Air to Air Heat Exchanger
Cooling Solutions

2011 Product Series

www.deltaww.com
Delta Group is the world’s leading provider of power management and thermal management solutions, as well as a major source for components, visual displays, industrial automation, networking products, and renewable energy solutions. Delta Group has sales offices worldwide and manufacturing plants in Taiwan, China, Thailand, Japan, Mexico, India, Brazil, and Europe. As a global leader in power electronics, Delta’s mission is, “To provide innovative, clean and efficient energy solutions for a better tomorrow.” Delta is committed to environmental protection and has implemented green, lead-free production and waste management programs for many years.

Dedicated to in renewable and high efficiency energy saving solutions, Delta has developed a series of Air to Air Heat Exchanger products for cooling enclosed outdoor cabinets. These products offer an energy saving and cost effective design for high density / high power enclosed cabinet cooling for Telecom communication, Power distribution and Industrial applications. Delta heat exchanger products completely prevent air contamination, dust and humidity issues caused by outside environments. Its free ambient cooling technology provides high efficiency operation, and high reliability so less maintenance is required. The heat exchangers meet customer thermal requirements as well as NEMA enclosure standards. Delta manufactures a wide range of standard heat exchangers for customer application options.
BENEFITS OF DELTA HEAT EXCHANGERS

- Total Quality Control from Fan module, Control Board to Heat Exchanger.
- Optimized Cooling Capacity with smaller dimension and Lighter Weight.
- Easy Installation and Simple Maintenance.
- High Reliability with IP55, GR 487 Standard.
- Optional control and detective function for easy maintenance and control.
- Short LT for Standard series products for easy selection and application.

HEAT EXCHANGER INTEGRATION EXPERTISE

Value added from Delta Integration Expertise:

1. Design
   In the early design concept stage, Delta is dedicated to maximizing customers benefits for better cooling performance, cost efficiency, and ease of manufacture to meet customer applications for different industries.

2. Production
   With experience in high volume manufacturing, Delta’s manufacturing and automation department implements continuous improvement for process control and increased manufacturing efficiency.

3. Testing and Quality

<table>
<thead>
<tr>
<th>Item</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fan life</td>
<td>Lw=50000 hrs @ 40°C</td>
</tr>
<tr>
<td>Safety</td>
<td>IEC 60529 IP55</td>
</tr>
<tr>
<td>Water proof</td>
<td>IEC 60068-2-52 severity 4, 5 cycles</td>
</tr>
<tr>
<td>(external)</td>
<td>CISPR 22 class B</td>
</tr>
<tr>
<td>Reliability</td>
<td>Air +/-150V, contact +/-410V, 10 times</td>
</tr>
<tr>
<td>Surge</td>
<td>+/-280V line to ground, 10 times</td>
</tr>
</tbody>
</table>
## Delta Heat Exchanger Standard Product Model

<table>
<thead>
<tr>
<th>Model</th>
<th>HEX030PA</th>
<th>HEX050PA</th>
<th>HEX080PB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling capacity (W/K)</td>
<td>30</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>Dimension HxWxD (mm)</td>
<td>620x164x148</td>
<td>500x445x152</td>
<td>850x500x160</td>
</tr>
<tr>
<td>Air Flow (CFM/CMH)</td>
<td>180/306</td>
<td>210/357</td>
<td>170/289</td>
</tr>
<tr>
<td>External</td>
<td>180/306</td>
<td>210/357</td>
<td>210/357</td>
</tr>
<tr>
<td>Internal</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Rated voltage (V)</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Temperature range (°C)</td>
<td>-10 ~ +65</td>
<td>-10 ~ +65</td>
<td>-10 ~ +65</td>
</tr>
<tr>
<td>* Noise (dB-A)</td>
<td>70</td>
<td>65</td>
<td>68</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>6</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Max. Power (W)</td>
<td>65</td>
<td>70</td>
<td>87</td>
</tr>
<tr>
<td>Fan Type</td>
<td>Axial</td>
<td>Axial</td>
<td>Axial</td>
</tr>
<tr>
<td>Safety</td>
<td>UL, cUL, TUV, CE</td>
<td>UL, cUL, TUV, CE</td>
<td>UL, cUL, TUV, CE</td>
</tr>
<tr>
<td>Environment protection</td>
<td>IP55</td>
<td>IP55</td>
<td>IP55</td>
</tr>
<tr>
<td>Mounting type</td>
<td>Internal Mount</td>
<td>Internal Mount</td>
<td>Internal Mount</td>
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</table>

## Additional Models

<table>
<thead>
<tr>
<th>Model</th>
<th>HEX080QA</th>
<th>HEX100PA</th>
<th>HEX200PA</th>
<th>HEX260PA-A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling capacity (W/K)</td>
<td>80</td>
<td>100</td>
<td>200</td>
<td>260</td>
</tr>
<tr>
<td>Dimension HxWxD (mm)</td>
<td>555x500x265</td>
<td>850x500x160</td>
<td>1100x500x194</td>
<td>1400x650x260</td>
</tr>
<tr>
<td>Air Flow (CFM/CMH)</td>
<td>200/340</td>
<td>230/391</td>
<td>640/1087</td>
<td>640/1087</td>
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<tr>
<td>External</td>
<td>270/459</td>
<td>320/544</td>
<td>940/1597</td>
<td>940/1597</td>
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<tr>
<td>Internal</td>
<td>48</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Rated voltage (V)</td>
<td>48</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Temperature range (°C)</td>
<td>-10 ~ +65</td>
<td>-10 ~ +65</td>
<td>-10 ~ +65</td>
<td>-10 ~ +65</td>
</tr>
<tr>
<td>* Noise (dB-A)</td>
<td>64</td>
<td>75</td>
<td>74</td>
<td>74</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>15</td>
<td>15</td>
<td>26</td>
<td>37</td>
</tr>
<tr>
<td>Max. Power (W)</td>
<td>96</td>
<td>173</td>
<td>312</td>
<td>576</td>
</tr>
<tr>
<td>Fan Type</td>
<td>Axial</td>
<td>Axial</td>
<td>Axial</td>
<td>Blower</td>
</tr>
<tr>
<td>Safety</td>
<td>UL, cUL, TUV, CE</td>
<td>UL, cUL, TUV, CE</td>
<td>UL, cUL, TUV, CE</td>
<td>UL, cUL, TUV, CE</td>
</tr>
<tr>
<td>Environment protection</td>
<td>IP55</td>
<td>IP55</td>
<td>IP55</td>
<td>IP55</td>
</tr>
<tr>
<td>Mounting type</td>
<td>Internal Mount</td>
<td>Internal Mount</td>
<td>Internal Mount</td>
<td>Internal Mount</td>
</tr>
</tbody>
</table>

* Sound pressure measurement: 1.0 meter from center of external side of HEX.
** Delta reserves all rights for specification modification.
DELTA HEAT EXCHANGER
BEYOND YOUR EXPECTATIONS

If current products do not satisfy your needs, you are invited to experience the benefits of Delta Heat Exchanger products.

Delta customized Heat Exchangers are at least 10% smaller than heat exchangers currently on the market, while providing the same cooling capacity.

Delta Heat Exchangers use high efficiency and reliable fans for Longer Life applications.

Delta customized Heat Exchangers offer at least 20% lower power consumption.

Heat Exchangers save energy and TCO.

Customized Solutions

Delta can satisfy all customer needs by either providing standard heat exchanger products, or customized heat exchanger products which meet specific customer requirements. As specialization is a trend for all business models, Delta offers trusted thermal management solution expertise to provide the best solution for current thermal design challenges. From design concept and prototype to verification and performance testing, to mass production quality control, Delta provides professional design and manufacturing systems to offer you lower cost, better performance and quality in less time.

Please contact your Delta Regional Service specialist for further support.

“To provide innovative, clean and efficient energy solutions for a better tomorrow” is Delta’s corporate mission. Delta is committed to protecting the Earth’s environment by developing eco-friendly and energy-saving products, adopting environmentally friendly practices and reducing our impact on the environment.
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