

PRODUCT NOTE

Baldor-Reliance® RPM AC

DPFV variable speed AC motors



When space is at a premium, the Baldor-Reliance RPM AC induction motor is the answer. The RPM AC motor is most suitable for tough variable speed industrial applications where high performance and power density are needed. Drip-proof guarded force ventilated (DPFV) designs are ideal for compactness in relatively dry and clean environments.

BALDOR • RELIANCE

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 applications such as extruders, web processing, cut to length, machine tools, test stands, paper, metals and tire & rubber. 1000:1 constant torque standard!

DPFV RPM AC motors offer these capabilities:

- Power dense square laminated frame: up to three frame sizes smaller than corresponding NEMA fixed speed motors
- Continuous constant torque from zero 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 standard NEMA frame sizes
- Offered in both induction and permanent magnet (PM) rotor designs. PM rotors can further reduce the size of the motor or provide IE5 (Ultra Premium efficiencies

Optimized electrical designs

Every RPM AC motor design is optimized for VSD (Variable Speed Drives). Rotor slot configuration and stator windings are optimized to:

- Highest torque to inertia - up to 80% less inertia than standard NEMA frame motors, which allows for faster acceleration with less inverter power
- 150% minimum overload torque for 1 minute

Superior mechanical features

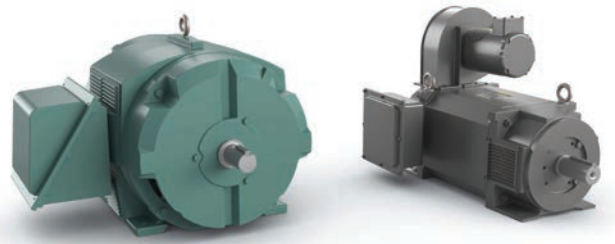
The feet-on-bracket design provides a rigid, vibration-resistant, mechanical assembly with maximum bearing support to further improve structural dynamics.

- All laminated steel frame construction provides the highest possible power densities (Hp/frame size) allowing motor to fit in tight spaces
- 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
- Exclusive lubricated-for-life system, with oversized ball bearings, standard on all FL180 - RL250 frames
- Positive Lubrication System (PLS®) with inner cap and open bearing provides a generous grease supply and long bearing life is a standard feature for RL280 to RL440 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
- Shaft grounding brush is standard on all frame sizes
- Optimum pole design:
 - 4 pole in RL210 - RL400 frames
 - 6 pole in RL440 frames
 - 4 pole in RL5000 frames
- Provisions for mounting ABB Ability™ Smart Sensor
- QR codes on nameplate provide web access for important motor data

Commitment to quality

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

All RPM AC motors are available with UL component recognition, CE mark and CSA approval.



**Open drip proof power density chart induction designs
(Hp by frame size, 1800 RPM, RPM AC = 1000:1 CT)**

Hp (kW)	NEMA Std ODP	RPM AC DPFV
3 (2.2)		-
5 (3.7)	180	
7.5 (5.6)		
10 (7.5)	210	
15 (11.2)		180
20 (14.9)	250	
25 (18.6)		
30 (22.4)	280	
40 (30)		
50 (37)	320	210
60 (45)		
75 (56)	360	
100 (75)		250
125 (93)	400	
150 (112)		280
200 (149)		
250 (186)		
300 (224)	440	320
350 (261)		360
400 (298)		
500 (373)		400
600 (447)		
700 (522)		
800 (597)		440
900 (671)		
1000 (746)		
1100 (820)		
1200 (895)		
1250 (932)		5000
1500 (1119)		
1750 (1305)		