. number of pulses 4000 per hour.
	Pulse width	100 ms
	Contact ratings	250V-6A-1500VA(AC) 24V-6A-150VA (DC)
	Max. voltage	250V
Safety		600V-Cat II Pollution deg. 2 to EN61010-1
Indication		LED for indication of correct connection and correct function.
		Flash frequency: 125Wh
Accuracy		Class 1 (-10... <u>15</u> ...30...55°C), to EN 61036 and IEC 1036
Temperature		-10...55°C (nominal), -20...70°C (storage)
Humidity		Up to 95% (without condensing)
EMC	Emission	To EN 61036 and IEC 1036
	Immunity	To EN 61036 and IEC 1036
Connections		Screw terminals, 2.5 mm <sup>2</sup>
Protection		IP 20, to EN 60529 and IEC 529
Materials		All plastic parts are self-extinguishing to UL94 (V0).

### Selection of current transformer ratio

The measuring range is selected according to the ratio of the external current transformers by means of dip switches. These are easily accessible through a hole in the front plate of the meter. The selected current transformer ratio will not be activated until the TAE-2 has been reconnected (i.e. after disconnection and reconnection of the power supply).

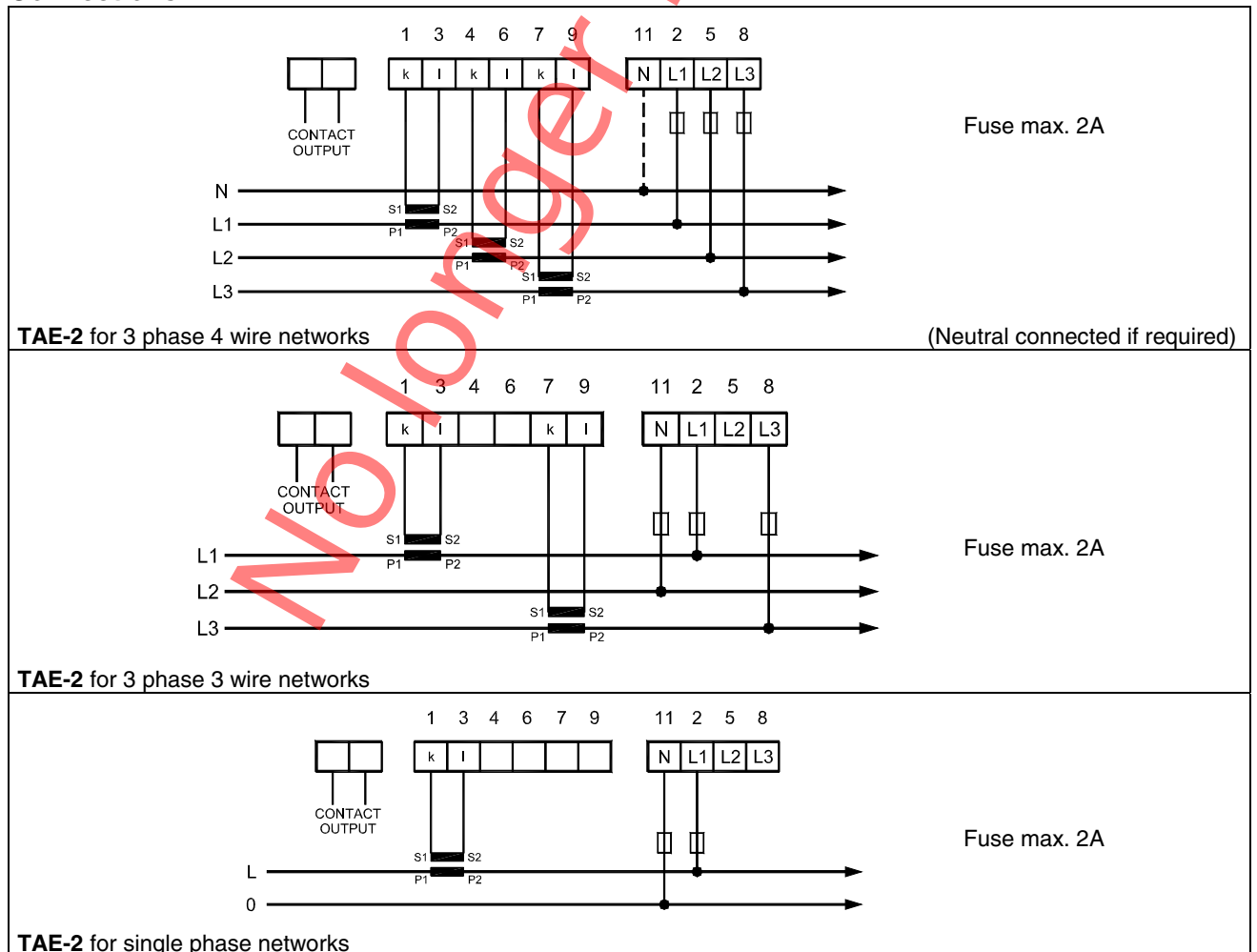
After selection of the current transformer ratio the hole is sealed using a plug, which is included on delivery.



The diagram shows the front panel of the TAE-2 meter with a circular window for dip switch selection. Below it is a table titled "Current transformer ratio" showing the configuration of four dip switches (1, 2, 3, 4) for various current ranges (In).

In	1	2	3	4	In	1	2	3	4	In	1	2	3	4	In	1	2	3	4
30	○	○	○	○	50	●	○	○	○	100	○	○	○	○	250	●	●	○	○
On	●				60	○	●	○	○	150	●	○	○	○	300	○	○	○	○
Off	○				80	●	●	○	○	200	○	●	○	○	400	●	○	○	○
															500	○	○	○	○
															600	●	○	○	○
															1000	●	○	○	○
															1500	○	○	○	○
															2000	●	○	○	○

### Connections



The diagrams show the internal wiring for different network types. Each diagram includes a terminal block with terminals 1, 3, 4, 6, 7, 9, 11, 2, 5, 8. The terminal block is divided into two sections: the first section (1, 3, 4, 6, 7, 9) is labeled 'k I k I k I' and the second section (11, 2, 5, 8) is labeled 'N L1 L2 L3'. The diagrams show the connection of the power lines (N, L1, L2, L3) to the terminals and the internal wiring of the meter.

**TAE-2 for 3 phase 4 wire networks** (Neutral connected if required)

**TAE-2 for 3 phase 3 wire networks**

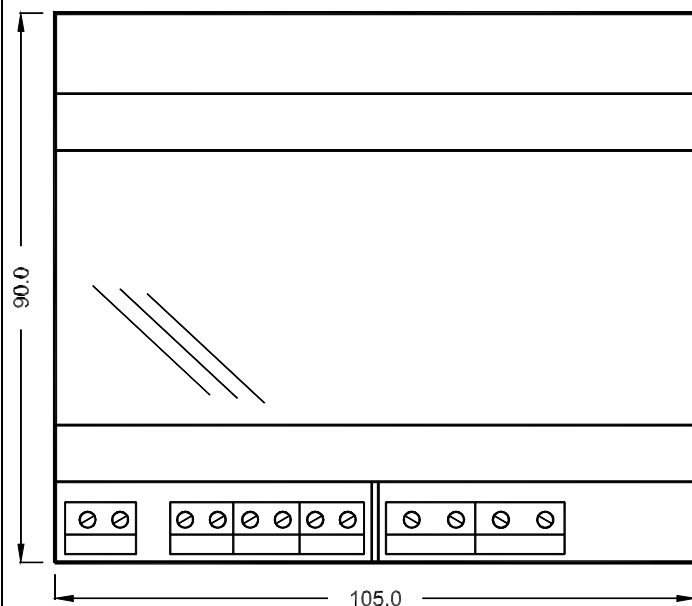
**TAE-2 for single phase networks**

The power should flow from P1 towards P2.

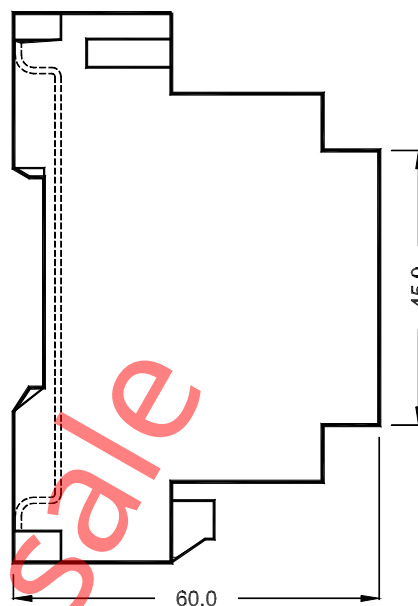
After connection of the TAE-2, the 2 covers (included on delivery) are placed over the terminals.

## Dimensions

All dimensions in mm



TAE-2



Weight: approx. 0.300 kg

## Order specifications

Type	Voltage	EAN-number
TAE-2	3 x 132/230V AC 30-2000/5A	5703727001088
TAE-2	3 x 230/400V AC 30-2000/5A	5703727001095
TAE-2	3 x 132/230V AC 30-2000/1A	5703727001101
TAE-2	3 x 230/400V AC 30-2000/1A	5703727001118
TAE-2	1 x 230V AC 5A	5703727001125
TAE-2	1 x 230V AC 1A	5703727001132



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Due to our continuous development we reserve the right to supply equipment which may vary from the described.

