



EMA 10



EMA 11



EMA 14

TECHNICAL CHARACTERISTICS		EMA 10	EMA 11	EMA 14
AUXILIARY SUPPLY				
Nominal voltage U_s		90 - 260 VAC/DC	90 - 260 VAC/DC	90 - 260 VAC/DC
Operating voltage range		$\pm 15\%$	$\pm 15\%$	$\pm 15\%$
Power consumption		5VA	5VA	5VA
Frequency		30 ÷ 500 Hz	30 ÷ 500 Hz	30 ÷ 500 Hz
VOLTAGE INPUTS				
Measurement range		10...600VAC L-L	10...600VAC L-L	10...600VAC L-L
Method of measuring		True RMS value	True RMS value	True RMS value
Measuring input impedance		2M Ω	2M Ω	2M Ω
Method of connection		Single-phase, two-phase, three-phase or balanced three-phase system	Single-phase, two-phase, three-phase or balanced three-phase system	Single-phase, two-phase, three-phase or balanced three-phase system
CURRENT INPUTS				
Reference current		1A (option) or 5A	1A (option) or 5A	1A (option) or 5A
Measurement range		0,01...5A	0,01...5A	0,01...5A
Method of measuring		True RMS value	True RMS value	True RMS value
Overload capacity		10A by an external current transformer	10A by an external current transformer	10A by an external current transformer
Self-consumption		0,2 VA	0,2 VA	0,2 VA
ACCURACY				
Measures	Voltage	$\pm 0,5\%$	$\pm 0,5\%$	$\pm 0,5\%$
	Current	$\pm 0,5\%$	$\pm 0,5\%$	$\pm 0,5\%$
	Power	$\pm 0,5\%$	$\pm 0,5\%$	$\pm 0,5\%$
	Frequency	$\pm 0,2\%$	$\pm 0,2\%$	$\pm 0,2\%$
	Active energy	Class 1	Class 1	Class 1
INSULATION				
Insulation voltage		3.7kVAC for 1 minute	3.7kVAC for 1 minute	3.7kVAC for 1 minute
DISPLAY				
Display type		Graphic LCD display	Graphic LCD display	Red LED 14 segments
Format		128 x 128 pixel	128 x 128 pixel	3 rows x 4 digit
Dimension		50 x 50 mm	70 x 70mm	50 x 50 mm
AMBIENT CONDITION				
Operating temperature		-10...+50°C	-10...+50°C	-10...+50°C
Storage temperature		-15...+70°C	-15...+70°C	-15...+70°C
HOUSING				
Version		Flush mounting 144 x 144 mm	Flush mounting 144 x 144 mm	Flush mounting 144 x 144 mm
Degree of protection		IP42 on front IP20 Housing and terminals	IP42 on front IP20 Housing and terminals	IP42 on front IP20 Housing and terminals
Weight		430 g	430 g	430 g
CERTIFICATIONS AND COMPLIANCE				
Reference standards		N 61010-1, EN62053-21, EN62053-22		

OPTIONS

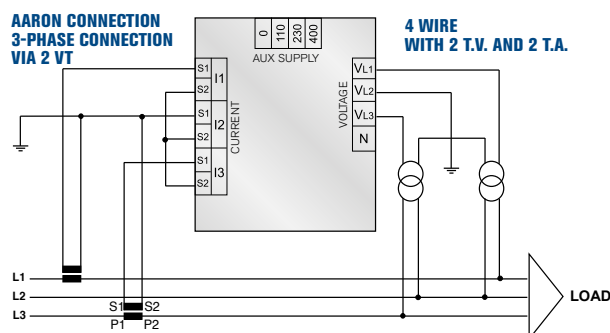
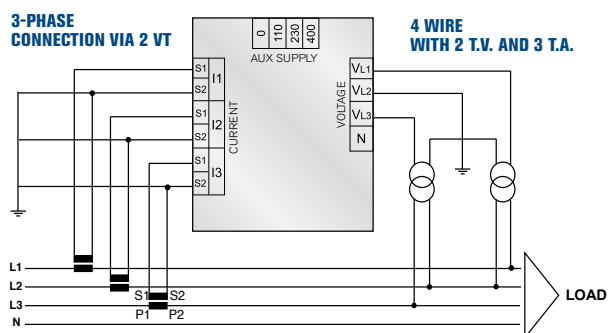
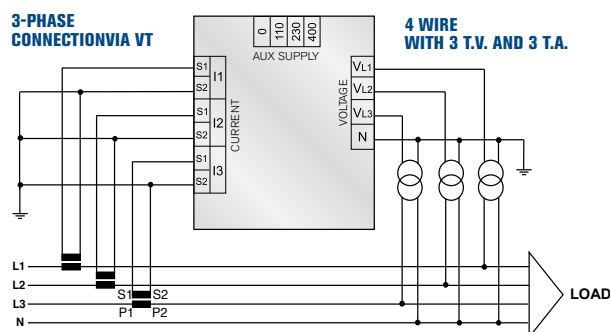
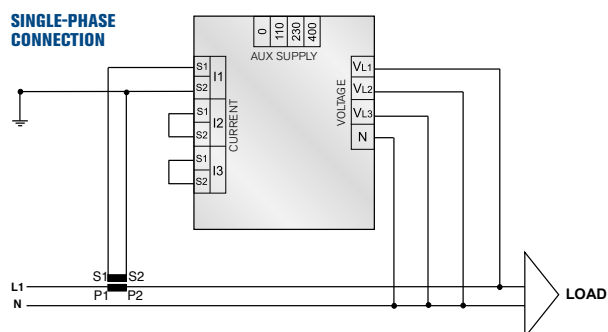
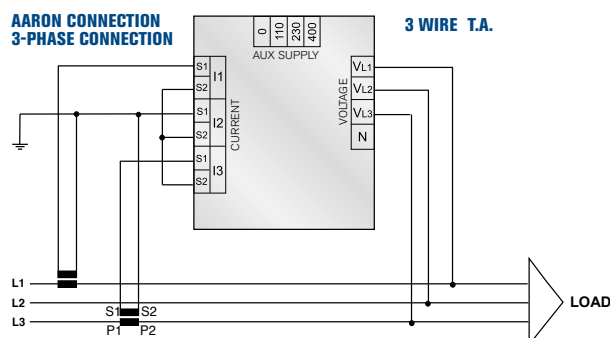
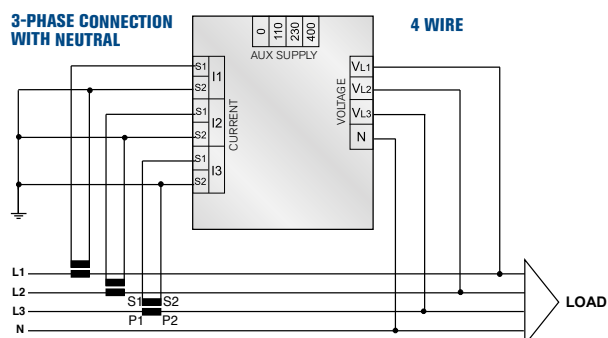
ORDER CODE	DESCRIPTION
C1	Auxiliary supply 20 ÷ 60 VCA/DC
1A	Rated current inputs by external CT 1A
0.5	Active energy 0.5
H	Detailed harmonic analysis (1...31°)
MEM1	1MB data memory
6DI	6 digital inputs

4DO	4 digital outputs
2 DI e 2 DO	2 digital inputs and 2 digital outputs
2 AO	2 analog outputs
4 AO	4 analog outputs

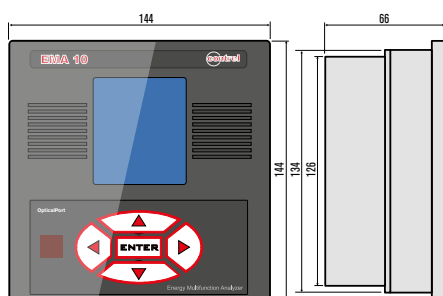
COMMUNICATION PORTS

485	RS485 serial interface
ETH	Ethernet interface with Web server function
PF/S	Profibus-DP interface

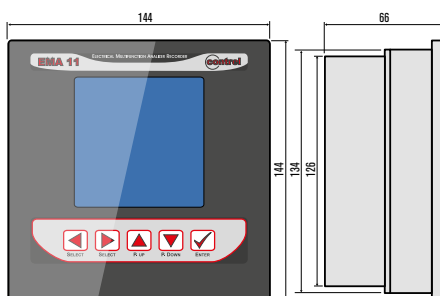
WIRING DIAGRAMS EMA 10, 11, 14 - EMA 90



MECHANICAL DIMENSIONS EMA 10



MECHANICAL DIMENSIONS EMA 11



MECHANICAL DIMENSIONS EMA 14

