Delta AFB0612EHD

Delta AFB0612EHD 6020 6cm 12V 0.47A 4-Wire Temperature Control Chassis Computer Fan User Manual

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your Delta AFB0612EHD 6020 6cm 12V 0.47A 4-Wire Temperature Control Chassis Computer Fan. Please read this manual thoroughly before using the product to ensure proper function and safety.

2. Product Features

The Delta AFB0612EHD fan is designed for efficient cooling within computer chassis, featuring:

- Model number: AFB0612EHD
- Bearing structure: Maintenance-free double ball bearing for extended lifespan.
- High rotational speed: 6600 RPM, providing an air volume of 35.21 CFM.
- Interface type: Standard motherboard 4-pin interface.
- Transmission rate: Supports PWM (Pulse Width Modulation) speed control via the motherboard.

Figure 2.1: Front view of the Delta AFB0612EHD fan.

Figure 2.2: Angled view of the fan.

3. Technical Specifications

Parameter	Value
Model	AFB0612EHD
Size	60 x 60 x 20 mm (2.36"L x 0.79"W x 2.36"H)

Parameter	Value
Voltage	DC 12V
Current	0.47A
Speed	6600 RPM (Maximum Rotational Speed)
Air Volume	35.21 CFM
Bearing Type	Double Ball Bearing
Connector Type	4-Pin (PWM compatible)
Cooling Method	Air
Compatible Devices	Server, Computer Chassis
Manufacturer	ZSOXPF (Seller/Distributor)

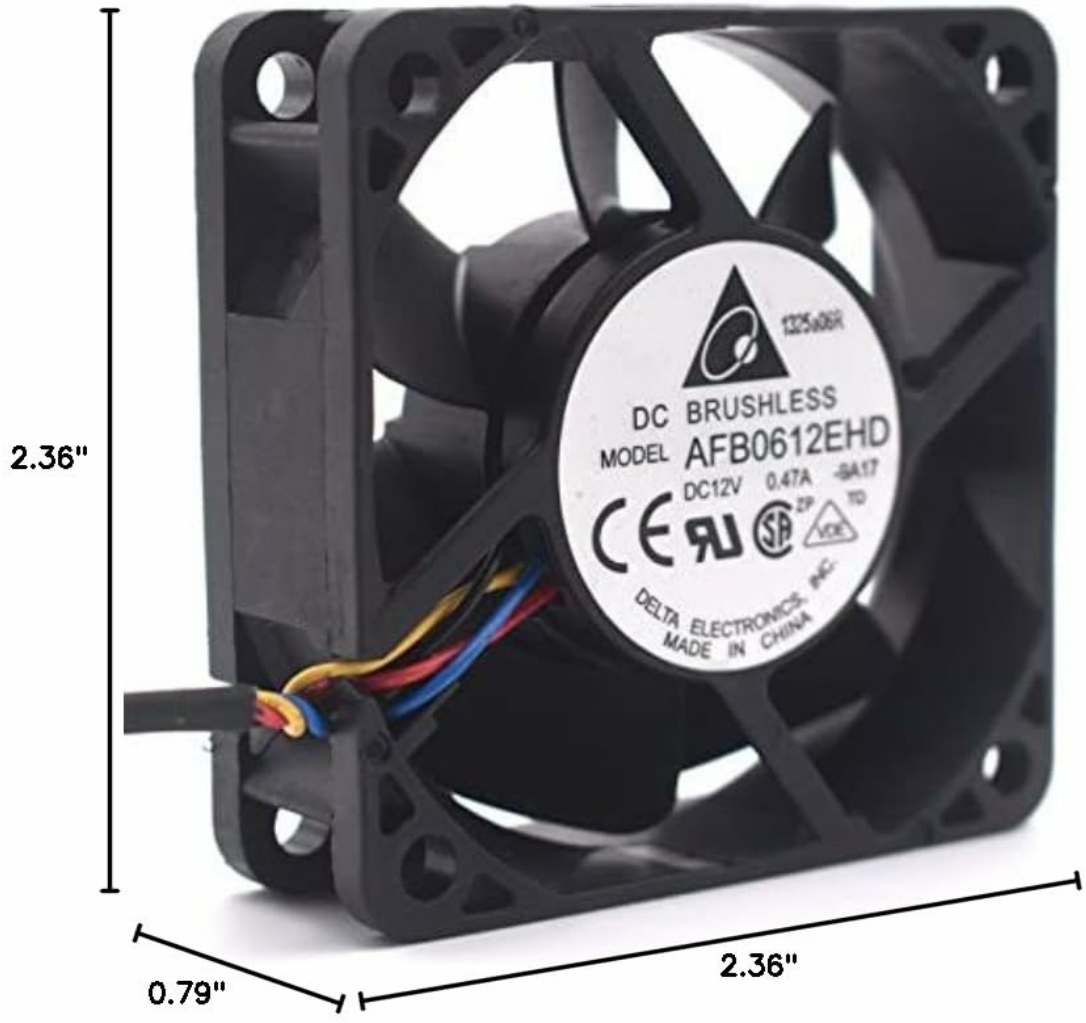


Figure 3.1: Product dimensions.

4. Safety Information

Please observe the following safety precautions to prevent injury or damage to the product and connected equipment:

- **Electrical Safety:** Ensure the power supply is disconnected before installation or maintenance.
- **Handling:** Do not disassemble, modify, or attempt to repair the fan by non-professionals. This can lead to electric shock, fire, or product malfunction.
- **Ventilation:** Ensure adequate airflow around the fan. Do not block the fan blades or vents.
- **Moving Parts:** Keep fingers and other objects away from the fan blades when the fan is operating or connected to power.
- **Environmental:** Avoid exposing the fan to excessive moisture, dust, or extreme temperatures.

Figure 4.1: Safety and handling warnings from product packaging.

5. Installation Guide

5.1 Before You Begin

- Ensure your computer is powered off and unplugged from the wall outlet.
- Open your computer case to access the fan mounting locations.
- Gather necessary tools, such as a screwdriver.

5.2 Installation Steps

1. **Identify Mounting Location:** Locate an available 60mm fan mounting point within your computer chassis. Ensure the fan's airflow direction (usually indicated by an arrow on the fan frame) aligns with your desired cooling strategy (intake or exhaust).

Figure 5.1: Back view of the fan, showing mounting points.

2. **Secure the Fan:** Position the fan against the mounting holes. Use appropriate screws (not included) to secure the fan firmly to the chassis. Do not overtighten.

Figure 5.2: Fan ready for mounting.

3. **Connect the Power Cable:** Locate an available 4-pin fan header on your motherboard. Carefully align the 4-pin connector from the fan with the header and push it in until it is securely seated. The connector is keyed to prevent incorrect insertion.

Figure 5.3: The 4-pin PWM connector.

4. **Cable Management:** Route the fan cable neatly to avoid interference with other components or airflow.
5. **Close Case and Power On:** Once the fan is securely installed and connected, close your computer case. Reconnect the power cable and power on your computer. Verify that the fan is spinning.

6. Operation

The Delta AFB0612EHD fan utilizes a 4-pin connector, which supports Pulse Width Modulation (PWM) for intelligent speed control. When connected to a compatible motherboard header, the fan's speed will automatically adjust based on system temperature, optimizing cooling performance and noise levels.

- **Automatic Control:** Most modern motherboards will automatically detect and control the fan speed based on BIOS/UEFI settings or operating system software.
- **Manual Adjustment:** You may be able to manually adjust fan curves and speeds through your motherboard's BIOS/UEFI settings or dedicated fan control software provided by your motherboard manufacturer. Refer to your motherboard manual for specific instructions.

7. Maintenance

Regular maintenance helps ensure optimal performance and extends the lifespan of your fan.

- **Dust Removal:** Periodically (e.g., every 3-6 months), power off and unplug your computer. Open the case and use compressed air or a soft brush to gently remove dust accumulation from the fan blades and frame. Hold the fan blades to prevent them from spinning rapidly during cleaning, which can damage the bearings.
- **Inspection:** Visually inspect the fan for any signs of damage, loose wires, or obstructions.

8. Troubleshooting

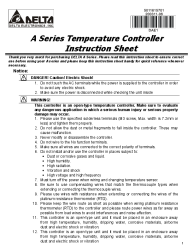
If you encounter issues with your fan, refer to the following table for common problems and solutions:

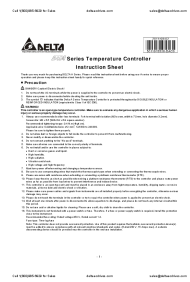
Problem	Possible Cause	Solution
Fan not spinning	Not connected properly; Insufficient power; Faulty fan header; Fan failure.	Check 4-pin connection; Ensure power supply is on; Try a different fan header; Replace fan if faulty.
Fan making unusual noise	Dust accumulation; Obstruction; Bearing wear.	Clean fan blades; Remove any obstructions; If noise persists, consider replacing the fan.
Fan spinning too fast/slow	Incorrect BIOS/UEFI settings; Motherboard not supporting PWM; Sensor issue.	Check motherboard BIOS/UEFI fan control settings; Ensure fan is connected to a PWM-compatible header; Update motherboard drivers/BIOS.

9. Warranty and Support

This product is manufactured by ZSOXPF. For warranty claims or technical support, please refer to the retailer or seller from whom you purchased the product. Keep your proof of purchase for warranty purposes. Specific warranty terms and conditions may vary by region and retailer.

Related Documents - AFB0612EHD

	DELTA A Series Temperature Controller Instruction Sheet - User Manual Detailed instruction sheet for DELTA A Series Temperature Controllers (DTA4848, DTA4896, DTA7272, DTA9696). Covers safety, operation, specifications, and technical details for industrial temperature control.
	Delta DTD Series Temperature Controller Operation Manual Comprehensive operation manual for the Delta DTD series temperature controllers, covering safety precautions, display functions, technical specifications, configuration, control modes, alarm settings, error indications, terminal assignments, and mounting instructions.
	DELTA DT3 Series Temperature Controller Operation Manual Comprehensive operation manual for the DELTA DT3 Series Temperature Controllers, covering features, specifications, operation modes, wiring diagrams, and installation.

	[Delta Temperature Controller User Manual] This user manual provides a comprehensive guide to the Delta DT series temperature controllers, detailing their default settings, various control modes (ON/OFF, MANUAL, PID, PID PROG), and operational procedures. It is designed for beginners to easily set up parameters and understand the functionality of these devices.
	[DELTA A Series Temperature Controller Instruction Sheet] This instruction sheet provides comprehensive details for the DELTA A Series Temperature Controller, including ordering information, specifications, parameter lists, operation modes, sensor types, alarm configurations, communication protocols, terminal identification, mounting instructions, and panel dimensions. It emphasizes safety precautions for proper and safe operation.
	[DELTA Temperature Controller DTB Series User Manual] Comprehensive user manual for the DELTA DTB Series Temperature Controllers, covering specifications, operation, PID control, alarm functions, communication, panel identification, dimensions, and mounting. Includes detailed instructions for industrial temperature control applications.

Documents - Delta – AFB0612EHD


SPECIFICATION FOR APPROVAL

Customer
Description DC FAN
Part No. REV.
Delta Model No. AFB0612EHD-AF00 REV. 03
Sample Issue No.
Sample Issue Date MAY.13.2008

PLEASE SEND ONE COPY OF THIS SPECIFICAITON BACK AFTER YOU SIGNED APPROVAL FOR PRODUCTION PRE-ARRANGMENT.

APPROVED BY:
DATE :

DELTA ELECTRONICS, INC.
TAOYUAN PLANT
252, SHANG YING ROAD, KUEI SAN INDUSTRIAL ZONE
TAOYUAN SHIEN, TAIWAN, R.O.C.
TEL:886-(0)3-3591968
FAX:886-(0)3-3591991

[pdf] Specifications

Ventilateurs CC sans balais BLDC Distributeur de composants électroniques DigiKey AFB0612EHD AF00 delta fan Download Spec |||

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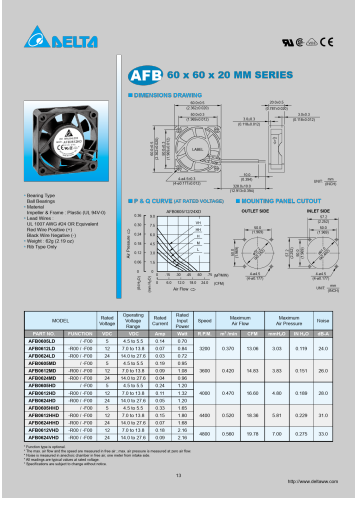
AFB 60 x 60 x 20 MM SERIES

DIMENSIONS DRAWING

P & Q CURVE (AT RATED VOLTAGE)

MOUNTING PANEL CUTOUT

MODEL	Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
AFB0605LD	F00	5	4.5 to 5.5	0.14	5.70					
AFB0612LD	R00 / F00	12	7.0 to 13.8	0.07	0.84	3290	0.370	13.06	3.03	0.119	24.0
AFB0624LD	R00 / F00	24	14.0 to 27.6	0.03	0.72					
AFB0605HD	F00	5	4.5 to 5.5	0.19	0.95					
AFB0612HD	R00 / F00	12	7.0 to 13.8	0.09	1.08	3680	0.420	14.83	3.83	0.151	29.0
AFB0624HD	R00 / F00	24	14.0 to 27.6	0.04	0.96					
AFB0905HD	F00	5	4.5 to 5.5	0.24	1.20					
AFB0912HD	R00 / F00	12	7.0 to 13.8	0.11	1.32	4080	0.470	16.60	4.66	0.188	28.0
AFB0924HD	R00 / F00	24	14.0 to 27.6	0.05	1.20					
AFB0805HHD	F00	5	4.5 to 5.5	0.33	1.65					
AFB0812HHD	R00 / F00	12	7.0 to 13.8	0.15	1.80	4480	0.520	18.38	5.41	0.229	31.0
AFB0824HHD	R00 / F00	24	14.0 to 27.6	0.07	1.85					
AFB0812VHD	R00 / F00	12	7.0 to 13.8	0.16	2.16	4680	0.560	19.78	7.00	0.275	33.0
AFB0824VHD	R00 / F00	24	14.0 to 27.6	0.09	2.16						

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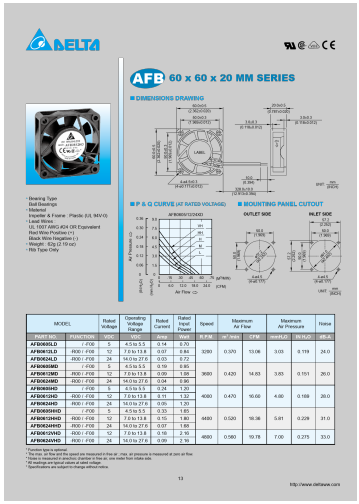

[pdf] Dimension Guide Label

AFB60x60x20mm delta tw product cp dcfans AFB |||

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[pdf] Datasheet Dimension Guide Label

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[pdf] Specifications Decleration of Conformity

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SPECIFICATION FOR APPROVAL Customer Description DC FAN CustomerP/N: REV. Delta Model No. AFB06 ... MODEL Rated Voltage PART NO. REV. FUNCTION AFB0612VHD -A -R00 / -F00 AFB0612SHD -A -R00 / -F00 **AFB0612EHD** -A -R00 / -F00 VDC 12 12 12 Operating Voltage Range VDC 7.0 to 13.8 7.0 to 13.8 7.0 to ... lang:en score:14 filesize: 1.19 M page_count: 11 document date: 2015-02-06