

# Global string inverter manufacturer



Quality Experience Reliability



**15 years**

Since 2005

**1000+**

Global Employees

**200+**

Technicians

**No.1**

Ginlong is the first inverter manufacturer to complete PVEL's (Formerly part of DNV-GL) 3rd Party Inverter Reliability Testing.



## COMPANY PROFILE

Established in 2005, Ginlong Technologies is one of most experienced and largest manufacturers of solar inverters.

Ginlong's cost-effective solutions for residential, commercial, and utility-scale users deliver value at every level of the solar supply chain, engaging both homeowners and businesses, as well as power producers and renewable energy investors across the globe.

Presented under the Solis brand, the company's solar inverter product line uses innovative string technology to deliver first-class reliability, validated under the most stringent international certifications.

Combining a global supply chain with world-class R&D and manufacturing capabilities, Ginlong optimizes its Solis inverters for each regional market, servicing and supporting its customers with its team of local experts.

Proven bankability has attracted support from world leading financial institutions, ensuring solid long-term returns on investment. Working with stakeholders to accelerate the worlds journey towards a more sustainable future.

Ginlong is the first and only publicly traded company with a primary focus on string inverter (Stock Code: 300763.SZ).

**99.1%**

Efficiency

**15 GW+**

Global Installation

**100+**

Countries with Solis Installations

**No.3**

Solis Ranked Third Among Asian Brands by BloombergNEF's Inverter Bankability.



 solis

POWER    WARNING    ALARM



E-STOP    UP    DOWN    ENTER

# Company Milestones

2005	Ginlong Technologies established in Ningbo, China
2006	Second inverter certified to UK G83 certification
2009	First Asian inverter to achieve USA UL1741 certification
2009	First string inverter manufacturer to pass DNV-GL's PVEL reliability tests
2010	Second Asian inverter certified to AS4777/AS 3100
2013	Ginlong hosted IEC61400 second annual meeting
2015	Ginlong inverter installed on the famed Eiffel Tower in Paris
2015	Achieved top 12 inverter sales ranking in Europe
2016	Listed by Asia PV innovation
2016	Awarded Best Distribution Inverter Brand by PVBL
2016	Certified to ISO 9001:2015 Standard
2016	Certified to ISO 14001:2015 Standard
2015 & 2016	Earned third place ranking in China PV string inverter brand value
2017	Certified to OHSAS 18001:2007 Standard
2017	Three-phase string inverters ranked 4th in global market shares (GTM)
2016 & 2017	Single-phase string inverters ranked 5th in global market share (GTM)
2018	Single phase string inverter ranked 2nd in global market share (GTM)
2017 & 2018	Granted prestigious APVIA Technology Achievement Award
2016, 2017 & 2018	Energy storage hybrid inverters ranked 3rd in Chinese market
2015, 2016, 2017 & 2018	Earned first place ranking in UK distribution PV inverter market
2016, 2017, 2018 & 2019	Awarded Top Brand PV inverters by EuPD Research
2019	Ginlong (Solis) listed as a Public Company
2019	Ginlong (Solis) Ranked Third among Asian Brands by BloombergNEF Bankability



## Vertically-Integrated Manufacturing



Ginlong's vertically-integrated 5GW+ manufacturing allows end-to-end control through every step of production, from component sourcing to final QC. We manage every aspect of manufacturing with state-of-the-art automation, fastidious inspections and rigorous testing, ensuring industry-leading quality. Our in-house SMT circuit board production is unique in the industry, guaranteeing quality and streamlining product innovation in response to customer needs.

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## Best-in-Class Partners

Capacitors, Inductors



Connectors, Switching Devices



Materials, IC Categories



Power Devices, Sensors



## Global Service Network



### Service Offices

- U.S.A
- Australia
- China
- South Africa
- UK
- Netherlands
- Mexico
- Spain
- India
- Romania
- Brazil

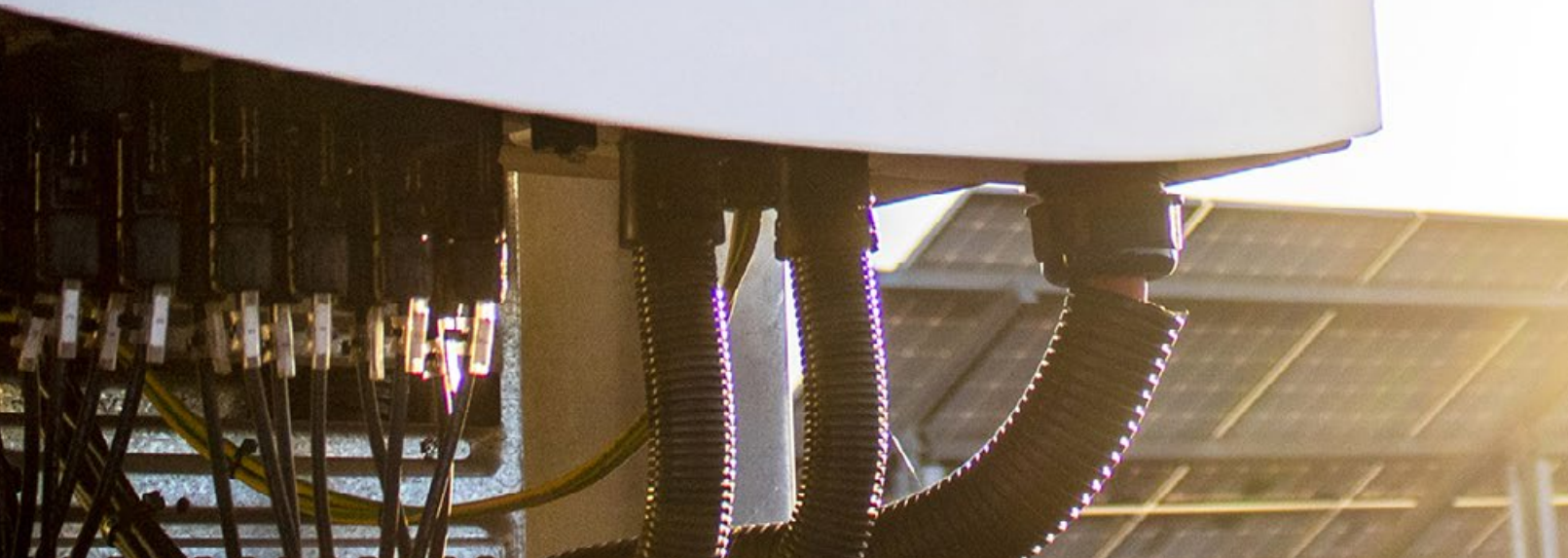
### Expert Local Customer Service

- Unmatched experience across a global service network
  - Reliable service technicians on the phone and in the field
  - Global technical support available
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 solis



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# Solis-mini-(700-3600)-4G

Solis Mini Series Inverters



360 degree

## Features:

- ▶ Over 97.5% Max. efficiency
- ▶ Super high frequency switching technology
- ▶ Wide voltage range and low startup voltage
- ▶ Precise MPPT algorithm
- ▶ Intergrated Export Power Manager (EPM)
- ▶ Compact and lightweight
- ▶ Friendly and adaptable connection to the grid



## Model:

- |                    |                    |
|--------------------|--------------------|
| Solis-mini-700-4G  | Solis-mini-1000-4G |
| Solis-mini-1500-4G | Solis-mini-2000-4G |
| Solis-mini-2500-4G | Solis-mini-3000-4G |
| Solis-mini-3600-4G |                    |

## Datasheet

Model Name	Solis-mini-700-4G	Solis-mini-1000-4G	Solis-mini-1500-4G	Solis-mini-2000-4G	Solis-mini-2500-4G	Solis-mini-3000-4G	Solis-mini-3600-4G
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### Input DC

Recommended max. PV power	0.9kW	1.2kW	1.8kW	2.3kW	3kW	3.5kW	4kW
Max. input voltage	600V						
Rated voltage	200V			330V			
Start-up voltage	60V			90V			
MPPT voltage range	50-500V			80-500V			
Max. input current	11A						19A
Max. short circuit current	17.2A						30A
MPPT number/Max. input strings number	1/1						1/2

### Output AC

Rated output power	0.7kW	1kW	1.5kW	2kW	2.5kW	3kW	3.6kW
Max. apparent output power	0.8kVA	1.1kVA	1.7kVA	2.2kVA	2.8kVA	3.3kVA	3.6kVA
Max. output power	0.8kW	1.1kW	1.7kW	2.2kW	2.8kW	3.3kW	3.6kW
Rated grid voltage	1/N/PE, 220/230V						
Rated grid frequency	50/60Hz						
Rated grid output current	3.2/3.0A	4.5/4.3A	6.8/6.5A	9.1/8.7A	11.4/10.9A	13.6/13A	16A
Max. output current	4.4A	5.2A	8.1A	10.5A	13.3A	15.7A	16A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)						
THDi	<3%						

### Efficiency

Max. efficiency	97.2%			97.5%			
EU efficiency	96.5%			96.8%			

### Protection

DC reverse-polarity protection	Yes						
Short circuit protection	Yes						
Output over current protection	Yes						
Surge protection	Yes						
Grid monitoring	Yes						
Anti-islanding protection	Yes						
Temperature protection	Yes						
Integrated DC switch	Optional						

### General Data

Dimensions (W*H*D)	310*373*160 mm						
Weight	7.4kg				7.7kg		
Topology	Transformerless						
Self consumption	<1W (night)						
Operating ambient temperature range	-25 ~ +60°C						
Relative humidity	0-100%						
Ingress protection	IP65						
Cooling concept	Natural convection						
Max. operation altitude	4000m						
Grid connection standard	VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, G99, EN 50549-1/-2, RD 1699, UNE 206006, UNE 206007-1, IEC 61727						
Safety/EMC standard	IEC 62109-1/-2, IEC 62116, EN 61000-6-1/-2/-3/-4						

### Features

DC connection	MC4 connector						
AC connection	Quick connection plug						
Display	LCD, 2x20 Z						
Communication	RS485, Optional: Wi-Fi, GPRS						

# Solis-1P(2.5-6)K-4G

Solis Single Phase Inverters



360 degree

## Features:

- ▶ Over 98.1% Max. efficiency
- ▶ Super high frequency switching technology
- ▶ Wide voltage range and low startup voltage
- ▶ 2 MPPT design with precise MPPT algorithm
- ▶ Intergrated Export Power Manager (EPM)
- ▶ Compact and lightweight
- ▶ Friendly and adaptable connection to the grid



## Model:

- Solis-1P2.5K-4G
- Solis-1P3.6K-4G
- Solis-1P4.6K-4G
- Solis-1P6K-4G
- Solis-1P3K-4G
- Solis-1P4K-4G
- Solis-1P5K-4G

## Datasheet

Model Name	Solis-1P2.5K-4G	Solis-1P3K-4G	Solis-1P3.6K-4G	Solis-1P4K-4G	Solis-1P4.6K-4G	Solis-1P5K-4G	Solis-1P6K-4G
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### Input DC

Recommended max. PV power	3kW	3.5kW	4.2kW	4.6kW	5.3kW	5.8kW	6.6kW
Max. input voltage	550V	600V					
Rated voltage	250V	330V					
Start-up voltage	60V	120V					
MPPT voltage range	50-450V	90-520V					
Max. input current	11A/11A						
Max. short circuit current	17.2A/17.2A						
MPPT number/Max. input strings number	2/2						

### Output AC

Rated output power	2.5kW	3kW	3.6kW	4kW	4.6kW	5kW	6kW
Max. apparent output power	2.8kVA	3.3kVA	4kVA	4.4kVA	5kVA	5.5kVA	6kVA
Max. output power	2.8kW	3.3kW	4kW	4.4kW	5kW	5.5kW	6kW
Rated grid voltage	1/N/PE, 220/230V						
Rated grid frequency	50/60Hz						
Rated grid output current	11.4A/10.9A	13.6A/13.0A	16.0A/15.7A	18.2A/17.4A	20.9A/20.0A	22.7A/21.7A	27.3A
Max. output current	13.3A	15.7A	16.0A	21.0A	23.8A	25.0A	27.3A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)						
THDi	<3%						

### Efficiency

Max. efficiency	97.8%			98.1%			
EU efficiency	97.1%			97.3%			

### Protection

DC reverse-polarity protection	Yes						
Short circuit protection	Yes						
Output over current protection	Yes						
Surge protection	Yes						
Grid monitoring	Yes						
Anti-islanding protection	Yes						
Temperature protection	Yes						
Integrated DC switch	Optional						

### General Data

Dimensions (W*H*D)	310*543*160 mm						
Weight	11.5kg						
Topology	Transformerless						
Self consumption	<1W (night)						
Operating ambient temperature range	-25 ~ +60°C						
Relative humidity	0-100%						
Ingress protection	IP65						
Cooling concept	Natural convection						
Max. operation altitude	4000m						
Grid connection standard	VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, G99, EN 50549-1/-2, RD 1699, UNE 206006, UNE 206007-1, IEC 61727						
Safety/EMC standard	IEC 62109-1/-2, IEC 62116, EN 61000-6-2/-3						

### Features

DC connection	MC4 connector						
AC connection	Quick connection plug						
Display	LCD, 2×20 Z						
Communication	RS485, Optional: Wi-Fi, GPRS						

# Solis-1P(7-8)K-5G

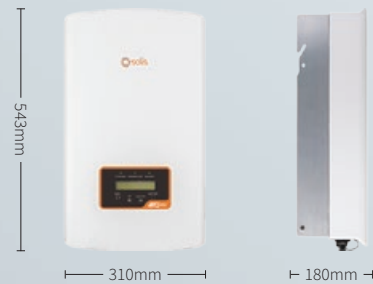
Solis Single Phase Inverters



360 degree

## Features:

- ▶ Over 98.1% Max. efficiency
- ▶ Wide voltage range and low startup voltage
- ▶ 2 MPPT design with precise MPPT algorithm
- ▶ Intergrated Export Power Manager (EPM)
- ▶ Compact and lightweight
- ▶ Friendly and adaptable connection to the grid



## Model:

Solis-1P7K-5G

Solis-1P8K-5G



## Datasheet

Model Name	Solis-1P7K-5G	Solis-1P8K-5G
<b>Input DC</b>		
Recommended max. PV power	9.1kW	10.4kW
Max. input voltage	600V	
Rated voltage	330V	
Start-up voltage	120V	
MPPT voltage range	90-520V	
Max. input current	12.5A/25A	
Max. short circuit current	19.5A/39A	
MPPT number/Max. input strings number	2/3	
<b>Output AC</b>		
Rated output power	7kW	8kW
Max. apparent output power	7.7kVA	8kVA
Max. output power	7.7kW	8kW
Rated grid voltage	1/N/PE, 220/230V	
Rated grid frequency	50/60Hz	
Rated grid output current	30.4A	34.8A
Max. output current	33.5A	34.8A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)	
THDi	<3%	
<b>Efficiency</b>		
Max. efficiency	98.1%	
EU efficiency	97.3%	
<b>Protection</b>		
DC reverse-polarity protection	Yes	
Short circuit protection	Yes	
Output over current protection	Yes	
Surge protection	Yes	
Grid monitoring	Yes	
Anti-islanding protection	Yes	
Temperature protection	Yes	
Integrated DC switch	Optional	
<b>General Data</b>		
Dimensions (W*H*D)	310*543*180 mm	
Weight	13.3kg	
Topology	Transformerless	
Self consumption	<1W (night)	
Operating ambient temperature range	-25 ~ +60°C	
Relative humidity	0-100%	
Ingress protection	IP65	
Cooling concept	Natural convection	
Max. operation altitude	4000m	
Grid connection standard	VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, G99, EN 50549-1/-2, RD 1699, UNE 206006, UNE 206007-1, IEC 61727	
Safety/EMC standard	IEC 62109-1/-2, IEC 62116, EN 61000-6-1/-2/-3/-4	
<b>Features</b>		
DC connection	MC4 connector	
AC connection	Quick connection plug	
Display	LCD, 2×20 Z	
Communication	RS485, Optional: Wi-Fi, GPRS	

# Solis-3P(5-10)K-4G-LV

Solis Three Phase Inverters



360 degree

## Features:

- ▶ Over 98% Max. efficiency
- ▶ Wide voltage range and low startup voltage
- ▶ 2 MPPT design with precise MPPT algorithm
- ▶ THDi<1.5%, low harmonic distortion against grid
- ▶ Multiple protections levels
- ▶ Intergrated Export Power Manager (EPM)



## Model:

220V: Solis-3P5K-4G-LV  
Solis-3P10K-4G-LV

Solis-3P6K-4G-LV

## Datasheet

Model Name	Solis-3P5K-4G-LV	Solis-3P6K-4G-LV	Solis-3P10K-4G-LV
<b>Input DC</b>			
Recommended max. PV power	6kW	7.2kW	12kW
Max. input voltage	1000V		
Rated voltage	330V		
Start-up voltage	180V		
MPPT voltage range	160-500V		
Max. input current	11A/11A		22A/22A
Max. short circuit current	17.2A/17.2A		34.3A/34.3A
MPPT number/Max. input strings number	2/2		2/4
<b>Output AC</b>			
Rated output power	5kW	6kW	10kW
Max. apparent output power	5.5kVA	6.6kVA	11kVA
Max. output power	5.5kW	6.6kW	11kW
Rated grid voltage	3/PE, 208/220/240V		
Rated grid frequency	50/60Hz		
Rated grid output current	13.1A	15.7A	26.2A
Max. output current	14.4A	16.7A	28.8A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)		
THDi	<1.5%		
<b>Efficiency</b>			
Max. efficiency	98.0%		
EU efficiency	97.5%		
<b>Protection</b>			
DC reverse-polarity protection	Yes		
Short circuit protection	Yes		
Output over current protection	Yes		
Surge protection	Yes		
Grid monitoring	Yes		
Anti-islanding protection	Yes		
Temperature protection	Yes		
Integrated DC switch	Optional		
<b>General Data</b>			
Dimensions (W*H*D)	310*563*219 mm		
Weight	18kg	19.8kg	
Topology	Transformerless		
Self consumption	<1W (night)		
Operating ambient temperature range	-25 ~ +60°C		
Relative humidity	0-100%		
Ingress protection	IP65		
Cooling concept	Natural convection	Intelligent redundant fan-cooling	
Max. operation altitude	4000m		
Grid connection standard	VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, EN 50549-1/-2, RD 1699, UL1741, UL1741SA, IEE 1547		
Safety/EMC standard	IEC 62109-1/-2, IEC 62116, EN 61000-6-1/-2/-3/-4		
<b>Features</b>			
DC connection	MC4 connector		
AC connection	Quick connection plug		
Display	LCD, 2x20 Z		
Communication	RS485, Optional: Wi-Fi, GPRS		

# Solis-3P(3-20)K-4G

Solis Three Phase Inverters



360 degree

## Features:

- ▶ Over 98.7% Max. efficiency
- ▶ Wide voltage range and low startup voltage
- ▶ 2 MPPT design with precise MPPT algorithm
- ▶ THDi<1.5%, low harmonic distortion against grid
- ▶ Multiple protections levels
- ▶ Intergrated Export Power Manager (EPM)



## Model:

- |                |                |                |
|----------------|----------------|----------------|
| Solis-3P3K-4G  | Solis-3P4K-4G  | Solis-3P5K-4G  |
| Solis-3P6K-4G  | Solis-3P8K-4G  | Solis-3P9K-4G  |
| Solis-3P10K-4G | Solis-3P12K-4G | Solis-3P15K-4G |
| Solis-3P17K-4G | Solis-3P20K-4G |                |

## Datasheet

Model Name	Solis-3P3K-4G	Solis-3P4K-4G	Solis-3P5K-4G	Solis-3P6K-4G	Solis-3P8K-4G	Solis-3P9K-4G	Solis-3P10K-4G	Solis-3P12K-4G	Solis-3P15K-4G	Solis-3P17K-4G	Solis-3P20K-4G
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### Input DC

Recommended max. PV power	3.6kW	4.8kW	6kW	7.2kW	9.6kW	10.8kW	12kW	14.5kW	18kW	20.4kW	24kW
Max. input voltage	1000V										
Rated voltage	600V										
Start-up voltage	180V										
MPPT voltage range	160-850V										
Max. input current	11A/11A						22A/22A				
Max. short circuit current	17.2A/17.2A						34.3A/34.3A				
MPPT number/Max. input strings number	2/2						2/4				

### Output AC

Rated output power	3kW	4kW	5kW	6kW	8kW	9kW	10kW	12kW	15kW	17kW	20kW
Max. apparent output power	3.3kVA	4.4kVA	5.5kVA	6.6kVA	8.8kVA	9.9kVA	11kVA	13.2kVA	16.5kVA	18.7kVA	22kVA
Max. output power	3.3kW	4.4kW	5.5kW	6.6kW	8.8kW	9.9kW	11kW	13.2kW	16.5kW	18.7kW	22kW
Rated grid voltage	3/N/PE, 220/380V, 230/400V										
Rated grid frequency	50/60Hz										
Rated grid output current	4.6A/4.3A	6.1A/5.8A	7.6A/7.2A	9.1A/8.7A	12.2A/11.5A	13.7A/13.0A	15.2A/14.4A	18.2A/17.3A	22.8A/21.7A	25.8A/24.6A	30.4A/28.9A
Max. output current	4.7A	6.4A	7.9A	9.5A	12.7A	14.3A	15.9A	19.1A	23.8A	27A	31.8A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)										
THDi	<1.5%										

### Efficiency

Max. efficiency	98.3%						98.7%				
EU efficiency	97.8%						98.1%				

### Protection

DC reverse-polarity protection	Yes										
Short circuit protection	Yes										
Output over current protection	Yes										
Surge protection	Yes										
Grid monitoring	Yes										
Anti-islanding protection	Yes										
Temperature protection	Yes										
Integrated DC switch	Optional										

### General Data

Dimensions (W*H*D)	310*563*219 mm										
Weight	17.3kg				18kg			18.9kg		19.8kg	
Topology	Transformerless										
Self consumption	<1W (night)										
Operating ambient temperature range	-25 ~ +60°C										
Relative humidity	0-100%										
Ingress protection	IP65										
Cooling concept	Natural convection							Intelligent redundant fan-cooling			
Max. operation altitude	4000m										
Grid connection standard	VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, G99, EN 50549-1/-2, RD 1699, UNE 206006, UNE 206007-1, IEC 61727										
Safety/EMC standard	IEC 62109-1/-2, IEC 62116, EN 61000-6-1/-2/-3/-4										

### Features

DC connection	MC4 connector										
AC connection	Quick connection plug										
Display	LCD, 2×20 Z										
Communication	RS485, Optional: Wi-Fi, GPRS										

# Solis-(25-30)K-LV

Solis Three Phase Inverters



360 degree

## Features:

- ▶ Over 97% Max. efficiency
- ▶ Wide voltage range and low startup voltage
- ▶ 2 MPPT input, each rated current is 28.5A, compatible with high power module
- ▶ THDi<3%, low harmonic distortion against grid
- ▶ Anti-resonance, supporting over 6MW paralleled in one transformer
- ▶ Perfect commercial site monitoring solution
- ▶ Intelligent redundant fan-cooling



## Model:

220V: Solis-25K-LV      Solis-30K-LV

## Datasheet

Model Name	Solis-25K-LV	Solis-30K-LV
<b>Input DC</b>		
Recommended max. PV power	30kW	36kW
Max. input voltage	1100V	
Rated voltage	600V	
Start-up voltage	200V	
MPPT voltage range	200-850V	
Max. input current	28.5A/28.5A	
Max. short circuit current	44.5A/44.5A	
MPPT number/Max. input strings number	2/6	
<b>Output AC</b>		
Rated output power	25kW	30kW
Max. apparent output power	25kVA	30kVA
Max. output power	25kW	30kW
Rated grid voltage	3/PE, 220V	
Rated grid frequency	50/60Hz	
Rated grid output current	65.6A	78.8A
Max. output current	65.6A	78.8A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)	
THDi	<3%	
<b>Efficiency</b>		
Max. efficiency	97.0%	
EU efficiency	96.5%	
<b>Protection</b>		
DC reverse-polarity protection	Yes	
Short circuit protection	Yes	
Output over current protection	Yes	
Surge protection	Yes	
Grid monitoring	Yes	
Anti-islanding protection	Yes	
Temperature protection	Yes	
Integrated DC switch	Optional	
<b>General Data</b>		
Dimensions (W*H*D)	630*700*357 mm	
Weight	63kg	
Topology	Transformerless	
Self consumption	<1W (night)	
Operating ambient temperature range	-25 ~ +60°C	
Relative humidity	0-100%	
Ingress protection	IP65	
Cooling concept	Intelligent redundant fan-cooling	
Max. operation altitude	4000m	
Grid connection standard	EN50438, G99, AS4777, VDE0126-1-1, IEC 61727	
Safety/EMC standard	IEC62109-1/-2, AS3100, EN61000-6-1, EN61000-6-3	
<b>Features</b>		
DC connection	MC4 connector	
AC connection	OT terminal	
Display	LCD, 2×20 Z	
Communication	RS485, Optional: Wi-Fi, GPRS	

# Solis-50K, Solis-60K-4G

Solis Three Phase Inverters



360 degree

## Features:

- ▶ Over 99% Max. efficiency
- ▶ Wide voltage range and low startup voltage
- ▶ 4 MPPT input, each rated current is 28.5A, compatible with high power module
- ▶ THDi<3%, low harmonic distortion against grid
- ▶ Anti-resonance, supporting over 6MW paralleled in one transformer
- ▶ Perfect commercial site monitoring solution
- ▶ Intelligent redundant fan-cooling



## Model:

400V: Solis-50K      Solis-60K-4G



## Datasheet

Model Name	Solis-50K	Solis-60K-4G
<b>Input DC</b>		
Recommended max. PV power	60kW	72kW
Max. input voltage	1100V	
Rated voltage	600V	
Start-up voltage	200V	
MPPT voltage range	200-1000V	
Max. input current	4*28.5A	
Max. short circuit current	4*44.5A	
MPPT number/Max. input strings number	4/12	
<b>Output AC</b>		
Rated output power	50kW	60kW
Max. apparent output power	55kVA	66kVA
Max. output power	55kW	66kW
Rated grid voltage	3/N/PE, 220/380V, 230/400V	
Rated grid frequency	50/60Hz	
Rated grid output current	72.2A/76A	86.6A/91.2A
Max. output current	83.3A	100A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)	
THDi	<3%	
<b>Efficiency</b>		
Max. efficiency	98.8%	99.0%
EU efficiency	98.4%	98.5%
<b>Protection</b>		
DC reverse-polarity protection	Yes	
Short circuit protection	Yes	
Output over current protection	Yes	
Surge protection	Yes	
Grid monitoring	Yes	
Anti-islanding protection	Yes	
Temperature protection	Yes	
Strings monitoring	Yes	
Anti-PID function	Optional	
Integrated DC switch	Optional	
<b>General Data</b>		
Dimensions (W*H*D)	630*700*357 mm	
Weight	63kg	
Topology	Transformerless	
Self consumption	<1W (night)	
Operating ambient temperature range	-25 ~ +60°C	
Relative humidity	0-100%	
Ingress protection	IP65	
Cooling concept	Intelligent redundant fan-cooling	
Max. operation altitude	4000m	
Grid connection standard	VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, G99, EN 50549-1/-2, RD 1699, UNE 206006, UNE 206007-1, IEC 61727, DEWA	
Safety/EMC standard	IEC 62109-1/-2, IEC 62116, EN 61000-6-2/-4	
<b>Features</b>		
DC connection	MC4 connector	
AC connection	OT terminal	
Display	LCD, 2x20 Z	
Communication	RS485, Optional: Wi-Fi, GPRS	

# Solis-(25-40)K-5G, Solis-(40-50)K-HV-5G

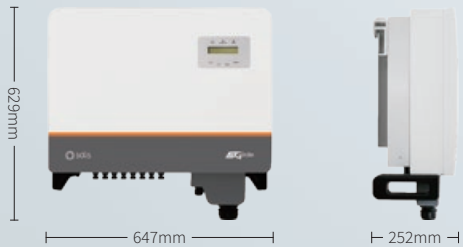
## Solis Three Phase Inverters



360 degree

### Features:

- ▶ Over 98.8% Max. efficiency
- ▶ Wide voltage range and low startup voltage
- ▶ 3/4 MPPT design with precise MPPT algorithm
- ▶ THDi<3%, low harmonic distortion against grid
- ▶ Anti-resonance, supporting over 6MW paralleled in one transformer
- ▶ Perfect commercial site monitoring solution
- ▶ 130% DC overload ratio, 13A input for each PV string
- ▶ Strings intelligent monitoring, Smart I-V Curve Diagnosis supported
- ▶ Fuse free design to avoid fire hazard
- ▶ Type II surge arrester for both DC and AC
- ▶ Natural convection, Fan-less design, longer lifespan
- ▶ Leakage current repression technology
- ▶ Volt-watt work mode integrated
- ▶ DC input reverse alarm
- ▶ Intergrated Export Power Manager (EPM)



### Model:

- |                       |                 |
|-----------------------|-----------------|
| 400V: Solis-25K-5G    | Solis-30K-5G    |
| Solis-33K-5G          | Solis-36K-5G    |
| Solis-40K-5G          |                 |
| 480V: Solis-40K-HV-5G | Solis-50K-HV-5G |

## Datasheet

Model Name	Solis-25K-5G	Solis-30K-5G	Solis-33K-5G	Solis-36K-5G	Solis-40K-5G	Solis-40K-HV-5G	Solis-50K-HV-5G
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### Input DC

Recommended max. PV power	33kW	39kW	43kW	47kW	52kW	52kW	65kW
Max. input voltage	1100V						
Rated voltage	600V						
Start-up voltage	180V						
MPPT voltage range	200-1000V						
Max. input current	26A/26A/26A			4*26A			
Max. short circuit current	40A/40A/40A			4*40A			
MPPT number/Max. input strings number	3/6			4/8			

### Output AC

Rated output power	25kW	30kW	33kW	36kW	40kW	40kW	50kW
Max. apparent output power	27.5kVA	33kVA	36.3kVA	39.6kVA	44kVA	44kVA	55kVA
Max. output power	27.5kW	33kW	36.3kW	39.6kW	44kW	44kW	55kW
Rated grid voltage	3/N/PE, 220/380V, 230/400V					3/PE, 480V	
Rated grid frequency	50/60Hz						
Rated grid output current	38.0A/36.1A	45.6A/43.3A	50.1A/47.6A	54.7A/52.0A	60.8A/57.7A	48.1A	60.1A
Max. output current	41.8A	50.2A	55.1A	60.2A	66.9A	53.0A	66.2A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)						
THDi	<3%						

### Efficiency

Max. efficiency	98.8%						
EU efficiency	98.3%						

### 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						
Anti-PID function	Optional						
Integrated DC switch	Optional						

### General Data

Dimensions (W*H*D)	647*629*252 mm						
Weight	45kg						
Topology	Transformerless						
Self consumption	<1W (night)						
Operating ambient temperature range	-25 ~ +60°C						
Relative humidity	0-100%						
Ingress protection	IP65						
Cooling concept	Natural convection						
Max. operation altitude	4000m						
Grid connection standard	VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, G99, EN 50549-1/-2, IEC61727, DEWA						
Safety/EMC standard	IEC62109-1/-2, EN61000-6-2, EN61000-6-3						

### Features

DC connection	MC4 connector						
AC connection	OT terminal						
Display	LCD, 2x20 Z						
Communication	RS485, Optional: Wi-Fi, GPRS						

# Solis-80K-5G, Solis-100K-HV-5G Solis-110K-BHV-5G

## Solis Three Phase Inverters



### Features:

- ▶ Over 99% Max. efficiency
- ▶ Wide voltage range and low startup voltage
- ▶ 9/10 MPPT design with precise MPPT algorithm
- ▶ THDi<3%, low harmonic distortion against grid
- ▶ Anti-resonance, supporting over 6MW paralleled in one transformer
- ▶ Perfect commercial site monitoring solution
- ▶ Intelligent redundant fan-cooling
- ▶ Strings intelligent monitoring, Smart I-V Curve Diagnosis supported
- ▶ Fuse free design to avoid fire hazard
- ▶ Type II surge arrester for both DC and AC, type I surge arrester optional
- ▶ Leakage current repression technology
- ▶ Volt-watt work mode integrated
- ▶ DC input reverse alarm
- ▶ Optional anti-PID function integrated
- ▶ Integrated DC switches, AC switch optional



### Model:

400V: Solis-80K-5G

480V: Solis-100K-HV-5G

540V: Solis-110K-BHV-5G

## Datasheet

Model Name	Solis-80K-5G	Solis-100K-HV-5G	Solis-110K-BHV-5G
<b>Input DC</b>			
Max. input voltage		1100V	
Rated voltage		600V	
Start-up voltage		195V	
MPPT voltage range		180-1000V	
Max. input current	9*26A		10*26A
Max. short circuit current	9*40A		10*40A
MPPT number/Max. input strings number	9/18		10/20
<b>Output AC</b>			
Rated output power	80kW	100kW	110kW
Max. apparent output power	88kVA	110kVA	121kVA
Max. output power	88kW	110kW	121kW
Rated grid voltage	3/N/PE, 220/380V, 230/400V	3/PE, 480V	3/PE, 540V
Rated grid frequency		50/60Hz	
Rated grid output current	121.6A	120.3A	117.6A
Max. output current	133.7A	132.3A	129.4A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)		
THDi	<3%		
<b>Efficiency</b>			
Max. efficiency	98.7%		99.0%
EU efficiency	98.3%		98.5%
<b>Protection</b>			
DC reverse-polarity protection		Yes	
Short circuit protection		Yes	
Output over current protection		Yes	
Surge protection		DC Type II / AC Type II (AC Type I optional)	
Grid monitoring		Yes	
Anti-islanding protection		Yes	
Strings monitoring		Yes	
I/V Curve scanning		Yes	
Anti-PID function		Optional	
Integrated AFCI (DC arc-fault circuit protection)		Optional	
Integrated DC switch		Yes	
Integrated AC switch		Optional	
<b>General Data</b>			
Dimensions (W*H*D)	1050*567*314.5 mm (with AC switch)		
Weight	82kg		
Topology	Transformerless		
Self consumption	<2W (night)		
Operating ambient temperature range	-25 ~ +60°C		
Relative humidity	0-100%		
Ingress protection	IP66		
Cooling concept	Intelligent redundant fan-cooling		
Max. operation altitude	4000m		
Grid connection standard	VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, G99, EN 50549-1/-2, RD 1699, UNE 206006, UNE 206007-1, IEC 61727, DEWA		
Safety/EMC standard	IEC 62109-1/-2, IEC 62116, EN 61000-6-2/-4		
<b>Features</b>			
DC connection	MC4 connector		
AC connection	OT terminal (max. 185 mm <sup>2</sup> )		
Display	LCD, 2×20 Z		
Communication	RS485, Optional: Wi-Fi, GPRS, PLC		

# Solis-(90-110)K-5G, Solis-125K-HV-5G

## Solis Three Phase Inverters



### Features:

- ▶ Over 99% Max. efficiency
- ▶ Wide voltage range and low startup voltage
- ▶ 10 MPPT design with precise MPPT algorithm
- ▶ THDi<3%, low harmonic distortion against grid
- ▶ Anti-resonance, supporting over 6MW paralleled in one transformer
- ▶ Perfect commercial site monitoring solution
- ▶ Intelligent redundant fan-cooling
- ▶ Strings intelligent monitoring, Smart I-V Curve Diagnosis supported
- ▶ Fuse free design to avoid fire hazard
- ▶ Type II surge arrester for both DC and AC, type I surge arrester optional
- ▶ Leakage current repression technology
- ▶ Volt-watt work mode integrated
- ▶ DC input reverse alarm
- ▶ Optional anti-PID function integrated
- ▶ Integrated DC switches, AC switch optional



### Model:

400V: Solis-90K-5G Solis-100K-5G  
Solis-110K-5G

480V: Solis-125K-HV-5G

## Datasheet

Model Name	Solis-90K-5G	Solis-100K-5G	Solis-110K-5G	Solis-125K-HV-5G
<b>Input DC</b>				
Max. input voltage	1100V			
Rated voltage	600V		720V	
Start-up voltage	195V			
MPPT voltage range	180-1000V			
Max. input current	10*26A			
Max. short circuit current	10*40A			
MPPT number/Max. input strings number	10/20			
<b>Output AC</b>				
Rated output power	90kW	100kW	110kW	125kW
Max. apparent output power	99kVA	110kVA	121kVA	137.5kVA
Max. output power	99kW	110kW	121kW	137.5kW
Rated grid voltage	3/N/PE, 220/380V, 230/400V			3/PE, 480V
Rated grid frequency	50/60Hz			
Rated grid output current	137A	152.0A	167.1A	150.4A
Max. output current	150.4A	167.1A	183.8A	165.4A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)			
THDi	<3%			
<b>Efficiency</b>				
Max. efficiency	98.7%		99.0%	
EU efficiency	98.3%		98.5%	
<b>Protection</b>				
DC reverse-polarity protection	Yes			
Short circuit protection	Yes			
Output over current protection	Yes			
Surge protection	DC Type II / AC Type II (AC Type I optional)			
Grid monitoring	Yes			
Anti-islanding protection	Yes			
Strings monitoring	Yes			
I/V Curve scanning	Yes			
Anti-PID function	Yes			
Integrated DC switch	Yes			
Integrated AC switch	Optional			
<b>General Data</b>				
Dimensions (W*H*D)	1099.5*567*344.5 mm (with AC switch)			
Weight	84kg			
Topology	Transformerless			
Self consumption	<2W (night)			
Operating ambient temperature range	-25 ~ +60°C			
Relative humidity	0-100%			
Ingress protection	IP66			
Cooling concept	Intelligent redundant fan-cooling			
Max. operation altitude	4000m			
Grid connection standard	VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, G99, EN 50549-1/-2, RD 1699, UNE 206006, UNE 206007-1, IEC 61727, DEWA			
Safety/EMC standard	IEC 62109-1/-2, IEC 62116, EN 61000-6-2/-4			
<b>Features</b>				
DC connection	MC4 connector			
AC connection	OT terminal (max. 185 mm <sup>2</sup> )			
Display	LCD, 2×20 Z			
Communication	RS485, Optional: Wi-Fi, GPRS, PLC			

# Solis-125K-EHV-5G

Solis Three Phase Inverters



## Features:

- ▶ Over 99.1% Max. efficiency
- ▶ Strings intelligent monitoring, Smart I-V Curve Diagnosis supported
- ▶ Anti-resonance, supporting over 6MW paralleled in one transformer
- ▶ 150% DC overload ratio, maximum 20 strings input
- ▶ Type II surge arrester for both DC and AC, type I surge arrester optional
- ▶ DC input reverse alarm
- ▶ Optional anti-PID function integrated
- ▶ Leakage current repression technology
- ▶ Integrated AC & DC disconnect switches



## Model:

600V: Solis-125K-EHV-5G



## Datasheet

Model Name	Solis-125K-EHV-5G
<b>Input DC</b>	
Max. input voltage	1500V
Rated voltage	950V
Start-up voltage	900V
MPPT voltage range	860-1450V
Max. input current	150A
Max. short circuit current	300A
MPPT number/Max. input strings number	1/20
<b>Output AC</b>	
Rated output power	125kW
Max. apparent output power	125kVA
Max. output power	125kW
Rated grid voltage	3/PE, 600V
Rated grid frequency	50/60Hz
Rated grid output current	120A
Max. output current	120A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)
THDi	<3%
<b>Efficiency</b>	
Max. efficiency	99.1%
CEC efficiency	98.6%
<b>Protection</b>	
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
DC switch/AC switch	Yes/Yes
DC Fuse	Yes
I/V Curve scanning	Yes
Strings monitoring	Yes
Anti-PID function	Optional
<b>General Data</b>	
Dimensions (W*H*D)	1178*713.5*315 mm
Weight	84kg
Topology	Transformerless
Self consumption (night)	<3W (without anti-PID)
Operating ambient temperature range	-25 ~ +60°C
Relative humidity	0-100%
Ingress protection	IP65
Cooling concept	Intelligent redundant fan-cooling
Max. operation altitude	4000m
Grid connection standard	G98, G99, EN 50549-1/-2, IEC 61727
Safety/EMC standard	IEC 62109-1/-2, IEC 62116, EN 61000-6-2/-4
<b>Features</b>	
DC connection	MC4 connector
AC connection	OT terminal (max. 185 mm <sup>2</sup> )
Display	LCD, 2×20 Z
Communication	RS485, Optional: Ethernet, Wi-Fi, GPRS

# Solis-250K-EHV-5G

Solis Three Phase Inverters



## Features:

- ▶ Over 99% Max. efficiency
- ▶ Maximum 28-string input, support "Y" type connection in DC side
- ▶ Maximum string input current 13A, support bifacial modules access
- ▶ Supports anti-PID function to improve system efficiency
- ▶ IP66 protection level, intelligent redundant air cooling design
- ▶ PLC/RS-485 multiple communication modes, flexible monitoring
- ▶ High-precision intelligent strings monitoring reduces fault location time



## Model:

800V: Solis-250K-EHV-5G

## Datasheet

Model Name	Solis-250K-EHV-5G
<b>Input DC</b>	
Max. input voltage	1500V
Rated voltage	1080V
Start-up voltage	620V
MPPT voltage range	600-1500V
Max. input current	14*26A
Max. short circuit current	14*40A
MPPT number/Max. input strings number	14/28
<b>Output AC</b>	
Rated output power	250kVA@30°C / 230kVA@40°C / 205kVA@50°C
Rated grid voltage	3/PE, 800 V
Grid voltage range	640-920 V
Rated grid frequency	50/60Hz
Max. output current	180.4 A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)
THDi	<3%
<b>Efficiency</b>	
Max. efficiency	99.0%
EU efficiency	98.5%
<b>Protection</b>	
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
Anti-PID function	Optional
Integrated AFCI	Optional
Integrated DC switch	Yes
<b>General Data</b>	
Dimensions (W*H*D)	1125*720*382 mm (Reference)
Weight	105kg (Reference)
Topology	Transformerless
Self consumption	<2W (Night)
Operating ambient temperature range	-25 ~ +60°C
Relative humidity	0-100%
Ingress protection	IP66
Cooling concept	Intelligent redundant fan-cooling
Max. operation altitude	4000m
Grid connection standard	EN50549, G99, AS4777.2, VDE0126-1-1, IEC62727, VDE4105
Safety/EMC standard	IEC62109-1/-2, EN61000-6-2/-3
<b>Features</b>	
DC connection	MC4 connector
AC connection	OT Terminal (max. 300 mm <sup>2</sup> )
Display	LCD, 2×20 Z
Communication	RS485, Optional: PLC

# RHI-(3-6)K-48ES-5G

## Solis Energy Storage Inverters



360 degree

### Features:

- ▶ Uninterrupted power supply, 20ms reaction
- ▶ 5kW backup power to support more important loads
- ▶ With shifting and peak shaving capabilities friendly to grid
- ▶ Multiple working modes to make maximize self-consumption, increase benefit
- ▶ Higher charge-discharge efficiency, improving the economic benefits
- ▶ Compatible with lithium & lead-acid batteries, increased more choice in different markets
- ▶ Fanless design, long lifespan
- ▶ Intelligent BMS function, improving battery's reliability
- ▶ With high-frequency isolation technology, making system safer and long lifespan
- ▶ 24-hour fully intelligent energy management, Real-time grasp of PV plant status
- ▶ Remotely control & upgrade function, making digital power plant maintenance at your fingertips



### Model:

- |                  |                  |
|------------------|------------------|
| RHI-3K-48ES-5G   | RHI-3.6K-48ES-5G |
| RHI-4.6K-48ES-5G | RHI-5K-48ES-5G   |
| RHI-6K-48ES-5G   |                  |

## Datasheet

Model Name	RHI-3K-48ES-5G	RHI-3.6K-48ES-5G	RHI-4.6K-48ES-5G	RHI-5K-48ES-5G	RHI-6K-48ES-5G
<b>Input DC(PV side)</b>					
Recommended max. PV power	7kW	7kW	8kW	8kW	8kW
Max. input voltage	600V				
Rated voltage	330V				
Start-up voltage	120V				
MPPT voltage range	90-520V				
Max. input current	11A/11A				
Max. short circuit current	17.2A/17.2A				
MPPT number/Max. input strings number	2/2				
<b>Battery</b>					
Battery type	Li-ion/Lead-acid				
Battery voltage range	42 - 58V				
Battery capacity	50 - 2000Ah				
Max. charging power	3kW		5kW		
Max. charge/discharge current	62.5A/62.5A		100A/100A		
Communication	CAN/RS485				
<b>Output AC(Back-up)</b>					
Rated output power	3kW		5kW		
Max. apparent output power	4kVA		6kVA		
Back-up switch time	<20ms				
Rated output voltage	1/N/PE, 220/230V				
Rated frequency	50/60Hz				
Rated output current	13A		22A		
THDv	2% (linear load)				
<b>Output AC(Grid side)</b>					
Rated output power	3kW	3.6kW	4.6kW	5kW	6kW
Max. apparent output power	3.3kVA	4kVA	4.6kVA	5.5kVA	6kVA
Rated grid voltage	1/N/PE, 220/230V				
Rated grid frequency	50/60Hz				
Rated grid output current	13A	15.7A	20.9A	21.7A	26.1A
Max. output current	15.7A	17.3A	23A	23.9A	26.1A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)				
THDi	<2%				
<b>Efficiency</b>					
Max. efficiency	>97.5%				
EU efficiency	>96.8%				
<b>Protection</b>					
Ground fault monitoring	Yes				
Integrated AFCI (DC arc-fault circuit protection)	Optional				
DC reverse-polarity protection	Yes				
Protection class/Over voltage category	I/II				
<b>General Data</b>					
Dimensions (W*H*D)	333*505*249 mm				
Weight	17kg				
Topology	High frequency isolation (for battery)				
Operating ambient temperature range	-25 ~ +60°C				
Ingress protecton/ Pollution degree	IP65/ PD3				
Cooling concept	Natural convection				
Max. operation altitude	2000m				
Grid connection standard	EN50438, G98, G99, AS4777.2:2015, VDE0126-1-1, IEC 61727, VDE N4105, CEI 0-21,CE				
Safety/EMC standard	IEC62040-1, IEC62109-1/-2, AS3100, NB/T 32004, EN61000-6-2, EN61000-6-3				
<b>Features</b>					
DC connection	MC4 connector				
AC connection	Quick connection plug				
Display	7.0"LCD color screen display				
Communication	RS485, Optional: Wi-Fi, GPRS				

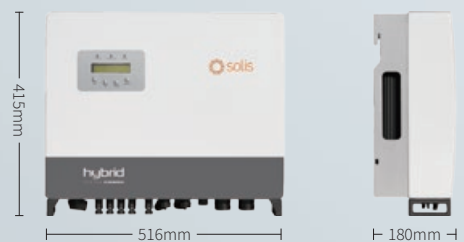
# RHI-3P(5-10)K-HVES-5G

## Solis Energy Storage Inverters



### Features:

- ▶ Uninterrupted power supply, 10ms connection
- ▶ UPS ensures AC backup for up to 6kW of continuous power and 7kVA of peak power
- ▶ 3 operating modes (self-consumption; time-of-use; off-grid back-up) & programmable energy management to make maximizes self-consumption
- ▶ Optional 24-hour load consumption monitoring solution
- ▶ Remotely control and upgrade any selected inverter, making digital power plant maintenance at your fingertips
- ▶ Optional arc fault circuit interrupter(AFCI) function



### Model:

RHI-3P5K-HVES-5G

RHI-3P6K-HVES-5G

RHI-3P8K-HVES-5G

RHI-3P10K-HVES-5G

## Datasheet

Model Name	RHI-3P5K-HVES-5G	RHI-3P6K-HVES-5G	RHI-3P8K-HVES-5G	RHI-3P10K-HVES-5G
<b>Input DC(PV side)</b>				
Recommended max. PV power	6.5kW	7.8kW	10.4kW	13kW
Max. input voltage	1000V			
Rated voltage	600V			
Start-up voltage	160V			
MPPT voltage range	160-850V			
Max. input current	13A/13A		26A/13A	26A/26A
Max. short circuit current	19.5A/19.5A		39A/19.5A	39A/39A
MPPT number/Max. input strings number	2/2		2/3	2/4
<b>Battery</b>				
Battery type	Li-ion			
Communication interface	CAN/RS485			
Battery voltage range	160-600 V			
Max. charge / discharge power	5kW	6kW	8kW	10kW
Max. charge / discharge current	30A			
<b>Output AC (Grid side)</b>				
Rated output power	5kW	6kW	8kW	10kW
Max. output power	5kW	6kW	8kW	10kW
Rated grid voltage	3/N/PE, 220/380V, 230/400V			
Rated grid frequency	50/60Hz			
Rated grid output current	7.6A/7.2A	9.1A/8.7A	12.2A/11.5A	15.2A/14.4A
Max. output current	8.4A	10A	13.4A	16.7A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)			
THDi	<2%			
<b>Output AC (Back-up)</b>				
Rated output power	5kW	6kW	8kW	10kW
Max. apparent output power	5kW	6kW	8kW	10kW
Peak apparent output power	10kW, 60sec	12kW, 60sec	16kW, 60sec	16kW, 60sec
Back-up switch time	<10ms			
Rated output voltage	3/N/PE, 220/380V, 230/400V			
Rated frequency	50/60Hz			
Rated output current	7.6A/7.2A	9.1A/8.7A	12.2A/11.5A	15.2A/14.4A
Max. output current	8.4A	10A	13.4A	16.7A
THDi	<2%			
<b>Efficiency</b>				
Max. efficiency	98.4%			
EU efficiency	97.7%			
MPPT efficiency	99.9%			
Battery charge/discharge efficiency	97.5%			
<b>Protection</b>				
Anti-islanding protection	Yes			
Output over current protection	Yes			
Output short protection	Yes			
DC switch	Yes			
DC reverse-polarity protection	Yes			
PV over voltage protection	Yes			
Battery reverse protection	Yes			
<b>General Data</b>				
Dimensions (W*H*D)	516*415*180 mm			
Weight	24kg (Reference)			
Topology	Transformerless			
Self consumption	<7W (night)			
Operating ambient temperature range	-25 ~ +60°C			
Relative humidity	0-100%			
Ingress protection	IP65			
Cooling concept	Natural convection			
Max. operation altitude	4000m			
Grid connection standard	VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, G99, EN 50549-1/-2, RD 1699, UNE 206006, UNE 206007-1, CEI 0-21			
Safety/EMC standard	IEC 62109-1/-2, EN 61000-6-2/-3			
<b>Features</b>				
DC connection	MC4 connector			
AC connection	Quick connection plug			
Display	LCD, 2×20 Z			
Communication	RS485, Optional: Wi-Fi, GPRS			

# RAI-3K-48ES-5G

Solis Energy Storage Inverters



360 degree

## Features:

- ▶ Compatible with any existing grid-tied PV system, option to upgrade
- ▶ Compatible with both lead-acid battery and li-ion battery
- ▶ Off-grid backup function
- ▶ EPS function
- ▶ Intelligent EMS function
- ▶ Intelligent debugging APP which support one-click inverter configuration
- ▶ CAN, RS485 (Optional)
- ▶ Various work mode for different application scenario
- ▶ Natural cooling without external fan



## Model:

RAI-3K-48ES-5G



## Datasheet

Model Name	RAI-3K-48ES-5G
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### Output AC (Grid side)

Rated output power	3000W
Max. apparent output power	1.5*Prated, 10s;1.2*Prated, 30s
Operation phase	1/N/PE
Rated grid voltage	230V
Rated grid frequency	50/60Hz
Rated grid output current	13A
Power Factor	>0.99 (0.8 leading - 0.8 lagging)
THDi	<3%

### Battery

Battery type	Li-ion/Lead-acid
Battery voltage range	40-60V
Battery capacity	50-2000Ah
Max. charging power	3000W
Max. charge/discharge current	60A/60A
Communication	CAN/RS485

### Output AC (Back-up)

Rated output power	3000W (Requires battery voltage higher than 55V)
Max. apparent output power	4500VA
Back-up switch time	<3s
Rated output voltage	1/N/PE, 220/230V
Rated frequency	50/60Hz
Rated output current	13A
THDv	<3% (linear load)

### Efficiency

Max. battery charge efficiency	94.0%
Max. battery discharge efficiency	94.5%

### Protection

Battery reverse protection	Yes
Battery over and under voltage protection	Yes
Short circuit protection	Yes
Output over current protection	Yes
Temperature protection	Yes

### General Data

Dimensions (W*H*D)	403*525*170 mm
Weight	15kg
Topology	High frequency isolation
Operating ambient temperature range	-25 ~ +60°C
Ingress protection	IP65
Cooling concept	Natural convection
Max. operation altitude	2000m
Grid connection standard	VDE-AR-N 4105, VDE V 0124, VDE V 0126-1-1, UTE C15-712-1, NRS 097-1-2, G98, EN 50549-1/-2, RD 1699, UNE 206006, UNE 206007-1, CEI 0-21
Safety/EMC standard	IEC 62477-1/-2, EN 61000-6-1/-2/-3/-4

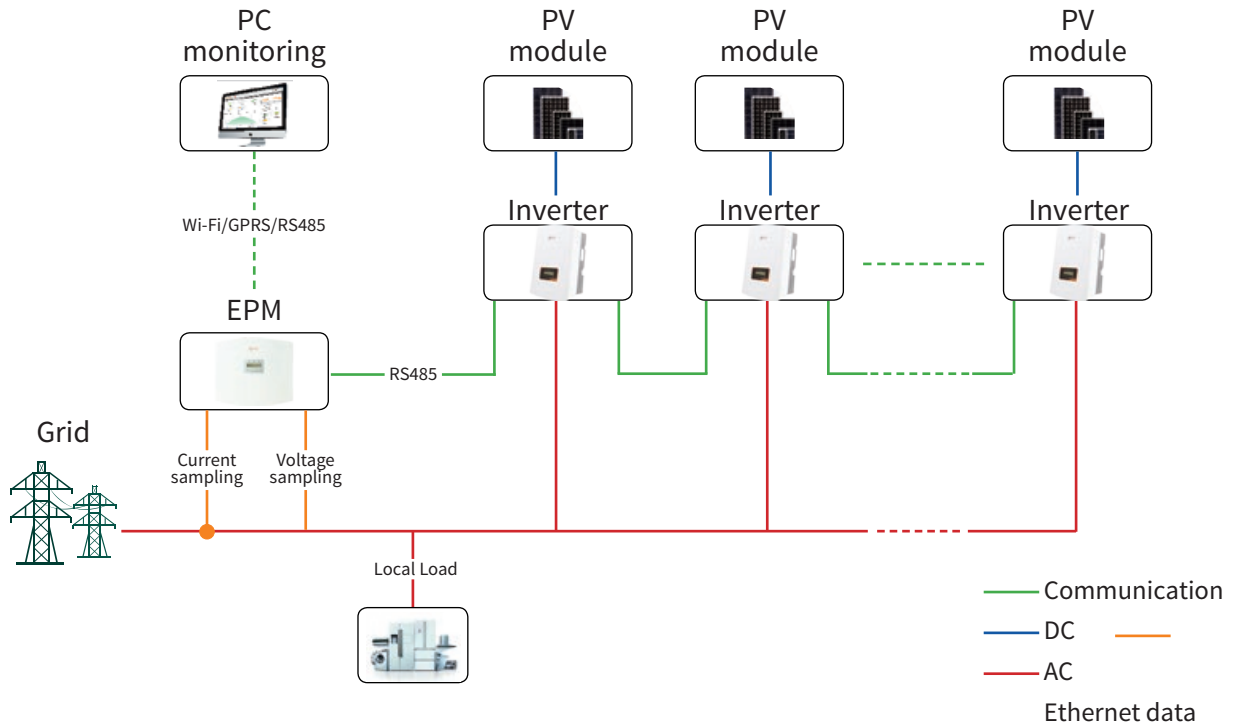
### Features

DC connection	MC4 connector
AC connection	Screw clamp terminal (max. 6 mm <sup>2</sup> )
Display	LCD, 2×20 Z
Communication	RS485, CAN, Optional: Wi-Fi, GPRS

# Accessories

## Solis Export Power Manager

### Solis Export Power Manager



#### Smart & strong

- ▶ Simultaneous control of 80 X Solis inverters
- ▶ Realizing reactive compensation of the system, which ensure the power factor of the system is up to standard

#### Saving & high precision

- ▶ Simultaneously monitor the operating data of the 80 X Solis inverter, saving the cost of the monitoring system
- ▶ The control accuracy is up to 3%, which improves the system's spontaneous use rate

#### Friendly & compatible

- ▶ Supports simultaneous access of Solis inverters with different powers
- ▶ Monitor power generation and load consumption at all times

## Datasheet

Model Name	Solis-EPM1-5G	Solis-EPM3-5G	Solis-EPM3-5G-PLUS
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### Input AC

Rated voltage	230V, 1/N/PE	400V, 3/N/PE or 3/PE	400V, 3/N/PE
Input voltage range	L to N: 100~277 V		L to L: 320~480V
Input frequency range	45~65Hz		
Input current	5A		

### Communication

Inverter communication	Modbus RS485		
Communication interface	RS485*2		RS485*2, LAN*1
Maximum communication inverter numbers	10	10	80(1)
Maximum communication distance	1000 m		
Monitoring	Wi-Fi stick or GPRS stick for single inverter connection Wi-Fi box or GPRS box for 2~10 inverters connection		Wi-Fi box (Built in)

### General Data

Ambient temperature	-25 ~ +60°C		
Relative humidity	5%~95%		
Ingress protection	IP65		
Self consumption	<5W		<15W
Dimensions (W*H*D)	364*276*114 mm		488*446*149 mm
Weight	2.1kg		5.4kg
AC connection	Quick connection terminal		
CT connection	Plug terminal		
Display	LCD, 2*20 Z		

### Features

Failsafe function	Yes		
Remote upgraded	Yes		
CT specification	Optional (1 for single phase, 3 for Three phase)		
Control time	5 s		
Power Accuracy	3%		

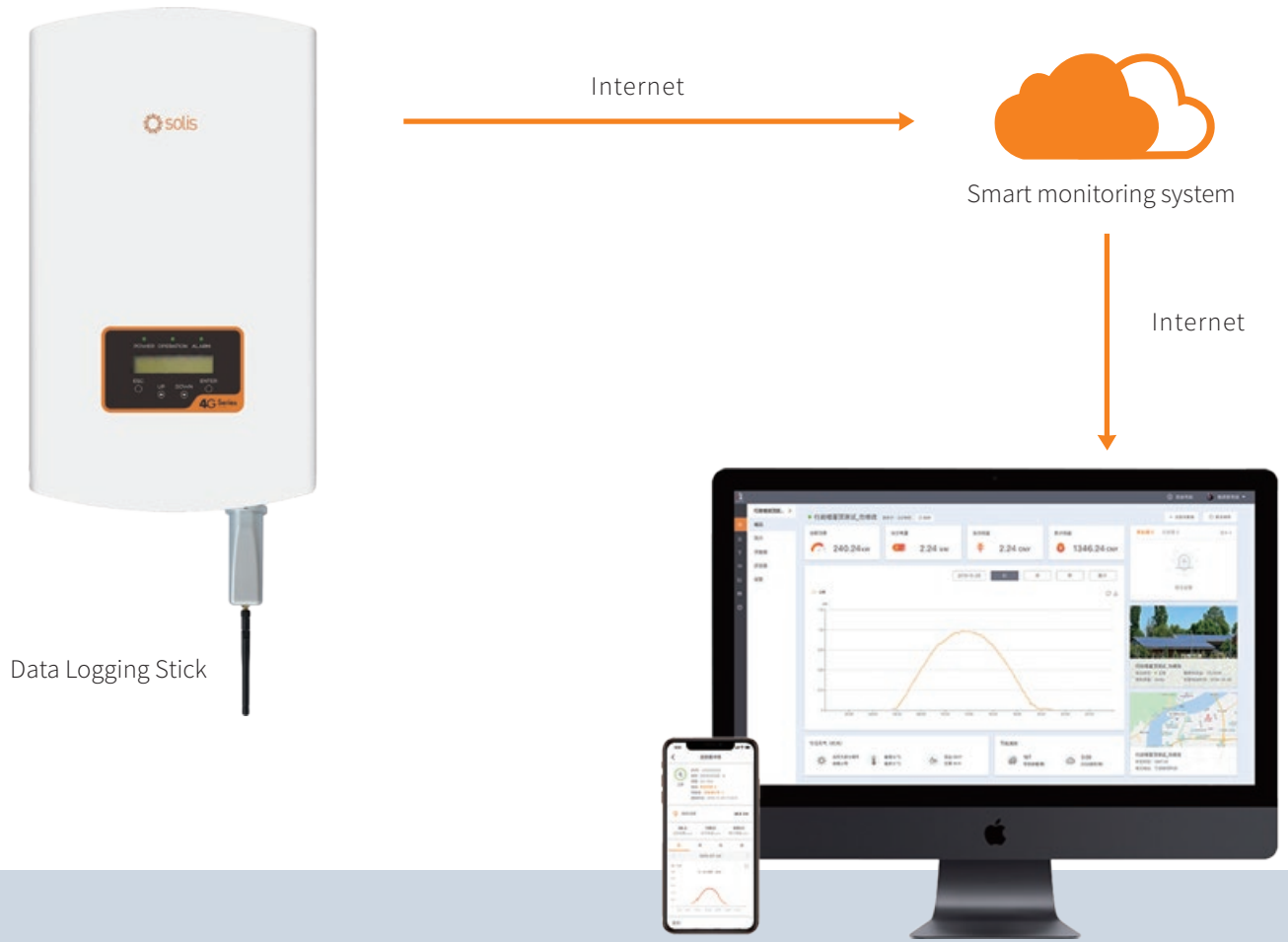
### CT specification

Specification	Dimensions(mm)			Hole size(mm)		Ratio
	W	H	D	a	e	
CT-30×20-100A	90	114	40	22	32	100:5A
CT-60×40-300A	114	140	36	42	62	300:5A
CT-80×40-600A	122	162	40	42	82	600:5A
CT-80×40-1000A	122	162	40	42	82	1000:5A
CT-160×80-2000A	184	254	52	82	162	2000:5A
CT-160×80-3000A	184	254	52	82	162	3000:5A

# Accessories

## Solis Data Logging Stick

### Ginlong Monitoring System



Data Logging Stick

#### Data Logging Stick: Wi-Fi

Quick installation and easy operation enabling local and remote monitoring  
 Mobile APP installation for Android and IOS  
 Flexible outdoor rated Wi-Fi connection

#### Data Logging Stick: LAN

Quick installation and easy operation  
 Plug and play functionality  
 Stable and reliable LAN connection

#### 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



Data Logging Stick  
Wi-Fi



Data Logging Stick  
LAN



Data Logging Stick  
GPRS

## Datasheet

Model Name	DLS-W(Wi-Fi)	DLS-L(LAN)	DLS-G(GPRS)
Max. number of inverters	1		
Inverter communication	4pin		
Remote communication	Wi-Fi (802.11 b/g/n)	Ethernet 10/100Mbps	GPRS Class 12
Communication rate	9600 bps (adjustable:1200-57600 bps)		
Frequency	2.412GHz-2.484GHz	/	850/900/1800/1900 MHz
Wi-Fi communication range	100m in outdoor open area without obstruction	/	/
LAN communication range	/	50m (CAT-5e Shielded Twisted Pair)	/
Wi-Fi transmitting power	802.11b: +20dBm (Max) 802.11g: +18dBm (Max) 802.11n: +15dBm (Max) Configurable by users	/	/
Wi-Fi receiving sensitivity	802.11b: -89dBm 802.11g: -81dBm 802.11n: -71dBm	/	/
GPRS Mobile Station	/	/	ClassC
Compatible with the GSM Phase 2/2 +	/	/	Class 4 (2W@850/900MHz) Class 1 (1W@1800/1900MHz)
External antenna	I-PEX antenna	/	I-PEX antenna
Data collection intervals	5 minutes (adjustable: 1-20 minutes)		
Data interface	RS485		
Preferences setting	Web Server		
Firmware updates	Wireless	Ethernet	Wireless
Data access	Wi-Fi point-to-point/Remote server	Remote server	
Data storage	8MBYTE FLASH		

### Electrical

Input voltage	DC 5V	DC 5V (+/-5%)	DC 5V (+/-5%)
Working current	200mA-300mA	110mA-200mA	160mA-500mA
Static power consumption	/	/	<2W
Max. instantaneous power consumption	/	/	<8W

### Environmental

Operating temperature	-10 ~ +85°C	-10 ~ +85°C	-10 ~ +85°C
Operating humidity	10%-90% Relative humidity, no condensa		
Storage temperature	-40 ~ +125°C	-40 ~ +125°C	-40 ~ +125°C
Storage humidity	<40%		
Protection class	IP65		

### General Data

Dimensions (L*W*H)	118*43*43 mm	105*43*43 mm	118*43*43 mm
Weight	56g		

### Other

Certificates	FCC, CE		
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# Accessories

## Solis Data Logging Box

### Ginlong Monitoring System



Data Logging Box DLB

#### Data Logging Box: Wi-Fi

- Quick installation and easy operation
- Monitor your system and data anytime via Wi-Fi
- Easy visualization of data and other information via Internet
- Comprehensive analysis in the event of a fault

#### 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

## Datasheet

Model Name	DLB-W(Wi-Fi)	DLB-G(GPRS)
Max. number of inverters	10	
Inverter communication	RS485	
Remote communication	Wi-Fi (802.11 b/g/n)	GPRS
Max. communication range	<1km	
Communication rate	9600bps (adjustable:1200-57600 bps)	
Wi-Fi frequency	2.4GHz	850/900/1800/1900 MHz
Wi-Fi communication range	300m in outdoor open area without obstruction	/
Wi-Fi transmitting power	802.11b/g/n: +20dBm/+18dBm/15dBm (Max)	Class 4 (2W) / Class 1 (1W)
Data collection intervals	5 minutes (adjustable:1-20 minutes)	
Preferences setting	Web server/Serial AT instruction	Serial AT instruction
Firmware updates	Serial/Wireless	
Data access	Serial/Wi-Fi point-to-point/Remote server	Serial/Remote server
Status display	4 LEDs	

### Electrical

Input voltage	DC 5V	
Static power consumption	<1.6W	<2W
Max. instantaneous power consumption	<2.5W	<8W

### Environmental

Operating temperature	-10 ~ +65°C	
Operating humidity	10%-90% Relative humidity, no condensa	
Storage temperature	-40 ~ +65°C	
Storage humidity	<40%	
Protection class	IP21	

### General Data

Dimensions (L*W*H)	110*86*26 mm	
Weight	108g	102g

### Other

Certificates	FCC, CE, RoHS	
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## Case study







Mexico-Tamaulipas Carport, Mexico 5MW



ABP Ipswich, UK 1MW



District 9, Ho Chi Minh City, Vietnam 10kW



JTC Solar Farm, Singapore 5MW



Lumax Industries Ltd, India 750kW



Georgia-Boviet Woodland, U.S.A 1.6MW



Urussanga city Santa Catarina, Brazil 200kW



DEPSA, Mexico 3.4MW



United States Postal Service (USPS) LA P&DC Facility, U.S.A 13MW



New Wigan Bus Station, UK 25kW



Igrejinha, Brazil 6kW



Grundfos Rooftop, UK 123.4kW



Adel Vokes Road, Australia 65.85kW



Monash, Australia 1MW



Teheran, Iran 50kW



Västra Götaland, Sweden 43.31kW



RSWM, India 3.6MW



Valinhos, Brazil 5kW



Brazil 2kW



Jamaica 20kW



Costa Rica 47kW



Joaquim Tavola, Portugal 15kW



Kansas, U.S.A 25kW



California, U.S.A 15kW



Sweden 6kW

Installed On the Eiffel Tower



Shanghai Volkswagen Photovoltaic solar carport, China 55MW



# Case study



Zhejiang Changer, China 13MW



Zhejiang HZW 470kW



Zhejiang HONGXING 380kW



Zhejiang PINGHU Bus Station 472kW



Zhejiang CJYIN 1.02MW



Shenzhen Jiangnan Times Building 600kW



Shandong Rong Xiang 4.2MW



Shandong Guangxin Food 6.06MW



Tyco Electric, Panan Jinhua Zhejiang 1.5MW





Zhejiang-GAOTERUI 260kW



Zhejiang- Wanli Food 800kW



Ninghai AB hall, modern home plaza 1.53MW



Shandong YUELONG 3.5MW



Zhejiang Anboke 2MW



Changzhou Vaillant 2MW



Zhejiang SORJ 3.9MW



Hainan JiuLongGlass 1.7MW



Hebei Zhangjiakou poverty alleviation PV Plant 5.1MW



Liaoning Yingkou Jiuzhai PV plant 20MW



Shanxi Lvliang ZhongYang poverty alleviation PV Plant 10.3MW



Hebei Qinghuangdao poverty alleviation PV Plant 9.7MW



Shandong Leling poverty alleviation PV Plant 50kW



Shanxi Xiyang poverty alleviation PV Plant 7.2MW



Qinghai HuzhuBanyan poverty alleviation PV Plant 2MW



Hebei Qinghuangdao poverty alleviation PV Plant 5MW



Jilin Heishui Fengman poverty alleviation PV Plant 5MW



Beijing Shunzhen Green Harbor's Plant 5.5MW



Jiangxi Ganzhou Hengjiang poverty alleviation PV Plant 8.45MW



Shandong Weifang Linqupoverty alleviation PV Plant 20MW



Hebei Baoding Fuping poverty alleviation PV Plant 6.6MW



Shanxi Xinzhou NingWu poverty alleviation PV Plant 18.11MW



Shanxi Xinzhou FanShi poverty alleviation PV Plant 8MW



Shanxi Yizhou Jingle poverty alleviation PV Plant 36.3MW







Hebei Zhangbei Agricultural-photovoltaic hybrid PV plant 50MW



Shanxi Guangling PV plant 1.47MW



Huaneng Yimin surface mine PV plant 20MW



Jiangxi Ganzhou PV Plant 3.5MW



Inner Mongolia Khobqi Desert 20MW



Zhejiang Hangbu Agricultural-photovoltaic hybrid PV plant 30MW



Hubei Guanyin Agricultural-photovoltaic hybrid PV plant 20MW



Quzhou Qinghu Agricultural-photovoltaic hybrid PV plant 20MW



Zhejiang Jinyun Beitai 21MW



Zhejiang Zhuxi 25MW



Zhejiang Dajie Agricultural-photovoltaic hybrid PV plant 3MW



Zhejiang Longyou Agricultural-photovoltaic hybrid PV plant 25MW



Inner Mongolia Khobqi Desert 336kW



Liaoning Gaizhou Jiuzhai PV plant 20MW



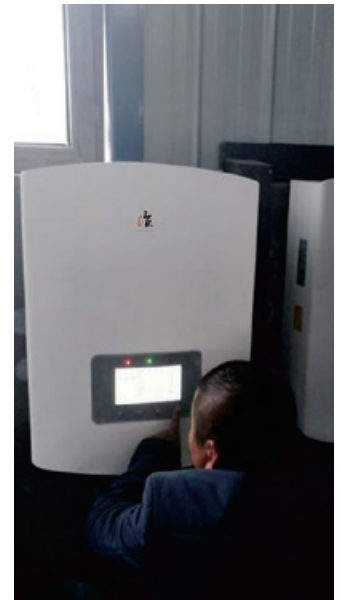
Zhejiang Jiangshan Xintang Reservoir 836kW



Liaoning Jiuzhai Gaizhou PV plant 20MW



Shanxi Lvliang ZhongYang Jiajingtiancheng PV rooftop 450kW



Heilongjiang PV plant





The largest photovoltaic building integration village in Zhejiang Province, China 300kW





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