



POWER QUALITY ANALYZER 19" Rack Panel

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



**ENEL DV0908
RSE 12003210
IEC61000-4-30 Class A**

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 and IEC62053-22-30 Class 0.2S

Safety

CAT IV 600V, class 2 (double insulation) for voltage and direct current measuring circuits

Certification

IEC61000-4-30 Class A

Approval

Approved according to ENEL DV0908 specification "Apparecchiature per il monitoraggio della qualità della tensione su reti MT"

Approved according to RSE 12003210 specification "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÷400Vac
- 3 current channels 0÷5Aac
- 4 channels for current transducers with voltage output 0÷3Vac/dc (option)
- 4 output channels 4-20mA (option)
- Internal storage memory 2GB (expandable)
- 1 mini USB 2.0 (device) port
- 1 USB 1.1 (host) port
- 1 Ethernet 100baseT port
- 1 GPS receiver port (optional)
- 12 insulated digital I/O port (10IN + 2OUT)
- Auxiliary supply ranges: 40-130Vac or 80-260Vac/dc (100/√3 Vac with external optional adapter)
- Internal UPS for more than 40 minutes backup supply
- HMI with LCD display, functional keys and signalling leds
- Internal GSM/GPRS 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÷5 Aac
Permanent overload: +100%
Type: Internal current transformer
Pluggable terminal blocks pitch 7,62 mm

Current channels from transducers (option)

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: ± 0.5 reading for THD > 0.5%

Digital Input/Output (option)

10 insulated digital inputs
1 digital input for busbar coupler
2 insulated digital output

Analog Output (option)

4 insulated analog output: 4-20mA range

User interface

Led: On, Battery status, Modem status
Battery charge indication (5 leds)
Display: alphanumeric LCD, 4 rows/20 characters
Keyboard: n. 6 functional keys

Ethernet Port

Type: 100baseT
Connector: RJ45

USB 1 Port (option)

Type: Host 1.1
Interface for: external storage media, Wi-Fi communication adapter, external modem

USB 2 Type

Type: Device 2.0
Personal Computer data interface

Clock-Calendar

Format: yyyy/mm/dd hh:mm:ss.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)

Enclosure

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

Safety

Meets EN61010-1
Double insulated power supply
Voltage and current inputs: CAT IV / 600V class 2 (double insulation)
Degree of protection: IP40 (connection compartment IP20)

EMC

Emissions: EN61000-6-3 (residential)
Immunity: EN61000-6-2 (industrial) and EN61236-1

Environmental conditions

Operating temperature: -10 +50 °C
Storage temperature: -25 +60 °C
Humidity: 85% non-condensing

GSM/GPRS/UMTS Modem (option)

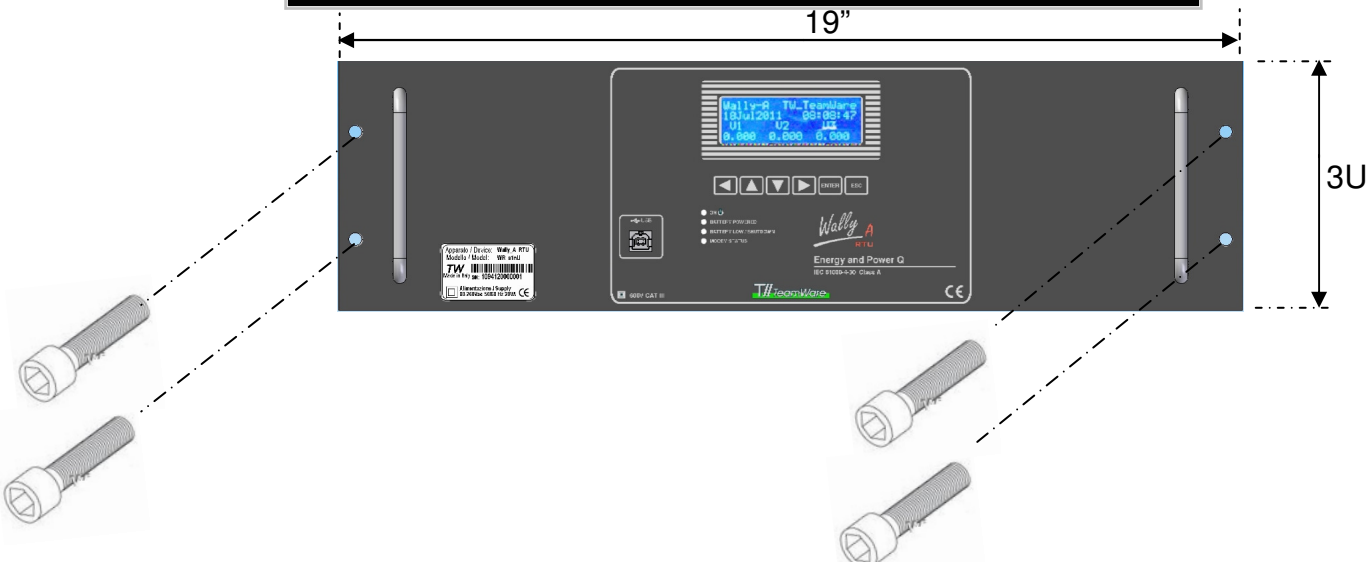
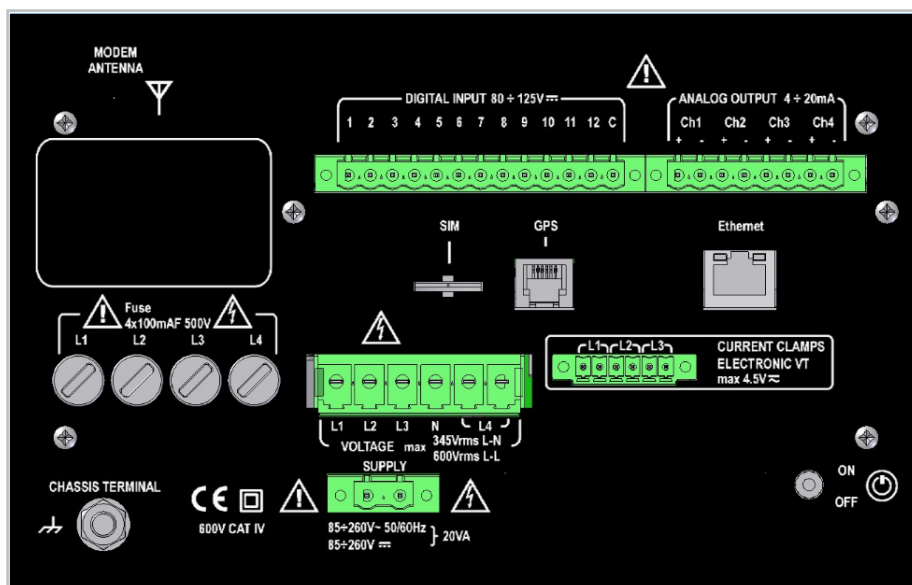
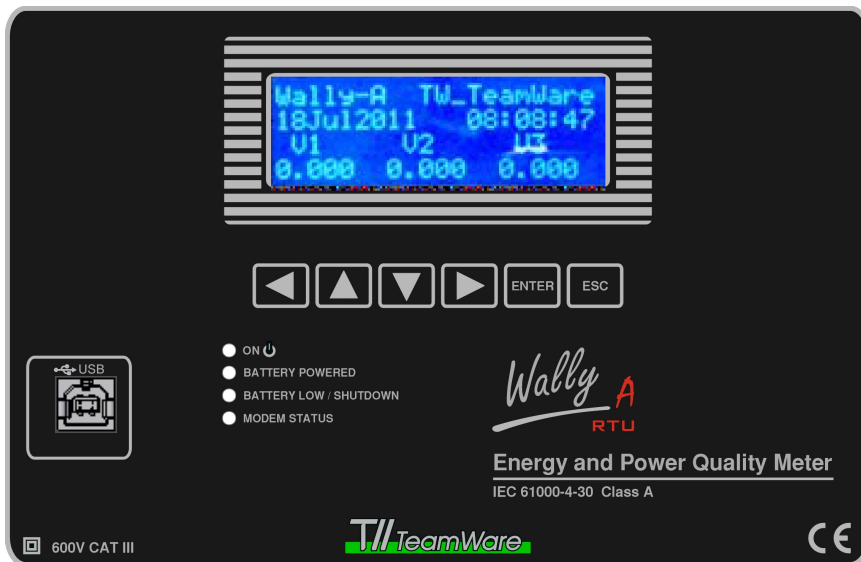
Modem type: Internal, Quadband 850/900/1800/1900 MHz
Networking: GSM and GPRS/UMTS
Internal antenna
Optional external antenna
SIM holder accessible

GTS 90xx GPS receiver (option)

GPS receiver for time synchronization (antenna must be placed outside)

Clamps current transducers (option)

Clamp current transducers with voltage output 3V



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