

# MH

## Series hybrid solar inverters

The Autarco LH series hybrid inverters offer the best and most reliable performance in its class. These inverters combine a grid-tied 3-phase solar PV inverter with high voltage lithium-ion battery backup ensuring a versatile storage solution.

- + Eligible for Autarco's insured kWh Guarantee
- + Compatible with HV Lithium-ion batteries
- + Uninterrupted power supply, 20ms reaction
- + Higher charge-discharge efficiency, improving the economic benefits
- + Off-grid back up and energy management functions



## Quality Certificates

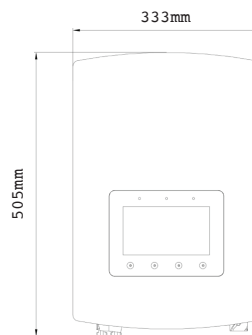
IEC/EN 62109-1/-2, IEC 61727, IEC 62116, IEC 62477-1  
 EN 61000-6-2/-3, EN50549-1, VDE-AR-N 4105, VDE 0126,  
 RD647, CEI 0-21, C10/11



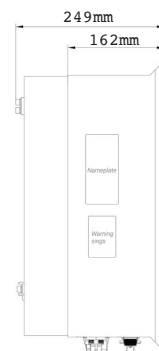
## General characteristics

|                                 |  |
|---------------------------------|--|
| <b>Dimensions (W x H x D)</b>   | 333 x 505 x 249 mm                     |
| <b>Net Weight</b>               | 18,3kg                                 |
| <b>Mounting</b>                 | Wall bracket                           |
| <b>Max. site altitude</b>       | 4000m                                  |
| <b>IP protection class</b>      | IP65                                   |
| <b>Topology (battery)</b>       | High frequency                         |
| <b>Cooling principle</b>        | Natural convection                     |
| <b>Warranty</b>                 | 5 years, extendable to 15 years        |
| <b>Compatible battery types</b> | Lithium-ion                            |
| <b>LCD display</b>              | 7.0"LCD color screen display           |
| <b>Communication interfaces</b> | 1 x RS485, (Battery) 1 x CAN (Battery) |
| <b>Optional interfaces</b>      | WiFi, GPRS                             |
| <b>DC / AC connection</b>       | MC4 / Quick connection plug            |
| <b>DC switch</b>                | Integrated (optionally excluded)       |

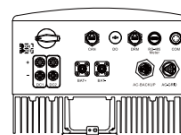
Front



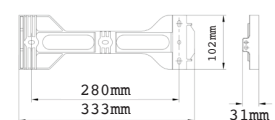
Side



Bottom



Bracket



# PV Input characteristics

|                                | S2.MH3000   | S2.MH3600   | S2.MH4600   | S2.MH5000   | S2.MH6000   |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| Max. PV input power (W)        | 7000        | 7000        | 8000        | 8000        | 8000        |
| Max. input voltage (V)         | 600         | 600         | 600         | 600         | 600         |
| MPP voltage range (V)          | 90 - 520    | 90 - 520    | 290 - 520   | 90 - 520    | 90 - 520    |
| Start-up DC voltage (V)        | 120         | 120         | 120         | 120         | 120         |
| Number of MPP trackers         | 2           | 2           | 2           | 2           | 2           |
| Max. DC current per MPPT (A)   | 11 / 11     | 11 / 11     | 11 / 116    | 11 / 11     | 11 / 11     |
| DC connections per MPPT        | 1           | 1           | 1           | 1           | 1           |
| DC connection type             | MC4         | MC4         | MC4         | MC4         | MC4         |
| Max. short circuit current (A) | 17.2 / 17.2 | 17.2 / 17.2 | 17.2 / 17.2 | 17.2 / 17.2 | 17.2 / 17.2 |

# Grid input characteristics

|                         |               |               |               |               |               |
|-------------------------|---------------|---------------|---------------|---------------|---------------|
| Input voltage range (V) | 184 - 264     | 184 - 264     | 184 - 264     | 184 - 264     | 184 - 264     |
| Max. input current (A)  | 26.1          | 26.1          | 26.1          | 26.1          | 26.1          |
| Frequency range (Hz)    | 45-55 / 55-65 | 45-55 / 55-65 | 45-55 / 55-65 | 45-55 / 55-65 | 45-55 / 55-65 |

# Output characteristics

|   |               |               |               |               |               |
|---|---------------|---------------|---------------|---------------|---------------|
| AC connection                                 | 220 / 230 VAC | 220 / 230 VAC | 220 / 230 VAC | 220 / 230 VAC | 220 / 230 VAC |
| Power connection                              | 1-phase       | 1-phase       | 1-phase       | 1-phase       | 1-phase       |
| Rated AC power (W)                            | 3000          | 3600          | 4600          | 5000          | 6000          |
| Rated AC current at 220V/230V (A)             | 13.6 / 13     | 16.3 / 15.7   | 20.9 / 20     | 22.7 / 21.7   | 27.2 / 26.1   |
| Max. AC power (W)                             | 3300          | 4000          | 4600          | 5500          | 6000          |
| Max. AC current at 220V/230V (A)              | 15.7 / 14.3   | 18.1 / 17.3   | 23 / 20.9     | 25 / 23.9     | 27.2 / 26.1   |
| Grid voltage range (V) & frequency range (Hz) | TBD           |               |               |               |               |
| Power factor                                  | 0.8...1...0.8 | 0.8...1...0.8 | 0.8...1...0.8 | 0.8...1...0.8 | 0.8...1...0.8 |
| Harmonic distortion (%)                       | > 2%          | > 2%          | > 2%          | > 2%          | > 2%          |
| Cooling principle                             | Convection    | Convection    | Convection    | Convection    | Convection    |

# Battery

|                                     |             |             |             |             |             |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Battery voltage range (V)           | 42 - 58     | 42 - 58     | 42 - 58     | 42 - 58     | 42 - 58     |
| Battery capacity (Ah)               | 50-2000     | 50-2000     | 50-2000     | 50-2000     | 50-2000     |
| Max. charge (W)                     | 5000        | 6000        | 8000        | 10000       | 25          |
| Max. charge / discharge current (A) | 62.5        | 62.5        | 62.5        | 62.5        | 62.5        |
| Communication                       | CAN / RS485 | CAN / RS485 | CAN / RS485 | CAN / RS485 | CAN / RS485 |

# Efficiency

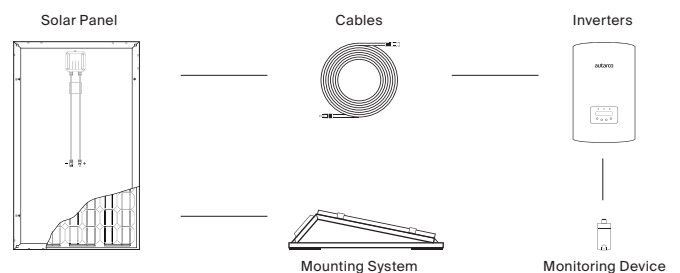
|                          |       |
|--------------------------|-------|
| Max. efficiency          | 97.5% |
| EU efficiency            | 96.8% |
| Back-up switch time (ms) | < 20  |

# Protection

|                                       |            |
|---------------------------------------|------------|
| DC reverse-polarity protection        | Integrated |
| Protection class / Overvoltage categ. | I / II     |
| Ground fault monitoring               | Integrated |
| Integrated AFCI                       | Integrated |

# Other characteristics

|                             |                |
|-----------------------------|----------------|
| Operating temperature range | -25°C to +60°C |
| Relative humidity range     | 0% to 100%     |



The specifications contained in this datasheet may deviate slightly from our actual products due to on-going product improvement and are subject to change at any time without prior notice.