

## Measuring instrument - EEM-MA600 - 2901366

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Energy measurement device to measure electrical parameters in low voltage installations up to 700 V, acquisition of individual harmonic oscillations - can be extended with communication and special functional modules

### Why buy this product

- Can be extended with special function and communication modules
- Remote access via web server, integrated in Ethernet communication module
- Acquisition of individual harmonics up to 63rd harmonic
- Trend calculation for real and reactive power



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 584258
Weight per Piece (excluding packing)	821.5 g
Custom tariff number	90303100
Country of origin	Tunisia

### Technical data

#### Note

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

Width	96 mm
Height	96 mm
Depth	82 mm
Installation depth with extension module	80 mm
Installation depth without extension module	60 mm

#### Ambient conditions

Degree of protection	IP52 (front), IP30 (back)
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## Technical data

### Ambient conditions

Ambient temperature (operation)	-10 °C ... 55 °C (14 °F to 131 °F)
Ambient temperature (storage/transport)	-20 °C ... 85 °C (-4 °F ... 185 °F)
Max. permissible relative humidity (operation)	≤ 95 %
Max. salt spray content	≤ 2.5 %
Altitude	≤ 2000 m
Ambient temperature (operation)	0 °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 63rd harmonic
Measured value	AC sine (50/60 Hz)
Input name	Voltage measuring input V1, V2, V3
Input voltage range	18 V AC ... 700 V AC (Phase/Phase)
	11 V AC ... 404 V AC (Phase/neutral conductor)
Input voltage	500 kV AC (Primary, via external voltage transducers)
	Secondary: 60, 100, 110, 115, 120, 173, 190 V AC
Precision	0.2 %
Input current range	Via external transformers
Input current	9999 A (primary)
	1 A and 5 A, secondary
Current measuring range	0 kA ... 11 kA
Overload capacity	6 A (Permanent)
Response threshold from measuring range nominal value	10 mA
Precision	0.2 %
Current overload	10 x I <sub>N</sub> for 1 s
Messbereich_Leistung	0 MW ... 8000 MW
	0 Mvar ... 8000 Mvar
	0 MVA ... 8000 MVA
Precision	0.5 %
Active energy (IEC 62053-22)	Class 0.5 S
Reactive power (IEC 62053-23)	Class 2
Voltage input signal	Via function module

### Output data

Output description	Via function module
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### Interfaces

Designation	Via communication module
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### General

Display	LCD display, backlighting
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## Technical data

### General

Measuring rate	approximately
Supply voltage range	110 V AC ... 400 V AC $\pm 10\%$
Nominal power consumption	10 VA
Power consumption	20 VA (With maximum number of extension modules)
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 at mains voltage < 300 V AC (L/N)	III
Rated insulation voltage at mains voltage > 300 V AC - 600 V AC (L/N)	II
Test voltage	3.5 kV AC (50 Hz, 1 min.)

### Connection data

Conductor cross section flexible min.	0.5 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	20
Conductor cross section AWG max.	14
Connection method	COMBICON plug-in screw terminal block
Stripping length	6 mm
Tightening torque	0.4 Nm
Note	Voltage and other connections
Conductor cross section flexible min.	0.5 mm <sup>2</sup>
Conductor cross section flexible max.	6 mm <sup>2</sup>
Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	6 mm <sup>2</sup>
Conductor cross section AWG min.	20
Conductor cross section AWG max.	8
Connection method	Screw connection
Stripping length	7 mm
Note	Current connection

### UL data

Nominal supply voltage range	110 V AC ... 240 V AC $\pm 10\%$
	120 V DC ... 250 V DC $\pm 10\%$
Power consumption	10 VA
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

# Measuring instrument - EEM-MA600 - 2901366

## Technical data

### 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

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

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Ex Approvals

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Approvals submitted

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## Measuring instrument - EEM-MA600 - 2901366

### Approvals

#### Approval details

UL Listed 

cUL Listed 

EAC

EAC

cULus Listed 

### Accessories

#### Accessories

##### Assembly adapter

DIN rail adapter - EEM-MKT-DRA - 2902078



DIN rail adapter for EEM-MA600 and EEM-MA400 energy meters

#### Communication module

Communication module - EEM-RS485-MA600 - 2901367



RS-485 JBUS/MODBUS communication module for EEM-MA600

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### Accessories

Communication module - EEM-PB-MA600 - 2901368



PROFIBUS (1.5 Mbps) communication module for EEM-MA600

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Communication module - EEM-PB 12-MA600 - 2901418



PROFIBUS (12 Mbps) communication module for EEM-MA600

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Communication module - EEM-ETH-MA600 - 2901373



Ethernet communication module for the EEM-MA600 with integrated web server

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Communication module - EEM-ETH-RS485-MA600 - 2901374



Gateway RS-485/Ethernet communication module for the EEM-MA600 with integrated web server

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### Function module

Special function module - EEM-MEMO-MA600 - 2901370



Storage module for intermediate storage of values for EEM-MA600

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## Measuring instrument - EEM-MA600 - 2901366

### Accessories

Special function module - EEM-2DIO-MA600 - 2901371



Special functional module with two digital inputs and outputs for EEM-MA600

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Special function module - EEM-2AO-MA600 - 2901475



Special functional module with two analog outputs (0–20/4–20mA) for EEM-MA600

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Special function module - EEM-IMP-MA600 - 2904313



Function module with two pulse outputs for the EEM-MA600

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