

MI-series Microinverter

[Data Sheet](#)

MI-600/MI-500/MI-450/MI-425/MI-400/MI-380/MI-360



Key Features

Ultimate Safety

- No DC arc
- Rapid shut down
- Safe DC voltage
- No AFCI required

Higher Power

- 25-year warranty
- Lightweight to 1.3 kg
- Polymer 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-600	MI-500	MI-450	MI-425	MI-400	MI-380	MI-360
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	$U_{mppmin}/U_{mppmax}, V$	39 to 55	33 to 55	30 to 55	30 to 55	28 to 55	28 to 55	28 to 55
MPPT voltage range	U_{mppt}, V	16 to 60	16 to 60	16 to 60	16 to 60	16 to 60	16 to 60	16 to 60
Nominal input voltage	U_{dcnom}, V	42	36	36	36	36	36	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	600	500	450	425	400	380	360
Max. apparent power	S_{acmax}, VA	600	500	450	425	400	380	360
Nominal output current @220Va.c.	I_{acnom}, A	2.73	2.27	2.05	1.93	1.82	1.73	1.64
Nominal output current @230Va.c.	I_{acmax}, A	2.61	2.17	1.96	1.85	1.74	1.65	1.57
Max. output current @220Va.c.	I_{acnom}, A	2.84	2.39	2.15	2.03	1.91	1.82	1.73
Max. output current @230Va.c.	I_{acmax}, A	2.72	2.28	2.05	1.94	1.83	1.73	1.65
Max. microinverters / 20A branch circuit		6	7	8	8	9	10	10
Max. microinverters / 25A branch circuit		8	9	10	10	11	12	12
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	$\eta_{max}, \%$				97.4			
EU efficiency	$\eta_{EU}, \%$				97.0			
MPPT efficiency	$\eta_{MPPT}, \%$				99.9			

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

Model		MI-600	MI-500	MI-450	MI-425	MI-400	MI-380	MI-360
Mechanical parameters								
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					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 x 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 M-Cables.



Hauterives-France



Marches en Savoie France



Beynost-France



Saint-Paul-Trois-Châteaux-France



Staufen im Breisgau-Germany



Lublin-Poland



Saint Priest-France



Normandie-France



Ruppoldsried-Switzerland



Freiburg-Germany



Gstaad-Switzerland