



# Cabinet Thermal Solutions

With industry leading DC brushless fan technology, Delta provides high quality, reliable and energy-efficient cabinet thermal management solutions for a range of industries and applications. With 38 manufacturing facilities, 60 R&D labs and 7,000 R&D engineers worldwide, Delta offers products that maximize operating performance while reducing downtime and assuring the best thermal protection for enclosed electronics and equipment. Delta's operations are ISO-9001, ISO-14001, ISO-14064, OHSAS-18001 and TS-16949 certified.

- Air to air heat exchangers
- Thermoelectric coolers
- Heaters
- Air conditioners
- Filter Fans (HEF)

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# Why Delta?

Fan technology is pivotal to the performance of any cabinet thermal management solution. As the world's number one provider of DC brushless fans and blowers, Delta engineers products for increased reliability, efficiency and low noise.

Delta fans and thermal management products are used in applications where precision is paramount – from sensitive electronics and computing devices to outdoor enclosures and equipment that support our developing infrastructure.

A frequent recipient of international awards and recognition for innovation, design and corporate social responsibility, Delta is committed to its mission of “providing innovative, clean, and energy-efficient solutions for a better tomorrow.”

# Heat Exchangers



Delta air-to-air heat exchangers are a closed-loop system with advanced fan and core technology to bring internal enclosure temperatures to ambient. Delta heat exchangers feature Delta DC brushless fans engineered to run continuously for 80,000 hours, or nine years. Standard and custom designs are available.

- High quality Delta DC brushless fan component for reduced energy consumption and low noise
- Intelligent core design for effective thermal transfer
- Easy installation and maintenance access

	48VDC External Mount			48VDC Roof Mount		24VDC Internal Mount	
<b>Model</b>	HEX100PC	HEX150PC	HEX200PC	HEX050QA	HEX080QA	HEX010VA	HEX020VA
<b>Cooling Capacity</b>	90 W/°C	135 W/°C	185 W/°C	50 W/°C	80 W/°C	10 W/°C	20 W/°C
<b>Dimensions (inch)</b>	27.2H x 14.2W x 9.5D	27.2H x 21.7W x 9.5D	27.2H x 27.6W x 9.5D	6.1H x 21.7W x 17.0D	10.4H x 21.9W x 19.7D	16.3H x 10.8W x 2.6D	23.2H x 11.1W x 3.9D
<b>Dimensions (mm)</b>	690H x 360W x 242D	690H x 550W x 242D	690H x 700W x 242D	155H x 550W x 434D	265H x 555W x 500D	415H x 275W x 65D	590H x 283W x 99D
<b>Rated Voltage</b>	48VDC	48VDC	48VDC	48VDC	48VDC	24VDC	24VDC
<b>Operating Current (A)</b>	3.6	5.8	6.6	1.4	1.5	1.2	0.9
<b>Noise (dB-A) @1.5M</b>	70	73	74	64	64	61	54
<b>Weight (lbs / kg)</b>	28.7 / 13.0	44.1 / 20.0	52.9 / 24.0	19.8 / 9.0	33.1 / 15.0	8.8 / 4.0	15.4 / 7.0

	48VDC Internal Mount									
<b>Model</b>	HEX050PA	HEX100PB	HEX150PB	HEX200PB	HEX060PA	HEX080PD	HEX120PA	HEX160PA	HEX200PA	HEX260PA-A
<b>Cooling Capacity</b>	45 W/°C	100 W/°C	150 W/°C	200 W/°C	60 W/°C	80 W/°C	120 W/°C	160 W/°C	200 W/°C	230 W/°C
<b>Dimensions (inch)</b>	19.7H x 17.5W x 6.0D	25H x 14W x 11D	25.2H x 21.7W x 10.9D	25.2H x 27.6W x 10.9D	33.5H x 19.7W x 5.8D	37.4H x 17.7W x 5.9D	45.3H x 18.5W x 7.6D	50.9H x 22.3W x 9.6D	43.3H x 19.7W x 7.9D	55.1H x 25.6W x 10.2D
<b>Dimensions (mm)</b>	500H x 445W x 152D	640H x 360W x 278D	640H x 550W x 278D	640H x 700W x 278D	850H x 500W x 148D	950H x 450W x 150D	1151H x 471W x 193D	1294H x 567W x 243D	1100H x 500W x 200D	1400H x 650W x 260D
<b>Rated Voltage</b>	48VDC	48VDC	48VDC	48VDC	48VDC	48VDC	48VDC	48VDC	48VDC	48VDC
<b>Operating Current (A)</b>	1.2	3.6	5.8	7.9	0.6	2.2	4.1	3.1	6.6	10.0
<b>Noise (dB-A) @1.5M</b>	65	70	73	74	62	65	64	65	74	75
<b>Weight (lbs / kg)</b>	22.0 / 10.0	16.0 / 35.0	44.1 / 20.0	52.9 / 24.0	37.5 / 17.0	41.9 / 19.0	72.8 / 33.0	88.2 / 40.0	57.3 / 26.0	81.6 / 37.0







# Air Conditioners



Delta air conditioners use active compressor-based cooling to keep internal enclosure temperatures below ambient. These slim air cons employ a variable speed DC inverter compressor and dual rotor design to achieve a high COP with reduced vibration and low operating noise. All Delta air conditioners feature Delta's high quality DC brushless fans engineered to run continuously for a minimum of 80,000 hours, or nine years. Standard and custom designs are available.

- High quality Delta DC brushless fan component for reduced energy consumption and low noise
- Variable speed DC inverter compressor
- Slim size

	48VDC				48VDC Slim		
							
<b>Model</b>	HEC0800PB	HEC1000PB	HEC1200PB	HEC1500PB	HEC0800PC	HEC1000PC	HEC1200PC
<b>Cooling Capacity</b>	2720 BTU/hr 800W	3400 BTU/hr 1000W	4010 BTU/hr 1200W	5100 BTU/hr 1500W	2720 BTU/hr 800W	3400 BTU/hr 1000W	4080 BTU/hr 1200W
<b>Dimensions (inch)</b>	27.6H x 19.7W x 7.9D	27.6H x 19.7W x 7.9D	27.6H x 19.7W x 7.9D	27.6H x 19.7W x 7.9D	31.3H x 15.0W x 6.4D	31.3H x 15.0W x 6.4D	31.3H x 15.0W x 6.4D
<b>Dimensions (mm)</b>	700H x 500W x 200D	700H x 500W x 200D	700H x 500W x 200D	700H x 500W x 200D	796H x 383W x 163D	796H x 383W x 163D	796H x 383W x 163D
<b>Rated Voltage</b>	48VDC	48VDC	48VDC	48VDC	48VDC	48VDC	48VDC
<b>Operating Current (A)</b>	3.9	5.6	7.3	12.5	3.8	5.5	8.2
<b>Noise (dB-A) @ 1.5M</b>	62	62	62	62	52	52	52
<b>Weight (lbs / kg)</b>	61.7 / 28.0	61.7 / 28.0	61.7 / 28.0	61.7 / 28.0	59.5 / 27.0	59.5 / 27.0	59.5 / 27.0

	230VAC		230VAC with Heater	
				
<b>Model</b>	HEC0500BFA	HEC0700BFA	HEC0500FFA	HEC0700FFA
<b>Cooling Capacity</b>	1870 BTU 550W	2380 BTU 700W	1870 BTU 550W	2380 BTU 700W
<b>Dimensions (inch)</b>	21.7H x 11.6W x 6.3D	21.7H x 11.6W x 6.3D	21.7H x 11.6W x 6.3D	21.7H x 11.6W x 6.3D
<b>Dimensions (mm)</b>	550H x 295W x 160D	550H x 295W x 160D	550H x 295W x 160D	550H x 295W x 160D
<b>Rated Voltage</b>	230VAC	230VAC	230VAC	230VAC
<b>Operating Current (A)</b>	1.3	1.4	1.3	1.4
<b>Noise (dB-A) @ 1.5M</b>	58	58	58	58
<b>Weight (lbs / kg)</b>	35.3 / 16.0	35.3 / 16.0	35.3 / 16.0	35.3 / 16.0



## Thermoelectric Coolers

Delta thermoelectric coolers provide slightly below ambient cooling in tight spaces. A TEC module is a sandwich of components (Peltier chips, heat sinks and fans) which provides cooling without the need for refrigerant or a compressor. All Delta TEC's incorporate Delta DC brushless fans engineered to run continuously for 80,000 hours, or nine years. Standard and custom designs are available.

- High quality Delta DC brushless fan component for reduced energy consumption and low noise
- Built-in controller
- Self-test function and LED alarms

	48VDC				24VDC	
<b>Model</b>	HET200PB	HET200PC	HET200PC-B	HET400PA	HET200VB	HET200VC
<b>Cooling Capacity</b>	200W	200W	200W	400W	200W	200W
<b>Dimensions (inch)</b>	7.1H x 15.7W x 8.2D	7.1H x 15.7W x 6.6D	7.1H x 15.7W x 5.6D	8.3H x 17.7W x 9.0D	7.1H x 15.7W x 8.2D	7.1H x 15.7W x 6.6D
<b>Dimensions (mm)</b>	180H x 400W x 208D	181H x 400W x 169D	181H x 400W x 143D	210H x 450W x 228D	180H x 400W x 208D	181H x 400W x 169D
<b>Rated Voltage</b>	48VDC	48VDC	48VDC	48VDC	24VDC	24VDC
<b>Operating Current (A)</b>	7.4	6.1	7.4	11.7	12.2	12.0
<b>Noise (dB-A) @1.5M</b>	62	62	66	66	61	62
<b>Weight (lbs / kg)</b>	19.8 / 9.0	13.2 / 6.0	13.2 / 6.0	24.2 / 11.0	19.8 / 9.0	13.2 / 6.0



## Heaters

Cabinet heaters provide protection for enclosed electronics and equipment in low temperature environments. Delta heaters have a Positive Temperature Coefficient (PTC) heating element for increased safety and reduced operating costs. PTC heaters generate only the heat necessary for a desired temperature, versus at a constant rate, saving energy while helping to prevent overheating and burnout. All Delta heaters feature Delta's high quality DC brushless fan component engineered to run continuously for a minimum of 80,000 hours, or nine years. Standard and custom designs are available.

- High quality Delta DC brushless fan component for reduced energy consumption and low noise
- PTC heating element for extended reliability
- 90-degree air flow and rack mount solutions to fit more spaces

	48VDC		230VAC				
<b>Model</b>	HEH100PA	HEH100PB	HEH030BA	HEH050BA	HEH070BA	HEH100BA	HEH150BA
<b>Heating Capacity</b>	1000W	1000W	300W	500W	700W	1000W	1500W
<b>Dimensions (inch)</b>	9.4H x 7.3W x 2.9D	1.7H x 19.0W x 7.0D	5.9H x 5.7W x 1.8D	5.9H x 5.7W x 1.8D	5.9H x 5.7W x 1.8D	9.2H x 7.3W x 2.3D	9.2H x 7.3W x 2.3D
<b>Dimensions (mm)</b>	240H x 185W x 57D	44H x 483W x 177D	150H x 145W x 45D	150H x 145W x 45D	150H x 145W x 45D	235H x 185W x 58D	235H x 185W x 58D
<b>Rated Voltage</b>	48VDC	48VDC	230VAC	230VAC	230VAC	230VAC	230VAC
<b>Inrush Current (A)</b>	32.0	28.0	5.0	9.0	15.0	10.0	15.0
<b>Weight (lbs / kg)</b>	3.3 / 1.5	5.0 / 2.3	3.3 / 1.5	3.3 / 1.5	3.3 / 1.5	3.3 / 1.5	3.3 / 1.5



## Product Value Proposition

### Fan Technology

DC brushless fan component from world's #1 DC fan manufacturer =  
*Lower energy consumption, less vibration and noise, longer fan life.*

### Low Noise

Up to 30% quieter than other market offerings =  
*Acceptable for use in more areas i.e. residential.*

### Energy Saving

DC power input with variable speed fan =  
*Lower operating costs. Less cost of ownership. Higher ROI.*

### Small Size

Same or better performance in smaller, slimmer package =  
*Frees up cabinet space for critical components. Better aesthetics.*

### Smart Operation

Various communication and control options =  
*Predictive maintenance. Fewer truck rolls. Higher ROI.*

### Service

Extensive authorized service network with available 24-hour response =  
*Less downtime. Time and labor expense savings.*

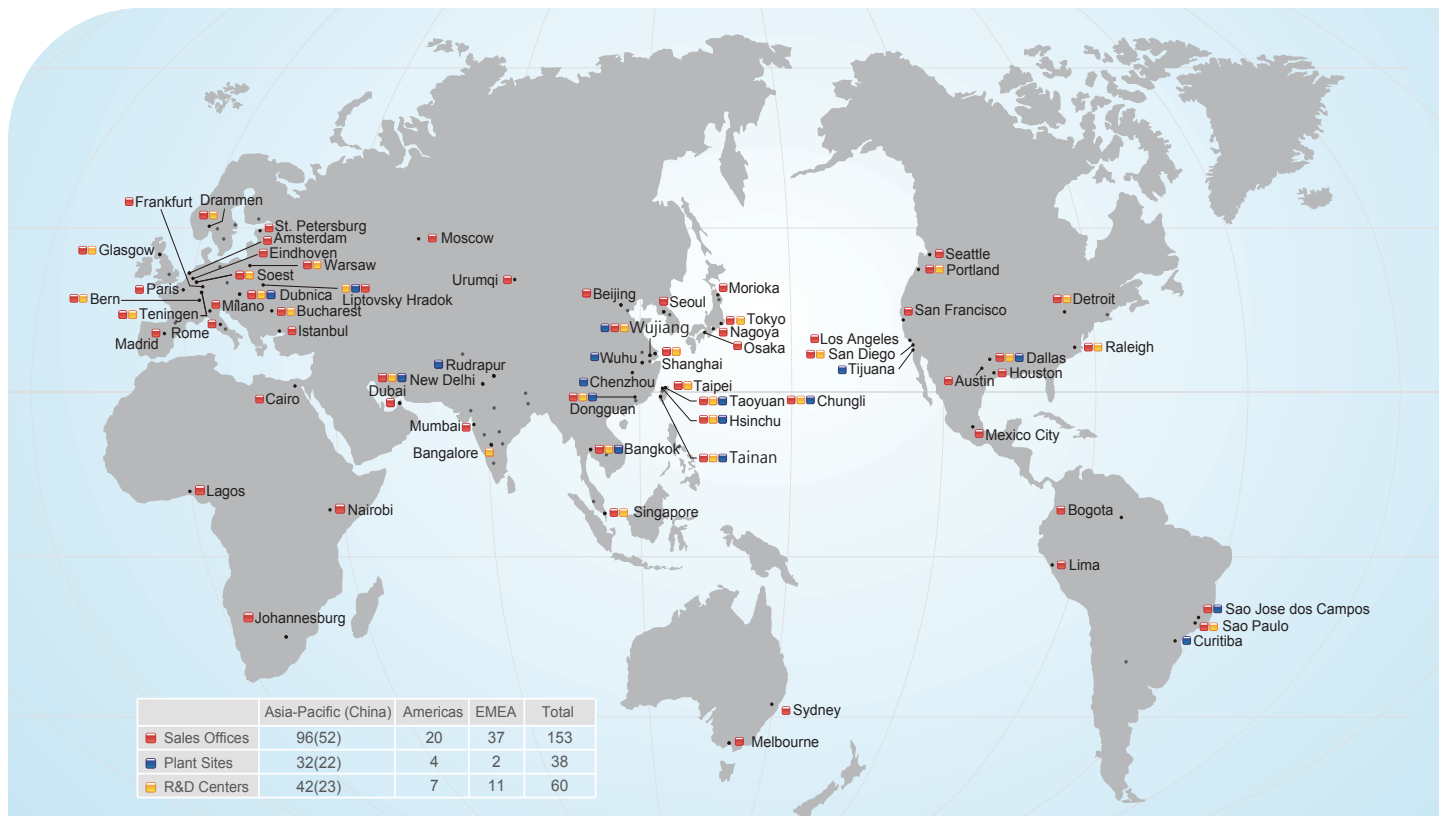
### Availability

Standard product staged in the U.S. for immediate shipment =  
*Product when you need it to accommodate project schedules.*

### Reliability

Expected service life is a minimum of 10 years =  
*Less downtime. Better network stability. Fewer truck rolls.*





## About Delta

Smarter. Greener. Together.

### Delta's Mission

Our company mission is “To provide innovative, clean and energy efficient solutions for a better tomorrow” supported by a product portfolio that features a range of energy-saving solutions including fans and thermal management, electrical vehicle chargers, solar inverters, industrial automation products and LED display systems. Delta’s operations are ISO-9001, ISO-14001, ISO-14064, OHSAS-18001 and TS-16949 certified.

### The World's Leading Provider of DC Brushless Fans

Delta Group is the world's largest manufacturer of DC Brushless fans and a leading provider of switching power supplies – a \$7.5 billion global company with 38 manufacturing facilities, 60 R&D labs and U.S. headquarters in Fremont, CA.

### Dedicated to improving the environment

From 2010 to 2015, Delta's high efficiency products saved 6.4M tons of CO2 for our customers. Among its many energy-saving products, Delta has developed the world's first server power supply to achieve 80 Plus Titanium energy efficiency, which is greater than 96% efficiency.

Delta will continue its dedication to developing technologies and solutions to help ensure a sustainable future.

### When Precision is Paramount

Delta DC Brushless fans are used in applications where precision is paramount, including Information Technology, Telecommunications, Consumer Electronics, Industrial and Automotive industries.

Please visit our global website [www.deltaww.com](http://www.deltaww.com) for a more comprehensive look at Delta operations, products and company profile.

Dealer Address:



Learn more about Delta Cabinet Thermal Solutions at:

<https://www.delta-fan.com/products/cabinet-thermal-solutions.html>

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