

Description**GENERAL FEATURES**

The multifunction static energy meters type **TH40C** are designed for metering of active energy in two directions, reactive energy in four quadrants, apparent energy, active and reactive demand and registration of load profile in three-phases 3 or 4-wires distribution networks. The meters can be connected directly, via CTs or via CTs and VTs.

REFERENCE STANDARDS

The metering features comply with IEC62052-11, IEC62053-21, IEC62053-22 and IEC62053-23 standards. Furthermore they comply with the EN50470-1 and EN50470-3 norms. The meters are MID certified and manufactured in compliance with ISO9001 standard.

LCD DISPLAY

The back lighted LCD display allows the visualization of several information besides the usual measurements: current rate, energy flow direction, phase current and voltage values as well as power factor, instantaneous power, alarms and others. The display can be activated also when the main supply is absent and the visualization sequence can be set up by the user.

MAXIMUM DEMAND AND TOU

The **TH40C** meters can manage up to 4 rates and can record the maximum demand based on both the block and the rolling calculation method. The meter can switch automatically to daylight saving time and the day of automatic billing reset can be programmed by the user as well as the daylight saving time period.

LOAD PROFILE

The meter can record up to 16 load profile channels that can be configured by the user as well as the integration period. It is possible to record a load profile for the import and export active energy, the reactive energy on 4 quadrants and on combined quadrants, the apparent import and export power, the voltage, the current and other quantities.

EVENT LOG

The meter can record several events together with date and time like power failures, over and under voltage, over and under current, phase losses, processor errors, reprogramming attempts and tamper checking.

HOUSING

The meter housing, made of self-extinguishing polycarbonate, assures IP 51 protection level against water and dust penetration.

COMMUNICATION INTERFACES

The meters are equipped with one infrared port and with a choice of serial interfaces between the following:

- 1 x RS232 + 1 x RS485
- 2 x RS485
- 1 x RS485 + 1 x Ethernet (RJ45) interface

Le interfaces are completely independent and they can be enabled to communicate with both IEC62056-21 and MODBUS protocols. Both protocols can be active on the same meter.

PUSHBUTTONS

The meters are equipped with 3 pushbuttons. The scrolling pushbuttons are always accessible. The billing reset pushbutton, which is also used to enable meter programming, can be sealed.

IMPULSE OUTPUTS

The **TH40C** meters are equipped with 6 programmable impulse outputs. User can set each output independently as energy proportional impulses, alarm, time synchronization and rate changing indication. A special version of the meter equipped with 4 outputs and 1 230V_{AC} input for external billing reset is available.

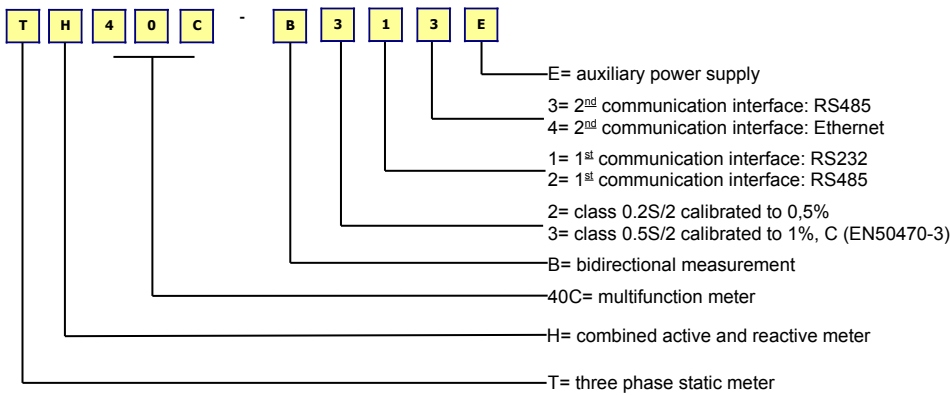
ANTI-FRAUD PROTECTION

Meter and terminal covers are sealed separately, the billing reset and programming pushbutton can be locked. Parameter modification via software is protected with a password. All the legally relevant data are stored in a non-volatile memory.

Technical data

<p>Accuracy class (kWh/kVARh) TH40C-B3..E 0.5S/2 calibrated to 1% TH40C-B2..E 0.2S/2 calibrated to 0.5%</p> <p>MID index class (EN50470-1 and -3) C</p> <p>Current $I_b(I_{max})$ 1(10)A, 10(100)A</p> <p>Voltage U_r 3x57.7/100V ÷ 240/415V</p> <p>Voltage range 0.75U_r ÷ 1.15U_r</p> <p>Auxiliary power supply 40÷ 240V_{AC}, 70÷ 300V_{DC}</p> <p>Starting current direct connection 0.2% I_b transformer operated 0.1% I_b</p>	<p>Frequency 50Hz or 60Hz</p> <p>Clock accuracy ≤ 0.5s/24h</p> <p>Permanence of clock data without main supply >10 years</p> <p>Temperature range operating -30 °C ÷ +70 °C storage -45 °C ÷ +85 °C</p> <p>Humidity ≤ 95%</p> <p>Load profile storage capacity 2Mbytes</p> <p>Current circuit burden <0.05 VA</p> <p>Voltage circuit burden ≤ 1W 5VA</p> <p>Weight 1500g approx</p>	
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Code for orders



Overall dimension

