

HLB240-480 13kW to 78kW 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 HLB248-480

The Hillstone **HLB240-480** series load banks are designed to perform a manually controlled constant current discharge on lead acid or Ni-Cad batteries up to 520 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.
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All designs incorporate the Hillstone dual voltage feature which allows double the available load current at half voltage.

HLB240-480 Performance Rating Table

Loadbank Type No.	Max Watts	Range 1 I @260V DC	Range 2 I @520V D	Range 1 Minimum Ohms	Range 2 Minimum Ohms
HLB240-480-13	13kW	50A	25A	5.2Ω	21.0Ω
HLB240-480-32	32kW	125A	62A	2.1Ω	8.4Ω
HLB240-480-52	52kW	200A	100A	1.3Ω	5.2Ω
HLB240-480-58	58kW	223A	112A	1.2Ω	4.6Ω
HLB240-480-78	78kW	300A	150A	0.90Ω	3.5Ω

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

HLB Included Features	HLB240-480
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.	✓




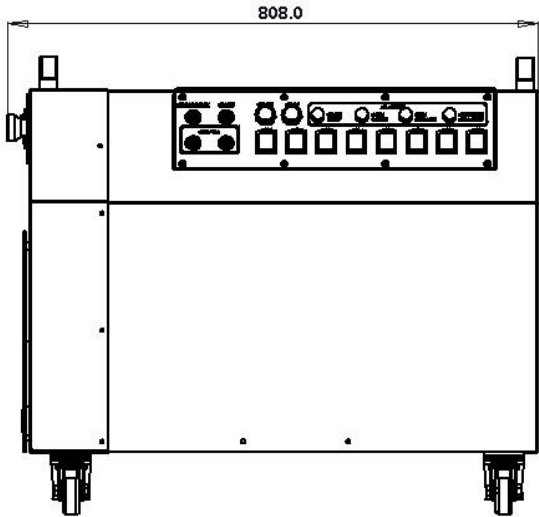
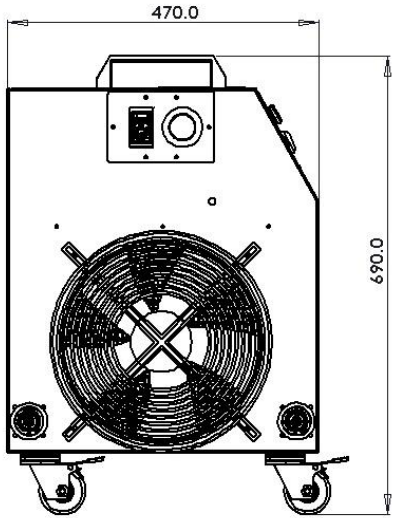
HLB240-480 Series Specification


Nominal Voltage	Range 1: 240V	Range 2 : 480V
Maximum Voltage	Range 1: 260V	Range 2 : 520V
Maximum Number of Lead Acid Cells	Range 1 : 120 Cells	Range 2 : 240 Cells
Maximum Number of Ni-cad Cells	Range 1 : 184 Cells	Range 2 : 368 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	

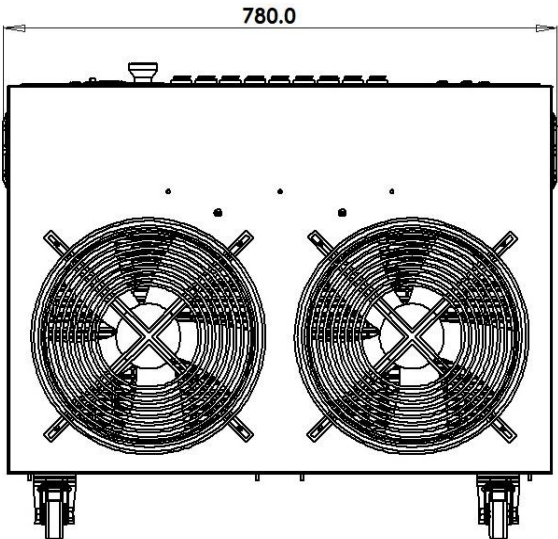
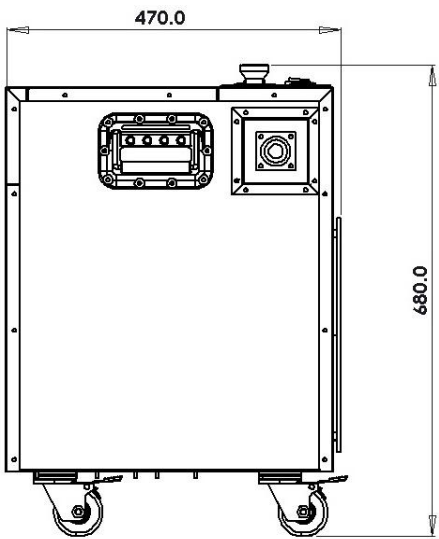
Notes

- Units are designed for indoor use in a clean, dry and well ventilated environment.
- The available current and ratings are proportional to the end of test voltage.
- 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.
- 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	HLB240-480-13		HLB240-480-32		Case Size C
	260V Amps	520V Amps	260V Amps	520V Amps	
1	1.1	0.5	1.1	0.5	
2	2.2	1.1	2.2	1.1	
3	4.3	2.2	4.3	2.2	
4	8.7	4.3	8.7	4.3	
5	17	8.7	17	8.7	
6	17	8.7	35	17	
7			61	30	
Total	51A	25.5A	129A	65A	

Loadbank	Case Size	Length (mm)	Width (mm)	Height (mm)	Approx. Weight (kgs)
HLB240-480-13	C	825mm	470mm	655mm	33kgs
HLB240-480-32					36kgs
Case Size C					
Packed Dims	Wooden case inc 3m cable set	1000mm	600mm	850mm	100kgs

Channel	HLB240-480-52		HLB240-480-58		Case Size D
	260V	520V	260V	520V	
	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	8.8	4.3	
4	17	8.7	17.6	8.7	
5	35	17	35	17	
6	69	26	52	26	
7	69	52	104	52	
Total	206A	103A	223A	112A	

Loadbank	Case Size	Length (mm)	Width (mm)	Height (mm)	Approx. Weight (Kgs)
HLB240-480-52 HLB240-480-58	D	780mm	470mm	680mm	45Kgs
Case Size D					
	Packed Dims	Wooden case inc 3m cable set	1000mm	600mm	850mm

HLB240-480-78

Case Size E

Channel	260V	520V
	Amps	Amps
1	2.2	1.1
2	4.3	2.2
3	8.7	4.3
4	17	8.7
5	26	13
6	52	26
7	87	43
8	104	52
Total	301A	151A



Loadbank

Case Size

Length (mm)

Width (mm)

Height (mm)

Approx. Weight (Kgs)

HLB240-480-78

E

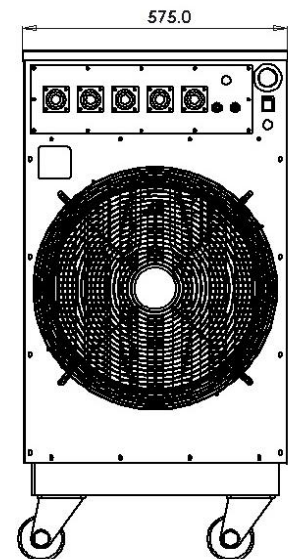
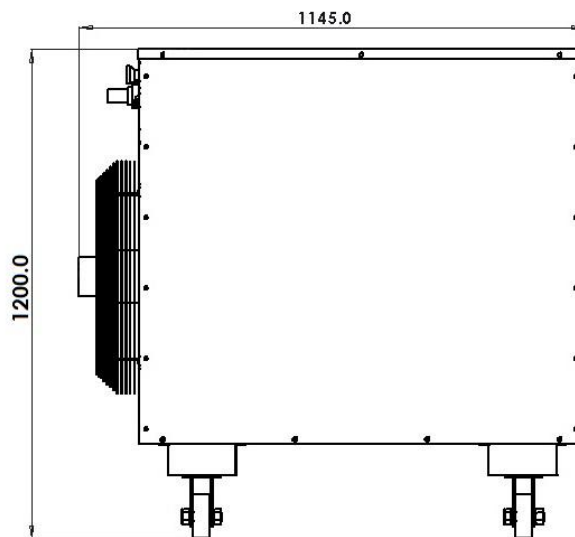
1145mm

575mm

1200mm

110Kgs

Case Size E



Packed Dims

Wooden case
inc 3m cable set

1300mm

700mm

1450mm

250kgs

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 260V
- Use Range 2 for max test voltages below 520V

STEP 2

- Calculate required minimum ohms = Min volts / test Amps
- Example: 216 volts / 160 amps = 1.35 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: HLB1240-480-52 = 1.3 ohms on Range 1 and will provide 166A at 216V

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

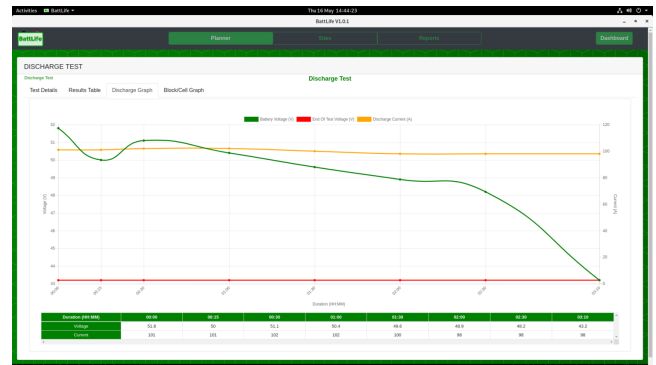
The **BattLife** software app is a battery maintenance tool used for auditing and maintenance of standby batteries used in DC systems, UPS Systems and Generators.

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
REGISTERED

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