

# LOAD BANK KPLB-1400



### KEYPOWER LOAD BANK:

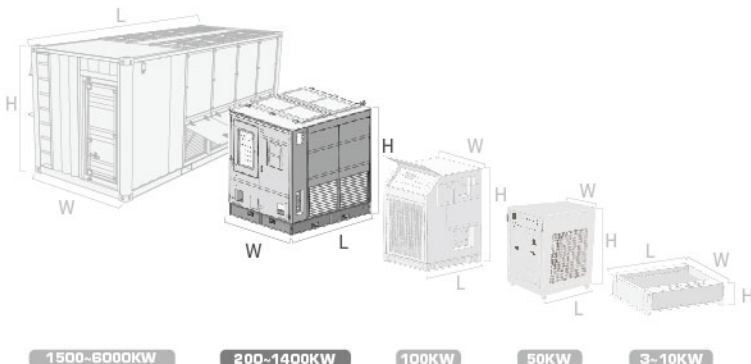
- \* Frequency: 50/60 Hz;
- \* Voltage range: AC 110-690V;
- \* Duty: Continuous;
- \* Cooling system: Industrial grade axle fans;
- \* Discharged air direction: horizontal for 100 kw, vertical for larger models;
- \* Control power phase: Single-phase, two-wire for 500 kw and below; three-phase, four-wire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

### GENERAL SPECIFICATIONS

	Model	KPLB-1400
	Capacity	1400kW
	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	3P4W 220 - 480V



## Dimension and Weight



DIMENSION		KPLB-1400	
	Length (L)	mm	3500
	Width (W)	mm	2270
	Height (H)	mm	2150
	Weight	kg	3150

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	Canopy type
Parameter measuring accuracy grade	0.5
Noise level	83 dBA @ 1m
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*12 (non-intelligent type) 0-10kW*1, 10kW*3, 20kW*3, 50kW*6, 100kW*10 (intelligent type)
Load bank protections	Fan failure alarm / Overload alarm / Overvoltage alarm / Overheating 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	
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

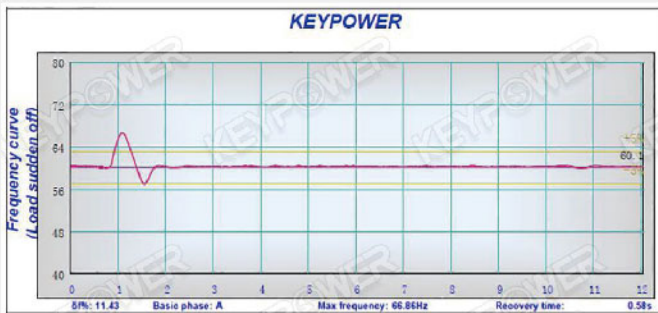
### GENERATOR TESTER



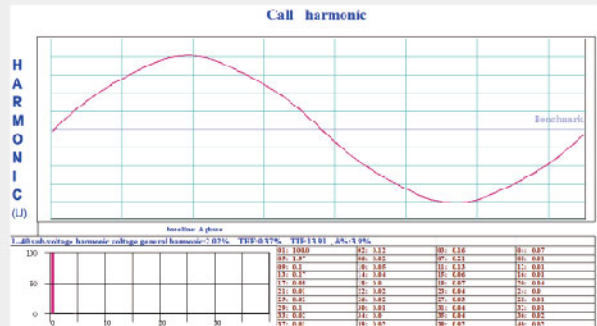
### TEST REPORT

Test report of generator set's steady performance									
Source: 0000000000		Model specification		Date of test: 2012-11-10		Serial No: 000000		Page No: 1 of 20	
1. Set type	1. Voltage	2. Set type	3. Power factor	4. Set type	5. Date of production	6. Date of production	7. Date of production	8. Date of production	9. Date of production
Rated frequency	Rated power	Rated current	Rated voltage	Rated power	Rated current	Rated voltage	Rated power	Rated current	Rated voltage
Generator type	Generator type	Generator type	Generator type	Generator type	Generator type	Generator type	Generator type	Generator type	Generator type
2. Test of insulation resistance between phase and ground	3. Test of insulation resistance between phase and phase	4. Test of insulation resistance between phase and ground	5. Test of insulation resistance between phase and phase	6. Test of insulation resistance between phase and ground	7. Test of insulation resistance between phase and phase	8. Test of insulation resistance between phase and ground	9. Test of insulation resistance between phase and phase	10. Test of insulation resistance between phase and ground	11. Test of insulation resistance between phase and phase
Insulation resistance	Insulation resistance	Insulation resistance	Insulation resistance	Insulation resistance	Insulation resistance	Insulation resistance	Insulation resistance	Insulation resistance	Insulation resistance
3. Check error indicator equipment with condition of motor running	4. Check error indicator equipment with condition of motor running	5. Check error indicator equipment with condition of motor running	6. Check error indicator equipment with condition of motor running	7. Check error indicator equipment with condition of motor running	8. Check error indicator equipment with condition of motor running	9. Check error indicator equipment with condition of motor running	10. Check error indicator equipment with condition of motor running	11. Check error indicator equipment with condition of motor running	12. Check error indicator equipment with condition of motor running
4. Load test	5. Load test	6. Load test	7. Load test	8. Load test	9. Load test	10. Load test	11. Load test	12. Load test	13. Load test
Power (kW)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)
Current (A)	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)
Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)
Steady time	Steady time	Steady time	Steady time	Steady time	Steady time	Steady time	Steady time	Steady time	Steady time
Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time
5. Load test	6. Load test	7. Load test	8. Load test	9. Load test	10. Load test	11. Load test	12. Load test	13. Load test	14. Load test
Power (kW)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)
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Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time
6. Load test	7. Load test	8. Load test	9. Load test	10. Load test	11. Load test	12. Load test	13. Load test	14. Load test	15. Load test
Power (kW)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)
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7. Load test	8. Load test	9. Load test	10. Load test	11. Load test	12. Load test	13. Load test	14. Load test	15. Load test	16. Load test
Power (kW)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)
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9. Load test	10. Load test	11. Load test	12. Load test	13. Load test	14. Load test	15. Load test	16. Load test	17. Load test	18. Load test
Power (kW)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)	Power (kVA)
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Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)	Frequency (Hz)
Steady time	Steady time	Steady time	Steady time	Steady time	Steady time	Steady time	Steady time	Steady time	Steady time
Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time	Recovery time
10. Load test	11. Load test	12. Load test	13. Load test	14. Load test	15. Load test	16. Load test	17. Load test	18. Load test	19. Load test
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Steady time	Steady time	Steady time	Steady time	Steady time	Steady time	Steady time	Steady time	Steady time	Steady time
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### FREQUENCY AND VOLTAGE CURVES



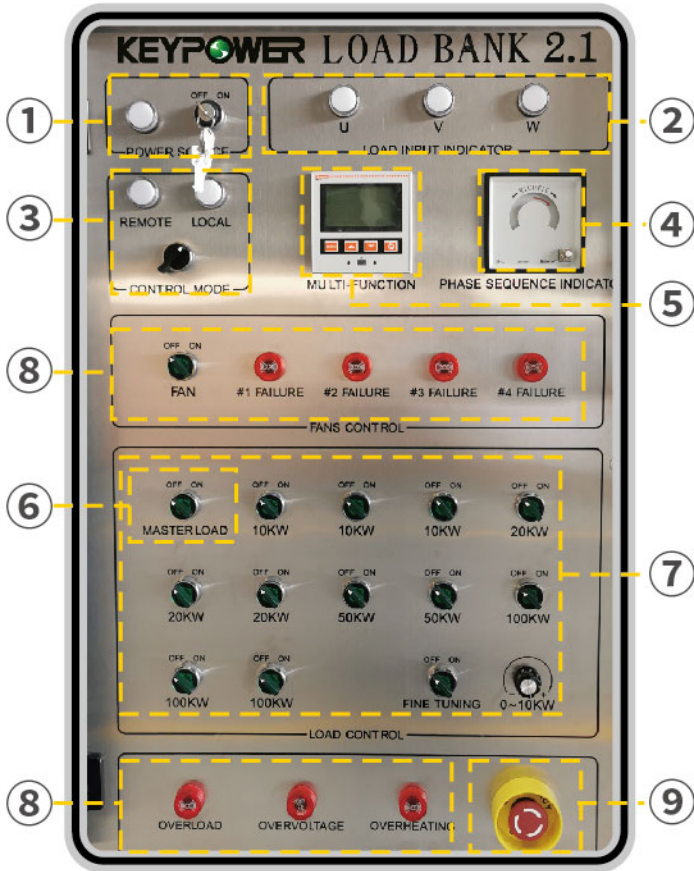
### HARMONIC CURVE



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

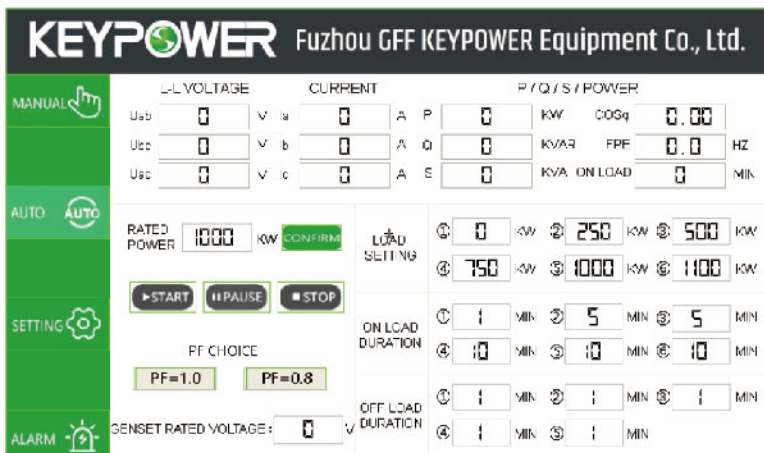


MANUAL CONTROL	FUNCTION
① Turn on / off power source	Tested power source input
② Load input indicator	Indicate U V W load input normal or not
③ Control mode selection	Choose control mode: Local manual control / Touch screen control / Remote control
④ Phase sequence indicator	Indicate phase sequence of 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**<sup>®</sup> PLC



Intelligent Control Interface