FERRARI

Li-HV Residential Single Phase AIO Series

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3.0kW 3.6kW 4.2kW 5.0kW 6.0kW 7.0kW 8.0kW

Simple

Quick and easy single person installation
Interconnects with standard household

Safe

Built-in Isolators for both PV and battery
Superior LiFePO4 battery safety performance
Whole system saferty tested and certificated by Dekra/TUV Germany

Smart

System whole life running data cloud storage
Remote monitoring, comissioning and service suppport
Both inverter and BMS supports firmware update remotely

Great reliability

Superior LiFePO4 technology with 10,000 cycles at 90% DOD
10 years standard warranty
Modular design promotes redundancy

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Plug and Play

Custmize you ideal system

Single Phase AIO ESS System				
Number of Battery Modules	2	3	4	5
Battery Capacity	7.6 kWh 153 V	11.5 kWh 230 V	15.3 kWh 307 V	19.2 kWh 384 V
Size(W*H*Dmm) and Weight(kg)	698*1131*356 126 kg	698*1268*356 168 kg	698*1405*356 210 kg	698*1542*356 252 kg
DOD Recommended	90%			
Power connection type	Hard Connection with Positioner			
Warranty	10,000 Cycles within 10 Years Guarantee			

* Mirko Ferrari reserves the right to modify the technical datasheet and apperance of the product in the manual without prior advice to the users.

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Hybrid Inverter

PV Input	3.0KW	3.6KW	4.2KW	5.0KW	6.0KW	7.0KW	8.0KW
Max. DC Input Power [kW]	4.8	5.76	6.72	8.0	9.6	11.2	12.8
Start-up Voltage [V]	80						
Max. DC Input Voltage [V]*	600						
Rated Input DC Voltage [V]	360						
MPPT Voltage Range [V]	100~550						
Number of MPP Trackers	1	1	2	2	2	2	2
Number of DC Inputs per MPPT	1	1	1/1	1/1	1/1	1/1	1/1
Max. Input Current [A]	15	15	15/15	15/15	15/15	15/15	15/15
Max. Short-circuit Current [A]	20	20	20/20	20/20	20/20	20/20	20/20

Battery Side	3.0KW	3.6KW	4.2KW	5.0KW	6.0KW	7.0KW	8.0KW
Battery Type	Lithium Battery (with BMS)						
Battery Voltage Range [Vdc]	85~465						
Max. Charging/Discharging Current [A]	30/30						

Protection	
DC Reverse Polarity Protection	Integrated
Battery Input Reverse Connection Protection	Integrated
Insulation Resistance Protection	Integrated
Surge Protection	Integrated
Over-temperature Protection	Integrated
Residual Current Protection	Integrated
Islanding Protection	Integrated
AC Over-voltage Protection	Integrated
Overload Protection	Integrated
AC Short-circuit Protection	Integrated

Grid Side	3.0KW	3.6KW	4.2KW	5.0KW	6.0KW	7.0KW	8.0KW
Rated Output Power [kW]	3.0	3.6	4.2	5.0	6.0	7.0	8.0
Max. Output Apparent Power [kVA]	3.3	3.96	4.6	5.5	6.6	7.7	8.0
Max. Input Apparent Power [kVA]**	6.0	7.2	8.4	10.0	12.0	12.0	12.0
Max. Charging Power of Battery [kVA]	3.0	3.6	4.2	5.0	6.0	7.0	8.0
Rated AC Voltage [V]	L/N/PE；220/230/240V						
Rated AC Frequency [Hz]	50/60						
Max. Output Current [A]	15.0	18.0	21.0	25.0	28.7	35.0	36.3
Power Factor	0.8 leading...0.8 lagging						
Max. Total Harmonic Distortion	<3% @Rated output power						
DCI	<0.5%In						

General Data	
Over Voltage Category	PV:II ; Main:III
Dimensions(W×H×D mm)	534×418×210
Weight （KG）	27.0
Protection Degree	IP65
Standby Self-consumption(W)	<15
Topology	Transformerless
Operating Temperature Range(℃)	-30~60
Relative Humidity(%)	0~100
Operating Altitude(m)	3000(>3000m derating)
Cooling	Natural Convection
Noise Level (dB)	<25
Display	OLED & LED
Communication	CAN, RS485, WiFi/LAN(Optional)

Back-up Side	3.0KW	3.6KW	4.2KW	5.0KW	6.0KW	7.0KW	8.0KW
Rated Output Power [kW]	3.0	3.6	4.2	5.0	6.0	7.0	8.0
Max. Output Apparent Power [kVA]	3.3	3.96	4.6	5.5	6.6	7.7	8.0
Max. Input Current [A]	15.0	18.0	21.0	25.0	28.7	35.0	36.3
UPS Switching Time	<10ms						
Rated Output Voltage [V]	L/N/PE；220/230/240V						
Rated Output Frequency [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Peak Output Apparent Power [kVA]***	3.9,60s	4.7,60s	5.5,60s	6.5,60s	7.8,60s	9.1,60s	10,60s
Voltage Harmonic Distortion	<3%@Linear load						

Efficiency	3.0KW	3.6KW	4.2KW	5.0KW	6.0KW	7.0KW	8.0KW
Max. Efficiency	97.6%						
European Efficiency	97.0%						

Compliance	
	IEC/EN 62109, IEC/EN 61000,EN50549-1,TOR Generator Type A,VDE-AR-N-4105

* Max. operating DC voltage is 600V, max. withstanding DC voltage is 550V.
** Max. apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery.
*** The output power will exceed the rated value only when the power in the PV array is sufficient,and the duration of the overload is related to the overload power.
1) G98: 3.68kVA; 2) G98: 16.00A; 3) AS 4777.2: 5.0kW, VDE-AR-N 4105: 4.6kW; 4) AS 4777.2: 5.0kVA, VDE-AR-N 4105: 4.60kVA, C10/11: 5.0kVA; 5AS 4777.2: 21.7A, VDE-AR-N 4105: 21.0A, C10/11: 21.7A.