



AVOLTM
The genius of electricity

Genius Series

Inverter Specifications



Hybrid Inverter Model	Genius IA3	Genius IA5
PV String Input		
Input Start Up Voltage	150V	150V
Min. Input DC Operating Voltage	80V	80V
Max. PV Input Power	4800W	6500W
Max. DC Voltage	580V	580V
Nominal Voltage	400V	400V
MPPT Voltage Range	80V-560V	80V-560V
Number of MPP Tracker	2	2
Strings Per MPP Tracker	1	1
Max. Input Current Per MPPT	15A	15A
Max. Short-circuit Current Per MPPT	18A	18A
AC Output (Grid)		
Nominal AC Output Power	3680W	5000W
Max. AC Apparent Power	7360VA (from grid)	7360VA (from grid)
Max. AC Output Power	3680W	5000W ¹
Nominal AC Voltage	230Vac	230Vac
AC Grid Frequency Range	50 / 60Hz±5Hz	50 / 60Hz±5Hz
Max. Output Current	16A	22A ²
Max. Input Current	32A	32A
Power Factor (cosΦ)	0.8 leading - 0.8 lagging	0.8 leading - 0.8 lagging
THDi	<3%	<3%

Battery Input

Battery Type	LFP (LiFePO4)	LFP (LiFePO4)
Nominal Battery Voltage	48V	48V
Charging Voltage Range	40-60V	40-60V
Max. Charging Current	50A	100A
Max. Discharging Current	80A	100A
Battery Capacity	100-400Ah	100-400Ah
Charging Strategy for Li-ion Battery	Dependant on the BMS	Dependant on the BMS

AC Output (Backup)

Max. Output Apparent Power	4000VA	5000VA
Peak Output Apparent Power	6900VA 10sec	6900VA 10sec
Max. Output Current	16A	20A
Nominal Output Voltage	230V	230V
Nominal Output Frequency	50/60Hz	50/60Hz
Output THDv (@Linear Load)	<3% (Linear Load)	<3% (Linear Load)

Efficiency

Max. PV Efficiency	97.6%	97.6%
Euro. PV Efficiency	97.0%	97.0%

Protection

DC Switch	Bipolar DC Switch (125A/Pole)	Bipolar DC Switch (125A/Pole)
Anti-islanding Protection	Yes	Yes
Output Over Current	Yes	Yes
DC Reverse Polarity Protection	Yes	Yes
String Fault Detection	Yes	Yes
AC/DC Surge Protection	DC Type II;AC Type III	DC Type II;AC Type III
Insulation Detection	Yes	Yes
AC Short Circuit Protection	Yes	Yes

General Specifications

Dimensions W x H x D	540*590*240mm
Weight	32kg
Operating Temperature Range	-25°C~+60°C
Noise (dB)	<25
Cooling Type	Natural Convection
Max. Operation Altitude	2000m
Operation Humidity	0~95% (No Condensation)
IP Class	IP65
Topology	Battery Isolation
Communication	RS485/CAN2.0/WIFI/4G
Display	LCD/APP
Manufacturer Country	China

Certification & Standard	IEC/EN 62109-1&2;IEC/EN61000-6-1;IEC/EN61000-6-2;EN61000-6-3; IEC/EN61000-6-4;IEC/EN61000-3-11; EN61000-3-12;IEC60529;IEC 60068;IEC61683;IEC62116;IEC61727;EN50549-1; AS 4777.2;NRS 097;VDE-AR-N-4105;CEI0-21;G98;G99;C10/C11
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*1. Nominal AC output power is 4999W for Australia and 4600W for Germany and South Africa.

*2. Maximum output current is 21.7A for Australia and 20A for Germany and South Africa.