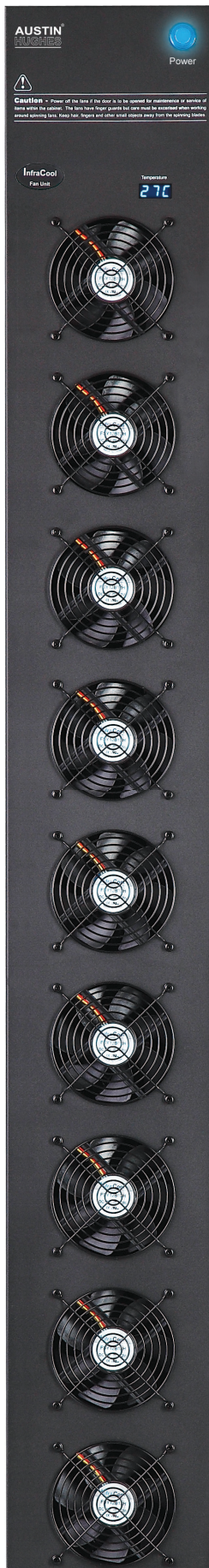


User Manual

InfraCool®

Rack Airflow Control



F-33.9A

F-33.9B

33U Door Mount Basic Fan Panel



Legal Information

First English printing, November 2020

Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. We are not liable for any injury or loss that results from the use of this equipment.

Safety Instructions

Please read all of these instructions carefully before you use the device. Save this manual for future reference.

- Unplug equipment before cleaning. Don't use liquid or spray detergent; use a moist cloth.
- Keep equipment away from excessive humidity and heat. Preferably, keep it in an air-conditioned environment with temperatures not exceeding 40° Celsius (104° Fahrenheit).
- When installing, place the equipment on a sturdy, level surface to prevent it from accidentally falling and causing damage to other equipment or injury to persons nearby.
- When the equipment is in an open position, do not cover, block or in any way obstruct the gap between it and the power supply. Proper air convection is necessary to keep it from overheating.
- Arrange the equipment's power cord in such a way that others won't trip or fall over it.
- If you are using a power cord that didn't ship with the equipment, ensure that it is rated for the voltage and current labeled on the equipment's electrical ratings label. The voltage rating on the cord should be higher than the one listed on the equipment's ratings label.
- Observe all precautions and warnings attached to the equipment.
- If you don't intend on using the equipment for a long time, disconnect it from the power outlet to prevent being damaged by transient over-voltage.
- Keep all liquids away from the equipment to minimize the risk of accidental spillage. Liquid spilled on to the power supply or on other hardware may cause damage, fire or electrical shock.
- Only qualified service personnel should open the chassis. Opening it yourself could damage the equipment and invalidate its warranty.
- If any part of the equipment becomes damaged or stops functioning, have it checked by qualified service personnel.

What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
 - ☐ Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
 - ☐ Repair or attempted repair by anyone not authorized by us.
 - ☐ Any damage of the product due to shipment.
 - ☐ Removal or installation of the product.
 - ☐ Causes external to the product, such as electric power fluctuation or failure.
 - ☐ Use of supplies or parts not meeting our specifications.
 - ☐ Normal wear and tear.
 - ☐ Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

Regulatory Notices Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in business, industrial and commercial environments.

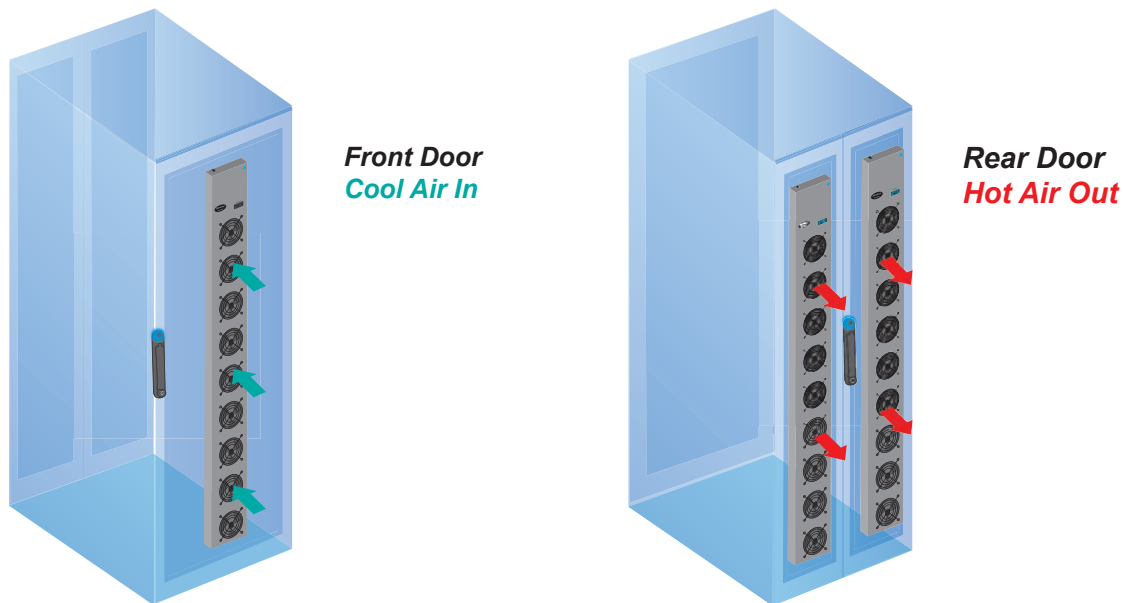
Any changes or modifications made to this equipment may void the user's authority to operate this equipment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-position or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

F-33.9 Door mount Fan Panel is typically installed on the outside of a rack’s rear perforated door to improve extraction of heat from high density rack.

The unit can be attached to most 42U or taller racks. If aisle is relatively narrow for exterior mounting, the unit may be installed on the inside of the perforated door. For details, please refer to the model table below :



Model	Installation	Airflow	Purpose
F-33.9A	Rear door outside Front door inside	Extract airflow Intake airflow	Exhaust air out from rack Cool air in from aisle
F-33.9B	Front door outside Rear door inside	Intake airflow Extract airflow	Cool air in from aisle Exhaust air out from rack

Unpacking

The equipment comes with the standard parts shown on the package contents. Check and make sure they are included and in good condition. If anything is missing, or damage, contact the supplier immediately.

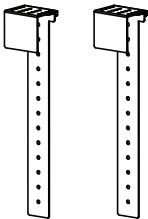
Package Content

- 33U door mount fan panel x 1 pc
- 6 ft power cord x 1 pc
- User Manual x 1 pc
- Mounting screw x 6 pcs (attached with the unit)
- External temperature sensor x 1 pc
- Air blocking material x 1 pc

Optional mounting kit

Hanging bracket kit

- Part no. : F-HBK
- Hanging bracket x 2 pcs
 - M4*6mm screw with nut x 4 sets
 - M4*10mm screw x 2 pcs



* For installation, please refer to p.4

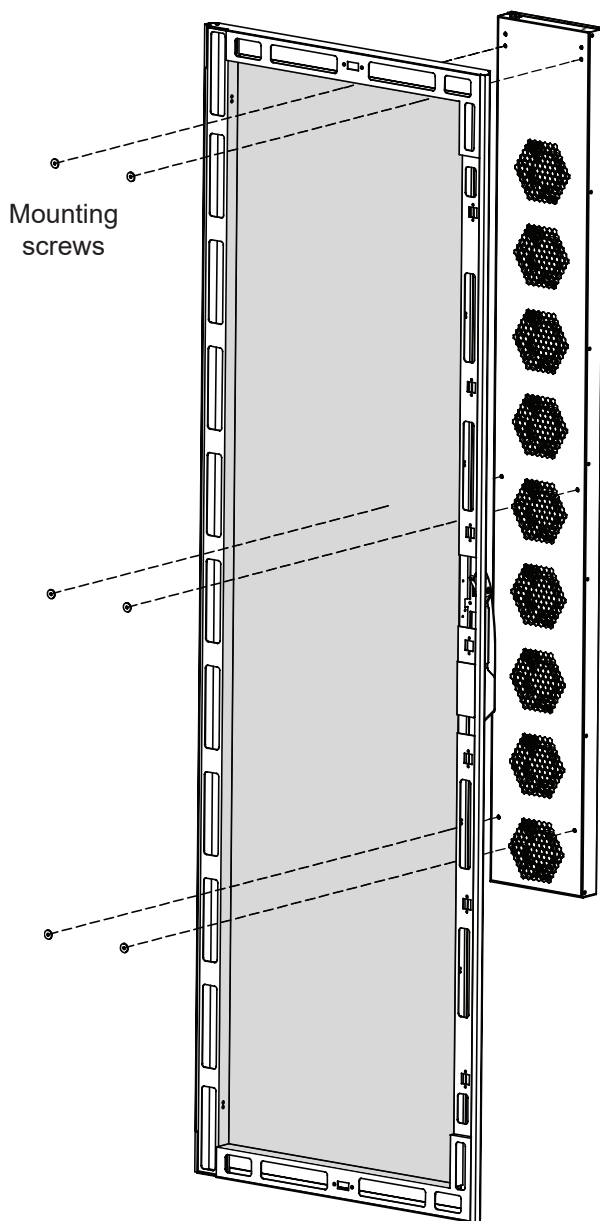


Caution - Power off the fans if the door is to be opened for maintenance or service of items within the rack. The fans have finger guards but care must be exercised when working around spinning fans. Keep hair, fingers and other small objects away from the spinning blades.

Installation steps

The weight of the unit is less than 5kg, so in most cases, holes in perforated rack doors can be used to mount the unit.

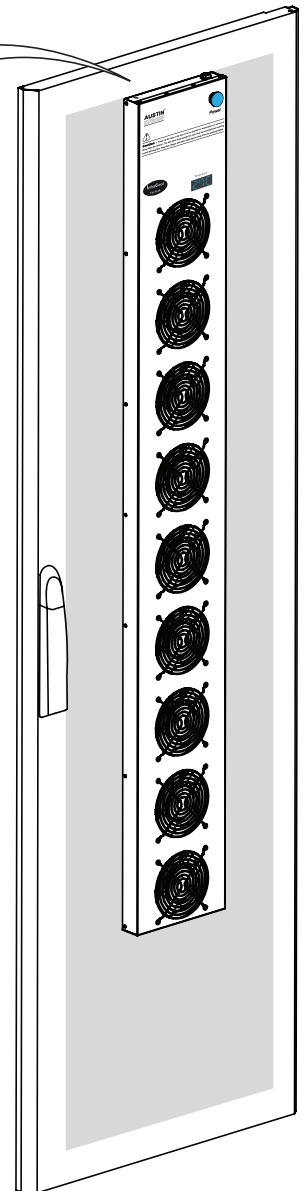
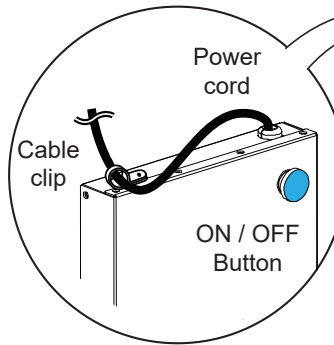
- 1 Lift the unit to the desired position.
- 2 Place attached 6 screws then through the door and tighten them.
- 3 Connect the power cord to the PDU of the rack through the cable entry hole on the rear top of the rack.
- 4 If no cable entry on the top, the unit may be installed on the inside but the model need to be changed. Please refer to P.1 .



Mounting
screws

Perforated
Rack Door

Use cable clip to hold the
power cord if necessary

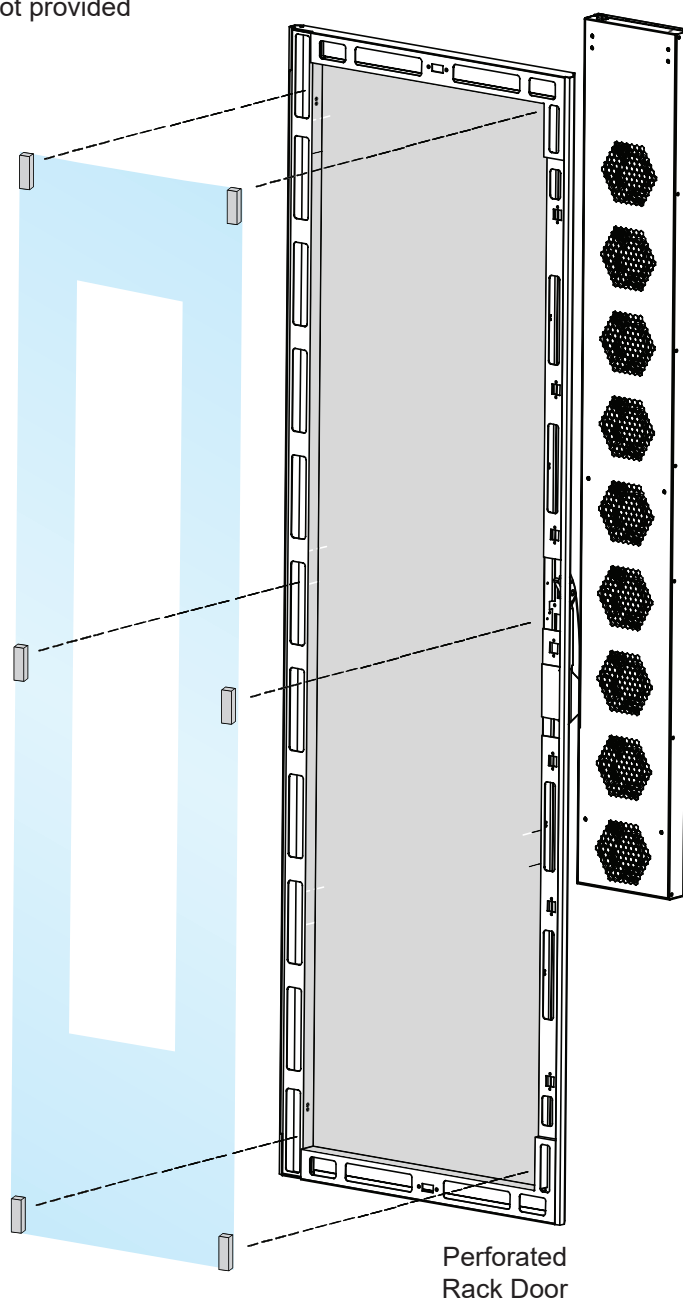


Air Blocking Material

To eliminate bypass air to maximize heat removal from the rack, cut the air blocking material to the size necessary with cutter or scissors, and then apply the material to the inside surface of the door with magnets or double sided adhesive tapes. Ensure all open perforations are covered by the material.

Fix the air blocking material with magnets or double sided adhesive tapes

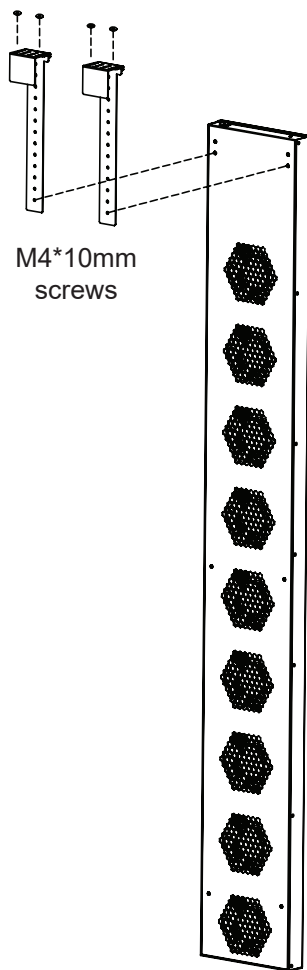
Magnets & adhesive tapes not provided



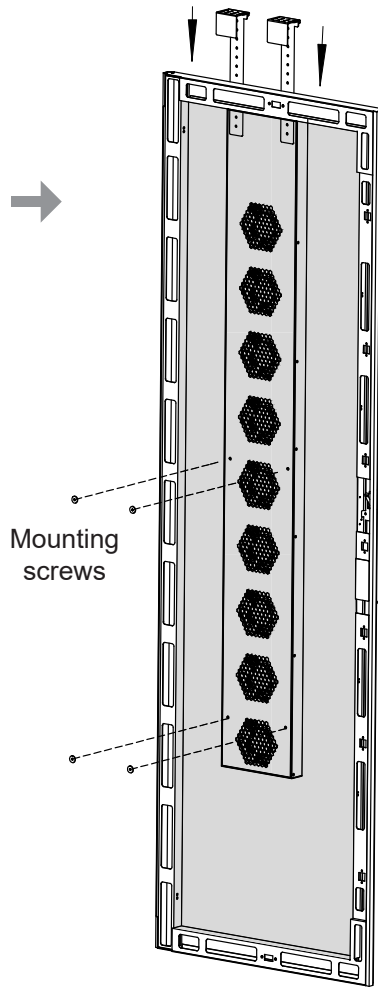
Hanging bracket installation

- 1 Assemble & adjust the hanging bracket with M4*6mm screw & nut, to fit the thickness of the door.
- 2 Install the hanging bracket kit on the rear side of the fan panel with M4*10mm screw.
- 3 Hang the unit on the door.
- 4 Place attached 4 screws then through the door and tighten them.
- 5 Follow steps 3 - 4 on P.2 and P.3 .

Hanging bracket with
M4*6mm screw & nut

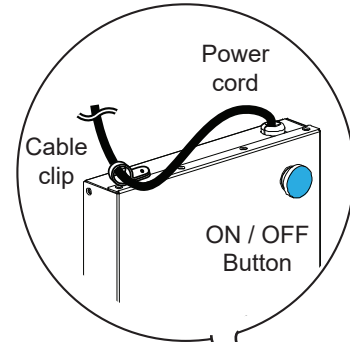


M4*10mm
screws



Mounting
screws

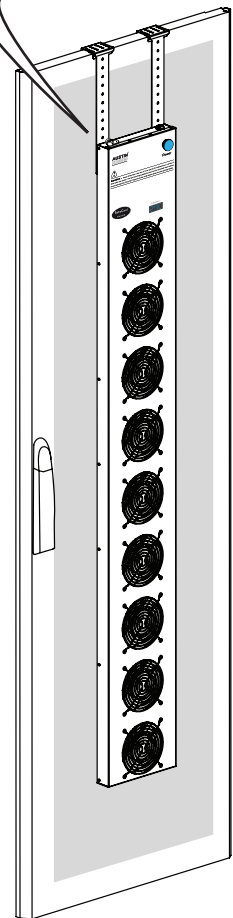
Perforated
Rack Door



Cable
clip

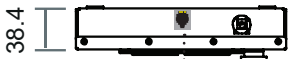
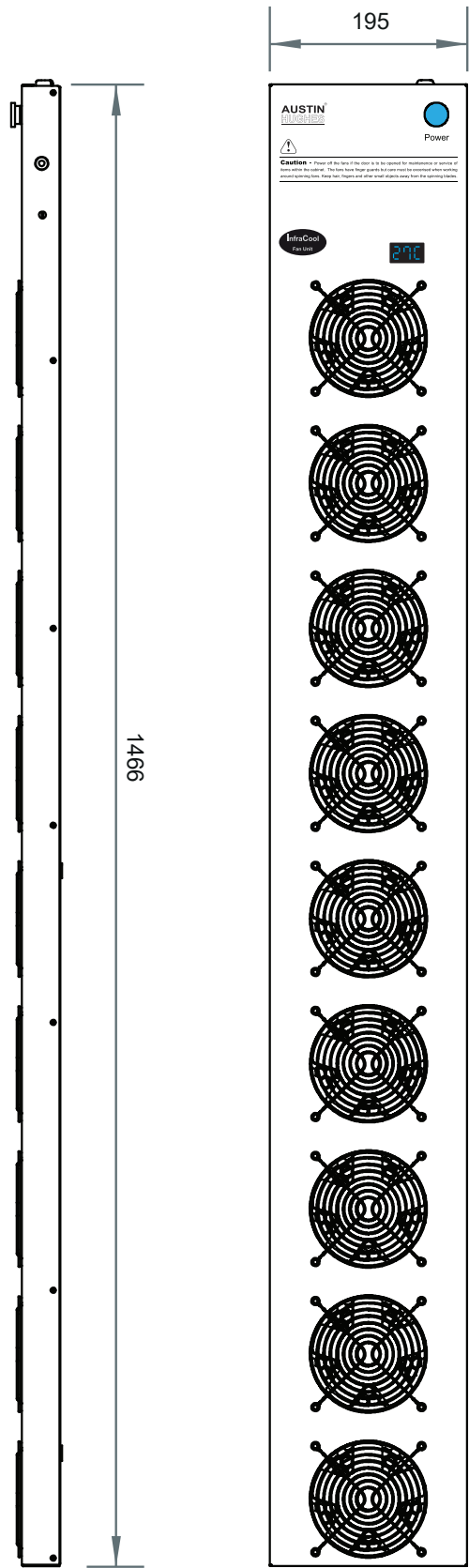
Power
cord


ON / OFF
Button



Dimensions

F-33.9





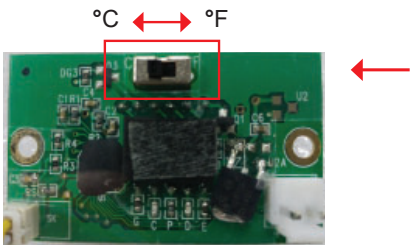
Temp. port bundled w/ a temp. sensor



External Temperature Sensor

- Plug & Play
- 2M wire

Note : The temp. sensor supports Celsius (°C) and Fahrenheit (°F). It will be preset before delivery according to the user's region.

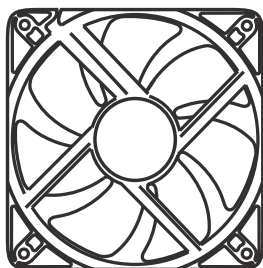


If the user wants to change the setting, please power off the unit and then open the front panel. After that, switch the button on the temp. sensor PCB to your preferred setting.

Specifications

Fan	F-33.9
No. of Fans :	9
Individual Fan CFM :	108 CFM
Unit CFM (approx.) :	972 CFM
MTBF :	50,000 hrs
Individual Fan Noise Level :	41 dB
Environmental	
Operating :	0 to 50°C Degree
Storage :	-5 to 60°C Degree
Relative humidity :	5~90%, non-condensing
Shock :	50G peak acceleration (11ms, half-sine wave)
Vibration :	58~100Hz / 0.98G (11ms / cycle)
Weight	
Net / Gross :	4.6 kgs (10.1 lbs) / 6.9 kgs (15.2 lbs)
Casing Color :	Black
Mounting :	33U door mount
Power	
Input :	Auto-sensing, 100V or 240V AC at 50 or 60Hz via IEC cord
Consumption :	60W
Dimensions	
Product :	195 x 38.4 x 1466 mm / 7.7 x 1.5 x 57.7 inch
Packing :	263 x 106 x 1650 mm / 10.4 x 4.2 x 65.0 inch
Regulatory :	FCC, CE
Environmental :	RoHS3 & REACH compliant by SGS

Fan Kit Specification



Air Delivery :	108 CFM
Rated Speed :	3000 rpm, +/-10%
Rated Voltage :	12V DC
Rated Current :	350 mA
Noise Level :	41 dB
Dimension :	120 x 120 x 25 mm
Bearing System :	Dual ball bearing

The company reserves the right to modify product specifications without prior notice and assumes no responsibility for any error which may appear in this publication.

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