EMA-90N

POWER QUALITY AND ENERGY MEASUREMENT
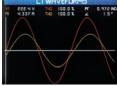

Display examples

PRODUCT DESCRIPTION

The **EMA-90N** power analyzer has been designed to combine the maximum possible easiness of operations togheter with a wide choice of advanced funtions.

The device measures currents and voltages, energy consumption and power and displays the individual voltage/current harmonics for power quality in accordance with **EN 50160**.

The accuracy of active energy measurements corresponds to class 0.2 S in accordance with **EN 62053-22**. The current inputs are connected via external current transformer (.../1A or .../5A) or 333mV or Rogowski probes.

DEVICE FEATURES

- FLUSH-MOUNT HOUSING, 96x96 mm
- TFT COLOUR DISPLAY (320x240) 3.5"
- KEYBOARD WITH 6 KEYS FOR VISUALIZATION AND SETTING
- EASY AND FAST NAVIGATION
- COMPATIBLE WITH LV, MV, HV APPLICATIONS
- TRUE RMS MEASUREMENTS
- CONTINUOUS SAMPLING: 128 SAMPLES/PERIOD
- MEASUREMENT REFRESH RATE 200ms
- ACCURACY CLASS ACCORDING TO IEC 62053-22 0.2S
- READING OF MORE THAN 300 ELECTRICAL PARAMETERS
- 4 CURRENT INPUTS
- HARMONIC ANALYSIS OF VOLTAGE AND CURRENT UP TO 63.RD ORDER
- EVENTS STORAGE AND MANAGEMENT: SWELL, DIPS, INTERRUPTIONS WITH TIMESTAMP
- WAVEFORMS V & I
- GRAPHS: HISTORICAL VOLTAGES AND CURRENTS, POWER LOAD CURVE, ENERGY CONSUMPTION
- ANALOG INDICATORS V, I, PF, W, VAR
- ADVANCED PROGRAMMABALE I/O FUNCTIONS
- MODBUS RTU AND MODBUS TCP
- INTEGRATED WEB SERVER

contrel elettronica

ITALIAN DESIGN

EMA-90N Power Quality and Energy Measurement

Typical Applications

MONITORING OF THE VOLTAGE AND CURRENT QUALITY IN ACCORDANCE WITH EN 50160

STORING A LIST OF EVENTS, THAT CAN BE USEFUL TO THE USER IN ORDER TO DETECT ANOMALIES AND/OR KEEP TRACK OF THE PLANT BEHAVIOUR

HIGH-RESOLUTION WAVEFORM VISUALIZATION ALLOWS ANALYSIS OF POWER QUALITY

DATA LOGGER FUNCTION ALLOWS TO STORE VARIABLES CHOSEN FREELY AMONG THE MEASURES. EVERY RECORD IS MARKED WITH A TIME STAMP TAKEN FROM THE REAL-TIME CLOCK OF BUILT IN THE MODULE

Description of function

Sampling rate of the measuring channel: 128 samples/period

Provides the voltage/current harmonic analysis up to the 63rd order each phase L1, L2, L3.

There is a display page that graphically represents the harmonic content (spectrum) through a bar graph

Waveform page graphically views the waveform of the voltage and current signals read by the EMA-90N.

The user can create a maximum of 6 customised display pages. Each of these pages can view measusrements, freely chosen among the available readings

The EMA-90N manages the time and date, that is used for the storage of events and for time-realated functions

Password access: the password is used to enable or lock the access to setting menu and to command menu

32 adjustable parameter setpoints

For the energy billing, the EMA-90N can manage 16 different tariffs in addition to the total and partial energy meters

Inputs and outputs	Communication
4 digital inputs, 2 digital outputs	Supports maximum of 2 galvanically isolated RS-485 interface
2 digital inputs, 6 digital outputs	Modbus RTU protocol
8 digital outputs	Modbus TCP (10/100 Mbit/s)
2/4 analog outputs	Profibus DP
4 digital outputs, 2/4 analog outputs	M-Bus
	SNMP protocol

Mechanical dimensions (mm)

ISO 9001