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## Hillstone – VARICON- automatic constant current DC load bank

Type ref **HAV60-18 series2**

- Automatic range selection
- Lead Acid or Ni-cad battery testing
- Automatic constant current control
- Wide battery voltage range 12V to 60V DC
- Simple operation
- Auto stop on time and battery voltage
- Digital LCD display
- Safety isolation contactors
- Fan fail protection
- High power up to 18KW
- Compact design
- Cables included
- Portable
- Computer interface option



13 KW unit illustrated

The Hillstone **HAV60-18 series2** load bank is designed for automatic constant current DC battery discharge testing for a wide range of lead acid and ni-cad batteries and incorporates the unique Hillstone VARICON controller which provides a cost effective solution to fully automatic load banks. All units incorporate light weight, force cooled high power resistor elements and several safety features including reverse polarity connection, high battery volts, fan fail, auto shut-down, emergency stop push button and battery isolation of each load circuit via continuously rated DC contactors. The unit also includes automatic battery voltage selection, thereby eliminating incorrect operator use.

Load bank operation - The unit should be connected to a 240V ( 110V optional ) single phase auxiliary mains supply and also to the battery . On power up, the load bank will carry out a self diagnostic check to ensure the equipment is functioning correctly and also check the battery is connected correctly and the battery voltage is within the operating limits of the load bank design. The load bank will then automatically select the appropriate internal circuits which are compatible with the connected battery.

The operator then enters the required stop voltage and discharge time period, followed by the discharge current before commences the test by pressing the START push button.

The battery voltage, load current and elapse time will be displayed on the LCD display during the

test. The load bank will automatically maintain the load current constant at the pre-set value, as the battery voltage falls.

When the battery voltage falls to the pre-set end of discharge voltage ( or pre-set time period ) the test will stop by automatic disconnection via internal contactors. The display of elapse time and amperhours discharged will be frozen on the LCD screen. The test can be terminated at any time by pressing the manual STOP push button. The load bank also incorporates a PAUSE button which allows the test to be stopped and then re-started without re-setting all the test parameters. The elapse time and amperhours readings will also be re-start with resetting to zero. This feature enables operators to remove faulty cells during the test if required.

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## Specification

Type ref	HAV60-18 series2			
Nominal DC voltage ranges	6V	12V	24V	50V
Max. DC voltages	7.5V	15V	30V	60V
Max. DC currents	75A	150A	300A	300A
Max power rating	562W	4500W	9000W	18KW
Max. No. lead acid cells	3	6	15	30
Max. No. Ni-cad cells	6	12	22	42
Constant current performance ( rating dependant on voltage)	54A at 5.4V	108A at 10.8V	210A at 21V	215A at 43V
Load current adjustment	less than 1 amp to max current			
Digital Panel Display	4 line 20 character numerical backlit display			
Display information	Battery volts		Battery current	Elapse time
	Discharged Ampere hours		Test status / fault	
Auxiliary mains supply	240V single phase 50 hz			
Mains cable set	2 metre mains cable with IEC socket & UK 13A plug			
DC cable set	3 metre twin, flexible cable set with industrial plug/socket			
Case size	1000mm long x 500mm wide x 700mm high ( + 50 mm handles )			
Weight	55 kgs			
Finish	Light grey RAL7032 textured finish			
Environmental protection rating	IP21			
Movement	Swivel castors and top handles			
Operating temperature range	0 – 40 deg C			
Storage temperature range	0 – 80 deg C			

### Notes

- 1) Units are designed for indoor use only in a clean, dry and well ventilated environment.
- 2) The available constant current and ratings are proportional to the end of test voltage.
- 3) Information in technical literature, quotations or data sheets 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 detail changes to specification, components, dimensions or weights at the time of design or manufacture without prior notice.
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- 6) All designs and software is the intellectual property of Hillstone Products Ltd

### Optional extras

1. 110V auxiliary mains supply
2. Computer interface to transfer battery data to a laptop computer.
3. Extra length battery cables
4. Top lifting eyes

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