



## POWER QUALITY ANALYZER 19" Rack Panel

**Class A according to IEC61000-4-30  
Class 0.2S for energy meter**



**ENEL GSTQ001/002  
RSE 12004159  
IEC61000-4-30 Class A Ed. 3**

### Applications

LV/MV/HV electric systems

### Functions

Three phase high-precision analyzer and recorder, PowerQuality, PowerMeter, Fault Recorder, Energy meter

### Measures

- Voltages and Currents
- Active, Reactive and Apparent power
- Active and Reactive (4 quadrants) Energy
- Power Factor
- Frequency
- Flicker (Pst e Plt)
- Voltages and Currents Harmonics and Interharmonics (up to 50° order)
- Voltage Unbalance
- Voltage Dips and Swells
- Voltage Interruptions (short and long)
- Rapid Voltage Changes
- Waveforms (window records with programmable Pre and Post-Triggers)

### Accuracy

According to IEC61000-4-30 Class A Ed.3 and IEC62053-22-30 Class 0.2S

### Safety

EN61010-1

Overvoltage Category:

- CAT VI for 600 V and 5A channels
- CAT III for 3 V channels

Class 2 (double insulation)

### Certification

IEC61000-4-30 Class A Ed. 3

ENEL GSTQ001/002

“Fixed installed indoor Power Quality Instruments”

RSE 12003210

“Specifiche tecnico-funzionali delle apparecchiature di monitoraggio della qualità della tensione per le reti MT”

### The most compact analyzer on the market, with full equipment of integrated resources

- 4 voltage channels 0÷600 Vac
- 3 current channels 0÷10 Aac
- 4 channels for current transducers 0÷3 Vac/dc
- Internal storage memory 32GB
- Up to 2 USB 2.0 (host) ports
- 1 micro USB 2.0 (device) port
- 2 Ethernet 100baseT ports
- 1 GPS receiver port
- 10+1 insulated digital input ports
- 4 output channels 0/4÷20 mA (option)
- Auxiliary supply ranges: 80÷260 Vac/dc
- Internal UPS 30+ minutes backup supply
- HMI with LCD display, functional keys and signalling leds
- Internal GSM/GPRS/UMTS/LTE modem (option)
- Size: Rack 19" Standard – 3U
- Weight: Kg 3.2

# Specifications

## Power Supply

Voltage: 80÷275 Vac/dc - 50/60Hz  
Power consumptions: 20 VA  
Battery: 12 V 0.8Ah Pb sealed  
Battery operating time: 30 minutes, self-limited

## Voltage input channels

Channels: 4  
Single range up to 600 Vac/dc  
Permanent overload: +100%  $U_{din}$   
Type: resistor network  
Impedance: 1 MOhm (L4: 150 kOhm)  
Pluggable terminal blocks pitch 7,62 mm

## Direct input Current channels

Channels: 3  
Range: 0÷10 Aac  
Permanent overload: +100%  
Type: Internal current transformer  
Pluggable terminal blocks pitch 7,62 mm

## Current channels from transducers

Channels: 4  
Range: 0÷3 Vac/dc  
Permanent overload: +50%  
Type: resistor network  
Impedance: 1 MOhm  
Pluggable terminal blocks pitch 3.81 mm

## Measurement method

Synchronous sampling with phase locking  
Bandwidth: -3dB @ 6,4 kHz  
A/D converter resolution: 16 bit  
Sample rate: 25,6 ksample/sec.  
Compliance: EN61000-4-30 Class A

## Accuracy (@25 °C, 45÷65Hz)

Voltage:  $\pm 0.1\%$   $U_{din}$  from 10% to 150%  $U_{din}$   
Current:  $\pm 0.1\%$   $I_{din}$  from 10% to 150%  $I_{din}$   
Frequency:  $\pm 0.01\%$  reading  
Harmonics:  $\pm 0.5$  reading for THD > 0.5%

## Digital Input/Output

10 insulated digital inputs  
1 digital input for busbar coupler  
4 insulated digital output (option)

## Analog Output (option)

4 insulated analog output: 0/4÷20mA range

## User interface

Led: On, Battery status, Modem status  
Display: alphanumeric LCD, 4 rows/20 characters  
Keyboard: n. 6 functional keys

## Ethernet Port (back panel)

Type: 100baseT  
Connector: RJ45

## Ethernet Port (front panel)

Type: 100baseT  
Connector: RJ45

## USB Host Port (front panel)

Type: Host 2.0  
Pendrive, pulse emitter, USB to serial converter

## USB Device Port

Type: Device 2.0 – micro usb connector  
Personal Computer interface

## Expansion slot

Position: On back panel  
Available ports: Power supply 12 Vdc (unregulated 9-13.7V), 200 mA max, USB 2.0 full speed Host port

## Clock-Calendar

Format: yyyy/mm/dd hh:mm:ss.cc,msec  
Accuracy: better than 1 second/day without GPS  
better than 16.67 ms/day from UTC with GPS  
External time synchronization sources:  
GPS receiver mod GTS9000 (optional)  
NTP Server

## Enclosure

Size: rack 19" - 3U  
Weight: 3,2 Kg

## Safety

Meets EN61010-1  
Double insulated power supply  
Voltage and current inputs: CAT IV / 600 V class 2 (double insulation)  
Other inputs: CAT III / 300 V  
Protection degree: IP40 (connection compartment IP20)

## EMC

Classification EN62586-1: PQI-A-FI1-H  
Emissions: EN55022 Class A  
Immunity: EN62586-1

## Environmental conditions

Operating temperature: -25 +55 °C  
Storage temperature: -40 +70 °C  
Humidity: 85% non-condensing

## Internal GSM/GPRS/UMTS/LTE Modem (option)

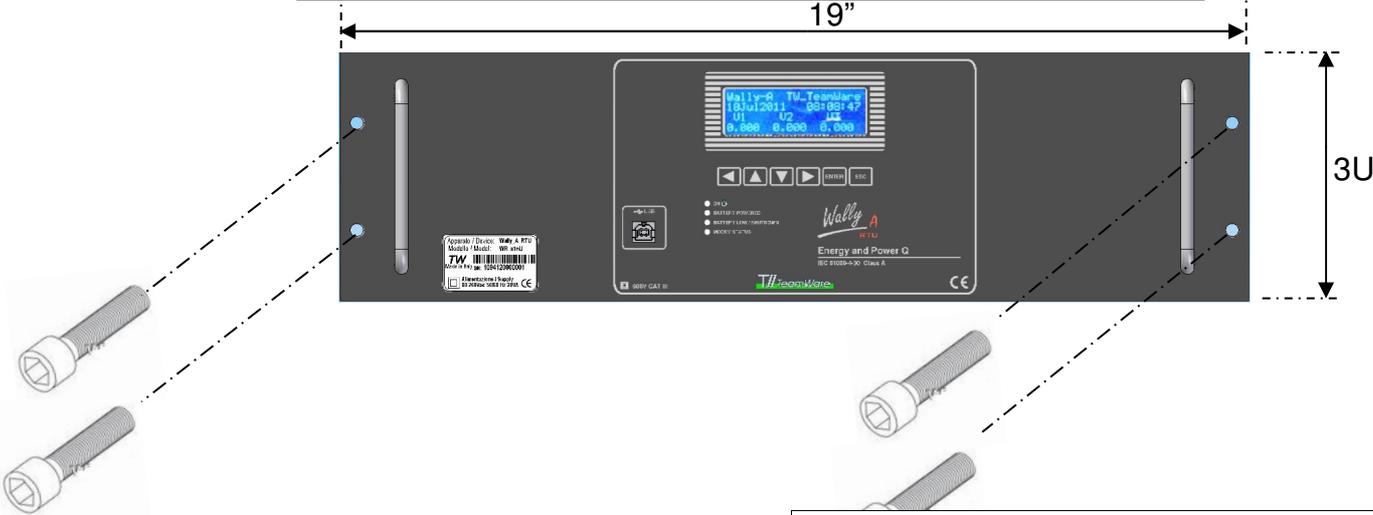
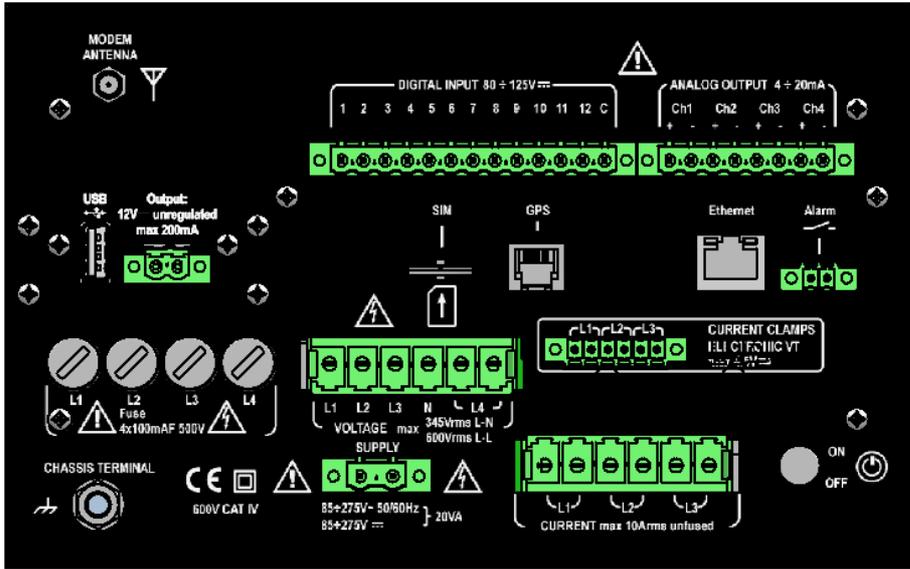
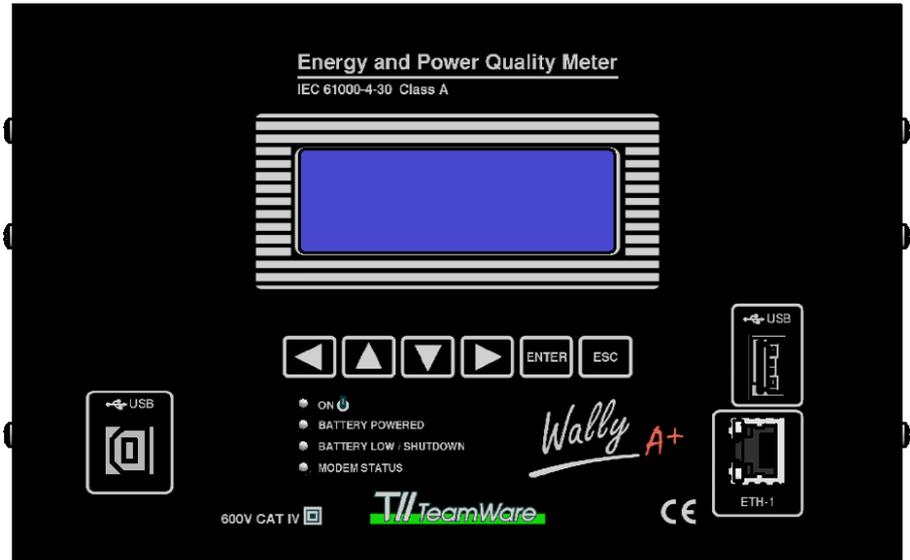
External SMA antenna

## GTS 9010 GPS receiver (option)

GPS receiver for time synchronization with magnetic antenna, cable 5 mt

## Clamps current transducers (option)

Clamp current transducers /1 A, /5 A or /3 V output



**TW-TeamWare Srl**  
 Via Pindaro, 19  
 20128 Milano - Italy  
 Tel. +39 02 27003261  
 Fax +39 02 27007753  
 email tw@teamware.it  
 web www.teamware.it