



## Three-phase Hybrid Inverter

HIT-5L-G3  
HIT-6L-G3  
HIT-8L-G3  
HIT-10L-G3  
HIT-12L-G3  
HIT-15L-G3  
HIT-17L-G3  
HIT-20L-G3

### Description

The HIT-(5-20)L-G3 series is a high-performance three-phase hybrid inverter with excellent reliability, including power classes ranging from 5 kW to 20 kW.

The intelligent EMS function supports self-consumption mode, economy mode, backup mode, peak shaving mode, and time of use mode for multi-scenario applications.

Monitoring management through S-Miles Cloud allows users to remotely diagnose and track the individual system performance over time, offering superior energy production.

### Features

01

4 MPPTs with 20 A input; DC/AC oversizing up to 200%

04

Integrated AI energy management with generator, heat pump and smart load

02

100% unbalanced output; max. output of each phase up to 50% rated power

05

Max. 10 inverters in parallel for on-grid and off-grid system extension

03

Support multiple intelligent working modes including Peak Shaving and 8×24h Time of Use

06

Ultralight for easy installation and space-saving; unique built-in meter solution with up to 50 A bypass

# Technical Specifications

Model	HIT-5L-G3	HIT-6L-G3	HIT-8L-G3	HIT-10L-G3	HIT-12L-G3	HIT-15L-G3	HIT-17L-G3	HIT-20L-G3	
Battery									
Battery type	Li-ion/Lead-acid								
Battery voltage range (V)	40-60								
Max. charge/discharge current (A)	120/120	150/150	190/190	210/210	250/250	300/300	350/350	350/350	
Charging strategy for Li-ion battery	Self-adaption to BMS								
Charging curve	3 Stages/Equalization								
External temperature sensor	Optional								
Communication	CAN								
PV Input									
Recommended max. PV power (W)	10000	12000	16000	20000	24000	30000	34000	40000	
Max. input voltage (V)	1000								
Rated voltage (V)	720								
Start-up voltage (V)	150								
MPPT voltage range (V)	150-900								
Max. input current (A)	20/20	20/20	20/20/20	20/20/20/20	20/20/20/20	20/20/20/20	20/20/20/20	20/20/20/20	
Max. short circuit current (A)	30/30	30/30	30/30/30	30/30/30/30	30/30/30/30	30/30/30/30	30/30/30/30	30/30/30/30	
MPPT number/Max. input strings number	2/2	2/2	3/3	4/4	4/4	4/4	4/4	4/4	
AC Input and Output (On-grid)									
Rated output power (W)	5000	6000	8000	10000	12000	15000	17000	20000	
Max. output apparent power (VA)	5500	6600	8800	11000	13200	16500	18700	22000	
Grid form	3L/N/PE								
Rated AC output voltage/Range (V)	380/400, 266-480								
Rated grid frequency (Hz)	50/60								
Max. output current (A)	8.3	10	13.3	16.7	20	25	28.3	33.3	
Power factor	>0.99 (0.8 leading ... 0.8 lagging)								
THDi (@rated output)	<3%								
AC Output (Back-up)									
Rated output power (W)	5000	6000	8000	10000	12000	15000	17000	20000	
Max. output apparent power (VA) <sup>(1)</sup>	10000, 10s	12000, 10s	16000, 10s	20000, 10s	24000, 10s	30000, 10s	34000, 10s	40000, 10s	
Back-up switch time (ms)	<10								
Grid form	3L/N/PE								
Rated output voltage (V)	380/400								
Rated output frequency (Hz)	50/60								
Max. continuous output current (A)	7.6	9.1	12.2	15.2	18.2	22.8	25.8	30.4	
Max. continuous AC bypass current (A)	50								
THDv (@linear load)	<3%								
Efficiency									
MPPT efficiency					99.9%				
Max. efficiency	98.2%				98.5%				
EU efficiency	97.6%				98.0%				
Max. battery discharge to AC efficiency					95.7%				
Protection									
Anti-islanding protection					Integrated				
PV string input reverse polarity protection					Integrated				
Insulation resistor detection					Integrated				
Residual current monitoring unit					Integrated				
AC overcurrent protection					Integrated				
AC short current protection					Integrated				
AC overvoltage and undervoltage protection					Integrated				
AFCI					Optional				
Surge protection					DC Type II/AC Type II				
General									
Dimensions (W × H × D [mm]) <sup>(2)</sup>					539 × 696 × 232				
Weight (kg)					41				
Mounting					Wall mounting				
Operating temperature ( )					-25 to +65 (>45, derating)				
Relative humidity					0-95%, no condensing				
Cooling	Natural convection				Smart fan				
Topology (Solar/Battery)					Transformerless/High-frequency isolation				
Altitude (m)					≤4000 (>2000, derating)				
Protection degree					IP66				
Noise (dB)	<45				<60				
User interface					LED, App				
Digital input/output					DRM, 2 × DI, 2 × DO				
Communication					RS485, Wi-Fi/WL/4G (optional)				
Certifications and Standards									
Grid connection standard					IEC 61727, IEC 62116, EN 50549, VDE-AR-N 4105				
Safety/EMC standard					IEC 62109-1/-2, EN 61000-6-1/-2/-3/-4				

(1) Can be achieved only if PV and battery power are sufficient.

(2) Excluding Connectors and Brackets.