

GAMA 300

**Three-phase balance
electricity meter G3G**



- Active (bi-directional), reactive (4-quadrant) and apparent (bi-directional) energy measurements
- Accuracy class 0.5s (IEC 62053-22) or C (EN 50470-3)
- Single or Multi-tariff
- Internal real time clock
- Load, billing and voltage profiles, instantaneous values
- Expanded protection against unauthorized actions
- Event logbook (influence of magnetic field, opening of meter cover, opening of terminal cover, clock setting, parameter change, internal error, firmware update, unauthorized request, voltage deviations)
- Optical and electrical communication interfaces in accordance with DLMS/COSEM
- Ethernet interface (10BASE-T/100BASE-TX) in accordance with DLMS/COSEM (TCP/IP; IPv4)
- RS485 interface (9600 ... 115200 bps) in accordance with DLMS/COSEM (HDLC)
- High-level security (encryption and authentication) (AES-128, GCM)
- External power supply input (+24 Vdc)
- Voltage quality monitoring: voltage deviation, harmonic distortion coefficient (THD), three-phase network disbalance, flicker in accordance with EN 61000-4-30 class B
- Weekly reports on voltage quality indicators
- Registration of line and transformer losses on the basis of I2h and U2h measurements
- LoRaWAN



Technical Specification

GAMA 300 G3G

Ratings

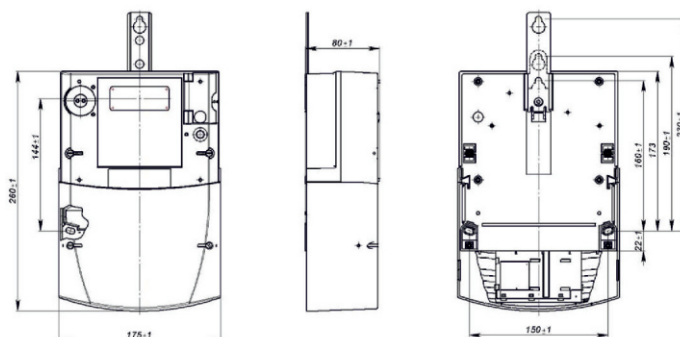
• Connection type	Three-phase 4-wire via current transformer
• Accuracy class:	
- For active energy	class 0.5s (IEC 62053-22), class C (EN 50470-3)
- For reactive energy	class 2.0 (IEC 62053-23)
• Reference voltage, V:	
- 4 wire connection	3x220/380; 3x230/400
- Multi-range connection	3x57,7/100...230/400
• Reference I_n (maximum) current, A	5(6)A; 5(10)A
• Starting current	0,1% I_n
• Reference frequency, Hz	50
• Meter constant, imp/kWh, imp/kVArh	10000
• Power consumption per phase:	
- In voltage circuit	< 2.7 VA (<1 W)
- In current circuit	< 0.05 VA
• Temperature range	-40°C to +70°C
• Frequency measurement accuracy and range	$\pm 0,05\text{Hz}$; [42,5 ... 57,5] Hz
• Voltage (RMS) measurement accuracy and range	$\pm 1\%$; [46...276] V
• Voltage harmonic distortion coefficient (THD) measurement accuracy and range	$\pm 1\%$ (THD) ; [0 ... 15] % (THD)
• Three-phase network disbalance measurement accuracy and range	$\pm 0.3\%$ u_N ; [0 ... 5]% u_N u_N – negative sequence component
• Voltage flicker measurement accuracy and range	$\pm 20\%$ P_{st} ; [0.4 ... 4] P_{st}

Internal real-time clock

• Accuracy	< 0,5 s/24h (T = 23°C)
• Backup power supply of clock	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	> 7 days

Case & Dimensions

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



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