

Three Phase Hybrid Storage Inverter

3-15 kW



The three phase storage inverters are designed to increase energy independence for homeowners and commercial users. The power range is from 3.0kW to 15kW, compatible with high voltage (80-600V) batteries.

Energy management is based on time-of-use and demand charge rate structures, significantly reduce the amount of energy purchased from public grid.

Thanks for the UPS function (switch time < 10ms), that enables the crucial loads power on during outages. Additionally, under the backup operation mode, the inverter provides you up to 150% peak output overloading.

 WIDE RANGE Voltage Range (80-600V)	 Max. 1.5 1.5 Times PV Oversize	 Max. 18.5A MAX. 18.5A _{dc} String Current Up To 18.5A	 <10 ms UPS FUNCTION Switch Time < 10ms	 COMPACT Compact Design	 EMS EMS PORT READY External EMS Support	 GENERATOR Generator Backup Support
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| Support for Time-of-use Optimization  |  Build in Anti-feed-in Function |
| Configurable Operation Modes  |  100% unbalanced output, each phase |
| AFCI (Optional) & Rapid Shutdown Ready  |  Smart Monitoring & Remote Firmware Upgrade |

Technical Data	AF3K-MTH	AF4K-MTH	AF5K-MTH	AF6K-MTH	AF8K-MTH	AF10K-MTH	AF12K-MTH	AF15K-MTH
PV Input								
Max. DC Input Power (kW)	5	6	7.5	9	12	15	18	22.5
Max. PV Voltage (V)	1000							
Rated DC Input Voltage (V)	620							
DC Input Voltage Range (V)	150-1000							
MPPT Voltage Range (V)	150-850							
Full MPPT Range(V)	200-850		250-850		300-850		500-850	
Start-up Voltage (V)	160							
Max. DC Input Current (A)	18.5 x 2							
Max. Short Current(A)	25 x 2							
No. of MPPT Tracker / Strings	2/2							
Battery Port								
Battery Nominal Voltage (V)	350	350	350	350	350	350	450	500
Battery Voltage Range (V)	80-600							
Max. Charge/Discharge Current (A)	30							
Max. Charge/Discharge Power (kW)	3	4	5	6	8	10	12	15
Charging Curve	3 Stages							
Compatible Battery Type	Li-ion / Lead-acid / Sodium metal chloride battery							
AC Grid								
Nominal AC Output Power (kW)	3	4	5	6	8	10	12	15
Max. AC Input/Output Power (kVA)	4.5 / 3.3	6 / 4.4	7.5 / 5.5	9 / 6.6	12 / 8.8	15 / 11	18 / 13.2	22.5 / 16.5
Max. AC Output Current (A)	5.3	7	8.5	10.5	13.5	17	21.5	27
Nominal AC Voltage (V)	3P+N+PE/3P+PE 230/400							
Nominal AC Frequency (Hz)	50/60							
Power Factor	1 (-0.8-0.8) adjustable							
Current THD (%)	<3%							
AC Load Output (Back-up)								
Nominal Output Power (VA)	3000	4000	5000	6000	8000	10000	12000	15000
Nominal Output Voltage (V)	3P+N+PE/3P+PE 230/400							
Nominal Output Frequency (Hz)	50/60							
Nominal Output Current (A)	4.4	5.8	7.3	8.7	11.6	14.5	17.4	21.8
Peak Output Power	3300VA, 60s	4400VA, 60s	5500VA, 60s	6600VA, 60s	8800VA, 60s	11000VA, 60s	13200VA, 60s	16500VA, 60s
THDV (with linear load)	<3%							
Switching Time (ms)	<10							
Efficiency								
Europe Efficiency	97.50%							
Max. Efficiency	98.00%				98.20%		98.30%	
Battery Charge/Discharge Efficiency	98.00%							
Protection								
Reverse Polarity Protection	Yes							
Over Current / Voltage Protection	Yes							
Anti-islanding Protection	Yes							
AC Short-circuit Protection	Yes							
Leakage Current Detection	Yes							
Ground Fault Monitoring	Yes							
Grid Monitoring	Yes							
Enclosure Protect Level	IP66							
AC/DC surge protection	Type II							
General Data								
Dimensions (W x H x D, mm)	370 x 598.5 x 192mm							
Weight (kg)	22kg							
Topology	Transformerless							
Cooling Concept	Natural Convection				Intelligent Fan			
Relatively Humidity	0-100%							
Operating Temperature Range (°C)	-25 to 60 °C							
Operating Altitude (m)	<4000							
Noise Emission (dB)	<40							
Standby Consumption (W)	<5							
Display & Communication Interfaces	LCD, LED, RS485, CAN, Wi-Fi, GPRS, 4G							
Certification & Approvals	NRS097, G98/G99, EN50549-1, C10/C11, AS4777.2, VDE-AR-N4105, VDE0126, IEC62109-1, IEC62109-2							
EMC	EN61000-6-2, EN61000-6-3							