

Three-phase M-Combiner

MC100-T Data Sheet



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 30 kW
- Max. battery capacity of 42 kWh

Easy Installation

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



Items	Unit	MC100-T
What's in the combiner		
M-Gateway MG100		1 × MG100
SPD		1 × unit, In: 20 kA, 4-pole
PV-side breaker ^a		2 × units, 20 A, 4-pole
Grid-side breaker		1 × unit, 63 A, 4-pole, RCD 30mA
Battery-side breaker		1 × unit, 63 A, 4-pole
Microinverter CT		3 × CTs, accurate up to 0.1%
Battery CT		3 × CTs, accurate up to 0.1%
Consumption CT interface		1 × CT signal interface, accurate up to 0.1%
M-Relay MR100-T		1 × unit, 50 A, 4-pole
Electrical parameters		
Grid setup		Three-phase
Nominal voltage	V	220/380 Va.c., 230/400 Va.c., 3(N)~
Nominal 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	A	20
Max. battery current	A	63
Max. battery capacity	kWh	42
Nominal CT current	A	80
Overtoltage category		III
Mechanical parameters		
Dimensions (W x H x D)	mm	389 × 616 × 127
Weight	kg	8.6
Ambient temperature range	°C	-30 to 50
Cooling		Natural convection
Enclosure environmental rating		Outdoor, IP65
Wire sizes	mm ²	PV side: 2.5 to 4 Grid side: 10 to 16 Battery side: 10 to 16
Communication cable sizes	mm ²	0.25–0.75
Communication		PLC, Wi-Fi, BLE, ETH, CAN, RS485
Noise	dB	<25
Altitude	m	3000
Protection class		II
Pollution degree		III

a. The standard configuration of the PV-side breaker is 20A, which can be replaced with a 25A rated circuit breaker, supporting a maximum of 30kW.

Items	Unit	MC100-T
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		EN IEC 62311
EMC		EN 301 489-1/-17, EN IEC 61000-1/-2/-3/-4
Radio spectrum		EN 300 328
PLC		EN 50065-1/-2