

RPM™ AC MOTORS

Totally Enclosed Inverter Duty AC Motors

Whenever your totally enclosed variable speed application needs include: 1000:1 constant torque, special base speeds, wide constant HP range (4:1 or more), high peak torque, 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!



300HP 1750 HP L4046 TEBC

Standard Capabilities:

- Continuous full load torque from zero to base speed on vector controllers.
- 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 in multiple enclosures:
 - TEBC - Totally Enclosed Blower Cooled
 - TEFC - Totally Enclosed Fan Cooled
 - TENV - Totally Enclosed Non Ventilated

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.
- Special base speeds readily available.

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 - XT; outdoor-washdown for corrosive or harsh environment (IP 55, Washdown on 56, 140T, and FL180)
- IEC enclosures: IP44, IP54, IP55 available in frame sizes FDL112 - DL280.

Standard Features:

- Rugged laminated steel frame construction is standard for FL210 - L440 frames
- Cast Iron Brackets are standard for FL180 - L440 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 (L280 - L440 frames)
- Encoder mounting provisions standard on all frames.
- Three thermostats (one per phase) are standard.
- For drip proof guarded force ventilated options see data sheet RAPS-544

With RPM AC motors, you don't have to compromise! No over-framing or derating. No constance torque 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. 10,000:1 Constant Torque is Standard! (same as 1000:1)

✓ Aggregate/Cement

✓ Food

✓ Mining

✓ Forest/Paper

✓ Petro/Chem

✓ Unit/Baggage Handling

✓ HVAC/Industrial Air Handling

✓ Environmental/Fluid Power

✓ Automotive

✓ Metals

RPM AC TOTALLY ENCLOSED INVERTER DUTY MOTORS:

Continuous Constant Torque To Zero Speed

HP	BASE	ENCL	FRAME	MODEL	ROTOR	FULL LOAD	DIMENSION
	SPEED ⁽²⁾			NUMBER	INERTIA ⁽¹⁾	AMPS (460V)	SHEET
1/3	1750	TENV	FB56C	P56H6605	.048	0.5	610302-873
1/2	1750	TENV	FB56C	P56H6604	.054	0.8	610302-873
3/4	1750	TENV	FB56C	P56H6603	.059	1.1	610302-873
1	1750	TENV	WC143TC	P14A6903	.075	1.6	610302-876
1.5	1750	TENV	WC143TC	P14A6904	.094	2.3	610302-876
2	1750	TENV	WD145TC	P14A6905	.105	3	610302-876
3	1750	TENV	WE182TC	P18A8203	.14	4.4	610302-880
5	1750	TEBC	WE184TC	P18A8204	.129	7.1	610301-638
5	1750	TENV	FL1838C	P18T348	.53	6.8	617228-3
7.5	1750	TENV	FL1852CZ	P18T349	.80	11	617234-13
10	1750	TEFC	FL1844CZ	P18T350	.645	14	617232-13
15	1750	TEBC	FL1844CZ	P18T359	.645	21	617232-23
15	1750	TEFC	FL2162CZ	P21T397	1.92	20	617517-23
20	1750	TEBC	FL1852CZ	P18T268	.80	27	617235-23
20	1750	TEFC	FL2162CZ	P21T283	1.92	27	617517-23
25	1750	TEBC	FL2162CZ	P21T287	1.92	34	617517-23
25	1750	TEFC	FL2173CZ	P21T286	2.64	34	617525-23
30	1750	TEBC	FL2162CZ	P21T294	1.92	39	617517-23
30	1750	TEFC	FL2570C	P25T299	3.5	40	617573-23
40	1750	TEBC	FL2173Z	P21T285	2.64	52	617525-1
40	1750	TEFC	FL2586Z	P25T279	4.9	52	617581-1
50	1750	TEBC	FL2570Z	P25T300	3.5	65	617573-1
60	1750	TEBC	FL2578Z	P25T302	4.2	74	617577-1
75	1750	TEBC	FL2586Z	P25T303	4.9	96	617581-1
100	1750	TEBC	L2898Z	P28L232	11.1	123	616759-1
125	1750	TEBC	L3203Z	P32L230	21	150	616763-1
150	1750	TEBC	L3213Z	P32L228	24	177	616763-1
200	1750	TEBC	L3614Z	P36L237	45	227	609994-1
250	1750	TEBC	L4034Z	P40L202	73	283	609994-1
300	1750	TEBC	L4046Z	P40L203	85	336	609994-1
350	1750	TEBC	L4440Z	P44L1329	169	440	615919-101
400	1750	TEBC	L4451Z	P44L1314	189	536	615919-101
450	1750	TEBC	L4461Z	P44L1347	207	563	615919-101
500 ⁽³⁾	1750	TEBC	L4461Z	P44L1315	207	613	615919-101

(1) Inertia units: lb-ft squared

(2) Optimum Pole Design: 4 Pole FL180 - L400; 6 Pole L440 Frames

(3) Requires a minimum inverter carrier frequency of 4 KHz

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