# **Load Banks**



LB Series
LBR | LBP | LBS | LBT





# **Load Banks**

# **LB Series**

Aktif Load Banks are produced according to the following customer demands, in performance tests of electrical machines and as dummy loads to ensure safe operation of generators.

- AC / DC Electrical characteristics
- R, L, C Load characteristics
- Sensitive stage precision
- Manual / HMI / Automatic control
- Indoor / Outdoor installation alternatives
- Rack mounted / Portable / Stationary / Semitrailer alternatives

# **Application Areas**

- Generator Manufacturing and Services
- UPS Manufacturing and Services
- Dummy Loads for Gensets
- Power and Thermal Simulation of Data Centers
- Alternator Tests of Military Vehicles
- Battery Discharge Tests
- Invertor Performance Tests
- Manufacturing of EV Charging Stations

### **Electrical Specifications**

Load Banks can be manufactured for AC LV/HV or DC operating voltages; based on following characteristics.

- Resistive (kW Cos φ:1)
- Inductive / Capacitive (kVAr)
- Resistive + Inductive (kVA Cos Φ as requested)
- Resistive + Inductive + Capacitive (kVA - Cos φ: as requested)
- AC (50 / 60 / 400 Hz) or DC working voltage
- 1 kW / kVAr / kVA step precision at AC as according to needs
- 1 A step precision at DC as according to needs
- 3 kV, 50 / 60 Hz, 1 min Insulation level for the power circuit
- 2 kV, 50 / 60 Hz, 1 min Insulation level for the control circuit
- Special designs for different frequency and Cos φ values
- Single or three phase fans as according to needs

#### **Standards**

- IEC 60664-1
- IEC 60529
- IEC 60071-1



LB - Rack Mounted Load Banks



LB - Portable Load Banks



LB - Stationary Load Banks



LB - Trailer Mounted / Mobile Load Banks

# **Physical Properties**

- Load Banks can be manufactured in different protection levels.
  - IP20 for indoor use
  - IP20 for outdoor use under shelter
  - IP23 for outdoor use on open area or different
- Load banks are manufactured portable up to 200 kW
- Over than 200 kW load banks are usually stationary.
- Load banks can be installed on a trailer and transported by a vehicle on demand.
- There are two types of load banks according to cooling direction.
  - Horizontal air flow
  - Vertical air flow

#### **Protections**

The following protection measures can be taken in load banks and switching is allowed only when there is no safety issue.

- Over current
- Over temperature
- Over voltage and low voltage
- Contact sticking
- Fan blowing error and more

## **Load Specifications**

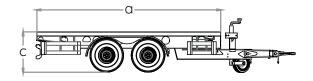
- The resistor material for resistive loads is stainless steel wire which has low temperature coefficient.
- Resistive load resistors provide a large cooling surface for forced cooling.
- Inductive loads are manufactured with aluminium or copper conductor, low losses, and iron core.

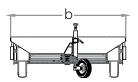
Load Banks Control Types & Features										
	NO	N1	N2	N3	N4	N5				
Fans	~	~	~	~	~	~				
Temperature Sensor	~	~	~	~	~	~				
Air Flow Sensor	~	~	~	~	~	~				
Lamps & Buttons	-	~	~	0	0	0				
Analyzer	-	-	-	4	✓	✓				
HMI	-	-	-	~	✓	✓				
Logic Controller	-	-	-	4	4	✓				
Software	-	-	-	-	✓	0				
Record Excel File	-	-	-	-	4	0				
Automatic Control	-	-	-	-	-	4				

✓: Standard o: Optional -: Not Available

## **Trailer Specifications**

Туре	Dimensions		Max. Gross Weight	Class	Axles Type	Axles	Drawbar	
	a [mm]	b [mm]	c [mm]	[kg]	Class	Axies Type	Number	Туре
Tr-1	2000	1500	700	1500	02	Torsion	1	Constant
Tr-2	3500	2000	700	3500	02	Torsion	2	Constant
Tr-3	3500	2000	750	5600	03	Torsion	2	Adjustable
Tr-4	4000	2500	750	5600	03	Torsion	2	Adjustable
Tr-5	7000	2500	1200	15000	03	Air Suspended	2	Swivel









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