



SUMMARY PRODUCT TECHNICAL SPECIFICATION

rev 0.3 Sept 2018

The new **BATTERY_loadbank** range **HPBL series** supersedes legacy HLB designs and the following specification details three new loadbanks: **HPBL-A-140-280-26kW**, **HPBL-A-120-240-16kW** and **HPBL-A-240-480-30kW**

The **HPBL** load bank package is supplied as a comprehensive battery discharge testing solution which includes:

- **HPBL** DC load bank
- **Battery Fuse** connection box & fully rated 3m cable set
- **BattLife** software app
- **Travel** flight case

The **HPBL-A** is a automatic battery discharge load bank supplied with **User** and **Safety Features** such as:

- **Automatic constant current** control
- **Alarm** package
- **Manual Handling** package
- **Electrical Safety** package



New features of the HPBL load bank are provided by the internal PLC controller which now includes:

- Automatic discharge control
- Over temperature alarm
- Fan failure
- Automatic dual voltage range selection
- High accuracy of measurement & display
- High voltage alarm
- End of test disconnect on volts & time

Additional safety features includes:

- Compatible power lock insulated connectors for cable and fuse box
- Battery Fuse Box

User operation

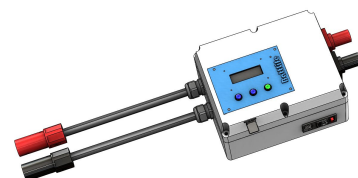
To perform automatic constant current discharge testing the operator uses easy to use oLED driven menu screens on the load bank to set the current and the required end of test voltage.

The load bank will automatically regulate the discharge current throughout the test.

Battery Fuse connection box

The **Battery Fuse Box** provides in line fuse protection for both the +Ve & -Ve cables between the battery & the load bank. Insulated panel mounted sockets allow safe cable connections.

The **Battery Fuse Box** when used with a manual load bank includes a oLED display showing current, voltage, ampere hours and discharge time, with the results saved to an SD card and laptop for analysis in the new **BattLife** software app. With an automatic load bank these features are added to the load bank.





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Rating table

Load Bank Type	Voltage Range 1	Constant Current	Voltage Range 2	Constant Current	Voltage Range 3	Current	Case Size
HPBL-A-140-280-26kW	280V*	96A*	140V*	191A*	70V*	95A*	1
	198V-280V	0.25A-68A	99V-140V	0.5A-135A	43V-52V	0.5A-59A	
* Note: maximum ratings shown							
HPBL-A-120-240-16kW	198V -260V	0.25A-61A	99V-130V	0.5A-122A	43V-52V	0.5A-200A	1
HPBL-A-240-480-30kW	396V-516V	0.25A-55A	198V-260V	0.5A-111A	99V-130V	0.5A-55A	1

Case Size

	No of fans	Length	Width	Height	Approx. Weight
Case Size 1	2	780mm	290mm	550mm + castors	30kgs

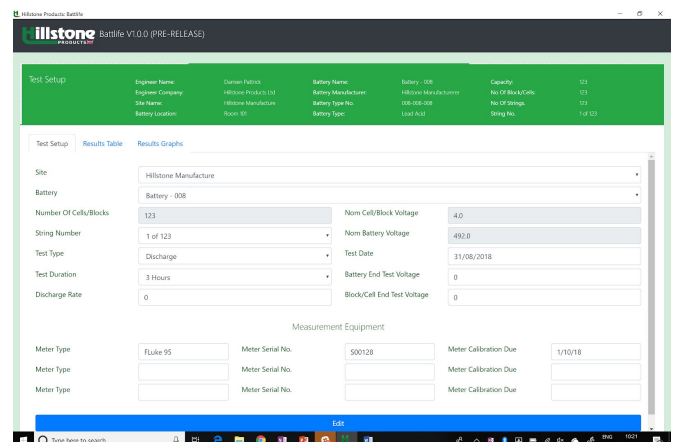
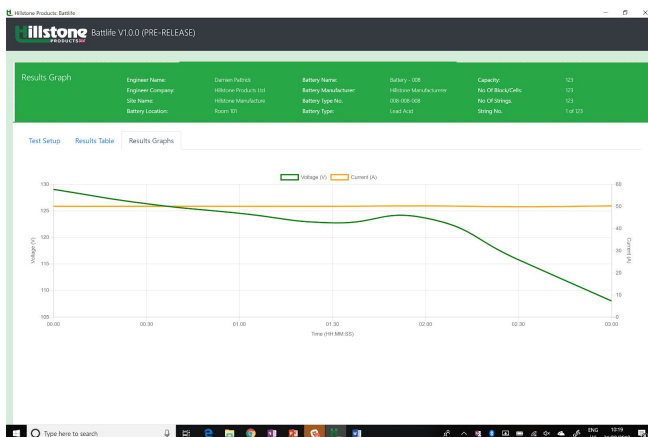
BattLife

The **BattLife** software app is a battery maintenance tool which will allow engineers to extend the life of the battery and prevent premature failures.

The **BattLife** software app gives true 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



The above screenshots show the Test Manager & discharge graph on the BattLife software app



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BATTERY_loadbank Series	Automatic
User features & controls:-	
Automatic load bank regulation and control of the discharge test	✓
High powered fans using auxiliary mains supply	✓
Onboard data logging to SD card & serial transfer to laptop app	✓
DC load banks are designed using Ni-Chrome Mica resistor technology	✓
Safety package:- Electrical	
Master On / Off control	✓
Fan ON control	✓
Emergency stop push button	✓
End of test disconnect on Voltage, Time	✓
Battery isolation from DC rated contactors	✓
Alarm package:- Electrical	
High volts	✓
Reverse polarity	✓
Open circuit voltage	✓
Safety package:- Mechanical	
Lifting Handles	✓
Swivel Castors	✓
Alarm package:- Mechanical	
Over temperature Alarm	✓
Fan fail Alarm	✓



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Specification

DC Cable Set (compatible with load bank & fuse box)	<ul style="list-style-type: none"> - 3 metre length - Fitted with M10 solderless lugs to the battery - Fitted with safety battery connectors to the load bank 	
Construction	Aluminium case design finished in textured & powder coated paint	
Auxiliary mains	Single phase 240V AC, 50/60Hz	
Cooling	Forced air cooling from horizontal fan power from auxiliary mains	
Environmental Protection Rating	IP21 for operating in a dry ventilated area	
Movement	Lifting handles with swivel castors	
Temperature	Operating: 0 – 40 deg C	Storage: 0 – 80 deg C

Standards and Quality Assurance:

The **Battery_loadbank** range is manufactured in the UK to the following EU standards and ISO QA 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 ISO9001:2015