

SH8.0 - 10RS

Residential Hybrid Single Phase Inverter



FLEXIBLE APPLICATION

- 200%DC/AC PV input 16A*4MPPTs
- Ideal for both new installation and retrofit scenario
- Built-in smart PID recovery function



SMART MANAGEMENT

- Real time data (10 seconds refresh sample)
- 24 / 7 live monitoring both online and with integrated display
- Online IV curve scan and diagnosis



ENERGY INDEPENDENCE

- Seamless transition to backup mode, for protection against power outages
- Fast Charging or discharging, enabling higher self-consumption results
- Built-in EMS with advanced customization



USER FRIENDLY

- Plug and play installation
- iSolarCloud monitoring available on App and Web
- Whole home backup available

Type designation	SH8.0RS	SH10RS
Input (DC)		
Recommended max. PV input power	16000 Wp	20000 Wp
Max. PV input voltage	600 V	
Min. PV input voltage / Startup input voltage	40 V / 50 V	
Rated PV input voltage	360 V	
MPP voltage range	40 V – 560 V	
No. of independent MPP inputs	4	
No. of PV strings per MPPT	1 / 1 / 1 / 1	
Max. PV input current	64 A (16 A / 16 A / 16 A / 16 A)	
Max. DC short-circuit current	80 A (20 A / 20 A / 20 A / 20 A)	
Max. current for input connector	20 A	
Battery data		
Battery type	Li-ion battery	
Battery voltage range	80 V – 460 V	
Max. charge / discharge current	50 A* / 50 A*	
Max. charge / discharge power	10000 W / 10000 W	
Input and Output (AC)		
Max. AC power from grid	14500 VA	
Rated AC output power	8000 W	10000 W
Max. AC output apparent power	8000 VA	10000 VA
Max. AC output current	36.4 A	45.5 A
Rated AC voltage	1 / N / PE, 220 V / 230 V / 240V	
AC voltage range	154 V – 276 V	
Rated grid frequency	50 Hz / 60Hz	
Grid frequency range	45 Hz – 55 Hz / 55 Hz – 65 Hz	
Harmonic (THD)	< 3 % (at rated power)	
Power factor at rated power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging	
Feed-in phases / connection phases	1 / 1-N-PE	
Backup data (on grid mode)		
Rated output power for backup load	14500 W	
Rated output current for backup load	63 A	
Backup data(off-grid mode)		
Rated voltage	1 / N / PE, 220 V / 230 V / 240V (± 2 %)	
Rated grid frequency	50 Hz / 60Hz (± 2 %)	
Output voltage harmonic (THD)	< 2 %	
Switch time to emergency mode	< 10 ms	
Rated output power	8000 W / 8000 VA	10000 W / 10000 VA
Peak output power	13680 VA, 10 s	
Efficiency		
Max. efficiency / European efficiency	97.4 % / 96.8 %	97.5 % / 97.1 %
Protection & Function		
Grid monitoring	Yes	
DC reverse polarity protection	Yes	
AC short - circuit protection	Yes	
Leakage current protection	Yes	
DC switch (solar)	Yes	
Surge protection	DC type II / AC type II	
PID Zero		
On-grid parallel	Master-slave mode	
Battery input reverse polarity protection	Yes	
AFCI	Yes	
IV scan aand diagnosis	Yes	
General data		
Topology (solar / battery)	Transformerless / Transformerless	
Degree of protection	IP65	
Dimensions (W * H * D)	605 mm * 435 mm * 181 mm	
Weight	29 kg	
Mounting method	Wall-mounting bracket	

*Depending on the connected battery

Type designation	SH8.0RS	SH10RS
Operating ambient temperature range	- 25 °C – 60 °C	
Allowable relative humidity range (non-condensing)	0 % – 100 %	
Cooling method	Natural cooling	
Max. operating altitude	4000 m	
Noise (typical)	45 dB (A)	
Display	LED digital display and LED indicator	
Communication	RS485, WLAN, Ethernet, CAN	
DI / DO	DI * 1 / DO * 2 / DRM	
DC connection type	MC4 (PV) / Plug and play connector (battery)	
AC connection type	Plug and play connector	
Grid compliance	IEC 62109-1:2010, IEC 62109-2, IEC 62477-1, IEC61000-6-1/-2/-3/-4, IEC62920, EN55011, CISPR 11, AS/NZS 4777.2:2020	

* Depending on the connected battery

SBR064/096/128/160/ 192/224/256

High Voltage LFP Battery



HIGH-PERFORMANCE

- Up to 30 A continuous charging and discharging current with high efficiency
- Up to 100% usable energy



SAFETY

- Lithium iron phosphate Battery
- Multi-stages protection design and extensive safety certification



FLEXIBILITY

- Extendable during lifetime
- Support 2-8 modules per unit, 6.4–25.6 kWh capacity range



EASY INSTALLATION

- Compact and Light, single person installation
- Plug and Play, no cables needed between battery modules



Type designation	SBR064 *	SBR096	SBR128	SBR160	SBR192	SBR224	SBR256
Technical properties	 2 modules	 3 modules	 4 modules	 5 modules	 6 modules	 7 modules	 8 modules
System data							
Battery type	LiFePO4 Prismatic Cell						
Battery module	3.2 kWh, 33 kg						
Energy (useable) **	6.4 kWh	9.6 kWh	12.8 kWh	16 kWh	19.2 kWh	22.4 kWh	25.6 kWh
Nominal voltage	128 V	192 V	256 V	320 V	384 V	448 V	512 V
Operating voltage	108 V – 146 V	162 V – 219 V	216 V – 292 V	270 V – 365 V	324 V – 438 V	378 V – 511 V	432 V – 584 V
Max. charging/discharging current: continuous ***	30 A						
Depth of discharge	Max. 100 % DOD (settable)						
Short circuit current	3500 A						
Display	SOC indicator, Status indicator						
Communication interface	CAN						
Protection							
Over/under voltage protection	Yes						
Over current protection	Yes						
Over/under temperature protection	Yes						
DC breaker	Yes						
General data							
Dimensions (W*H*D)	625*545*330 mm	625*545*330 mm	625*675*330 mm	625*805*330 mm	625*935*330 mm	625*1065*330 mm	625*1195*330 mm
Weight	89 kg	114 kg	147 kg	180 kg	213 kg	246 kg	279 kg
Installation location	Indoor / Outdoor						
Mounting method	Floor stand						
Operating ambient temperature range	Charge: 0 °C - 50 °C Discharge: -20 °C - 50 °C						
Degree of protection	IP55						
Allowable relative humidity range	0% - 95% non - condensing						
Max. operating altitude	Max. 4000 m						
Cooling method	Natural convection						
Certificates	CE, CEC, IEC 62619, IEC 62040, UN38.3, VDE 2510-50, IEC 62477, IEC 63056, IEC 61000, UKCA						

* SBR064 consists of 2 battery modules and 1 empty module.

** Test conditions: 25 °C, 100 % depth of discharge (DOD), 0.2C charge & discharge.

*** The maximum charging/discharging current of SBR064 is 20A when used with SHRT series inverter.



Tiger Neo N-type 60HL4-(V) 460-480 Watt MONO-FACIAL MODULE

N-Type

Positive power tolerance of 0~+3%

IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018

Occupational health and safety management systems



Key Features



SMBB Technology

Better light trapping and current collection to improve module power output and reliability.



PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.



Hot 2.0 Technology

The N-type module with Hot 2.0 technology has better reliability and lower LID/LETID.

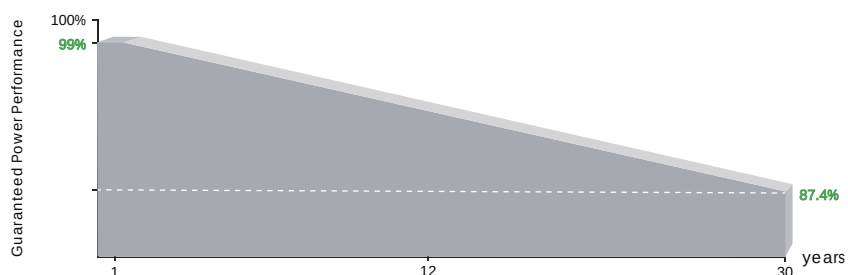


Enhanced Mechanical Load

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



LINEAR PERFORMANCE WARRANTY

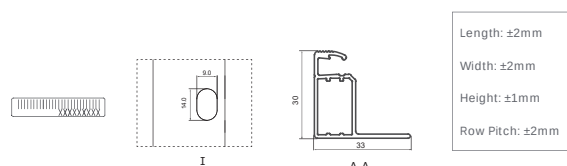
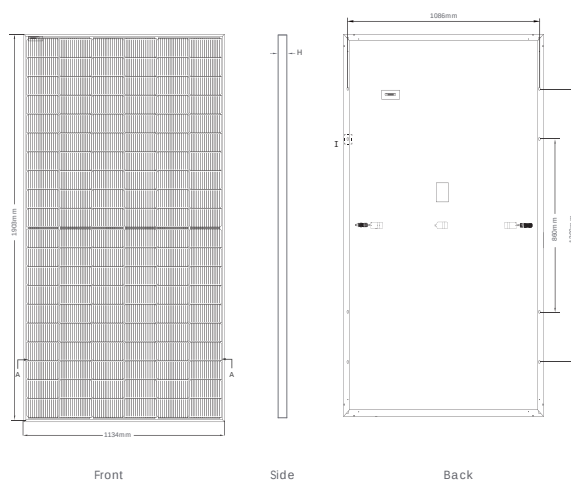


12 Year Product Warranty

30 Year Linear Power Warranty

0.40% Annual Degradation Over 30 years

Engineering Drawings

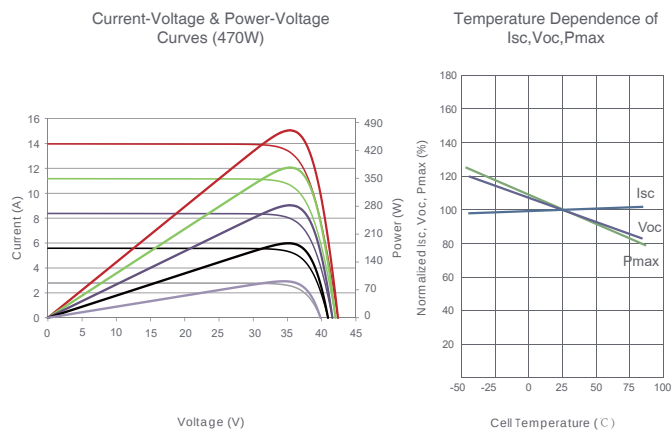


Packaging Configuration

(Two pallets = One stack)

36pcs/pallets, 72pcs/stack, 864pcs/ 40'HQ Container

Electrical Performance & Temperature Dependence



Mechanical Characteristics

Cell Type N type Mono-crystalline

No. of cells 120 (6×20)

Dimensions 1903×1134×30mm (74.92×44.65×1.18 inch)

Weight 24.2 kg (53.35 lbs)

Front Glass 3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass

Frame Anodized Aluminium Alloy

Junction Box IP68 Rated

Output Cables TUV 1×4.0mm²
(+): 400mm, (-): 200mm or Customized Length

SPECIFICATIONS

Module Type	JKM460N-60HL4 JKM460N-60HL4-V		JKM465N-60HL4 JKM465N-60HL4-V		JKM470N-60HL4 JKM470N-60HL4-V		JKM475N-60HL4 JKM475N-60HL4-V		JKM480N-60HL4 JKM480N-60HL4-V	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	460Wp	346Wp	465Wp	350Wp	470Wp	353Wp	475Wp	357Wp	480Wp	361Wp
Maximum Power Voltage (Vmp)	34.72V	32.60V	34.89V	32.77V	35.05V	32.94V	35.21V	33.10V	35.38V	33.27V
Maximum Power Current (Imp)	13.25A	10.61A	13.33A	10.67A	13.41A	10.73A	13.49A	10.79A	13.57A	10.85A
Open-circuit Voltage (Voc)	42.05V	39.94V	42.22V	40.10V	42.38V	40.25V	42.54V	40.41V	42.71V	40.57V
Short-circuit Current (Isc)	13.99A	11.29A	14.07A	11.36A	14.15A	11.42A	14.23A	11.49A	14.31A	11.55A
Module Efficiency STC (%)	21.32%		21.55%		21.78%		22.01%		22.24%	
Operating Temperature(°C)	-40°C~+85°C									
Maximum system voltage	1000/1500VDC (IEC)									
Maximum series fuse rating	25A									
Power tolerance	0~+3%									
Temperature coefficients of Pmax	-0.30%/°C									
Temperature coefficients of Voc	-0.25%/°C									
Temperature coefficients of Isc	0.046%/°C									
Nominal operating cell temperature (NOCT)	45±2°C									

*STC: Irradiance 1000W/m² Cell Temperature 25°C

NOCT: Irradiance 800W/m² Ambient Temperature 20°C

AM=1.5

AM=1.5

Wind Speed 1m/s