







Three-phase Hybrid Inverter HI-5~20K-TL



-  Equipped with GEN port, compatible with diesel generators, smart loads, and AC coupling.
-  Color touch screen (4.3/7" optional).
-  Supports battery charge/discharge currents up to 400A.
-  IP66 rated enclosure, designed for both indoor and outdoor deployment in harsh environments.
-  Supports 100% 3-phase unbalanced output on both ports (BACKUP & GRID).
-  110% continuous overload rating at sustained operation.

Technical Data	HI-5K-TL	HI-6K-TL	HI-8K-TL	HI-10K-TL	HI-12K-TL	HI-15K-TL	HI-20K-TL
Input DC (PV side)							
Max. PV access power	10kW	12kW	16kW	20kW	24kW	30kW	40kW
Max. PV input power	8kW	10kW	13kW	16kW	20kW	24kW	32kW
Max. PV input voltage	1000V						
Nominal input voltage	600V						
MPPT working voltage range	180V-850V						
Number of independent MPPT / strings per MPPT	2/1					2/2	
MPPT max. current	2*20A					2*36A	
Start-up voltage	200V						
Output/Input AC (Grid side)							
Nominal apparent power	5kW	6kW	8kW	10kW	12kW	15kW	20kW
Max. apparent power	5.5kVA	6.6kVA	8.8kVA	11kVA	13.2kVA	16.5kVA	22kVA
Nominal voltage	380V/400V						
Nominal frequency	50Hz/60Hz						
Rated current	7.5A/7.2A	9A/8.7A	12.2A/11.6A	15.2A/14.5A	18.2A/17.4A	22.7A/21.7A	30.3A/29A
Max. current	8.3A	9.9A	13.5A	16.8A	20A	25A	33A
Power factor	-0.8~+0.8(adjustable)						
THDi	<3%(Nominal Output)						
Grid system pattern	3L+N+PE						
Max. AC current from utility grid	60A						
Output AC (Back-up)							
Nominal output power	5kW	6kW	8kW	10kW	12kW	15kW	20kW
Max. output apparent power	5.5kVA	6.6kVA	8.8kVA	11kVA	13.2kVA	16.5kVA	22kVA
Nominal output voltage	380V/400V						
Nominal output frequency	50Hz/60Hz						
Output THDV	<3%						
Automatic switch time	<10ms						
Battery							
Battery type	Li-Ion/Lead-acid						
Battery voltage range	40V-60V						
Max. charging/discharging current	120A	140A	190A	210A	240A	300A	400A
Charging strategy for Li-Ion battery	Self-adaption to BMS						
Charging strategy for Lead-acid battery	Three-stage						
Efficiency							
Max. MPPT efficiency	99.9%						
Europe efficiency	97.5%						
Max. battery to load efficiency	94.5%						
Protection							
Anti islanding protection	Yes						
Insulation impedance protection	Yes						
RCD detection	Yes						
PV reverse polarity protection	Yes						
Output over voltage protection	Yes						
Output over current protection	Yes						
General Data							
Dimensions(L/W /H)in mm	425/290/710						
Weight	38kg					41kg	
Operation temperature range	-25°C~+60°C						
Heat dissipation mode	Smart cooling						
IP Class	IP 66						
Maximum altitude	4000m						
Self-Consumption night	<3w						
Topology	Transformerless						
Features							
LCD display	Yes						
Communication interface	WiFi/4G/USB/CAN/RS485						
Standards	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000, CEI 0-21, VDE AR 4105, VDE V 0124-100, NC RfG, PSE, PTRiREE, EN 50549, NRS 097						