

**Declaration of Growatt**

---

**Part 1: The Max Short Circuit Current explanation regarding AS/NZS 5033:2021.**

Growatt hereby declares that the Growatt MIN 2500-6000TL-X, Growatt MIN 7-10KTL-X, Growatt TL-XH MIN 2500-6000TL-XH, Growatt SPH3000-6000, Growatt SPH3000-6000TL BL-UP, and Growatt MOD3-15KTL3-X inverter series have been approved by certificate IEC62109.1 which already has the 1.25-1.5 I<sub>sc</sub> allowance built in. Therefore, the internal protective device and components used on inverters have been designed adequately to protect the event of a short circuit current of PV panels.

Growatt hereby confirms that the below inverter models allow up to 18A DC max short circuit current. Listed below.

Growatt TL-X MIN 2500-6000TL-X

Growatt MIN 7-10KTL-X

Growatt TL-XH MIN 2500-6000TL-XH

Growatt SPH3000-6000

Growatt SPH3000-6000TL BL-UP

Growatt MOD3-15KTL3-X

Growatt has also confirmed the key components used on the Growatt TL-X MIN 2500-6000TL-X, Growatt MIN 7-10KTL-X, Growatt TL-XH MIN 2500-6000TL-XH, Growatt SPH3000-6000, Growatt SPH3000-6000TL BL-UP, and Growatt MOD3-15KTL3-X series of inverters to guarantee above models are able to withstand 18A DC short circuit current without failure of that circuit hardware. Typical model MIN 6000TL-X is used as representative for testing in the following Current report.

If you have any questions regarding the above statement please contact Growatt New Energy(Australia) Service Center, Sydney.

E: [Australia@ginverter.com](mailto:Australia@ginverter.com)

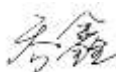
T: 1800 476 928

W: [www.ginverter.com.au](http://www.ginverter.com.au)

Add: C1, 27-29 Fariola Street, Silverwater, NSW 2128

Name Frank Qiao(VP)

Signature



Date 27<sup>th</sup> May 2022

---

**Growatt New Energy(Australia) Pty., Ltd**

**ADD:** C1, 27-29 Fariola Street, Silverwater, NSW 2128

**Service number:** 1800 476 928

**Email:** [australia@ginverter.com](mailto:australia@ginverter.com)

**WEB:** [www.ginverter.com.au](http://www.ginverter.com.au)

## Part 2: PV input short circuit test report

### 1.Purpose :

To check the working status of the inverter under the input short current of 18A.

### 2.Test Instruments:

Solar Simulator:Top Con Quadro;

Utility Power: 230 V /50 Hz;

Oscilloscope: YOKOGAWA DLM2024

Isolation probe: Sapphire SI-9110

Current amplifier : Tektronix TCPA 300

### 3.Test Condition and site:

Room temperature/ GROWATT R.D LAB

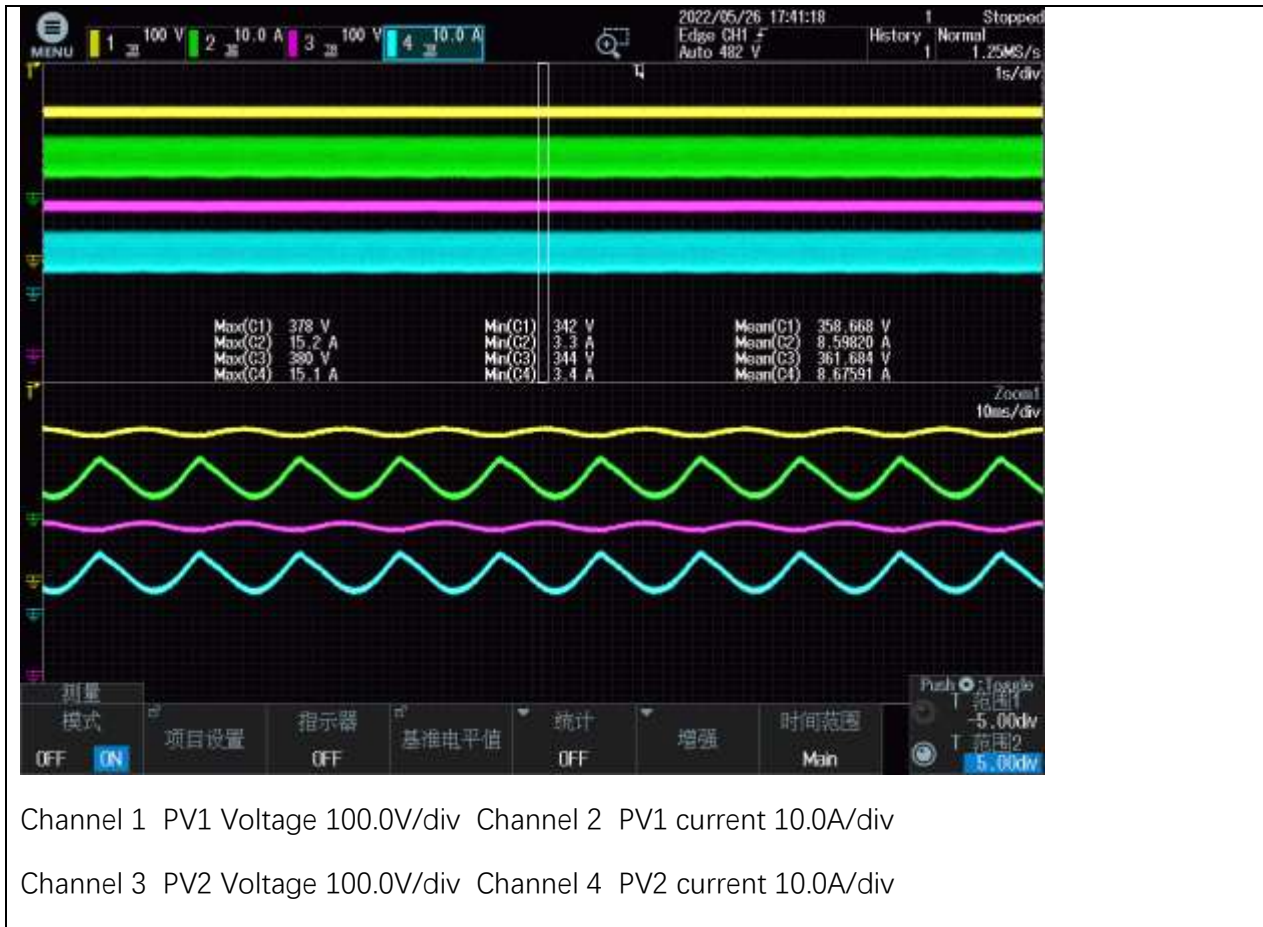
### 4.Test Procedure:

1.Set the Solar Simulator parameter: Voltage:360V Current:36A

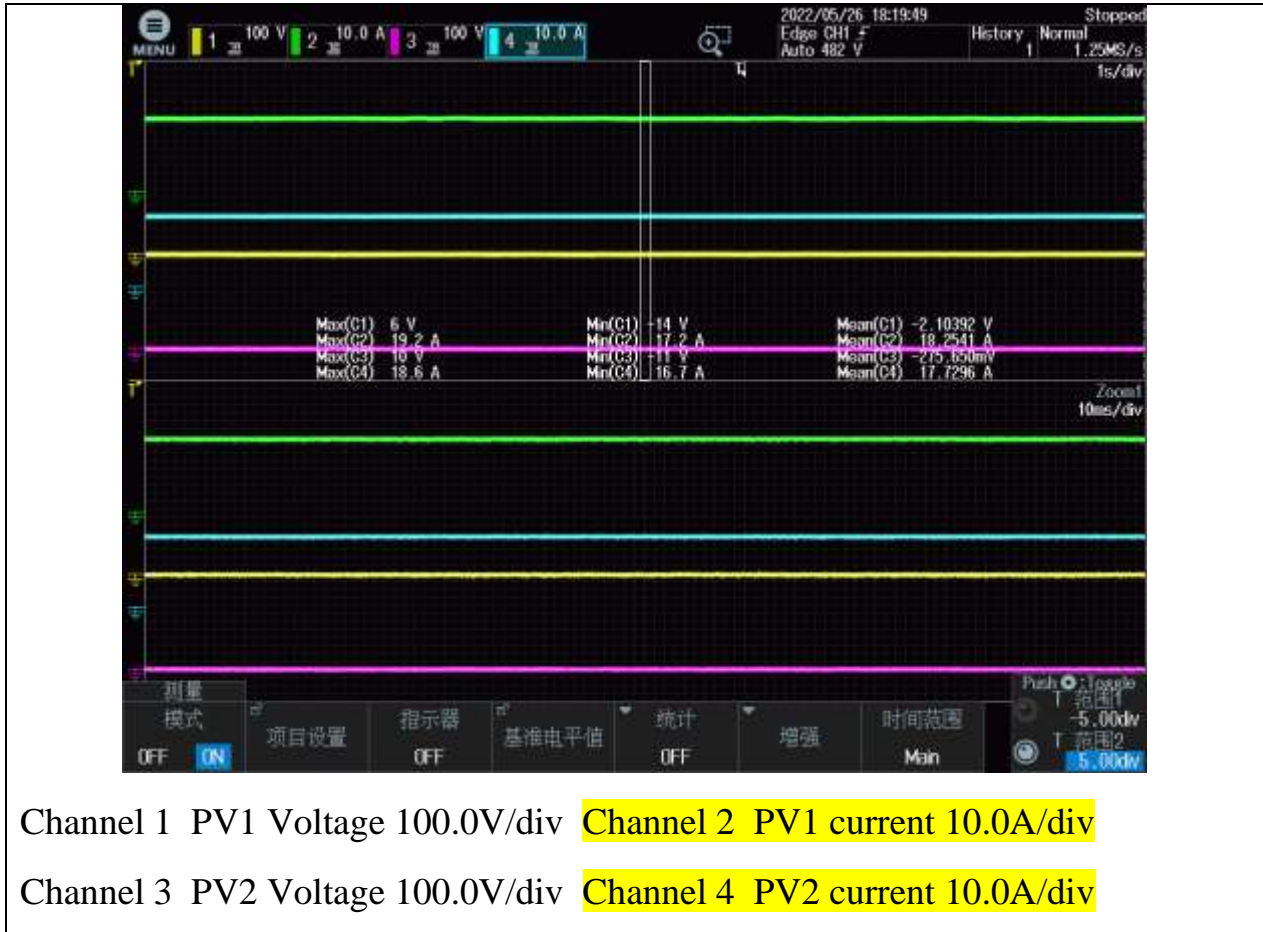


Turn on the Solar Simulator and AC grid, waiting for about 30s the inverter starts to output power 6000w.





2 Reverse the PV input. The short current is about 18A.

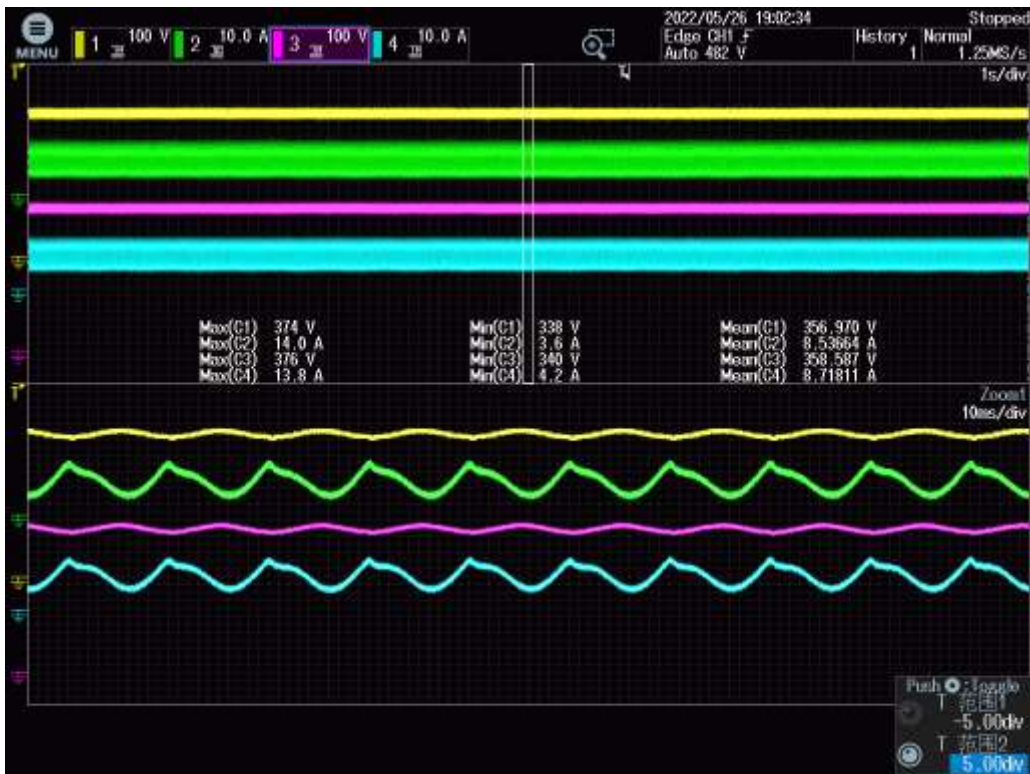


Channel 1 PV1 Voltage 100.0V/div Channel 2 PV1 current 10.0A/div

Channel 3 PV2 Voltage 100.0V/div Channel 4 PV2 current 10.0A/div

3 After half an hour, connect the input of the inverter correctly.

Turn on the Solar Simulator and AC grid, waiting for about 30s the inverter starts to output power 6000w.



Channel 1 PV1 Voltage 100.0V/div Channel 2 PV1 current 10.0A/div

Channel 3 PV2 Voltage 100.0V/div Channel 4 PV2 current 10.0A/div

## 5 Conclusion

MIN TL-X inverter can withstand 18A short current, there is no hazard, no damage under the short circuit condition, when we connect PV input correctly, the inverter operates normally.

Test date	20220526	Approve by	Luc	Tester	liuxianxin
Test time	1 hours	Model /ver.	MIN 6000TL-X	S/W ver.	AK1.0