

Data Centre Testing Solutions

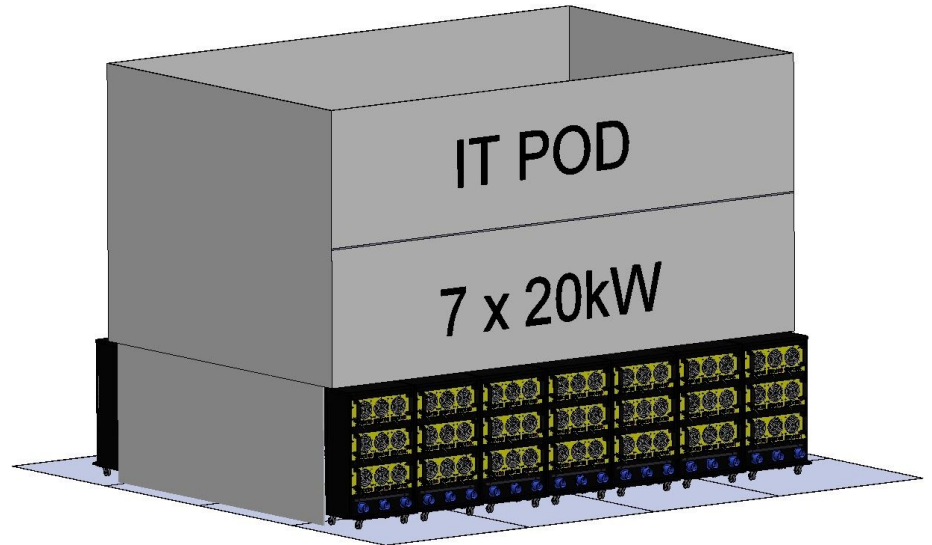
12 years of datacentre Integrated System Testing - IST



20kW - HMT-20



21kW - global control



IT-POD commissioning solutions from Hillstone

See the interactive [online video](#)

Hillstone can offer AC LoadView data logging and A-B load transfer with two IT POD testing solutions:

- Low cost 20kW Mini-tower
- 21kW 19" floor standing with global 5% load array control

Buy or rent from the UK leading experts in datacentre HeatLoad Server Simulators



Designed by Hillstone in UK

Manufacture by Hillstone in UK



Over 10,000 server simulators
manufactured since 2007

Used in datacentres across the world

Feature Guide	20kW Mini-tower	21kW Heat-Loadbank
		
Description:	Floor standing mini-tower housing 3 x HAC230-6RM server simulators	Designed for free standing or fitting into a 19" rack cabinet Global control from a single controller gives array load step adjustment
Designed for:	<ul style="list-style-type: none"> - Installation in temporary POD structure 	<ul style="list-style-type: none"> - Installation in temporary POD structure - 19" IT cabinet installation
Electrical compatibility:	<ul style="list-style-type: none"> - 1 Φ or 3 Φ IT cabinet busbar tap-off boxes. - 3 Φ 380V / 400V electrical systems - 1 Φ 220V / 230V electrical systems - 50Hz or 60Hz supplies 	<ul style="list-style-type: none"> - 1 Φ or 3 Φ IT cabinet busbar tap-off boxes. - 3 Φ 380V / 400V electrical systems - 1 Φ 220V / 230V electrical systems - 50Hz or 60Hz supplies
Connection & Control:	<ul style="list-style-type: none"> - Mini-tower front panel mounted 3 x Blue 32A plugs 	<ul style="list-style-type: none"> - Front panel mounted Red 5 pin 32A plugs - Global array Integrated controller for multiple POD installations - 10% load step control of 14 load banks contain IT POD
Junction Box Compatibility	7 x 20kW Mini-towers	140kW / 280kW A-B transfer LoadView

**** TOP TIP - LoadView datalog the UPS IT load profile during the IST ****

The LoadView datalogging Junction Box with Dual feed A-B auto load transfer

The **LoadView Junction Box**, is the latest 'new' datacentre product from Hillstone designed to enhance the IST commissioning process for datacentres.

Designed for connecting the A-UPS and B-UPS electrical feeds to load banks such as:

- Upto 7 or 14 x 20kW loads per POD
- 3 x 100kW loads to 500A bus bars

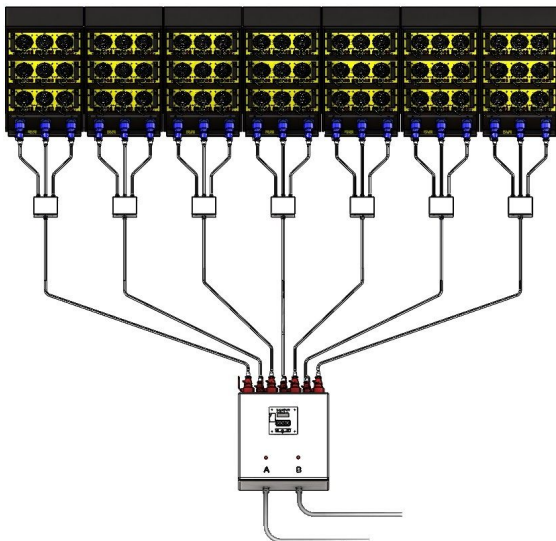
The **LoadView Junction Box** also allows A-B load transfer give integrity testing of the A & B UPS supplies.

- Deliver 100% autonomy testing on both A & B without re-wiring the installed load banks
- Deliver load acceptance testing of '**concurrently maintainable**' 50% transfer or A to be and B to A to prove UPS maintenance can be delivered without a loss of power the the IT load


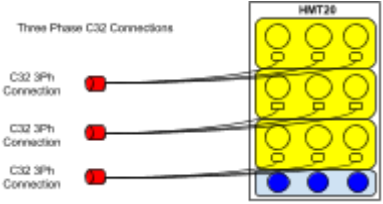

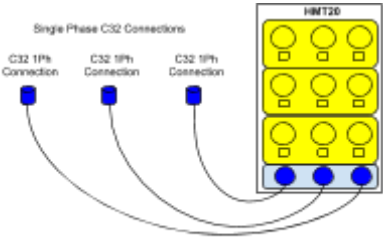


The **LoadView data logging** software system is a free to download and use app that allows graphical and data reporting (pdf) of the load delivered to the datacentre during the IST.

- Datalog the UPS load integrity and duration with free to use **LoadView** software
- All test parameters are recorded to a SD card and saved in CSV file format
- Phase and Line Voltages & Amps, kW, KVar, KVA, PF, Frequency.
- **LoadView** runs on Windows 10



20kW Mini-tower Specification

	<p style="text-align: center;">Three Phase</p> <p>6666W - 9.6A - 400V 3 phase 400 volts 3 phase, 50/60 hz 2 x 3.3kW loads at 400V</p> <div style="text-align: right;">  <p>Three Phase C32 Connections</p> <p>C32 3Ph Connection</p> <p>C32 3Ph Connection</p> <p>C32 3Ph Connection</p> <p>HMT20 Mini Tower Connections</p> </div>
	<p style="text-align: center;">Single Phase</p> <p>6666W - 29A - 230V single phase 230 volts single phase, 50/60 hz 6 x 1.1kW loads at 230V</p> <div style="text-align: right;">  <p>Single Phase C32 Connections</p> <p>C32 1Ph Connection</p> <p>C32 1Ph Connection</p> <p>C32 1Ph Connection</p> <p>HMT20 Mini Tower Connections</p> </div>
Power Factor	1.0pf resistive load
Adjustment	Load steps selected via panel mounted illuminated switches
Connection	Three blue C32A mounted sockets for each independent HAC230-6RM
Cooling	3 low noise horizontal force air cooling fans, powered from the test source. Cool air intake at front, hot air exhaust at rear.
Airflow	Each fan 144 m3/hr at minimum pressure zero Pa. (Static). Total airflow 432 m3/hr
Element Type	High temperature ni-chrome tape wound mounted on mica composite card
Dimensions & Weight	HAC230-6RM 4U (176mm high x 250mm deep + handles) 19" rack assembly; 8 kgs HMT-20 320mm deep x 520mm wide x 900mm high; 44kgs
Construction	Zintec steel, with powder coated yellow gloss finish front panel Enclosed tray assembly with rear grill
Operating Temperature	0 - 45°C / 0 - 113°F
Storage Temperature	0 - 80°C / 0 - 176°F
Movement	Front handles for slide in assembly to 19" racks
Operation Availability	> '99999' for IST testing
Mean Time Between Failure	> 200 IST testing weeks; > 10 years reliability and investment return on IST testing
Optional Extras	Cables: 1phase or 3 phase to: 16A, 32A or 63A free plugs

Adjustable Airflow / Heat Dissipation per HAC230-6RM

Kw Load	Delta T range from 144 to 432 CMH	
	Minimum	Maximum
1.1KW to 2.2KW	6°C / 43°F	12°C / 54°F
3.3KW to 4.4KW	10°C / 50°F	15°C / 59°F
5.5KW to 6.6KW	14°C / 57°F	20°C / 68°F

Environmental Air Temperatures

Cold Aisle Temperature Range	ASHRAE 18°C - 27°C / 64°F - 80°F
IT Equipment Maximum Operating Temperature	> 40°C - 45°C / 104°F - 113°F
Adjustable Cold Aisle ΔT Range	ΔT 6°C - 20°C / 43°F - 68°F

HAC400V-21kW-14U Specification



Designed for free standing or fitting into a 19" rack cabinet
Global control from a single controller gives array load step adjustment

Max Voltage	230 volts single phase, 400 volts 3 phase, 50/60 hz
Full Load Rating	Nominal: 21kW - 30A - 400V 3 phase Nominal: 6666W - 30A - 230V single phase
Power Factor	1.0pf resistive load
Adjustment	5% increments to maximum load on either 1ph or 3ph ratings (see above) Selectable globally from a single room controller
Controls	Fan Blower: On/Off, Emergency stop, Stop & Start panel buttons
Connection	IEC C32 32A 5 pin red front panel mounted socket
Protection	Full load fuse protection, over temperature shut down, fan fail load shut down
Indication	Red: common panel mounted alarm, Green: system healthy / comms OK
Communication	2 port panel mounted Canbus sockets
Cooling	Low noise < 67dBA @ 1m, horizontal force air cooling fan, powered from the test source. Cool air intake at front, hot air exhaust at rear.
Airflow	Fan performance 2715m3/hr at 50Pa. (Static)
Element Type	High temperature ni-chrome tape wound mounted on mica composite card, +/- 2%
Dimensions & weight	14U x 446mm high x 660mm deep x 19" 500mm wide rack assembly. 20 kgs approx
Construction	Aluminium, with powder coated yellow gloss finish front panel
Operating Temperature	0 - 50°C / 0 - 122°F
Storage Temperature	0 - 80°C / 0 - 176°F
Movement	Two top carry handles, plus 4 locking swivel castors

HAC400V-21kW-14U Heat Dissipation & dT		Environmental Air Temperatures	
Kw Load	Minimum		
Up tp 9kW	10°C / 50°F	Cold Aisle Temperature Range	Ashrae 18°C - 27°C / 64°F - 80°F
10kW to 13kW	14°C / 57°F	IT Equipment Max Operating Temp	> 40°C - 45°C / 104°F - 113°F
14kW to 21kW	23°C / 73°F	Adjustable Cold Aisle ΔT Range	ΔT 6°C - 20°C / 43°F - 68°F

Standards And Quality Assurance

The **HeatLoad Load Bank Range** is manufactured in the UK to the following EU and ISO standards

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 ISO 9001:2015



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