

Solis Solarator Series

Experience Uninterrupted Power with Solis Energy Storage Inverters

Energy Storage Inverters

S6-EH1P(3-10)K-L-PLUS

Single Phase | Low Voltage



Smart Energy Management

- AI intelligently manages charging and discharging based on TOU (Time-of-Use) tariffs
- Seamless integration with VPP and EMS platforms for enhanced energy optimization



High Performance

- 160% PV input capacity to maximize solar energy utilization
- Switching time < 10ms



Flexible & Scalable

- Compatible with mainstream lithium and lead-acid batteries
- Easily expand system capacity using parallel connections and AC coupling



Simple & Fast Configuration

- 7-inch LCD screen for an intuitive user experience
- Bluetooth app support for quick and easy setup

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DATASHEET

S6-EH1P(3-10)K-L-PLUS

Models	3K	3.6K	5K	6K	8K	10K
Input DC (PV side)						
Recommended max. PV array size	6 kW	7.2 kW	10 kW	12 kW	16 kW	20 kW
Max. usable PV input power	4.8 kW	5.76 kW	8 kW	9.6 kW	12.8 kW	16 kW
Max. input voltage	500 V					
Rated voltage	330 V					
Start-up voltage	90 V					
MPPT voltage range	90 - 435 V					
Max. input current	16 A / 16 A				32 A / 32 A	42 A / 42 A
Max. short circuit current	20 A / 20 A				40 A / 40 A	48 A / 48 A
MPPT number / Max. input strings number	2 / 2				2 / 4	
Battery						
Battery type	Li-ion / Lead-acid					
Battery voltage range	40 - 60 V					
Max. charge / discharge power	3 kW	3.6 kW	5 kW	6 kW	8 kW	10 kW
Max. charge / discharge current	70 A	80 A	112 A	135 A	190 A	208 A
Communication	CAN / RS485					
Output AC (Grid side)						
Rated output power	3 kW	3.6 kW	5 kW	6 kW	8 kW	10 kW
Max. apparent output power	3 kVA	3.6 kVA	5 kVA	6 kVA	8 kVA	10 kVA
Operation phase	L/N/PE					
Rated grid voltage	220 V / 230 V					
Rated grid frequency	50 Hz / 60 Hz					
Rated grid output current	13.7 A / 13.1 A	16.4 A / 15.7 A	22.8 A / 21.8 A	27.3 A / 26.1 A	36.4 A / 34.8 A	45.5 A / 43.5 A
Max. output current	13.7 A / 13.1 A	16.4 A / 15.7 A	22.8 A / 21.8 A	27.3 A / 26.1 A	36.4 A / 34.8 A	45.5 A / 43.5 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)					
THDi	< 3%					
Input AC (Grid side)						
Input voltage range	187 - 253 V					
Max. input current	21 A	25 A	32 A	40 A	50 A	65 A
Frequency range	45 - 55 Hz / 55 - 65 Hz					
Output AC (Back-up)						
Rated output power	3 kW	3.6 kW	5 kW	6 kW	8 kW	10 kW
Max. apparent output power	2 times of rated power, 10 s					
Back-up switch time	< 10 ms					
Rated output voltage	L/N/PE, 220 V / 230 V					
Rated frequency	50 Hz / 60 Hz					
Rated output current	13.7 A / 13.1 A	16.4 A / 15.7 A	22.8 A / 21.8 A	27.3 A / 26.1 A	36.4 A / 34.8 A	45.5 A / 43.5 A
Max. AC passthrough current	35 A	35 A	40 A	40 A	50 A	65 A
THDv (@linear load)	< 2%					
Input Generator						
Max. input power	3 kW	3.6 kW	5 kW	6 kW	8 kW	10 kW
Max. input current	13.7 A / 13.1 A	16.4 A / 15.7 A	22.8 A / 21.8 A	27.3 A / 26.1 A	36.4 A / 34.8 A	45.5 A / 43.5 A
Rated input frequency	50 Hz / 60 Hz					
Efficiency						
Max. efficiency	96.2%					
EU efficiency	96.1%					
BAT charged by PV / AC max. efficiency	95.3% / 93.9%					
BAT discharged to AC max. efficiency	93.8%					
Protection						
Ground fault monitoring	Yes					
DC reverse-polarity protection	Yes					
Integrated AFCI 2.0	Optional					
Protection class / Over voltage category	I / II (PV and BAT), III (MAINS and BACKUP and GEN)					
General Data						
Dimensions (W × H × D)	335 × 560 × 253 mm					
Weight	23 kg			23.5 kg		24 kg
Topology	High frequency isolation (for battery)					
Operating ambient temperature range	-40 ~ +60°C					
Ingress protection	IP66					
Noise emission (typical)	< 65 dB(A)					
Cooling concept	Natural cooling			Intelligent fan-cooling		
Max. operation altitude	3000 m					
Grid connection standard	NRS 097-2-1, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA, NBR 16149, NBR 16150, G98, CEI 0-21					
Safety / EMC standard	IEC/EN 62109-1/-2, EN 61000-6-2/-3					
Features						
DC connection	MC4 plug (PV port) / Terminal Block (BAT port)					
AC connection	Terminal Block					
Display	7.0" LCD display & Bluetooth + APP					
Communication	RS485, CAN, Optional: Wi-Fi, GPRS, LAN					



S6-EH1P(3-10)K-L-PLUS S6-EH1P(3-8)K-L-PLUS-AU

Compatible Battery List

Battery type: Lead carbon / Lead-acid

Supports all brands of lead-acid and lead-carbon batteries

Type	Brand	Model						HMI Version	Battery Model
Lithium	AlpSolarr	COMO L1-5.0/7.5/10/12.5/15-M0						V06-10	Lithium Battery LV
	Amararaja	AS0480048-V1						V06-10	Lithium Battery LV
	Ampace	R-P48128EDB1/R	SP-5000L	R-P48192EDA1	AL48-100-3U			V06-10	Lithium Battery LV
	Apex	B12						V06-10	Lithium Battery LV
	AI SUN	AI-LV-5/6/10/16						V06-10	Lithium Battery LV
	Average	LFELI-48100-S2						V06-10	Lithium Battery LV
	BETTENERGY	ELESHELL						V06-10	Lithium Battery LV
	BSLBATT	B-LFP48-52/100/134/156/174/200/280E						V06-10	Lithium Battery LV
		B-LFP48-100/174/200/280/300PW						V06-10	Lithium Battery LV
		Battery-Line-5						V06-10	Lithium Battery LV
		Battery-Box LV5.0						V04-07	B_BOX_LV BYD
	BYD	Battery-Box Premium LVS		Battery-Box Premium LVL				V04-07	B_BOX_LV BYD
		Battery-Box Pro 2.5-10.0		Battery-Box Pro 13.8				V04-07	B_BOX_LV BYD
	Cegasa			E/Bick LV				V04-07	Lithium Battery LV
	CURENTA			CUR5000H				V04-07	Lithium Battery LV
	CFE			CFE-5100				V04-07	CFE LV
	DAHAI	SDC10-Box5 LV Series				DHLV-LFP-5000		V04-07	Lithium battery LV
	DMEGC	L01-48100				L02-48100		V04-07	Lithium Battery LV
	Dowell	iPack C3.3				iPack C6.5		V04-07	Dowell
	Duracell	DURACELL 5+				Dura 7		V06-10	Dyness LV
	Dyness	DL LV Series		Power LV Series		A/B/BX LV Series		V04-07	Dyness LV
	Easyway			UNIV5200				V06-10	Lithium Battery LV
	Enerbond	GTEF-48V5.5K/10K/15K-W				GTEF-48V3000/5000/7500-E		V06-10	Lithium Battery LV
		GTEM-48V5500/7400/7600-E				GTEF-48V10K-E		V06-10	Lithium Battery LV
	eenovance			MANA				V06-10	Lithium Battery LV
	EITAI			LV Lithium batteries				V06-10	Lithium Battery LV
	EON			EL5W				V06-10	Lithium Battery LV
	EXIDE			LIBM048050				V04-07	Lithium Battery LV
	FEB	PowerArt LV5320-W1				PowerArt LV5120-R1		V06-10	Lithium Battery LV
	Felicitysolar	LPBA Series	LPBF Series			EC Series	EC5000	V06-10	Lithium Battery LV
	FinDreams	FD-LV5.0						V06-10	FD
	Battery							V06-10	FD
	FOX	LV52/54				LV5200		V04-07	FOX-LV
	Freedom	Freedom Won Lite						V04-07	FreedomWon-LV
	GETPOWER	LOW VOLTAGE 4.8kWh RACK 19"						V04-07	Lithium Battery LV
	Genixgreen	ES-BOX2/5/12/26		ES-BOX12/26PULS				V06-10	Lithium Battery LV
	Green Solutions	ES-BOX12/26MAX						V06-10	Lithium Battery LV
	GREENRICH	HOME E5 / HOME E10						V04-07	Lithium Battery LV
	GS ENERGY	AU5500/7500/9000	UP3686/5000/6100	AW7500-G3-PRO		AW7500	WM5000	V06-10	Greenrich
		GS-LV-2.56P				GS-LV-5.12P		V04-07	GS Energy LV
		GSL5000U	GSL7000U	GSL10000U		GSL-A51100		V04-07	GSL-LV
	GSL ENERGY	GSL-051100A/200A/280A/320A-B-GBP2		GSL-W-15K/20K				V04-07	GSL-LV
		GSL-51-100/200/280/320		GSL-ZN-P48100ESA1				V04-07	GSL-LV
	Haier	HLS-1X5/10/15/20K	HLR-1X5/10/15/20K	B051100P03-H		B051100P02-H		V04-07	Haier LV
	HaiLei	PW512100/200		Atom WB-512100		Atom WB MAX-512200		V06-10	Lithium Battery LV
		HERO-LVA512100/200/300		Atom LS-5.12/10.24/15.36				V06-10	Lithium Battery LV
	HARVEYPOW	HV-R-HV20K-76K Series		HV-S16-R-HV71K-215K Series				V04-07	Lithium Battery LV
		HV-S20-HV71K-215K Series		HV-SS-5HV Series				V04-07	Lithium Battery LV
		3U-4890		CM101607				V04-07	KODAK-LV
	HD ENERGY							V04-07	KODAK-LV
	HIGHSTAR	HSD5870						V04-07	Lithium Battery LV
	HTES	HELIOS H5000						V04-07	Lithium Battery LV
	HOENERGY	iBAT-R-5.12L		iBAT-W-5.12L		iBAT-M-5.32L		V06-10	Lithium Battery LV
	Homegrid	PF5-LFP19200-2A01						V06-10	Lithium Battery LV
	Hubble	AM2,/2+	X101/101+	AM5,/5+		AM10,/10+	BLADE+	V06-10	Lithium Battery LV
	JA SOLAR	BlueStar-Pack-L-06/09H-1						V04-07	J-Pack-LV
	Juel	Juel Residential/Juel Industrial						V04-07	Lithium battery LV
	KODAK	FL5.2						V04-07	KODAK-LV
	LBSA	51.2V 104Ah 5.3kWh						V04-07	Lithium battery LV
	Leapton	EL-A2.56		EL-A05		EL-B05		V06-10	Lithium Battery LV
	LEDVANCE			LES-LV-5K				V06-10	Lithium Battery LV
	LithiumValley	LV-BAT-R5.12Aa						V06-10	Lithium Battery LV
	LG Energy Solution	RESU3.3	RESU6.5	RESU10		RESU12		V04-07	LG Chem LV

Type	Brand	Model			HMI Version	Battery Model	
	LVTOPSUN	LV48100		LVTS-512100/200/300	V06-10	Lithium Battery LV	
	Magneto	Magneto 5.12KWH 51.2V LiFePO4 Battery			V06-10	Lithium Battery LV	
	Magneto Renewable Energy	EVO100 (IMS202)	EVO200 (IMS203)	EVO280 (IMS204)	V06-10	Lithium Battery LV	
	MENRED ESS	LFP.6144.W/LFP.6144.G			V06-10	Lithium Battery LV	
	MERITSUN	POWERWALL BATTERY	RACK MODULE BATTERY	STACK BATTERY	V06-10	Lithium Battery LV	
	Moura	48MSL100			V06-10	Lithium Battery LV	
	MK ENERGY	51.2V 100AH , 5.12KWH , MK Lithium LV			V06-10	Lithium Battery LV	
	NAHUI	NLW-1Y5K			V06-10	NAHUI LV	
	Narada	NESR48100			V06-10	Lithium Battery LV	
	OLITER	OT4850/100/120/150/200/206/280/300/304/314	OTW48100/120/150/200/206/280/300/304/314		V06-10	Lithium Battery LV	
	PAND	Powerfree-S	Powerfree 5-U	Powerfree 12	V04-07	PAND	
	Phylion	RE-L-(5-32)-X01			V06-10	Lithium Battery LV	
	powerESS Li.ON	0347515 powerESS Li.ON 51.2V-100Ah			V06-10	Lithium Battery LV	
	PUREDRIVE	48V-100Ah		Dura 7	V04-07	PureDrive-LV	
	PYLONTECH	Force L1 (CEI 0-21)	Force L2 (CEI 0-21)	US2000 (CEI 0-21)	V04-07	PYLON_LV	
		US2000C (CEI0-21)	US3000C (CEI0-21)	US5000 (CEI 0-21)			
		US2000B	US3000A	Pelio-L-5.12			
	Pytes	E-BOX-48100R	V5°/V5°α		V04-07	Lithium Battery LV	
		V10/V10α/V12/V12α	Pi LV1	V5°αPlus			
	RAYSTECH	RT5120/RT5427/RT10854 SOLID BATTERY			V06-10	Lithium Battery LV	
	Renon	R-XL015031-H	R-XC005161	R-EB005161	R-XL010021/015031/020041/025051/030061	V06-10	Lithium Battery LV
	RISING	AIR 5220-S	AIR 4900/5220-3U		AIR 10/15K5	V06-10	Lithium Battery LV
	RITAR	RESS BAT-5KWH/10KWH/15KWH-51.2V				V06-10	Lithium Battery LV
	ROSEN	LFP48V100AH	LFP48V150AH	LFP48V200AH		V04-07	ROSEN ESS
	SEC POWER	BATERIA 5,12kWh RACK19" ENERGIA		BATERIA (5,12 ~20,48) kWh TORRE LV		V04-07	Lithium Battery LV
	Shoto	SDC10-Box/HP10-Box				V06-10	Lithium Battery LV
	SKYLINE	SkyBatt L5				V06-10	Lithium Battery LV
	SolarEast	PowerCool-LFP-WLV5000		PowerCool-WLL005F1		V06-10	Lithium Battery LV
	SOLANA	51.2V 100AH , 5.12KWH , SOLANA Lithium LV				V06-10	Lithium Battery LV
	SOLUNA	BATTERY MODULE 4K PACK		Soluna EOS 5K Pack		V04-07	Soluna-LV
	STELTEC	STE-BSG-5220	STE-BSW-5220		BU 5220	V06-10	Lithium Battery LV
		STE-BSW-5120	STE-BSW-10240		STE-BSW-14336		
	SUNKET	LFP 5/10/16kWh		LFP5000/16000		V06-10	Lithium Battery LV
	SUNWODA	Atrix-5/10/15/20	Atrix basic		B051100P02	V04-07	SUNWODA LV
		SunESS-5/10/15/20	B051100P03		MonaWall 5		
	SUEN	LiFePO4 10.24 kW SUEN-51-200		attery LiFePo4 5.12 kW SUEN-51-100		V06-10	Lithium Battery LV
		Battery 2.56 kW SUEN-P5150ESA 1		Battery LiFePo4 5.12 kW SUEN-5000U			
		Battery LiFePo4 30 kW SUEN-R30K					
	Synapse	5K0-LV				V06-10	Lithium Battery LV
	Taico	51.2V 100Ah LiFePO4 Battery				V06-10	Lithium Battery LV
	TGPRO	TG-PW Wall mount Series		TG-PW Rack Series		V06-10	Lithium Battery LV
		TG-TH Mobile Series		TG-Stack LV series			
	TOPBAND	RS-R/RS-W/RS-C/RS-S				V06-10	Lithium Battery LV
	UCB POWER	UPLFP48V 100Ah IW		UPLFP48V 200Ah IW		V04-07	Lithium Battery LV
	Uhome Smart Energy(Wuxi) Co., Ltd.	Uhome-LFP 2400/2500/5000		Uhome-LFP 5120M/10240M		V04-07	AoBo-LV
		Uhome-LFP 5/5.8/10kWh LV					
	Upower	Upower UE-H		Upower UE-I		V04-07	Upower UE-H/ Upower UE-I
	UIENERGIES	WALV 5-16K /ELESHELL 5-16K				V04-07	Lithium Battery LV
	UZ energy (powered by CATL)	Power Lite L051100-A1		L051100-A		V04-07	UZ ENERGY-LV
	Vestwoods	VE/VT Series				V06-10	Lithium Battery LV
	V-TAC	VT-12040-1	VT-48280		VT-51200W/B	V06-10	Lithium Battery LV
		VT-10240W/B		VT-14336W/B			
	Vinfast	POWER CUBE				V06-10	Lithium Battery LV
	WECO	4K4PRO	4K5 ultra	5K3 EVO		V04-07	WECO-LV
		DUAL VOLTAGE 5K3 LV/HV		DUAL VOLTAGE 5K3-XP LV/HV			
	YelonESS	LR5000		LW5000		V06-10	Lithium Battery LV
	YOLANESS	RS-R/RS-W/RS-C/RS-S				V06-10	Lithium Battery LV
	YOSHOPO	YOSHOPO LV1.0/2.0				V04-07	Lithium Battery LV
	ZETARA POWER	51.2V-100Ah				V04-07	Zeta-LV

- Details correct at time of going to press.
- The battery brand in the table above, if there is no corresponding option when selecting the battery model, you can select the "lithium battery" option to work.
- Installing a non-compatible battery will VOID the inverter warranty.

Compliance Document

No. D 086470 0198 Rev. 00

Holder of Certificate: **Ginlong Technologies Co., Ltd.**

No.57 Jintong Road
Binhai Industrial Park, Xiangshan
315712 Ningbo, Zhejiang
PEOPLE'S REPUBLIC OF CHINA

Product: **Converter**
Hybrid Inverter

This Compliance document confirms the compliance with the listed standards on a voluntary basis. It refers only to the sample submitted for testing and certification and does not certify the quality or safety of the serial products. For details see: www.tuvsud.com/ps-cert

Test report no.: 4840924302500

Date, 2024-06-28



(Ming Gu)

Compliance Document

No. D 086470 0198 Rev. 00

Model(s):

S6-EH1P3K-L-PLUS, S6-EH1P3.6K-L-PLUS,
S6-EH1P4.6K-L-PLUS, S6-EH1P5K-L-PLUS,
S6-EH1P6K-L-PLUS, S6-EH1P8K-L-PLUS
S6-EH1P3K-L-PLUS-AU, S6-EH1P3.6K-L-PLUS-AU,
S6-EH1P5K-L-PLUS-AU, S6-EH1P6K-L-PLUS-AU,
S6-EH1P8K-L-PLUS-AU

Parameters:

Model	S6-EH1P3K-L-PLUS	S6-EH1P3.6K-L-PLUS	S6-EH1P4.6K-L-PLUS
PV-Input			
Max. input voltage d.c.	500 V		
Mppt voltage range d.c.	90-435 V		
Max. input current d.c.	2x16 A		
Isc PV (absolute maximum) d.c.	2x20 A		
Battery			
Battery type	Li-ion/Lead-acid		
Battery Voltage range d.c.	40-60V		
Max. Charge/discharge current d.c.	70A /70A	80A /80A	105A /105A
AC-Output (Back-up)			
Max. /Rated output power a.c.	3000W	3600W	4600W
Nominal output voltage a.c.	1/N/PE,220V/230V	1/N/PE,220V/230V	1/N/PE,220V/230V
Nominal Frequency	50/60Hz	50/60Hz	50/60Hz
Max. /Rated output current a.c.	13.7A/13.1A	16.4A/15.7A	20.9A/20A
AC-Output (Grid side)			
Max. /Rated apparent output power a.c.	3000VA	3600VA	4600VA
Nominal output voltage a.c.	1/N/PE,220V/230V	1/N/PE,220V/230V	1/N/PE,220V/230V
Nominal Frequency	50/60Hz	50/60Hz	50/60Hz
Max. /Rated output current a.c.	13.7A/13.1A	16.4A/15.7A	20.9A/20A
Power factor range	-0.8...1...+ 0.8		
Protective class	I		
Ingress protection	IP66		
Ambient temperature	-40...+60℃		
AC-Input (For grid port and Gen port)			
Nominal voltage a.c.	1/N/PE, 220V/230V		
Max. /Rated continuous current	21A/20A	25A/24A	29A/28A
Nominal Frequency	50/60Hz		
Model	S6-EH1P5K-L-PLUS	S6-EH1P6K-L-PLUS	S6-EH1P8K-L-PLUS

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No. D 086470 0198 Rev. 00

PV-Input			
Max. input voltage d.c.	500 V	500 V	500 V
Mppt voltage range d.c.	90-435 V	90-435 V	90-435 V
Max. input current d.c.	2x16 A	2x16 A	2x32 A
Isc PV (absolute maximum) d.c.	2x20 A	2x20 A	2x40 A
Battery			
Battery type	Li-ion/Lead-acid		
Battery Voltage range d.c.	40-60V		
Max. Charge/discharge current d.c.	112A /112A	135A /135A	190A /190A
AC-Output (Back-up)			
Max. /Rated output power a.c.	5000W	6000W	8000W
Nominal output voltage a.c.	1/N/PE,220V/230V	1/N/PE,220V/230V	1/N/PE,220V/230V
Nominal Frequency	50/60Hz	50/60Hz	50/60Hz
Max. /Rated output current a.c.	22.8A/21.8A	27.3A/26.1A	36.4A/34.8A
AC-Output (Grid side)			
Max. /Rated apparent output power a.c.	5000VA	6000VA	8000VA
Nominal output voltage a.c.	1/N/PE,220V/230V	1/N/PE,220V/230V	1/N/PE,220V/230V
Nominal Frequency	50/60Hz	50/60Hz	50/60Hz
Max. /Rated output current a.c.	22.8A/21.8A	27.3A/26.1A	36.4A/34.8A
Power factor range	-0.8...1...+ 0.8		
Protective class	I		
Ingress protection	IP66		
Ambient temperature	-40...+60℃		
AC-Input (For grid port and Gen port)			
Nominal voltage a.c.	1/N/PE, 220V/230V		
Max. /Rated continuous current	32A/31A	40A/39A	50A/50A
Nominal Frequency	50/60Hz		

Model	S6-EH1P3K-L-PLUS-AU	S6-EH1P3.6K-L-PLUS-AU
PV-Input		
Max. input voltage d.c.	500 V	
Mppt voltage range d.c.	90-435 V	
Max. input current d.c.	2x16 A	
Isc PV (absolute maximum) d.c.	2x24 A	
Battery		
Battery type	Li-ion/Lead-acid	
Battery Voltage range d.c.	40-60V	

Compliance Document

No. D 086470 0198 Rev. 00

Max. Charge/discharge current d.c.	70A /70A	80A /80A
Max. /Rated output power a.c.	3000W	3600W
Nominal output voltage a.c.	1/N/PE,230V	1/N/PE,230V
Nominal Frequency	50Hz	50Hz
Max. /Rated output current a.c.	13.1A	15.7A
Max. /Rated apparent output power a.c.	3000VA	3600VA
Nominal output voltage a.c.	1/N/PE,230V	1/N/PE,230V
Nominal Frequency	50Hz	50Hz
Max. /Rated output current a.c.	13.1A	15.7A
Power factor range	-0.8...1...+ 0.8	
Protective class	I	
Ingress protection	IP66	
Ambient temperature	-40...+60°C	
AC-Input (For grid port and Gen port)		
Nominal voltage a.c.	1/N/PE, 230V	
Max. /Rated continuous current	20A	24A
Nominal Frequency	50/60Hz	

Model	S6-EH1P5K-L-PLUS-AU	S6-EH1P6K-L-PLUS-AU	S6-EH1P8K-L-PLUS-AU
PV-Input			
Max. input voltage d.c.	500 V	500 V	500 V
Mppt voltage range d.c.	90-435 V	90-435 V	90-435 V
Max. input current d.c.	2x16 A	2x16 A	2x32 A
Isc PV (absolute maximum) d.c.	2x24 A	2x24 A	2x48 A
Battery			
Battery type	Li-ion/Lead-acid		
Battery Voltage range d.c.	40-60V		
Max. Charge/discharge current d.c.	112A /112A	135A /135A	190A /190A
AC-Output (Back-up)			
Max. /Rated output power a.c.	5000W	6000W	8000W
Nominal output voltage a.c.	1/N/PE,230V	1/N/PE,230V	1/N/PE,230V
Nominal Frequency	50Hz	50Hz	50Hz
Max. /Rated output current a.c.	21.8A	26.1A	34.8A
AC-Output (Grid side)			
Max. /Rated apparent output power a.c.	5000VA	6000VA	8000VA
Nominal output voltage a.c.	1/N/PE,230V	1/N/PE,230V	1/N/PE,230V
Nominal Frequency	50Hz	50Hz	50Hz

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Max. /Rated output current a.c.	21.8A	26.1A	34.8A
Power factor range	-0.8...1...+ 0.8		
Protective class	I		
Ingress protection	IP66		
Ambient temperature	-40...+60°C		
AC-Input (For grid port and Gen port)			
Nominal voltage a.c.	1/N/PE, 220V/230V		
Max. /Rated continuous current	31A	39A	50A
Nominal Frequency	50/60Hz		

**Tested
according to:**

IEC 61000-6-1:2016
IEC 61000-6-2:2016
IEC 61000-6-3:2020
IEC 61000-6-4:2018
IEC 61000-3-2:2018/AMD1:2020
IEC 61000-3-12:2011/AMD1:2021
IEC 61000-3-3:2013/AMD2:2021
IEC 61000-3-11:2017
IEC 62920:2017/A1:2021



Limited WARRANTY - EUROPE

Solis Inverters and accessories are manufactured by Ginlong Technologies Co., Ltd. (referred to as "Ginlong") which provides the following Limited Warranty to the purchaser (referred to as "Customer") of the inverters and accessories (referred to as "Products"). (Customer is deemed to be the owner of the installed Products at first sale and to whom it is transferred to.)

1. Limited Warranty Terms

Ginlong warrants all Products to be free from defects in material and function under normal use and service from the date of sale to the Customer. This Limited Warranty extends the Customer's statutory rights and cannot be construed so as to diminish such statutory rights.

All grid tied inverters and hybrid inverters receive: **5 Year Warranty**

(All 4G, 5G/S5 & S6 Models)

All accessories receive: **2 Year Warranty** – (3 years for España)

(DLS-W, DLS-LAN, DLS-G, DLB-W, DLB-G, RF-Link, S2-RF-ST, S3-WIFI-ST, S2-WL-ST, S1-W4G-ST, S3-Logger, S4-WIFI-ST, S4-WIFI-ST, PLC-CCO, EPM1-5G, EPM3-5G, EMP3-5G-PLUS, EPM3-5G-PRO, 4G-CT, Easton and Acrel Meters)

For the duration of this period Ginlong guarantees the proper functions of the Products. The Limited Warranty shall be executed by the terms included here but not limited to PO/PI/CI of goods.

The Limited Warranty period begins when the Product is-

(1) Commissioned at the installation

Or

(2) 6 months after the Product is dispatched from the factory depending on which occurs first.

2. Limited Warranty Extension

The Customer may apply for a Limited Warranty extension within 12 months of installation by providing the relevant inverter serial number along with proof of purchase. An extended Limited Warranty can be purchased to provide the following:

10 Years total / 15 Years total / 20 Years total

Limited Warranty extension certificates will be provided to confirm the extension upon purchase.

Limited Warranty extensions are subject to the same terms and conditions as the standard Limited warranty period.

Until further notice from 1st July 2020 (Benelux region starts at 16th of March 2016), the following countries automatically receive a 10-year Warranty extension for grid tied inverters less or equal to 10kW in rating:

Holland, Belgium, France, Germany, Poland, Italy (Subject to change)

3. Warranty Limitations

The Limited Warranty is valid only for Products purchased either directly from Ginlong or from an authorised reseller of Ginlong. The Limited Warranty applies to brand new product only.

The Limited Warranty does not cover:

- Access, labour or transport costs;
- Consequential damages including but not limited to loss of revenue;
- Claims by third parties other than the owner;
- If Products are damaged as a consequence of not installing in accordance with the installation instructions as contained within the Product installation manual. (Except where the installation is performed by Ginlong);
- Items ancillary to installation not supplied by Ginlong;
- Duties, import/export fees or costs and other general administrative costs;
- Damage to Products caused by misuse, improper handling or unauthorised modification;
- Loss or damage occurring whilst in transit;
- Accidental (for any damage or defect caused by lightning, flood, power surge, fire, pest damage, corrosion, actions of third parties or any other act of Force Majeure, event or accident outside Ginlong's reasonable control and not arising under normal and standard operating conditions;) or wilful damage;
- Any Products described in a quotation or delivery note as 'ex-display' or 'reconditioned'. (A separate Limited Warranty extension may have been issued to cover such Products)
- If Products are not initially purchased from Ginlong or the authorised reseller of Ginlong;
- If Products are out of the Limited Warranty period;
- If the fault has been caused by another component in the Limited Warranty holder's photovoltaic system; or could not be identified upon examination of Products;
- The replaced Products have not been returned to Ginlong or the authorised reseller in time; unless the Products was installed correctly by a qualified installer and as per the installation instructions supplied with the Products or installed by Ginlong or the authorised reseller;
- Unless the Limited Warranty holder has paid in full all amounts owing to Ginlong by the Limited Warranty holder;
- If the defect occurs wholly or partially as a result of any act or omission by the Limited Warranty holder, or any person other than a person employed or sub-contracted by Ginlong;
- If the Products are not satisfactorily maintained, is subject to misuse, neglect, accident or abuse or the Limited Warranty holder continues to use the Products after the defect becomes

apparent;

- If the Products are repaired, or any attempt to repair the Products are made, by anyone other than authorised by Ginlong;
- If the Products are moved for any reason after it has been installed (regardless of whether the Products are subsequently reinstalled or moved back to the same location) unless the Products are reinstalled at the same address by a qualified installer and it is stored during any interim period in accordance with the Product manual;
- If the Products are altered or modified in any way (including if the Products' serial or identification number is altered, defaced or removed) unless such modification has been approved in writing by Ginlong;
- Use of battery types not certified and listed on Solis approved battery compatibility list for operation with Solis Energy Storage Inverters as well as batteries on user defined option.
- For any other fault which does not affect the basic performance of the Products, notwithstanding any external scratch or stain, or natural mechanical wearing which does not represent a defect or normal wear and tear.

4. Data Protection

If the Customers accept the Limited Warranty service provided by Ginlong, the Customers allow Ginlong to access, collect and process information related to failure, detection, identifying and debugging when providing services. Such information will only be used to provide Limited Warranty services. Since Customers are the controllers of such information, Ginlong cannot confirm whether such information contains confidential information or personal data of the Customers.

Customers should ensure that they will obtain or retain all necessary consent, permission and authorisation ("Consent") in accordance with applicable legal requirements for Ginlong to provide such service, so that Ginlong will not violate applicable legal requirements, Customers privacy policies, or Customer user-agreements in providing related services.

Ginlong will take reasonable measures to ensure the security of such Customer information, but Ginlong is not responsible for any direct or indirect liability caused by the acquisition and processing of such information in the process of providing services.

If the Customer returns the Products to Ginlong, it indicates that the Customer has backed up any confidential, private, personal or other information stored in the Products and has completely deleted such information from the Products, and authorises Ginlong to transfer the Products to the Ginlong service centre in other countries for maintenance. Customers shall be solely responsible for deleting the above information before delivering the hardware to Ginlong. They shall also further indemnify, defend and hold harmless Ginlong from and against any and all claims, liabilities, obligations, costs, expenses, penalties, fines, confiscations and ruling imposed by any government agency or third party as a result of Ginlong failing to comply with applicable laws and regulations in transferring and disposing of the above information.

Ginlong does not guarantee the data stored in the Products; the Customers are responsible for backing up relevant data to prevent loss.

5. Limited Warranty Claims Procedure

To make a Limited Warranty claim the following information needs to be provided within 30 days of acknowledgement of the issue:

- Completed Limited Warranty Claim Form – Provided by Solis Service Agent
- Products Model (i.e. S6-GR1P3.6K) and Products Serial Number (ie. 160D72198270017)
- Copy of the invoice for the inverter
- Copy of the installation report/certificate

If Ginlong receives a legitimate written claim, Ginlong shall, at its discretion:

- 1) Provide replacement Product; which will be functionally equivalent to the Customer's defective device (in terms of features, function, compatibility).
or
- 2) Instruct an accredited service provider to attend the Customer's premises and repair the defect or provide a replacement Product(s);
or
- 3) Direct the Customer to return the Products to Ginlong so that Ginlong may repair or provide a replacement Product(s).

Ginlong may, at its own discretion, use new or factory refurbished Products for replacement.

Ginlong may repair or replace faulty components at its discretion. If the Products or any part thereof is replaced by Ginlong under this Limited Warranty, all of the rights, title and interests in the replaced Products or parts, shall vest in Ginlong upon it being replaced.

The cost for replacement of the device will not be covered by Ginlong.

Any Products replaced or repaired under this Limited Warranty will be covered by the Products' remaining Warranty period, or three months, whichever is greater.

The Limited Warranty holder must return replaced parts or devices in the original packaging or equivalent. If the replaced faulty part or device is not received by Ginlong within 30 days, the Limited Warranty holder will be charged for the part/device at the current price for a new part/device.

Ginlong Technologies Co., Ltd.

Add: No. 188 Jinkai Road, Binhai Industrial Park, Xiangshan, Ningbo, Zhejiang, 315712, P.R.China

Tel: +44 151 453 6515 | Web: www.solisinverters.com | E: euservice@solisinverters.com



Shipment and inverter replacement cost will be invoiced if inverter is found to be not faulty.
Labour, travel and delivery (to and from Customer) will be charged if Products returned are found to be not faulty following a Limited Warranty claim.
A claim for compensation cannot be made for any loss of profit, (including energy that has not

been fed into the grid or energy that has not been used for self-consumption, etc.) In any case, whether in contract, tort or otherwise, the maximum compensation for Customer losses caused by its fault shall not exceed the amount paid by the Customer for the purchase of the equipment.

EU Declaration of Conformity – CE

This is to declare that the products listed below have been manufactured according to the following EU directives:

- Radio Equipment Directive 2014/53/EU (RED)
- Low Voltage Directive 2014/35/EU
- Electromagnetic Compatibility 2014/30/EU
- 2011/65/EU RoHS Directive
- WEEE Directive 2012/19/EU

Manufacturer	Ginlong Technologies Co., Ltd.
Address	NO.57 Jintong Road, Binhai Industrial Park, Xiangshan Ningbo, Zhejiang, 315712, P.R.China
Product Type	Hybrid Inverter
Model	S6-EH1P3K-L-PLUS, S6-EH1P3.6K-L-PLUS, S6-EH1P5K-L-PLUS, S6-EH1P6K-L-PLUS, S6-EH1P8K-L-PLUS

The following standards have been applied according to the aforementioned directives:

RED, Article 3.1a

Low Voltage Directive 2014/35/EU

EN 62109-1:2010, EN 62109-2:2011

RED, Article 3.1b

Electromagnetic Compatibility 2014/30/EU

EN 55011:2016+A1:2017+A11:2020+A2:2021

EN IEC 61000-3-11:2019, EN 61000-3-12:2011

EN IEC 61000-6-1:2019, EN IEC 61000-6-2:2019

EN IEC 61000-6-3:2021, EN IEC 61000-6-4:2019

EN 301489-1 V2.2.3:2019, EN 301489-17 V3.2.4:2020

EN 62920:2017+A11:2020+A1:2021

RED, Article 3.2

EN 300328 V2.2.2:2019

RoHS Directive 2011/65/EU

EN IEC 63000:2018, IEC 63000:2016

All modifications to this declaration will be confirmed by Ginlong, otherwise this declaration will no longer be valid. The product defined here-in was manufactured under the condition of the EU directive and standards. Product responsibility is within the manufacturer's guarantee and this declaration of conformity is issued under the responsibility of the manufacturer.

Manufacturer Stamp

Date and place of issue

Ningbo, 11.Oct.2023

Jiaqi Cao

Director of test center

锦浪科技股份有限公司
GINLONG TECHNOLOGIES CO., LTD.

Certificate of Conformity

No. ESY 086470 0225 Rev. 00

Holder of Certificate: **Ginlong Technologies Co., Ltd.**

No.57 Jintong Road
Binhai Industrial Park, Xiangshan
315712 Ningbo, Zhejiang
PEOPLE'S REPUBLIC OF CHINA

Product: **Converter**
Hybrid Inverter

Model(s): **S6-EH1P3K-L-PLUS, S6-EH1P3.6K-L-PLUS,
S6-EH1P4.6K-L-PLUS, S6-EH1P5K-L-PLUS,
S6-EH1P6K-L-PLUS, S6-EH1P8K-L-PLUS**

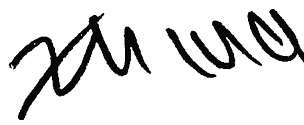
Parameters: See next pages.

Applicable standards: EN 50549-1:2019
EN 50549-10:2022

This Certificate of Conformity confirms the compliance with the above listed standards on a voluntary basis. It refers only to the sample submitted to TÜV SÜD Product Service GmbH and does not certify the quality or safety of the serial products. It was issued according to TÜV SÜD Product Service certification program Photovoltaics and Grid Integration. For details see: www.tuvsud.com/ps-cert

Test report no.: 7040924037115-00

Date, 2024-09-30



(Zhengdong Ma)

Certificate of Conformity

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Models	S6-EH1P3K-L-PLUS	S6-EH1P3.6K-L-PLUS	S6-EH1P4.6K-L-PLUS
PV-Input:			
Max. input voltage	DC 500 V		
Mppt voltage range	DC 90 V, ..., 435 V		
Max. input current	AC 16/16 A	AC 16/16 A	AC 16/16 A
Isc PV (absolute maximum)	AC 20/20 A	AC 20/20 A	AC 20/20 A
Battery Input / Output:			
Battery Type	Li-ion/Lead-acid		
Battery Voltage range	DC 40, ..., 60 V		
Max. Charge / discharge current	DC 70 A/ 70 A	DC 80 A/ 80 A	DC 105 A/ 105 A
AC-Output (Grid side):			
Rated output voltage	1/N/PE AC 230 V		
Rated output frequency	50 Hz		
Max. /Rated apparent output power	3000 VA	3600 VA	4600 VA
Max. /Rated output current	AC 13.1 A	AC 15.7 A	AC 20 A
Power factor range	-0.8, ..., 1, ..., +0.8		

Models	S6-EH1P5K-L-PLUS	S6-EH1P6K-L-PLUS	S6-EH1P8K-L-PLUS
PV-Input:			
Max. input voltage	DC 500 V		
Mppt voltage range	DC 90 V, ..., 435 V		
Max. input current	AC 16/16 A	AC 16/16 A	AC 32/32 A
Isc PV (absolute maximum)	AC 20/20 A	AC 20/20 A	AC 40/40 A
Battery Input / Output:			
Battery Type	Li-ion/Lead-acid		
Battery Voltage range	DC 40, ..., 60 V		
Max. Charge / discharge current	DC 112 A/ 112 A	DC 135 A/ 135 A	DC 190 A/ 190 A
AC-Output (Grid side):			
Rated output voltage	1/N/PE AC 230 V		
Rated output frequency	50 Hz		
Max. /Rated apparent output power	5000 VA	6000 VA	8000 VA
Max. /Rated output current	AC 21.8 A	AC 26.1 A	AC 34.8 A
Power factor range	-0.8, ..., 1, ..., +0.8		

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Evaluated protection function and operational capabilities

Clause(s) / subclause(s) of EN 50549-1:2019	Applicable clause(s) / subclause (s) of this document	Remarks, optional modes and constraints	Verdict
4.4.2 Operating frequency range	5.2.1 Frequency operating range	--	Pass
4.4.3 Minimal requirement for active power delivery at underfrequency	5.2.1 Frequency operating range	--	Pass
4.4.4 Continuous operating voltage range	5.2.2 Voltage operating range	--	Pass
4.5.2 Rate of change of frequency (ROCOF) immunity	5.3.1 Immunity to disturbances – Rated of change of frequency (ROCOF)	--	Pass
4.5.3.2 Generating plant with non-synchronous generating technology	5.3.3 Immunity to disturbances - Fault ride through, over-voltage (OVRT) and under-voltage (UVRT)	--	Pass
4.5.4 Over-voltage ride through (OVRT)	5.3.3 Immunity to disturbances - Fault ride through, over-voltage (OVRT) and under-voltage (UVRT)	--	Pass
4.6.1 Power response to overfrequency	5.4 Active response to frequency deviation	--	Pass
4.6.2 Power response to underfrequency	5.4 Active response to frequency deviation	--	Pass
4.7.2.2 Voltage support by reactive power, Capabilities	5.5.1 Power capabilities assessment	--	Pass
4.7.2.3 Voltage support by reactive power, Control modes	5.5.2 Voltage support by reactive power - test to determine the reactive power control modes	Q setp. Q(U) Cos φ setp. Cos φ (P)	Pass
4.7.2.3.2 Set point control modes	5.5.2.3 Verification procedure for set point control	Q setp. Cos φ setp.	Pass
4.7.2.3.3 Voltage related control modes	5.5.2.5 Verification procedure for power related control modes for reactive power	Q(U)	Pass
4.7.2.3.4 Power related control mode	5.5.2.5 Verification procedure for power related control modes for reactive power	Cos φ (P)	Pass
4.7.3 Voltage related active power reduction	5.6 Voltage related active power reduction - P(U)	P(U)	Pass
4.7.4.2.2 Zero current mode for converter connected generating technology	5.3.3 Immunity to disturbances - Fault ride through, over-voltage (OVRT) and under-voltage (UVRT)	--	Pass
4.9.3 Requirements on voltage and frequency protection	5.8.3 Verification procedure for generating plants to be connected to a LV distribution network with Interface protection as internal device	--	Pass
4.9.4 Means to detect island situation	5.8.6 Islanding detection	Active methods tested with a resonant circuit	Pass

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		according to EN 62116	
4.10.2 Automatic reconnection after tripping	5.9.3 Automatic reconnection after tripping	--	Pass
4.10.3 Starting to generate electrical power	5.9.4 Starting to generate electrical power	--	Pass
4.11.1 Ceasing active power	5.10 Active power reduction on set point	--	Pass
4.11.2 Reduction of active power on set point	5.10 Active power reduction on set point	--	Pass
4.12 Remote information exchange	5.11 Remote information exchange	Standardized communication protocol not provided by manufacturer	N/A
4.13 single fault tolerance of interface protection system and interface switch	5.12 Requirements regarding single fault tolerance of interface protection system and interface switch	--	Pass

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Evaluated parameter and parameter range

Specific technical requirement (e.g. grid codes)		EN 50549-1:2019			
Clause(s) / subclause(s) of EN 50549-1:2019	Parameter	Remarks/ additional information	Configurable value range	Default value	
4.4.2 Operating frequency range	47.0 – 47.5 Hz Duration	--	0 – 20 s	Unlimited with protection setting only	
	47.5 – 48.5 Hz Duration	--	30 – 90 min	Unlimited with protection setting only	
	48.5 – 49.0 Hz Duration	--	30 – 90 min	Unlimited	
	49.0 – 51.0 Hz Duration	--	not configurable	Unlimited	
	51.0 – 51.5 Hz Duration	--	30 – 90 min	Unlimited with protection setting only	
	51.5 – 52 Hz Duration	--	0 – 15 min	Unlimited with protection setting only	
	51.5 – 52 Hz Duration	--	0 – 15 min	Unlimited with protection setting only	
4.4.3 Minimal requirement for active power delivery at underfrequency	Reduction threshold	--	not configurable	No reduction	
	Maximum reduction rate	--	not configurable	N/A	
4.4.4 Continuous operating voltage range	Upper limit	--	not configurable	110% U_n	
	Lower limit	--	not configurable	85% U_n	
4.5.2 Rate of change of frequency (ROCOF) immunity	ROCOF withstand capability (defined with a sliding measurement window of 500 ms)	--	not configurable	2 Hz/s	
4.5.3.2 Under-voltage ride through (UVRT) Generating plant with non-synchronous generating technology	Maximum power resumption time	--	not configurable	1 s	
	Voltage-Time-Diagram	See figure 6 default requirement curve of EN 50549-1:2019		Time [s]	U [p.u.]
				0.0	0.2
				0.15	0.2
4.5.4 Over-voltage ride through (OVRT)	Voltage-Time-Diagram	See figure 8 of EN 50549-1:2019	not configurable	1.5	0.85
				Time [s]	U [p.u.]
				0.0	1.25
				0.1	1.25
				0.1	1.20
				5.0	1.20
				5.0	1.15
				60	1.15
4.6.1 Power response to overfrequency	Threshold frequency f_1	--	50.2 Hz – 52 Hz	50.2 Hz	
	Droop	--	2 % – 12 %	5 %	
	Power reference	--	P_M P_{max}	P_{max} for ESS	
	Intentional delay	--	0 – 2 s	0s	
	Deactivation threshold f_{stop}	--	50.0 Hz – f_1	deactivated	
	Deactivation time t_{stop}	--	0 – 600 s	-	
	Acceptance of	--	yes no	No	

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	staged disconnection			
4.6.2 Power response to underfrequency	Threshold frequency f_1	--	49.8 Hz – 46 Hz	49.8 Hz
	Droop	--	2 – 12 %	5 %
	Power reference	--	$P_M \mid P_{max}$	P_{max}
	Intentional delay	--	0 – 2 s	0 s
4.7.2.2 Voltage support by reactive power - Capabilities	Active factor / Reactive power (%Pd) range overexcited	--	0.8 – 1 / 60 % P_D – 0	0.9 – 1 / 48.4 % P_D – 0
	Active factor / Reactive power (%Pd) range underexcited	--	0.8 – 1 / 60 % P_D – 0	0.9 – 1 / 48.4 % P_D – 0
4.7.2.3 Voltage support by reactive power - Control modes	Enabled control mode	--	Q setp. Q(U) Cos φ setp. Cos φ (P)	Q setp.
4.7.2.3.2 Voltage support by reactive power - Setpoint control modes	Q setpoint and excitation	--	0 – 60 % P_D	0
	cos φ setpoint and excitation	--	1 – 0.8	1
4.7.2.3.3 Voltage support by reactive power - Voltage related control modes	Characteristic curve – Q (U)	--	--	Indicate default characteristic
	Point a	--	50%Un – 100%Un	93 %Un
	Point b	--	50%Un – 100%Un	94 %Un
	Point c	--	100%Un – 120%Un	106%Un
	Point d	--	100%Un – 120%Un	108 %Un
	Min. reactive power	--	0 – 60 %Pd ($Q_{max \text{ under}}$)	48.4 %Pd
	Max. reactive power	--	0 – 60 %Pd ($Q_{max \text{ over}}$)	48.4 %Pd
	Time constant	--	3 s – 60 s	3.0 s
	Min cos φ	--	0.0 – 1	0.4
	Lock in power	--	0 % – 20 %	20%
	Lock out power	--	0 % – 20 %	5%
4.7.2.3.4 Voltage support by reactive power - Power related control mode	Characteristic curve – Cos φ (P)	--	--	Indicate default characteristic
	Point a	--	0 – 100%Pn/ PF:-0.8, ..., +0.8	15%Pn/ PF=0.8
	Point b	--	0 – 100%Pn/ PF:-0.8, ..., +0.8	20%Pn/ PF=1
	Point c	--	0 – 100%Pn/ PF:-0.8, ..., +0.8	80%Pn/ PF=1
	Point d	--	0 – 100%Pn/ PF:-0.8, ..., +0.8	90%Pn/ PF=-0.9
	Cos φ	--	0.8 – 1	0.8
	Time constant	--	3 s – 60 s	3.33 s
	Lock in voltage	--	105 %Un	deactivated
	Lock out voltage	--	100 %Un	deactivated
4.7.3 Voltage related active power reduction	Characteristic curve - P (U)	--	--	Indicate default characteristic
	Point a	--	0 – 100%Pn/ U:0 V, ..., 264.5 V	100%Pn/ U=207 V
	Point b	--	0 – 100%Pn/ U:0 V, ..., 264.5 V	100%Pn/ U=230 V
	Point c	--	0 – 100%Pn/ U:0 V, ..., 264.5 V	100%Pn/ U=253 V

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4.7.4.2.2 Zero current mode for converter connected generating technology	Point d	--	0 – 100%P _n / U:0 V, ...,264.5 V	5%P _n / U=257.6 V
	Time constant	--	3 s – 60 s	3.33 s
	Enabling	--	enable disable	disabled
	Static voltage range overvoltage	--	100 %U _n – 120 %U _n	120 %U _n
4.9.3 Requirements on voltage and frequency protection	Static voltage range undervoltage	--	20 %U _n – 100 %U _n	50 %U _n
	Threshold for protection as dedicated device [in A or kW. kVA]	--	16 A – 250 kVA	Not specified, inverter integrated as default
	Undervoltage threshold stage 1	--	0.2 U _n – 1 U _n	0.85U _n
	Undervoltage operate time stage 1	--	0.1 s – 100 s	100 s
	Undervoltage threshold stage 2	--	0.2 U _n – 1 U _n	0.5U _n
	Undervoltage operate time stage 2	--	0.1 s – 5 s	5 s
	Overvoltage threshold stage 1	--	1.0 U _n – 1.2 U _n	1.2U _n
	Overvoltage operate time stage 1	--	0.1 s – 100 s	100 s
	Overvoltage threshold stage 2	--	1.0 U _n – 1.3 U _n	1.3U _n
	Overvoltage operate time stage 2	--	0.1 s – 5 s	5 s
	Overvoltage threshold 10 min mean protection	--	1.0 U _n – 1.15 U _n	1.1U _n
	Underfrequency threshold stage 1	--	47.0 Hz – 50.0 Hz	47.5 Hz
	Underfrequency operate time stage 1	--	0.1 s – 100 s	100 s
	Underfrequency threshold stage 2	--	47.0 Hz – 50.0 Hz	47 Hz
	Underfrequency operate time stage 2	--	0.1 s – 5 s	5 s
	Overfrequency threshold stage 1	--	50.0 Hz – 52.0 Hz	51.5Hz
	Overfrequency operate time stage 1	--	0.1 s – 100 s	100 s
	Overfrequency threshold stage 2	--	50.0 Hz – 52.0 Hz	52Hz
	Overfrequency operate time stage 2	--	0.1 s – 5 s	5 s
4.10.2 Automatic reconnection after tripping	Lower frequency	--	47.0 Hz – 50.0 Hz	49.5 Hz
	Upper frequency	--	50.0 Hz – 52.0 Hz	50.2 Hz
	Lower voltage	--	50 %U _n – 100 %U _n	85 %U _n
	Upper voltage	--	100 %U _n – 120 %U _n	110 %U _n

Certificate of Conformity

No. ESY 086470 0225 Rev. 00

4.10.3 Starting to generate electrical power	Observation time	--	10 s – 600 s	60 s
	Active power increase gradient	--	5% – 3000%/min	10 %/min
	Lower frequency	--	47.0 Hz – 50.0 Hz	49.5 Hz
	Upper frequency	--	50.0 Hz – 52.0 Hz	50.1 Hz
	Lower voltage	--	50 %U _n – 100 %U _n	85 %U _n
	Upper voltage	--	100 %U _n – 120 %U _n	110 %U _n
	Observation time	--	10 s – 600 s	60 s
	Active power increase gradient	--	5% – 3000 %/min	disabled
4.11.1 Ceasing active power	Activation option	--	Can be achieved by Modbus communication protocol, APP or Solis cloud, acceptance should be made by the DSO and responsible party	
4.11.2 Reduction of active power on set point	Activation option	--	Can be achieved by Modbus communication protocol, APP or Solis cloud, acceptance should be made by the DSO and responsible party	
4.12 Remote information exchange	Available communication standards	--	Standardized communication protocol not provided by manufacturer	



Product Service

Attestation of Conformity

No. N8A 086470 0158 Rev. 01

Holder of Attestation: **Ginlong Technologies Co., Ltd.**

No.57 Jintong Road
Binhai Industrial Park, Xiangshan
315712 Ningbo, Zhejiang
PEOPLE'S REPUBLIC OF CHINA

Product: **Converter**
Hybrid Inverter

This Attestation of Conformity is issued on a voluntary basis according to the Low Voltage Directive 2014/35/EU relating to electrical equipment designed for use within certain voltage limits. It confirms that the listed equipment complies with the principal protection requirements of the directive and is based on the technical specifications applicable at the time of issuance. It refers only to the particular sample submitted for conformity assessment. For details see: www.tuvsud.com/ps-cert

Test report no.: 50409230013198-01

Date, 2024-06-20

(Zhengdong Ma)

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Product Service

Attestation of Conformity

No. N8A 086470 0158 Rev. 01

Model(s):

**S6-EH1P3K-L-PLUS, S6-EH1P3.6K-L-PLUS, S6-EH1P4.6K-L-PLUS,
S6-EH1P5K-L-PLUS, S6-EH1P6K-L-PLUS, S6-EH1P8K-L-PLUS**

Parameters:

Model	S6-EH1P3K-L-PLUS	S6-EH1P3.6K-L-PLUS	S6-EH1P5K-L-PLUS
PV input			
Max. input voltage	500Vd.c.	500Vd.c.	500Vd.c.
MPPT voltage range	90, ..., 435Vd.c.	90, ..., 435Vd.c.	90, ..., 435Vd.c.
Max. input current	2x16Ad.c.	2x16Ad.c.	2x16Ad.c.
Isc PV (absolute maximum)	2x20Ad.c.	2x20Ad.c.	2x20Ad.c.
Battery input			
Battery type	Li-ion/Lead-acid		
Battery voltage range	40, ..., 60Vd.c.	40, ..., 60Vd.c.	40, ..., 60Vd.c.
Max. charge current	70Ad.c.	80Ad.c.	112Ad.c.
Max. discharge current	70Ad.c.	80Ad.c.	112Ad.c.
AC output (Back-up)			
Max./rated output power	3000W	3600W	5000W
Nominal output voltage	1/N/PE 220Va.c., 1/N/PE 230Va.c.		
Nominal frequency	50/60 Hz		
Max./rated output current	13.7Aa.c.@ 220Va.c. 13.1Aa.c.@ 230Va.c.	16.4Aa.c.@ 220Va.c. 15.7Aa.c.@ 230Va.c.	22.8Aa.c.@ 220Va.c. 21.8Aa.c.@ 230Va.c.
AC output (Grid side)			
Max./rated apparent output power	3000VA	3600VA	5000VA
Nominal output voltage	1/N/PE 220Va.c., 1/N/PE 230Va.c.		
Nominal frequency	50/60 Hz		
Max./rated output current	13.7Aa.c.@ 220Va.c. 13.1Aa.c.@ 230Va.c.	16.4Aa.c.@ 220Va.c. 15.7Aa.c.@ 230Va.c.	22.8Aa.c.@ 220Va.c. 21.8Aa.c.@ 230Va.c.
AC input			
Nominal voltage	1/N/PE 220Va.c., 1/N/PE 230Va.c.		
Max./rated continuous current	21Aa.c.@ 220Va.c. 20Aa.c.@ 230Va.c.	25Aa.c.@ 220Va.c. 24Aa.c.@ 230Va.c.	32Aa.c.@ 220Va.c. 31Aa.c.@ 230Va.c.
Nominal frequency	50/60 Hz		
General			
Power factor range	-0.8, ..., 1, ..., +0.8		
Protective class	I		
Ingress protection	IP 66		
Operating temperature Range	-40°C, ..., +60°C		
Max. operation altitude	3000m		

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Product Service

Attestation of Conformity

No. N8A 086470 0158 Rev. 01

Model	S6-EH1P6K-L-PLUS	S6-EH1P8K-L-PLUS	S6-EH1P4.6K-L-PLUS
PV input			
Max. input voltage	500Vd.c.	500Vd.c.	500Vd.c.
MPPT voltage range	90, ..., 435Vd.c.	90, ..., 435Vd.c.	90, ..., 435Vd.c.
Max. input current	2x16Ad.c.	2x32Ad.c.	2x16Ad.c.
Isc PV (absolute maximum)	2x20Ad.c.	2x40Ad.c.	2x20Ad.c.
Battery input			
Battery type	Li-ion/Lead-acid		
Battery voltage range	40, ..., 60Vd.c.	40, ..., 60Vd.c.	40, ..., 60Vd.c.
Max. charge current	135Ad.c.	190Ad.c.	105Ad.c.
Max. discharge current	135Ad.c.	190Ad.c.	105Ad.c.
AC output (Back-up)			
Max./rated output power	6000W	8000W	4600W
Nominal output voltage	1/N/PE 220Va.c., 1/N/PE 230Va.c.		
Nominal frequency	50/60 Hz		
Max./rated output current	27.3Aa.c.@ 220Va.c. 26.1Aa.c.@ 230Va.c.	36.4Aa.c.@ 220Va.c. 34.8Aa.c.@ 230Va.c.	20.9Aa.c.@ 220Va.c. 20.0Aa.c.@ 230Va.c.
AC output (Grid side)			
Max./rated apparent output power	6000VA	8000VA	4600VA
Nominal output voltage	1/N/PE 220Va.c., 1/N/PE 230Va.c.		
Nominal frequency	50/60 Hz		
Max./rated output current	27.3Aa.c.@ 220Va.c. 26.1Aa.c.@ 230Va.c.	36.4Aa.c.@ 220Va.c. 34.8Aa.c.@ 230Va.c.	20.9Aa.c.@ 220Va.c. 20.0Aa.c.@ 230Va.c.
AC input			
Nominal voltage	1/N/PE 220Va.c., 1/N/PE 230Va.c.		
Max./rated continuous current	40Aa.c. @ 220Va.c. 39Aa.c.@ 230Va.c.	50Aa.c.@ 220Va.c. 50Aa.c.@ 230Va.c.	29Aa.c.@ 220Va.c. 28Aa.c.@ 230Va.c.
Nominal frequency	50/60 Hz		
General			
Power factor range	-0.8, ..., 1, ..., +0.8		
Protective class	I		
Ingress protection	IP66		
Operating temperature Range	-40°C, ..., +60°C		
Max. operation altitude	3000m		

**Tested
according to:**

EN 62109-1:2010
EN 62109-2:2011

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