

EMS 96

DIGITAL MEASURING INSTRUMENTS NETWORK ANALYZER

The **EMS-96** network analyzer has been designed to combine the maximum possible easiness of operation together with a wide choice of advanced functions.

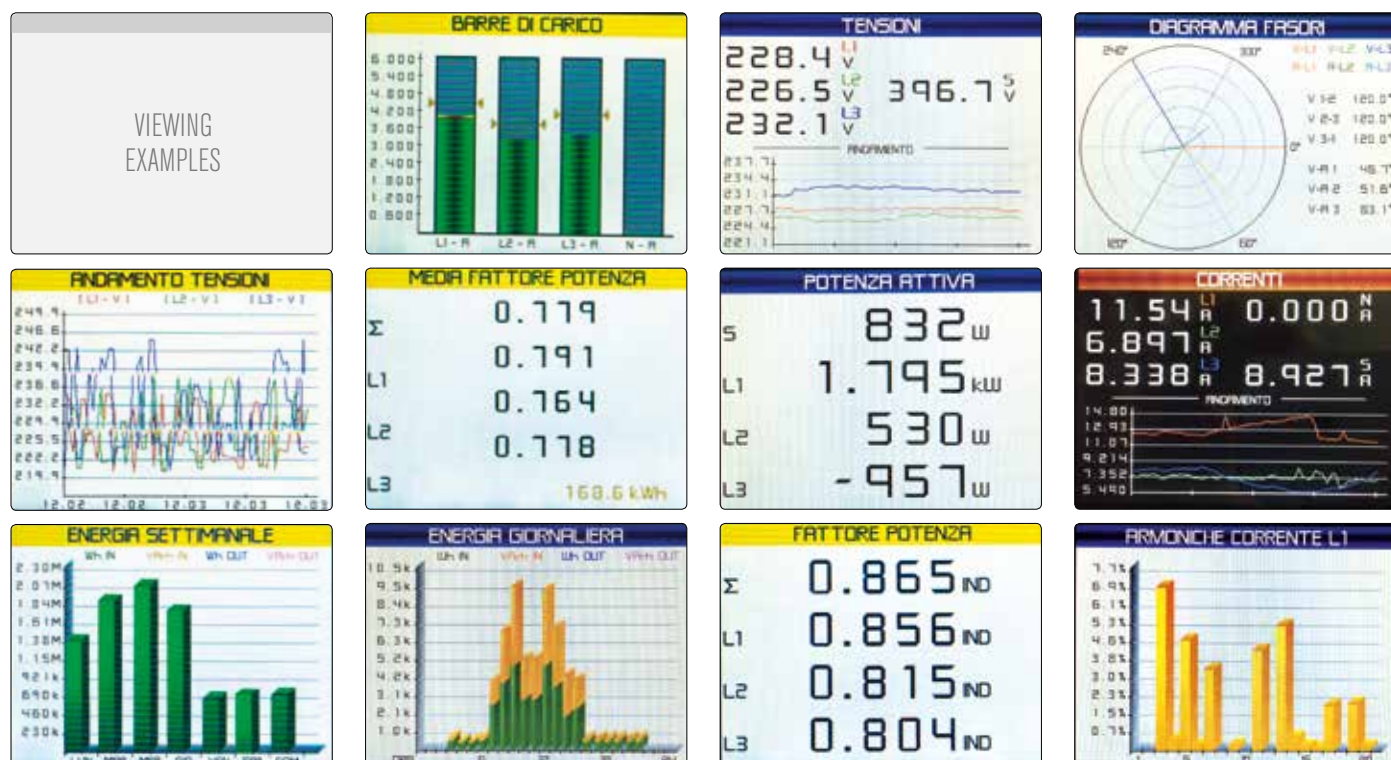
The TFT color display offers a user-friendly interface. The rich variety of functions, makes the EMS-96 the ideal choide for a wide rage of applications.



TECHNICAL CHARACTERISTICS		EMS 96
AUXILIARY SUPPLY		
Nominal voltage U_s		90 - 250 VAC/CC
Operating voltage range		$\pm 15\%$
Power consumption		8VA max
Frequency		50 $\leftrightarrow$ 60 Hz
VOLTAGE INPUTS		
Measurement range		52...690VAC L-L (30...400VAC L-N)
Method of measuring		True RMS value
Measuring input impedance		$>1.8M\Omega$
Method of connection		Single-phase, two-phase, three-phase or balanced three-phase system
CURRENT INPUTS		
Reference current		1A (option) or 5A
Measurement range		0,05...5A
Method of measuring		True RMS value
Overload capacity		+20% by an external current transformer
Self-consumption		0,05VA
ACCURACY		
Measures	Voltage	$\pm 0,5\%$
	Current	$\pm 0,5\%$
	Power	$\pm 0,5\%$
	Frequency	$\pm 0,2\%$
	Active energy	Class 1 - EN 62053-21, EN 62053-22
DIGITAL OUTPUTS		
Number of outputs		2
Pulse duration		TON_min 30ms, TOFF_min 30ms
Voltage		10...300 VCC - 12...250VAC
Max current		150 mA
INSULATION		
Insulation voltage		3.7kVAC for 1 minute
DISPLAY		
Display type		TFT
Format		320 x 240 pixel
Dimension		3,5"
AMBIENT CONDITION		
Operating temperature		-10...+50°C
Storage temperature		-15...+70°C
HOUSING		
Version		Flush mount 96 x 96 mm
Degree of protection		IP52 on front - IP20 Housing and terminals
Weight		440g
CERTIFICATIONS AND COMPLIANCE		
Reference standards		EN 62053-21, EN 62053-22, EN 50082-1, EN 61000-6-2, EN 61010-2

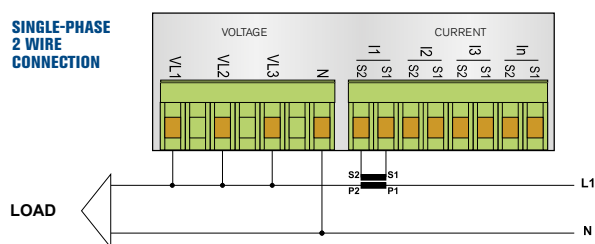
OPTIONS	
ORDER CODE	DESCRIPTION
C1	Auxiliary supply 20 ÷ 60 VCA/DC
1A	Rated current inputs by external CT 1A
TT - TTA	Current inputs by miniaturized closed CT (TT) or openable CT (TTA)
ACCURACY	
0.5 s	Active energy 0.2 s (EN 62053-21, EN 62053-22)
0.2 s	ACCURACY Active energy 0.2 s (EN 62053-21, EN 62053-22)
H	Detailed harmonic analysis (1...20°), graph energy consumption , data logging
EXPANSION MODULES *	
4DI e 2DO	4 digital inputs and 2 digital outputs (energy count pulses function)
2DI e 4DO	2 digital inputs and 4 digital outputs (2 outputs for energy count pulses)
6DO	6 digital inputs (2 outputs for energy count pulses)
4AO	4 analog outputs
2AO	2 analog outputs
2DO e 4AO	2 digital inputs (energy count pulses) and 4 analog outputs
2DO e 2AO	2 digital inputs (energy count pulses) and 2 analog outputs
2DO e 4DO/R	2 digital inputs (energy count pulses) and 4 relays
RI-SIM e PT100	Insulation monitoring for out-voltage networks, 1 PT100 input and 2 relays
RI-R e PT100	Insulation monitoring for networks, 1 PT100 input and 2 relays
RI-SM e 2AI	Insulation monitoring for out-voltage networks, 2 analog inputs and 2 relays
RI-R e 2AI	Insulation monitoring for networks, 2 analog inputs and 2 relays
COMMUNICATION PORTS *	
485	RS485 serial interface
TCP	Ethernet interface with Modbus TCP function and RS485 serial interface
ETH-WEB	Ethernet interface with Web server function and RS485 serial interface
PF	Profibus-DP interface and RS485 serial interface
M-Bus	M-Bus interface and RS485 serial interface
485 (COM2)	Second RS485 serial interface
ETH-WEB/S	Ethernet interface with Web server function and RS485 serial interface (master function)

* You can select only one option

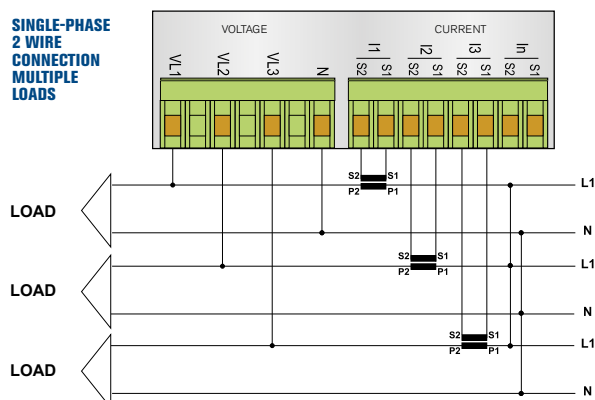


WIRING DIAGRAMS

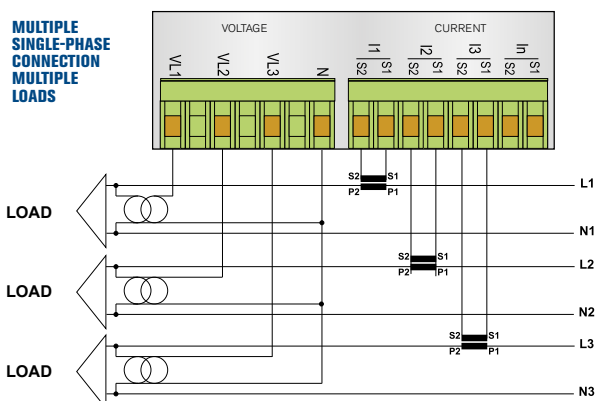
**SINGLE-PHASE
2 WIRE
CONNECTION**



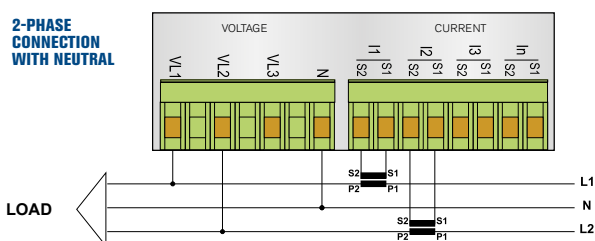
**SINGLE-PHASE
2 WIRE
CONNECTION
MULTIPLE
LOADS**



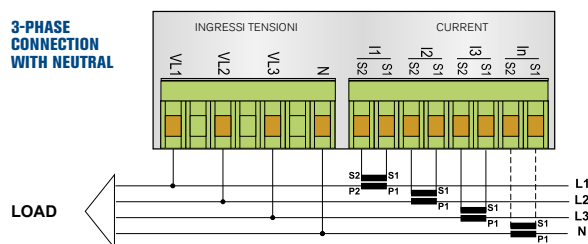
**MULTIPLE
SINGLE-PHASE
CONNECTION
MULTIPLE
LOADS**



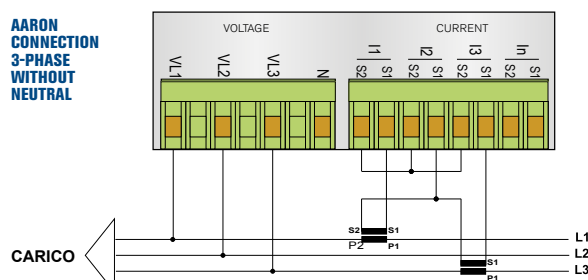
**2-PHASE
CONNECTION
WITH NEUTRAL**



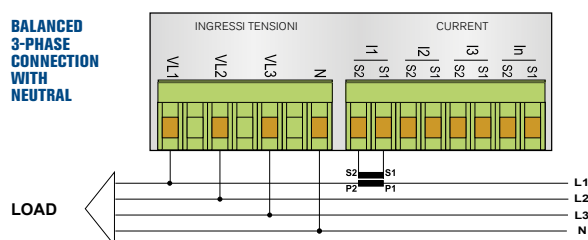
**3-PHASE
CONNECTION
WITH NEUTRAL**



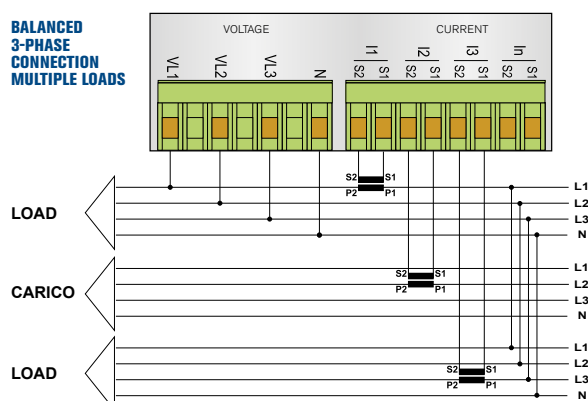
**AARON
CONNECTION
3-PHASE
WITHOUT
NEUTRAL**



**BALANCED
3-PHASE
CONNECTION
WITH NEUTRAL**



**BALANCED
3-PHASE
CONNECTION
MULTIPLE
LOADS**



MECHANICAL DIMENSIONS

