

7 kW Rackable Load Bank

The 7 kW rackable load bank is an essential piece of equipment for the commissioning of a data center. In your Data Center projects, this bank is designed to faithfully reproduce the energy and thermal behavior of computer servers under real operating conditions.

With a standard 19-inch design, it integrates easily into IT racks and existing infrastructure without requiring any particular adaptation.



Operating principle

Its main role is to simulate a controlled electrical load in order to test the robustness and resilience of the data center's critical systems, in particular the electrical power supplies (UPS, PDU, generator sets) as well as the cooling systems. By generating heat dissipation equivalent to that of operating servers, the bank also makes it possible to assess the ability of the air-conditioning infrastructure to maintain optimal conditions and therefore **“Ready for IT”**.

Thanks to precise power regulation (up to 7 kW), it is possible to reproduce various load scenarios, ranging from nominal operation to stress situations (consumption peaks, temperature rise). This makes it possible to anticipate potential failures, validate backup procedures and optimize energy management.

Technical Specifications

<i>Load Type</i>	Resistive	<i>Height</i>	5U – 19”
<i>Rated Power</i>	7 kW	<i>Depth</i>	
<i>Rated Voltage</i>	230 Vac Single-phase	<i>Length</i>	545 mm
<i>Power Factor</i>	1	<i>Mass (±5%)</i>	13 kg
<i>Frequency</i>	50/60 Hz	<i>Cooling</i>	2 Fans
<i>Resolution</i>	1 kW		

Technical Architecture

The clean architecture of our load bank simplifies its installation and use.

Design		Cooling system	
<i>Use</i>	Indoor	<i>Air extraction</i>	Horizontal
<i>Frame</i>	Aluminum	<i>Rated Power</i>	0.48 kW
<i>Paint</i>	Grey RAL7035 80µm	<i>Air flow</i>	750 m3/h
<i>Handling</i>	2 leather handling grips	<i>Average air T rise (in K)</i>	≈ 30°
		<i>Sound level at 1 m</i>	85 dBA +/- 3dBA ⁽¹⁾
Resistive elements		Connection	
<i>Technology</i>	Gridex ½ RU	<i>No. of Channels</i>	1
<i>Resistive Alloy</i>	Chrome Alu	<i>Connector</i>	2 × C20 16A type sockets
<i>Element tolerance</i>	+/- 5%		
<i>Temperature drift</i>	< 2%		

Control system

A simple interface for ease of use.

Control system

<i>Power ramp-up</i>	Via push button
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Environmental Characteristics

Capable of operating in all environments.

<i>Operating T°C</i>	-15°C to +50°C	<i>IP electrical enclosure</i>	IP 54
<i>Storage T°C</i>	-20°C to +70°C	<i>IP air duct</i>	IP 23
<i>Ambient Humidity</i>	95% relative ⁽²⁾		
<i>Operating altitude</i>	800 m		

⁽¹⁾ Measured at 1 m from the bank, ½-spherical propagation of the equipment (Q=2)

⁽²⁾ Relative humidity, non-condensing

