

AC & DC INDUSTRIAL LOAD BANKS

Quality Systems for performance Testing



DC48V-300A Resistive Load Bank System

1. Product Overview



Type-1



Type-2

2 Technical Review

2.1 Introduction

DC48-2000A Resistive Load Bank. The system can accurately test output power and load capacity with all kinds of Rectifiers, UPS, DC Electrical System, Solar Systems parameters including the Dynamic Parameters Testing.

2.2 Technical Parameters

Technical Parameters	
Rated Voltage	48VDC
Max Load Power	Resistive Load: 300A
Load Step	Resistive Load steps: 1, 2, 2, 5, 10, 10, 20, 50, 100*2
Power Factor	1
Load Tolerance (each step)	±5%
Load Tolerance (overall)	±3%
Display Precision	0.5 class
Control & Cooling Fan Power	External power source 1-phase, 220V 50/60Hz
Wire Connection	Load Power Supply Input——Copper bar Control power supply input——Connector bar
Communication Interface	RS232/RS485 (Option on request)
Insulation Class	F
Operating Mode	Continuous Operation
Cooling	Air cooled, horizontal air in/out take
Transportation	Hoisting, there are lifting lug on top of case and wheel castors on the bottom
Chassis color	Gray (RAL7035) or Black
Size	Approximately; 600*750*980 mm (Length * Width *Height)
Weight	Approximately 130kg
Operating Environment Parameter	
Ambient Temperature	-10°C~+70°C
Relative Humidity	≤95%
Altitude	≤1500 meters
Atmospheric Pressure	86~106kPa

2.3 Measuring Control Function

--**Load testing:** load power that not beyond the rated power, testing and display stable state voltage, current, power, working time, etc of Equipment/Battery under Test

--**Load/unload with one key:** Whether Manual Control, Remote Control or Software Control, user can preset the power, then press load master button. Load bank loaded according to preset power to avoid load fluctuation during the power changing.

--**Control Pattern:** user can choose local control and intelligent control.

--**Local Control:** There is local control panel with several power steps; user can load/unload by button.

--**Intelligent Control (Option):** Through data processing software in PC, user can make automatic load, to display, record and manage the testing data, to form curves, tables, and print them.

--**Control Pattern interlock,** there is control pattern switch, when one control pattern is selected operation of other pattern is invalid, avoid the clash.

--**Local meter display data:** local meter can display Voltage, Current, Power.

2.4 Software Function

--**Communication Pattern:** Intelligent control use photoelectric isolated RS485 interface connect to PC, with great anti-interference performance to make system control stable. Also user can use USB or RS232 through converter.

--**Load Control:** Manual Load or Automatic Load.

--**Manual Load:** Input power, system will load according to preset power.

--**Automatic Load:** user can preset power and length of working time of several load periods, as per 0%→25%→50%→75%→100% or 110% to make testing.

--**Parallel Testing:** when several load bank work in parallel, user can make parallel testing via software, can display, record parameters of every load bank and whole system parameter of parallel operation.

--**Real-time Parameter:** Through Software to display Voltage, Current, Power, Power Factor

--**Security Monitoring and Control:** monitor operating state of the Load Bank by watching software light, when abnormally stop and protect, it can show the reason.

--**Data save and query:** all the test data is saved in the software, easy to query in the history testing data.

--**Graphical display:** Show Real-Time or history testing data, and support to print curve and graph as follows:

- 1) Graphs of Real-Time Voltage, Current, Power
- 2) Voltage graph
- 3) Current graph
- 4) Power graph

--**Data Format:** all the curves and graphs can be outputted as ".doc" format, testing data can be extracted as ".xls" format, and can be printed.

2.5 Protection

--**Emergency Stop:** you can press the Emergency Stop switch in the panel, when the load bank is locked in this state, it cannot add any load.

--**Overvoltage Protection:** when input voltage is over the safe value, it can unload automatically and give an alarm.

--**Short Circuit Protection:** when short circuit, fuses in the load bank can insure to unload automatically.

--**Overheating Protection:** when temperature is over the safe value, it can unload automatically and give an alarm.

--**Fan interlock Protection:** Load Bank cannot add any load when operating power of fan is off.

--**Protection Buttons:** There are buttons for some protection, when misinformation occurs or user has special needs, user can temporarily turn off the corresponding protection function.

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