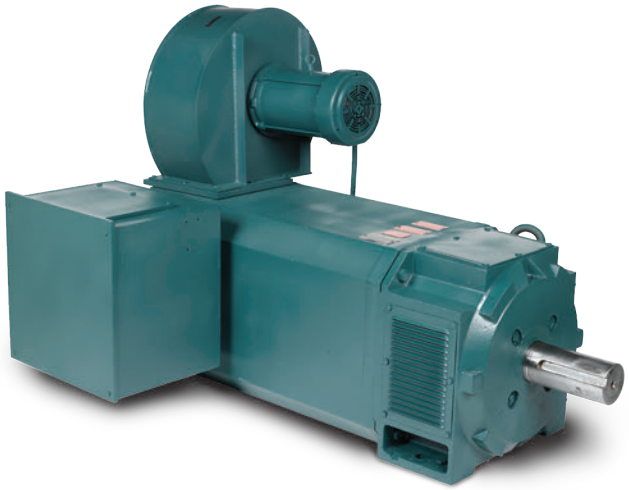
PRODUCT NOTE

RPM AC Motor

Drip-proof guarded force ventilated InverterDuty® AC motors



When AC adjustable speed motor applications demand high performance over wide speed ranges, RPM AC motors offer the perfect solution.

Take advantage of these unique benefits, available only with RPM AC Motors, on your next inverter duty application.

DPFV RPM AC motors offer these capabilities:

- Most compact size and lowest weight
- Continuous constant torque from zero RPM to base speed (1000:1).
- A wide selection of base speeds and modifications to support unique application requirements. Low base speeds for winders and slitters.
- Available in both NEMA and IEC frame sizes.

Optimized electrical designs

Every RPM AC motor design is optimized for adjustable frequency service - not just a re-rate or over framing of a standard motor. Rotor slot configuration and stator windings are optimized to:

- Provide greater horsepower per frame size - up to three frame diameters smaller than corresponding NEMA fixed-speed motors.
- Highest Torque to Inertia - up to 80% less inertia than standard NEMA frame motors, which allows for faster acceleration with less inverter KVA.
- 150% minimum overload torque for 1 minute.

Premium Class H insulation system is standard:

To assure long life in all applications, RPM AC DPFV motors utilize our Corona-Free insulation system. This provides much longer life for AC motors compared to motors that only use “corona resistant or spike resistant” materials. This system has been tested for compatibility with pulse width modulated controller waveforms and surpasses the requirements of NEMA MG.1 Part 31 for voltage spikes.

All motors include three thermostats as standard (one per phase) for optimum winding protection.

Commitment to Quality:

RPM AC motors are manufactured at our Gainesville, GA plant under a certified ISO 9001 program.

All RPM AC motors are available with U.L. component recognition, CE mark and CSA approval. Also, a complete IEC product line is available.

Superior mechanical features
The feet-on-bracket design provides a rigid, vibration-resistant, mechanical assembly with maximum bearing support to further improve structural dynamics.

- All laminated steel frame construction provides the highest possible power densities (HP/frame size) allowing motor to fit in minimal space.
- All RPM AC motors include a machined mounting surface for easy installation of a feedback device.
- Cast iron brackets with concentric bearing and frame fits are machined in a single operation to ensure uniform air gap and minimum noise.
- PLS (Positive Lubrication System) with inner cap and open bearing provides a generous grease supply and long bearing life. PLS is a standard feature for RL280 to RL440 frames.
- Exclusive Lubricated For Life System, with oversized ball bearings, are standard on all FL180 - RL250 frames.
- Easily modified to splash-proof or totally enclosed separately ventilated.
- VPI insulation is standard on all RL440 frames
- Insulated opposite drive end bearing is standard on all RL440 frames.
- Optimum pole design:
  - 4 pole in RL210 - RL400
  - 6 pole in RL440 frames

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Open drip proof power density chart induction designs (Hp by frame size, 1800 RPM)

Horsepower	NEMA Std ODP	RPM AC DPFV
3	180	-
5		
7.5	210	
10		
15	250	180
20		
25	280	
30		
40	320	210
50		
60	360	
75		
100	400	250
125		
150		280
200		
250		320
300	440	
350		360
400		
500		400
600		
700		
800	-	
900		440
1000		
1100		

ABB Motors and Mechanical Inc.
5711 RS Boreham Jr Street
Fort Smith, AR 72901
479.646.4711

abb.com

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