Scope

Three-phase multifunctional static electricity meters **AMT B2x-FxxTxIx** 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* (using a mechanical register) or in version with *separate mode* (measuring of consumption and supply).

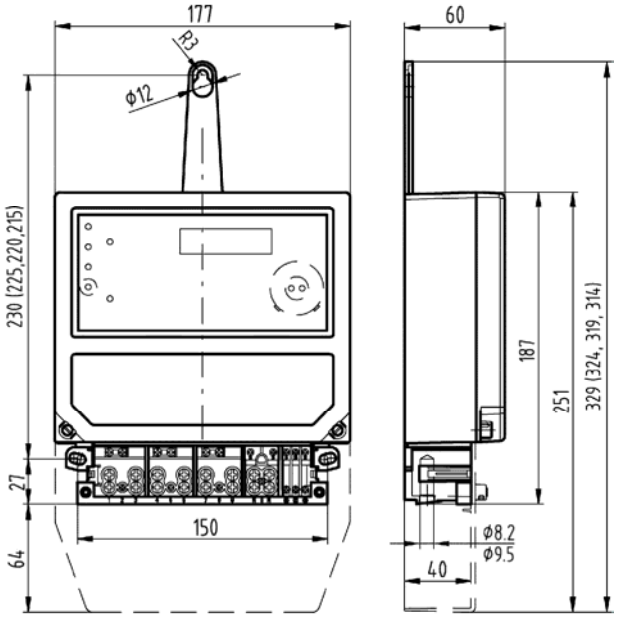
*Electricity meter in case **„E“***

*Electricity meter in case **„C“***

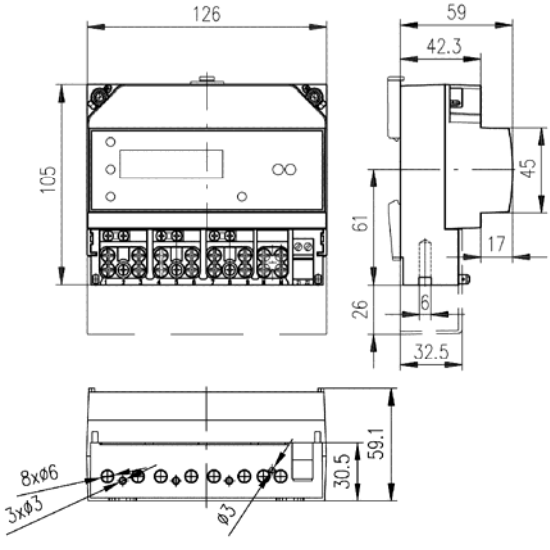
Highlights

- 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, cos φ...);
- 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;
- Welded case on a customer request;
- Compliance with IEC/EN 62052-11, IEC/EN 62053-21; EN 50470-1, EN 50470-3 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.

Technical data



*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 **„C“** do 65 A with drilling of terminals ø 6 mm*

Technical data

Accuracy class *active / reactive energy*	A, B, (MID), 2, 1, / 3 and 2
Reference voltage [V]	3 x 230/400 (-20%,+15%)
Reference frequency [Hz]	50 (± 2 %)
Reference current I_{ref} / 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*	65 (case C), 100 (case E), 120 (case 9) / 10
Power consumption - *voltage circuit* **[VA/W]**	Buck source without RS485: 0,88/ 0,33 for phase Buck source with transformer for RS485 ≤2,05/ 1,32 (L1); 0,88/ 0,33 (L2 and L3) MYRRA source (also for RS485) ≤ 1,18 / 0,60 for phase Buck source with MYRRA for RS485 ≤ 1,42/ 0,55 in L1, 1,10/ 0,40 (L2, L3)
Power consumption - *current circuit* [VA]	≤ 0,01 at I_{ref}
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 65 A / up to 100 A / up to 120 A* **[mm]**	ø 6 ; ø 3 ; ø 3 / ø 8,2 ; ø 3 ; ø 3 / ø 9,5; ø 3 ; ø 3
Degree of protection	IP53 for case E and 9; IP51 for meter, IP20 for terminal block in case C
Meter dimensions *w x h/h´ x d* **[mm]**	126x135x59 mm (case C), 177x251x60 (case E and 9)
Fixing holes distance *w x h* **[mm]**	150 x 215-230
Weight [kg]	≤ 1,23

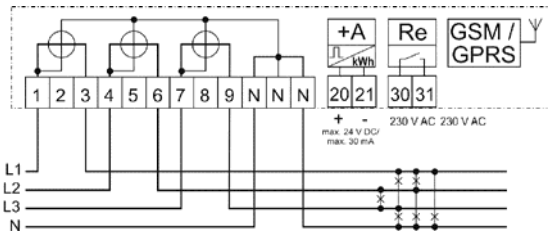
Data profile selection	
Number of items for selection to the profile	80 (energies, powers, voltages, currents, power factor...)
Number of selected items (channels)	20 (for every profile)
Programmable registration period	1, 2, 3, 5, 10, 15, 20, 30, 60 min (P01 and P02 profiles); 1, 2, 3, 4, 6, 8, 12,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

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 846 days using a base memory.*

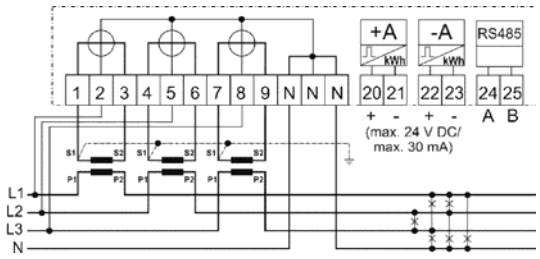
Marking of meters

AMT B2x_5- Fx_7 x_8Tx_{10}I 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, **F** - active - Ferraris mode,**S** – apparent
x_8	.....	*network connection:* **2** – phase 3-wire, **4** - phase 4-wire
T	.....	*current converter:* transformer
x_{10}	.....	*case version*: **C** – up to 65 A (*drilling of terminals* ø 6 mm); **E** – up to 100 A (*drilling of terminals* ø 8 mm), **9** - up to 120 A (*drilling of terminals* ø 9,5 mm)
I	.....	*type of applied processor:* **TI**
x_{12}	.....	*special modules:* **E** – external control of the second rate, **4** - RS 485 interface, **M** - Mesh-wireless communication module, **G** - GSM/GPRS interface, **P** - PLC interface, **Y** - auxiliary relay 2 A

Connection diagrams - examples



AMT B2x FA4TEIGY with transmitting output of active energy +A, switching relay and internal GPRS module



Semidirect connection of AMT B2x FA4T9E with transmitting outputs of active energy +A and –A and external tariff control

Ordering data

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

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