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Barcelona, Spain 10-13 March 2014 Stand Number: 6C40



Husum, Germany 20 - 23 March 2014



Shanghai, China 20-22 May 2014 Stand Number: E5-535



Munich, Germany 04-06 June 2014



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Please record the serial number of your inverter and quote this when you contact us.



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#### Feel Quality, Experience Reliability

#### Why choose Solis Inverter?

- ▶ 8 local service points world wide
- ▶ 50 world top level R&D engineers
- ▶ 1,000 MW inverters annual production capacity
- ▶ 100,000 plus inverters installed and operated in last 10 years





#### Feel Quality, Experience Reliability

锦浪科技

## Ginlong

Ningbo Ginlong Technologies has located it's head office in Zhejiang, China and also has international representation through offices in Europe, the USA and Australia. The Ginlong Technologies company was established and has evolved to be a leader in it's field through the vision of a single person wanting to make a difference and the team he has brought together to realise that vision.

The company has machine and electrical products manufacturing expertise that spans more than 20 years. Those years have seen a team of dedicated engineers brought together for their international experience and skills to focus on the research and development of high end renewable energy products and equipment in the small scale wind and solar PV industry. Ginlong Technologies has grown to be a highly specialised company in the design, R&D, and manufacturing of very high quality small scale wind turbine equipment and solar PV inverters based on the delivery of reliability, durability and enviable productivity to the renewable energy sector.

Inverters are technologically the most complex and are of critical importance as a component in the design and successful operation of a solar PV system. Inverters convert the DC current generated from the solar PV cells into an AC current suitable for use on site or for export to the power distribution grid network. Ginlong has continually maintained a strong investment in research and development of their products and that of the production methods employed to deliver their leading edge technology. The Ginlong research and development team includes several Ph.D holders who spearhead and direct our skilled and experienced engineers who are responsible for, and crucial in providing solutions to our client's R&D and production problems. Some of the innovative solutions have resulted in new patents for the Ginlong company to protect it's product and design. Ginlong inverters are fully tested and accredited for certification to the local requirements for the countries they are distributed and supplied in.

Ginlong has developed and introduced some of the most advanced manufacturing technologies into their production processes including Surface Mount Technology (SMT), Wave Soldering (WS), up to date state of the art production management and quality assurance systems and procedures to support the consistent delivery of high quality, reliable, durable products that will maintain high productivity even in challenging

Customer service is an important element of the products and services supplied by Ginlong Technologies. By establishing local after sales and technical support centres around the globe Ginlong has been able to provide it's customers with real time support to resolve any queries that may be presented.

Ginlong Technologies has become one of the world's most competitive manufacturers of solar PV and wind grid tie inverters through it's leading edge delivery of renewable technology based on quality, reliability, durability, and productivity

## Contents

Solis-2G Single Phase Inverter

Solis Three Phase Inverter

PV and Wind Hybrid Inverter

Accessories

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#### Leading Features

- ▶ Over 96% Max. efficiency
- ▶ Ultra wide input voltage range
- ▶ Precise MPPT algorithm
- ► Controlled PWM inverter technology
- ► Compact and light design for one-person easy installation
- ▶ IP65, visually pleasing for domestic environment
- ► RS485 WIFI GPRS interface
- ▶ Numerous protection functions

Model Solis-1K-2G
Input Side

 Max. DC input voltage
 500 V

 Start-up DC input voltage
 120 V

 MPPT operating range
 100-400 V

 Rated DC voltage
 250 V

 Max. DC input current
 10A

 Number of MPP/Max strings per MPPT
 1/1

Output Side

 Rated output power
 1kW

 Max. transient power
 1.1kW

 Rated AC grid voltage
 230V

AC grid voltage range 180~270V(adjustable)

 Operating phase
 Single

 Rated AC grid output current
 4.3A

 Max. AC output current
 5.2A

 Output power factor
 >0.99

 Grid current THD
 Total THD<4%</td>

 DC injection current
 <20mA</td>

 Rated grid frequency
 50/60Hz

Efficiency

Max. efficiency >96%
Euro efficiency >95.4%
MPPT efficiency >99.9%

Protection

DC reverse-polarity protection Yes DC switch for each MPPT Yes AC short circuit protection Yes AC output over current protection Yes Output over voltage protection - varistor Yes Ground fault monitoring Yes Grid monitoring Yes Islanding protection Yes Temperature protection

General Data

Size 339W\*565H\*164D(mm)

Weight11.0kgTopologyTransformerlessInternal consumption<1W(Night)</td>Running temperature-25°C~60°C

Ingress protection IP65
Operating range utility frequency (Hz) 47-52 or 57-62(adjustable)

Noise emission(typical) <30 dBA
Cooling concept Self convection
Max.operating altitude without derating 2000m
Designed lifetime >20 years

Utility monitoring Islanding protection V<sub>AC</sub>, F<sub>AC</sub> in accordance with UL 1741, G83/1, AS4777, VDE 0126-1-1

Operating surroundings humidity 0~95% EMC EN61000-6-1:2007 EN61000-6-3:2007

Features

DC connection Screw terminal
AC connection Screw terminal
Display LCD, 2 x 20 Z.
Interface RS485/WiFi or GPRS(Optional)
Warranty 5~10 Years







### Leading Features

- ▶ Over 96.5% Max. efficiency
- ▶ Ultra wide input voltage range
- ▶ Precise MPPT algorithm
- ► Controlled PWM inverter technology
- ► Compact and light design for one-person easy installation
- ▶ IP65, visually pleasing for domestic environment
- ► RS485 WIFI GPRS interface
- ► Numerous protection functions

Model	Solis-1.5K-2G		
Input Side			
Max. DC input voltage	500V		
Start-up DC input voltage	120V		
MPPT operating range	100-400V		
Rated DC voltage	250V		
Max. DC input current	10A		
Number of MPP/Max strings per MPPT	1/1		
Output Side			
Rated output power	1.5kW		
Max. transient power	1.7kW		
Rated AC grid voltage	230V		
AC grid voltage range	180~270V(adjustable)		
Operating phase	Single		
Rated AC grid output current	6.5A		
Max. AC output current	8.1A		
Output power factor	>0.99		
Grid current THD	Total THD<4%		
DC injection current	<20mA		
Rated grid frequency	50/60Hz		
Efficiency			
Max. efficiency	>96.5%		
Euro efficiency	>96%		
MPPT efficiency	>99.9%		
Protection			
DC reverse-polarity protection	Yes		
DC switch for each MPPT	Yes		
AC short circuit protection	Yes		
AC output over current protection	Yes		
Output over voltage protection - varistor	Yes		
Ground fault monitoring	Yes		
Grid monitoring	Yes		
Islanding protection	Yes		
Temperature protection	Yes		
General Data	AND FACILITIES AND		
Size	339W*565H*164D(mm)		
Weight	11.0kg		
Topology Internal consumption	Transformerless <1W(Night)		
Running temperature	-25°C~60°C		
Ingress protection	IP65		
Operating range utility frequency (Hz)	47-52 or 57-62(adjustable)		
Noise emission(typical)	<30 dBA		
Cooling concept	Self convection		
Max.operating altitude without derating	2000m		
Designed lifetime	>20 years		
Utility monitoring	Islanding protection V <sub>AC</sub> , F <sub>AC</sub> in accordance with UL 1741, G83/1, AS4777, VDE 0126-1-1		
Operating surroundings humidity	0~95%		
	EN61000-6-1:2007		
EMC	EN61000-6-3:2007		
Features			
DC connection	Screw terminal		
AC connection	Screw terminal		
Display	LCD, 2 x 20 Z.		
Interface	RS485/WiFi or GPRS(Optional)		
Warranty	5~10 Years		







### **Leading Features**

- ▶ Over 97% Max. efficiency
- ▶ Ultra wide input voltage range
- ▶ Precise MPPT algorithm
- ► Controlled PWM inverter technology
- ► Compact and light design for one-person easy installation
- ▶ IP65, visually pleasing for domestic environment
- ► RS485 WIFI GPRS interface
- ► Numerous protection functions

Model Input Side	Solis-2K-2G	
Max. DC input voltage	500V	
Start-up DC input voltage	120V	
MPPT operating range	100-400V	
Rated DC voltage	100-400V 250V	
Max. DC input current	10A	
Number of MPP/Max strings per MPPT	1/1	
Output Side		
Rated output power	2kW	
Max. transient power	2.2kW	
Rated AC grid voltage	230V	
AC grid voltage range	180~270V(adjustable)	
Operating phase	Single	
Rated AC grid output current	8.7A	
Max. AC output current	10.5A	
Output power factor	>0.99	
Grid current THD	Total THD<4%	
DC injection current	<20mA	
Rated grid frequency	50/60Hz	
Efficiency		
Max. efficiency	>97%	
Euro efficiency	>96.4%	
MPPT efficiency	>99.9%	
Protection	50.0%	
DC reverse-polarity protection	Yes	
DC switch for each MPPT	Yes	
AC short circuit protection	Yes	
AC output over current protection	Yes	
Output over voltage protection - varistor	Yes	
Ground fault monitoring	Yes	
Grid monitoring	Yes	
Islanding protection	Yes	
Temperature protection	Yes	
General Data		
Size	339W*565H*164D(mm)	
Weight	11.0kg	
Topology	Transformerless	
Internal consumption	<1W(Night)	
Running temperature	-25°C∼60°C	
Ingress protection	IP65	
Operating range utility frequency (Hz)	47-52 or 57-62(adjustable)	
Noise emission(typical)	<30 dBA	
Cooling concept	Self convection	
Max.operating altitude without derating	2000m	
Designed lifetime	>20 years	
Utility monitoring	Islanding protection V <sub>AC</sub> , F <sub>AC</sub> in accordance with UL 1741, G83/1, AS4777, VDE 0126-1-1	
Operating surroundings humidity	0~95%	
EMC	EN61000-6-1:2007 EN61000-6-3:2007	
Features		
DC connection	Screw terminal	
AC connection	Screw terminal	
Display	LCD, 2 x 20 Z.	

RS485/WiFi or GPRS(Optional)

5~10 Years

Interface







### Leading Features

- ▶ Over 97% Max. efficiency
- ▶ Ultra wide input voltage range
- ▶ Dual MPPT design with precise MPPT algorithm
- ► Controlled PWM inverter technology
- ► Compact and light design for one-person easy installation
- ▶ IP65, visually pleasing for domestic environment
- ► RS485 WIFI GPRS interface
- ▶ Numerous protection functions

Model	Solis-2.5K-2G		
Input Side			
Max. DC input voltage	600V		
Start-up DC input voltage	120V		
MPPT operating range	100-500V		
Rated DC voltage	300V		
Max. DC input current	10A+10A		
Number of MPP/Max strings per MPPT	2/1		
Output Side			
Rated output power	2.5kW		
Max. transient power	2.8kW		
Rated AC grid voltage	230V		
AC grid voltage range	180~270V(adjustable)		
Operating phase	Single		
Rated AC grid output current	10.9A		
Max. AC output current	13.3A		
Output power factor	>0.99		
Grid current THD	Total THD<4%		
DC injection current	<20mA		
Rated grid frequency	50/60Hz		
Efficiency			
Max. efficiency	>97%		
Euro efficiency	>96.4%		
MPPT efficiency	>99.9%		
Protection			
DC reverse-polarity protection	Yes		
DC switch for each MPPT	Yes		
AC short circuit protection	Yes		
AC output over current protection	Yes		
Output over voltage protection - varistor	Yes		
Ground fault monitoring	Yes		
Grid monitoring	Yes		
Islanding protection	Yes		
Temperature protection	Yes		
General Data			
Size	339W*565H*173D(mm)		
Weight	14.5kg		
Topology	Transformerless		
Internal consumption	<1W(Night)		
Running temperature	-25°C∼60°C		
Ingress protection  Operating range utility frequency (Hz)	IP65 47-52 or 57-62(adjustable)		
Noise emission(typical)	<30 dBA		
Cooling concept	Self convection		
Max.operating altitude without derating	2000m		
Designed lifetime	>20 years		
Utility monitoring	Islanding protection V <sub>AC,</sub> F <sub>AC</sub> in accordance with UL 1741, G83/1, AS4777, VDE 0126-1-1		
Operating surroundings humidity	0~95%		
EMC	EN61000-6-1:2007 EN61000-6-3:2007		
Features			
DC connection	Screw terminal		
AC connection	Screw terminal		
Display	LCD, 2 x 20 Z.		
Interface	RS485/WiFi or GPRS(Optional)		
Warranty	5~10 Years		







### Leading Features

- ▶ Over 97% Max. efficiency
- ▶ Ultra wide input voltage range
- ▶ Dual MPPT design with precise MPPT algorithm
- ► Controlled PWM inverter technology
- ► Compact and light design for one-person easy installation
- ▶ IP65, visually pleasing for domestic environment
- ► RS485 WIFI GPRS interface
- ▶ Numerous protection functions

Model	Solis-3K-2G		
Input Side			
Max. DC input voltage	600V		
Start-up DC input voltage	120V		
MPPT operating range	100-500V		
Rated DC voltage	300V		
Max. DC input current	10A+10A		
Number of MPP/Max strings per MPPT	2/1		
Output Side			
Rated output power	3kW		
Max. transient power	3.3kW		
Rated AC grid voltage	230V		
AC grid voltage range	180~270V(adjustable)		
Operating phase	Single		
Rated AC grid output current	13A		
Max. AC output current	15.7A		
Output power factor	>0.99		
Grid current THD	Total THD<4%		
DC injection current	<20mA		
Rated grid frequency	50/60Hz		
Efficiency			
Max. efficiency	>97%		
Euro efficiency	>96.4%		
MPPT efficiency	>99.9%		
Protection			
DC reverse-polarity protection	Yes		
DC switch for each MPPT	Yes		
AC short circuit protection	Yes		
AC output over current protection	Yes		
Output over voltage protection - varistor	Yes		
Ground fault monitoring	Yes		
Grid monitoring	Yes		
Islanding protection	Yes		
Temperature protection	Yes		
General Data			
Size	339W*565H*173D(mm)		
Weight	14.5kg		
Topology	Transformerless		
Internal consumption	<1W(Night)		
Running temperature	-25°C~60°C		
Ingress protection	IP65		
Operating range utility frequency (Hz)	47-52 or 57-62(adjustable)		
Noise emission(typical)	<30 dBA		
Cooling concept	Self convection		
Max.operating altitude without derating	2000m		
Designed lifetime	>20 years		
Utility monitoring	Islanding protection V <sub>AC.</sub> F <sub>AC</sub> in accordance with UL 1741, G83/1, AS4777, VDE 0126-1-1		
Operating surroundings humidity	0~95%		
EMC	EN61000-6-1:2007 EN61000-6-3:2007		
Features			
DC connection	Screw terminal		
AC connection	Screw terminal		
Display	LCD, 2 x 20 Z.		
Interface	RS485/WiFi or GPRS(Optional)		
147			

5~10 Years







Solis

### **Leading Features**

- ▶ Over 97% Max. efficiency
- ▶ Ultra wide input voltage range
- ▶ Dual MPPT design with precise MPPT algorithm
- ► Controlled PWM inverter technology
- ► Compact and light design for one-person easy installation
- ▶ IP65, visually pleasing for domestic environment
- ► RS485 WIFI GPRS interface
- ▶ Numerous protection functions

Model	Solis-3.6K-2G		
Input Side			
Max. DC input voltage	600V		
Start-up DC input voltage	120V		
MPPT operating range	100-500V		
Rated DC voltage	300V		
Max. DC input current	10A+10A		
Number of MPP/Max strings per MPPT	2/1		
Output Side			
Rated output power	3.6kW		
Max. transient power	4kW		
Rated AC grid voltage	230V		
AC grid voltage range	180~270V(adjustable)		
Operating phase	Single		
Rated AC grid output current	15.7A		
Max. AC output current	16A		
Output power factor	>0.99		
Grid current THD	Total THD<4%		
DC injection current	<20mA		
Rated grid frequency	50/60Hz		
Efficiency			
Max. efficiency	>97%		
Euro efficiency	>96.4%		
MPPT efficiency	>99.9%		
Protection			
DC reverse-polarity protection	Yes		
DC switch for each MPPT	Yes		
AC short circuit protection	Yes		
AC output over current protection	Yes		
Output over voltage protection - varistor	Yes		
Ground fault monitoring	Yes		
Grid monitoring	Yes		
Islanding protection	Yes		
Temperature protection	Yes		
General Data			
Size	339W*565H*173D(mm)		
Weight	14.5kg		
Topology	Transformerless		
Internal consumption	<1W(Night)		
Running temperature	-25°C∼60°C		
Ingress protection	IP65		
Operating range utility frequency (Hz)	47-52 or 57-62(adjustable)		
Noise emission(typical)	<30 dBA		
Cooling concept	Self convection		
Max.operating altitude without derating	2000m		
Designed lifetime	>20 years		
Utility monitoring	Islanding protection V <sub>AC,</sub> F <sub>AC</sub> in accordance with UL 1741, G83/1, AS4777, VDE 0126-1-1		
Operating surroundings humidity	0~95%		
EMC	EN61000-6-1:2007 EN61000-6-3:2007		
Features			
DC connection	Screw terminal		
AC connection	Screw terminal		
Display	LCD, 2 x 20 Z.		
Interface	RS485/WiFi or GPRS(Optional)		
Warranty	5~10 Years		







### Leading Features

- ▶ Over 97% Max. efficiency
- ▶ Ultra wide input voltage range
- ▶ Dual MPPT design with precise MPPT algorithm
- ► Controlled PWM inverter technology
- ► Compact and light design for one-person easy installation
- ▶ IP65, visually pleasing for domestic environment
- ► RS485 WIFI GPRS interface
- ▶ Numerous protection functions

Model	Solis-4K-2G		
Input Side			
Max. DC input voltage	600V		
Start-up DC input voltage	120V		
MPPT operating range	100-500V		
Rated DC voltage	300V		
Max. DC input current	15A+15A		
Number of MPP/Max strings per MPPT	2/1		
Output Side			
Rated output power	4kW		
Max. transient power	4.4kW		
Rated AC grid voltage	230V		
AC grid voltage range	180~270V(adjustable)		
Operating phase	Single		
Rated AC grid output current	17.4A		
Max. AC output current	21A		
Output power factor	>0.99		
Grid current THD	Total THD<4%		
DC injection current	<20mA		
Rated grid frequency	50/60Hz		
Efficiency			
Max. efficiency	>97%		
Euro efficiency  MDDT efficiency	>96.4%		
MPPT efficiency	>99.9%		
Protection  DC reverse-polarity protection	Yes		
DC switch for each MPPT	Yes		
AC short circuit protection	Yes		
AC output over current protection	Yes		
Output over voltage protection - varistor	Yes		
Ground fault monitoring	Yes		
Grid monitoring	Yes		
Islanding protection	Yes		
Temperature protection	Yes		
General Data	···		
Size	339W*565H*173D(mm)		
Weight	15.5kg		
Topology	Transformerless		
Internal consumption	<1W(Night)		
Running temperature	-25°C∼60°C		
Ingress protection	IP65		
Operating range utility frequency (Hz)	47-52 or 57-62(adjustable)		
Noise emission(typical)	<30 dBA		
Cooling concept	Self convection		
Max.operating altitude without derating	2000m		
Designed lifetime	>20 years		
Utility monitoring	Islanding protection $V_{\text{\tiny AC.}}$ $F_{\text{\tiny AC}}$ in accordance with UL 1741, G59/2, AS4777, VDE 0126-1-1		
Operating surroundings humidity	0~95%		
EMC	EN61000-6-1:2007		
Features	EN61000-6-3:2007		
DC connection	Screw terminal		
AC connection	Screw terminal		
Display	LCD, 2 x 20 Z.		
Interface	RS485/WiFi or GPRS(Optional)		
Warranty	5~10 Years		
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### **Leading Features**

- ▶ Over 97% Max. efficiency
- ▶ Ultra wide input voltage range
- ▶ Dual MPPT design with precise MPPT algorithm
- ► Controlled PWM inverter technology
- ► Compact and light design for one-person easy installation
- ▶ IP65, visually pleasing for domestic environment
- ► RS485 WIFI GPRS interface
- ▶ Numerous protection functions

Model	Solis-4.6K-2G		
Input Side			
Max. DC input voltage	600V		
Start-up DC input voltage	120V		
MPPT operating range	100-500V		
Rated DC voltage	300V		
Max. DC input current	15A+15A		
Number of MPP/Max strings per MPPT	2/1		
Output Side			
Rated output power	4.6kW		
Max. transient power	5kW		
Rated AC grid voltage	230V		
AC grid voltage range	180~270V(adjustable)		
Operating phase	Single		
Rated AC grid output current	20A		
Max. AC output current	23.8A		
Output power factor	>0.99		
Grid current THD	Total THD<4%		
DC injection current	<20mA		
Rated grid frequency	50/60Hz		
Efficiency			
Max. efficiency	>97%		
Euro efficiency	>96.5%		
MPPT efficiency	>99.9%		
Protection			
DC reverse-polarity protection	Yes		
DC switch for each MPPT	Yes		
AC short circuit protection	Yes		
AC output over current protection	Yes		
Output over voltage protection - varistor	Yes		
Ground fault monitoring	Yes		
Grid monitoring	Yes		
Islanding protection	Yes		
Temperature protection	Yes		
General Data			
Size	339W*565H*173D(mm)		
Weight	15.5kg		
Topology	Transformerless		
Internal consumption	<1W(Night)		
Running temperature	-25°C∼60°C		
Ingress protection	IP65		
Operating range utility frequency (Hz)	47-52 or 57-62(adjustable)		
Noise emission(typical)	<30 dBA		
Cooling concept	Self convection		
Max.operating altitude without derating	2000m		
Designed lifetime	>20 years		
Utility monitoring	Islanding protection V <sub>AC</sub> , F <sub>AC</sub> in accordance with UL 1741, G59/2, AS4777, VDE 0126-1-1		
Operating surroundings humidity	0~95%		
EMC	EN61000-6-1:2007 EN61000-6-3:2007		
Features			
DC connection	Screw terminal		
AC connection	Screw terminal		
Display	LCD, 2 x 20 Z.		
Interface	RS485/WiFi or GPRS(Optional)		
Warranty	5~10 Years		







### Leading Features

- ▶ Over 97% Max. efficiency
- ▶ Ultra wide input voltage range
- ▶ Dual MPPT design with precise MPPT algorithm
- ► Controlled PWM inverter technology
- ► Compact and light design for one-person easy installation
- ▶ IP65, visually pleasing for domestic environment
- ► RS485 WIFI GPRS interface
- ▶ Numerous protection functions

Model	Solis-5K-2G		
Input Side			
Max. DC input voltage	600V		
Start-up DC input voltage	120V		
MPPT operating range	100-500V		
Rated DC voltage	300V		
Max. DC input current	15A+15A		
Number of MPP/Max strings per MPPT	2/1		
Output Side			
Rated output power	5kW		
Max. transient power	5kW		
Rated AC grid voltage	230V		
AC grid voltage range	180~270V(adjustable)		
Operating phase	Single		
Rated AC grid output current	21.7A		
Max. AC output current	23.8A		
Output power factor	>0.99		
Grid current THD	Total THD<4%		
DC injection current	<20mA		
Rated grid frequency	50/60Hz		
Efficiency			
Max. efficiency	>97%		
Euro efficiency	>96.5%		
MPPT efficiency	>99.9%		
Protection			
DC reverse-polarity protection	Yes		
DC switch for each MPPT	Yes		
AC short circuit protection	Yes		
AC output over current protection	Yes		
Output over voltage protection - varistor	Yes		
Ground fault monitoring	Yes		
Grid monitoring	Yes		
Islanding protection	Yes		
Temperature protection	Yes		
General Data			
Size	339W*565H*173D(mm)		
Weight	15.5kg		
Topology	Transformerless		
Internal consumption	<1W(Night)		
Running temperature	-25°C∼60°C		
Ingress protection	IP65 47-52 or 57-62(adjustable)		
Operating range utility frequency (Hz)  Noise emission(typical)			
Cooling concept	<30 dBA  Self convection		
Max.operating altitude without derating	2000m		
Designed lifetime	>20 years		
Utility monitoring	Islanding protection V <sub>AC</sub> , F <sub>AC</sub> in accordance with UL 1741, G59/2, AS4777, VDE 0126-1-1		
Operating surroundings humidity	0~95%		
	0~95% EN61000-6-1:2007		
EMC	EN61000-6-1:2007 EN61000-6-3:2007		
Features			
DC connection	Screw terminal		
AC connection	Screw terminal		
Display	LCD, 2 x 20 Z.		
Interface	RS485/WiFi or GPRS(Optional)		
Warranty	5~10 Years		

Solis Three Phase Inverter







### Leading Features

- ► Three phase output
- ▶ Over 97.5% Max. efficiency
- ► 250V 800V input voltage range
- ▶ Dual MPPT design with precise MPPT algorithm
- ► Controlled PWM inverter technology
- ▶ Compact and light design for one-person easy installation
- ▶ IP65, visually pleasing for domestic environment
- ▶ RS485 WIFI GPRS interface
- ► Numerous protection functions

Model	Solis-6K
Input Side	
Max. DC input voltage	1000V
Start-up DC input voltage	300V
MPPT operating range	250-800V
Rated DC voltage	400V
Max. DC input current	15A+15A
Number of MPP/Max strings per MPPT	2/2
Output Side	
Rated output power	6kW
Max. transient power	6.6kW
Rated AC grid voltage	400V
AC grid voltage range	313~470V(adjustable)
Operating phase	three
Rated AC grid output current	8.7A
Max. AC output current	10.5A
Output power factor	>0.99
Grid current THD	Total THD<4%
DC injection current	<20mA
Rated grid frequency	50/60Hz
Efficiency	
Max. efficiency	>97.5%
Euro efficiency	>96.8%
MPPT efficiency	>99.9%
Protection	
DC reverse-polarity protection	Yes
DC switch for each MPPT	Yes
AC short circuit protection	Yes
AC output over current protection	Yes
Output over voltage protection - varistor	Yes
Ground fault monitoring	Yes
Grid monitoring	Yes
Islanding protection	Yes
Temperature protection	Yes
General Data	
Size	430W*600H*220D(mm)
Weight	27kg
Topology	Transformerless
Internal consumption	<1W(Night)
Running temperature	-25°C~60°C
Ingress protection	IP65
Operating range utility frequency (Hz)	47-52 or 57-62(adjustable)
Noise emission(typical)	<30 dBA
Cooling concept	Self convection
Max.operating altitude without derating	2000m
Designed lifetime	>20 years
Utility monitoring	Islanding protection $V_{\scriptscriptstyle AC.}$ $F_{\scriptscriptstyle AC}$ in accordance with UL 1741, G83/1, AS4777, VDE 0126-1-1
Operating surroundings humidity	0~95%
EMC	EN61000-6-1:2007
Features	EN61000-6-3:2007
DC connection	Screw terminal
AC connection	Screw terminal
Display	LCD, 2 x 20 Z.
Interface	RS485/WiFi or GPRS(Optional)
interrace	No400/WIFLOLOFNO(OPHOHAI)

5~10 Years

Solis Three Phase Inverter







### Leading Features

- ► Three phase output
- ▶ Over 97.5% Max. efficiency
- ► 300V 800V input voltage range
- ▶ Dual MPPT design with precise MPPT algorithm
- ► Controlled PWM inverter technology
- ▶ Compact and light design for one-person easy installation
- ▶ IP65, visually pleasing for domestic environment
- ▶ RS485 WIFI GPRS interface
- ► Numerous protection functions

Model	Solis-10K
Input Side	30115-1UK
	400014
Max. DC input voltage	1000V
Start-up DC input voltage	350V
MPPT operating range	300-800V
Rated DC voltage	400V
Max. DC input current	15A+15A
Number of MPP/Max strings per MPPT	2/2
Output Side	40LW
Rated output power	10kW
Max. transient power	11kW
Rated AC grid voltage	400V
AC grid voltage range	313~470V(adjustable)
Operating phase	three
Rated AC grid output current	14.5A
Max. AC output current	16A
Output power factor	>0.99
Grid current THD	Total THD<4%
DC injection current	<20mA
Rated grid frequency	50/60Hz
Efficiency	
Max. efficiency	>97.5%
Euro efficiency	>96.8%
MPPT efficiency	>99.9%
Protection	
DC reverse-polarity protection	Yes
DC switch for each MPPT	Yes
AC short circuit protection	Yes
AC output over current protection	Yes
Output over voltage protection - varistor	Yes
Ground fault monitoring	Yes
Grid monitoring	Yes
Islanding protection	Yes
Temperature protection	Yes
General Data	
Size	430W*600H*220D(mm)
Weight	27kg
Topology	Transformerless
Internal consumption	<1W(Night)
Running temperature	-25°C∼60°C
Ingress protection	IP65
Operating range utility frequency (Hz)	47-52 or 57-62(adjustable)
Noise emission(typical)	<30 dBA
Cooling concept	Self convection
Max.operating altitude without derating	2000m
Designed lifetime	>20 years
Utility monitoring	Islanding protection $V_{\text{\tiny AC}}$ , $F_{\text{\tiny AC}}$ in accordance with UL 1741, G83/1, AS4777, VDE 0126-1-1
Operating surroundings humidity	0~95%
EMC	EN61000-6-1:2007 EN61000-6-3:2007
Features	
DC connection	Screw terminal
AC connection	Screw terminal
Display	LCD, 2 x 20 Z.
Interfere	PS485/MiEi or GPPS(Optional)

RS485/WiFi or GPRS(Optional)

5~10 Years

Interface

Solis Three Phase Inverter







### Leading Features

- ► Three phase output
- ▶ Over 97.5% Max. efficiency
- ► 300V 800V input voltage range
- ▶ Dual MPPT design with precise MPPT algorithm
- ► Controlled PWM inverter technology
- ▶ Compact and light design for one-person easy installation
- ▶ IP65, visually pleasing for domestic environment
- ▶ RS485 WIFI GPRS interface
- ► Numerous protection functions

Model	Solis-15K		
Input Side			
Max. DC input voltage	1000V		
Start-up DC input voltage	350V		
MPPT operating range	300-800V		
Rated DC voltage	600V		
Max. DC input current	18A+18A		
Number of MPP/Max strings per MPPT	2/2		
Output Side			
Rated output power	15kW		
Max. transient power	15kW		
Rated AC grid voltage	400V		
AC grid voltage range	313~470V(adjustable)		
Operating phase	three		
Rated AC grid output current	21.7A		
Max. AC output current	24A		
Output power factor	>0.99		
Grid current THD	Total THD<4%		
DC injection current	<50mA		
Rated grid frequency	50/60Hz		
Efficiency			
Max. efficiency	>97.5%		
Euro efficiency	>96.8%		
MPPT efficiency	>99.9%		
Protection			
DC reverse-polarity protection	Yes		
DC switch for each MPPT	Yes		
AC short circuit protection	Yes		
AC output over current protection	Yes		
Output over voltage protection - varistor	Yes		
Ground fault monitoring	Yes		
Grid monitoring	Yes		
Islanding protection	Yes		
Temperature protection	Yes		
General Data	420M#C00H#220D(mm)		
Size Weight	430W*600H*220D(mm)		
Topology	30kg Transformerless		
Internal consumption	<1W(Night)		
Running temperature	-25°C∼60°C		
Ingress protection	IP65		
Operating range utility frequency (Hz)	47-52 or 57-62(adjustable)		
Noise emission(typical)	<50 dBA		
Cooling concept	Forced air cooling		
Max.operating altitude without derating	2000m		
Designed lifetime	>20 years		
Utility monitoring	Islanding protection V <sub>AC</sub> , F <sub>AC</sub> in accordance with UL 1741, G59/2, AS4777, VDE 0126-1-1		
Operating surroundings humidity	0~95%		
5MO	EN61000-6-1:2007		
EMC	EN61000-6-3:2007		
Features DC connection	Screw terminal		
AC connection	Screw terminal		
Display	LCD, 2 x 20 Z.		
Interface	RS485/WiFi or GPRS(Optional)		
Interiace	1.0-200/Wil For Or No(optional)		

5~10 Years

PV and Wind Hybrid Inverter







## Leading Features

- ▶ Over 97% Max. efficiency
- ▶ 30V ~ 540V/100V ~ 500V of Wind/PV input voltage range
- ▶ 40 point programmable, linearly extrapolated power curve for wind version
- ► Precise MPPT algorithm
- ▶ Specific grid-connection controlling algorithm for wind turbine
- ► Controlled PWM inverter technology
- ▶ Compact and light design for one-person easy installation
- ▶ IP65, visually pleasing for domestic environment
- ► RS485 WIFI GPRS interface
- ► Numerous protection functions

		Calla EV II	
Model		Solis-5K-H	
Energy source	Wind channel	+ PV channel	
Input Side			
Max. DC input voltage		600V	
Start-up DC input voltage	40V	120V	
MPPT operating range	30-540V	100-500V	
MPPT mode	Power curve tracking	Max power point tracking	
Rated DC voltage		300V	
Max. DC input current	15A 15A		
Number of MPP/Max strings per MPPT	1/1	1/1	
Output Side			
Rated output power	5kW(PV and Wind in total)		
Max. transient power	5kW		
Rated AC grid voltage	230V		
AC grid voltage range		180~270V(adjustable)	
Operating phase	single		
Rated AC grid output current		21.7A	
Max. AC output current		23.8A	
Output power factor		>0.99	
Grid current THD	Total THD<4%		
DC injection current	<50mA		
Rated grid frequency	50/60Hz		
Efficiency			
Max. efficiency		>97%	
Euro efficiency	>96.5%		
MPPT efficiency	>99.9%		
Protection			
DC reverse-polarity protection	Yes		
DC switch for each MPPT	Yes		
AC short circuit protection	Yes		
AC output over current protection	Yes		
Output over voltage protection - varistor	Yes		
Ground fault monitoring		Yes	
Grid monitoring		Yes	
Islanding protection		Yes	
Temperature protection	Yes		
General Data		20W-52TH-472D/	
Size	33	39W*565H*173D(mm)	
Weight	15.5kg		
Topology	Transformerless		
Internal consumption	<6W(No wind) <1W(Night)		
Running temperature	-25°C∼60°C		
Ingress protection	IP65		
Operating range utility frequency (Hz)	47-52 or 57-62(adjustable)		
Noise emission(typical)	<30 dBA		
Cooling concept	Self convection		
Max.operating altitude without derating	2000m		
Designed lifetime	>20 years		
Utility monitoring	isianding protection V <sub>AC,</sub> F <sub>AC</sub> in ac	ecordance with UL 1741, G59/2, AS4777, VDE 0126-1-1	
Operating surroundings humidity		0~95%	
EMC		EN61000-6-1:2007 EN61000-6-3:2007	
Features			
DC connection		Screw terminal	
AC connection		Screw terminal	
Display	LCD, 2 x 20 Z.		
	RS485/WiFi or GPRS(Optional)		

5~10 Years

Accessories

# Ginlong Monitoring System DLB-S-WE/DLB-S-G





Data Logging Box WiFi

Data Logging Box GPRS

### Leading Features

#### Data Logging Box WiFi

- Quick installation and easy operation
- ► Monitoring your system and data anytime via WiFi
- ▶ Easy visualization of data and other information via Internet
- ▶ Comprehensive analyzing system in case of any possible faults

#### **Data Logging Box GPRS**

- Quick installation and easy operation
- ► GPRS communication supporting remote monitoring
- ► Multi-functional protections keeping your system from faults
- ▶ Keeping users informed of status and data via mobile device

General	Data Logging Box WiFi	Data Logging Box GPRS	
Max. number of inverters	10		
Inverter communication	RS	485	
Remote communication	WiFi (802. 11 b/g/n)/Ethernet	GPRS	
Max. communication range	<1	lkm	
Communication rate	9600bps (adjustable)		
WiFi frequency	2.4GHz	800/900/1800/1900MHz	
WiFi communication range 30	00m in outdoor open area without obstruction		
WiFi transmitting power	802.11b/g/n:+20dBm/ +18dBm/15dBm (Max)	Class 4 (2W)/Class 1 (1W)	
Data collect intervals	5 minutes		
Preferences setting	Web server/ Serial AT instruction	Serial AT instruction	
Firmware updates	Serial/Wireless		
Data access	Serial/WiFi point-to-piont/Remote server	Serial/Remote server	
Status display	4LEDs		
Electrical			
Input voltage	DC 5V		
Static power consumption	<1.6W	<2W	
Max. instantaneous power consumptio	n <2.5W	<3W	
Environmental			
Operating temperature	-10~+65℃		
Operating humidity	10%~90% Relative humidity, no condensation		
Storage temperature	-40~+85℃		
Storage humidity	<40%		
Protection class	IP21		
Physical			
Dimension (L*W*H)	110mm*86mm*26mm		
Weight	108g	102g	
Other			
- Carlot			
Warranty	5 years		
Certificates	FCC, CE, RoHS		

Wall mounted or horizontal

Installation method

Accessories

# Ginlong Monitoring System DLS-S-WE/DLS-S-G



### Leading Features

#### Data Logging Stick WiFi

- Quick installation and easy operation
- ► Enabling local and remote monitoring
- ► WiFi communication supporting remote monitoring
- ▶ Easy visualization of data and other information via Internet

#### **Data Logging Stick GPRS**

- ► Quick installation and easy operation
- ► Connecting inverters with 'plug and play' function
- ▶ Easy visualization of data and other information via mobile device
- ▶ GPRS communication enabling mobile monitoring anytime anywhere

General	Data Logging Stick WiFi		Data Logging Stick GPRS
Max. number of inverters		1	
Inverter communication		4Pin	
Remote communication	WiFi (802.11 b/g/n)		GPRS Class 12
Communication rate		9600bps	
WiFi frequency	2.412GHz-2.484GHz		850/900/1800/1900 MHz
GPRS multi-slot			12/10/8
WiFi communication range	100 m in outdoor open area without obstruction		
WiFi transmitting power	802.11b: +20dBm (Max) 802.11g: +18dBm (Max) 802.11n: +15dBm (Max) Configurable by users		
WiFi receiving sensitivity	802.11b: -89dBm 802.11g: -81dBm 802.11n: -71dBm		
GPRS Mobile Station			Class B
Compatible with the GSM Phase 2/2 +			Class 4 (2W @ 850/900 MHz) Class 1 (1W @ 1800/1900 MHz)
External antenna	I-PEX antenna		I-PEX connecter
Data collection intervals	5 minutes		
Data interface		UART: 9600bps	
Preferences setting	Web server		
Firmware updates		Wireless	
Data access		Remote server	
Electrical			
Input voltage	DC 5V		DC 5V (+/-5%)
Working current	130mA@5V		30mA~200mA
Static power consumption			<0.5W
Max. instantaneous power consumption	n		<1W
Environmental			
Operating temperature		-10~+85℃	
Operating humidity	10%-90% Relative humidity, no condensation		
Storage temperature	-40~+125℃		
Storage humidity	<40%		
Protection class	IP65		
Physical			
Dimension(L*W*H)	118mm*43mm*43mm		
Weight	56g		
Other			
Warranty	5 years		
Certificates	FCC,CE		
	100,00		



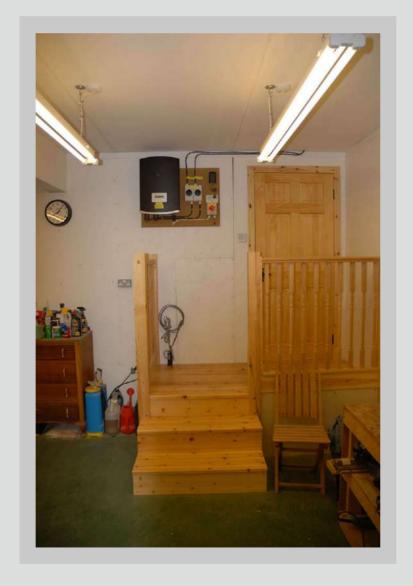
















## Installation Photos













