



GINLONG

No. 57 Jintong Road,

Binhai (Sea front) Industrial Park,

Xiangshan, Ningbo, Zhejiang, 315712, P.R.China

Tel: (+86) 574 6578 1806 Fax: (+86) 574 6578 1606

E-Mail: info@Ginlong.com

## TEST REPORT

**Manufacturer:** Ginlong Technologies Co., Ltd.

**Address:** No.57 jintong Road,Seafrent(Binhai)Industrial park,Xiangshan Demonstration Industrial Estate,Xiangshan,Ningbo,Zhejiang,315712,P.R.China

**Product:** Grid-connected PV inverter

**Model:** S5-GR3P3K; S5-GR3P4K; S5-GR3P5K; S5-GR3P6K; S5-GR3P8K;  
S5-GR3P9K; S5-GR3P10K; S5-GR3P12K; S5-GR3P13K; S5-GR3P15K;  
S5-GR3P17K; S5-GR3P20K;  
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;

**Use in accordance with regulations:**

Technical Guidance for Customer Export Limiting Schemes G100 for photovoltaic systems with a three-phase parallel coupling via an inverter in the public mains supply.

**Applied rules and standards :**

The result according to G100 engineering recommendation.

The safety concept of an aforementioned representative product complies at the time of issue of this certificate of valid safety specifications for the specified use in accordance with G100 recommendations.Compliant with BSEN 61000-3-12

**Certificate Number:** ERD-CR202112002

**Date:** 2021-12-1

**Manufacture Stamp**

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

**Date and place**

Ningbo

2021-12-1

Caojiaqi



GINLONG

No. 57 Jintong Road,

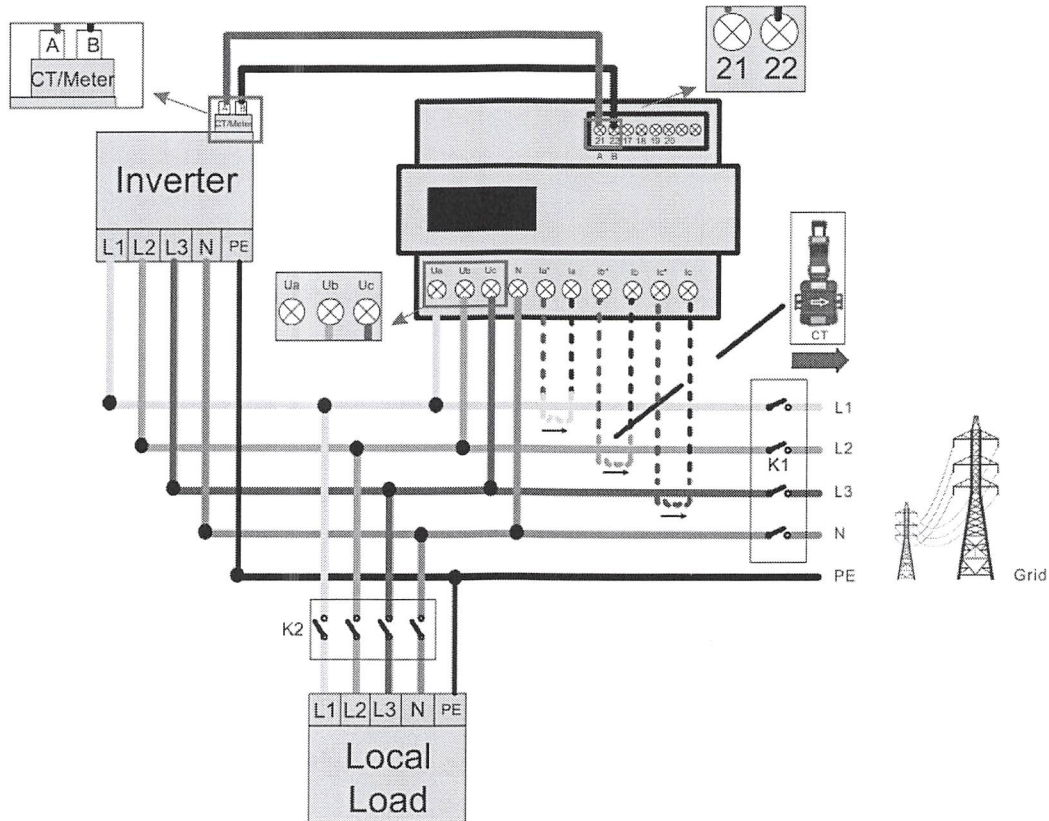
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## System Connecton Diagram



## Setting Protection Test

Requirement	Result	Note
The settings is password protected, and cannot be changed by anyone other than got written agreement of the DNO;	Pass	

## Fail Safe Test

Method: Set 0% export limit, implement the test before start or in running

Criteria: Fall time is less than 5s, the inverter's output active power is less than set limit. After fail safe test, disconnect AC, the reconnect time delay is fault reconnect time.

No	Component	Test	Active Power	Response Time	Fall Time	Reconnect time	Pass /Fail	Comments
1	Remove CT	Remove CT	0W	1.1S	2.24S	32.8	Pass	NA
		Disconnect CT Cable	0W	1.2S	2.53S	32.5	Pass	NA
2	Power	Remove	0W	1.1S	2.28S	33.2	Pass	NA



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	Monitoring Unit(PMU)	Power supply to PMU						
3	Control Unit(CU)	Remove Power supply to any CU	0W	1.2S	2.31S	32.1	Pass	NA
4	Generator Interface units(GIU)	Remove Power supply to all GIUs	NA	NA	NA	NA	NA	NA
5	Demand control unit(DCU)	Remove Power supply to all DCU	NA	NA	NA	NA	NA	NA
6	Network hub/switches	Remove Power supply	NA	NA	NA	NA	NA	NA
7	PMU →CU communication cable	Unplug cable	0W	1.2S	2.3S	32.2	Pass	NA
8	CU →GIU communication cable	Unplug cable(repeat where additional GIU units)	NA	NA	NA	NA	NA	NA
9	GIU→ communication cable	Unplug cable(repeat where additional GIU units)	NA	NA	NA	NA	NA	NA
10	CU →DCU communication cable	Unplug cable(repeat where additional	NA	NA	NA	NA	NA	NA



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		1 DCU units)						
11	DCU→ Load communication cable	Unplug cable(repeat where additional 1 DCU units)	NA	NA	NA	NA	NA	NA
12	Controlled Load(s)	Turn off load (e.g. active thermostat)	NA	NA	NA	NA	NA	NA

NOTE: "Fail safe tests are not required at installations where all of the **Generating Units** are **Type Tested SSEGs**, with a **Power Station Capacity** of not more than 7.36kW per phase (i.e.32A per phase at 230V) and an **Export Capacity** of not more than 3.68kW per phase (i.e.16A per phase at 230V)."

### Power Limit Test

Method: Set export limit, implement the test before start, then start the inverter.

Criteria: fall time is less than 5s, the inverter's export active power is less than limit power.

0%export limit [% Inverter Rating]					
Input		Input supply [% Inverter Rating]			
Load	Export/Time	25%	50%	75%	100%
Load [%Inverter Rating]	0%	43W/3.0S	54W/3.06S	76W/3.24S	69W/3.41S
	25%	NA	48W/3.21S	72W/3.06S	72W/3.36S
	50%	NA	NA	68W/3.23S	67W/3.28S
	75%	NA	NA	NA	65W/3.32S
25%export limit [% Inverter Rating]					
Input		Input supply [% Inverter Rating]			
Load	Export/Time	25%	50%	75%	100%
Load [% Inverter Rating]	0%	NA	4936W/2.13S	4956W/2.05S	4945W/2.08S
	25%	NA	NA	4938W/2.14S	4968W/1.98S
	50%	NA	NA	NA	4962W/2.02S
	75%	NA	NA	NA	NA
50%export limit [% Inverter Rating]					
Input		Input supply [% Inverter Rating]			
Load	Export/Time	25%	50%	75%	100%
Load [%]	0%	NA	NA	9868W/1.95S	9875W/2.19S
	25%	NA	NA	NA	9876W/2.14S



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Inverter Rating]	50%	NA	NA	NA	NA
	75%	NA	NA	NA	NA
<b>75%export limit [% Inverter Rating]</b>					
Input		Input supply [% Inverter Rating]			
Load Export/Time		25%	50%	75%	100%
Load [%Inverter Rating]	0%	NA	NA	NA	14830W/1.98S
	25%	NA	NA	NA	NA
	50%	NA	NA	NA	NA
	75%	NA	NA	NA	NA

### Comments

The test result is based on S5-GR3P20K. All the series of inverters control command are the same. So the test result can cover all series.

Note: normally, this inverter does not actively output power to the distribution network.