




THREE-PHASE
HYBRID INVERTER


HI-12K-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-12K-TL
INPUT DC (PV SIDE)	
Max. PV access power	24kW
Max. PV input power	20kW
Max. PV input voltage	1000V
Nominal input voltage	600V
MPPT working voltage range	180V-850V
Number of independent MPPT / strings per MPPT	2/1
MPPT max. current	2*20A
Start-up voltage	200V
OUTPUT/INPUT AC (GRID SIDE)	
Nominal apparent power	12kW
Max. apparent power	13.2kVA
Nominal voltage	380V/400V
Nominal frequency	50Hz/60Hz
Rated current	18.2A/17.4A
Max. current	20A
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	12kW
Max. output apparent power	13.2kVA
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	240A
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
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