

LOAD BANK KPLB-2000



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-2000
	Capacity	2000kW
	Type of load	Resistive
	Power factor	1
	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	6
	Control power input voltage	3P3W 220 - 480V



FREQUENCY



DRY TYPE



FORCED AIR COOLED



SOUNDPROOF

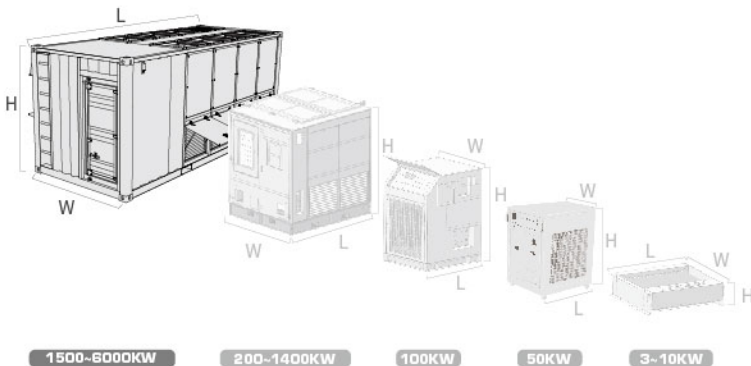


CERTIFICATION



ISO 9001

Dimension and Weight



DIMENSION

KPLB-2000

	Length (L)	mm	6058
	Width (W)	mm	2438
	Height (H)	mm	2591
	Weight	kg	7450

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.

Technical Specifications

PERFORMANCE PARAMETER	
Ambient Temperature	-10°C ~ +55°C
Relative Humidity	≤98% ventilated environment without explosive or corrosive dust
Altitude	≤3000m above sea level
Wire Connection	Socket / Terminal
Load Tolerance (each step)	±5%
Load Tolerance (overall)	±3%
Enclosure	ISO 20ft container
Parameter measuring accuracy grade	0.5
Noise level	91 dBA @ 1m
Enclosure protection class	IP 54
Forklift handling	No

CONTROL PANEL	
Control mode (Standard)	Local manual control
Control mode (Optional)	Intelligent / remote control
Remote control distance	≤100 m
Load step	10kW*4, 20kW*3, 50kW*2, 100kW*6, 200kW*6, (non-intelligent type) 10kW*13, 20kW*6, 50kW*7, 100kW*6, 200kW*4, (intelligent type)
Load bank protections	Fan failure alarm/Overload alarm/Overvoltage alarm/Overheating alarm/Low airflow alarm/Maintenance door open alarm/Control power failure/Fault reset
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	
Material	Stainless steel
Cooling mode	Forced air cooling
Temperature resistance	500 ~ 600°C
Load Tolerance	±5%
Warranty	3 years with unlimited hours

304 STAINLESS STEEL RESISTORS



Generator Tester Function

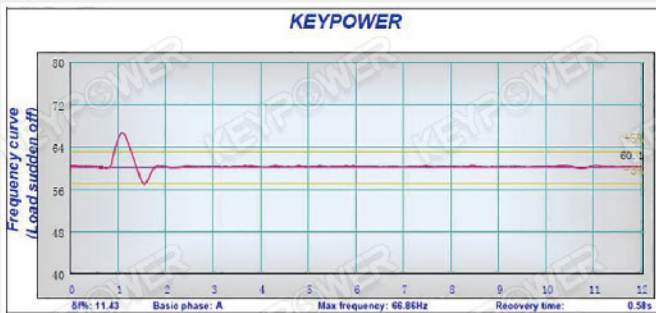
GENERATOR TESTER



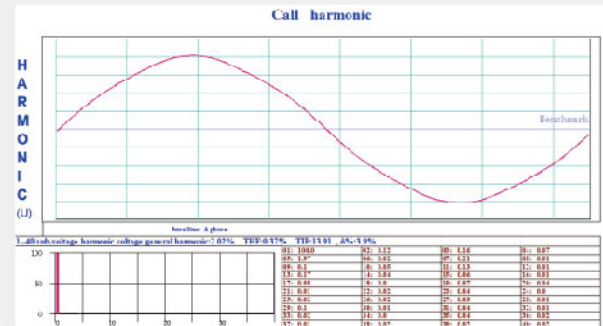
TEST REPORT

Test report of generator set's steady performance									
Source: 0000000000		Model specification		Date of test: 2012-11-10		Test time: 07:30:33			
1. Set type	1. Voltage	2. Set type	3. Power factor	4. Set type	5. Power factor	6. Date of production	7. Date of production	8. Date of production	9. Date of production
Rated frequency	50Hz	Rated power	1000kVA	Rated current	1000A	Rated voltage	400V	Rated frequency	50Hz
Generator type	AVR type	Generator type	AVR type	Generator type	AVR type	Generator type	AVR type	Generator type	AVR type
2. Test of insulation resistance	between phase and ground	Test of insulation resistance	between phase and ground	Test of insulation resistance	between phase and ground	Test of insulation resistance	between phase and ground	Test of insulation resistance	between phase and ground
Insulation resistance	20M	Insulation resistance	20M	Insulation resistance	20M	Insulation resistance	20M	Insulation resistance	20M
3. Test of voltage regulation	between phase and phase	Test of voltage regulation	between phase and phase	Test of voltage regulation	between phase and phase	Test of voltage regulation	between phase and phase	Test of voltage regulation	between phase and phase
Voltage regulation	0.5%	Voltage regulation	0.5%	Voltage regulation	0.5%	Voltage regulation	0.5%	Voltage regulation	0.5%
4. Test of frequency adjustment	between phase and phase	Test of frequency adjustment	between phase and phase	Test of frequency adjustment	between phase and phase	Test of frequency adjustment	between phase and phase	Test of frequency adjustment	between phase and phase
Frequency adjustment	0.1%	Frequency adjustment	0.1%	Frequency adjustment	0.1%	Frequency adjustment	0.1%	Frequency adjustment	0.1%
5. Test of power factor adjustment	between phase and phase	Test of power factor adjustment	between phase and phase	Test of power factor adjustment	between phase and phase	Test of power factor adjustment	between phase and phase	Test of power factor adjustment	between phase and phase
Power factor adjustment	0.1%	Power factor adjustment	0.1%	Power factor adjustment	0.1%	Power factor adjustment	0.1%	Power factor adjustment	0.1%
6. Test of load regulation	between phase and phase	Test of load regulation	between phase and phase	Test of load regulation	between phase and phase	Test of load regulation	between phase and phase	Test of load regulation	between phase and phase
Load regulation	0.1%	Load regulation	0.1%	Load regulation	0.1%	Load regulation	0.1%	Load regulation	0.1%
7. Test of short-circuit current	between phase and phase	Test of short-circuit current	between phase and phase	Test of short-circuit current	between phase and phase	Test of short-circuit current	between phase and phase	Test of short-circuit current	between phase and phase
Short-circuit current	1000A	Short-circuit current	1000A	Short-circuit current	1000A	Short-circuit current	1000A	Short-circuit current	1000A
8. Test of no-load current	between phase and phase	Test of no-load current	between phase and phase	Test of no-load current	between phase and phase	Test of no-load current	between phase and phase	Test of no-load current	between phase and phase
No-load current	100A	No-load current	100A	No-load current	100A	No-load current	100A	No-load current	100A
9. Test of no-load voltage	between phase and phase	Test of no-load voltage	between phase and phase	Test of no-load voltage	between phase and phase	Test of no-load voltage	between phase and phase	Test of no-load voltage	between phase and phase
No-load voltage	400V	No-load voltage	400V	No-load voltage	400V	No-load voltage	400V	No-load voltage	400V
10. Test of no-load frequency	between phase and phase	Test of no-load frequency	between phase and phase	Test of no-load frequency	between phase and phase	Test of no-load frequency	between phase and phase	Test of no-load frequency	between phase and phase
No-load frequency	50Hz	No-load frequency	50Hz	No-load frequency	50Hz	No-load frequency	50Hz	No-load frequency	50Hz
11. Test of no-load power factor	between phase and phase	Test of no-load power factor	between phase and phase	Test of no-load power factor	between phase and phase	Test of no-load power factor	between phase and phase	Test of no-load power factor	between phase and phase
No-load power factor	0.8	No-load power factor	0.8	No-load power factor	0.8	No-load power factor	0.8	No-load power factor	0.8
12. Test of no-load efficiency	between phase and phase	Test of no-load efficiency	between phase and phase	Test of no-load efficiency	between phase and phase	Test of no-load efficiency	between phase and phase	Test of no-load efficiency	between phase and phase
No-load efficiency	0.8	No-load efficiency	0.8	No-load efficiency	0.8	No-load efficiency	0.8	No-load efficiency	0.8
13. Test of no-load temperature	between phase and phase	Test of no-load temperature	between phase and phase	Test of no-load temperature	between phase and phase	Test of no-load temperature	between phase and phase	Test of no-load temperature	between phase and phase
No-load temperature	25°C	No-load temperature	25°C	No-load temperature	25°C	No-load temperature	25°C	No-load temperature	25°C
14. Test of no-load humidity	between phase and phase	Test of no-load humidity	between phase and phase	Test of no-load humidity	between phase and phase	Test of no-load humidity	between phase and phase	Test of no-load humidity	between phase and phase
No-load humidity	50%	No-load humidity	50%	No-load humidity	50%	No-load humidity	50%	No-load humidity	50%
15. Test of no-load pressure	between phase and phase	Test of no-load pressure	between phase and phase	Test of no-load pressure	between phase and phase	Test of no-load pressure	between phase and phase	Test of no-load pressure	between phase and phase
No-load pressure	1013hPa	No-load pressure	1013hPa	No-load pressure	1013hPa	No-load pressure	1013hPa	No-load pressure	1013hPa
16. Test of no-load speed	between phase and phase	Test of no-load speed	between phase and phase	Test of no-load speed	between phase and phase	Test of no-load speed	between phase and phase	Test of no-load speed	between phase and phase
No-load speed	1500rpm	No-load speed	1500rpm	No-load speed	1500rpm	No-load speed	1500rpm	No-load speed	1500rpm
17. Test of no-load torque	between phase and phase	Test of no-load torque	between phase and phase	Test of no-load torque	between phase and phase	Test of no-load torque	between phase and phase	Test of no-load torque	between phase and phase
No-load torque	100Nm	No-load torque	100Nm	No-load torque	100Nm	No-load torque	100Nm	No-load torque	100Nm
18. Test of no-load vibration	between phase and phase	Test of no-load vibration	between phase and phase	Test of no-load vibration	between phase and phase	Test of no-load vibration	between phase and phase	Test of no-load vibration	between phase and phase
No-load vibration	0.1mm/s	No-load vibration	0.1mm/s	No-load vibration	0.1mm/s	No-load vibration	0.1mm/s	No-load vibration	0.1mm/s
19. Test of no-load noise	between phase and phase	Test of no-load noise	between phase and phase	Test of no-load noise	between phase and phase	Test of no-load noise	between phase and phase	Test of no-load noise	between phase and phase
No-load noise	60dB	No-load noise	60dB	No-load noise	60dB	No-load noise	60dB	No-load noise	60dB
20. Test of no-load protection	between phase and phase	Test of no-load protection	between phase and phase	Test of no-load protection	between phase and phase	Test of no-load protection	between phase and phase	Test of no-load protection	between phase and phase
No-load protection	0.1s	No-load protection	0.1s	No-load protection	0.1s	No-load protection	0.1s	No-load protection	0.1s

FREQUENCY AND VOLTAGE CURVES



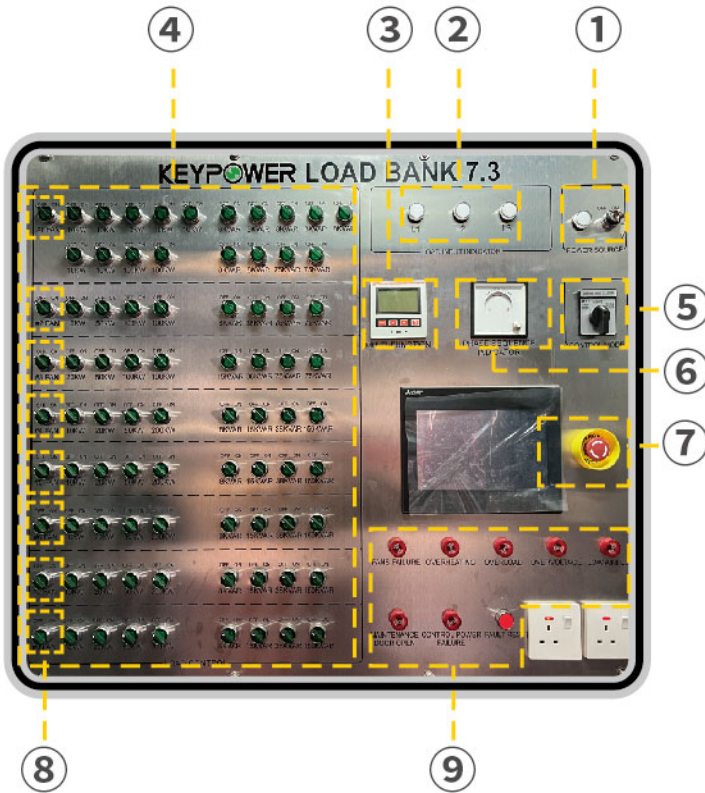
HARMONIC CURVE



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.

MEASUREMENT MODE	PARAMETERS
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.

Control Panel

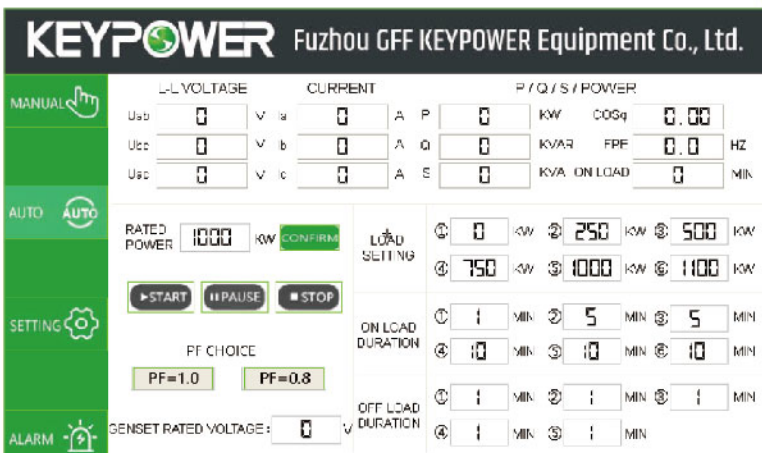


MANUAL CONTROL	FUNCTION
① Turn on / off power source	Tested power source input
② Load input indicator	Indicate U V W load input normal or not
③ Multi-function meter	Show testing parameters
④ Master load on / off	One step loading / unloading
⑤ Control mode selection	Choose control mode: Local manual control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

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