


FERRARI



Li-HV Residential Three phase AIO series





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6kW - 20kW optional

- New Cables Free Design
- Modular Design
- Customizable Running Modes
- Remote commissioning and control

How to provide you with a simple and reliable power solution for your clean energy needs ? Mirko Ferrari Li-HV hybrid AIO Series combines an inverter, BMS and batteries together, making your home energy storage solution in place within 30mins. From 4kW to 20kW full power, with up to 30kWh battery capacity, plug and play, you will never enjoy such a peace of mind.





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3 Phase independent control and asymmetric AC output (Grid&Back-up Ports)



Customizable Running Modes, satisfy your energy demand more precisely



Modular design, free from complicated system designing and commissioning



New Cables Free Design, plug and play



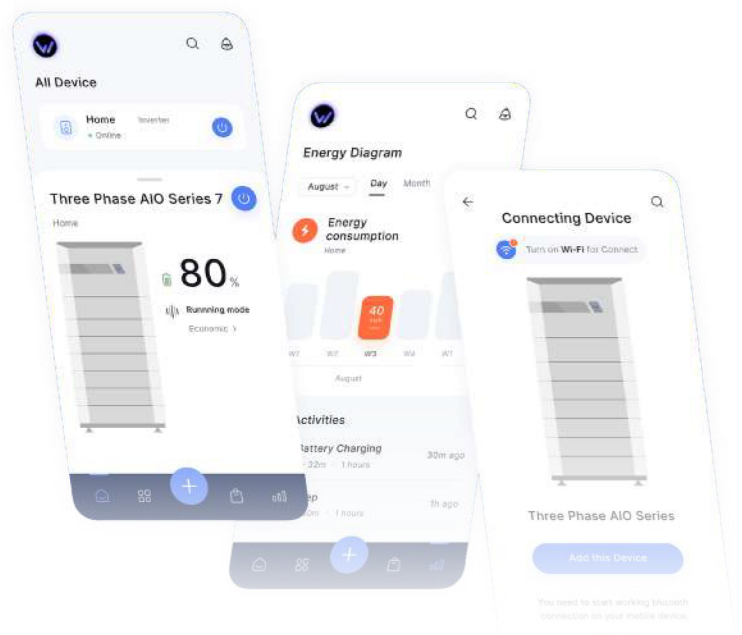
Remote and control anywhere, remote commissioning and control for both inverter and BMS



Easy WIFI configuration via App



Easy data check via both OLED display and App





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3 Phase AIO ESS System

Number of Battery Modules	3	4	5	6	7	8
Battery Capacity	11.5 kWh 230 V	15.3 kWh 307 V	19.2 kWh 384 V	23 kWh 460 V	26.8 kWh 537 V	30.7 kWh 614 V
Size(W*H*Dmm) and Weight(kg)	698*1268*356 168 kg	698*1405*356 210 kg	698*1542*356 252 kg	698*1695*356 294 kg	698*1756*356 336 kg	698*1953*356 378 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 appearance of the product in the manual without prior advice to the users.





Hybrid Inverter

PV Input	6.0KW	8.0KW	10.0KW	12.0KW	15.0KW	20.0KW
Max. DC Input Power [kW]	9.0	12.0	15.0	18.0	22.5	30.0
Start-up Voltage [V]	135	135	135	135	135	135
Max. DC Input Voltage [V]*	1000	1000	1000	1000	1000	1000
Rated Input DC Voltage [V]	620	620	620	620	620	620
MPPT Voltage Range [V]	120~950	200~950	200~950	200~950	200~950	200~950
Number of MPP Trackers	2	2	2	2	2	2
Number of DC Inputs per MPPT	1/1	1/1	1/1	2/2	2/2	2/2
Max. Input Current [A]	15/15	15/15	15/15	30/30	30/30	30/30
Max. Short-circuit Current [A]	20/20	20/20	20/20	40/40	40/40	40/40

Battery Side	6.0KW	8.0KW	10.0KW	12.0KW	15.0KW	20.0KW
Battery Type	Lithium Battery (with BMS)					
Battery Voltage Range [Vdc]	135~750					
Max. Charging/Discharging Current [A]	25/25		40/40		40/40	

Protection		Grid Side	6.0KW	8.0KW	10.0KW	12.0KW	15.0KW	20.0KW
DC Reverse Polarity Protection	Integrated	Rated Output Power [kW]	6.0	8.0	10.0	12.0	15.0	20.0
Battery Input Reverse Connection Protection	Integrated	Max. Output Apparent Power [kVA]	6.6	8.8	11.0	13.2	16.5/15.0 ¹⁾	22.0
Insulation Resistance Protection	Integrated	Max. Input Apparent Power [kVA]**	12.0	16.0	16.5	24.0	30.0	30.0
Surge Protection	Integrated	Max. Charging Power of Battery [kVA]	6.0	8.0	10.0	12.0	15.0	20.0
Over-temperature Protection	Integrated	Rated AC Voltage [V]	3L/N/PE; 220/380V; 230/400V; 240/415V					
Residual Current Protection	Integrated	Rated AC Frequency [Hz]	50/60	50/60	50/60	50/60	50/60	50/60
Islanding Protection	Integrated	Max. Output Current [A]	10.0	13.3	16.5	20.0	25.0/21.7 ²⁾	33.5
AC Over-voltage Protection	Integrated	Power Factor	0.8 leading...0.8 lagging					
Overload Protection	Integrated	Max. Total Harmonic Distortion	<3% @Rated output power					
AC Short-circuit Protection	Integrated	DCI	<0.5%In					

General Data	6.0/8.0/10.0KW 12.0/15.0/20.0KW	Back-up Side	6.0KW	8.0KW	10.0KW	12.0KW	15.0KW	20.0KW
Over Voltage Category	PV:II ; Main:III	Rated Output Power [kW]	6.0	8.0	10.0	12.0	15.0	20.0
Dimensions(WxHxD mm)	534x418x210	Max. Output Apparent Power [kVA]	6.6	8.8	11.0	13.2	16.5	22.0
Weight (KG)	26.0(6-10KW)/28.0(12KW)/31.0(15-20KW)	Max. Input Current [A]	10.0	13.3	16.5	20.0	25.0	33.5
Protection Degree	IP65	UPS Switching Time	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms
Standby Self-consumption(W)	<15	Rated Output Voltage [V]	3/N/PE; 220/380V; 230/400V; 240/415V					
Topology	Transformerless	Rated Output Frequency [Hz]	50/60	50/60	50/60	50/60	50/60	50/60
Operating Temperature Range(°C)	-30~60	Peak Output Apparent Power [kVA]***	12.6s	16.6s	20.6s	20.6s	25.6s	25.6s
Relative Humidity(%)	0~100	Voltage Harmonic Distortion	<3% @Linear load					
Operating Altitude(m)	3000(>3000m derating)							
Cooling	Natural Convection Smart Fan	Efficiency	6.0KW	8.0KW	10.0KW	12.0KW	15.0KW	20.0KW
Noise Level (dB)	<25 <40	Max. Efficiency	98.1%	98.2%	98.2%	98.4%	98.4%	98.4%
Display	OLED & LED	European Efficiency	97.3%	97.4%	97.4%	97.5%	97.5%	97.5%
Communication	CAN, RS485, WiFi/LAN(Optional)	Compliance	IEC/EN 62109, IEC/EN 61000, EN50549-1, TOR Generator Type A, VDE-AR-N-4105					

*PV Max. Input voltage is 950V without battery, or 850V with battery, otherwise inverter will be waiting.

**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) AS 4777.2: 15.0kVA; 2) AS 4777.2: 21.7A