

LOAD BANK KPLB-500



KEYPOWER LOAD BANK:

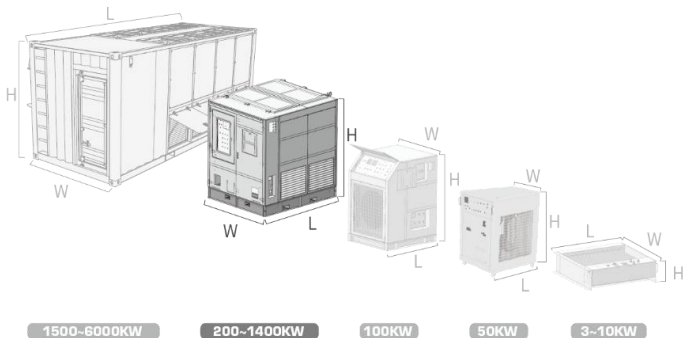
- * Frequency: 50/60 Hz;
- * Voltage range: AC 110-690V;
- * Duty: Continuous;
- * Cooling system: Industrial grade axle fans;
- * Discharged air direction: horizontal for 100 kw, vertical for larger models;
- * Control power phase: Single-phase, two-wire for 500 kw and below; three-phase, four-wire for larger models.

GENERAL SPECIFICATIONS

	Model	KPLB-500
	Capacity	400kW/500kVA
	Type of load	Resistive & inductive
	Power factor	0-1.0
	Duty cycle	Continuous
	Cooling system	Industrial grade axial fan
	Cooling mode	Forced air-cooled
	Airflow	Vertical discharge
	Phase	Available at both single and three phase
	Rated testing voltage	3P3W 110 - 690V
	Rated frequency	50Hz / 60Hz
	Number of fans	4
	Control power input voltage	1P2W 110 - 240V



Dimension and Weight



DIMENSION			KPLB-500
	Length (L)	mm	1900
	Width (W)	mm	1600
	Height (H)	mm	1900
	Dry Weight	kg	2700

KEYPOWER has the right to modify any feature without prior notice. Weights and dimensions based on standard products. Illustrations may include optional equipment. Technical data described in this catalogue correspond to the available information at the moment of printing. The illustrations and images are indicative and may not coincide in their entirety with the product. Industrial design under patent.

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Technical Specifications

PERFORMANCE PARAMETER	
Ambient Temperature	-10°C ~ +55°C
Relative Humidity	≤98% ventilated environment without explosive or corrosive
Altitude	≤3000m above sea level
Wire Connection	Socket / Terminal
Load Tolerance (each step)	±5%
Load Tolerance (overall)	±3%
Enclosure	Canopy type
Parameter measuring accuracy grade	0.5
Noise level	75 dBA @ 1m (Control panel side)
Enclosure protection class	IP 23
Forklift handling	Yes

CONTROL PANEL	
Control mode (Standard)	Local control
Control mode (Optional)	Remote control
Remote control distance	≤100 m
Load step	0-10kW*1, 10kW*3, 20kW*3, 50kW*2, 100kW*2 (non-intelligent type)
	0-10kW*1, 10kW*3, 20kW*3, 50kW*2, 100kW*2 (intelligent type)
Load bank protections	Fan failure alarm / Overload alarm / Overvoltage alarm / Protection alarm
Multi functions display	voltage, current, load power, reactive power, apparent power, power factor, frequency etc.
One-step load/unload	Yes
Emergency stop	Yes
Phase sequence indicator	Yes

Optional Items for Load Bank:



- Capacitive/Inductive/Resistive load bank with different power factor
- Intelligent control

- Laptop for remote control
- Generator tester
- Multi-voltage
- Water-proof cover for air outlet (200-1400KW)
- Air deflecting duct for containerized load bank

- Space heater
- Cable connector
- Galvanized sheet canopy
- Wheels for < 500KW load bank
- Trailer

RESISTOR FEATURES		304 STAINLESS STEEL RESISTORS
Material	Stainless steel	
Cooling mode	Forced air cooling	
Temperature resistance	500 ~ 600°C	
Load Tolerance	±5%	
Warranty	3 years with unlimited hours	

INDUCTOR FEATURES		INDUCTIVE TYPE
Insulation level	Class H	
Operating temperature	-25~60°C	
Flame retardant rating	UL94-V0	
Surface treatment	Conformal coating	
Fastener treatment	Hot-dip galvanized	
Overall treatment	Vacuum impregnation varnish	

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GENERATOR TESTER

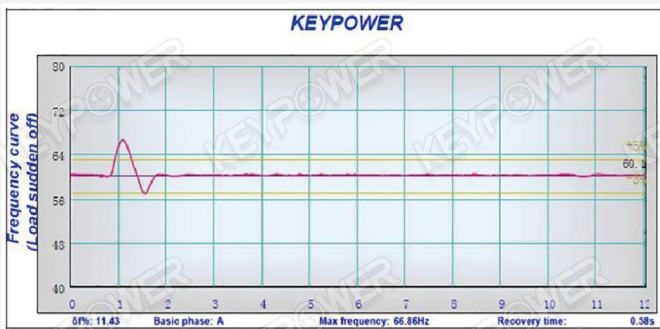


Generator Tester Function

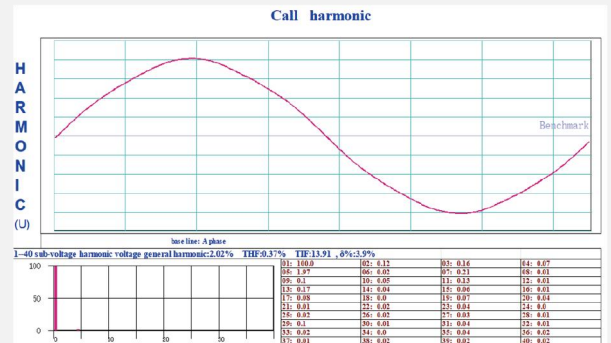
TEST REPORT

Test report of generator set's steady performance									
GB4832 GB4832-2009		Date of test: 2012-11-15		Test time: 17:38:28					
1.1 Technical specification									
1) Set Type	11105A	Set No	11105A100	Set No		Power factor	1	Date of production	
Rated frequency	50Hz	Rate UP	127.0200	Rate F		Governor		AVR type	
2) Single type	Generator type	11105A	11105A100	of origin		Insulation		AVR type	
3) Check item									
1) Create humidity	62%	environmental temperature	23	atmosphere	SPA	Insulate the exterior of generator set			
2) Test of insulation resistance between structure and ground					insulate excitation winding grounding insulation resistance		Test of insulation resistance between auxiliary wind winding and ground		
3) Check every indication equipment's work condition of control system					insulation resistance		check start performance at normal temperature (start 3 times)		
4) Check pressure protection					check emergency stop		high water temperature		
5) Test of pressure protection					check emergency stop		Test of high oil-temper temperature		
4) Load test									
load%	power (kW)	U _{LN} (V)	U _{LL} (V)	I _A (A)	I _B (A)	I _C (A)	steady power factor	steady voltage deviation (%)	steady frequency deviation (%)
0%	0.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
25%	12.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
50%	24.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
75%	36.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
100%	48.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
5) Test of voltage modulation									
load%	power (kW)	U _{LN} (V)	U _{LL} (V)	I _A (A)	I _B (A)	I _C (A)	steady power factor	steady voltage deviation (%)	steady frequency deviation (%)
0%	0.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
25%	12.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
50%	24.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
75%	36.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
100%	48.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
6) Test of frequency load									
load%	power (kW)	U _{LN} (V)	U _{LL} (V)	I _A (A)	I _B (A)	I _C (A)	steady power factor	steady voltage deviation (%)	steady frequency deviation (%)
0%	0.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
25%	12.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
50%	24.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
75%	36.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
100%	48.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
7) Test of voltage regulation									
load%	power (kW)	U _{LN} (V)	U _{LL} (V)	I _A (A)	I _B (A)	I _C (A)	steady power factor	steady voltage deviation (%)	steady frequency deviation (%)
0%	0.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
25%	12.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
50%	24.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
75%	36.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00
100%	48.000	201.4	201.4	0.00	0.00	0.00	0.00	0.00	0.00

FREQUENCY AND VOLTAGE CURVES



HARMONIC CURVE

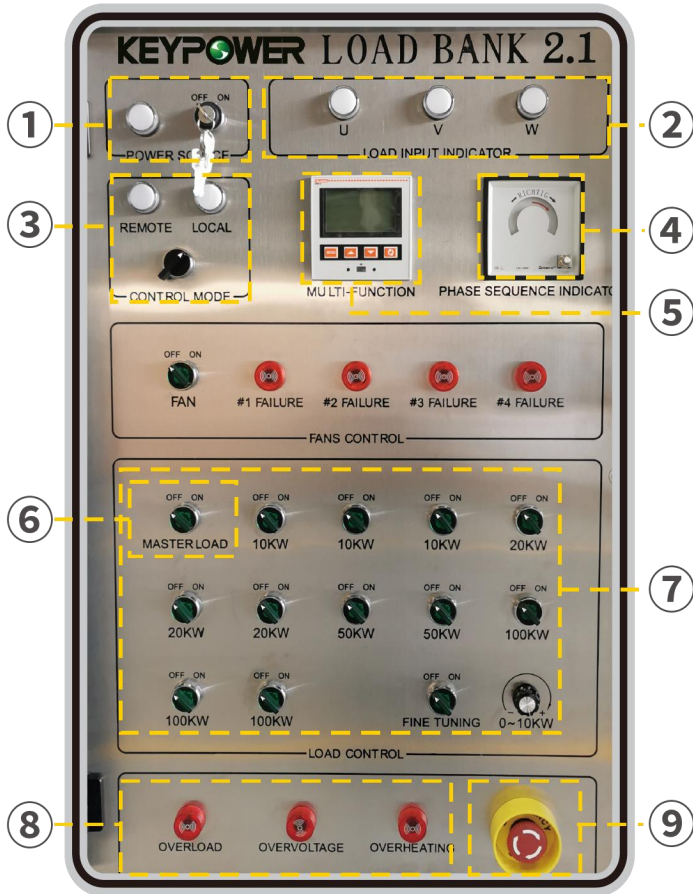


This generator tester can measure most electric parameters of a single-phase or three-phase AC generator. The standards it complied with are GB/T 2820-1997 and GB 2820-90. The signal frequency can be measured varies from 45 Hz to 65Hz. You can select one wiring mode from four modes – 1Φ2W, 3Φ3W, 3Φ4W and 3V3A. The following table shows the parameters: It's the best way to replicate, prove and verify the real-life demands on critical power systems.

PERFORMANCE PARAMETER	DESCRIPTION
Normal	Voltage, Current, Active Power, Reactive Power, Apparent Power, Power Factor, Frequency, Energy runtime, Imbalance degree of Voltage
Harmonic	Voltage & Current: 2~50th order and the THD (Total harmonic distortion)
Adjustment	In 100 seconds: Records the maximum & minimum value of Voltage & Frequency. Calculates the increase & decrease range of Voltage & Frequency and the percentage of adjustment.
Fluctuation	In 60 seconds: Records the maximum & minimum value of Voltage & Frequency. Calculates the NORMAL frequency rang, NORMAL voltage offset, voltage modulation, percentage of fluctuation and frequency.
Load	In 12 seconds: Records the minimum value of Voltage & Frequency. Records the maximum value of Current and the recovery time. Calculates the offset of Voltage & Frequency.
Unload	In 12 seconds: Records the maximum value of Voltage & Frequency. Record the minimum value of Current and the recovery time. Calculates the offset of Voltage & Frequency.
Wave Record	Records the real-time voltage waves by five optional modes. The recording time is between 5 seconds and 5 minutes by different modes.

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Control Panel



TEST REPORT

①	Turn on / off power source	Tested power source input
②	Load input indicator	Indicate U V W load input normal or not
③	Control mode selection	Choose control mode: Local manual control / Touch screen control / Remote control
④	Phase sequence indicator	Indicate phase sequence of tested power right or not
⑤	Multi-function meter	Show testing parameters
⑥	Master load on / off	One step loading / unloading
⑦	Load Steps	Loading / unloading
⑧	Alarm	Load bank protection: Fan failure alarm / Overload alarm / Overvoltage alarm / Overheating alarm
⑨	Emergency stop button	Emergency stop

In addition to all manual control functions, Intelligent/remote control also contains the following functions:

- Touch screen control/remote control
- Auto loading/unloading test
- Data setting

Intelligent control system with Mitsubishi[®] PLC



Intelligent Control Interface

