



ARKTIC™ 142

Applications

Our ARKTIC 142 motors are primarily used in the evaporator of commercial refrigeration walk-in coolers and freezers as well as outdoor condensers, but can be used in any application demanding high efficiency and dependability with output ratings between 1/5 - 3/4 HP including parallel racks.

Innovative design

Combining over 20 years of GE ECM by Regal Beloit experience with Morrill Motors commitment to value, quality, and service we are now offering the most efficient 1/5 - 3/4 HP electronically commutated motor available. Our ARKTIC 142 significantly outperforms PSC technology. With efficiencies 30% higher than PSC, in addition to the reliable design, the ARKTIC 142 provides users the most reliable and best energy savings solution for their applications.

Optimize your performance

All of our ARKTIC 142 motors can be sold with [mounting brackets](#) and can be programmed at your facility to optimize airflow and system efficiency using the [ECM Toolbox](#).

Electrical Summary

- Voltage: 115 (90-132)* or 208-230 (180-264) V
- Output: 1/5, 1/3, 1/2, and 3/4 HP
- Efficiency: ~77% peak
- Speed Range: 600 - 1200, or 600 - 1800** RPM
- Speeds: 1, 2, or 3 (speed regulated +/- 6%)
- Rotation: CW, CCW, or CW/CCW (determined from the lead end of the motor)
- Programmable: The ECM Toolbox can be used to change the number of speeds, RPM, and Rotation

Mechanical Summary

- Type: NEMA 48 frame electronically commutated
- Shaft: 1/2" diameter, single flat
- Enclosure: Totally enclosed - air over required
- Bearing: Ball bearing with low temperature grease
- Mounting: Belly band, welded base, #8-32 rear studs, #8-32 front studs
- Operating Position: All angle
- Leads: Many customized lead options are available.
- Compliance: RoHS

Environmental Summary

- Storage Temps: -40 to 80° C ambient
- Operating Temps: -40 to 55° C ambient
- Design Life: 10 years, 83,720 hours on time

The Morrill Motors Pledge

Since 1946, Morrill Motors has earned the trust of customer around the world. Our commitment to quality and unique designs is unwavering. Working with you and your team, we will ensure exacting specifications and performance standards whether you select one of our many current production models, or choose to have us customize features and specifications to meet your special requirements.

We are pledged to ensure your success. Expect only the best service, quality and value when you specify Morrill Motors.

*All ratings excluding 3/4 HP

** 1/2 and 3/4 HP only