

**1. Description.**

The **EC3-6TA** is a four DIN modules energy meter for energy measurement in industrial and civilian applications, available with MID certification and suitable for billing produced by Algodue Elettronica with UEC1P5-4X code.



Picture 1 - Product image

**2. Configuration.**

Select ratio value pressing SET button for 3 seconds.

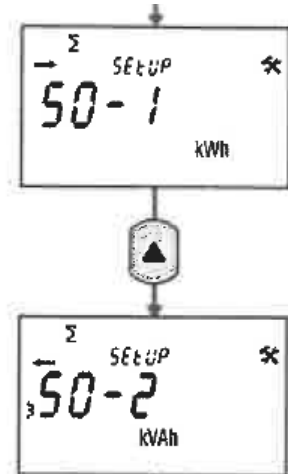
Example: TAC250. Ratio to be set is  $250A/5A = 50$






Picture 2 - SET button position

Program digital outputs:

- S0-1 as KWh and exported power ←
- S0-2 as KVAh and exported power ←



**METER COUPLED TO S0 OUTPUT (1-2)**

1. Press , elements identifying the meter (ex. →, kWh) starts to flash.
2. Press  to change meter to be coupled to proper output.
3. Confirm pressing .

Program **probe/datalogger** weight connecting it directly by USB.

*Example:* with TAC250 ratio 50, weight must be set to 0,025 because meter's datasheet recommends, for TA ratios between 25 and 124, a S0 output with 40 pulses/KWh.

TA RATIO VALUE	S0 PULSES
1 ÷ 4	1,000
5 ÷ 24	200
25 ÷ 124	40
125 ÷ 624	8
625 ÷ 3,124	1
3,125 ÷ 10,000	0.1

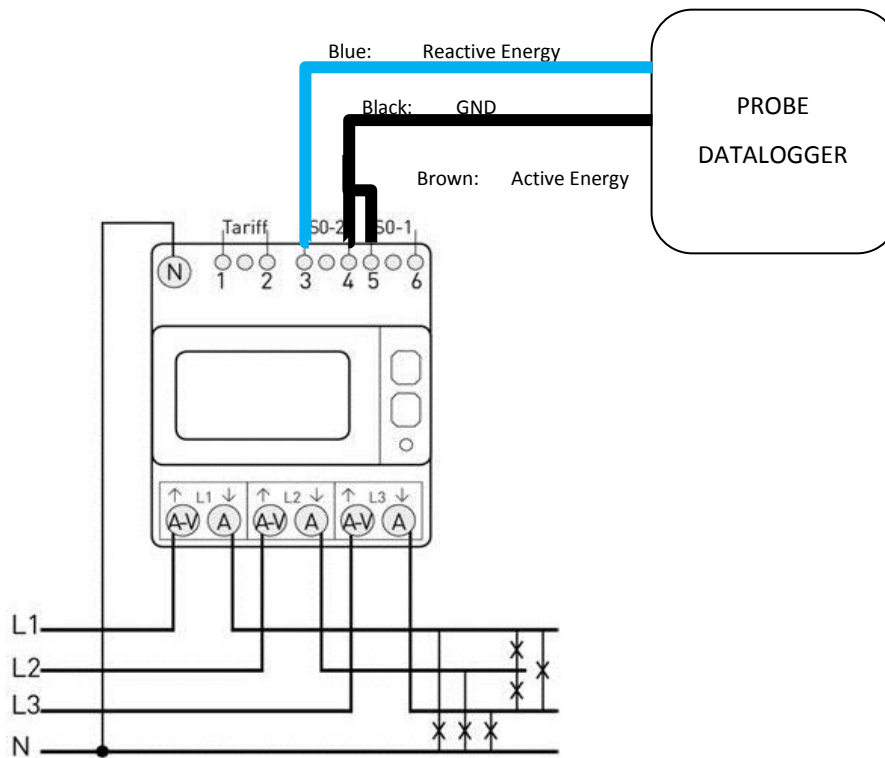
**NOTE:** Active power (KWh), capacitive reactive power (KVArh) or inductive reactive power (KVArh) can be associated to pulse outputs.

**3. Connections layout.**

Connect current transformers as follow:

**3 PHASES - 4 WIRES - 3 AMPEROMETRIC TRANSFORMERS**

Meter works properly also with only one phase connected. In this case backlight is shutted of for energy saving.

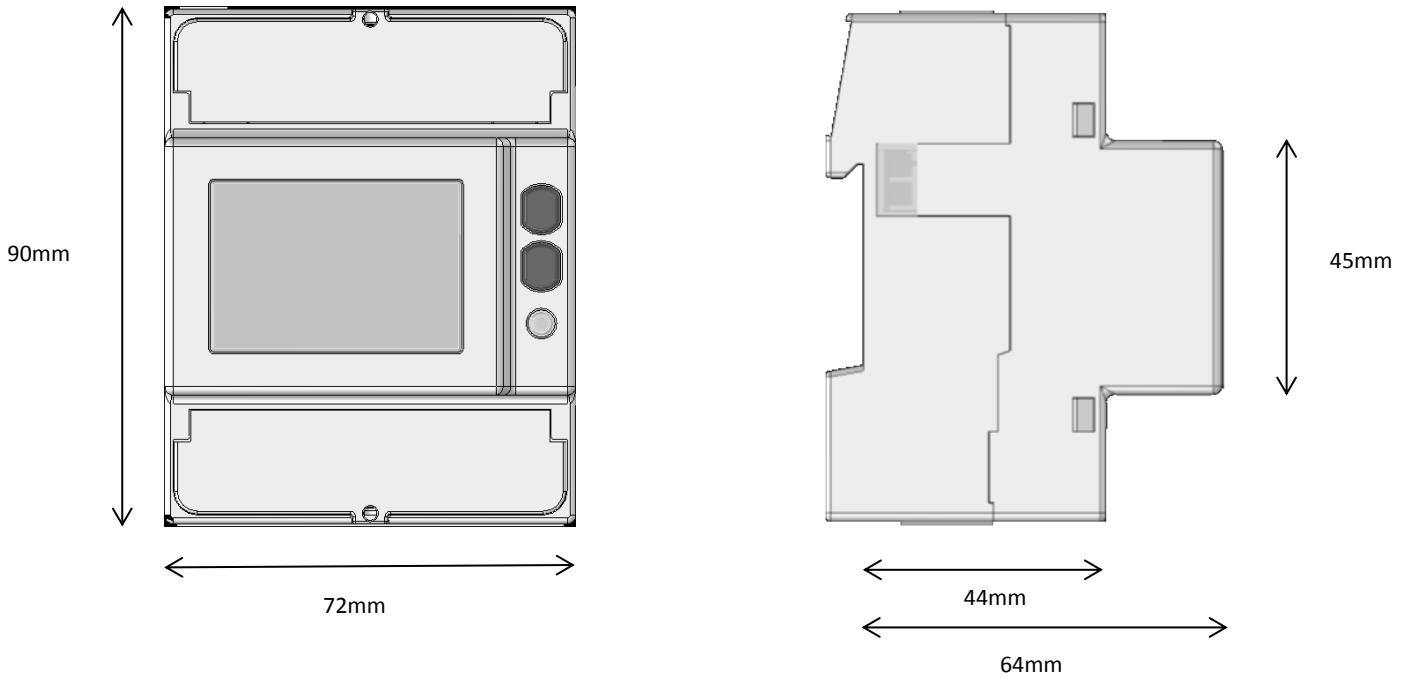


Picture 3 - Connections layout

4. Technical information.

Power supply	<ul style="list-style-type: none"> <li>Power supplied from the voltage circuit</li> <li>Nominal measurement voltage <math>\pm 20\%</math></li> <li>Max consumption (for each phase): 7.5 VA - 0.5 W</li> <li>CT burden (for each phase): 0.04 VA</li> <li>Nominal frequency: 50/60 Hz</li> </ul>
Voltage - (Nominal values)	<p>A) 3x230/400 V 50 Hz D) 3x230/400 ... 3x240/415 V 50/60 Hz</p>
Current	<ul style="list-style-type: none"> <li>Starting <math>I_{st}</math>: 2 mA</li> <li>Minimum <math>I_{min}</math>: 10 mA</li> <li>Transitional <math>I_{tr}</math>: 50 mA</li> <li>Reference <math>I_{ref}</math> (<math>I_n</math>): 1 A</li> <li>Maximum <math>I_{max}</math>: 6 A</li> </ul>
Accuracy	<ul style="list-style-type: none"> <li>Active energy class 1 according to IEC/EN 62053-21 (NO MID)</li> <li>Active energy class B according to EN 50470-3 (MID)</li> <li>Reactive energy class 2 according to IEC/EN 62053-23</li> </ul>
SO outputs	<ul style="list-style-type: none"> <li>2 passive optoisolated</li> <li>Maximum values: 250 VAC-DC - 100 mA</li> <li>Meter constant according to the set CT ratio: <ul style="list-style-type: none"> <li>1,000 imp/kWh with CT ratio in range 1÷4</li> <li>200 imp/kWh with CT ratio in range 5÷24</li> <li>40 imp/kWh with CT ratio in range 25÷124</li> <li>8 imp/kWh with CT ratio in range 125÷624</li> <li>1 imp/kWh with CT ratio in range 625÷3,124</li> <li>0.1 imp/kWh with CT ratio in range 3,125÷10,000</li> </ul> </li> <li>The measuring unit (imp/kWh, imp/kvarh, imp/kVAh) changes according to the assigned counter (kWh, kvarh, kVAh)</li> <li>Pulse length: 50 <math>\pm 2</math> ms</li> </ul>
Tariff input	<ul style="list-style-type: none"> <li>Active optoisolated</li> <li>Voltage range for tariff 2: 80 ... 276 V<sub>AC-DC</sub></li> </ul>
Metrological LED	<ul style="list-style-type: none"> <li>Meter constant: 10,000 imp/kWh</li> <li>Pulse length: 10 <math>\pm 2</math> ms</li> </ul>
Working conditions	<ul style="list-style-type: none"> <li>Operative: -25°C ÷ +55°C</li> <li>Warehousing: -25°C ÷ +75°C</li> <li>Relative humidity: 80% maximum without condensation</li> </ul>
Sealing	IP51 frontal - IP20 terminals
Dimensions	90 x 720 x 64mm

**5. Mechanical dimensions.**



**Picture 4 - Mechanical dimensions**

*The features shown may be subject to change without notice.*