

#### Fan and Thermal Management

# **Delta EC Fan and Blowers**

Brochure 2022/23







https://www.delta-fan.com/



## About Delta Group

Delta, founded in 1971, is a global provider of switching power supplies and thermal management products with a thriving portfolio of smart energy-saving systems and solutions in the fields of industrial automation, building automation, telecom power, data center infrastructure, EV charging, renewable energy, energy storage and display, to nurture the development of smart manufacturing and sustainable cities.



## About Delta EC Fans

Over 30 years experience in aerodynamics, motor design and control technologies, Delta's EC fan product line provides excellent performance. High Airflows (over 30,000 CMH) combined with great efficiency and real low noise contribute to please the market demands in different applications, e.g. building HVAC, precision cooling and industrial applications. Following the greater goal to provide a greener future for all we also focus on minimizing energy costs. Delta EC Fan user friendly accessories, interface and communication bus enable quick and reliable installation in your application.

#### Delta EC fan, a greener & smarter design for a better tomorrow.



Global energy demand is increasing rapidly, and so does the power capacity of industrial applications, requiring more efficient cooling systems. EV-Charging, solar and wind energy all rely on cooling units reducing their operating temperature. Delta's industrial EC fans are designed for this environment offering higher performance, premium materials, high electronic standards, and high operating life requirements to maintain these systems uptime.



Data center equipment generates a considerable amount of heat that is why excellent air-conditioning systems for data centers are vital for a smooth operation. Delta EC fans is dedicated in providing the best cooling efficiency fans with modern design for various needs, from Row Cooling, Room Cooling up to Fan Walls. By using top quality and reliable electronic components we ensure to our Data Center customers to enjoy reliable long fan life without risking data operation.



Heat Recovery Ventilators help make your home healthier, cleaner, and more comfortable by continuously replacing stale indoor air with fresh outdoor air. Delta's silent efficient EC fans ensure that HRV Systems work optimally, contributing to a more comfortable atmosphere in your living room, minimizing the electricity bill, and playing an important role in the journey towards a greener future.



## EC BLOWER & EC AXIAL FAN

### Impeller

#### Impeller

State of the art impellers design of plastic or metal, centrifugal blowers& multi-section blade Axial fans smoothen air flow to achieve best efficiency & noise reduction. With robust design & well-studied materials, Delta fan impellers can withstand high stress & long fatigue even underdemanding conditions.

### ) EC Motor

Delta's high efficiency EC (Electronically Commutated) motor can reach over 90% efficiency by optimizing magnet parts and motor winding. With accurate motor temperature control, motor structure design including the latest bearing system structure technology, our EC fan can reach a longer life time (L10 60,000hrs @ 40 degreeC). The unique EC motor structure can easily reach IP54 standard or higher.

### **EC Control Module**

The most advanced control module design comprises PWM/ Voltage/ Current Speed control, and also RS485 & Modbus as modern communication. Delta EC fans are build to meet industrial EMC/ EMI/ Harmonic standards and incorporate different protection mechanisms (ex. over current/ over voltage/ over temperature), for safely & comfort reasons.

### Power Source & Power Quality

Delta EC Fans offer 1 phase (200Vac-277Vac) & 3 phase (380Vac-480Vac), from 85W up to 6KW motor power. With innovative design some models in the Delta EC fans series are equipped with a wide voltage range 3 phase 200Vac - 480Vac input. Our EC fans are universally applicable without modifications and loss of motor performance. Delta EC Fans provide active PFC (power factor correction) & passive PFC as options to help users to meet necessary electronic performance (ex. Harmonic) with different cost target.







# EC BLOWER

Metal or Plastic impeller depending on models All include inlet cone / nozzle Box frame / mounting bracket as option Available motors with PPFC or APFC CE/ TUV/ UL certified



#### Data Center

Rack Cooling, Computer Room Air Conditioner, Chilled Water System



Industrial Application Motor Drive, EV Charger S

| Size | Series Number     | Nominal<br>Voltage Range<br>(phase, V) | Max. Input<br>power (W) | Speed<br>(rpm) | Max. Air<br>Flow (CMH) | Max. Air Pres-<br>sure (Pa) |
|------|-------------------|--|-------------------------|----------------|------------------------|-----------------------------|
| 190  | GTB019BUA07R-V E1 | 1~100-140                              | 85                      | 3100           | 736                    | 717                         |
| 190  | GTB019FUA07R-V E1 | 1~200-240                              | 85                      | 3100           | 754                    | 841                         |
| 190  | GTB019FUG09R-V E1 | 1~200-240                              | 185                     | 4150           | 997                    | 988                         |
| 225  | GTB023EUG10R-V E1 | 1~200-240                              | 180                     | 3000           | 1260                   | 650                         |
| 250  | GTB025FUC19R N1   | 1~200-277                              | 530                     | 3050           | 2600                   | 818                         |
| 280  | GTB028EUB16 N1    | 1~200-277                              | 180                     | 1850           | 2222                   | 570                         |
| 310  | GTB031FUC20R N1   | 1~200-277                              | 530                     | 2500           | 3014                   | 734                         |
| 310  | GTB031PHJ22M N1   | 3~380-480                              | 1000                    | 3060           | 3704                   | 1035                        |
| 360  | GTB036EUD25R N1   | 1~200-277                              | 800                     | 2030           | 4752                   | 697                         |
| 360  | GTB036FUC23R N1   | 1~200-277                              | 500                     | 1730           | 4408                   | 522                         |
| 360  | GTB036NUQ27R-M001 | 3~380-480                              | 2500                    | 3000           | 6495                   | 1660                        |
| 360  | GTB036PUD25E N1   | 3~380-480                              | 1000                    | 2200           | 5573                   | 919                         |
| 360  | GTB036PUS32R N1   | 3~380-480                              | 3650                    | 3650           | 8602                   | 2585                        |
| 400  | GTB040EUD26R N1   | 1~200-277                              | 800                     | 1750           | 5692                   | 690                         |
| 400  | GTB040FUC20R N1   | 1~200-277                              | 430                     | 1600           | 3155                   | 563                         |
| 400  | GTB040FUC23R N1   | 1~200-277                              | 430                     | 1500           | 3635                   | 504                         |
| 400  | GTB040PUD26R N1   | 3~380-480                              | 1000                    | 1850           | 6001                   | 755                         |
| 500  | GTB050NUT34R N1   | 3~380-480                              | 3100                    | 1820           | 12221                  | 1104                        |
| 560  | GTB056NUT35R N1   | 3~380-480                              | 3100                    | 1550           | 13852                  | 1009                        |
| 560  | GTB056NUT37R N1   | 3~380-480                              | 3100                    | 1550           | 15063                  | 1020                        |
| 560  | GTB056PUT35R N1   | 3~380-480                              | 3100                    | 1550           | 13852                  | 1009                        |
| 630  | GTB063PUU41R E1   | 3~380-480                              | 4200                    | 1800           | 20289                  | 1807                        |

# EC AXIAL FAN

Fan Guard & Fan Wall-Ring as option 0-10V & PWM for speed control Available with PPFC or APFC RS485, Modbus Standard CE/ TUV/ UL certified



I tation, Wind Power, Photovoltaic Inverter



#### **Factories & Commercial Buildings**

Cooling Tower, Air Handling Unit, Condenser, Chiller, Heat Exchanger

| Size | Series Number     | Nominal<br>Voltage Range<br>(phase, V) | Max. Input<br>power (W) | Speed<br>(rpm) | Max. Air<br>Flow (CMH) | Max. Air Pres-<br>sure (Pa) |
|------|-------------------|--|-------------------------|----------------|------------------------|-----------------------------|
| 120  | GTW012FU604       | 1~100-240                              | 26                      | 4100           | 313                    | 210                         |
| 120  | GTW012FU804       | 1~100-240                              | 11                      | 4200           | 246                    | 112                         |
| 170  | GTW017EUB12       | 1~200-240                              | 240                     | 5800           | 1177                   | 844                         |
| 200  | GTW020EUB12       | 1~200-240                              | 240                     | 6000           | 1082                   | 1037                        |
| 250  | GTW025FUC16       | 1~200-277                              | 360                     | 3800           | 1746                   | 392                         |
| 400  | GTW040FUC15E-M001 | 1~200-277                              | 420                     | 1650           | 5350                   | 198                         |
| 400  | GTW040FUC15RS     | 1~200-277                              | 420                     | 1650           | 5350                   | 198                         |
| 630  | GTW063HUD22E-M001 | 3~200-480                              | 1100                    | 1200           | 13218                  | 212                         |
| 710  | GTW071HUD22E-M001 | 3~200-480                              | 1000                    | 850            | 15499                  | 147                         |
| 710  | GTW071PUR23E      | 3~380-480                              | 2700                    | 1250           | 23134                  | 259                         |
| 710  | GTW071PUT24E-M001 | 3~380-480                              | 2700                    | 1250           | 23134                  | 259                         |
| 800  | GTW080NUT24E-M001 | 3~380-480                              | 2200                    | 1020           | 25077                  | 196                         |
| 800  | GTW080PUR23E      | 3~380-480                              | 2200                    | 1020           | 25077                  | 196                         |
| 800  | GTW080PUU26E      | 3~380-480                              | 3100                    | 1200           | 30178                  | 237                         |
| 910  | GTW091NUT24R      | 3~380-480                              | 2100                    | 950            | 31130                  | 151                         |
| 910  | GTW091PUR23E      | 3~380-480                              | 2200                    | 950            | 30948                  | 155                         |
| 910  | GTW091PUU26E-M001 | 3~380-480                              | 3100                    | 1100           | 36649                  | 191                         |

Motor design standard: Air performance: Harmonic: Noise: EMC: UL 507, UL 1004-3, CSA C22.2 All of our wind tunnel system follow AMCA-210-85 EN 61000-3-2/3 Testing method is compliant to ISO 3745 EN 61000-6-1/3 (residential) or 2/4 (industrial)





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