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Document AC100-PRO Technical specification
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Author AK

AC100 Series

AC100-PRO Load bank

Heavy-duty, robust load bank providing 100kW of load capacity, with digital control, power metering and data logging.

Key features

Advanced interface

The unique Digiload control system provides detailed insight into how the supply under test responds to load changes. All test data is recorded within the system and is exported instantly in .csv format when connecting a USB flash drive. The integrated touchscreen interface can be used to manually change the load power level or setup an automated schedule of load steps. Once created, load step sequences can be saved and recalled at any time.

Quick setup

Powersafe connectors fitted to the main load terminals make connection to the supply under test simple, fast and secure. The power connections are located away from the control panel so that operators can stand comfortably in front of the load bank without tripping over cables. With power connected, the 7" intuitive touchscreen interface enables load to be applied rapidly, with real time measurements displayed immediately.

Portable

Transport to any location with integrated forklift points. Move around on-site using heavy duty castors, which are included as standard. Alternatively, the design can be installed in a fixed location, when requested, the heavy-duty castors are replaced with mounting brackets with holes for anchor bolts.

Robust construction

The resistor elements used are from our catalogue of highly robust industrial stamped grid and tape wound mica card technologies using stainless steel. The construction puts the cooling airflow in direct contact with the conductor surface to maximise heat transfer, thus providing the longest possible operating life for the elements. With decades of service in industry, electricity transmission and distribution systems the element technologies provide the highest level of reliability for our product.

Optional extras

- **Remote control** – the Digiload remote provides the ability to control a load bank via a wired connection. It can also be used as the single point of control for a network of load banks. Housed in a rugged IP66 case it includes a 10" touch screen, emergency stop and 2 x USB data ports.
- **Network capability** – when this hardware capability is enabled the load bank can be connected with other load banks via Modbus TCP to create a centrally controlled network.
- **Protective PVC cover** - available for additional protection during transport or storage.
- **Supply cables** - made to order to the desired length and with supply side connection method to suit the intended use.

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Technical specification

100kW AC load bank with Digiload

Ratings

Voltage, V	400, 3-phase
Frequency, Hz	50
Load steps, kW	1, 2 x 2, 5, 10, 2 x 20, 40
Total capacity, kW	100

Control and ventilation

Manual controls	System on/off pushbuttons, supply rotary selector switch, emergency stop
Control interface	7” touch screen display
Cooling	Forced convection, horizontal orientation
Fan(s)	1 x 0.6kW fan, axial type
Control supply Source	230V AC 1-phase 50Hz Internal (supply under test) or external supply.

Connection interfaces

Load connections	5 x Powersafe sockets (3P+ N + PE)
Control supply	1 x C14 socket (L+N+PE)
Data downloads	USB Type-A
Networking/remote	1 x RJ45, 1 x 8-pin connector for remote power and e-stop logic

Safety

Electrical protection	Over current and short circuit fuse protection Over voltage protection (via control system)
Thermal protection	Thermal trips for load and control compartments Airflow status detection

Operating environment

Service condition	Outdoor use
Ambient temperature	-10°C to 40°C
Humidity	95% RH
Ingress protection	IP23 Load enclosure IP54 Control compartment

Construction

Resistor elements	Expanded mesh and steel tape wound mica cards
Element material	Stainless steel
Enclosure	Aluminium and galvanized sheet steel, painted RAL9002 grey
Manoeuvrability	4 x heavy duty castors, 1 x handle.

Weight and dimensions

Drawing reference	166239
Length, mm	1067
Width, mm	684
Height, mm	1061
Weight, kg	135

Testing and standards

Every unit is subjected to routine testing before dispatch, including functional operation, electrical insulation testing and visual inspection.

Documentation

Supplied with an operation and maintenance manual and routine test report as standard.

Warranty

The equipment is covered by a 12-month warranty.