

**EM120-TCP-MID**

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

www.weidmueller.com

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**General ordering data**

Version	Modbus TCP/IP, Power measurement/display for 1-, 3-phase mains, use of CT
Order No.	<a href="#">3141000000</a>
Type	EM120-TCP-MID
GTIN (EAN)	4099987460712
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	241.4 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)
Humidity	0...90 % (no condensation)		

## Measuring current input

Housing main material	Plastic	Current-measuring channels	3
Measuring accuracy for current	0.5 %	Max. current	5000 A

## Measuring voltage input

Low voltage network	3 phase 4 wire (L1 + L2 + L3 + N), 3 phase 3 wire (L1 + L2 + L3), 1 phase 2 wire (L + N)	Voltage type	AC
Frequency range, max.	65 Hz	Frequency range, min.	45 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

Communication Protocol	Bi-directional Modbus/TCP	Addressing	1 - 247
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## Inputs/outputs

Input type	3 phase AC (3P, 3P +N), Secondary side of a current transformer 0-1 A or 0-5 A	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	Modbus TCP/IP, Power measurement/display for 1-, 3-phase mains, use of CT
Input frequency	50/ 60 Hz	Display	LCD

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**Technical data**

Type of mounting	DIN rail	Protection degree	IP5 1
Pollution severity	2	Power factor input	1 %
Measurement accuracy	Class 0.5	Max. current	5000 A
Display monitoring (monitor)	LCD	Measurement range, voltage L-N, AC	3 x 230 V
Measurement range, voltage L-L, AC	400 V	Supply voltage	400 V AC, 230 V AC
Supply voltage	230 V	Three-wire system	Yes
Four-wire system	Yes	Continuous measurements	Yes
Current-measuring channels	3	Measuring accuracy for voltage	0.5 %
Measuring accuracy for current	0.5 %	Measurement accuracy for active energy	Class 0.5 (kWh, .../5 A)

**Voltage quality measurement**

Brief interruptions	Yes
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**Insulation coordination**

Impulse withstand voltage	6 kV (1.2/50 µs)	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		