

# **solaredge MTR EU3 Inline Three Phase Energy Meter User Guide**

[Home](#) » [solaredge](#) » solaredge MTR EU3 Inline Three Phase Energy Meter User Guide 



**User Guide  
Inline Energy Meter  
ACCESSORIES**



## Contents

- [1 MTR EU3 Inline Three Phase Energy Meter](#)
- [2 Inline Energy Meter](#)
- [3 Documents / Resources](#)
  - [3.1 References](#)
- [4 Related Posts](#)

## MTR EU3 Inline Three Phase Energy Meter

**Grow your revenues with an easily installed metering solution that fits comfortably into standard electrical DIN-rail cabinets**

- Performs export/import, production, and consumption energy readings with 1% accuracy
- Includes integrated current transformers for faster installations, reduced labor costs, and simplified logistics
- Easier installations using SolarEdge Energy Net to communicate wirelessly with the inverter (RS485 connectivity is optional)
- Supports export/import limitations and SolarEdge Smart Energy applications
- Integrates smoothly and easily with SolarEdge Smart Energy solutions
- Enables direct connection of up to 65A per phase, for single and three-phase grid connections
- Quick setup with automatic meter detection by the SolarEdge inverter
- Intuitive meter configuration and visibility to meter status using the NetApp mobile app

## Inline Energy Meter

Part Number		MTR-240-3PC1-D-A-MW	MTR-240-1PC1-DW-MW	UNITS
Model Number		MTR EU3	MTR EU1	
ELECTRICAL SERVICE				
Nominal Voltage		3 x 230/400	1 x 230	Vac
Voltage Range	Line to Line	320 – 460	–	Vac
	Line to Neutral	184 – 264.5		
Supported Grids		L1 / L2 / L3 / N (WYE)	L / N	
Power Consumption (max)	SolarEdge Energy Net Wireless Connection	< 2.0		W
	RS485 Wired Connection	< 1.8		
AC Frequency		45 – 65		Hz
Maximum Current (Imax)		65		A
Transitional Current (It)		0.5		A
Starting Current (Ist)		20		mA
Minimum Current (Imin)		0.25		A
Reference Current (Iref)		5		A
Active Energy Accuracy		EN54070 Class B(1) IEC 62053-21 Class 1		
Active Energy Accuracy Error	It ≤ I < Imax	1		%
	Imin ≤ I < It	1.5		
Reactive Energy Accuracy		IEC 62053-23 Class 2		
Reactive Energy Accuracy Error	It ≤ I < Imax	2		%
	Imin ≤ I < It	2.5		
Over-voltage		CAT III 600		Vac
RS485 COMMUNICATION				
RS485 Terminal Cross Section		0.2 – 2		mm2
Interface		RS485 half duplex, 3 wires (A, B, GND)		
Protocol		MODBUS RTU		
Power Register Update Resolution		<200		ms
All Other Registers		< 4		sec

RS485 Line Termination	120 (selectable)	Ω
<b>WIRELESS COMMUNICATION(2)</b>		
Frequencies	863 – 876 (band 868) 902 – 930 (band 915)	MHz
Transmit Power EIRP	14 (with internal antenna) 16 (with external antenna)	dBm
Transmit Power (Max)	14	dBm
Modulation	OQPSK	
Internal Antenna Gain	0	dBi
External Antenna(3) Gain	2	dBi
Antenna Connector	SMA-RP	
External Antenna Mounting	Wall mount with bracket	
<b>PULSE DISPLAY</b>		
Pulse Frequency	1000	imp / kWh
Pulse Length	5 (min), 80 (max)	ms
<b>INSTALLATION/MECHANICAL</b>		
Display	8 digits	
Protection Rating (Indoor)	IP51	
Mounting Support	DIN rail	
Weight	320	g
Material	PC Lexan 503R	
Dimensions (W x H x D)	72 x 90 x 58	mm
AC Terminal Cross Section Area	1.5 – 25	mm <sup>2</sup>

1. EN54070 Class B, when AC inputs are connected to the upper terminal blocks. EN54070 Class A, when AC inputs are connected to the lower terminal blocks
2. SolarEdge Energy Net wireless communication requires inverter support
3. The external antenna kit should be purchased separately (PN: SE-ANT-ENET-HB-01)

Part Number	MTR-240-3PC1-D-A-MW	MTR-240-1PC1-DW-MW	UNITS
Model Number	MTR EU3	MTR EU1	
ENVIRONMENTAL			
Operating Temperature	-40 to +70 Suitable for outdoor installations		°C
Storage Temperature	-40 to +85		°C
Relative Humidity (non-condensing)	75 (yearly average) 95 (30 days/year)		%
Installation Altitude	< 2000		m
Pollution Degree	2		
STANDARD COMPLIANCE			
Safety	UL 61010-1; CAN/CSA-C22.2 No. 61010-1-04; IEC 61010-1		
Immunity	EN 61000-4-8; EN 61000-4-2; EN 61000-4-3; EN 61000-4-4; EN 61000-4-5; EN 61000-4-6; EN 61000-4-11		
Emissions	FCC Part 15, Class B; EN 55032 Class B, EN 61000-3-2,EN 61000-3-3		
Wireless	IEC EN 300 220		



SolarEdge is a global leader in smart energy technology.

By leveraging world-class engineering capabilities and with a relentless focus on innovation, SolarEdge creates smart energy solutions that power our lives and drive future progress.

SolarEdge developed an intelligent inverter solution that changed the way power is harvested and managed in photovoltaic (PV) systems. The SolarEdge DC optimized inverter maximizes power generation while lowering the cost of energy produced by the PV system.

Continuing to advance smart energy, SolarEdge addresses a broad range of energy market segments through its PV, storage, EV charging, UPS, and grid services solutions.

 SolarEdge

 @SolarEdgePV

 @SolarEdgePV

 SolarEdgePV

in SolarEdge

 [www.solaredge.com/corporate/contact](http://www.solaredge.com/corporate/contact)

[solaredge.com](http://solaredge.com)


EDGE are trademarks or registered trademarks of SolarEdge Technologies, Inc. All other trademarks mentioned herein are trademarks of their respective owners. Date: 06/2021 DS-00001-1.3-ENG. Subject to change without notice.

Cautionary Note Regarding Market Data and Industry Forecasts: This brochure may contain market data and industry forecasts from certain third-party sources. This information is based on industry surveys and the preparer's expertise in the industry and there can be no assurance that any such market data is accurate or that any such industry forecasts will be achieved.

Although we have not independently verified the accuracy of such market data and industry forecasts, we believe that the market data is reliable and that the industry forecasts are reasonable.



## Documents / Resources

	<p><a href="#">solaredge MTR EU3 Inline Three Phase Energy Meter</a> [pdf] User Guide MTR-240-3PC1-D-A-MW, MTR-240-1PC1-DW-MW, MTR EU3, MTR EU1, Inline Three Phase Energy Meter, MTR EU3 Inline Three Phase Energy Meter, Three Phase Energy Meter, Energy Meter, Meter</p>
------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## References

- [Contact Us - Our offices around the world | SolarEdge](#)

Manuals+.