solis

GINLONG TECHNOLOGIES CO.,LTD.

S6-GC3P(40-60)K-ND

Solis Three Phase Grid-Tied Inverters

Features:

- Max. efficiency 98.7%
- String current up to 20A
- > 150% DC/AC ratio, supports high power modules
- Automatic voltage stabilization technology in weak grid conditions
- AFCI protection, proactively reduces fire risk
- Supports RS485/ WiFi/GPRS/4G
- Scan to register on SolisCloud, supports remote upgrade and control

Models:

S6-GC3P40K04-NV-ND

S6-GC3P50K04-NV-ND

S6-GC3P60K05-NV-ND

S6-GC3P50K04-HV-ND

S6-GC3P60K05-HV-ND

DATASHEET

S6-GC3P(40-60)K-ND

Models	40K04-NV	50K04-NV	60K05-NV	50K04-HV	60K05-HV
Input DC					
Max. input voltage	1100 V				
Rated voltage	600 V			720 V	
Start-up voltage	180 V				
MPPT voltage range	180 - 1000 V				
Max. input current	4 × 40 A		5 × 40 A	4 × 40 A	5 × 40 A
Max. short circuit current	4 × 50 A		5 × 50 A	4 × 50 A	5 × 50 A
MPPT number / Max. input strings number	4 / 8		5 / 10	4 / 8	5 / 10
Output AC					
Rated output power	40 kW	50 kW	60 kW	50 kW	60 kW
Max. apparent output power	40 kVA	50 kVA	60 kVA	50 kVA	60 kVA
Max. output power	40 kW	50 kW	60 kW	50 kW	60 kW
Rated grid voltage	3/N/PE, 220 V / 380 V, 230 V / 400 V			3/PE, 480 V	
Rated grid frequency	50 Hz / 60 Hz				
Rated grid output current	60.8 A / 57.7 A	76.0 A / 72.2 A	91.2 A / 86.6 A	60.1 A	72.2 A
Max. output current	60.8 A / 57.7 A	76.0 A / 72.2 A	91.2 A / 86.6 A	60.1 A	72.2 A
Power factor	> 0.99 (0.8 leading - 0.8 lagging)				
THDi	< 3%				
Efficiency					
Max. efficiency	98.6%			98.7%	
EU efficiency	98.1%				
Protection					
DC reverse-polarity protection	Yes				
Short circuit protection	Yes				
Output over current protection	Yes				
Surge protection	DC Type II / AC Type II				
Grid monitoring	Yes				
Anti-islanding protection	Yes				
Temperature protection	Yes				
Strings monitoring	Yes				
I/V Curve scanning	Yes				
Multi peak scan	Yes				
Integrated AFCI 2.0	Optional				
Integrated PID recovery	Optional				
Integrated DC switch	Yes				
General Data					
Dimensions (W × H × D)	515 × 672 × 287.5 mm				
Weight	34.9 kg	35.8 kg	38.6 kg	34.4 kg	37.4 kg
Topology	Transformerless				
Self-consumption (night)	< 1 W				
Operating ambient temperature range	-25 ~ +60°C				
Relative humidity	0 - 100%				
Ingress protection	IP66				
Noise emission (typical)	≤ 60 dB(A)				
Cooling concept	Intelligent fan-cooling				
Max. operation altitude	4000 m				
Grid connection standard	G98 or G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1, VDE 0126/UTE C 15/VFR:2019, RD 1699/RD 244/UNE 206006/ UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC60068, IEC 61683, EN 50530				
Safety / EMC standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4				
Features					
DC connection	MC4 connector				
AC connection	OT terminal				
Display	LED indicator & Bluetooth + APP				
Communication	RS485, Optional: Wi-Fi, GPRS				

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Declaration letter

锦浪科技股
GINLONG TECHN

To DEWA,

We, Ginlong Technologies Co., Ltd., a professional manufacturer of SOLIS inverters, do hereby confirm that:

Figure 1 displays both the harmonic current and figure 2 displays the harmonic current ratio. The ratio is calculated according to the formula:
Harmonic Current Ratio = I_harmonic / I_ref,
where I_harmonic is the harmonic current and I_ref is the reference current. Thus, the figure 2 directly visualizes the result of this calculation and conforms to the standard limit.

To get the specific details for report 4840924377401:

The order 3 value for phase L1 on figure 1 is 0.134, and the I_ref is calculated according to the formula:
Pn, as indicated in Figure 3, is 60,000 W.
I_ref = Pn *50% / 400 / 1.732 = 60000 * 0.5 / 400 / 1.732 = 43.30A,
so the unit I_3 / I_ref= 0.134 / 43.30 = 0.309%, the calculated value is the same as that shown in figure 2.
In fact, the values in figure 1 are the measured harmonic currents. They must be converted into harmonic ratios (as a percentage of the fundamental current) for comparison against the specified limits. Therefore, we confirm that the report is accurate.

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	Harmonics and waveform distortion (50% rated power)			Pass
Order	Harmonic			
	L1	L2	L3	
2	0.409	0.403	0.365	
3	0.134	0.107	0.086	
4	0.282	0.278	0.263	
5	0.255	0.249	0.250	
6	0.064	0.043	0.052	
7	0.130	0.137	0.116	
8	0.122	0.143	0.118	
9	0.056	0.048	0.036	
10	0.343	0.362	0.349	
11	0.300	0.256	0.233	
12	0.073	0.064	0.056	
13	0.239	0.255	0.254	
14	0.164	0.174	0.172	
15	0.070	0.062	0.077	
16	0.233	0.240	0.252	
17	0.197	0.157	0.140	
18	0.097	0.072	0.077	
19	0.130	0.118	0.117	
20	0.110	0.125	0.119	
21	0.057	0.066	0.069	
22	0.123	0.134	0.142	
23	0.091	0.077	0.071	
24	0.065	0.073	0.051	
25	0.063	0.061	0.061	
26	0.087	0.092	0.078	
27	0.043	0.043	0.041	
28	0.066	0.072	0.077	

Figure 1

GINLONG

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Report Number: 4840924377401

Harmonics (S6-GC3P60K05-NV-ND), 50% rated power, Minimum Rsce=33

Phase A				
Environmental Phenomena	Unit	Test value for permanent emission	Limit for permanent emission	Test Result
Admissible individula harmonic current (%)	I_3/I_{ref}	0.309	21.6	PASS
	I_5/I_{ref}	0.589	10.7	PASS
	I_7/I_{ref}	0.300	7.2	PASS
	I_9/I_{ref}	0.129	3.8	PASS
	I_{11}/I_{ref}	0.693	3.1	PASS
	I_{13}/I_{ref}	0.552	2.0	PASS
Admissible harmonic parameters (%)	THD	2.177	23	PASS
	PWHD	5.229	23	PASS

Phase B				
Environmental Phenomena	Unit	Test value for permanent emission	Limit for permanent emission	Test Result
Admissible individula harmonic current (%)	I_3/I_{ref}	0.247	21.6	PASS
	I_5/I_{ref}	0.575	10.7	PASS
	I_7/I_{ref}	0.316	7.2	PASS
	I_9/I_{ref}	0.111	3.8	PASS
	I_{11}/I_{ref}	0.591	3.1	PASS
	I_{13}/I_{ref}	0.589	2.0	PASS
Admissible harmonic parameters (%)	THD	2.146	23	PASS
	PWHD	5.157	23	PASS

Phase C				
Environmental Phenomena	Unit	Test value for permanent emission	Limit for permanent emission	Test Result
Admissible individula harmonic current (%)	I_3/I_{ref}	0.199	21.6	PASS
	I_5/I_{ref}	0.577	10.7	PASS
	I_7/I_{ref}	0.268	7.2	PASS
	I_9/I_{ref}	0.083	3.8	PASS
	I_{11}/I_{ref}	0.538	3.1	PASS
	I_{13}/I_{ref}	0.587	2.0	PASS
Admissible harmonic parameters (%)	THD	2.043	23	PASS
	PWHD	5.049	23	PASS

Figure 2

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Series	S6-GC3P(40-60)K-XX-ND		
Model name	S6-GC3P40K04-NV-ND	S6-GC3P50K04-NV-ND	S6-GC3P60K05-NV-ND
Input DC			
Recommended max. PV power	60 kW	75 kW	90 kW
Max. input voltage	1100 V		
Rated voltage	600 V		
Start-up voltage	180 V		
MPPT voltage range	180-1000 V		
Max. input power per MPPT	25 kW		
Full load MPPT voltage range	**550-850 V**		
Max. input current	4 * 42 A		5 * 42 A
Max Current Per DC Input	22 A		
Max. short circuit current	4 * 52.5 A		5 * 52.5 A
MPPT number / Max.input strings number	4 / 8		5 / 10
Output AC			
Rated output power	40 kW	50 kW	60 kW
Max. apparent output power	40 kVA	50 kVA	60 kVA
Max. output power	40 kW	50 kW	60 kW
Rated grid voltage	3 / N / PE, 220 V / 380 V, 230 V / 400 V		
Grid voltage range	320-460 V		
Rated grid frequency	50 Hz / 60 Hz		
Grid frequency range	45-55 Hz / 55-65 Hz		
Rated grid output current	60.8 A / 57.7 A	76.0 A / 72.2 A	91.2 A / 86.6 A
Max. output current	60.8 A / 57.7 A	76.0 A / 72.2 A	91.2 A / 86.6 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)		
THDi	< 3%		
DC injection current	0.5% In		

Figure 3

From Ginlong Technologies Co., Ltd.

In Ningbo, Zhejiang on December 30th, 2025