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: RAI-3K-48ES

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: **GLDQ191003**

Date: **2019-10-13**
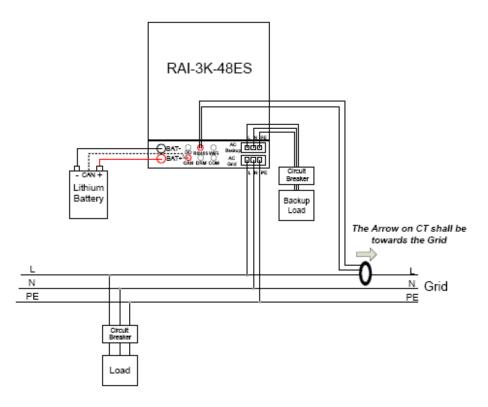
Manufacture Stamp

Date and place
Ningbo
2019-10-13

Zhang Kun

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

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	0kW	1.17S	1.0S	2.5S	pass	Fail safe control function integrated inside EPM.
		Disconnect CT Cable	0 kW	1.12S	1.1S	2.7S	pass	Fail safe control function integrated inside EPM.
2	Power	Remove	NA	NA	NA	NA	NA	NA

	Monitoring Unit(PMU)	Power supply to PMU						
3	Control Unit(CU)	Remove Power supply to any CU	NA	NA	NA	NA	NA	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	NA	NA	NA	NA	NA	Same control unit of the EPM
8	CU →GIU communication cable	Unplug cable(repeat where additional GIU units)	NA	NA	NA	NA	NA	Fail safe control function integrated inside EPM.
9	GIU→ communication cable	Unplug cable(repeat where additional GIU units)	NA	NA	NA	NA	NA	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	Turn off	NA	NA	NA	NA	NA	

	Load(s)	load (e.g. active thermostat)						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 Load Expot/Time		Input supply [% Inverter Rating]			
		25%	50%	75%	100%
Load [% Inverter Rating]	0%	770W/3.1S	1520W/2.9S	2260W/2.6S	3040W/2.0S
	25%	NA	1530W/2.7S	2240W/2.3S	3070W/1.7S
	50%	NA	NA	2270W/2.5S	3080W/1.8S
	75%	NA	NA	NA	3090W/1.8S

Comments

The test result is based on RAI-3K-48ES.

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