SG2500/SG2500MV Turnkey inverter fault FAQs

1. Our inverter shows Branch breaker fault.

Check if all DC branch breaker are CLOSED and observe the DC breaker status at Run- information. Leaving un-used DC switches also will trigger the alarm. User may switch the breaker to CLOSE position.

Figure 1: CLOSED DC breaker and DC breaker status at Run-information

2. RISO-flt sometimes happens in the morning or during raining season. What is RISO-flt?

RISO-flt refer to abnormal system DC side or AC side resistance to ground may be due to damaged cable sheath, abnormal combiner box, or abnormal box transformer lightning arrestor. O&M team needs to check level by level to locate the fault point.

3. Yesterday our site got lightning and heavy rain. Now all our inverter shows Ground Fuse flt.

For the inverter version with negative pole grounded, the negative pole voltage to ground exceeds 50V (without equipment stop). When there is a spike at leakage current either AC or DC, the ground fuse will blow. Check if there is leakage from AC/DC and isolate. Replace the ground fuse located at master inverter (unit 1) as shown in figure 3.

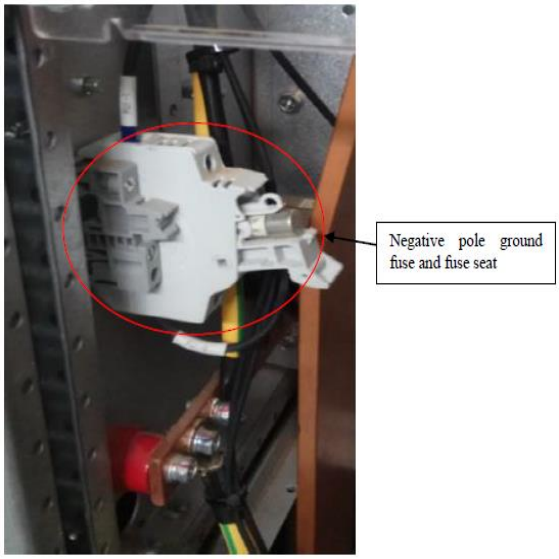

Figure 3: Ground fuse at unit 1

NOTE: Ensure all are voltage free before performing fuse replacement

4. Reactor over-temperature (Lover-temp)

Lover-temp refers to reactor over temperature. Cooling air comes into the inverter from the bottom and hot air goes out of the inverter from the top. Check whether the air inlet filters and ventilation ducts of the inverter and its internal devices are normal and clean. Replace the filters if necessary.

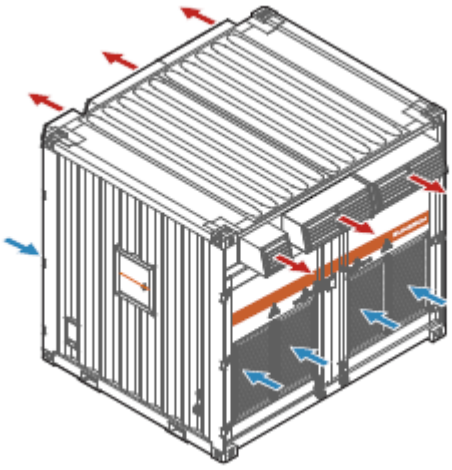

Figure 4: Ventilation design

5. We have PDP-pro today. What is PDP-pro?

PDP-pro or PDP protection triggered when there is a fault signal or hardware overcurrent occurred to the driver board. Check if the AC and DC are short circuit and if the grid is abnormal. Record the PDP fault code from the HMI and contact SUNGROW.

6. Leakage current protection (I leakage-pro)

Leakage current sampling value exceeds the set value. Check and record the leakage current value at HMI. Users also need to check if the AC is abnormal. Check if the AC cables are broken or grounded.

7. We performed maintenance work last night at the inverter and now the inverter shows Control power supply fault (Ctrol power supply flt)

Check if the internal power supply is at CLOSED position.

Figure 7: Internal power supply switch

8. Grounding fault (Gnd-flt)

OPEN all the DC breaker and check insulation of DC cables. Check each DC branch for sloping of positive to ground and negative to ground. If the voltage is apparently too small or even 0, check cable insulation of this branch. Use the same method for measurement to check at the combiner box. Proceed to check at the AC side if necessary.

9. Power module over-temperature (PM-high)

Check air outlet duct for clogging (e.g. dust prevention cotton and air outlet louver). Check the fan condition and observe if the power module temperature exceeding 93°C at HMI.

10. Fan-flt

Check if the grid voltage is normal. User may try to reset the fault by restart the inverter. If the fault still persists, Check and record the fan alarm as shown in figure 9 and contact SUNGROW:

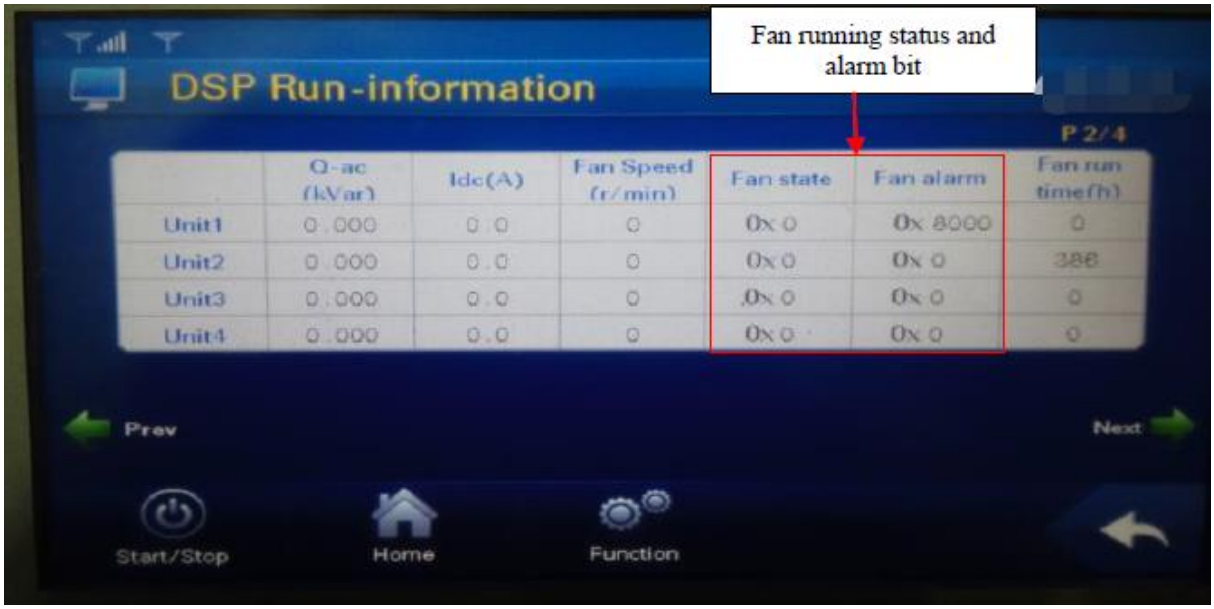

Figure 9: Fan state and Fan alarm status

If the issue persists after following above procedures, please take photos and contact or email to Sungrow Service team at *www.sungrowpower.com/en/service*