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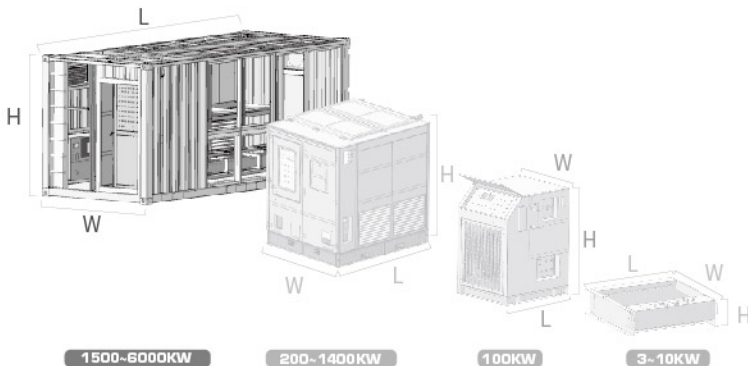
* Frequency: 50/60 Hz;
* Voltage range: AC 110-690V;
* Duty: Continuous;
* Cooling system: Industrial grade axle fans;
* Discharged air direction: horizontal for 100 kw, vertical for larger models;
* Control power phase: Single-phase, two-wire for 500 kw and below; three-phase, four-wire for larger models.

**50/60 HZ** FREQUENCY    **DRY TYPE**    FORCED AIR COOLED    SOUNDPROOF    CE CERTIFICATION    QC ISO 9001

# Dimension and Weight

1500~6000KW    200~1400KW    100KW    3~10KW

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

# Technical Specifications

## PERFORMANCE PARAMETER

| | |
|---|---|
| Ambient Temperature | -10℃ ~ +55℃ |
| 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)<br>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℃ |
| Load Tolerance | ±5% |
| Warranty | 3 years with unlimited hours |

## INDUCTOR FEATURES

### INDUCTIVE TYPE

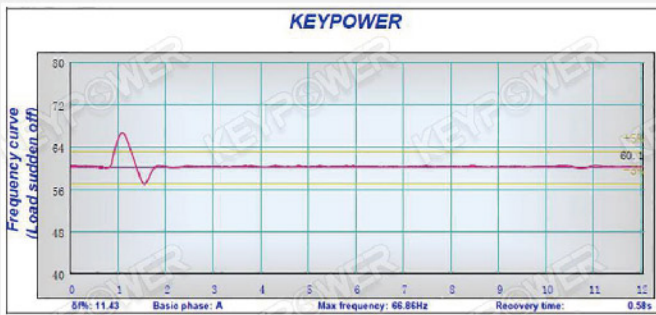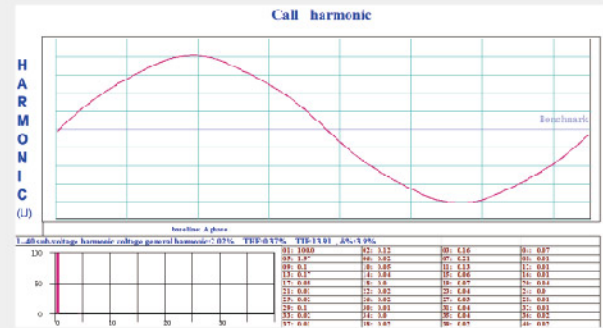| | |
|---|---|
| Insulation level | Class H |
| Operating temperature | -25 ~ 60℃ |
| Flame retardant rating | UL94 - V0 |
| Surface treatment | Conformal coating |
| Fastener treatment | Hot-dip galvanized |
| Overall treatment | Vacuum impregnation varnish |

## Generator Tester Function

### GENERATOR TESTER



### TEST REPORT



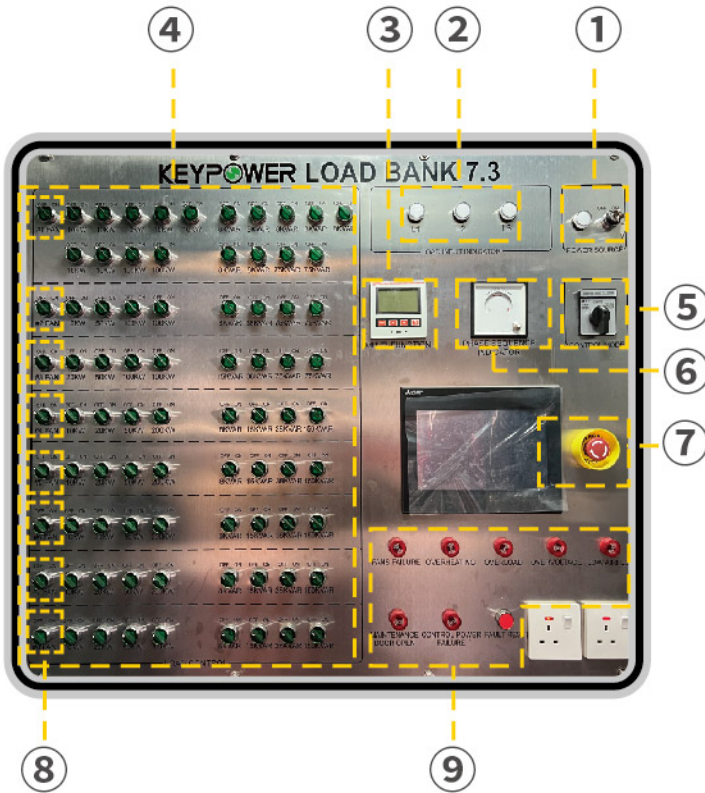### FREQUENCY AND VOLTAGE CURVES



### 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 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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