Stationary

Stationary Load Bank Applications

Automatic

Generator exercise, control from remote control contacts

Automatic exercise/test via programmable microprocessor control

Automatic load leveling/load regulation to maintain preset load on generator by sensing of total load and automatic addition or subtraction of Load Bank component

Reverse power/regenerative power protection of generator by sensing power direction and magnitude and automatic addition of Load Bank component to act as a power sink

Manual

Generator exercise and testing via local or remote manual control

Minimum loading of generators

NFPA Testing

Simplex Stationary Load Banks can be used to satisfy the requirements of the National Fire Protection Association (NFPA) for emergency stand-by power systems. These requirements concern acceptance testing and periodic on-site testing and maintenance of emergency and stand-by power systems. The essence of the requirements is that emergency and stand-by power systems are to be tested under load.

NFPA 110 - Emergency and Standby Power Systems, Sections 5-13, 6-3, 6-4

NFPA 99 - Health Care Facilities, Section 3-4.4.1.1 (b)

NFPA 70 - National Electric Code, Section 700-4 (b)

Stationary Load Bank General Specifications

Ambient Temperature
Maximum Air Intake Temperature: 120° F
Air Temperature Rise:
Temp. Rise (°F) = (KW x 3000)/CFM

Note: Air temperatures at plane of exhaust can vary greatly from point to point. Contact Simplex for temperature gradient date and maximum exhaust air temperatures for specific Load Bank.

Altitude
Above 3500', contact Simplex

Enclosures
Standard: NEMA-3R, outdoor weatherproof
Optional: NEMA-1, indoor

Connection
Copper plated bus bar terminals

Control/Fan Power Source
Standard design—derived internally, from load bus. Cooling fan operates at line voltage. Control circuits operate 120V, either from transformer power supply of from 120V line-neutral connection. As an option, the Load Bank can be designed to obtain control/fan power from an external source, supplied by user.

MODEL	LOAD CAPACITY	AIRFLOW REQUIREMENTS	APPROX. WEIGHT
LBS-A	5-60KW	5,000 CFM	500 lbs.
LBS-B	70-200KW	8,000 CFM	800 lbs.
Mercury	5-200KW	10,000 CFM	800 lbs.
Neptune	250-400KW	10,000 CFM	1,900 lbs.
	450-650KW	12,500 CFM	

Mars	700-1400KW	26,000 CFM	3,000 lbs.
Saturn	1400-1800KW	40,000 CFM	6,000 lbs.
	1800-2250KW	55,000 CFM	
	2500-3000KW	70,000 CFM	
Triton	150-400KW	10,000 CFM	1,850 lbs.
Trident	450-750KW	18,000 CFM	
	800-1250KW	26,000 CFM	

Voltage and Load Steps

Integral load steps are the basic branch circuits of the Load Bank. The Load Bank is designed in building block multiples of the integral load step. Each integral load step represents a discrete load circuit with branch circuit fuse protection.

Integral load steps are “course:” relatively large in value. To obtain “fine” load step resolution, add fractional load steps. If multiples of the integral load step do not equal the total capacity desired, add fractional load steps to fill-in the difference.

		LOAD STEPS (KW)	
FREQUENCY	**VOLTAGE**	**INTEGRAL**	**FRACTIONAL**
60 Hz	120V, 1-ph.	5	1
	240V, 1-ph.	10	1, 5
	208V, 3-ph.	20	1, 5, 10
	240V, 3-ph.	20, 25	
	416V, 3-ph.	40	
	440V, 3-ph.		1, 5, 10, 20
	450V, 3-ph.	40, 50	1, 5, 10, 20, 25
	460V, 3-ph.		
	480V, 3-ph.		
	600V, 3-ph.		
50 Hz	240V, 1-ph.	10	1, 5
	200V, 3-ph.	20	1, 5, 10
	240V, 3-ph.	20, 25	
	380V, 3-ph.	40	1, 5, 10, 20
	400V, 3-ph.		
	416V, 3-ph.		
	600V, 3-ph.	40, 50	1, 5, 10, 20, 25
400 Hz	200V, 3-ph.	20	1, 5, 10
	208V, 3-ph.		
	416V, 3-ph.	40	1, 5, 10, 20
DC	125V	6.25	1, 5
	250V	12.5	1,5,10

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LBS-A, LBS-B and Mercury page, Neptune page, Mars page, Mars-HV page, Saturn page, Saturn-HV page, Triton and Trident page

Request Quote.

Stationary Load Bank Features and Options and Engineer's Specifications.

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