



**GlobalTronics S.A.E.**  
 Lot 120, CPC Industrial Park, Northern Extension Area  
 6<sup>th</sup> of October City, Giza, Egypt  
**T.** +20 (2) 3832 4957 | +20 (2) 3831 0504  
**F.** +20 (2) 3832 1225  
**E.** info@gtronics.com

[www.gtronics.com](http://www.gtronics.com)

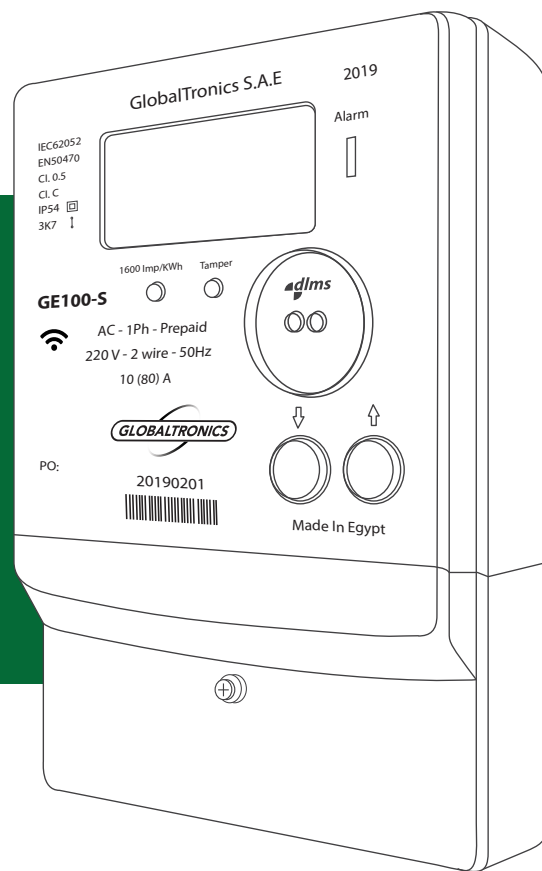
GlobalTronics S.A.E. manufactures and designs wide range of electricity measurement solutions, including both devices and systems. In 1998, GlobalTronics was founded to fulfill a growing need in the Egyptian market. Currently, GlobalTronics have claimed a leading market position in the field of power meters, covering Digital Meters, Prepaid Meters, and Smart Grid Solutions, in addition to Meters Management System (MMS) and Power Selling Management System.

Serving variety of metering needs, GlobalTronics offers custom-tailored products to fit the different requirements and demands of the end consumer. GlobalTronics provides the market with the finest collection of power meters, utilizing the latest technologies in the industry and the best worldwide quality of components and techniques. Our proven smart grid solutions have saved our customers an average of 15-20% in electricity consumption.

## GE100-S Series - Class 0.5

### GE100-S

Advanced Single Phase Electronic Smart Meter



## ABOUT THE PRODUCT

Designed for residential, commercial and industrial uses, GE100-S can operate in post and/or pre-payment modes, with 100Amp relay for remote connect and disconnect.

GE100 Provide three communication ports including a universal port for AMI using PLC/RF/GPRS modular modems for easy field change.

## KEY FEATURES

<b>AMI</b> AMI READY	<b>MODULAR</b>	<b>P-PAY</b> PREPAYMENT	<b>88</b> LARGE LCD DISPLAY
<b>MEASURE EVERYTHING</b>	<b>UPGRADEABLE</b>	<b>DISCONNECT RELAY</b>	<b>ANTI TAMPER</b>
<b>MULTIPLE COMMS OPTIONS</b>	<b>HIGH ACCURACY</b>	<b>HIGH ACCURACY</b>	

## PRODUCT FEATURES & SPECS

### ACCURACY

- **Class:** 0.5 for Active Energy
- EN50470-1, EN50470-3, IEC62052-11, IEC62053-22.

### VOLTAGE

- **Nominal:** 220V
- **Operating range:** 132V - 286V
- **Withstand:** 400V
- **Burden:** <10VA / phase @ Vn
- **Frequency:** 50Hz/60Hz

### LCD DISPLAY

- 8 Large Digits
- Display measured items in OBIS codes
- LCD Messages available in Arabic language
- Programmable units, multipliers and leading zeros.
- Up to 64 user definable screen displays
- Displays any available meter parameter
- Backlight (Optional)

### TAMPER DETECTION AND ALARMS

- Meter Cover Open detection
- Terminal Cover Open Detection
- Fully Load relay detection
- Over Load detection
- Line and Neutral current unbalance
- Reverse Current Sense
- Alarms are stored in event logs

### PREPAYMENT

- Credit / debit operation
- Using AMI system
- Internal Disconnect Relay

### SECURITY

- Multi-Level Security (username and passwords including encrypted login).
- Up to 4 independent security levels
- AES128 used in all information exchanges through AMI system.
- Ready to upgrade to AES256 without hardware changes.

### FIRMWARE UPGRADE

- Easily update/change the meter Firmware
- Locally via optical port / RS484
- Remotely via AMI system

### TIME OF USE

- 4 rates plus unified rate
- Up to 4 separate import and export registers.
- Up to 30 programmable special days
- Daily, Weekly, Monthly, Yearly, Special
- Block or Rolling Maximum Demand
- Time of Maximum Demand

### TIME KEEPING

- **Accuracy:**
  - less than 1s/day (Nominal Temperature)
- **Backup Types:**
  - Lithium battery (10 years without power)
  - Supper capacitor (2 days without power)
- Support Daylight Saving time

### LOAD SURVEY / PROFILE

- AMI Ready
- Large data storage space
- 45 day capacity at 1-60 minutes intervals / 4 channels.
- Up to 50 channels
- Interval programmable from 1 Minute to 60 minutes.
- Multiple independent surveys
- Ability to store average/min/max readings

### CURRENT

- 10(40) - 10/60A and 10/80A
- Short time over-current - 30 times the IMAX for 0.5 seconds.
- Burden - <0.5VA/phase

### MEASUREMENT MODES

- One phase two wires with 100A
- Disconnect switch, two current sensors for live and neutral measurements.

### TEMPERATURE RANGE

- Operating -40 to +70°C
- Storage -40 to +80°C

### SOFTWARE

- GTMTalk Windows® software (optional), can be used for programming and reading the meter.
- GTMTalk also allows offline configuration of tariff programs and all meter parameters, for later upload.

### DIMNESIONS

- **(LxWxH):** 222mm x 127mm x 65mm

### PULSING IO

- 1 output (Optional)
- Programmable 1ms to 100ms

### MEASURED ENERGY VALUES

- Import/Export kWh
- Absolute kWh
- 4 quadrant kWh
- Cumulative kWh
- Maximum Demand kW
- Maximum Demand Ampere

### QUALITY OF SUPPLY FEATURES

- THD
- Unbalance
- Fundamental Voltage, Current and Watt measurement.
- Harmonics (up to the 50th)
- Sag / Swell

### HUMIDITY RANGE

- 0 to 95% non-condensing for 30 days
- IP54

### OTHER MEASURED & DISPLAYED VALUES

- Power: W
- RMS Voltage
- RMS Current
- Power factor
- Frequency
- Phase or angles

### COMMUNICATIONS

- **Local:** Optical port
- **Remote:** G3-PLC
- **Remote:** GSM\GPRS-3G\4G
- Universal interface for AMI modem
- **RS485:** Optional

### COMMUNICATIONS FEATURES

- Optical port (IEC 62056-21/ DLMS COSEM (IEC 62056-46)).
- RS485 - 2 wire (IEC 62056-21/ DLMS COSEM).
- TCP/IP over GPRS\3G\4G
- **DLMS (HDLC Profile):** IEC62056-46
- **DLMS (Wrapper Profile):** IEC62056- 47 on TCP/IP