

HLB60-120 20kW to 39kW Dual Voltage DC/AC Load Bank Range

- Operator constant current control
- Lead Acid or Ni-cad battery testing
- DC Battery charger and rectifier testing
- AC single phase UPS and generator testing
- Auto range selection
- Simple operation via panel switches
- Test sockets for voltage & current readings
- Safety isolation contactors
- Fan fail protection
- Portable



Case Size D HLB60-120

The Hillstone **HLB60-120** series load banks are designed to perform a manually controlled constant current discharge on lead acid or Ni-Cad batteries up to 130 volts.

Fine control is provided from approximately 1A to max current via panel mounted switches.

The unit has force cooled high power resistor elements and several safety features including:

- fan fail auto shut-down,
- emergency stop push button and
- battery isolation of each load circuit via continuously rated DC contactors.

All designs incorporate the Hillstone dual voltage feature which allows double the available load current at half voltage.

HLB60-120 Performance Rating Table

Loadbank Type No.	Max Watts	Range 1 I @65V DC	Range 2 I @130V D	Range 1 Minimum Ohms	Range 2 Minimum Ohms
HLB60-120-20	20 kW	300 A	150 A	0.22 Ω	0.87 Ω
HLB60-120-26	26 kW	400 A	200 A	0.16 Ω	0.65 Ω
HLB60-120-32	32 kW	500 A	250 A	0.13 Ω	0.52 Ω
HLB60-120-39	39 kW	600 A	300 A	0.11 Ω	0.43 Ω

For lower battery voltages the available constant current discharge rate will reduce proportionally.

HLB Included Features

HLB60-120

User Features & Controls:-

Manual load bank regulation and control of the discharge test	✓
High powered fan using auxiliary mains supply	✓
DC load banks are designed using mica resistor technology	✓

Electrical Safety Package:-

Master On / Off control	✓
Emergency stop push button	✓
Battery isolation from DC rated contactors	✓

Electrical Alarm Package:-

High Volts (Common Alarm)	✓
Reverse Polarity (Common Alarm)	✓
Open Circuit Voltage (Common Alarm)	✓

Movement:-

Swivel Castors	✓
Forklift Pockets (Case Size E)	✓

Mechanical Alarm package:-

Cooling Fan Motor Start Protection	✓
Over Temperature Alarm (Common Alarm)	✓
Fan Fail Alarm (Common Alarm)	✓

User operation

To perform a manual constant current discharge testing the operator uses panel mounted switches to set the current and manually adjusts the load to regulate the discharge current throughout the test.	✓
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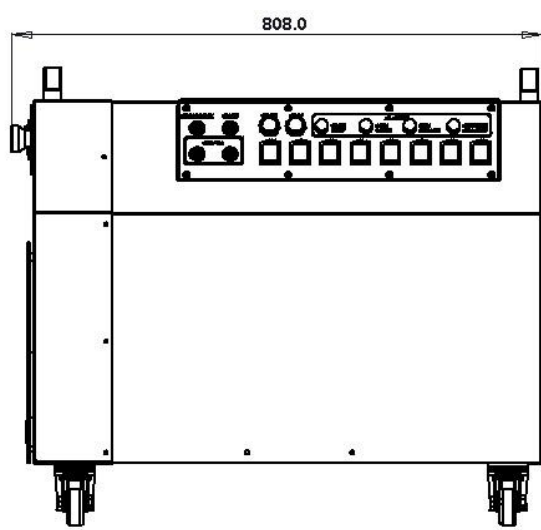
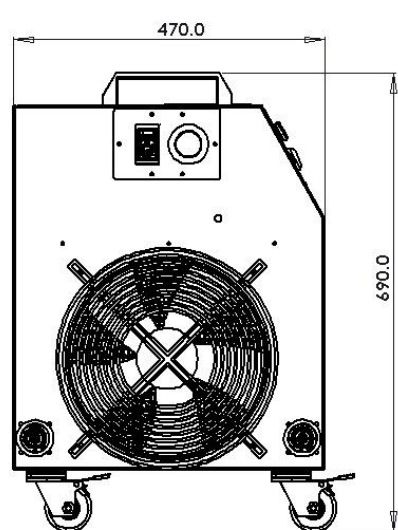
HLB60-120 Series Specification


Nominal Voltage	Range 1: 60V	Range 2 : 120V
Maximum Voltage	Range 1: 65V	Range 2 : 130V
Maximum Number of Lead Acid Cells	Range 1 : 30 Cells	Range 2 : 60 Cells
Maximum Number of Ni-cad Cells	Range 1 : 48 Cells	Range 2 : 96 Cells
Minimum Load Step Resolution	1A	
Rating	DC or AC single phase 50-60 Hz Continuous operation at full load, max voltage	
Typical load steps	See Load Step rating table	
Resistor tolerance	<2%, Hillstone mica resistor technology	
Test Sockets	4 mm shrouded test sockets are provided to allow the test engineer to measure amps and volts using a multimeter.	
Auxiliary Mains Supply	230/240V Single phase 50/60 Hz (110V optional)	
Auxiliary Mains Cable Set	2 metre mains cable set with UK 13A or CEE 16A plugs	
DC Cable Set	3m DC Cable Set Included	
Case Size Construction	Size C & D: Aluminium	Size E: Aluminium with stainless steel exhaust grill
Movement	Size C & D: swivel castors & carrying handles Size E: swivel castors & fork pockets	
Finish	Powder coated textured finish	
Environmental Protection Rating	IP21	
Cooling	Force air cooling, horizontal fans	
Temperature	Operating: 0 – 40 °C Storage: 0 – 80 °C	
PLC software	HPBL-M rev002c	

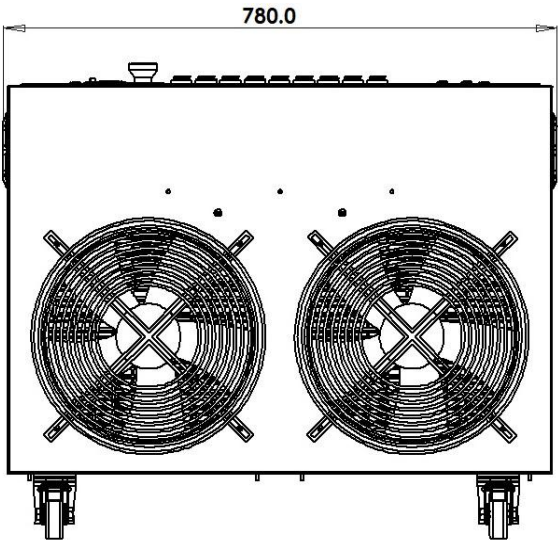
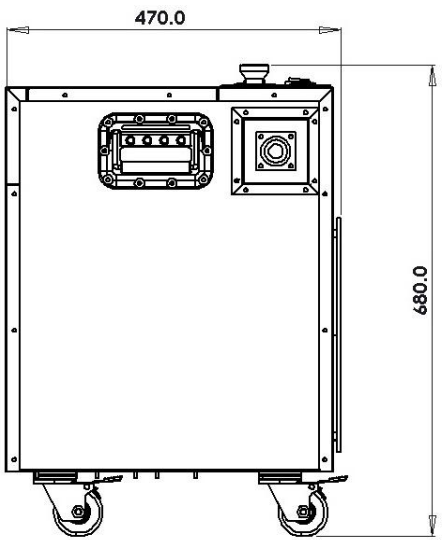
Notes

1. Units are designed for indoor use in a clean, dry and well ventilated environment.
2. The available current and ratings are proportional to the end of test voltage.
3. Information in technical literature, quotations or datasheets are intended to be correct at the time of publication. Hillstone Products Ltd bears no responsibility for the accuracy of any information given.
4. We reserve the right to make detailed changes to specification, components, dimensions or weights at the time of design or manufacture without prior notice.
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Channel	HLB60-120-20		HLB60-120-26		Case Size C
	65V Amps	130V Amps	65V Amps	130V Amps	
1	2.2	1.1	2.2	1.1	
2	4.3	2.2	4.3	2.2	
3	8.7	4.3	8.7	4.3	
4	17	8.7	17	8.7	
5	35	17	35	17	
6	69	35	69	35	
7	69	35	139	69	
8	104	52	139	69	
Total	310A	155A	414A	207A	

Loadbank	Case Size	Length (mm)	Width (mm)	Height (mm)	Approx. Weight (kgs)
HLB60-120-20	C	825mm	470mm	655mm	33kgs
HLB60-120-26					36kgs
Case Size C					
	Packed Dims	Wooden case inc 3m cable set	1000mm	600mm	850mm

Channel	HLB60-120-32		HLB60-120-39		Case Size D
	65V	130V	65V	130V	
	Amps	Amps	Amps	Amps	
1	2.2	1.1	2.2	1.1	
2	4.3	2.2	4.3	2.2	
3	8.7	4.3	8.7	4.3	
4	17	8.7	17	8.7	
5	35	17	35	17	
6	69	35	69	35	
7	69	35	69	35	
8	139	69	139	69	
9	173	87	277	139	
Total	518A	259A	622A	311A	

Loadbank	Case Size	Length (mm)	Width (mm)	Height (mm)	Approx. Weight (Kgs)
HLB60-120-32 HLB60-120-39	D	780mm	470mm	680mm	45Kgs
Case Size D					
	Packed Dims	Wooden case inc 3m cable set	1000mm	600mm	850mm

Easy load bank selector and max load calculator for different test voltages

STEP 1

- Determine the max test voltage
- Use Range 1 for max test voltages below 65V
- Use Range 2 for max test voltages below 130V

STEP 2

- Calculate required minimum ohms = Min volts / test Amps
- Example: 43 volts / 185 amps = 0.23 ohms

STEP 3

- Select minimum ohms from the appropriate Range on the rating table
- Note: always select a lower ohmic value that the result in step 2
- Example: HLB60-120-20 = 0.40 ohms on Range 1 and will provide 107A at 43V

Optional Accessory Battery Fuse Connection Box with BattScan Data Logger

The Battery Fuse Box provides cable protection with in line fuses between the battery & the load bank for both the +Ve & -Ve cables

Insulated panel mounted sockets provide safe cable connections and are identified as Red for +Ve & Black for -Ve

The **BattScan** data logging systems is an integral part of the Battery Fuse Box as it provides the ability to record the discharge performance to an SD card for data exporting **Volts - Amps - Temperature - A/hrs - elapsed time** to a laptop running **BattLife**



Optional Accessories



Flight Case



Safety First Fuse Box

BattLife

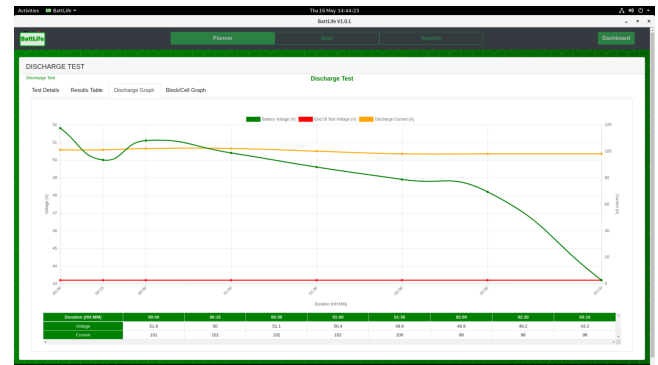
The **BattLife** software app is a battery maintenance tool used for auditing and maintenance of standby batteries used in DC systems, UPS Systems and Generators.

The **BattLife** software app allows engineers to extend the life of the battery and prevent premature failures by combining discharge results with impedance or conductance data gathered over the life of the battery.

The **BattLife** gives true battery historical state of health understanding by integrating load bank capacity testing with conductance / impedance readings

The key BattLife modules are:

- Site Manager
- Battery Manager
- Test Manager
- Report Manager



[Download BattLife](#)

Standards And Quality Assurance

The **HLB DC Load Bank Range** is manufactured in the UK to EU standards and ISO procedures:

Low Voltage Directive 2006/95/EC

EMC Directive 2004/108/EC

BSEN61000-6-3 2007 amendments for 2011

BSEN61000-6-1 2007

BSEN61000-6-4 2007 amendments for 2011

Hillstone Products Quality Assurance procedures ISO 9001:2015



ISO
9001 : 2015
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