

RPM™ AC MOTORS

New Finned Frame Technology Enhances Totally Enclosed Inverter Duty Motors

Reliance® introduces a new family of RPM AC totally enclosed inverter duty motors with finned frames. Our 100 years of technology leadership in variable speed motors combined with 20 years of success with unique RPM AC laminated frame motors has resulted in a design advancement of Reliance RPM AC.

These new designs, offered in FL180, FL210 and FL250 frames, continue the RPM AC heritage of compact, low rotor inertia designs, which deliver continuous constant torque to zero speed. They add more customer value in both ruggedness, and compactness - for example, 75 HP in totally enclosed NEMA 250 frame shaft height of 6.25 inches.

The FL180 frame is a completely new design incorporating heavy duty finned aluminum frames; the FL210 and FL250 frames are rugged finned laminated steel. Heavy duty cast iron brackets with integral feet are standard on all FL180, FL210 and FL250 frames. Oversized lubricated for life double shielded ball bearings are standard.

Standard Features and benefits

- Premium class H insulation and guaranteed Corona Free designs for long life
 - Surpasses requirements of NEMA MG .1 Part 31 for voltage spikes
- Continuous full load torque to zero speed
- 200% overload torque for hard to start loads
- Three normally closed thermostats (one per phase)
- Encoder provisions- machined opposite drive end bracket and tapped shaft for stub shaft addition for encoder
- Stock ratings from 1/3 - 75 HP



75HP 1750RPM TEBC FL2586 Finned Frame *

- Compact and low rotor inertia for fast response
- Easily replaces any DC or larger NEMA frame AC motor – Fits in the space you have
- U/L, CSA and CE mark (for IEC frames) available

Optimized Electrical Designs

- Optimum pole design to minimize FL amps and inverter size
- Choice of base speeds to allow unique matching of motor to your application needs –use RPM AC Motor Wizard CD to optimize motor design to match your needs- download from www.reliance.com
- High speed options – up to 11,800 RPM on FL180 frames, 8,800 RPM on FL210 frames and 7,900 RPM on FL250 frames

Enclosure Options

- FL210 and FL250 available as Totally enclosed, XT (IP54) and washdown (IP55)
- FL180 available as totally enclosed, IP54, and washdown (IP55)
- Complete line of IEC frames readily available (FDL112, FDL132, and FDL160)

* Patent pending

✓ Aggregate/Cement

Food

✓ Mining

✓ Forest/Paper

✓ Petro/Chem

✓ Unit/Baggage Handling

✓ HVAC/Industrial Air Handling

✓ Environmental/Fluid Power

✓ Automotive

✓ Metals

RPM AC FINNED FRAME INVERTER DUTY MOTORS: Continuous Constant Torque To Zero Speed

HP	BASE SPEED	ENCL	FRAME	MODEL NUMBER	ROTOR INERTIA ⁽¹⁾	FULL LOAD AMPS (460V)	DIMENSION 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	2.32	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	2.32	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

(1) Inertia units: lb-ft squared

Application Versatility

RPM AC motors have been designed exclusively for optimum inverter duty performance. We have years of proven success on high performance applications. We have the right variable speed motor for your application.

Some typical applications:

- Extruders
- Injection molding
- Web processing
- Printing press
- Stamping press
- Slitters
- Center wind/unwind - low base speed and wide constant HP range
- Test stands
- Crane and hoist
- High torque to inertia - flying shear, carriage cut off, veneer lathe
- Electric vehicles
- Petroleum - top drives, injectors, draw works

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