

PRODUCT NOTE

RPM AC

Totally enclosed InverterDuty® AC motors



Whenever your application needs include full Torque at zero speed, special base speeds, wide constant HP range (4:1 or more available), high peak torque power density, low rotor inertia, high speed capability or just a rugged motor to match your unique requirements, the totally enclosed RPM AC is the motor for you!

Standard capabilities:

- Continuous full load torque from zero to base speed when used with DTC or other high performance inverters.
- 2:1 constant horsepower above base speed on most ratings.
- 200% minimum overload torque starting at base speed and below for 1 minute.
- Compact frame size.

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.

- Greater horsepower per frame size provides fast dynamic response.
- Custom power ratings, custom base speeds, and custom CHP speeds are available upon request.

Premium Class H insulation system is standard:

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

Enclosures available:

- Totally enclosed for corrosive or harsh environments: IP44, IP54, IP55, and IP56.
- Enclosure enhancements available: Crane and Hoist Duty, Outdoor Duty/Weatherproof, Paper Mill Duty, Pickle Duty, Press Duty/High Vibration, Washdown, and XT (eXtra Tough).
- Available in both NEMA and IEC frame sizes.

Standard features:

- Rugged laminated steel frame construction is standard for FL210 - FL440 and FL5800 frames.
- Cast iron brackets are standard for FL180 - FL440 and FL5800 frames.
- Exclusive Lubricated for life system, with oversized ball bearings, is standard on FL180 - FL250 frames.
- PLS® (Positive Lubrication System) is standard on all RPM AC motors (FL280 - FL440 frames).
- Encoder mounting provisions standard on all frames.
- Three thermostats (one per phase) are standard.

With RPM AC motors, you don't have to compromise! No over-framing or derating. No speed range limitations. No guesswork. Choose any base speed for any application such as: Extruders, web processing, cut to length, machine tools, test stands, paper, metals and tire & rubber. 1000:1 constant torque standard!

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 UL component recognition, CE mark and CSA approval. Also, a complete IEC product line is available.

Totally enclosed power density chart induction designs (Hp by frame size, 1800 RPM)

Horsepower	NEMA Std TEFC ⁽¹⁾	RPM AC TENV ⁽²⁾	RPM AC TEFC ⁽³⁾	RPM AC TEBC ⁽²⁾
3				
5	180	180		
7.5			180	
10	210			180
15	250	210		
20			210	
25	280	250		
30			250	210
40	320	280		
50		320		
60	360	360	280	250
75		360		
100	400	400	320	
125		440		280
150			360	320
200			400	
250				360
300			440	400
500	-	-		440
600			440	
700				
800				5800
900			5800	5800
1000				

(1) 2:1 CT, 4:1 VT
 (2) 1000:1 CT
 (3) 1000:1 CT 3 - 500 Hp, 4:1 VT 600 - 1000 Hp