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TECHNICAL SUMMARY SHEET

HAC415 series – 100KW to 200KW

3 PHASE AC LOAD BANKS

Five HAC415-100 load banks complete with hand held controllers

Features

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

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

Performance table

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	1	160kgs
HAC415-160	415V	161KW	224A	134KW	214A	135KW	205A	2	180kgs
HAC415-200	415V	215KW	299A	197KW	286A	181KW	274A	2	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, also see note 9)		
Rating	see above table		
Adjustment	from 1KW to max power, selected via panel mounted illuminated switches (see note 2)		
Controls	Control/fan control, emergency stop and load channel selector switches (see note 2)		
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	10 mm, insulated, air cooled, finned sheathed resistor elements (see note 6)		
Environmental Protection	Designed for outdoor operation, electrical control chamber IP54, element chamber IP21 (see note 7)		
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 7 and 8)		
Storage temperature	0-80 deg C		
Movement	Swivel castors , lifting eyes plus folk lifting points		
Optional extras	Digital panel meter PC interface and data logging software Separate auxiliary control/fan supply Matching twist lock connectors Louvered inlet and outlets	Hand held controller Single phase testing operation 480V / 277V designs available Delta connection option Aluminised steel	Test cable sets 60 Hz operation Floor fixing kit Sun shield Road trailer

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case size	length	width	height
1	1050 mm	830 mm	1070 mm
2	1250 mm	830 mm	1070 mm

Optional extras - additional information

HAND HELD CONTROLLER - *iHHC*

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.

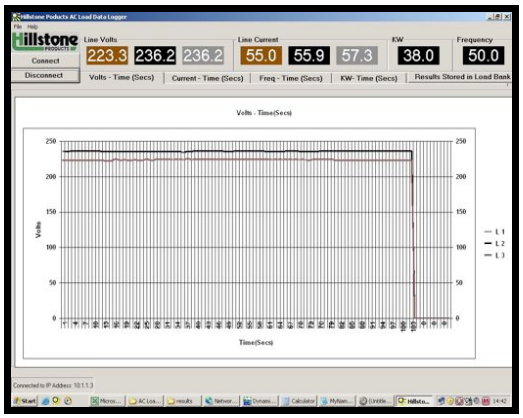
Notes : During **Running Load Mode** an operator can pre-select and *ACCEPT* an alternative load setting to simulate load profiles. A single iHHC can also control and display the total power of multiple, parallel connected load banks. When a digital panel meter and iHHC is fitted to a load bank, the 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

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/Windows XP software.
The computer display includes line volts, phase volts, line current, power and frequency plus a real time graphical display.



typical PC display

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. Where hand held controller iHHC is supplied, the panel mounted load switches are omitted
3. Matching twist lock cable connectors are available as an optional extra.
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. For high ambient operation in direct sun light, a sun shield option is recommended.
8. Contact our sales office for de-rating above 40 deg C ambient
9. Where delta connection testing is required with no neutral, or for dual 50/60 hz use, a separate auxiliary supply is required.
10. Changes to specification, components, dimensions or weights may vary without prior notice.
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