

# EMA 10 | 11 | 14

DIGITAL MEASURING INSTRUMENTS - **NETWORK ANALYZER**



EMA 10



EMA 11



EMA 14

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

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## 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

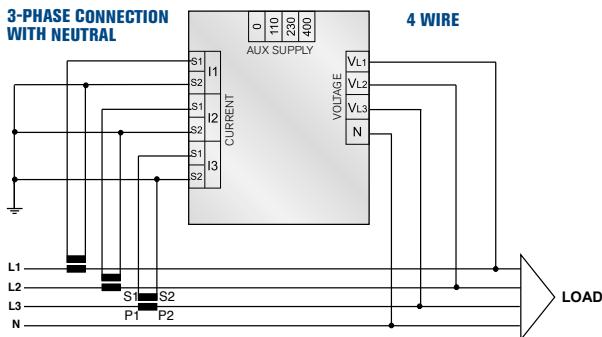
Ethernet interface with Web server function

### PF/S

Profibus-DP interface

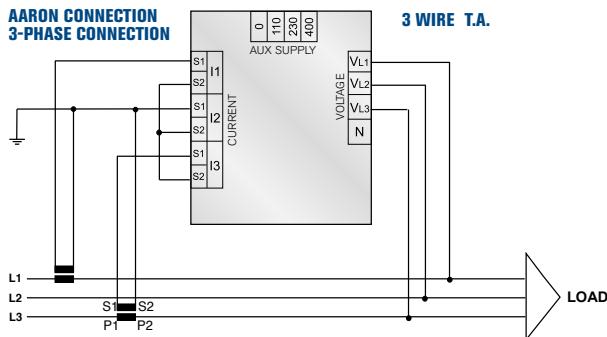
## WIRING DIAGRAMS EMA 10, 11, 14 - EMA 90

### 3-PHASE CONNECTION WITH NEUTRAL



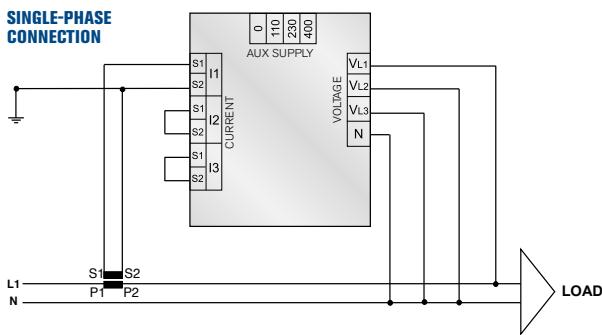
### 4 WIRE

### AARON CONNECTION 3-PHASE CONNECTION

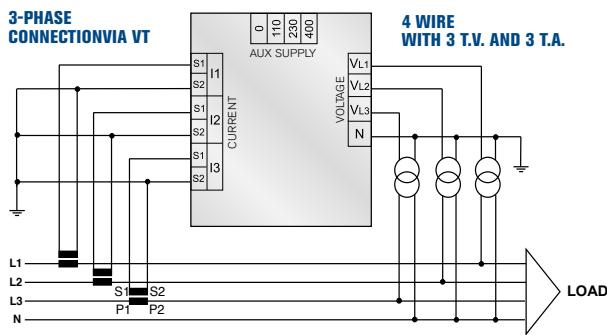


### 3 WIRE T.A.

### SINGLE-PHASE CONNECTION

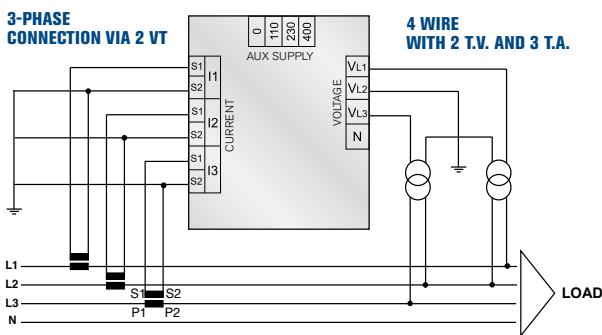


### 3-PHASE CONNECTION VIA VT



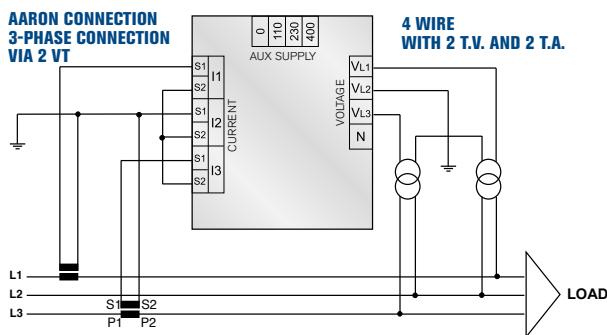
### 4 WIRE WITH 3 T.V. AND 3 T.A.

### 3-PHASE CONNECTION VIA 2 VT



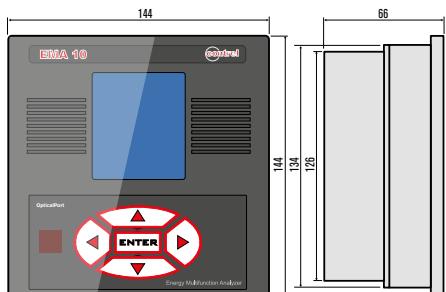
### 4 WIRE WITH 2 T.V. AND 3 T.A.

### AARON CONNECTION 3-PHASE CONNECTION VIA 2 VT

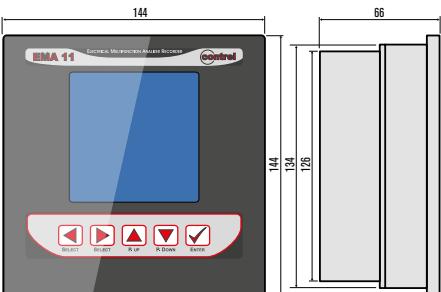


### 4 WIRE WITH 2 T.V. AND 2 T.A.

## MECHANICAL DIMENSIONS EMA 10



## MECHANICAL DIMENSIONS EMA 11



## MECHANICAL DIMENSIONS EMA 14

