

All-in-one Residential Energy Storage System G3AIO Series

01

Economic Benefits

- 100% DOD
- 10-year warranty
- Unlimited cycles
- Supporting old & new batteries mixing usage
- Multiple pack capacities available

03

High Reliability

- Backup switchover time <10ms
- IP66 protection
- Battery heating tech guarantee performance at -20°C

05

Automotive-grade Safety

- Automotive-grade cell quality
- Automotive-grade electrical construction
- Automotive-grade structure safety
- Automotive-grade active and passive fire protection
- Built-in fire extinguisher

02

Easy Installation

- 10-minute startup, debug free
- Stackable design, plug and play
- Cable free between modules

04

5-in-one Fully Integrated

- Integrating Solar Inverter, EV DC Charger, Battery PCS, Battery Pack, and EMS into one system

06

Intelligent Energy Management

- Support VPP
- One-stop energy application system
- Real-time energy flow monitor
- Visualized data analysis
- Support one-click repairment



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Battery Specification	VR-HVB5 / 7-G3AIO
Cell Technology	LFP
Total Energy Capacity	5 kWh / 7 kWh
Weight	50 kg / 70 kg
Dimensions (W/H/D)	650 mm*370 mm*250 mm
Storage Temperature Range	-20°C - 55°C (-30°C optional)
Operating Temperature Range	-20°C - 55°C (-30°C optional)
Max. Operating Altitude	4000 m
Noise Emission	<30 dB
Cooling	Natural Convection
Protection Rating	IP66 (IP67 optional)
Installation Method	Floor Stand / Wall Mounted
Life Cycle	Unlimited
Warranty	10 years
Certificates	CE, IEC62619, IEC62040-1, IEC60529, IEC63056, VDE 2510-50, IEC61000-6-1, IEC61000-6-3, UN38.3, ROHS, REACH, WEEE



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Three Phase Inverter Specification		VR-G3AIO-8K3P	VR-G3AIO-10K3P	VR-G3AIO-12K3P	VR-G3AIO-15K3P	VR-G3AIO-20K3P	VR-G3AIO-25K3P
DC Input (PV)	Max. Input Power	12,800 Wp	16,000 Wp	19,200 Wp	24,000 Wp	32,000 Wp	40,000 Wp
	Max. Input Voltage	1100 V					
	Normal Input Voltage	600 V					
	Start-up Voltage	200 V					
	MPPT Voltage Range	160 V - 1000 V					
	Number of MPPT Trackers	2	3			4	4
	Number of PV Strings Per MPPT	1					
	Max. Input Current Per MPPT	16 A					
	Max. Short-circuit Current Per MPPT	20 A					
	Max. Efficiency	98.30%					
European Efficiency	97.10%	97.50%	97.70%	98.00%	98.00%	98.00%	
AC Output (on-grid)	Nominal Output Power	8,000 W	10,000 W	12,000 W	15,000 W	20,000 W	25,000 W
	Max. Output Apparent Power	8,800 VA	11,000 VA	13,200 VA	16,500 VA	22,000 VA	27,500 VA
	Nominal Output Current	11.6 A	14.5 A	17.4 A	21.8 A	30.2 A	37 A
	Max. Output Current	12.8 A	14.5 A	19.2 A	24 A	33.2 A	40.8 A
	Nominal Output Voltage	380 V / 400 V					
	Nominal Grid Frequency	50 Hz / 60 Hz					
	Power Factor	0.8 leading - 0.8 lagging					
THDi	<2%						
AC Output (backup)	Normal Output Voltage	380 V/400 V					
	Rated Output Frequency	50 Hz / 60 Hz					
	Peak Output Power (10 seconds)	12000 W	15000 W	18000 W	22500 W	30000 W	30000 W
	Power Factor	0.8 leading - 0.8 lagging					
THDi	<2%						
General Data	Battery Module	5 kWh / 7 kWh					
	Number of Modules Per Controller	1-9 pcs					
	Battery Module Voltage Range	600 V - 900 V					
	Dimensions (W/H/D)	650 mm*400 mm*250 mm					
	Weight	35 kg					
	Operating Temperature Range	-20°C ~ 55°C (-30°C optional)					
	Max. Operating Altitude	4000 m					
	Cooling	Natural convection					
	System Ingress Protection Rating	IP66					
	Communication	CAN / RS485 / WLAN / Fast Ethernet / 4G LTE					
Certificates	CE, IEC62109-1, IEC62109-2, IEC61000-6-1, IEC61000-6-3, ROHS, VDE-AR-N 4105, TOR TYP A V1.2, CEI 0-21, G99, G98, RD 647/2020, UE 2016/631, UNE 217001, UNE 217002, NTS Type A, XP C15-712-3:2019, DIN VDE V0126-1-1/08.13, VFR 2019, AS4777						

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Single Phase Inverter Specification		VR-G3AIO-3K1P	VR-G3AIO-5K1P	VR-G3AIO-6K1P
DC Input (PV)	Max. Input Power	6,000 Wp	10,000 Wp	12,000 Wp
	Max. Input Voltage	600 V		
	Normal Input Voltage	350 V		
	Start-up Voltage	80 V		
	MPPT Voltage Range	50 V - 550 V		
	Number of MPPT Trackers	2		
	Number of PV Strings Per MPPT	1		
	Max. Input Current Per MPPT	16 A		
	Max. Short-circuit Current Per MPPT	20 A		
	Max. Efficiency	98%		
European Efficiency	97.10%	97.40%	97.40%	
AC Output (on-grid)	Nominal Output Power	3,000 W	5,000 W	6,000 W
	Max. Output Apparent Power	3,300 VA	5,500 VA	6,600 VA
	Nominal Output Current	13.6 A	22.7 A	27.3 A
	Max. Output Current	15 A	25 A	30 A
	Nominal Output Voltage	220 V / 230 V / 240 V		
	Nominal Grid Frequency	50 Hz / 60 Hz		
	Power Factor	0.8 leading - 0.8 lagging		
	THDi	<2%		
AC Output (backup)	Normal Output Voltage	220 V / 230 V / 240 V		
	Rated Output Frequency	50 Hz / 60 Hz		
	Peak Output Power (10 seconds)	4,500 W	7,500 W	9,000 W
	Power Factor	0.8 leading - 0.8 lagging		
	THDi	<2%		
General Data	Battery Module	5 kWh / 7 kWh		
	Number of Modules Per Controller	1 pcs - 9 pcs		
	Battery Module Voltage Range	300 V - 600 V		
	Dimensions (W/H/D)	650 mm*350 mm*250 mm		
	Weight	17 kg		
	Operating Temperature Range	-20°C - 55°C (-30°C optional)		
	Max. Operating Altitude	4000 m		
	Cooling	Natural convection		
	System Ingress Protection Rating	IP66		
	Communication	CAN / RS485 / WLAN / Fast Ethernet		
Certificates	CE, IEC62109-1, IEC62109-2, IEC61000-6-1, IEC61000-6-3, ROHS, VDE-AR-N 4105, TOR TYP A V1.2, CEI 0-21, G99, G98, RD 647/2020, UE 2016/631, UNE 217001, UNE 217002, NTS Type A, XP C15-712-3:2019, DIN VDE VO126-1-1/08.13, VFR 2019, AS4777			