

G100 declaration of conformance

Type test detail

Manufacturer: Shenzhen SOFAR SOLAR Co., Ltd.

Address:401, Building 4, AnTongDa Industrial Park, District 68, XingDong
Community, XinAn Street, BaoAn District, Shenzhen, China.

Product: Solar Grid-tied Inverter.

Model:SOFAR 20000TL-G2,SOFAR 25000TL-G2,SOFAR
30000TL-G2,SOFAR 33000TL-G2

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 :

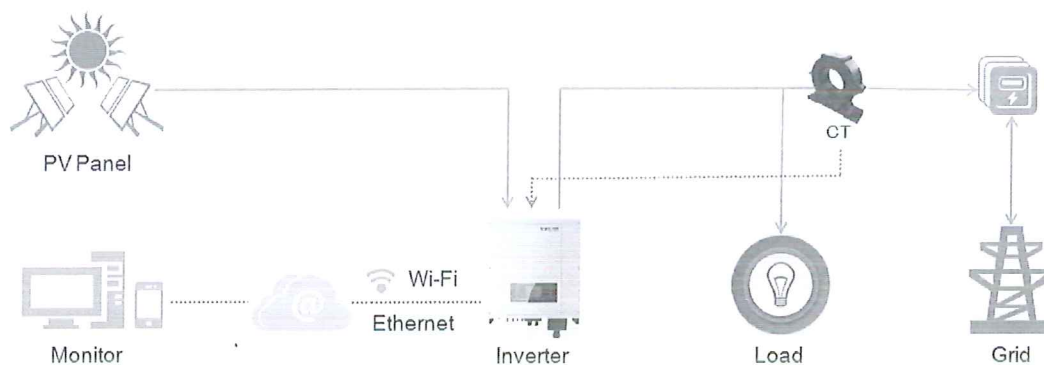
The result according to G100 engineering recommendation.

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

Approved By	Checked By	Prepared By	Date of Test
<i>Li Donghua</i>	<i>wanghui</i>	<i>Tang ming jing</i>	2020/5/11

System Connection Diagram



1. Setting Protection Test

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

2. CT 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
1	Power Monitoring Unit(PMU)	Remove power supply to PMU	16500W	2S	2S	69S	Pass
		Remove CT	NA	NA	NA	NA	NA
2	Control Unit (CU)	Remove power supply to any CU	NA	NA	NA	NA	NA
3	Generator Interface units (GIU)	Remove power supply to all GIUs	NA	NA	NA	NA	NA

4	Demand Control Unit (DCU)	Remove power supply to all DCUs	NA	NA	NA	NA	NA
5	Network hub / switches	Remove power supply	NA	NA	NA	NA	NA
6	PMU → CU communication cable	Unplug cable	16500W	2S	2S	69S	Pass
7	CU → GIU communication cable	Unplug cable (repeat where additional GIU units)	NA	NA	NA	NA	NA
8	GIU → Generator communication cable	Unplug cable (repeat where additional GIU units)	NA	NA	NA	NA	NA
9	CU → DCU communication cable	Unplug cable (repeat where additional DCU units)	NA	NA	NA	NA	NA
10	DCU → load communication cable	Unplug cable (repeat where additional DCU units)	NA	NA	NA	NA	NA
11	Controlled Load(s)	Turn off load (e.g. activate thermostat)	NA	NA	NA	NA	NA

3. 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 \ Export/Time		Input supply [% Inverter Rating]			
		25%	50%	75%	100%
Load [% Inverter Rating]	0%	-123W/1.65S	-119W/1.73S	-122W/1.59S	-124W/1.68S
	25%	NA	-121W/1.84S	-116W/1.74S	-120W/1.75S
	50%	NA	NA	-117W/1.75S	-122W/1.81S
	75%	NA	NA	NA	-119W/1.79S
25%export limit [% Inverter Rating]					
Input Load \ Export/Time		Input supply [% Inverter Rating]			
		25%	50%	75%	100%
Load [% Inverter Rating]	0%	-8256W/1.91S	-8259W/1.75S	-8258W/1.82S	-8256W/1.75S
	25%	NA	-8253W/1.77S	-8257W/1.85S	-8253W/1.80S
	50%	NA	NA	-8252W/1.76S	-8249W/1.78S
	75%	NA	NA	NA	-8251W/1.70S
50%export limit [% Inverter Rating]					
Input Load \ Export/Time		Input supply [% Inverter Rating]			
		25%	50%	75%	100%
Load [% Inverter Rating]	0%	-8252W/1.67S	-16505W/1.73S	-16504W/1.85S	-16502W/1.69S
	25%	NA	-8254W/1.77S	-16503W/1.81S	-16504W/1.90S
	50%	NA	NA	-8248W/1.77S	-16499W/1.68S
	75%	NA	NA	NA	-8253W/1.73S
75%export limit [% Inverter Rating]					
Input Load \ Export/Time		Input supply [% Inverter Rating]			
		25%	50%	75%	100%
Load [% Inverter Rating]	0%	-8255W/1.85S	-16504W/1.93S	-24745W/1.79S	-24754W/1.93S
	25%	NA	-8257W/1.87S	-16507W/1.84S	-24758W/1.91S
	50%	NA	NA	-8248W/1.75S	-16498W/1.87S

	75%	NA	NA	NA	-8254W/1.88S
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4. decreasing Load test

Method: Set export limit, the load be decreased from 100% of the inverter rating.

Criteria: response time is less than 1s, fall time is less than 5s, the inverter' s export active power is less than Agreed limit.

0%export limit [% Inverter Rating]					
Input Load \ Export/Time		Input supply [% Inverter Rating]			
		100%	75%	50%	25%
Load [% Inverter Rating]	75%	-113W/1.68S	NA	NA	NA
	50%	-110W/1.74S	NA	NA	NA
	25%	-108W/1.75S	-112W/1.68S	NA	NA
	0%	-107W/1.81S	-109W/1.73S	-113W/1.85S	-111W/1.88S
25%export limit [% Inverter Rating]					
Input Load \ Export/Time		Input supply [% Inverter Rating]			
		100%	75%	50%	25%
Load [% Inverter Rating]	75%	-8254W/1.81S	NA	NA	NA
	50%	-8246W/1.76S	-8253W/1.71S	NA	NA
	25%	-8245W/1.73S	-8251W/1.80S	-8243W/1.90S	NA
	0%	-8249W/1.82S	-8247W/1.785S	-8252W/1.84S	-8255W/1.92S
50%export limit [% Inverter Rating]					
Input Load \ Export/Time		Input supply [% Inverter Rating]			
		100%	75%	50%	25%
Load [% Inverter Rating]	75%	-8249W/1.64S	NA	NA	NA

Rating]	50%	-16495W/1.73S	-8253W/1.71S	NA	NA
	25%	-16503W/1.83S	-16505W/1.85S	-8255W/1.87S	NA
	0%	-16510W/1.99S	-16492W/1.83S	-16503W/1.90S	-8259W/1.94S
75%export limit [% Inverter Rating]					
Input		Input supply [% Inverter Rating]			
Load	Export/Time	100%	75%	50%	25%
Load [% Inverter Rating]	75%	-8251W/1.74S	NA	NA	NA
	50%	-16507W/1.67S	-8247W/1.85S	NA	NA
	25%	-24755W/1.88S	-16494W/1.84S	-8256W/1.77S	NA
	0%	-24756W/1.83S	-24749W/1.93S	-16505W/1.96S	-8258W/1.92S

Comments

The test result is based on SOFAR 33000TL-G2. All the series of inverters electrical character are the same. So the test result can cover all series.