

Blue Diamond Load Bank Quick Start Manual

SAFETY WARNING

1. Keep all personnel who are not directly involved with testing the supply well away from the load bank and from the equipment under test.
2. The discharge air can be very hot and can cause serious burns. Do not touch the outlet grille while the load bank is running, or for a few minutes afterwards.
3. Only operate the load bank with all the guards in place, with doors closed and with all of the covers and protective screens securely in position.
4. Ensure that there is no risk of the hot discharge air re-circulating back to the air inlet of the load bank, extensive damage is possible due to re-circulating the cooling air.
5. Ensure that there is no loose paper, plastic bags, or other debris that could be drawn in to the air inlet, or any combustible material left within range of the air discharge.
6. After removing the load at the end of a test allow the fan to run for five minutes to dissipate the residual heat.

MANUAL MODE LOAD TEST

1. Connect a proven 3-phase power source of the correct voltage to the copper bar.
2. Rotate the mode select to local position.
3. Rotate the cooling fan switch to the On position.
4. Press the load accept button and the indicator will light .
5. Load function test, select the load by load step switch .
6. Remove the load (press the load reject button).

AUTO MODE LOAD TEST

1. Connect auto run signal to terminal X01 and X02.
2. Connect a CT(/5A) signal to terminal X09 and X10.
3. Rotate the mode select to auto position.
4. Configure the auto test setting (genset capacity, rated voltage, CT rate which connect to load bank, load bank on, load bank off and load bank delay) on HMI controller. Load bank will automatically increase/decrease load to keep

genset run in safety load range.

For Example,

Genset capacity(kW): 600

Rated Voltage(V):415

CT rate(/5A): 1500

Load Bank On(%):30

Load Bank Off(%): 80

On/ Off Delay(s):5

When the actual load of genset is lower than $600\text{kW} \times 30\%$ (load bank on)=180KW, the load bank will auto run and increase load, and keep the load of genset is lower than $600\text{KW} \times 80\%$ (load bank off)=480KW, and if the load is higher than 480KW, load bank will decrease the load until all step load drop out. Each step of load bank close or open will 5s delay(on/off delay).

5.Auto run signal is open, load bank will drop out with fan cooling time.

EMERGENCY STOP

Local emergency stop: press the emergency stop button.

Remote emergency stop: connect emergency stop signal to terminal X05 and X06.

The load will be removed and the cooling fan will stop running after emergency stop active.

LOAD BANK RUN STATUS OUTPUT

X07 and X08 on terminal is load bank run status output (5A dry contact) signal.

FAULT INDICATOR

Over temperature: the temperature inside of load bank is higher than the protection, the indicator will light and should alarm.

Cooling fan fault: cooling fan does not work or air flow direction incorrect, this alarm will occur.