

**ATMOCE**

Data Sheet

## **MI-series Microinverter**

MI-1200-2M/ MI-1000-2M / MI-900-2M/ MI-800-2M



# Key Features

## Reliability

- 25-year Warranty
- 350m Stable PLC Communication
- SPoF Protection
- Non-commercial-grade Chips and Antennas

## Efficiency

- World-Record Peak Efficiency of 98.2%
- World's First 2-in-1 1200W Microinverter
- World's Highest Power Density Microinverter
- Install in Any Orientation to Increase Annual Yield by 25-50%
- Individual MPPT prevents power loss from shading

## Safety

- Extra Low Voltage < 60Vdc
- Polymer Shell for Inherent Safety, No Additional PE
- Easy Maintenance with MLPE Tech

## Scalability

- Flexible Expansion for Systems up to 300kW
- One SKU for Single-phase and Three-phase
- One SKU Supports All PV Modules
- Seamless Plug-and-play System Integration

## Smart

- 1-minute Activation with Photo Scan
- AI-Powered PV Detection for Smarter, Faster, and More Accurate O&M

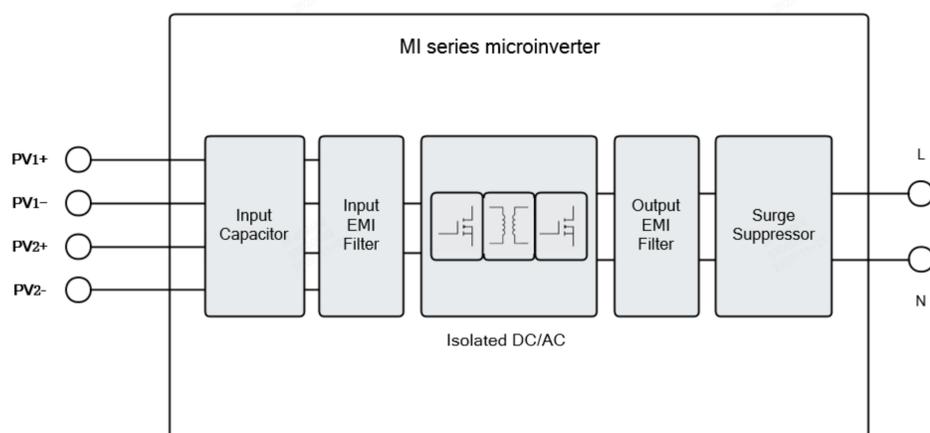


Model	Unit	MI-1200-2M	MI-1000-2M	MI-900-2M	MI-800-2M
<b>Input parameters</b>					
PV module compatibility		54-cell/108 half-cell, 60-cell/120 half-cell, 66-cell/132 half-cell and 72-cell/144 half-cell			
Min./Max. input voltage	$U_{dcmin}/U_{dcmax}, V$	16 to 60			
Peak power tracking voltage range	$U_{mppmin}/U_{mppmax}, V$	39 to 55	33 to 55	30 to 55	28 to 55
MPPT voltage range	$U_{mppt}, V$	16 to 60			
Nominal input voltage	$U_{dcnom}, V$	42			
Start-up input voltage	$U_{dcstart}, V$	22			
Max. continuous input current	$I_{dcmax}, A$	20			
Max. input short-circuit current	$I_{scmax}, A$	25			
DC port overvoltage class		II			
DC port backfeed current	A	0			
PV array configuration		1 x 1 ungrounded array			
<b>Output parameters</b>					
Nominal voltage	$U_{acnom}, V$	220/230/240			
Voltage range	$U_{acmin}/U_{acmax}, V$	176 to 276			
Nominal output power	$P_{acnom}, W$	1200	1000	900	800
Max. apparent power	$S_{acmax}, VA$	1200	1000	900	800
Nominal output current @220Va.c.	$I_{acnom}, A$	5.45	4.55	4.09	3.64
Nominal output current @230Va.c.	$I_{acnom}, A$	5.22	4.35	3.91	3.48
Nominal output current @240Va.c.	$I_{acnom}, A$	5.00	4.17	3.75	3.33
Max. output current @220Va.c.	$I_{acmax}, A$	5.73	4.77	4.30	3.82
Max. output current @230Va.c.	$I_{acmax}, A$	5.48	4.57	4.11	3.65
Max. output current @240Va.c.	$I_{acmax}, A$	5.25	4.38	3.94	3.50
Max. microinverters / 20A branch circuit		3	3	4	4
Max. microinverters / 25A branch circuit		3	4	5	5
Max. microinverters / 32A branch circuit		4	5	6	7
Nominal frequency	$f_{nom}, Hz$	50/60			
Extended frequency range	$f_{min}/f_{max}, Hz$	45 to 65			
Power consumption at night	mW	0 <sup>a</sup>			
AC port overvoltage class		III			
Power factor setting	cosphi	>0.99			
Power factor (adjustable)		0.8 leading ... 0.8 lagging			
Total harmonic distortion	THDi	<1.5%			
AC surge protection		TYPE II			
<b>Efficiency parameters</b>					
Peak efficiency	$\eta_{max}, \%$	98.2			
EU efficiency	$\eta_{EU}, \%$	97.7			
MPPT efficiency	$\eta_{MPPT}, \%$	99.9			

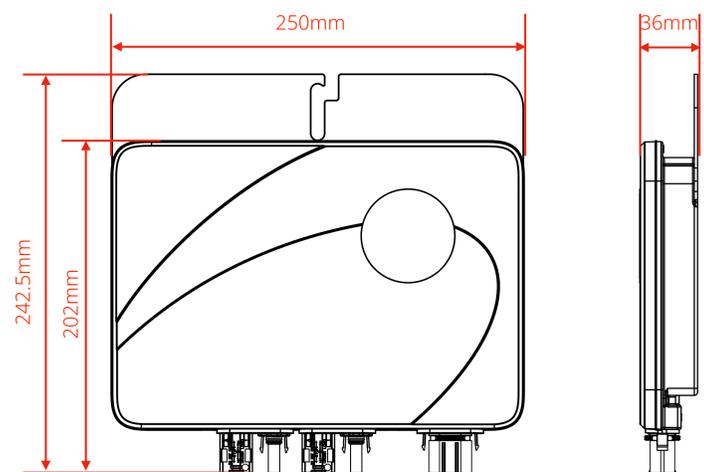
a. The value is tested with M-Relay or M-Combiner.

Model	Unit	MI-1200-2M	MI-1000-2M	MI-900-2M	MI-800-2M
<b>Mechanical parameters</b>					
Ambient temperature range	°C		-40 to 65		
Storage temperature range	°C		-40 to 85		
Relative humidity range	%		4 to 100, condensing		
DC connector type			Stäubli MC4		
Number of DC connectors			2 pair		
AC connector type			MT-02502-A <sup>b</sup>		
Number of AC connectors			1 pair		
Dimensions (without bracket)	mm		250 × 202 × 36 (W x H x D)		
Weight (without bracket)	kg		2.1		
Cooling			Natural convection		
Approved for wet locations			Yes		
Pollution degree			III		
Topology			Isolated		
Enclosure protection class			Class II double-insulated		
Environmental category			Outdoor - IP67		
Altitude	m		3000		
Noise	dB		<25		
<b>Features</b>					
Communication			PLC		
Indicator			1 × LED		
<b>Compliance</b>					
Safety			IEC 62109-1/-2		
EMC			IEC 61000-6-1/-2/-3/-4, EN 62920		
Grid compliance			VDE 0124, VDE 4105, UTE 0126, EN 50549, EN 50530		

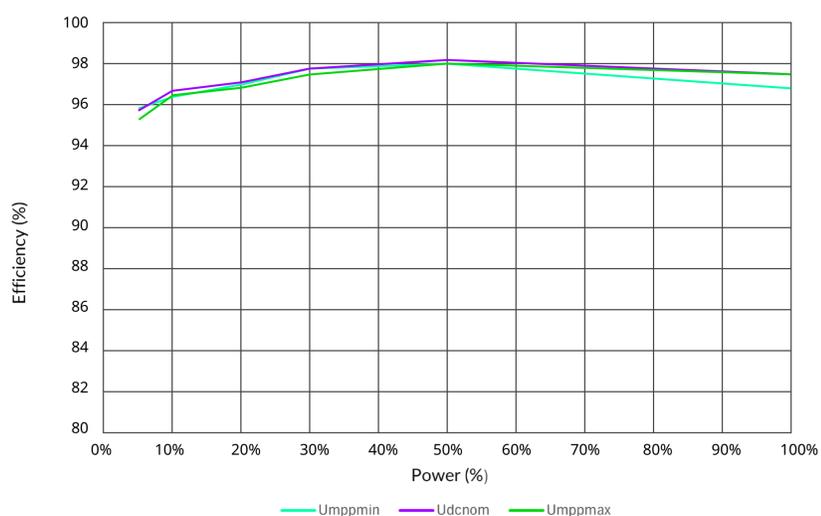
MI-Series 2-in-1 Microinverter Electrical Topology



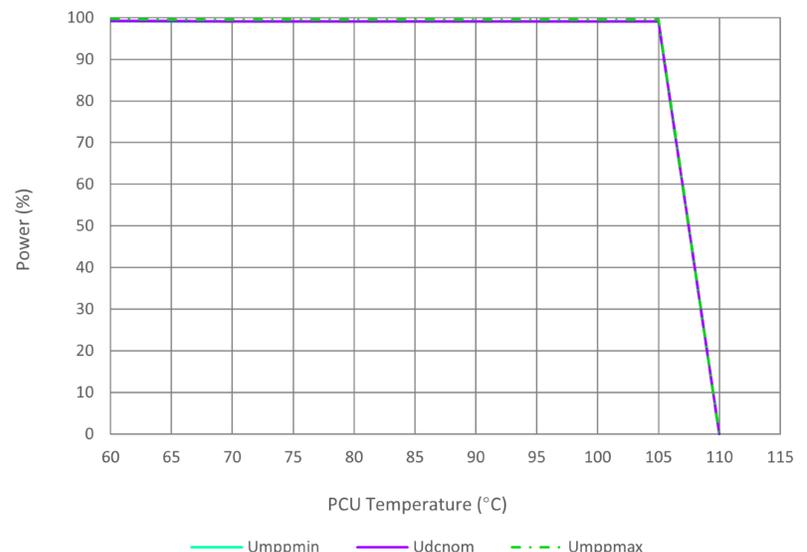
MI-Series 2-in-1 Microinverter Dimension in mm



MI-Series 2-in-1 Microinverter Efficiency Curve



MI-Series 2-in-1 Microinverter Derating Power VS. Temperature



b. The AC connector must be used with MW-Cables.