

Measuring instrument - EEM-MA250 - 2901363

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Energy measurement device to measure electrical parameters in low voltage installations up to 500 V, acquisition of total harmonic oscillations - can be expanded with RS-485 interface

Product Features

- RS-485 interface (JBUS/MODBUS)
- Pulse output
- Two-tariff measurement via pulse input



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	318.2 g
Custom tariff number	90303100
Country of origin	France

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	72 mm
Height	90 mm
Depth	64 mm

Ambient conditions

Degree of protection	IP51 (front), IP20 (back)
Ambient temperature (operation)	-10 °C ... 55 °C (14 °F to 131 °F)
Ambient temperature (storage/transport)	-20 °C ... 70 °C (-4 °F to 158 °F)

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Ambient conditions

Max. permissible relative humidity (operation)	≤ 95 %
Max. salt spray content	≤ 2.5 %
Altitude	≤ 2000 m
Ambient temperature (operation)	5 °C ... 40 °C
Max. permissible relative humidity (operation)	80 % (up to 31°C)
	50 % (at 40 °C)

Input data

Measuring principle	True r.m.s. value measurement
Acquisition of harmonics	up to 51st harmonic
Measured value	AC sine (50/60 Hz)
Input name	Voltage measuring input V1, V2, V3
Input voltage range	50 V AC ... 519 V AC (Phase/Phase)
	28 V AC ... 300 V AC (Phase/neutral conductor)
Precision	0.2 %
Input current range	Via external transformers
Input current	9999 A (primary)
	5 A (secondary)
Overload capacity	6 A (Permanent)
Response threshold from measuring range nominal value	5 mA
Precision	0.2 %
Messbereich_Leistung	0 kW ... 9999 kW
	0 kvar ... 9999 kvar
	0 kVA ... 9999 kVA
Precision	0.5 %
Active energy (IEC 62053-22)	Class 0.5 S
Reactive power (IEC 62053-23)	Class 2
Description of the input	Digital input
Number	1
Voltage input signal	230 V AC #10 % (Tariff switchover: e.g., day/nighttime tariff)

Output data

Output description	Transistor output, active
Number	1
Maximum switching voltage	30 V DC
Current carrying capacity	27 mA

Interfaces

Designation	Modbus RTU/JBUS
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Interfaces

Interface	RS-485
Connection method	Screw terminal blocks
Serial transmission speed	2,4 ... 38.4 kbps

General

Display	LCD display, backlighting
Measuring rate	approximately
Supply voltage range	110 V AC ... 277 V AC -10 % ... +15 %
Nominal power consumption	5 VA
Mains type	3-phase (3 or 4-wire), 2-phase (2-wire), and single-phase (1-wire)
Color	black
Conformance	CE-compliant
Rated insulation voltage	300 V AC (EN 61010-1)
Overvoltage category	III
Test voltage	3.5 kV AC (50 Hz, 1 min.)
	2.2 kV AC (50 Hz, 1 min.)

Connection data

Conductor cross section flexible min.	0.5 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG min.	20
Conductor cross section AWG max.	14
Connection method	Screw connection
Stripping length	6 mm
Tightening torque	0.6 Nm
Note	other connections
Conductor cross section flexible min.	0.5 mm ²
Conductor cross section flexible max.	4 mm ²
Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	4 mm ²
Conductor cross section AWG min.	20
Conductor cross section AWG max.	10
Stripping length	6 mm
Note	Current and voltage connection

UL data

Nominal supply voltage range	110 V AC ... 277 V AC -10 % ... +15 %
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UL data

Operating mode	Indoor use
Surge voltages	Transient overvoltage according to installation classes
Overvoltage category	I, II, III
Overvoltage category of the supply	Min. II

Standards and Regulations

Conformance	CE-compliant
UL, USA / Canada	UL 61010-1
	CSA-C22.2 No. 61010-1
	cULus

Classifications

eCl@ss

eCl@ss 4.0	27210902
eCl@ss 4.1	27210902
eCl@ss 5.0	27210902
eCl@ss 5.1	27210902
eCl@ss 6.0	27371890
eCl@ss 7.0	27142333
eCl@ss 8.0	27142333

ETIM

ETIM 3.0	EC001505
ETIM 4.0	EC000705
ETIM 5.0	EC002301

UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121535
UNSPSC 11	39121535
UNSPSC 12.01	39121535
UNSPSC 13.2	39121535

Approvals

Approvals

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Approvals

Approvals

UL Listed / cUL Listed / EAC / EAC / cULus Listed

Ex Approvals

Approvals submitted

Approval details

UL Listed



cUL Listed



EAC

EAC

cULus Listed



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