

Scope

Three-phase multifunctional static electricity meters **AMT B0x-FxxTIIx** are determined for measurement of active and reactive electric energy, instantaneous active power for consumption and supply, maximum demand, voltage, current and power factor in three-phase four wires networks in direct or indirect connection. They enable measurement of energy in rates controlled by internal clock (up to 4 rates) or externally controlled in two rates.

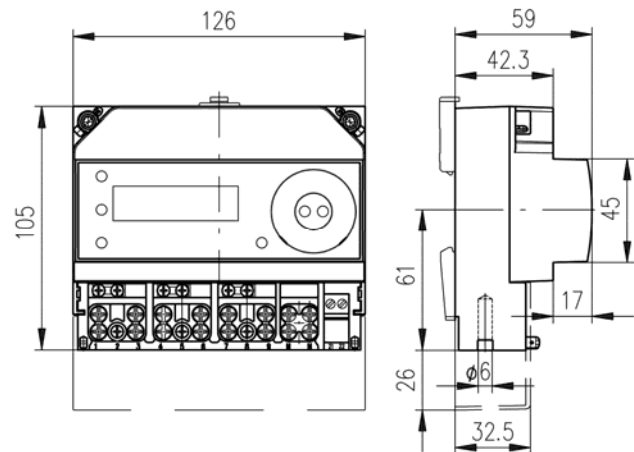
The measured values stored in registers according to the OBIS codes are displayed on LCD in cyclic or stepping mode. The data are stored in non-volatile memory during power outage. The electricity meters can be parametrized and readout by using optical probe AMOS type and software supplied by the manufacturer. The test pulses indicated by red LED are proportional to the consumed energy.



Highlights

- Meter case width 7M (1M = 18 mm);
- Intended for indoor mounting on DIN rail (35 mm);
- Measurement of energy, power, maximum demand, voltage, current, power factor ... (A+, A-, R+, R-, P+, P-, P_{max}, U, I, cos φ...);
- Historical records of the selected registers, created in the end of month - maximum 15 month historical records (A+, A-, R+, R-, P_{max});
- Events records (about missing voltage, covers removal, influence of magnetic field...); number of events and the date of their occurrence;
- Record data profiles;
- Passive transmitting pulse SO output for remote transmission (separately for active and reactive energy);
- Communication interface;
- Complies with IEC/EN 62052-11 + IEC/EN 62053-21; EN 50470-3 and with requirements of European Parliament and EC Directive 2014/32/EU;
- Supplied initially verified for the billing measurement of active energy.

Dimensional drawing



Technical data

Accuracy class active / reactive energy	A, B (MID), 2, 1 / 3, 2
Reference voltage [V]	3 x 220/380, 3 x 230/400, 3 x 240/415, (-30,+15%)
Reference frequency [Hz]	50 or 60
Reference current I _{ref} [A] direct connection	5 and 10
Nominal current I _n [A] indirect connection	5
Adjustable ratios (multiplier CTR values)	1, 10, 12, 15, 20, 24, 25, 30, 40, 50, 60, 80, 100, 120, 150, 160, 200, 240, 250, 300, 400, 480, 500, 600
Transient current I _{tr} [A] direct / indirect connection	0,5 and 1 / 0,25
Starting current I _{st} [A] direct / indirect connection	≤ 0,02 and 0,04 / 0,01
Minimal current I _{min} [A] direct / indirect connection	0,25 and 0,5 / 0,05
Maximal current I _{max} [A] direct / indirect connection	65 / 10
Power consumption - voltage circuit [VA/W]	≤ 1,6/ 0,8
Power consumption - current circuit [VA]	≤ 0,05
Impulse constant for test output k _{TOA} [imp/kWh]	1000, 5 000
Impulse constant for test output k _{TOR} [imp/kvarh]	1000, 5 000
Impulse constant for impulse output k _{SOA} [imp/kWh]	1000 or 1000/K (K = 2 up to 10), 5000
Impulse constant for impulse output k _{SOR} [imp/kvarh]	1000 or 1000/K (K = 2 up to 10), 5000
Transistor output SO	24 V / 30 mA
Operating temperature	- 40 °C up to + 70 °C
Mean temperature coefficient [%/K]	≤ 0,04
Terminals current ; voltage ; auxiliary [mm]	∅ 6 ; ∅ 3 ; ∅ 3
Degree of protection	IP51
Meter dimensions w x h/h' x d [mm]	126 x 105/131 x 59
Weight [kg]	≤ 0,85

Data profile selection	
Number of items for selection to the profile	13 (energies, powers, voltages, currents and power factor)
Number of selected items (channels)	1 - 5
Programmable registration period	5, 10, 15, 20, 30, 60 minutes
Method of reading profile	Reading the whole profile or only part of it according to specified start and end date

Note: Profile data size depends on the number of selected profile items, registration period and used memory. At one profile item and registration period 15 minutes data profile can cover a minimum of 115 days using a base memory. For longer recording times, it is necessary to use additional memory (2. memory - 265 days, 3. memory - 399 days). When selecting 2 items recording time is reduced by half, when selecting 3 items recording time is reduced to third, ...

Marking of meters

AMT B0x₅-Fx₇x₈TII x₁₁

AMT B0... type designation

x₅ basic version: **3** – 200%, **C** – 1300 %

F základné vyhotovenie: multifunctional electricity meter with LCD and RTC

x₇ measured energy: **A** – active energy, **F** – active energy Ferraris mode, **R** – active and reactive energy

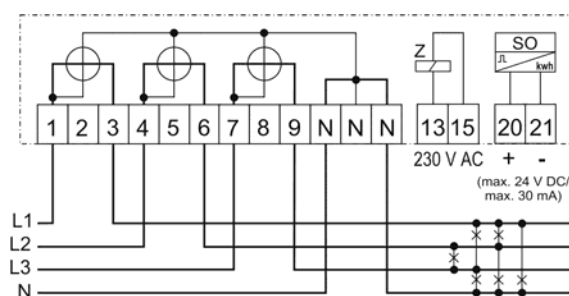
x₈ network connection: **2** – 2-phase 3-wire, **4** – 3-phase 4-wire

T current converter: transformer

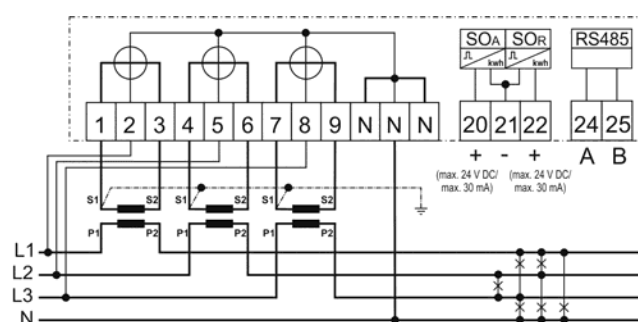
II used processor type: 2 x TI

x₁₁ special modules: **4** - RS 485 interface, **M** - Mesh-wireless communication module, **E** – external control of the second rate

Connection diagrams - examples



AMT B0C-FA4TII E
(direct, double-rate connection
with external control of second rate)



AMT B03-FR4TII A
(indirect, single-rate connection with SO outputs of active
and reactive energy, with interface RS485)

Ordering data

- Type and version marking;
- Reference voltage and current range $I_{ref}/I_n, I_{max}$;
- Reference frequency;
- Special requirements for data profile;
- Number of units;
- Required delivery terms.