

ELECTRICAL MULTIFUNCTION ANALYSERS

FLUSH MOUNTING DIN 96 x 96 - LCD DISPLAY

ENVIRONMENTAL WORKING CHARACTERISTICS

Working T: $-5 \div +50^{\circ}\text{C}$

Storage T: $-15 \div +60^{\circ}\text{C}$

Humidity: 90%

STANDARDS/ REGULATION

Safety: 61010-1:2001

EMC: EN61000-6-2 / EN61000-6-4
CISPR22-EN55022

ELECTRICAL COMPATIBILITY CE

Energy: EN62053-21

EN62053-23



EMA-90

EMA-90 H

	EMA 90	EMA 90 H
Mechanical characteristics	Flush mounting DIN 96x96 mm Depth 120 mm Panel cut out 92x92mm Weight 0,5 kg	
Auxiliary supply	85÷265 V 50-60 Hz / dc	
OPTION C1	20÷60 V 50-60 Hz / dc	
Protection degree	Frontal IP 52 Box IP 20 (IP65 with external cover)	
Voltage inputs	3 inputs 750 V max (programmable transformer ratio with external VT 0,01÷5000)	
Current inputs	3 isolated inputs (TA) 0,005÷5A rms (10A f.s.) with external CT ratio programmable 0,01÷5000	
OPTION 1A	0,001÷1 Arms TA ratio external programmable	
Measured parameters	V I-I V I-n A cosφ P.F. F °T W Var VA +kWh -kWh + kVarh -Kvarh + kVAh -kVAh THD	V I-I V I-n A cosφ P.F. F °T W Var VA +kWh -kWh + kVarh -Kvarh + kVAh -kVAh (subdivided in 4 time bands of 10 programmable periods) THD HVL1 HVL2 HVL3 HA1 HA2 HA3
Measuring accuracy	Voltage: < 0.5% Current: < 0.5% Powers: < 1% Energies: <1% class 1 EN62053-21 62053-23	
OPZION 0,5	Voltage: < 0.25% Current: < 0.25% Powers: < 0,5% Energies: < 0,5% class 0,5 CEI-EN62052-11 CEI-EN62053-22	
Frequency measure	30 ÷ 900 Hz	30 ÷ 900 Hz (harmonic analysis with fundamental 40÷70 Hz)
Serial outputs	1RS485/RS232 additional selection of communication protocol ASCII or MODBUS-RTU baud rate progr. 1200÷19200 bps	
OPTION S485/232	1RS485 or RS232 additional selection of communication protocol ASCII or MODBUS-RTU baud rate progr. 1200÷19200 bps	
OPTION PF/S	Communication protocol PROFIBUS-DP baud rate 3 Mbps MAX	
OPTION ETH	Ethernet output RJ45 (MODBUS-TCP FTP HTTP SMTP SNMP)	
Recording memory	Ram 128 kb	Ram 128 kb
OPTION MEM 1	Ram 1 Mb	Ram 1 Mb
Clock Calendar	Format: day/month/year Hour/min/sec precision: ± 1 min./month with 25°C	
Harmonic analysis	-	Up to 31st harmonic of voltage and current with numeric format
Digital outputs	2 photomos 1 -50 Vdc 500 mA o 260 Vac 100 mA max	
OPTION 2DO/R	Relay's output (5A-250V resistive load)	
Digital inputs	2 passive optoisolated inputs (500V) for pulse counting and synchronisation	
OPTION 4DI	4 passive optoisolated inputs (500V) for pulse counting and synchronisation	
Analog outputs OPT.1A0	1 output 0-20 / 4-20 mA fully programmable – 8 bit definition	
OPTION Z3A0	3 outputs 0-20 / 4-20 mA fully programmable – 16 bit definition (by external serial/ analog converter Z3A0)	
Display	Graphic back lighted LCD 128x128 depth 50x50 mm	