Three-phase multifunctional static electricity meters **AMT B2x-Fx4Tx** are determined for measurement of active, reactive and apparent electric energy, instantaneous active, reactive and apparent power for consumption and supply, maximum demand for active, reactive and apparent energy, voltage, current and power factor in 3-phase 4-wires networks in direct and semidirect 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 into special registers according to the OBIS codes are displayed on LCD in cyclic or step mode. The electricity meters can be parametrized and readout by using optical probe AMOS type and software supplied by the manufacturer. The test pulses are indicated by red LEDs, they are proportional to the active and reactive consumed energy. Electricity meters can be produced in version with *summary measuring mode* (unidirectional register) or in version with *separate mode* (consumption - supply).



Electricity meter in case ***„E“***

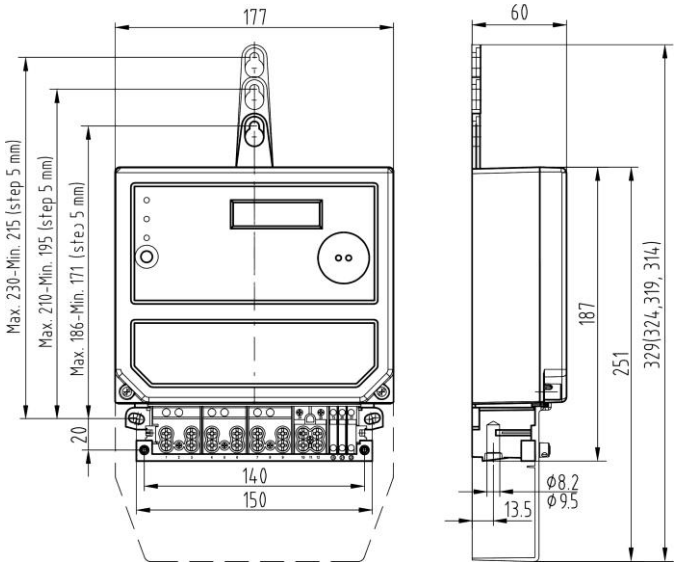


Electricity meter in case ***„D“***

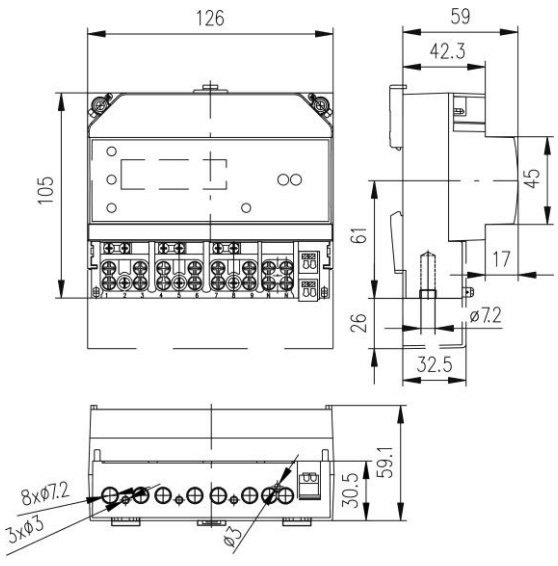
Highlights

- Measuring of energy, power, voltage, current, power factor... (+A, -A, +R_i, -R_i, +R_c, -R_c, +R, -R, +S, -S, +P, -P, P_{max}, U, I, PF...);
- Measurement of active energy per phases L_1, L_2, L_3;
- Historical records of the selected register contents created at the end of a calendar month - up to 15 month records;
- Event records (about influence of magnetic field, missing voltage, covers removal,...) – number of events with date of their occurrence;
- Data record in three independent profiles with selectable channels (20 channels);
- Passive impulse SO outputs (particularly for active and reactive energy);
- Communication interface: optical and RS485 (EN 62056-21, C mode), Mesh (only for meters in case „D“);
- Possibility of equipping with a switch (SCS - Supply control switch, only meter in case „E“) and auxiliary relay 2 A;
- Welded case on a customer request;
- Compliance with EN 50470-1, EN 50470-3, EN 62052-11, EN 62052-21, EN 62053-21, EN 62053-23, EN 62054-21, EN 62056-6-1 and with requirements of European Parliament and EC Directive 2014/32/EU (MID);
- Electricity meter is delivered with conformity assessment (initial verification) for active energy billing purposes.

Dimensional drawings



Case ***„E“*** *up to 100 A with drilling of terminals ø 8,2 mm*
Case ***„9“*** *up to 120 A with drilling of terminals ø 9,5 mm*



Case ***„D“*** *do 80 A with drilling of terminals ø 7,2 mm*

Technical data

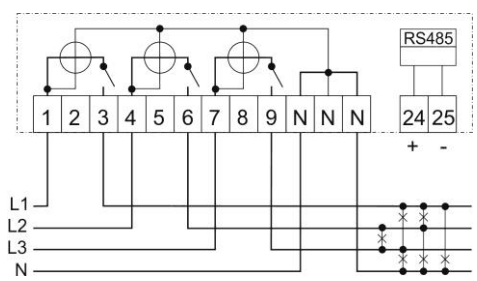
Accuracy class *active / reactive energy*	A, B, (MID), 2, 1, / 3 a 2
Reference voltage [V]	3 x 230/400 (-20%,+15%)
Reference frequency [Hz]	50 (± 2 %)
Reference current I_n / Nominal current I_n [A]	5 and 10 / 5
Transient current I_{tr} [A] *direct/semidirect connection*	0,5 and 1 / 0,25
Starting current I_{st} [mA]	< 10
Minimal current I_{min} [A] *direct/indirect connection*	0,25 and 0,5/ 0,05
Maximal current I_{max} [A] *direct/indirect connection*	80 (case D), 100 (case E), 120 (case 9) / 10
Power consumption - *voltage circuit* **[VA/W]**	≤ 2,05/ 1,32 (L1); 0,88/ 0,33 (L2 and L3) - case E and 9 ≤ 1,18 / 0,60 for phase - case D
Power consumption - *current circuit* **[VA]**	≤ 0,01 at I_n
Impulse constatnt *for test output* k_{TO} **[imp/kWh]**	1000 (setable by manufacturer from 1 to 30000)
Impulse constatnt *for impulse output* k_{SO} **[imp/kWh]**	1000 (k_{TO}/x; x = 1 – 10)
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 *case up to 80 A / 100 A / 120 A* **[mm]**	ø 7,2 ; ø 3 ; ø 3 / ø 8,2 ; ø 3 ; ø 3 / ø 9,5; ø 3 ; ø 3
Degree of protection	IP54 (case E and 9); IP51 (case D)
Meter dimensions *w x h/h´ x d* **[mm]**	177x251x60 (case E and 9),126x135x59 mm (case D)
Fixing holes distance *w x h* **[mm]**	150 x 215-230 (case E and 9)
Weight [kg]	≤ 1,23

Data profile selection	
Number of items for selection to the profile	80 (energies, powers, voltages, currents, power factor...)
Number of selected items (channels)	20 (for every profile)
Programmable registration period	1, 2, 3, 5, 10, 15, 20, 30, 60 min (P01 and P02 profiles); 1, 2, 3, 4, 6, 8, 12, 24 (P03 profile)

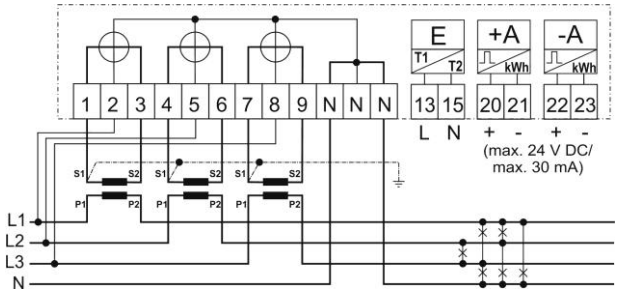
Marking of meters

AMT B2x_5- Fx_7 x_8T$x_{10}$$x_{11}$ x_{12}	
AMT B2.....	type designation
x_5	overload capacity: **3** - 200 %, **4** - 400 %, **5** - 500 %, **6** - 600 %, **8** - 800%, **A** - 1000 %, **B** - 1200 %, **C** - 1300 %; **D** - 1600 %, **E** - 2000 %, **F** - 2400 %
F	basic version: multifunctional electricity meter with LCD and RTC
x_7	measured energy: **A** – active, **R** – active and reactive, **S** – apparent
x_8	network connection: **4** - phase 4-wire
T	current converter: transformer
x_{10}	case version: **D** – do 80 A (drilling of terminals ø 7,2 mm); **E** – up to 100 A (drilling of terminals ø 8,2 mm), **9** - up to 120 A (drilling of terminals ø 9,5 mm)
x_{11}	energy measurement: **I** – separate mode, **J** – summary mode, **K** – combined mode, **F** – Ferraris mode
x_{12}	special modules: **E** – external control of the second rate, **4** - RS 485 interface, **M** – Mesh communication interface – wireless (only for meters in case „D"), **A** - external antenna, **Y** - auxiliary relay 2 A, **S** – disconnector (SCS - supply control switch for meters in case „E", relay in the function of a disconnector for meters in case „D")

Connection diagrams - examples



Direct connection with supply control switch and RS 485 interface, only for „E" case



Semidirect connection with external tariff controland transmitting outputs of active energy +A and –A

Ordering data

Type of meter and version; reference voltage and current range I_n, I_{max}; special requirements for data profile; number of units; required delivery terms.