



DECLARATION OF EN50438 for Norway

Manufacturer	Name	NINGBO GINLONG TECHNOLOGIES CO., LTD.
	Address	NO. 57 JINTONG ROAD, BINHAI INDUSTRIAL PARK, XIANGSHAN, NINGBO, ZHEJIANG, 315712, CHINA
Product	Product Name	GRID-TIE PV INVERTER
	Model	SINGLE PHASE INVERTER: Solis-15K-LV/Solis-20K-LV
Applicable Standard	EN50438 : 2013 for Norway	

Test result

Test details

Name and address of test house	Ginlong technical Reserch and develop laboratory
Telephone number	(+86) 574 6578 1607
Date of test	7. July.2018

Under-/Overfrequency tests

Parameter	Underfrequency		Overfrequency	
	Frequency(Hz)	Time(s)	Frequency(Hz)	Time(s)
Protection limit	47.5 Hz	0.3~0.5	52 Hz	0.3~0.5
Actual setting	47.5 Hz	0.3	52 Hz	0.3
Trip value (test result)	47.54 Hz	0.345	51.97 Hz	0.344

Under-/Overvoltage tests

Parameter	Undervoltage		Overvoltage1		Overvoltage2	
	Voltage	Time(s)	Voltage	Time(s)	Voltage	Time(s)
Protection limit	108 V	1.2~1.5	139.7 V	3	146 V	0.1~0.2
Actual setting	108 V	1.2	139.7 V	2	146 V	0.1

Trip value (test result)	L1-N	108.6 V	1.246	140.1 V	2.042	146.3 V	0.143
	L2-N	108.4 V	1.243	140.2 V	2.040	146.4 V	0.138
	L3-N	108.2 V	1.240	140.4 V	2.037	146.6 V	0.134

LoM test

Method			
Output power lever	Min.	Medium	Max
Trip setting clearance time	1s	1 s	1s
Trip value clearance time	1.2s	1.3 s	1.2s

The product stated above have been achieved and processed to the fullness examination according to EN50438 : 2013 for Norway.

Manufacture Stamp

Date and place of issue

Ningbo
2018-7-28

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

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Information:

All modification to should be confirmed by Ginlong, otherwise this declaration will no longer valid.