

EM120-RTU-MID

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

General ordering data

Version	Power measurement/display for 1-, 3-phase mains, use of CT, pulse output, Modbus RTU, MID approval
Order No.	3099200000
Type	EM120-RTU-MID
GTIN (EAN)	4099987133821
Qty.	1 items

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Technical data

Approvals

ROHS	Conform
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Dimensions and weights

Depth	65 mm	Depth (inches)	2.5591 inch
Height	94.5 mm	Height (inches)	3.7205 inch
Width	72 mm	Width (inches)	2.8346 inch
Net weight	252.4 g		

Temperatures

Storage temperature	-40 °C...70 °C	Humidity at storage temperature	0...90 % (no condensation)
Operating temperature	-25 °C...55 °C	Humidity at operating temperature	0...90 % (no condensation)

Measuring current input

Housing main material	Plastic	AC input cable connection	Directly at the device
Current-measuring channels	3	Measuring accuracy for current	0.5 %
Residual current measuring	No	Max. current	5000 A

Measuring voltage input

Low voltage network	1 phase 2 wire (L + N), 3 phase 3 wire (L1 + L2 + L3), 3 phase 4 wire (L1 + L2 + L3 + N)	Voltage type	AC
Frequency range, max.	60 Hz	Frequency range, min.	50 Hz
Measuring accuracy for voltage	0.5 %	Three-wire system	Yes
Measurement range, voltage L-L, AC	400 V	Measurement range, voltage L-N, AC	3 x 230 V
Four-wire system	Yes		

Communication

Baud rate	9600/19200/38400 bit/s	Communication	Bi-directional
Parity	even, none, odd	Stop bits	1, 2
Addressing	1 - 247	Interface	RS485
Protocol	Modbus RTU		

Inputs/outputs

Input type	Secondary side of a current transformer 0-1 A or 0-5 A, 3 phase AC (3P, 3P +N)	Digital output configurable	Yes
Number of digital inputs	0	Number of digital outputs	2
Number of pulse outputs	0	Temperature input	No

Measurement data recording

Software	EM configuration tools
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Technical data

Display value	Voltage, current measured value, Apparent power,	Version	Power measurement/display for 1-, 3-phase
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Technical data

	Reactive power, Power factor, Frequency, Import / export active power demand, Total import / export active energy, Total import / export reactive energy, Total system power demand	mains, use of CT, pulse output,, Modbus RTU, MID approval
Input frequency	50/ 60 Hz	Display
Type of mounting	DIN rail	Protection degree
Pollution severity	2	Power factor input
Measurement accuracy	Class 0.5	Max. current
Display monitoring (monitor)	LCD	Measurement range, voltage L-N, AC
Measurement range, voltage L-L, AC	400 V	Surge voltage category
Supply voltage	230 V AC, 400 V AC	Supply voltage
Three-wire system	Yes	Four-wire system
Sampling frequency 50/60 Hz	14.4 kHz	Continuous measurements
Measurement result per second	100 ms	Residual current measuring
Current-measuring channels	3	Measuring accuracy for voltage
Measuring accuracy for current	0.5 %	Measuring accuracy for active energy Class 0.5 (kWh, .../5 A)

Insulation coordination

Impulse withstand voltage	6 kV (1.2/50 µs)	Surge voltage category	III
Pollution severity	2	Tolerance class	0,5
Insulation voltage input or output/supply 4 kVeff / 1 min.			

Classifications

ETIM 8.0	EC002301	ETIM 9.0	EC002301
ETIM 10.0	EC002301	ECLASS 14.0	27-14-23-30
ECLASS 15.0	27-14-23-30		