ATMOCE

MI-series Microinverter

MI-625/MI-500

Data Sheet

Key Features

Ultimate Safety

- No DC arc
- Rapid shut down
- Safety DC voltage
- No need of AFCI

Higher Reliability

- 25-year warranty
- Lightweight to 1.3 kg
- Plastic housing
- IP67 ingress protection

Maximum Electricity

- Module level management and optimization
- Peak efficiency: 97.4 %
- EU efficiency: 97.0 %
- MPPT efficiency: 99.9 %

Flexibility & Intelligence

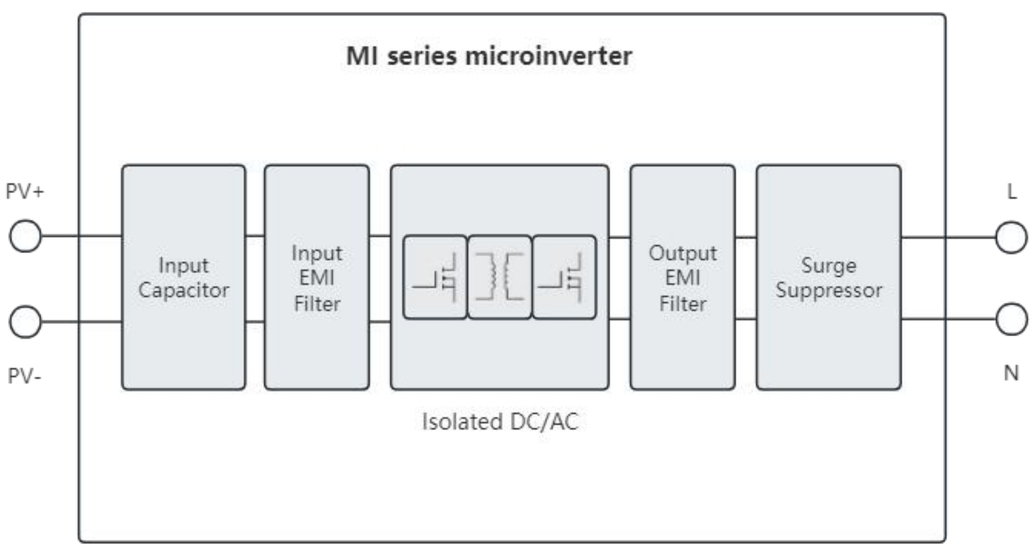
- All-in-one solution
- One SKU for all 1-phase & 3-phase installation
- Supports all common PV modules up to 700W

Model		MI-625	MI-500
Input parameters			
PV module compatibility		54-cell/108 half-cell, 60-cell/120 half-cell, 66-cell/132 half-cell and 72-cell/144 half-cell	
Max. power of compatible PV modules	P_{dcmax}, W	700	
Min./Max. input voltage	U_{dcmin}/U_{dcmax}, V	16/60	
Peak power tracking voltage range	U_{mppmin}/U_{mppmax}, V	41 to 55	33 to 55
MPPT voltage range	U_{mppt}, V	16 to 60	
Nominal input voltage	U_{dcnom}, V	42	36
Start-up input voltage	$U_{dcstart}$, V	22	
Max. continuous input current	I_{dcmax}, A	16	
Max. input short-circuit current	I_{scmax}, A	20	
DC port overvoltage class		II	
DC port backfeed current	A	0	
PV array configuration		1 x 1 ungrounded array	
Output parameters			
Nominal voltage	U_{acnom}, V	220/230	
Voltage range	U_{acmin}/U_{acmax}, V	184 to 276	
Nominal output power	P_{acnom}, W	625	500
Max. apparent power	S_{acmax}, VA	625	500
Nominal output current @220Va.c.	I_{acnom}, A	2.84	2.27
Nominal output current @230Va.c.	I_{acnom}, A	2.72	2.17
Max. output current @220Va.c.	I_{acmax}, A	2.84	2.39
Max. output current @230Va.c.	I_{acmax}, A	2.72	2.28
Max. microinverters / 32A branch circuit		9	11
Max. microinverters / 25A branch circuit		8	9
Max. microinverters / 20A branch circuit		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[a]	
AC port overvoltage class		III	
Power factor setting	cosphi	>0.99	
Power factor (adjustable)		0.8 leading ... 0.8 lagging	
Total harmonic distortion	THDi	<3%	
AC surge protection		TYPE II	
Efficiency parameters			
Peak efficiency	η_{max}, %	97.4	
EU efficiency	η_{EU}, %	97.0	
MPPT efficiency	η_{MPPT}, %	99.9	
Mechanical parameters			
Ambient temperature range	°C	-40 to 65	
Storage temperature range	°C	-40 to 85	
Relative humidity range	%	4 to 100, condensing	

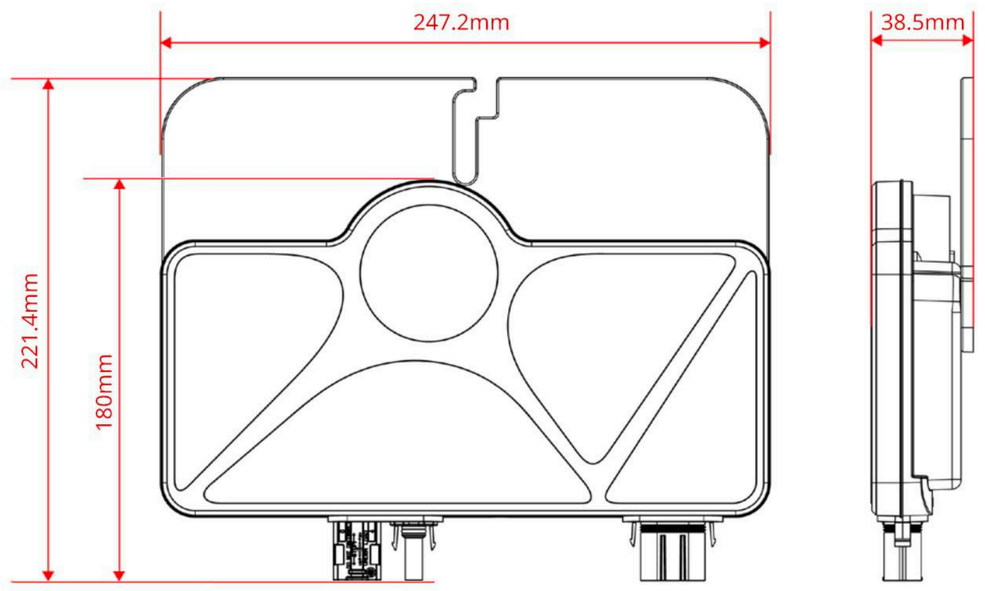
a. The value is tested with M-Relay or M-Combiner.

Model		MI-625	MI-500
DC connector type		MT-02502-D	
Number of DC connectors		1 pair	
AC connector type		MT-02502-A[b]	
Number of AC connectors		1 pair	
Dimensions (without bracket)	mm	247.2 × 180 × 38.5 (W x H x D)	
Weight (without bracket)	kg	1.3	
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	
Features			
Communication		PLC	
Indicator		1 × LED	
Compliance			
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	

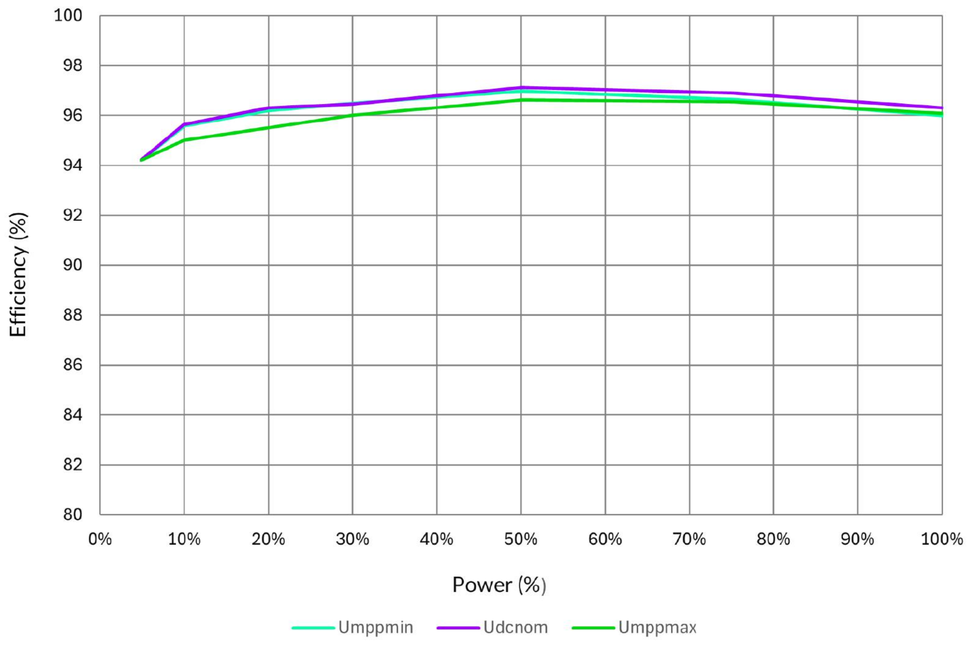
MI-series Microinverter Electrical Topology



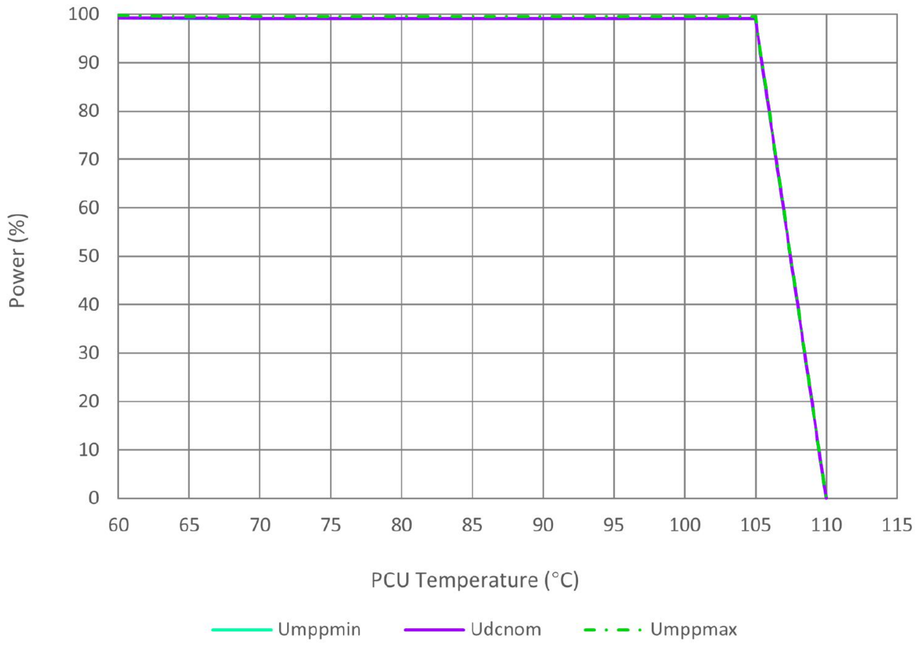
MI-series Microinverter Dimension in mm



MI-series Microinverter Efficiency Curve



MI Series Microinverter Derating Power VS. PCU Temperature



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

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