

# MULTICLUSTER-BOXES FOR SUNNY ISLAND



## Flexible

- Capacities from 20 kW to 300 kW
- For stand-alone grids and battery-backup systems\*

## Simple

- Integrated AC distribution for Sunny Island, generator, PV
- Integrated load-shedding contactor

## Safe

- Automatic bypass for the generator
- Active anti-islanding
- Reverse current monitoring

## Robust

- High protection classes
- 5-year SMA warranty

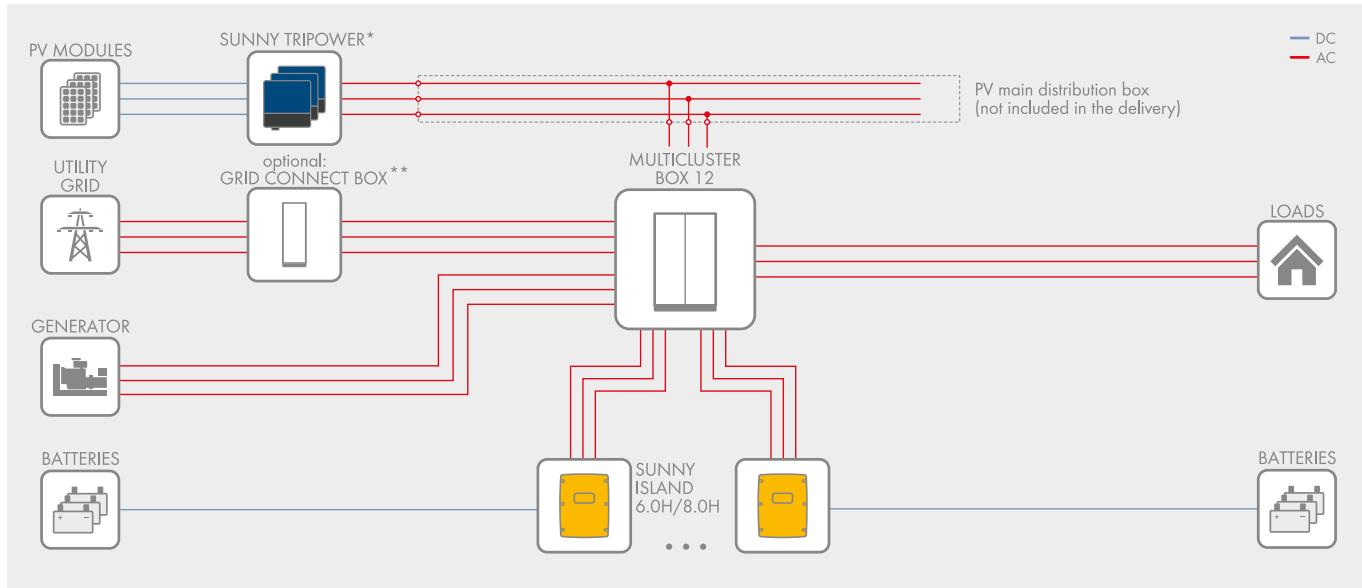
## Multicuster-Boxes for SUNNY ISLAND

Easy setup of powerful off-grid systems

With the SMA Multicuster-Boxes for Sunny Island battery inverters, both off-grid systems and battery-backup systems\* can be configured easily and cost-efficiently. In regions without grid access, based on proven technology, powerful off-grid and hybrid systems with 2 to 12 three-phase clusters, each consisting of 3 Sunny Island inverters of up to 360 kilowatts of output capacity can be installed.

For systems connected to the utility grid, battery-backup systems\* with up to 138 kWp can be set up. To simplify installation, all Multicuster-Boxes are completely wired at the factory and have a dedicated connection interface for generator sets, the load distribution and renewable energy systems. The Multicuster-Boxes are ideal for use in businesses and to supply electricity to rural regions – with or without grid access.

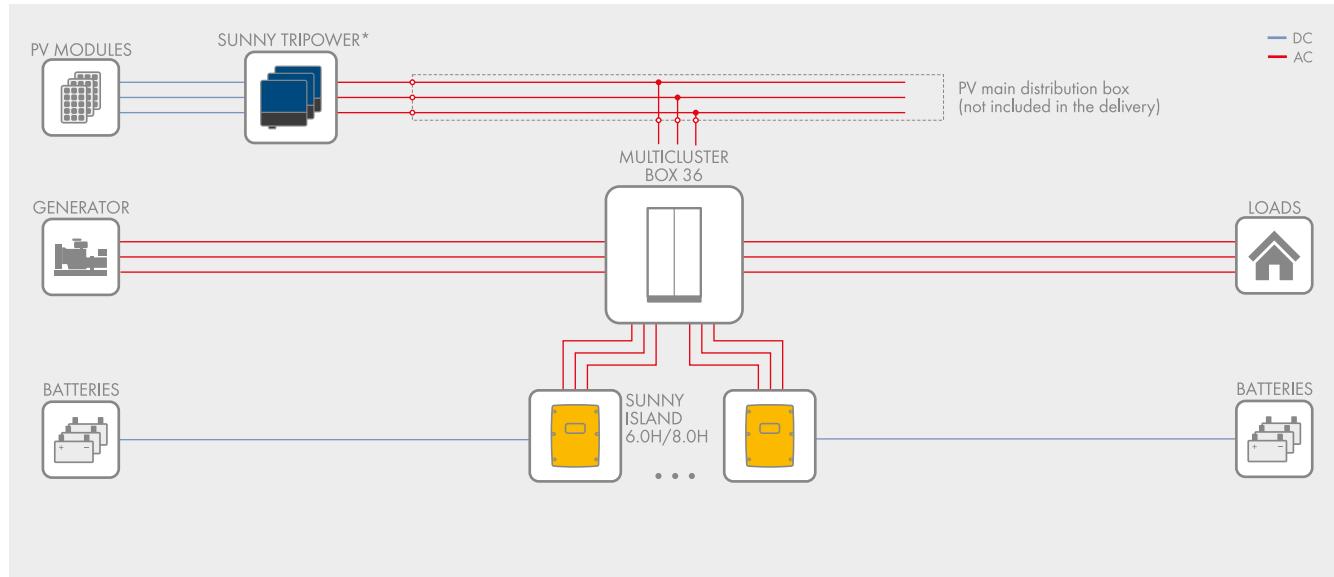
\* On-Grid Multicuster systems with self-consumption at the grid connection point are not permitted in Europe and Australia. However, standard battery-backup systems and the grid operating mode as generator are possible because in both cases the battery can only be charged in parallel grid operation.



| Technical Data   | Multicuster-Box 12                 | Grid-Connect-Box 12                |
|--|------------------------------------|------------------------------------|
| <b>Connection of loads to MC-Box 12 / Connection of Grid-Box 12 to utility grid**</b>                        |                                    |                                    |
| Rated voltage  | 230 V (L, N), 400 V (L1, L2)       | 230 V (L, N), 400 V (L1, L2)       |
| AC voltage range   | 172.5 V to 265 V<br>300 V to 433 V | 172.5 V to 265 V<br>300 V to 433 V |
| Rated frequency / frequency range  | 50 Hz, 60 Hz / 45 Hz to 65 Hz      | 50 Hz, 60 Hz / 45 Hz bis 65 Hz     |
| Number of connections  | 1 x 3-phase                        | 1 x 3-phase                        |
| Rated power  | 138 kW                             | 138 kW                             |
| AC current at rated values   | 3 x 200 A (AC1)                    | 3 x 200 A (AC1)                    |
| Fuses  | NH1                                | NH1 (200 A)                        |
| <b>Sunny Island connections</b>  |                                    |                                    |
| Maximum number of devices  | 12                                 | –                                  |
| AC rated power / AC current at rated values  | 72 kW / 12 x 26 A                  | –                                  |
| AC power at 45°C / AC current at 45°C  | 65 kW / 3 x 94 A                   | –                                  |
| AC power (25°C, 30 min)  | 96 kW                              | –                                  |
| AC power (25°C, 5 min)   | 110 kW                             | –                                  |
| Fuses  | 12 x circuit breaker C40A          | –                                  |
| <b>Generator connection</b>  |                                    |                                    |
| Number of connections  | 1 x 3-phase                        | –                                  |
| Rated grid input power   | 138 kW                             | –                                  |
| AC input current   | 3 x 200 A                          | –                                  |
| Fuses  | NH1                                | –                                  |
| <b>PV system connection</b>  |                                    |                                    |
| Number of connections  | 1 x 3-phase                        | –                                  |
| PV rated power   | 138 kW                             | –                                  |
| AC current at rated values   | 3 x 200 A                          | –                                  |
| Fuses  | –                                  | –                                  |
| <b>General data</b>  |                                    |                                    |
| Number of phases   | 3-phase                            | 3-phase                            |
| Permitted grid configuration   | TN-S, TN-C-S and TT                | TN-S, TN-C-S and TT                |
| Dimensions (W / H / D)   | 1200 / 1600 / 435 mm               | 600 / 1400 / 435 mm                |
| Mounting type  | Base mounted                       | Base mounted                       |
| Weight   | 200 kg                             | 103 kg                             |
| Ambient temperature  | -25 °C to +60 °C                   | -25 °C bis +60 °C                  |
| Degree of protection (as per IEC 60529)  | IP55                               | IP55                               |
| Maximum permissible value for relative humidity (non-condensing)   | 0% to 100%                         | 0 % bis 100 %                      |
| Max. installation altitude above MSL ≤ 2000 m  | ●                                  | ●                                  |
| Warranty (5 years)   | ●                                  | ●                                  |
| Data cables  | ●                                  | ●                                  |
| Certificates   | CE                                 | CE                                 |
| Connection to the utility grid (optimized self-consumption and battery-backup function)<br>GRID-BOX required | ●                                  | ●                                  |
| ● Standard feature    ○ Optional feature    – Not available  |                                    |                                    |
| Type designation   | MC-Box-12.3-20                     | GRID-BOX-12.3-20                   |

\* Also possible with Sunny Boy

\*\* Grid-Connect-Box 12 does not comply with the applicable standards in Europe for connection to the utility grid. In more specific cases in Europe, please contact SMA Solar Technology AG.



| Technical Data   | Multicloud-Box 6                   | Multicloud-Box 36                  |
|--|------------------------------------|------------------------------------|
| <b>Load connection</b>   |                                    |                                    |
| Rated voltage  | 230 V (L, N), 400 V (L1, L2)       | 230 V (L, N), 400 V (L1, L2)       |
| AC voltage range   | 172.5 V to 250 V<br>300 V to 433 V | 172.5 V to 250 V<br>300 V to 433 V |
| Rated frequency / frequency range                                | 50 Hz / 40 Hz to 70 Hz             | 50 Hz / 40 Hz to 70 Hz             |
| Number of connections  | 1 x 3-phase                        | 1 x 3-phase                        |
| Rated power  | 55 kW                              | 300 kW                             |
| AC current at rated values                                       | 3 x 80 A (AC1)                     | 3 x 435 A (AC1)                    |
| Fuses  | NH00                               | NH3                                |
| <b>Sunny Island connections</b>                                  |                                    |                                    |
| Maximum number of devices  | 6                                  | 36                                 |
| AC rated power / AC current at rated values                      | 36 kW / 3 x 52 A                   | 216 kW / 3 x 313 A                 |
| AC power at 45°C / AC current at 45°C                            | 32 kW / 3 x 46 A                   | 195 kW / 3 x 283 A                 |
| AC power (25°C, 30 min)  | 48 kW                              | 288 kW                             |
| AC power (25°C, 5 min)   | 55 kW                              | 328 kW                             |
| Fuses  | 6 x circuit breaker C40 A          | 36 x circuit breaker C40 A         |
| <b>Generator connection</b>                                      |                                    |                                    |
| Number of connections  | 1 x 3-phase                        | 1 x 3-phase                        |
| Rated grid input power   | 55 kW                              | 300 kW                             |
| AC input current   | 3 x 80 A                           | 3 x 435 A (AC1)                    |
| Fuses  | NH00                               | NH3                                |
| <b>PV system connection</b>                                      |                                    |                                    |
| Number of connections  | 1 x 3-phase                        | 1 x 3-phase                        |
| PV rated power   | 55 kW                              | 360 kW                             |
| AC current at rated values                                       | 3 x 80 A                           | 3 x 522 A (AC1)                    |
| Fuses  | —                                  | —                                  |
| <b>General data</b>  |                                    |                                    |
| Number of phases   | 3-phase                            | 3-phase                            |
| Permitted grid configuration                                     | TN-S                               | TN-S                               |
| Dimensions (W / H / D)   | 760 / 760 / 210 mm                 | 1200 / 2000 / 800 mm               |
| Mounting type  | Suspended                          | Base mounted                       |
| Weight   | 55 kg                              | 400 kg                             |
| Ambient temperature  | -25°C to +50°C                     | -25°C to +60°C                     |
| Degree of protection (as per IEC 60529)                          | IP65                               | IP54                               |
| Maximum permissible value for relative humidity (non-condensing) | 0% to 100%                         | 0% to 100%                         |
| Max. installation altitude above MSL ≤ 2000 m                    | ●                                  | ●                                  |
| Warranty (5 years)   | ●                                  | ●                                  |
| Data cables  | ●                                  | ●                                  |
| Certificates   | CE                                 | CE                                 |

● Standard feature    ○ Optional feature    — Not available

Type designation

MC-Box-6.3-11

MC-Box-36.3-11

\*Also possible with Sunny Boy