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Hillstone – VARICON- automatic DC load bank

Type ref **HAV520-28**

- Automatic range selection
- Lead Acid or Ni-cad battery testing
- Automatic constant current or constant power control
- Wide battery voltage range up to 540V DC
- Simple operation
- Auto stop on time and battery voltage
- Large character digital LCD display
- Safety isolation contactors
- Fan fail protection
- High power up to 28KW
- Compact design
- Cables included
- Portable
- Computer interface option



Typical unit illustrated

The Hillstone **HAV 520-28** load bank is designed for automatic 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 shutdown, 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 us

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 (or power) and then commences the test by pressing the START push button.

The battery voltage, load current, load watts, elapse time and amperhours discharged will be

displayed on the LCD display during the test. The load bank will automatically maintain the load current (or power) 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.

Specification

Type ref	HAV520-28				
Nominal DC voltage ranges	27V	54V	120V	250V	500V
Max. DC voltages	30V	65V	135V	270V	540V
Max. DC currents	100A	100A	52A	52A	52A
Max power rating	3000W	6500W	7000W	14KW	28KW
Max. No. lead acid cells	15	30	60	120	240
Max. No. Ni-cad cells	25	50	100	200	400
Constant current performance (rating dependant on voltage)	65A at 21V	65A at 43V	35A at 95V	35A at 192V	35A at 370V
Load current adjustment	1A to max current				
Digital Panel Display	4 line 20 character numerical display Large character backlit display				
Display information	Battery volts Battery current Elapse time Discharge watts Discharged Ampere hours Ambient temperature Constant current or constant power mode selection Discharge duration setting Discharge end voltage setting Load bank ready Test running Test complete Test stopped Battery high volts fault Battery reverse polarity 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	950mm long x 500mm wide x 650mm high				
Weight	55 kgs				
Finish	Light grey 00A05 textured finish				
Environmental protection rating	IP21				
Movement	Carrying handle and swivel castors				
Operating temperature range	0 – 40 deg C				
Storage temperature range	0 – 80 deg C				

Notes

- Units are designed for indoor use only in a clean, dry and well ventilated environment.
- The max current is stated at max voltage. The available constant current and constant power ratings are proportional to the end of test voltage.
- 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.
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Optional extras

- 110V auxiliary mains supply
- Computer interface to transfer battery data to a laptop computer.
- Extra length battery cables
- Foam lined flight case