

Scope

Three-phase static electricity meters **AMT B1x-OxxTEI** are determined for direct and indirect measurement of active and reactive energy with measured consumption displaying on LCD. They are manufactured in single-rate and double-rate versions with external switching of rates.

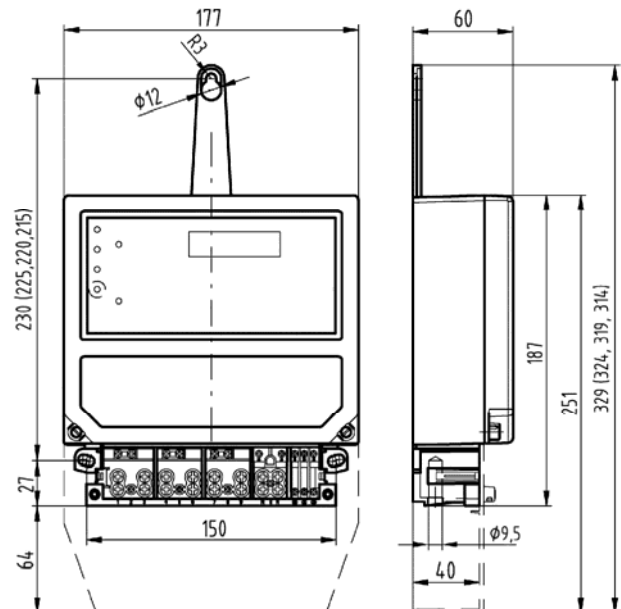
The measured values are stored into special registers according to the OBIS codes. They are displayed on LCD in cyclic or step mode. The data are stored in non-volatile memory during power outage. The performance of internal circuits is monitored during the operation of a meter and the statuses are stored in the particular registers. The content of registers can be displayed. The test pulses indicated by red LED are proportional to the consumed energy. The meters can be produced in version with measurement in summary mode (measurement „using an unidirectional mechanical register“) or with measurement in separation mode (measurement of “consumption – supply”).

Highlights

- Passive transmitting pulse SO output for remote transmission;
- Energy, voltage and current measurement;
- Event records (about influence of magnetic field, missing voltage, covers removal,...) – number of events;
- Welded case on a customer requirement;
- Complies 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);
- It is supplied initially verified for billing measurement.



Dimensional drawing



Technical data

Accuracy class active / reactive energy	A, B, C (MID), 2, 1, 0,5S / 3 and 2
Reference voltage [V]	3 x 220/380, 3 x 230/400, 3 x 240/415, 3 x 120/208, (-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
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	100 / 10
Power consumption - voltage circuit [VA/W]	≤ 1/0,4
Power consumption - current circuit [VA]	≤ 0,1
Impulse constant for test output k_{TO} [imp/kWh]	1000, 5 000
Impulse constant for impulse output k_{SO} [imp/kWh]	1000, 5 000
Transistor output SO	24 V / 30 mA
Operating temperature	- 40 °C up to + 70 °C
Mean temperature coefficient [%/K]	≤ 0,02
Terminals current ; voltage ; auxiliary [mm]	∅ 8 ; ∅ 3 ; ∅ 3
Degree of protection	IP54
Meter dimensions w x h/h' x d [mm]	177 x 187/251 x 60
Fixing holes distance w x h [mm]	150 x 215-230
Weight [kg]	≤ 1,12

Marking of meters

AMT B1x₅-Ox₇x₈TEI x₁₂

AMT B1..... type designation

x₅ overload capacity: **1** – 120%, **2** – 150%, **3** – 200%, **4** – 400 %, **5** – 500 %, **6** – 600 %, **8** – 800%,
A – 1000 %, **B** – 1200 %, **D** – 1600 %, **E** – 2000 %

O basic version: electricity meter with LCD, without RTC

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

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

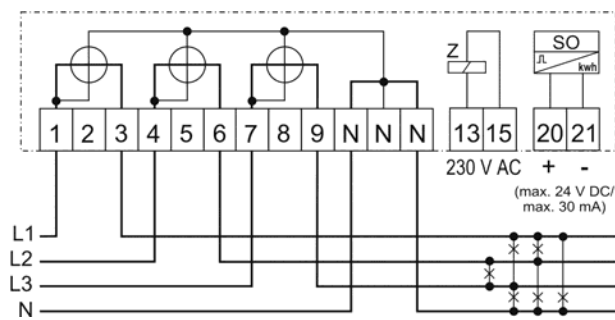
T current converter: transformer

E case version: up to 100 A

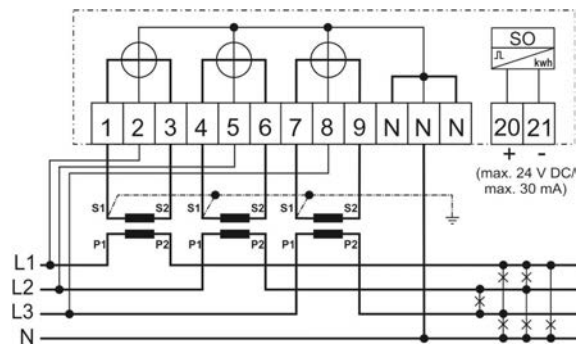
I type of applied processor: T1

x₁₂ special modules: **E** – external rates switching

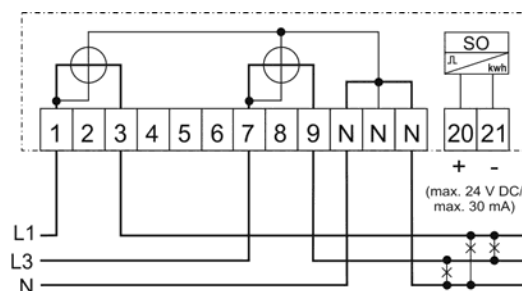
Connection diagrams - examples



AMT B1x-OA4TEIE
(direct, double-rate connection
with external control of second rate)



AMT B1x-OA4TEI
(indirect, single-rate connection)



AMT B1x-OA2TEI
(direct, single-rate connection in two-phase 3-wire network)

Ordering data

- Type and version marking;
- Reference voltage and current range I_{rel}/I_n , I_{max} ;
- Reference frequency;
- Number of units;
- Required delivery terms.