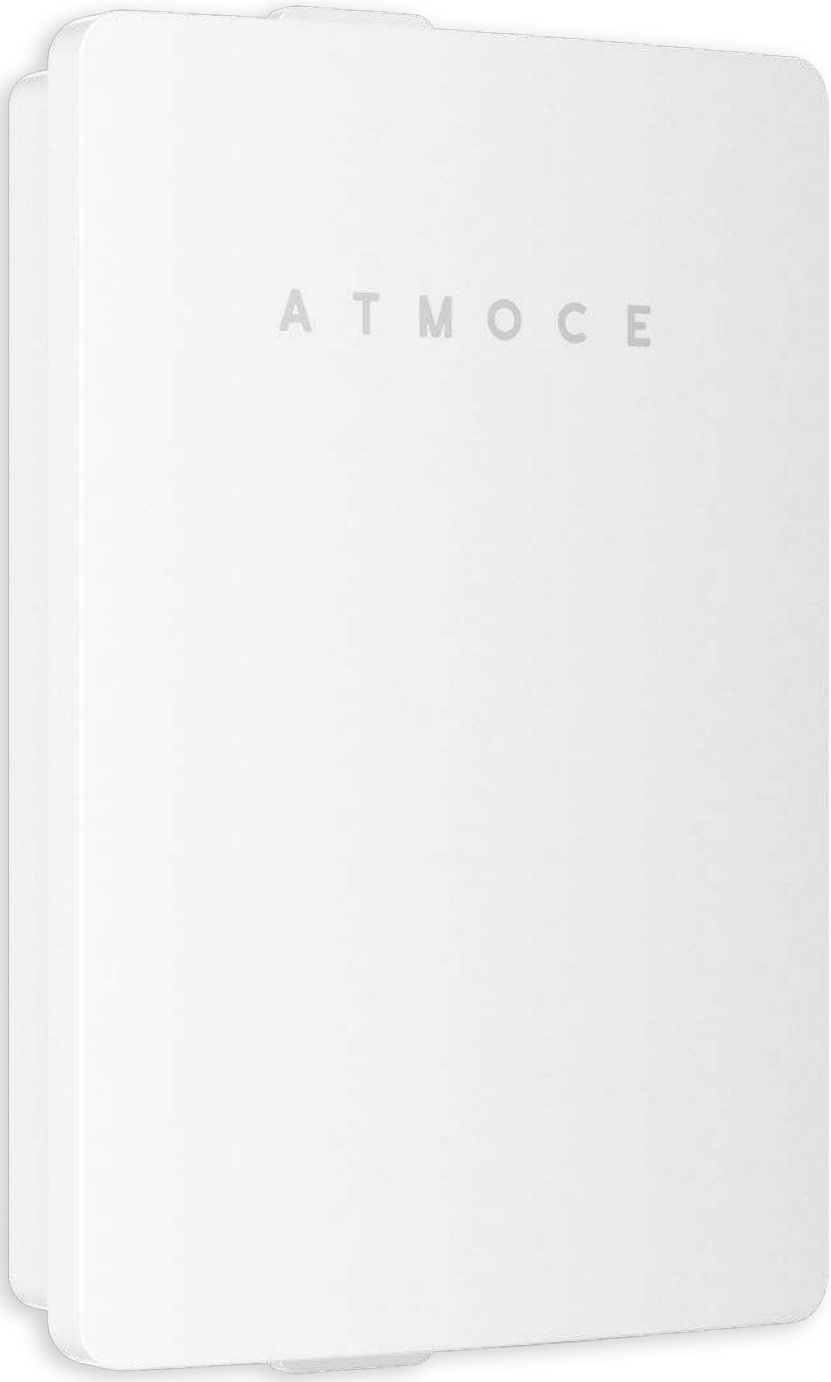
ATMOCE

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

High Power Capability

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

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

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 × units, 20 A, 2-pole
Grid-side breaker		1 × unit, 63 A, 2-pole, RCD 100 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
Power cable sizes[e]	mm^2	PV side: 2.5 to 6 Grid side: 6 to 10 Battery side: 6 to 10
Communication cable sizes	mm^2	0.25 to 0.75
Communication		PLC, Wi-Fi, BLE, ETH, CAN, RS485

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.

Items		Unit	MC100
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
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

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