

# GAMA 300

Three-phase electricity meter  
for residential, commercial and  
industrial metering



- Measurement of active energy (bidirectional), reactive energy (in 4-quadrants) and maximum demand
- Accuracy class 1.0 (B) or 0.5s (C)
- Measurement in two channels (on phase and neutral lines)
- Single or Multi-tariff (up to 6 tariffs)
- Internal real time clock
- Load and billing profiles, instantaneous values
- Extended anti-tamper features
- Event logbook (power outage, power over-limit, reverse current flow, influence of magnetic field, opening of meter cover, opening of terminal cover, clock setting, parameter change, internal error, firmware update)
- Optical and electrical communication interfaces in accordance with IEC 62056-21 and/or DLMS/COSEM
- Internal communication modules (PLC modem, USB host, wireless or wired MBus, RS485, Ethernet), powering of external modem
- High-level security (encryption and authentication)
- Internal relay for user disconnection
- Power quality monitoring (over-voltage, under-voltage, over-current)
- Measurement of Total Harmonic Distortion (THD)
- Registration of line and transformer losses on the basis of  $I^2h$  and  $U^2h$  measurements



# Technical Specification

## GAMA 300

### Ratings

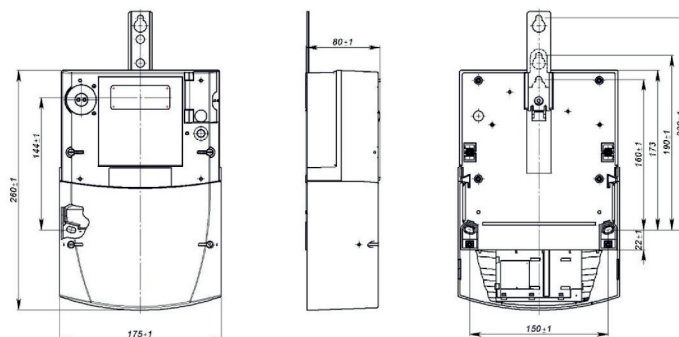
• Connection type	Three-phase 4-wire or 3-wire
• Accuracy class:	
- for active energy	class 1.0 (IEC 62053-21), class B (EN 50470-3)
- for active energy, CT only	class 0.5s (IEC 62053-22), class C (EN 50470-3)
- for reactive energy	class 2.0 (IEC 62053-23)
• Reference voltage, V:	
- 4 wire networks	3x220/380; 3x230/400; 3x240/415; 3x57,7/100; 3x63,5/110; 3x69,2/120; 3x120/208; 3x127/220
- Multi-range	3x57,7/100...230/400
- 3 wire networks	3x100; 3x110; 3x120; 3x220; 3x230
• Reference (maximum) current, A:	
- Direct connected	5(60); 5(80); 5(100); 5(120); 10(60); 10(80); 10(100); 1(1,25); 1(6);
- CT operated	5(6,25); 5(10);
• Starting current	0,4% $I_b$ (0,1% $I_b$ if CT operated)
• Reference Frequency, Hz	50 or 60
• Meter constant, imp/kWh, imp/kVArh	1...19999 (direct), 1...60000 (CT operated)
• Power consumption per phase:	
- In voltage circuit	<1.0 VA (<0,5 W) <2.3 VA (<0.8 W) (with auxiliary electrical interface) <10 VA (<1.5 W) (with PLC modem) <10 VA (<2.2 W) (with PLC and wireless MBus modules)
- In current circuit	< 0,05 VA (< 0,5 VA if CT operated)
• Temperature range	-40°C to +70°C

### Internal real-time clock

• Accuracy	< 0,5 s/24h (T = 23°C)
• Backup power supply	Li-ion battery and/or Super Cap
• Li-ion battery	Changeable or internal
• Operation duration using only backup:	
- Li-ion battery	> 12 years
- Super Cap	up to 7 days

### Case & Dimensions

• Case	UV stabilized polycarbonate
• Insulation	Protective class II
• Protection class	IP53 (Optional IP54)
• Dimensions, mm	260 × 175 × 80
• Weight, kg	< 1.5 kg



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