

XLH

Series hybrid solar inverters

The Autarco XLH 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.

- + Max 6 inverters supported in parallel
- + Up to 70A max charge / discharge current
- + Supports peak shaving control in both "self-use" and "generator" mode
- + Supports Unbalanced and Half-Wave loads on the Grid and Backup ports
- + Match large current modules perfectly, with 20A string current
- + Integrated 3 or 4 MPPT, suitable for multiple array orientations
- + 200% surge power backup overload capability
- + Upgrade existing grid-connected systems easily with intelligent AC coupling scheme
- + Suitable for commercial battery cabinet storage
- + Support 200% DC/AC ratio, make full use of PV charging, provide long backup hours

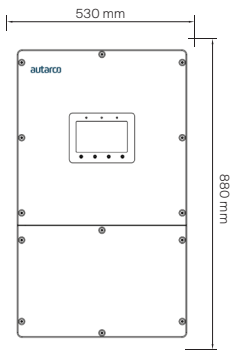


General characteristics

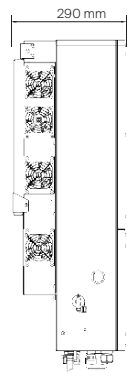
Dimensions (W x H x D)	530 x 880 x 290 mm
Net Weight	73 kg
Mounting	Wall bracket
Max. site altitude	4000m
IP protection class	IP66
Topology	Transformerless
Cooling principle	Intelligent redundant fan-cooling
Warranty	5 years, extendable to 15 years
Compatible battery types	Lithium-ion
Display	LCD + Bluetooth + APP
Communication interfaces	1 x RS485, (Battery) 1 x CAN (Battery)
Optional interfaces	4G, WiFi and LAN
DC / AC connection	MC4 / Terminal Block
Battery connection	Terminal connector
Safety / EMC Standards	IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4, EN 55011
Operating temperature range	-25°C to +60°C
Relative humidity range	0% to 95%



Front



Side



PV Input characteristics

	S2.XLH29900	S2.XLH30000	S2.XLH40000	S2.XLH50000
Recommended max. PV input power (kW)	58.8	60	80	100
Max. input voltage (V)	1000	1000	1000	1000
Rated voltage (V)	600	600	600	600
Start-up voltage (V)	180	180	180	180
MPP voltage range (V)	150 - 850	150 - 850	150 - 850	150 - 850
Max. input current (A)	40	40	40	40
Max. short circuit current (A)	60	60	60	60
MPPT number / Max. input strings number	3 / 6	3 / 6	4 / 8	4 / 8

Battery

Battery voltage range (V)	150 - 800	150 - 800	150 - 800	150 - 800
Max. charge / discharge power (kW)	32.1	33	44	55
Max. charge / discharge current (A)	70	70	70	70
Communication	CAN/RS485	CAN/RS485	CAN/RS485	CAN/RS485
Number of battery inputs	2	2	2	2

Output characteristics (Grid side)

Rated output power (kW)	29.9	30	40	50
Max. apparent output power (kVA)	29.9	30	40	50
Rated grid voltage (V)	3/N/PE, 380 / 400	3/N/PE, 380 / 400	3/N/PE, 380 / 400	3/N/PE, 380 / 400
Rated grid frequency (Hz)	50 / 60	50 / 60	50 / 60	50 / 60
Rated grid output current (A)	45.4 / 43.2	45.6 / 43.3	60.8 / 57.7	76 / 72.2
Max. output current (A)	45.4 / 43.2	45.6 / 43.3	60.8 / 57.7	76 / 72.2
Power factor	>0.99 (0.8 leading - 0.8 lagging)			
THDi	<3%	<3%	<3%	<3%
Grid connection standards	G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1/EN 50549-10, VDE 0126 / UTE C 15/VFR:2019, NTS 631/RD 1699/RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530			

Input AC (Grid side)

Max. / rated input current (A)	90.8 / 86.4	91.2 / 86.6	121.6 / 115.4	152 / 144.4
Rated input voltage (V)	3/N/PE, 380 / 400	3/N/PE, 380 / 400	3/N/PE, 380 / 400	3/N/PE, 380 / 400
Rated input frequency (Hz)	50 / 60	50 / 60	50 / 60	50 / 60

Output AC (Back-up)

Rated output power (kW)	29.9	30	40	50
Max. apparent output power (kVA)	1.6 times of rated power, 2s			
Back-up switch time	<10 ms	<10 ms	<10 ms	<10 ms
Rated output voltage (V)	3/N/PE, 380 / 400	3/N/PE, 380 / 400	3/N/PE, 380 / 400	3/N/PE, 380 / 400
Rated frequency (Hz)	50 / 60	50 / 60	50 / 60	50 / 60
Max. Rated output current (A)	45.4 / 43.2	45.6 / 43.3	60.8 / 57.7	76 / 77.2
THDv (@linear load)	<2%	<2%	<2%	<2%

Input generator

Max. input power (kW)	29.9	30	40	50
Max. input current (A)	45.4 / 43.2	45.6 / 43.3	60.8 / 57.7	76 / 77.2
Rated input frequency (Hz)	50 / 60	50 / 60	50 / 60	50 / 60

Efficiency

Max. efficiency	97.8%
EU efficiency	97.4%
BAT charged by PV Max. efficiency	98.5%
BAT charged/discharged to AC Max. efficiency	97.5%

Protection

Anti-islanding protection	Integrated
Short circuit protection	Integrated
Output over current protection	Integrated
DC switch	Integrated
DC reverse-polarity protection	Integrated
AFCI	Integrated
Surge protection	II / II

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.