12KW-AC/DC-PTC

Rack-Mounted AC/DC PTC Load Bank

The 12KW-AC/DC-PTC is a high-power-density rack-mounted test load bank developed for IDC data centers and standard 19-inch racks.

Product Overview

Designed for AC220V and DC270V systems. It tests precision air conditioning, monitoring, distribution, UPS, diesel generation, rack cabinets and PDU power systems under load.

Six rear C14 sockets provide independent power inputs, each rated 10A. C13-C14 power cords are selected to match the site PDU.

PTC resistors reduce power automatically as temperature rises. High-temperature silicone wiring is rated ≥150℃.



Protection & Use

• Fan interlock prevents loading until the fan runs; overtemperature at 70℃ disconnects the load and triggers audible/visual alarms.

• After an overtemperature trip, confirm power-off and reset manually before resuming. Monitor the unit throughout testing.

Safety Notes

• Disconnect the source side before the load side when removing cables.

• Keep all six input plugs fully seated; use indoors and monitor the entire test.

Dimensions

Width W mm	Height H mm	Depth D mm
440	178	600

Standard C13-C14 cords; verify site PDU compatibility.

Power Cord / Connector Options

Various specifications for use in different countries and industries.

01 Chinese-standard cable

3*1.5 mm²



Wire size	3×1.5 mm²
Length	Customizable (standard 1.5 m)
Plug type	Chinese-standard 3-pin
Region	Mainland China
Devices	General equipment; rack equipment

02 C13 C14 European cable

3*1.5 mm²



Wire size	3×1.5 mm²
Length	Customizable (standard 1.5 m)
Plug type	C14 male
Socket type	C13 female
Region	European / universal
Devices	IT equipment, servers, monitors, etc.

03 C13 C20 cable

3*1.5 mm²



Wire size	3×1.5 mm²
Length	Customizable (standard 1.5 m)
Plug type	C20 male
Socket type	C13 female
Region	Universal
Devices	High-power equipment; rack equipment

04 C19 C20 cable

3*1.5 mm²



Wire size	3×1.5 mm²
Length	Customizable (standard 1.5 m)
Plug type	C20 male
Socket type	C19 female
Region	Universal
Devices	Servers; industrial equipment; high-power applications

05 63A industrial connector

(customized on request)



Current	63 A
Voltage	380-415 V (customizable)
Length	Customizable
Use	Three-phase high-power equipment; industrial testing; data centers, etc.

06 Single-phase 32A connector

(customized on request)

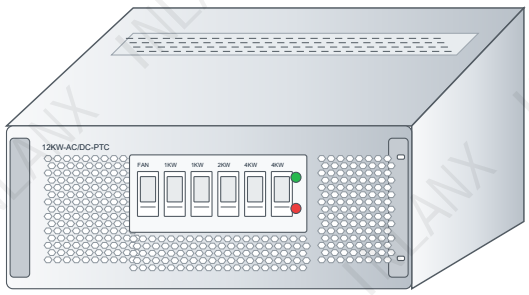


Current	32 A
Voltage	200-250 V (customizable)
Length	Customizable
Use	Single-phase high-power equipment; industrial testing; rack equipment, etc.

Technical Specifications

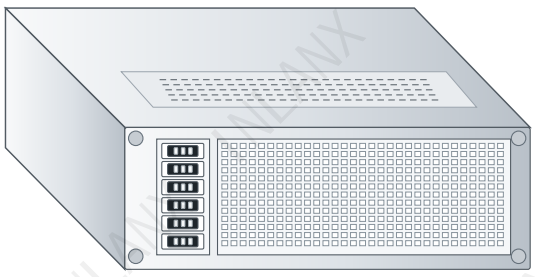
AC voltage range	AC192-250V; approximately constant load power
DC voltage range	DC192-288V; approximately constant load power
Rated power	12KW
Frequency / power factor	50/60Hz (AC); power factor 1
Power stages	1KW, 1KW, 2KW, 4KW, 4KW
Load power deviation	+5% to +10% (positive deviation)
Load input	Six independent rear C14 sockets; 10A each
Power cord	C13-C14; configurable for the site PDU
Resistor / internal wiring	PTC; silicone cable rated ≥150℃
Temperature protection	70℃ inside enclosure; alarm and load disconnect
Other protection	Fan interlock, fuse for short circuit/overcurrent, DC contactor
Cooling / airflow	Forced air, front intake/rear exhaust; 1500 m³/h
Fan voltage	DC24V
Enclosure size	W×H×D = 440×178×600 mm
Installation / weight	Indoor; 18KG
PTC power decay	≤5% within 1 year; ≤8% within 3 years

Front Panel



Fan / load switches · Status / alarm

Rear Panel



Six independent C14 load inputs