

ATMOCE

Data Sheet

MI-series Microinverter

MI-1250-2M



Key Features

Reliability

- Up to 25-year warranty
- 350m PLC communication range
- No single point of failure
- Natural cooling & IP67 protection rating

Safety

- <60Vdc human-operation-safety voltage
- Zero DC arc risk
- Module-level rapid shutdown

Smart

- 5-min commissioning
- Module-level diagnosis, control and intelligence
- AI-driven O&M for all components
- PV array layout generated from photos

Efficiency

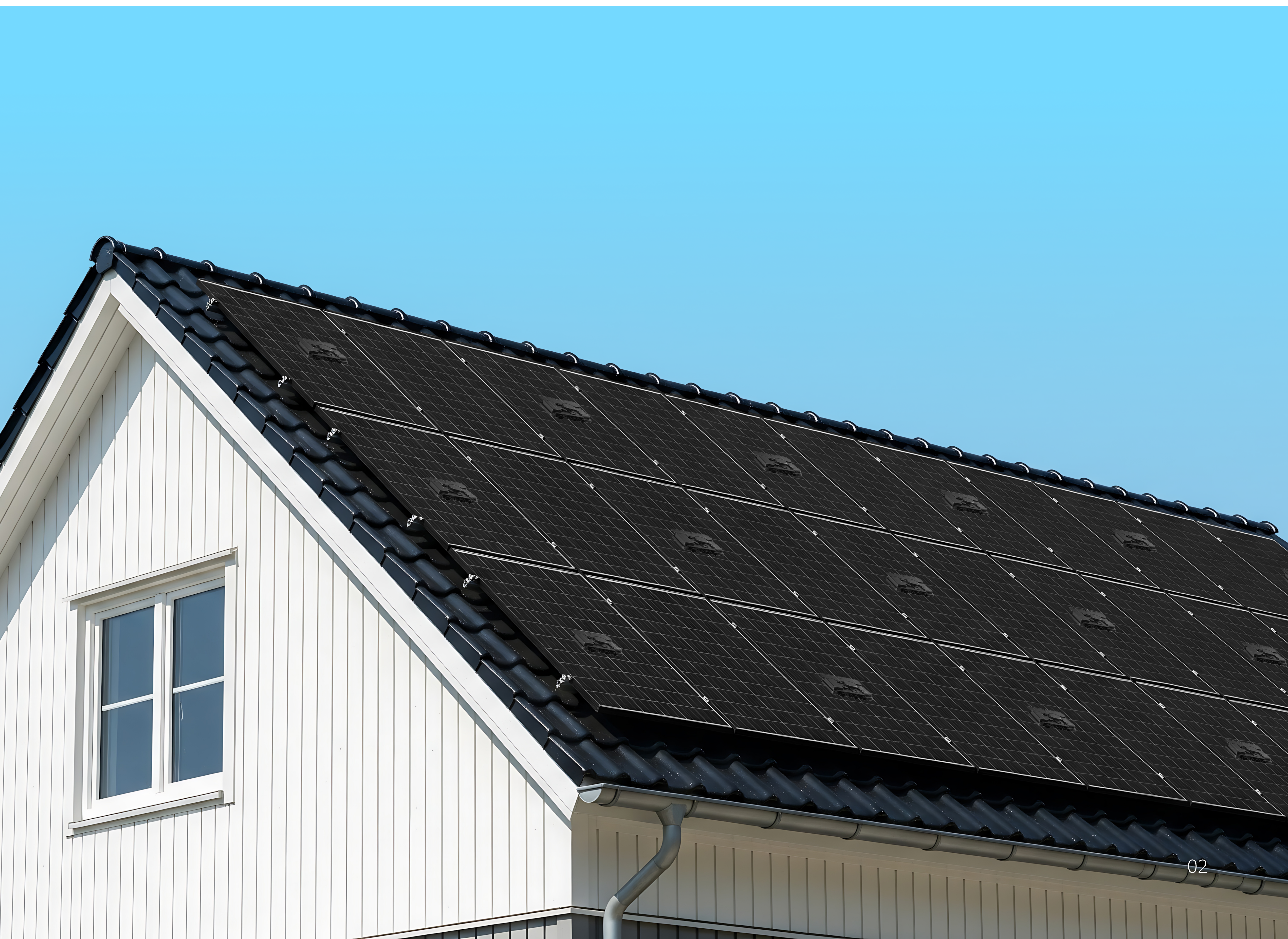
- 98.2% peak efficiency and 97.7% EU efficiency
- 1250 W maximum output power
- Up to 50% higher energy yield
- Wide MPPT voltage range for flexible system design
- MLPE architecture eliminates system bottlenecks

Scalability

- One SKU for all scenarios
- Flexible expansion up to MW scale
- Lightweight design for faster installation & easier O&M

Scenario-based

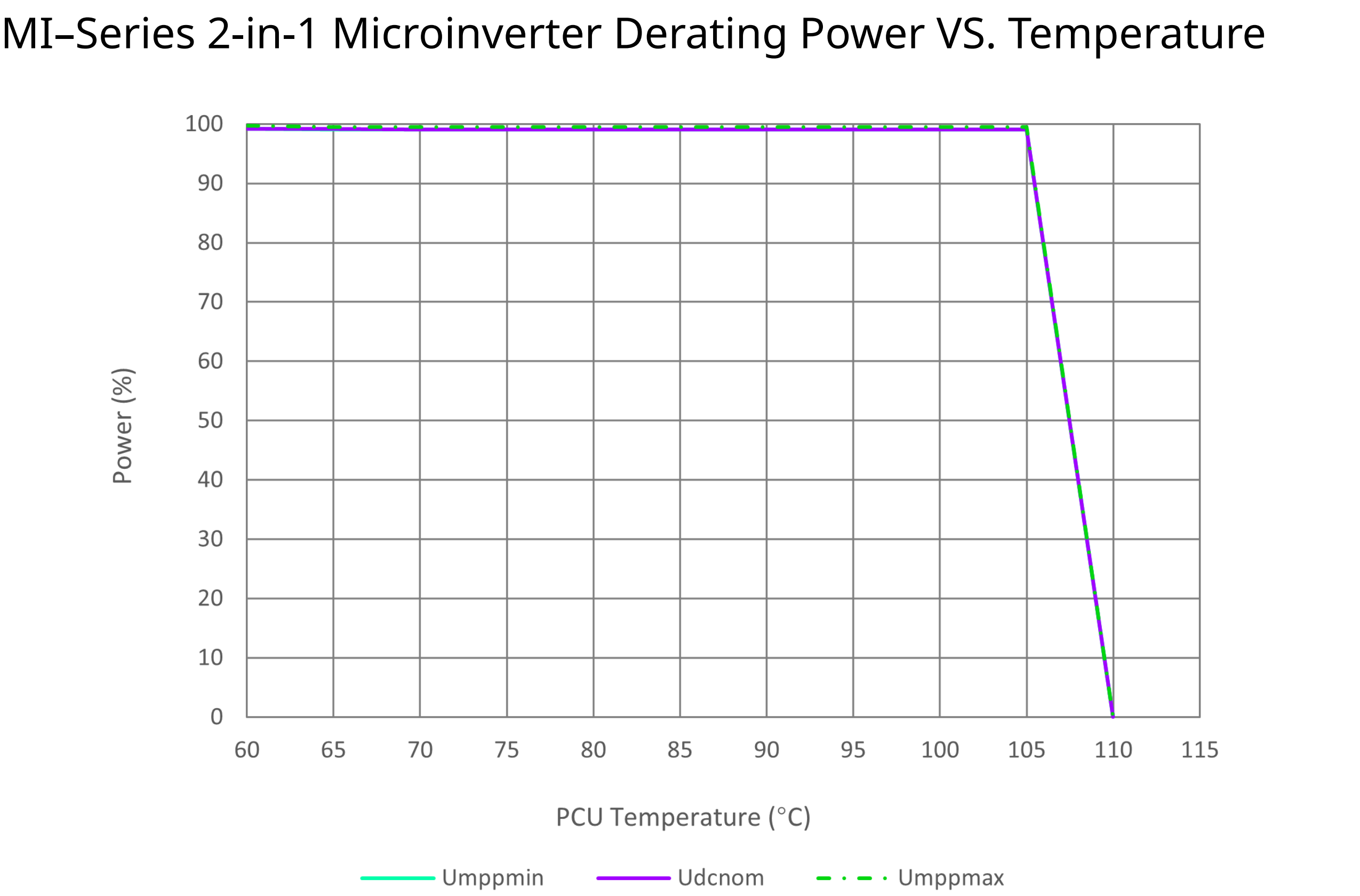
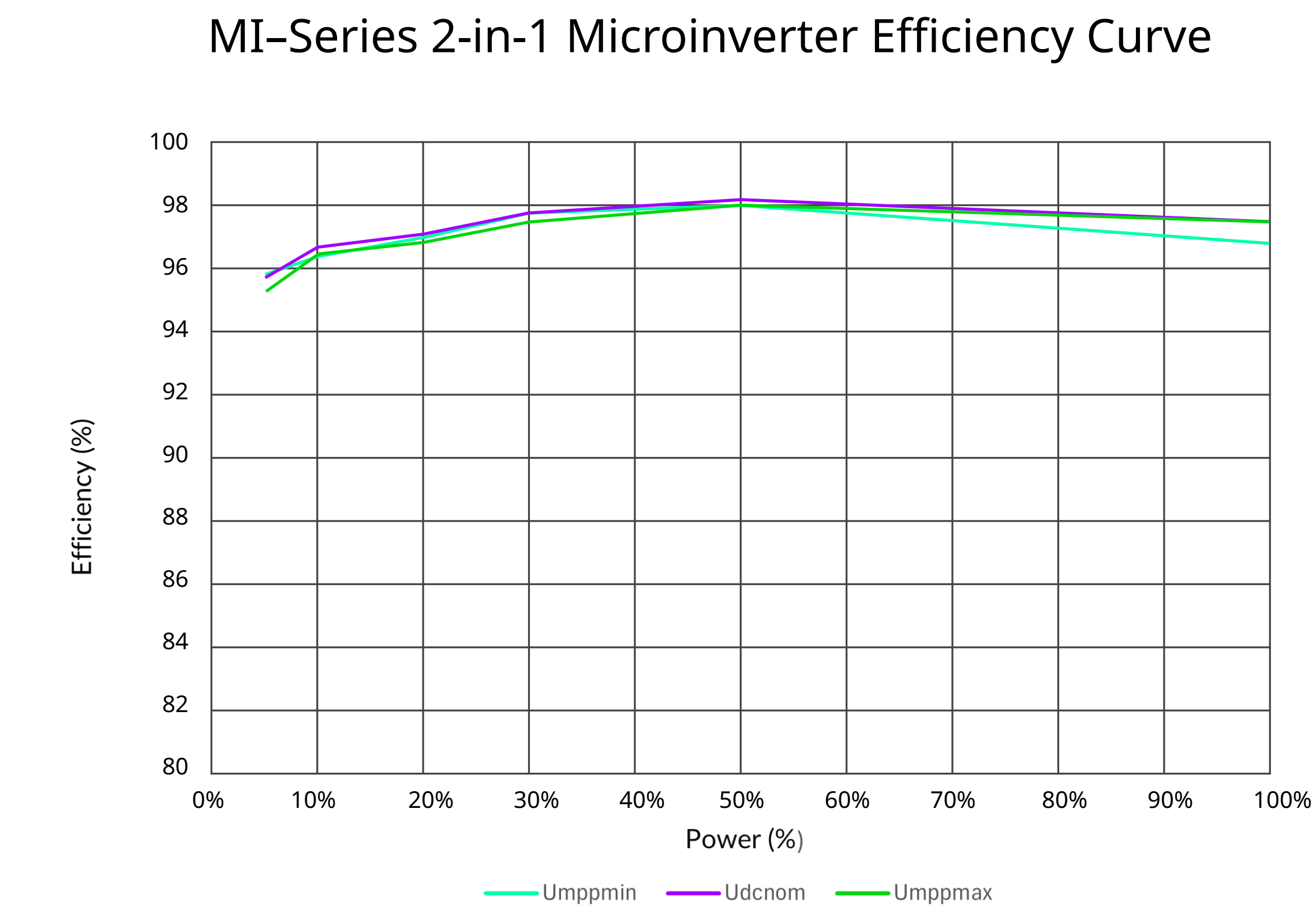
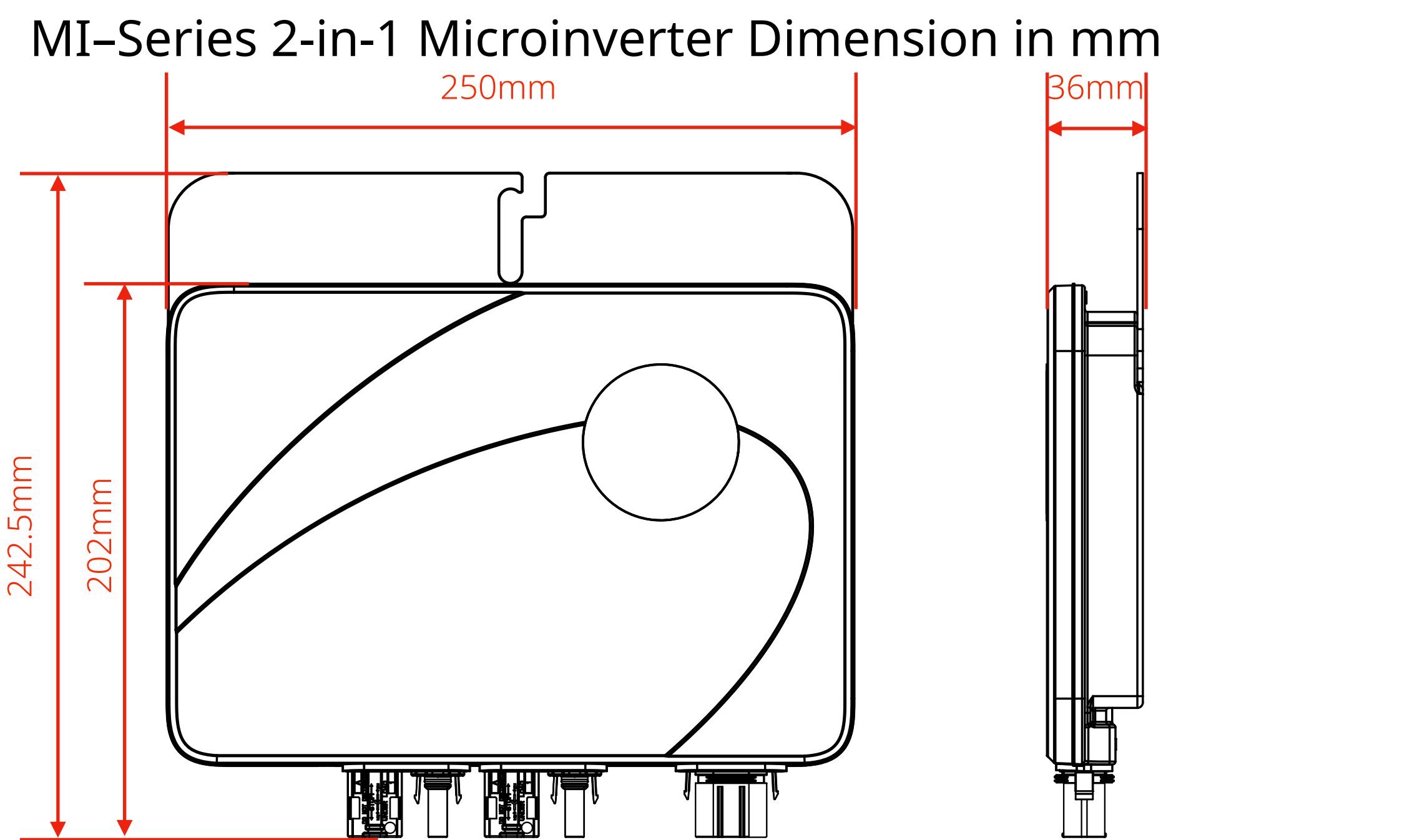
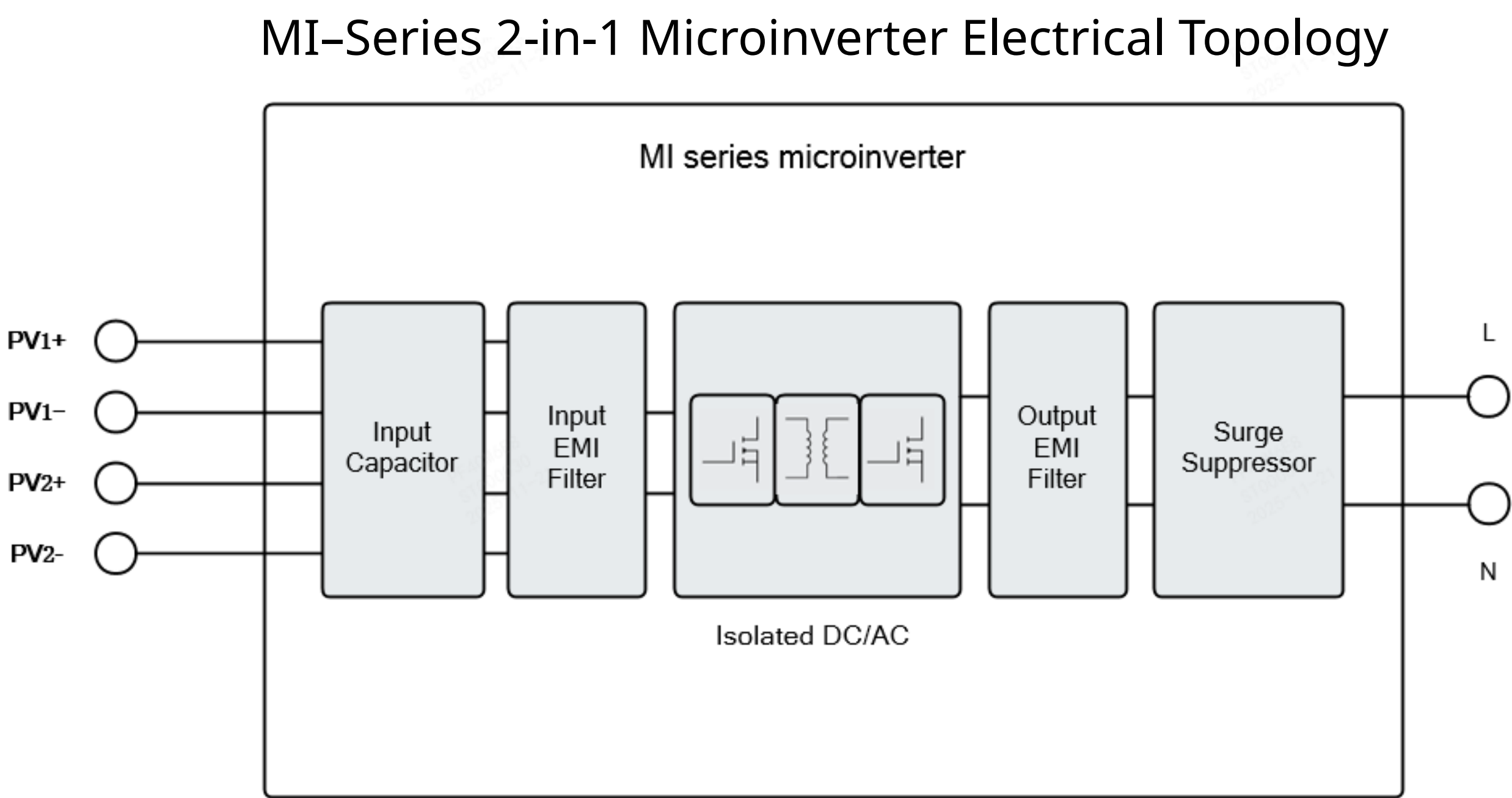
- Grid-to-module power transfer
- Active snow removal technology
- Matrix phase configuration



Model	Unit	MI-1250-2M
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
Min./Max. input voltage	U_{dcmin}/U_{dcmax} , V	16 to 60
Peak power tracking voltage range	U_{mppmin}/U_{mppmax} , V	41 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 (per PV input)	I_{dcmax} , A	20
Max. input short-circuit current (per PV input)	I_{scmax} , A	25
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	220/230/240
Voltage range	U_{acmin}/U_{acmax} , V	176 to 276
Nominal output power	P_{acnom} , W	1250
Max. apparent power	S_{acmax} , VA	1250
Nominal output current @220Va.c.	I_{acnom} , A	5.68
Nominal output current @230Va.c.	I_{acnom} , A	5.43
Nominal output current @240Va.c.	I_{acnom} , A	5.21
Max. output current @220Va.c.	I_{acmax} , A	5.97
Max. output current @230Va.c.	I_{acmax} , A	5.71
Max. output current @240Va.c.	I_{acmax} , A	5.47
Max. microinverters / 20A branch circuit		2
Max. microinverters / 25A branch circuit		3
Max. microinverters / 32A branch circuit		4
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	<1.5%
AC surge protection		TYPE II
Efficiency parameters		
Peak efficiency	η_{max} , %	98.2
EU efficiency	η_{EU} , %	97.7
MPPT efficiency	η_{MPPT} , %	99.9

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

Model	Unit	MI-1250-2M
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		MT-02502-D
Number of DC connectors		2 pairs
AC connector type		MT-02502-A ^b
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
Features		
Indicator		1 × LED
Communication		PLC
Anti-islanding protection		Yes
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



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