

# Single-phase M-Combiner Lite

## MC100L Data Sheet



**ATMOCE**

# Key Features

## Safety & Reliability

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

## Flexibility & Intelligence

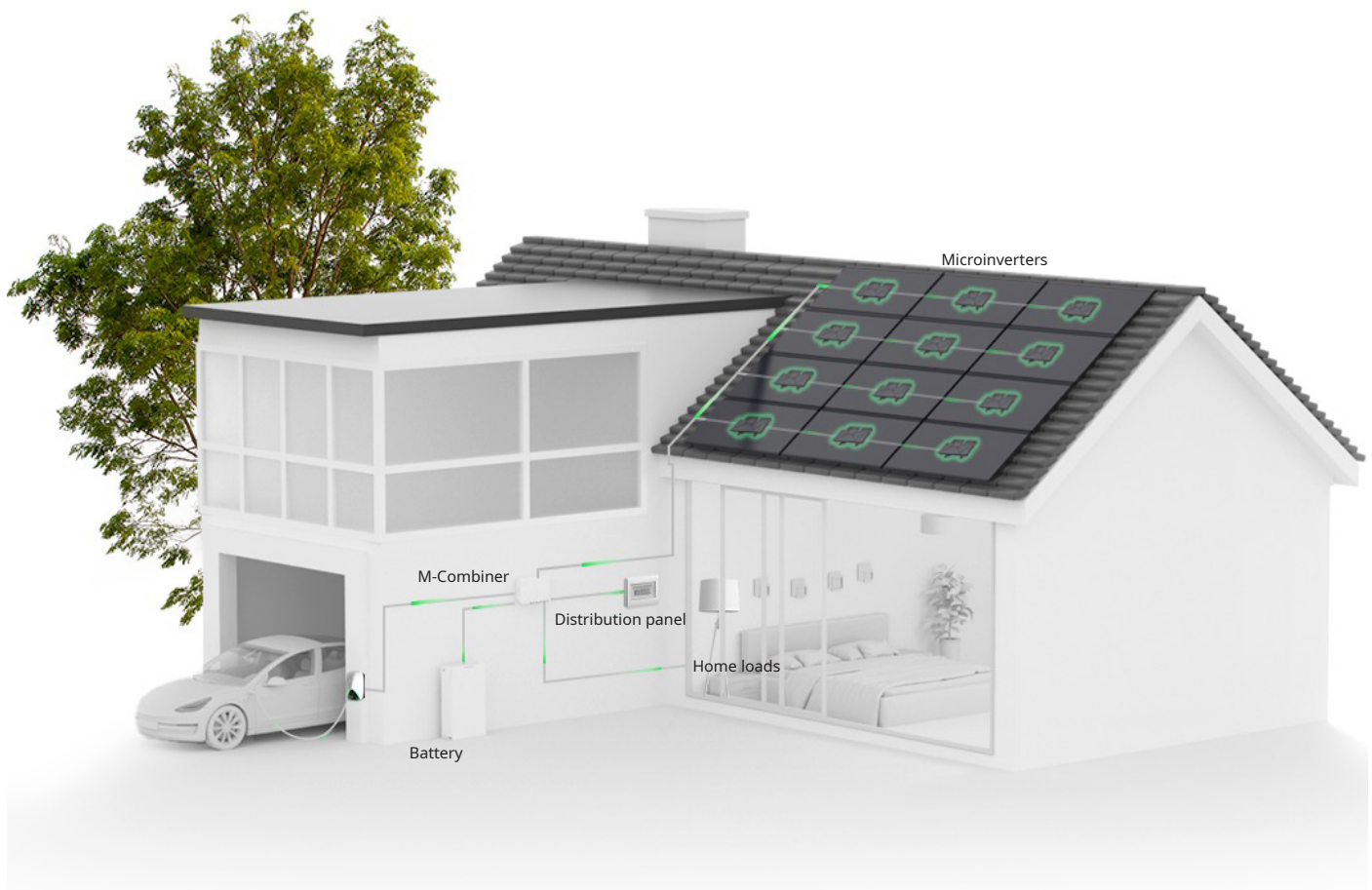
- Remote management of home electricity
- Bi-directional communication between devices and Atmoce-Cloud
- All-in-one app to guide the installation and configuration

## High Power Capability

- Max. PV power of 5 kW
- Max. battery capacity of 7 kWh

## Easy Installation

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



| Items                                    |                 | Unit | MC100L   |
|--|-----------------|------|--|
| What's in the combiner                   |                 |      |  |
| M-Gateway Lite                           |                 |      | 1 × board  |
| SPD                                      |                 |      | 1 × unit, In: 20 kA, 2-pole                                      |
| PV-side breaker <sup>a</sup>             |                 |      | 1 × unit, 20 A, 2-pole   |
| Grid-side breaker                        |                 |      | 1 × unit, 63 A, 2-pole, RCD 30mA                                 |
| Battery-side breaker                     |                 |      | 1 × unit, 32 A, 2-pole   |
| Battery CT                               |                 |      | 1 × CT, accurate up to 0.1%                                      |
| Consumption CT interface                 |                 |      | 1 × CT signal interface, accurate up to 0.1%                     |
| Electrical parameters                    |                 |      |  |
| Grid setup                               |                 |      | Single-phase   |
| Nominal voltage                          | V               |      | 220/230/240  |
| 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                           |                 |      | 1  |
| Max. PV current/branch                   | A               |      | 20   |
| Max. battery current                     | A               |      | 32   |
| Max. battery capacity                    | kWh             |      | 7  |
| Nominal CT current                       | A               |      | 80   |
| AC surge protection                      |                 |      | TYPE II  |
| Overvoltage category                     |                 |      | III  |
| Mechanical parameters                    |                 |      |  |
| Dimensions (W x H x D)                   | mm              |      | 337 × 237 × 99   |
| Weight                                   | kg              |      | 2.4  |
| Ambient temperature range                | °C              |      | -30 to 50  |
| Cooling                                  |                 |      | Natural convection   |
| Enclosure environmental rating           |                 |      | Outdoor, IP65  |
| Power cable sizes                        | mm <sup>2</sup> |      | PV side: 2.5 to 4<br>Grid side: 10 to 16<br>Battery side: 4 to 6 |
| Communication cable sizes                | mm <sup>2</sup> |      | 0.25–0.75  |
| Communication                            |                 |      | PLC, Wi-Fi, BLE, ETH, CAN  |
| 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                    |

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 5kW.

| Items          |       | Unit | MC100L  |
|----------------|-------|------|---|
| 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                                 |