LOAD BANK

KPLB-5000

KEYPOWER®
Anytime Anywhere, Power Solutions

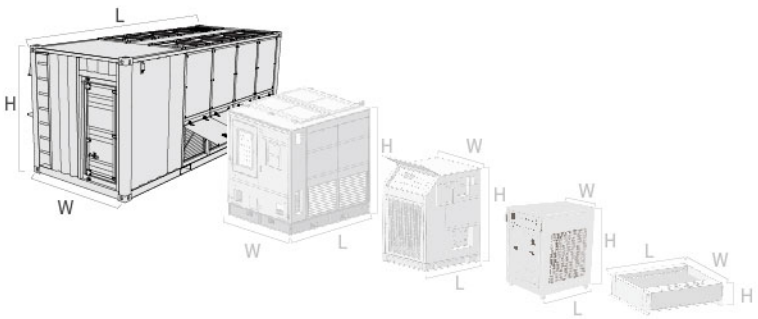
GENERAL SPECIFICATIONS	
Model	KPLB-5000
Capacity	5000KVA / 4000kW
Type of load	Resistive & inductive load
Power factor	0.8 / 1.0
Duty cycle	Continuous
Cooling system	Industrial grade axial fan
Cooling mode	Forced air-cooled
Airflow	Vertical discharge
Phase	Available at both single and three phase
Rated testing voltage	3P3W 110 - 690V
Rated frequency	50Hz / 60Hz
Number of fans	12
Control power input voltage	3P4W 220 - 480V

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.

50/60 HZ FREQUENCY | DRY TYPE | FORCED AIR COOLED | SOUNDPROOF | CERTIFICATION | ISO 9001

Dimension and Weight



DIMENSION		KPLB-5000
Length (L)	mm	12192
Width (W)	mm	2438
Height (H)	mm	2896
Weight	kg	26000

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 dust
Altitude	⩽3000m above sea level
Wire Connection	Socket / Terminal
Load Tolerance (each step)	±5%
Load Tolerance (overall)	±3%
Enclosure	ISO 40HC Container
Parameter measuring accuracy grade	0.5
Noise level	86 dBA @ 1m
Enclosure protection class	IP 54
Forklift handling	No

CONTROL PANEL	
Control mode (Standand)	Local manual control
Control mode (Optional)	Intteligent / remote control
Remote control distance	⩽100 m
Load step	10kW*4, 20kW*3, 50kW*2, 100kW*8, 200kW*15 / 8kvar*4, 15kvar*3, 38kvar*2, 75kvar*8, 150kvar*15 (non-intelligent type)
	10kW*13, 20kW*6,50kW*7, 100kW*6, 200kW*14 / 8kvar*13, 15kvar*6,38kvar*7, 75kvar*6, 150kvar*14 (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		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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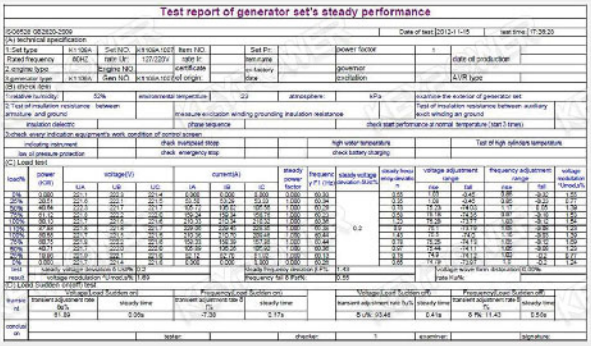
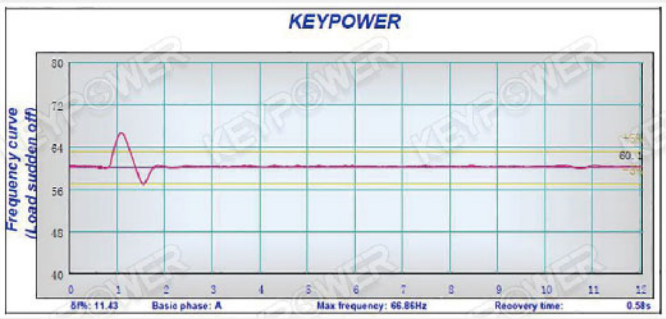
Generator Tester Function

GENERATOR TESTER

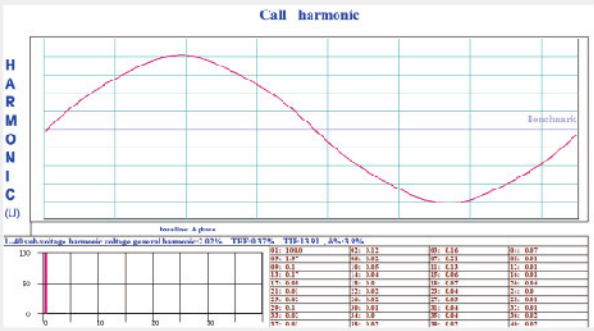
TEST REPORT


Test report of generator set's steady performance

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.

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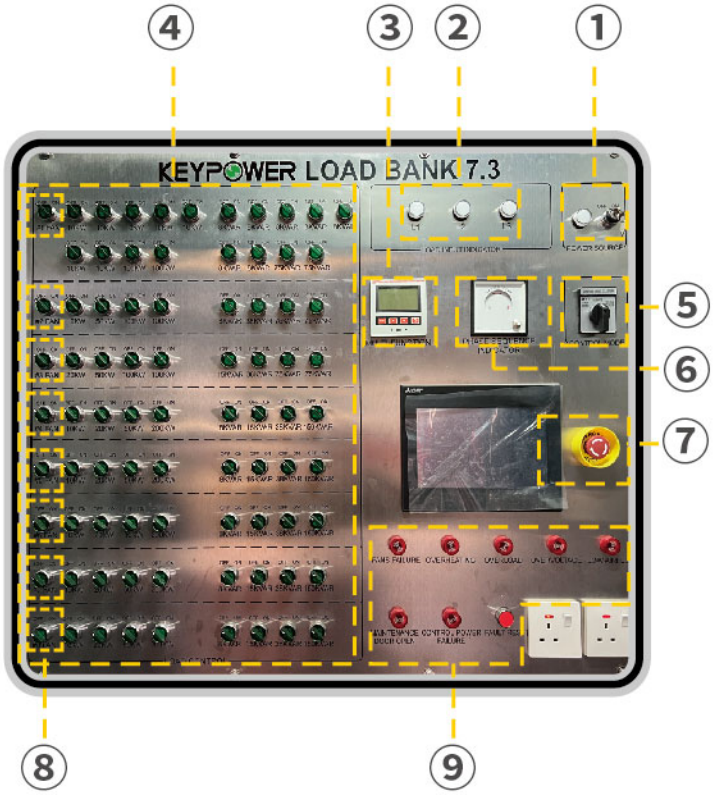
Control Panel

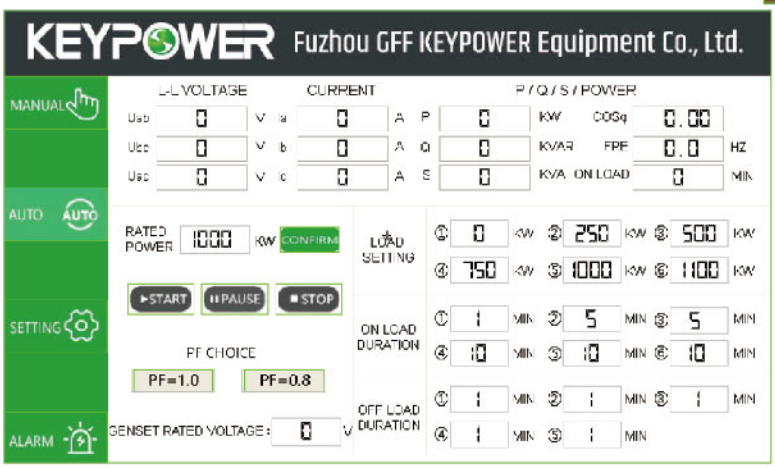


MANUAL CONTROL		FUNCTION
①	Turn on / off power source	Tested power source input
②	Load imput indicator	Indicate U V W load imput normal or not
③	Multi-function meter	Show testing parameters
④	Master load on / off	One step loading / unloading
⑤	Control mode selection	Choose control mode: Local manual 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

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