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TECHNICAL SUMMARY SHEET

HAC415 series – 100KW to 200KW

3 PHASE AC LOAD BANKS

Five HAC415-200 load banks illustrated

Features

- *SIMPLE OPERATION*
- *INTELLIGENT HAND HELD CONTROLLER*
- *TWIST LOCK CABLE CONNECTORS*
- *SAFETY ISOLATION CONTACTORS*
- *FAN FAIL PROTECTION*
- *LOW COST*
- *HIGH POWER*
- *NO AUX MAINS REQUIRED*
- *FUSE PROTECTION*
- *PARALLEL OPERATION*
- *PC DATA LOGGING*

The Hillstone HAC series load banks offer a low cost solution to on-site AC testing of generators and UPS systems. Units incorporate force cooled high powered resistor elements controlled via our intelligent hand held controller. Safety features including twist lock cable connectors, HRC fuse protection, fan failure shut down and emergency stop push button. Digital meter and PC interface with data logging facilities are also available. Load banks can also be supplied for both three phase and single phase testing.

Performance table for UK ambient temperature

LOAD BANK type ref.	Max volts	Power at 415V	Amps at 415V	Power at 400V	Amps at 400V	Power at 380V	Amps at 380V	Case size	Approx weight
HAC415-100	415V	107KW	149A	98KW	142A	90KW	136A	A	150kgs
HAC415-160	415V	161KW	224A	148KW	214A	135KW	205A	B	180kgs
HAC415-200	415V	215KW	299A	197KW	286A	181KW	274A	C	200kgs

Specification

Max voltage	415 volts, three phase, 4 wire with neutral (for delta use see note 9)
Frequency	50 hz (60 hz operation optional)
Rating	see above table
Adjustment	from 1KW to max power, selected via hand held controller as description over leaf . (see note 2)
Controls	Control / fan control switch and emergency stop push button
Cable termination	Panel mounted, non interchangeable, fast connection, twist lock safety connectors for external cables to L1, L2, L3, N & earth (see note 3 & 4)
Cooling	3 phase, 50 Hz, horizontal force air cooling fan, powered from the test source (see note 5)
Element type	Insulated, air cooled, stainless steel, Incoly, finned sheathed resistor elements (see note 6)
Environmental Protection	Designed for outdoor operation, electrical control chamber IP54, element chamber IP21
Construction	Robust Zintec steel frame and panels and drip lid
Finish	Powered coated, textured finish RAL 7032
Operating temperature	0-40 deg C (see note 8)
Storage temperature	0-80 deg C
Movement	Swivel castors , lifting eyes plus folk lift
Optional extras	Digital panel meter Road trailer Panel switch controls Test cable sets Sun shield PC interface and data logging software Single phase testing operation 60 Hz operation Separate auxiliary control/fan supply 480V / 277V designs available Floor fixing kit Delta connection option Louvered inlet and outlets Aluminised steel

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HAC415 series continued .....

case size	length	width	height
A	1035 mm	635 mm	1170 mm
B	1135 mm	835 mm	1170 mm
C	1435 mm	835 mm	1170 mm

HAND HELD CONTROLLER – *iHHC* operation

The iHHC (intelligent hand held controller) provides remote control and display of the load bank power level. Two modes of operation are provided :

Load adjust mode allows the operator to pre-select the required load in KW's as displayed on the iHHC. Pressing the *ACCEPT* button on the iHHC will instruct the load bank to connect the requested power level and then automatically change the iHHC to **Running Load Mode.**

During **Running Load Mode** the operator can make incremental adjustments of the power level by pressing the *LOADUP* or *LOADDOWN* buttons. Any changes to the load selection will be shown on the iHHC display.

Notes : During **Running Load Mode** an operator can pre-select and *ACCEPT* an alternative load setting to simulate load profiles. A single iHHC can also control and display the total power of multiple, parallel connected load banks. When a digital panel meter and iHHC is fitted to a load bank, the iHHC will automatically display the measured KW's during Running Load mode. A ten metre interconnection control cable is provided with the iHHC. Longer control cables are available on request

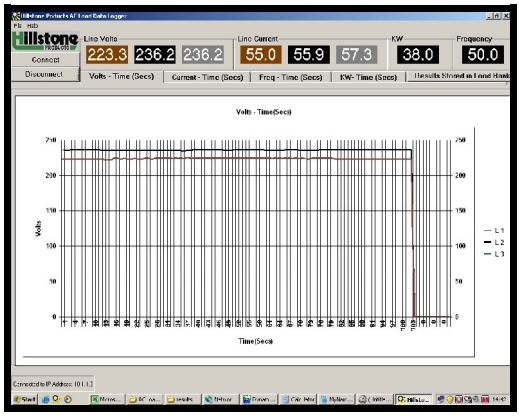
Optional extras - additional information

DIGITAL POWER METER

A panel mounted power meter can be provided to display, line volts, phase volts, line current, power and frequency.

PC INTERFACE & DATA LOGGING SOFTWARE

The PC interface and data logging software allows transfer and storage of test data to a laptop or PC using Hillstone software, (see note 7)
The computer display includes line volts, phase volts, line current, power and frequency plus a real time graphical display.



typical PC display

PANEL MOUNTED SWITCH CONTROLS

Where required, illuminated panel mounted switches can be provided to select the load steps. This reduced cost option is an alternative to the hand held controller.

SINGLE PHASE OPERATION

Special units can be ordered to allow both three phase and single phase testing.
The optional single phase performance is detailed below ;

LOAD BANK type ref.	Max volts	Power at 240V	Amps at 240V	Power at 230V	Amps at 230V	Power at 220V	Amps at 220V
HAC415-100	240V	36KW	149A	33KW	142A	30KW	136A
HAC415-160	240V	54KW	224A	49KW	214A	45KW	205A
HAC415-200	240V	72KW	299A	66KW	286A	60KW	274A

Notes :

1. Units are rated for continuous operation at max volts
2. Panel mounted load switches are available as an alternative to the hand held controller
3. Matching twist lock cable connectors are provided for you to fit to your external cables
4. Use L1, neutral and earth connectors only for optional single phase testing
5. Where single phase testing option is supplied the fan operates on 240V 50Hz supply from L1 and neutral.
6. Standard resistance element tolerance +/- 5%
7. Data logging software OS compatibility : Microsoft Windows XP
8. Our HT range of load banks are available for use above 40 deg C
9. Where delta connection testing is required with no neutral, a separate auxiliary supply is required.
10. Changes to specification, components, dimensions or weights may vary without prior notice.
11. Information in literature, quotations, manuals or data sheets are intended to be correct at the time of publication. Hillstone Products bears no responsibility for the accuracy of any information given.
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