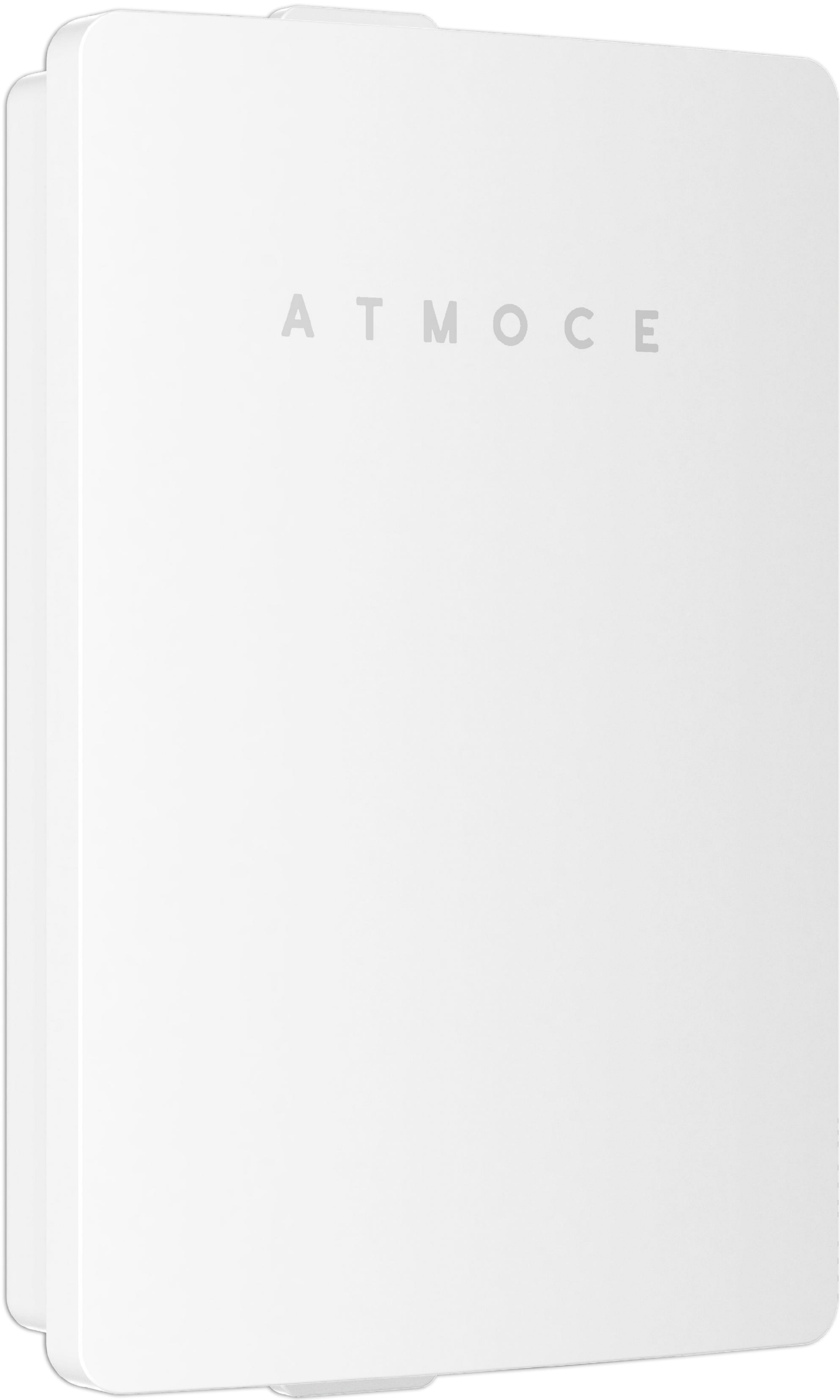


ATMOCE

Data Sheet

Single-phase M-Combiner

MC100



Key Features

Safety & Reliability

- IP65 design for indoor and outdoor installations
- Reliability verification in extreme scenarios
- Reinforced insulation for improved safety

Flexibility & Intelligence

- Remote management of home electricity
- Bi-directional communication between devices and ATMOCE-Cloud
- All-in-one app to guide the installation and configuration

High Power Capability

- Max. PV power of 10 kW
- Max. battery capacity of 21 kWh^a

Easy Installation

- Pre-installed and pre-connected
- Easy system activation by using the ATMOZEN app
- Lightweight design



a. The battery nominal output power will be limited to 11.5 kW due to the 63A rated circuit breaker inside the M-Combiner.

Items	Unit	MC100
What's in the combiner		
M-Gateway MG100		1 × MG100
SPD		1 × unit, In: 20 kA, 2-pole
SPD breaker		1 × unit, 25 A, 2-pole
Gateway breaker		1 × unit, 10 A, 2-pole
PV-side breaker ^b		2 × unit, 20 A, 2-pole
Grid-side breaker		1 × unit, 63 A, 2-pole, RCD 30 mA
Battery-side breaker		1 × unit, 63 A, 2-pole
Microinverter CT		1 × CT, accurate up to 0.1%
Battery CT		1 × CT, accurate up to 0.1%
Consumption CT interface		1 × CT signal interface, accurate up to 0.1%
M-Relay MR100-S		1 × unit, 50 A ^c , 2-pole
Electrical parameters		
Grid setup		Single-phase
Nominal voltage	V	220/230/240
Operating voltage range (L to N)	V	184 to 276
Nominal frequency	Hz	50/60
Extended frequency range	Hz	45 to 65
Max. PV branch		2
Max. PV current/branch ^d	A	20
Max. battery current	A	63
Max. battery capacity	kWh	21
Nominal CT current	A	80
Overvoltage category		III
Mechanical parameters		
Dimensions (W x H x D)	mm	389 × 616 × 127
Weight	kg	6.8
Ambient temperature range	°C	-30 to 50
Cooling		Natural convection
Enclosure environmental rating		Outdoor, IP65
Wire sizes ^e	mm ²	PV side: 2.5 to 4 Grid side: 6 to 16 Battery side: 6 to 16 ^f
Communication cable sizes	mm ²	0.25 to 0.75
Communication		PLC, Wi-Fi, BLE, ETH, CAN, RS485
Noise	dB	<25
Altitude	m	3000
Protection class		II
Pollution degree		III
Communication interfaces		
PV side	PLC	Support
Grid side		1 × interface for consumption CT
Battery side	CAN	Support

Items	Unit	MC100
Load side	ETH	1 × interface, 100 Mb/10 Mb auto-adaptability
	Digital I/O	4 × 12 V DO, 3 × DI
	RS485	Support
Atmoce-Cloud	Wi-Fi	2.4 GHz
	ETH	1 × interface, 100 Mb/10 Mb auto-adaptability
Atmozen app	BLE	2.4 GHz
Indicators		3 × LEDs
Compliance		
Safety		IEC 61439-1/-2
Health		IEC 62311
EMC		EN 301 489-1/-17, IEC 61000-6-1/-2/-3/-4
Radio spectrum		EN 300 328
PLC		EN 50065-1/-2

- b. The standard configuration of the PV-side breaker is 20A, which can be replaced with a 25A rated circuit breaker, supporting a maximum of 10kW.
- c. The maximum current is 50A, for further technical specifications please refer to the 'M-Relay Data Sheet'.
- d. The capacity of the PV branch current can be increased to 25A by replacing the PV side breaker to 25A.
- e. Refer to the local electrical regulations to select the cable size.
- f. 16 mm² power cables are supported only when the cable outer diameter is ≤ 20 mm.