



Ningbo Ginlong Technologies Co.,Ltd.

## CERTIFICATION OF CONFORMITY

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

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

**Product:** Automatic disconnection device between a generator and the public low-voltage grid

**Model:** Solis-EPM1-5G

**Use in accordance with regulations:**

Technical Guidance for Customer Export Limiting Schemes G100 for photovoltaic systems with a single-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 61000-3-2

**Certificate Number:** GLDQ190820

**Date:** 2019-09-04

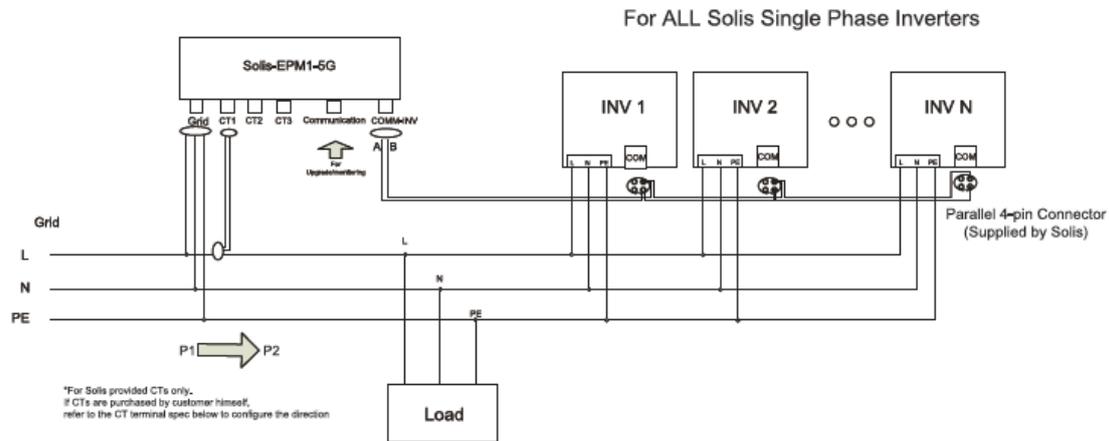
**Manufacture Stamp**

**Date and place**  
Ningbo  
2019-09-04

宁波锦浪新能源科技有限公司  
NINGBO GINLONG TECHNOLOGIES CO., LTD.

Zhang Kun

## System Connecton Diagram



Single phase system with Solis-EPM1-5G

### 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 50% 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	2.5kW	1.23S	1.1S	2.7S	pass	Fail safe control function integrated inside EPM.
		Disconnect CT Cable	2.5kW	1.15S	1.3S	2.8S	pass	Fail safe control function integrated inside EPM.
2	Power Monitoring Unit(PMU)	Remove Power supply to PMU	2.5kW	0.8S	1.0S	26.4S	pass	Fail safe control function integrated inside EPM.
3	Control	Remove	2.5kW	0.8S	0.8S	25.0S	pass	Fail safe



	Unit(CU)	Power supply to any CU						control function integrated inside EPM.
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	NA	NA	NA	NA	NA	Same control unit of the EPM
8	CU →GIU communication cable	Unplug cable(repeat where additional GIU units)	2.5kW	1.7S	2.0S	2.8S	pass	Fail safe control function integrated inside EPM.
9	GIU→ communication cable	Unplug cable(repeat where additional GIU units)	2.5kW	1.9S	2.0S	3.2S	pass	Fail safe control function integrated inside inverter.
10	CU →DCU communication cable	Unplug cable(repeat where additional DCU units)	NA	NA	NA	NA	NA	NA
11	DCU→ Load communication cable	Unplug cable(repeat where additional DCU units)	NA	NA	NA	NA	NA	NA
12	Controlled Load(s)	Turn off load (e.g. active thermostat)	2.5kW	1.3S	2.0S	5.0S	pass	NA



## 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	Expot/Time	25%	50%	75%	100%
Load [% Inverter Rating]	0%	1260w/3.5S	2530w/3.2S	3760w/3.0S	5070w/2.3S
	25%	NA	2480w/3.1S	3740w/2.7S	5090w/2.3S
	50%	NA	NA	3750w/2.8S	5100w/2.1S
	75%	NA	NA	NA	5110w/2.0S

25%export limit [% Inverter Rating]					
Input		Input supply [% Inverter Rating]			
Load	Expot/Time	25%	50%	75%	100%
Load [% Inverter Rating]	0%	NA	2490w/3.1S	3730w/2.7S	5090w/2.2S
	25%	NA	NA	3720w/2.4S	5070w/2.0S
	50%	NA	NA	NA	5060w/1.9S
	75%	NA	NA	NA	NA

50%export limit [% Inverter Rating]					
Input		Input supply [% Inverter Rating]			
Load	Expot/Time	25%	50%	75%	100%
Load [% Inverter Rating]	0%	NA	NA	3740w/2.8S	5100w/2.0S
	25%	NA	NA	NA	5070w/1.8
	50%	NA	NA	NA	NA
	75%	NA	NA	NA	NA

75%export limit [% Inverter Rating]					
Input		Input supply [% Inverter Rating]			
Load	Expot/Time	25%	50%	75%	100%
Load [% Inverter Rating]	0%	NA	NA	NA	5080w/2.0S
	25%	NA	NA	NA	NA
	50%	NA	NA	NA	NA
	75%	NA	NA	NA	NA

## Comments

The test result is based on Solis-1P5K-4G. All the series of inverters control command are the same. So the test result can cover all series.