



GR-(3-6)K1P-L

GR Energy Storage Inverters

Models:

GR-3K1P-L

GR-3.6K1P-L

GR-4.6K1P-L

GR-5K1P-L

GR-6K1P-L



Main Features:



- Integrated 2 MPPTs for multiple array orientations
- Industry leading 125A/6kW max charge/discharge rating



- Automatic UPS switching
- Supports Peak Shaving Mode



- Pre-made Battery, Meter and CAN cabling to reduce installation time
- Supports 1ph and 3ph flexible connection on both the Grid and Backup Port



- Compatible with multiple brands of lithium battery models
- Increased battery protection and operation features to extend battery life

DATASHEET

GR-(3-6)K1P-L

Models	3K	3.6K	4.6K	5K	6K
Input DC (PV side)					
Recommended max. PV power	4.8 kW	5.7 kW	7 kW	8 kW	9.6 kW
Max. input voltage			600 V		
Rated voltage			330 V		
Start-up voltage			90 V		
MPPT voltage range			90-520 V		
Max. input current			16 A / 16 A		
Max. short circuit current			24 A / 24 A		
MPPT number/Max. input strings number			2/2		
Battery					
Battery type			Li-ion / Lead-acid		
Battery voltage range			42 - 58 V		
Battery capacity			50 - 2000 Ah		
Max. charge / discharge power	3 kW	3.6 kW	4.6 kW	5 kW	6 kW
Max. charge / discharge current	62.5 A	75 A	100 A	105 A	125 A
Communication			CAN		
Output AC (Grid side)					
Rated output power	3 kW	3.6 kW	4.6 kW	5 kW	6 kW
Max. apparent output power	3 kVA	3.6 kVA	4.6 kVA	5 kVA	6 kVA
Operation phase			1/N/PE		
Rated grid voltage			230 V		
Rated grid frequency			50 Hz		
Rated grid output current	13.0 A	15.7 A	20 A	21.7 A	26.1 A
Max. output current	13.0 A	15.7 A	20 A	21.7 A	26.1 A
Power factor			>0.99 (0.8 leading - 0.8 lagging)		
THDi			3%		
Input AC (Grid side)					
Rated voltage			230 V		
Max. input current	20 A	24.6 A	31.4 A	32 A	40 A
Frequency range			50 Hz		
Output AC (Back-up)					
Rated output power	3 kW	3.6 kW	4.6 kW	5 kW	6 kW
Max. apparent output power	4.2 kVA, 60 sec	5 kVA, 60 sec	6.4 kVA, 60 sec	7 kVA, 60 sec	8 kVA, 60 sec
Back-up switch time			<10 ms		
Rated output voltage			1/N/PE, 230 V		
Rated frequency			50 Hz		
Rated. output current	13.0 A	15.7 A	20 A	21.7A	26.1 A
THDv (@linear load)			3%		
Efficiency					
Max. efficiency	> 97.0%		> 97.5%		
EU efficiency			> 96.2%		
BAT charged by PV Max. efficiency			> 94.9%		
BAT charged/discharged to AC Max. efficiency			> 94.33%/93.51%		
Protection					
DC reverse-polarity protection			Yes		
Ground fault monitoring			Yes		
Integrated AFCI (DC arc-fault circuit protection)			Yes ⁽¹⁾		
Protection class/Over voltage category			I/II		
General Data					
Dimensions (W*H*D)			405*480*205 mm		
Weight			24.2 kg		
Topology			Non-Isolated		
Operating ambient temperature range			-25 ~ +60°C		
Ingress protection			IP66		
Cooling concept			Natural convection		
Max. operation altitude			3000 m		
Grid connection standard	G98 or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, RD 1699 / RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA				
Safety/EMC standard	IEC/EN 62109-1/-2, EN 61000-6-1/-2/-3/-4				
Features					
DC connection			MC4 connector		
AC connection			Quick connection plug		
Display			LED + APP		
Communication			RS485, CAN, Optional: Wi-Fi, GPRS, LAN		
Country of manufacture			China		

(1) Activation required.