

RPM III Medium DC Motors

5-500 HP

C210ATZ-C440ATZ Frames, GK112-GS280 Frames (IEC)

RPM III DC Motors combine the best features of the Reliance Electric RPM™ and SUPER RPM™ DC Motors with new advances in design and construction. RPM III DC Motors provide more power, reliability and easier serviceability in a smaller package.

RPM III DC Motors are the third generation of Reliance Electric motors specifically “Performance Matched” for variable speed applications utilizing rectified power. Here’s why this enhanced product is ideally suited to meet today’s and tomorrow’s most demanding industrial requirements.

RPM III PERFORMANCE ADVANTAGES:

- End brackets with integral feet provide more rigid mounting
- Higher HP ratings per frame size
- Quicker response, higher torque to inertia ratio
- Smooth operation at low speeds
- Laminated frame, sharply reduced eddy currents
- Wider speed range capability
- Longer brush life, better commutation
- Simplified installation and service accessibility
- Exclusive PLS® lubrication system
- Specifically designed for rectified power



RPM III ADVANCED DESIGN FEATURES:

New, larger armature diameters provide a significant increase in rating per frame size and improved torque-to-inertia ratios for quick response. Skewed armature designs also ensure smooth operation at low speeds.

Four-pole configuration extends speed ranges, improves linear torque-per-amp relationship and contributes to smoother, quicker response.

Field-proven square laminated frame construction improves commutation and heat dissipation, and requires less mounting space than round body motors.

Mechanically held commutator provides dynamic stability, eliminating high or low bars and undesirable thermal stress.

Computer designed frame and bracket eliminate vibration at any speed within the motor’s operating range and prevent the motor from being excited by harmonics in the rectified power supply. End brackets are cast iron with integral mounting feet, providing a rigid, vibration-resistant mechanical enclosure.

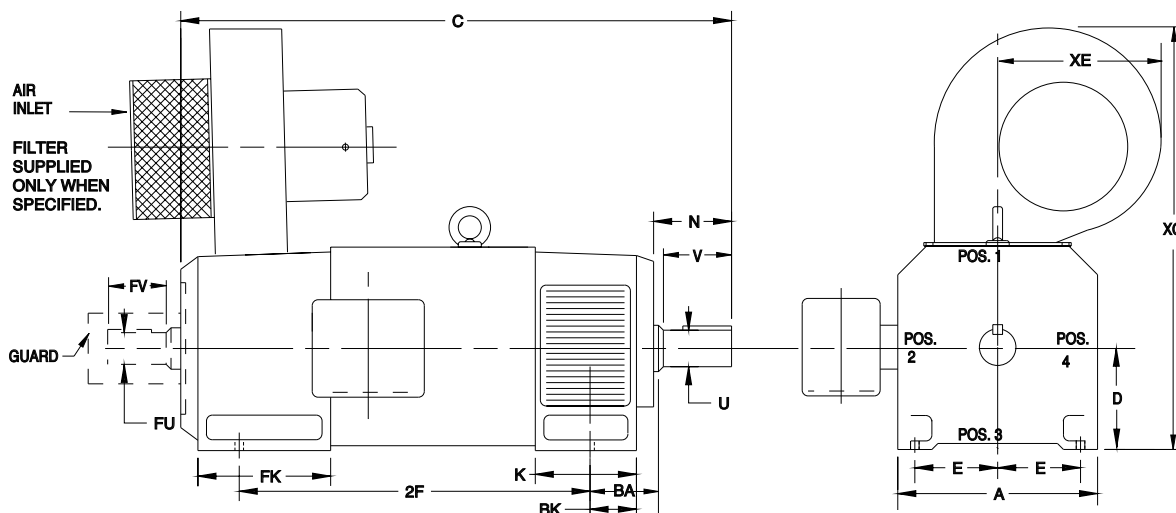
Radial brush holders with a unique pivoting brush finger and a constant-tension coiled spring ensure positive, continuous contact between the brush and commutator. This results in optimum commutation and better utilization of the brush length for up to twice the brush life.

Rotatable brush rigging assembly provides easier access to top and bottom brushes. (Access is through large hand hole openings in the side of the motor.)

PLS lubrication system uses open bearings that run cooler for long life. Unique configuration of bearing cavity ensures proper bearing lubrication regardless of motor mounting position. It also eliminates possibility of damage to the motor or bearings due to overgreasing.

RPM III DC Motors are manufactured of quality materials with continual quality assurance of processes. RPM III, NEMA and IEC DC motors are manufactured in ISO 9001 certified facilities.

RPM III DC Motors



Frame	E	A	2F	K	BK	BA	C		D	XE	XO	Drive End			Non-Drive End		Approx. Weight
							STD	LG				V	N	U	FV	FU	
SC2113	4.25	10.25	18	5.19	2.38	3.5	28.38	-	5.25	10	22.75	3.5	4	1.87	3	1.62	345
MC2113	4.25	10.25	18	5.19	2.38	3.5	29.62	-	5.25	10	22.75	3.5	4	1.87	3	1.62	370
LC2113	4.25	10.25	18	5.19	2.38	3.5	31.25	-	5.25	10	22.75	3.5	4	1.87	3	1.62	400
MC2115	4.25	10.25	22	5.19	2.38	3.5	32.5	-	5.25	10	22.75	3.5	4	1.87	3	1.62	425
LC2115	4.25	10.25	22	5.19	2.38	3.5	35.25	-	5.25	10	22.75	3.5	4	1.87	3	1.62	480
SC2512	5	12.31	20	6.06	3	4.25	31.69	-	6.25	9.5	24.75	4	4.5	2.12	3.5	1.87	535
MC2512	5	12.31	20	6.06	3	4.25	33.19	-	6.25	9.5	24.75	4	4.5	2.12	3.5	1.87	570
LC2512	5	12.31	20	6.06	3	4.25	34.69	-	6.25	9.5	24.75	4	4.5	2.12	3.5	1.87	610
C2514	5	12.31	25	6.06	3	4.25	38.44	-	6.25	9.5	24.75	4.5	5	2.37	3.5	1.87	695
C2515	5	12.31	28	6.06	3	4.25	42.44	-	6.25	9.5	24.75	4.5	5	2.37	3.5	1.87	805
MC2812	5.5	13.78	22	6.75	3.5	4.75	37.38	-	7	9.25	26.75	4.5	5	2.37	4	2.12	810
UMC2812	5.5	13.78	22	6.75	3.5	4.75	37.88	-	7	9.25	26.75	5	5.5	2.62	4	2.12	815
LC2812	5.5	13.78	22	6.75	3.5	4.75	39.62	-	7	9.25	26.75	4.5	5	2.37	4	2.12	885
ULC2812	5.5	13.78	22	6.75	3.5	4.75	40.12	-	7	9.25	26.75	5	5.5	2.62	4	2.12	890
C2813	5.5	13.78	25	6.75	3.5	4.75	41.25	-	7	9.25	26.75	4.5	5	2.37	4	2.12	940
UC2813	5.5	13.78	25	6.75	3.5	4.75	41.75	-	7	9.25	26.75	5	5.5	2.62	4	2.12	945
C2815	5.5	13.78	32	6.75	3.5	4.75	46.75	-	7	9.25	26.75	4.5	5	2.37	4	2.12	1125
UC2815	5.5	13.78	32	6.75	3.5	4.75	47.25	-	7	9.25	26.75	5	5.5	2.62	4	2.12	1130
SC3210-LSC3210	6.25	15.5	20	6.75	4	5.25	36.25	38.75	8	8.5	28	5	5.5	2.62	4.25	2.25	1115
USC3210-ULSC3210	6.25	15.5	20	6.75	4	5.25	36.75	39.25	8	8.5	28	5.5	6	2.87	4.25	2.25	1120
MC3212-LMC3212	6.25	15.5	25	6.75	4	5.25	39.25	41.75	8	8.5	28	5	5.5	2.62	4.25	2.25	1210
UMC3212-ULMC3212	6.25	15.5	25	6.75	4	5.25	39.75	42.25	8	8.5	28	5.5	6	2.87	4.25	2.25	1215
LC3212-LLC3212	6.25	15.5	25	6.75	4	5.25	41.25	43.75	8	8.5	28	5	5.5	2.62	4.25	2.25	1290
ULC3212-ULLC3212	6.25	15.5	25	6.75	4	5.25	41.75	44.25	8	8.5	28	5.5	6	2.87	4.25	2.25	1295
C3214-LC3214	6.25	15.5	32	6.75	4	5.25	46.25	48.75	8	8.5	28	5	5.5	2.62	4.25	2.25	1470
UC3214-ULC3214	6.25	15.5	32	6.75	4	5.25	46.75	49.25	8	8.5	28	5.5	6	2.87	4.25	2.25	1475
MC3612-LMC3612	7	17.5	28	7.25	4.62	5.88	42.88	44.62	9	10.88	29.87	5.5	6	2.87	5.5	2.87	1685
UMC3612-ULMC3612	7	17.5	28	7.25	4.62	5.88	43.62	45.38	9	10.88	29.87	6.25	6.75	3.25	5.5	2.87	1695
LC3612-LLC3612	7	17.5	28	7.25	4.62	5.88	46.62	48.38	9	10.88	29.87	5.5	6	2.87	5.5	2.87	1850
ULC3612-ULLC3612	7	17.5	28	7.25	4.62	5.88	47.38	49.12	9	10.88	29.87	6.25	6.75	3.25	5.5	2.87	1860
C3613-LC3613	7	17.5	32	7.25	4.62	5.88	50.12	51.88	9	10.88	31.62	5.5	6	2.87	5.5	2.87	2010
UC3613-ULC3613	7	17.5	32	7.25	4.62	5.88	50.88	52.62	9	10.88	31.62	6.25	6.75	3.25	5.5	2.87	2020
C4011	8	19.38	28	8.75	5.25	6.62	52.19	-	10	8.69	33.62	7	7.62	3.62	7	3.62	2500
UC4011	8	19.38	28	8.75	5.25	6.62	53.19	-	10	8.69	33.62	8	8.62	4.12	7	3.62	2505
MC4013	8	19.38	36	8.75	5.25	6.62	56.94	-	10	8.69	33.62	7	7.62	3.62	7	3.62	2800
UMC4013	8	19.38	36	8.75	5.25	6.62	57.94	-	10	8.69	33.62	8	8.62	4.12	7	3.62	2805
LC4013	8	19.38	36	8.75	5.25	6.62	60.19	-	10	8.69	33.62	7	7.62	3.62	7	3.62	3100
ULC4013	8	19.38	36	8.75	5.25	6.62	61.19	-	10	8.69	33.62	8	8.62	4.12	7	3.62	3105
C4412*	9	21.65	36	9.44	5.12	7.5	58.32	-	11	11.94	43.75	7	7.62	3.62	7	3.62	3245
C4413*	9	21.65	40	9.44	5.12	7.5	62.25	-	11	11.94	43.75	7	7.62	3.62	7	3.62	3660
LC4414*	9	21.65	45	9.44	5.12	7.5	68.56	-	11	11.94	43.75	7	7.62	3.62	7	3.62	4280

* Blower located on drive end

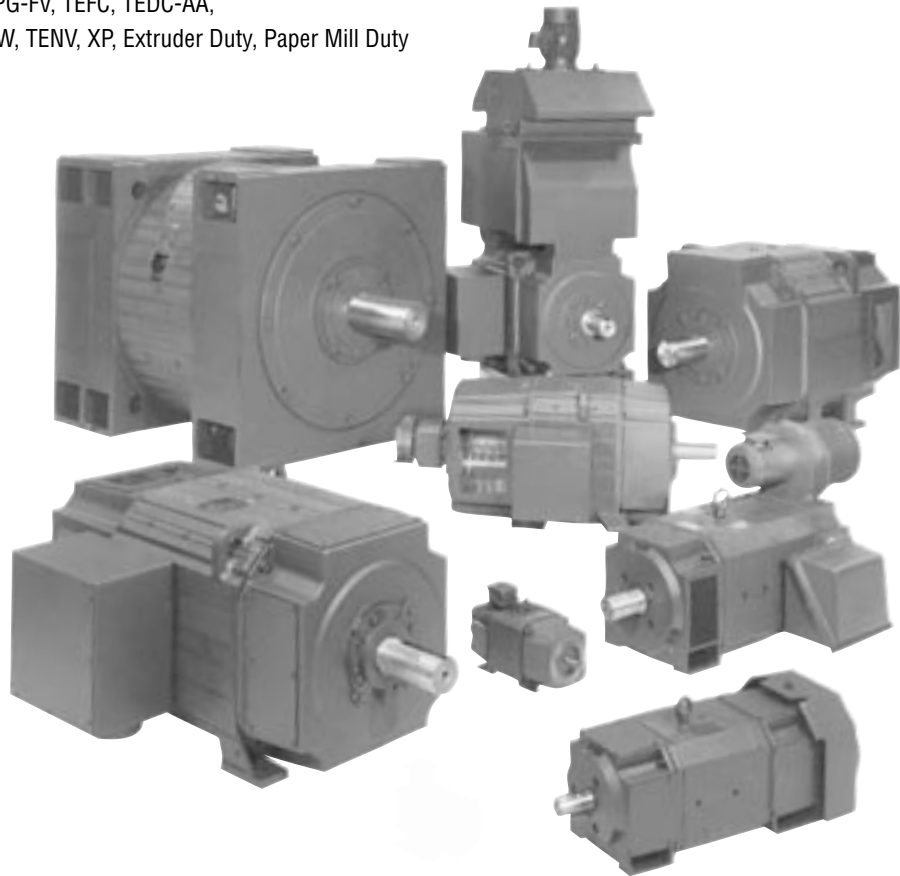
For pricing information or to place orders, go to www.PTplace.com

RPM III DC Motor Overview

- The result of over 90 years of variable-speed application experience from the recognized global leader in DC performance and technology.
- Manufactured in an ISO 9001 certified facility for domestic and global markets.
- Large armature with improved torque-to-inertia ratio provides fast response to speed changes.
- Laminated frame reduces eddy currents and improves commutation over wide speed range.
- Square cross section provides much greater power density for each frame size.

Available Features

Mounting	Integral end-bracket mounting feet
Enclosure Type	DPG, DPG-FV, TEFC, TEDC-AA, TEDC-AW, TENV, XP, Extruder Duty, Paper Mill Duty
Stock Horsepower Range	3-500



For additional product information, go to www.reliance.com

DPG & DPG-FV

RPM III DC Motors

40°C Ambient • Class F • Continuous Duty • IP22

Description

RPM III motors, the first DC motor designed to operate from solid-state rectified power are built to take on the industry's toughest jobs

Features

- Unique laminated square frame for better performance. The square configuration packs up to 20% more active material into the same space as a round frame of equivalent shaft height.
- All motors are F1 construction unless otherwise specified
- Armature and field windings designed and tested to insure trouble-free operation
- PLS™ (Positive Lubrication System) for longer bearing and motor life
- 2 year limited warranty

3 - 500 HP

HP	Speed - RPM		Voltage		Frame	Pwr Code	Enclosure	Model No.	List Price	Price Symbol	Norm. Stock	Notes	Dimension Sheet	Shunt	Design Number
	Base	Fld Weak	Arm	Fld											
3	1750		180	100/200	DC189ATY(A) +	K	DPG	T18R1118	\$1,760	RMO88	Yes	80,83	609980-503	STR	G4605A
	1750		180	100/200	DC189ATCZ(B) +	K	DPG	T18R1120	1,760	RMO88	Yes	80,83	609980-503	STR	G4605A
	1750	2300	240	150	DC189ATCZ(B) +	D	DPG	T18R1127	1,770	RMO88	Yes	80,83	609980-503	STAB	G4630A
	1750	2300	240	240	C1811ATCZ(B)	C	SPG	T18R1009	2,146	RMO88	Yes	80,Range Drive	609980-23	STAB	G2201C
	1750	2300	500	300	C1811ATZ	C	DPG	T18R1333	2,087	RMO88	Yes	80	609980-1	STR	G2194B
5	1750		180	100/200	DC1810ATCZ(B)+	K	DPG	T18R1105	2,700	RMO88	Yes	80,85	609980-503	STR	G3623A
	1750	2300	240	150	C1811ATCZ(B)	D	DPG	T18R1308	2,700	RMO88	Yes	80,83	609980-23	STAB	G2173E
	1750	2300	240	150	C1811ATZ	D	DPG	T18R1318	2,592	RMO88	Yes	80,83	609980-1	STAB	G2173E
	1750	2300	240	240	C1811ATCZ(B)	C	SPG	T18R1010	2,910	RMO88	Yes	80,Range Drive	609980-23	STAB	G2202A
	1750	2300	500	300	C1811ATZ	D	DPG	T18R1323	2,592	RMO88	Yes	80	609980-1	STAB	G2112A
	1750	2300	500	300	C1811ATZ	D	DPG	T18R1334	2,592	RMO88	Yes	80	609980-1	STR	G2112D
7.5	1750		180	200	C1812ATCZ(B)	K	DPG-FV	T18R1330	4,641	RMO87	Yes	80,84,89	609982-33	STR	G4619A
	1750	2300	240	150	C1811ATZ	D	DPG	T18R1301	3,132	RMO88	Yes	80,83	609980-1	STAB	G2032F
	1750	2300	240	150	C1811ATCZ(C)	D	DPG	T18R1311	3,294	RMO88	Yes	80,83	609980-25	STAB	G2032F
	1750	2300	240	240	C1812ATCZ(B)	C	SPG	T18R1011	3,612	RMO88	Yes	80,Range Drive	609980-23	STAB	G2203C
	1750	2300	500	300	C1811ATZ	D	DPG	T18R1306	3,132	RMO88	Yes	80	609980-1	STAB	G2060B
	1750	2300	500	300	C1811ATZ	D	DPG	T18R1335	3,132	RMO88	Yes	80	609980-1	STR	G2060A
10	1750	2300	240	150	C1812ATCZ(C)	D	DPG	T18R1312	3,734	RMO88	Yes	80,84	609980-25	STAB	G2033D
	1750	2300	240	150	C1812ATZ	D	DPG	T18R1302	3,572	RMO88	Yes	80,84	609980-1	STAB	G2033D
	1750	2300	240	240	SC2113ATZ(C)	D	SPG	T21S1001	4,052	RMO88	Yes	87,Range Drive	616000-23	STAB	G6190A
	500	3000	240	240	LC2512ATZ	C	DPG-FV	T25T1337	12,670	RMO87	Yes	85,Beamer Motor	616012-1	STR	G6527A
	1750	2300	500	300	C1812ATZ	D	DPG	T18R1307	3,572	RMO88	Yes	80,85	609980-1	STAB	G2061B
	1750	2300	500	300	C1812ATZ	D	DPG	T18R1336	3,572	RMO88	Yes	80,85	609980-1	STR	G2061A
	1750	2300	500	300	SC2113ATZ	C	DPG-FV	T21T1342	6,073	RMO99	Yes	79,82,84,87, Extruder Duty	609952-96	STAB	G6472D
15	1750	2300	240	150	SC2113ATZ	C	DPG	T21S1330	4,301	RMO88	Yes	87	616000-1	STAB	G6067A
	1750	2300	240	150	SC2113ATZ	C	DPG-FV	T21T1359	5,208	RMO87	Yes	84,87,88	616002-1	STR	G6207C
	1750	2300	240	150	SC2113ATZ	C	DPG-FV	T21T1335	5,208	RMO87	Yes	84,87,88	616002-1	STAB	G6207A
	1750	2300	240	150	SC2113ATCZ(C)	D	DPG-FV	T21T1384	5,459	RMO87	Yes	84,87,88	616002-23	STR	G6207C
	500	3000	240	240	C2515ATZ	C	DPG-FV	T25T1351	14,768	RMO87	Yes	84,Beamer Motor	616012-1	STR	G8705A
	1750	2300	500	150/300	SC2113ATZ	C	DPG	T21S1322	4,301	RMO88	Yes	87	616000-1	STAB	G6059B
	1750	2300	500	300	SC2113ATZ	C	DPG-FV	T21T1364	5,208	RMO87	Yes	84,87,88	616002-1	STR	G6224C
	1750	2300	500	150/300	SC2113ATZ	C	DPG-FV	T21T1336	5,208	RMO87	Yes	84,87,88	616002-1	STAB	G6224A
	1750	2300	500	300	SC2113ATZ	C	DPG-FV	T21T1346	7,016	RMO99	Yes	79,84,87, Extruder Duty	609952-96	STAB	G7895A

(A) 140 TC C-Face
 (B) 180 TC C-Face + Top Mounted Conduit Box, if blower added, blower must be mounted F-1 or F-2 only.
 (C) 210 TC C-Face

Note: For the current version of dimension sheets, connection diagrams, design curves, etc., visit www.reliance.com

For pricing information or to place orders, go to www.PTplace.com

Large AC

Inverter Duty AC Motors

RPM AC Inverter Duty

RPM XL Small DC Motors

RPM III Medium DC Motors

General Information

RPM III Medium DC Motors

DPG & DPG-FV RPM III DC Motors

3 - 500 HP con't

HP	Speed - RPM		Voltage		Frame	Pwr Code	Enclosure	Model No.	List Price	Price Symbol	Norm. Stock	Notes	Dimension Sheet	Shunt	Design Number
	Base	Fld Weak	Arm	Fld											
20	1750	2300	240	150	LC2113ATZ	C	DPG	T21S1331	\$4,935	RM088	Yes	87	616000-1	STAB	G6068A
	1750	2300	240	150	SC2113ATZ	C	DPG-FV	T21T1363	5,842	RM087	Yes	84,87,88	616002-1	STR	G6017E
	1750	2300	240	150	SC2113ATZ	C	DPG-FV	T21T1308	5,842	RM087	Yes	84,87,88	616002-1	STAB	G6017D
	1750	2300	240	150	SC2113ATCZ(C)	D	DPG-FV	T21T1385	6,093	RM087	Yes	84,87,88	616002-23	STR	G6017E
	1750	2300	500	150/300	MC2113ATZ	C	DPG	T21S1323	4,935	RM088	Yes	87	616000-1	STAB	G6060B
	1750	2300	500	300	SC2113ATZ	C	DPG-FV	T21T2350	5,842	RM087	Yes	6,84,87,88	616002-1	STR	G6006D
	1750	2300	500	300	SC2113ATZ	C	DPG-FV	T21T1350	5,842	RM087	Yes	84,87,88	616002-1	STR	G6006D
	1750	2300	500	150/300	SC2113ATZ	C	DPG-FV	T21T1303	5,842	RM087	Yes	84,87,88	616002-1	STAB	G6006C
25	1750	2300	500	300	MC2113ATZ	C	DPG-FV	T21T1344	7,776	RM099	Yes	79,82,84,87, Extruder Duty	609952-96	STAB	G6393E
	1750	2300	240	150	LC2113ATZ	C	DPG	T21S1332	6,098	RM088	Yes	87	616000-1	STAB	G6069B
	1750	2300	240	150	MC2113ATZ	C	DPG-FV	T21T1371	6,463	RM087	Yes	84,87,88	616002-1	STR	G6015C
	1750	2300	240	150	MC2113ATZ	C	DPG-FV	T21T1307	6,463	RM087	Yes	84,87,88	616002-1	STAB	G6015B
	1750	2300	500	150/300	LC2113ATZ	C	DPG	T21S1324	6,098	RM088	Yes	87	616000-1	STAB	G6061B
	1750	2300	500	300	MC2113ATZ	C	DPG-FV	T21T2351	6,463	RM087	Yes	6,85,87,88	616002-1	STR	G6005E
	1750	2300	500	300	MC2113ATZ	C	DPG-FV	T21T1351	6,463	RM087	Yes	85,87,88	616002-1	STR	G6005E
	1750	2300	500	150/300	MC2113ATZ	C	DPG-FV	T21T1302	6,463	RM087	Yes	85,87,88	616002-1	STAB	G6005C
30	1750	2300	500	300	LC2113ATZ	C	DPG-FV	T21T1345	8,522	RM099	Yes	79,82,84,87, Extruder Duty	609952-96	STAB	G6242A
	1750	2300	240	150	SC2512ATZ	C	DPG	T25S1330	6,714	RM088	Yes	87	616010-1	STAB	G6073A
	1750	2300	240	150	LC2113ATZ	C	DPG-FV	T21T1375	7,023	RM087	Yes	84,87,88	616002-1	STR	G6014C
	1750	2300	240	150	LC2113ATZ	C	DPG-FV	T21T1306	7,023	RM087	Yes	84,87,88	616002-1	STAB	G6014B
	1750	2300	500	150/300	SC2512ATZ	C	DPG	T25S1322	6,714	RM088	Yes	87	616010-1	STAB	G6187B
	1750	2300	500	300	LC2113ATZ	C	DPG-FV	T21T2352	7,023	RM087	Yes	6,84,87,88	616002-1	STR	G6000C
	1750	2300	500	300	LC2113ATZ	C	DPG-FV	T21T1352	7,023	RM087	Yes	84,87,88	616002-1	STR	G6000C
	1750	2300	500	150/300	LC2113ATZ	C	DPG-FV	T21T1301	7,023	RM087	Yes	84,87,88	616002-1	STAB	G6000B
40	1750	2300	500	300	SC2512ATZ	C	DPG-FV	T25T1342	9,194	RM099	Yes	79,82,84,87, Extruder Duty	609952-96	STAB	G6706C
	1150	1800	500	300	LC2115ATZ	C	DPG-FV	T21T1378	8,875	RM087	Yes	85,87,88	616002-1	STR	G8380A
	1750	2300	240	150	LC2115ATZ	C	DPG-FV	T21T1380	8,355	RM087	Yes	6,84,87,88	616002-1	STR	G8381A
	1750	2300	240	150	SC2512ATZ	C	DPG-FV	T25T1313	8,355	RM087	Yes	6,84,87,88	616012-1	STAB	G6040B
	1750	2100	500	150/300	LC2512ATZ	D	DPG	T25S1323	7,902	RM088	Yes	6,87	616010-1	STAB	G6266A
	1750	2100	500	300	MC2115ATZ	C	DPG-FV	T21T2353	8,355	RM087	Yes	84,87,88	616002-1	STR	G8249A
	1750	2100	500	300	MC2115ATZ	C	DPG-FV	T21T1353	8,355	RM087	Yes	6,84,87,88	616002-1	STR	G8249A
	1750	2100	500	300	MC2115ATZ	C	DPG-FV	T21T1387	8,355	RM087	Yes	6,84,87,88	616002-1	STAB	G8249B
50	1750	2100	500	300	MC2512ATZ	C	DPG-FV	T25T1344	10,972	RM099	Yes	6,79,82,84,87, Extruder Duty	609952-96	STAB	G6366D
	1150	2000	500	300	LC2512ATZ	C	DPG-FV	T25T1355	10,326	RM087	Yes	85,87,88	616012-1	STR	G6032D
	1750	2100	500	150/300	MC2812ATZ	C	DPG	T28S1313	9,029	RM088	Yes	6,87	616020-1	STAB	G6185B
	1750	2100	500	150/300	MC2812ATZ	C	DPG	T28S2313	9,029	RM088	Yes	87	616020-1	STAB	G6185B
	1750	2100	500	300	LC2115ATZ	C	DPG-FV	T21T2354	9,379	RM087	Yes	84,87,88	616002-1	STR	G8475A
	1750	2100	500	300	LC2115ATZ	C	DPG-FV	T21T1354	9,379	RM087	Yes	6,84,87,88	616002-1	STR	G8475A
	1750	2100	500	300	LC2115ATZ	C	DPG-FV	T21T1388	9,379	RM087	Yes	6,84,87,88	616002-1	STAB	G8475B
	1750	2100	500	300	LC2512ATZ	C	DPG-FV	T25T1339	12,021	RM099	Yes	6,79,82,84,87, Extruder Duty	609952-96	STAB	G6481E
60	1150	1900	500	300	C2514ATZ	C	DPG-FV	T25T1359	11,716	RM087	Yes	6,85,87,88	616012-1	STR	G8382A
	1750	2100	500	300	LC2812ATZ	C	DPG	T28S1314	10,338	RM088	Yes	6,87	616020-1	STAB	G6369A
	1750	2100	500	300	LC2512ATZ	C	DPG-FV	T25T1348	10,569	RM087	Yes	6,84,87,88	616012-1	STR	G6003C
	1750	2100	500	300	LC2512ATZ	C	DPG-FV	T25T2348	10,569	RM087	Yes	84,87,88	616012-1	STR	G6003C
	1750	2100	500	150/300	LC2512ATZ	C	DPG-FV	T25T1306	10,569	RM087	Yes	6,84,87,88	616012-1	STAB	G6003B
	1750	2100	500	300	MC2812ATZ	C	DPG-FV	T28T1330	13,449	RM099	Yes	6,79,82,84,87, Extruder Duty	609952-96	STAB	G7693A
	1150	1900	500	300	C2515ATZ	C	DPG-FV	T25T1364	13,222	RM087	Yes	6,84,87,88	616012-1	STR	G8384A

(A) 140 TC C-Face

(B) 180 TC C-Face

(C) 210 TC C-Face

+ Top Mounted Conduit Box, if blower added, blower must be mounted F-1 or F-2 only.

Note: For the current version of dimension sheets, connection diagrams, design curves, etc., visit www.reliance.com

For additional product information, go to www.reliance.com

RPM III Medium DC Motors

DPG & DPG-FV RPM III DC Motors

3 - 500 HP con't

HP	Speed - RPM		Voltage		Frame	Pwr Code	Enclosure	Model No.	List Price	Price Symbol	Norm. Stock	Notes	Dimension Sheet	Shunt	Design Number
	Base	Fld Weak	Arm	Fld											
75	1750	2100	500	300	C2514ATZ	C	DPG-FV	T25T1349	\$12,216	RM087	Yes	6,84,87,88	616012-1	STR	G8289A
	1750	2100	500	300	C2514ATZ	C	DPG-FV	T25T2349	12,216	RM087	Yes	84,87,88	616012-1	STR	G8289A
	1750	2100	500	300	C2514ATZ	C	DPG-FV	T25T1366	12,216	RM087	Yes	6,84,87,88	616012-1	STAB	G8289E
	1750	2100	500	300	LC2812ATZ	C	DPG-FV	T28T1327	15,425	RM099	Yes	6,79,82,84,87, Extruder Duty	609952-96	STAB	G7658A
	1150	2000	500	300	C2815ATZ	C	DPG-FV	T28T1342	15,342	RM087	Yes	6,84,87,88	616022-1	STR	G8383A
100	1750	2000	500	300	C2515ATZ	C	DPG-FV	T25T1350	15,031	RM087	Yes	6,84,87,88	616012-1	STR	G7959C
	1750	2000	500	300	C2515ATZ	C	DPG-FV	T25T2350	15,031	RM087	Yes	84,87,88	616012-1	STR	G7959C
	1750	2000	500	300	C2515ATZ	C	DPG-FV	T25T1367	15,031	RM087	Yes	6,84,87,88	616012-1	STAB	G7959B
	1750	2100	500	300	MC3212ATZ	C	DPG-FV	T32T1314	18,803	RM099	Yes	6,79,82,84,87, Extruder Duty	609972-49	STAB	G6169B
	1150	1850	500	300	C2815ATZ	C	DPG-FV	T28T1344	18,493	RM087	Yes	6,85,87,88	616022-1	STR	G8385A
125	1750	2000	500	300	C2813ATZ	C	DPG-FV	T28T1333	17,589	RM087	Yes	6,84,87,88	616022-1	STR	G8290A
	1750	2000	500	300	C2813ATZ	C	DPG-FV	T28T1346	17,589	RM087	Yes	6,84,87,88	616022-1	STAB	G8290B
	1750	2000	500	300	UC2813ATZ	C	DPG-FV	T28T1349	18,111	RM087	Yes	5,6,84,87,88	616022-1	STR	G8290A
	1750	2100	500	300	LC3212ATZ	C	DPG-FV	T32T1318	21,873	RM099	Yes	6,79,82,84,87, Extruder Duty	609972-49	STAB	G7297B
	1150	2000	500	300	UC3214ATZ	C	DPG-FV	T32T1327	21,999	RM087	Yes	5,6,84,87,88	616032-1	STR	G8386A
150	1750	2000	500	300	C2815ATZ	C	DPG-FV	T28T1334	20,073	RM087	Yes	6,84,87,88	616022-1	STR	G8031B
	1750	2000	500	300	C2815ATZ	C	DPG-FV	T28T1347	20,073	RM087	Yes	6,84,87,88	616022-1	STAB	G8031A
	1750	2000	500	300	UC2815ATZ	C	DPG-FV	T28T1350	20,599	RM087	Yes	5,6,84,87,88	616022-1	STR	G8031B
	1750	2100	500	300	MC3612ATZ	C	DPG-FV	T36S1313	24,854	RM099	Yes	6,79,82,87, Extruder Duty	609972-49	STAB	G6363D
	1150	2000	500	300	ULC3612ATZ	C	DPG-FV	T36S1323	25,392	RM087	Yes	5,6,85,87,88	616042-1	STR	G6181D
200	1750	2100	500	300	UC3214ATZ	C	DPG-FV	T32T1322	26,019	RM087	Yes	5,6,84,87,88	616032-1	STR	G8032B
	1750	2100	500	300	UC3214ATZ	C	DPG-FV	T32T2322	26,019	RM087	Yes	5,84,87,88	616032-1	STR	G8032B
	1750	2100	500	300	UC3214ATZ	C	DPG-FV	T32T1328	26,019	RM087	Yes	5,6,84,87,88	616032-1	STAB	G8032A
	1750	2100	500	300	LC3612ATZ	C	DPG-FV	T36S1314	31,467	RM099	Yes	6,79,82,87, Extruder Duty	609972-49	STAB	G7619A
	1150	2000	500	300	C3613ATZ	C	DPG-FV	T36S1325	30,424	RM087	Yes	6,85,87,88	616042-1	STR	G8387A
250	1750	2100	500	300	ULC3612ATZ	C	DPG-FV	T36S1318	31,527	RM087	Yes	5,6,85,87,88	616042-1	STR	G6130C
	1750	2100	500	300	ULC3612ATZ	C	DPG-FV	T36S2318	31,527	RM087	Yes	5,85,87,88	616042-1	STR	G6130C
	1750	2100	500	150/300	ULC3612ATZ	C	DPG-FV	T36S1302	31,527	RM087	Yes	5,6,85,87,88	616042-1	STAB	G6130B
	1750	2100	500	300	C4011ATZ	C	DPG-FV	T40S1306	38,077	RM099	Yes	6,79,82,87, Extruder Duty	609962-25	STAB	G7618A
	1150	2000	500	300	MC4013ATZ	C	DPG-FV	T40S1317	36,883	RM087	Yes	6,85,87,88	609962-1	STR	G7519E
300	1750	2000	500	300	LC3613ATZ	C	DPG-FV	T36S1319	37,523	RM087	Yes	6,85,87,88	616042-1	STR	G8291A
	1750	2000	500	300	LC3613ATZ	C	DPG-FV	T36S2319	37,523	RM087	Yes	85,87,88	616042-1	STR	G8291A
	1750	2000	500	300	LC3613ATZ	C	DPG-FV	T36S1326	37,523	RM087	Yes	6,85,87,88	616042-1	STAB	G8291C
	1750	2100	500	300	MC4013ATZ	C	DPG-FV	T40S1309	45,688	RM099	Yes	6,79,82,87, Extruder Duty	609962-25	STAB	G7648A
	1150	2000	500	300	LC4013ATZ	C	DPG-FV	T40S1320	42,890	RM087	Yes	6,85,87,88	609962-1	STR	G7516A
400	1750	2000	500	300	MC4013ATZ	C	DPG-FV	T40S1314	51,293	RM087	Yes	6,85,87,88	609962-1	STR	G7518A
	1750	2000	500	150/300	MC4013ATZ	C	DPG-FV	T40S1303	51,293	RM087	Yes	6,85,87,88	609962-1	STAB	G7518B
	1750	2000	500	300	LC4013ATZ	C	DPG-FV	T40S1311	65,254	RM099	Yes	6,79,82,87, Extruder Duty	609962-25	STAB	G7668A
	1150	1600	500	300	C4413ATZ	C	DPG-FV	T44T1304	57,565	RM087	Yes	6,79,85,87,88	616492-1	STR	G9086A
500	1750	2050	500	300	C4412ATZ	C	DPG-FV	T44T1305	69,265	RM087	Yes	6,79,85,87,88	616492-1	STR	G9048A
	1150	1450	500	300	C4414ATZ	C	DPG-FV	T44T1306	72,720	RM087	Yes	6,79,85,87,88	616492-1	STR	G9041A

(A) 140 TC C-Face

(B) 180 TC C-Face

+ Top Mounted Conduit Box, if blower added, blower must be mounted F-1 or F-2 only.

(C) 210 TC C-Face

Note: For the current version of dimension sheets, connection diagrams, design curves, etc., visit www.reliance.com

For pricing information or to place orders, go to www.PTplace.com

Totally Enclosed RPM III DC Motors

40°C Ambient • Class F • Continuous Duty • IP53

Description

RPM motors, the first DC motor designed to operate from solid-state rectified power are built to take on the industry's toughest jobs.

Features

- Unique laminated square frame for better performance. The square configuration packs up to 20% more active material into the same space as a round frame of equivalent shaft height.
- All motors are F1 construction unless otherwise specified
- Armature and field windings designed and tested to insure trouble-free operation
- PLS™ (Positive Lubrication System) for longer bearing and motor life
- 2 year limited warranty

1.5 - 50 HP

HP	Speed - RPM		Voltage		Frame	Pwr Code	Enclosure	Model No.	List Price	Price Symbol	Norm. Stock	Notes	Dimension Sheet	Shunt	Design Number
	Base	Fld Weak	Arm	Fld											
1.5	1750		180	100/200	DC189ATY (A)	K	TENV	T18R1119+	\$1,805	RMO89	Yes	80,83	609980-503	STR	G4604A
2	1750		180	100/200	DC189ATY (A)	K	TENV	T18R1117+	2,168	RMO89	Yes	80,83	609980-503	STR	G4603A
3	1750		180	100/200	DC1811ATCZ (B)	K	TENV	T18R1102+	2,784	RMO89	Yes	80,83	609980-503	STR	G2175A
5	2500		180	100/200	DC2112ATCZ (B)	K	TENV	T21S1102+	3,851	RMO89	Yes	80,85	609958-1	STR	G6468A
	1750		180	100/200	DC2112ATCZ (B)	K	TENV	T21S1101+	4,629	RMO89	Yes	80,85	609958-1	STR	G6330A
	1750	2300	240	150	C1812ATZ	D	TEFC	T18R1005	3,689	RMO89	Yes	81	609981-1	STAB	G2107A
	1750	2300	500	150/300	SC2113ATZ	C	TENV	T21S201	3,689	RMO89	Yes	87	616000-1	STAB	G6082C
7.5	1750	2300	240	150	SC2113ATZ	D	TEFC	T21S301	4,467	RMO88	Yes	81	609951-13	STAB	G6313A
	1750	2300	500	150/300	SC2113ATZ	D	TEFC	T21S302	4,467	RMO89	Yes	81	609951-13	STAB	G6145B
10	1750	2300	240	150	MC2113ATZ	D	TEFC	T21S303	5,103	RMO89	Yes	81	616001-13	STAB	G6241C
	1750	2300	500	150/300	MC2113ATZ	D	TEFC	T21S304	5,103	RMO89	Yes	81	616001-13	STAB	G6142B
15	1750	2300	240	150	SC2512ATZ	D	TEFC	T25S301	6,591	RMO89	Yes	6,81	616011-13	STAB	G6304B
	1750	2300	500	150/300	SC2512ATZ	D	TEFC	T25S302	6,591	RMO89	Yes	81	616011-13	STAB	G6144B
20	1750	2300	240	150	LC2512ATZ	D	TEFC	T25S303	7,574	RMO89	Yes	81	616011-13	STAB	G6315A
	1750	2300	500	150/300	LC2512ATZ	D	TEFC	T25S304	7,574	RMO89	Yes	81	616011-13	STAB	G6143B
25	1750	2300	240	150	MC2812ATZ	D	TEFC	T28S301	8,873	RMO89	Yes	81	616021-13	STAB	G6317A
	1750	2300	500	150/300	MC2812ATZ	D	TEFC	T28S302	8,873	RMO89	Yes	85,87,88	616021-13	STAB	G6316A
30	1750	2300	500	150/300	LC2812ATZ	D	TEFC	T28S303	9,824	RMO89	Yes	81	616021-13	STAB	G6151A
40	1750	2300	500	150/300	MC3212ATZ	D	TEFC	T32S301	12,401	RMO89	Yes	81	616031-13	STAB	G6318A
50	1750	2300	500	150/300	LC3212ATZ	D	TEFC	T32S302	14,931	RMO89	Yes	81	616031-13	STAB	G6296A

Note: For the current version of dimension sheets, connection diagrams, design curves, etc., visit www.reliance.com

(A) 140TC C-Face

(B) 180TC C-Face

+ Top Mounted Conduit Box

For additional product information, go to www.reliance.com

IEC STANDARD RPM III DC Motors

40°C Ambient • Class H • S1 Continuous Duty • IP23

Description

RPM III motors, the first DC motor designed to operate from solid-state rectified power are built to take on the industry's toughest jobs.

Features

- Unique laminated square frame for better performance The square configuration packs up to 20% more active material into the same space as a round frame of equivalent shaft height
- Armature and field windings designed and tested to insure trouble-free operation
- PLS™ (Positive Lubrication System) for longer bearing and motor life
- F-2 Conduit box mounting
- 2 year limited warranty
- Includes thermistor
- Provisions for tachometer

15.9 - 396.0 KW Foot Mounted

KW	Base Speed	Voltage	Frame	Power Code	Enclosure	Model Number	List Price	Price Symbol	Norm. Stock	Notes	Dimension Sheet
15.9	1690	460/310	GK1303	S6	IP23-IC06	K13M1303	\$6,143	RM087	N	6	616007-601
17.6	1775	460/310	GK1305	S6	IP23-IC06	K13M1304	7,448	RM087	N	6	616007-601
16	1368	460/310	GK1305	S6	IP23-IC06	K13M1305	7,448	RM087	N	6	616007-601
24.7	1685	460/310	GK1307	S6	IP23-IC06	K13M1306	7,768	RM087	N	6	616007-601
31.9	1945	460/310	GK1309	S6	IP23-IC06	K13M1307	8,936	RM087	N	6	616007-601
21.5	1215	460/310	GK1309	S6	IP23-IC06	K13M1308	8,936	RM087	N	6	616007-601
42.4	1985	460/310	GK1311	S6	IP23-IC06	K13M1309	9,153	RM087	N	6	616007-601
36.9	1675	460/310	GK1311	S6	IP23-IC06	K13M1301	8,998	RM087	N	6	616007-601
47.9	1905	460/310	GK1606	S6	IP23-IC06	K16M1303	11,856	RM087	N	6	616017-601
31.7	1190	460/310	GK1606	S6	IP23-IC06	K16M1304	11,856	RM087	N	6	616017-601
60.3	1725	460/310	GK1608	S6	IP23-IC06	K16M1301	13,414	RM087	N	6	616017-601
49	1365	460/310	GK1608	S6	IP23-IC06	K16M1305	13,569	RM087	N	6	616017-601
41.3	1135	460/310	GK1608	S6	IP23-IC06	K16M1306	13,569	RM087	N	6	616017-601
80.9	1805	460/310	GK1610	S6	IP23-IC06	K16M1307	16,496	RM087	N	6	616017-601
59.7	1250	460/310	GK1610	S6	IP23-IC06	K16M1308	16,496	RM087	N	6	616017-601
99.3	2055	460/310	UGK1808	S6	IP23-IC06	K19M1304	20,329	RM087	N	5,6	616027-601
80.9	1615	460/310	UGK1808	S6	IP23-IC06	K19M1301	19,974	RM087	N	5,6	616027-601
113	1625	460/310	UGK1810	S6	IP23-IC06	K19M1302	22,757	RM087	N	5,6	616027-601
84.4	1200	460/310	UGK1810	S6	IP23-IC06	K19M1305	22,912	RM087	N	5,6	616027-601
177	2075	460/310	ULGK2008	S6	IP23-IC06	K20M1302	29,324	RM087	N	5,6	616037-601
141	1600	460/310	ULGK2008	S6	IP23-IC06	K20M1301	28,826	RM087	N	5,6	616037-601
115	1265	460/310	ULGK2008	S6	IP23-IC06	K20M1303	29,191	RM087	N	5,6	616037-601
103	1130	460/310	ULGK2008	S6	IP23-IC06	K20M1304	29,191	RM087	N	5,6	616037-601
192	1965	460/310	ULGK2010	S6	IP23-IC06	K20M1305	35,408	RM087	N	5,6	616037-601
254	1825	460/310	ULGK2208	S6	IP23-IC06	K22M1302	42,320	RM087	N	5,6	616047-601
246	1670	460/310	ULGK2208	S6	IP23-IC06	K22M1301	41,300	RM087	N	5,6	616047-601
181	1195	460/310	ULGK2208	S6	IP23-IC06	K22M1303	42,320	RM087	N	5,6	616047-601
204	1210	460/310	ULGK2210	S6	IP23-IC06	K22M1304	45,488	RM087	N	5,6	616047-601
292	1660	460/310	GK2508	S6	IP23-IC06	K26M1302	46,338	RM087	N	6	616067-601
371	1640	460/310	GK2510	S6	IP23-IC06	K26M1301	48,447	RM087	N	6	616067-601
228	940	460/310	UGK2510	S6	IP23-IC06	K26M1303	48,802	RM087	N	5,6	616067-601
327	1210	460/310	GS2808	S6	IP23-IC06	K27M1301	61,730	RM087	N	6	N/A
396	1150	460/310	GS2810	S6	IP23-IC06	K27M1302	66,784	RM087	N	6	N/A

For pricing information or to place orders, go to www.PTplace.com

Modification Section For RPM III-DC Motors Frames 180 through 440

How to Price a Modified Stock Motor:

1. Find the basic list price of the required stock RPM III-DC motor
2. Add list prices of the Modifications from this section to the basic motor list price
3. Apply appropriate multiplier for the appropriate discount symbol to total list price
4. Enter Order.

Delivery Cycle

The delivery cycle will be subject to the availability of the stock motors and parts. Some modifications only take a couple of days, other may take a couple of weeks, except as noted. For rush orders, check that the basic motor is in stock and then call Customer Service to get a quotation on the time required for your particular modifications.

How and Where to Enter an Order

Reliance Distributors: Phone orders to Rockwell Automation Reliance Electric Inside Sales Representative or send a fax to: 864-281-2363. For those not assigned an Inside Sales Representative, you may call the main switchboard at 864-297-4800.

District Sales Engineers: Place orders on the Modification Center via OMS.

Note that some modifications, listed in this modification section, are made at Crossville (DCT) and others are made at Gainesville (RGG). If a combination of modifications are required, that are made at both locations, place the order on RGG.

Index

Modifications are listed in alphabetical order by major topic heading. This index provides a cross-reference to enable you to find specific modifications.

Modifications in this section are to be added to the basic motor stock price when features not included on the standard motor are required.

Price additions for modifications in this section are to be added to the motor basic list price either dripproof or totally enclosed as required for the application. If more than one modification is applied to the same machine, the basic list price should be used as the base for each price addition.

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Air Pressure Switch	RGG	M-255
Balance, Dynamic	RGG	M-255
Bearings	RGG	M-256
Blowers & Blower Filters:		
Blowers	RGG	M-256
Blower Filters	DCT	M-256
Brackets	RGG	M-256
C-Face Bracket	RGG	M-256
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Brakes & Brake Modifications:		
Brakes	RGG	M-256
Brake-Manual Release	RGG	M-256
Brake Limit Switch	RGG	M-256
Brush Wear Sensor	RGG	M-256
Conduit Box Modification:		
One Size Larger than Std.	RGG	M-257
Cast Iron	RGG	M-257
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MODIFICATION	Mod. Location	Page
Feedback Devices:		
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Provisions for Mounting	RGG	M-259
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Tropical Protection	RGG	M-260
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Noise Test	RGG	M-261
Combination Motor and Drive Test	RGG	M-261

RPM III Medium DC Motors

ADAPTER RAILS

Provides adapter rails to permit using a current design motor with its small "D" dimension in the same location as a Super RPM, RPM or Super T motor. This modification provides rails only, and is normally used for coupled applications. NOTE - that difference in shaft diameter and length will probably require a change in customer's coupling. Also allows using RPM III to replace old DC motors by other manufacturers. Available for frames DC180 thru C440. Allow 2 to 4 Week Availability.

Rails-Adapter	List Price								Location
	C180	C210	C250	C280	C320	C360	C400	C440	RGG
	\$320	\$740	\$900	\$1,125	\$1,563	\$1,875	\$1,875	\$1,875	

AIR PRESSURE SWITCH

Mounted on motor bracket at air inlet end. Monitors pressure differential between inside and outside of motor to actuate SPDT switch when pressure drops below preset value giving an immediate indication that the air supply to the motor is reduced. Applicable to forced ventilated motors with either motor mounted blower or separately forced ventilated by customer supplied air. Since motors dependent on force ventilation will have a rapid rise in temperature after the air supply is interrupted, the customer must take immediate corrective action when the switch trips. Contacts rated 15 amps, 120-480 volts, 60 Hz AC resistive; 1/8 HP at 125 volts; 1/4 HP at 250 volts, 60Hz AC. Applicable to frames C180ATZ thru C440ATZ.

Switch	List Price For all frames	Location
Standard Enclosure	\$650	RGG
Weatherproof Enclosure	950	

BALANCE, DYNAMIC

ELECTRIC MOTOR BALANCE AND VIBRATION

Balance can be defined as the state of the mass distribution within the rotating assembly about its axis of rotation. The eccentricities of this mass distribution are referred to as unbalance. The amount of unbalance is stated in units of mass times a distance, such as gram-inches, gram-centimeters or gram-millimeters.

Vibration is defined as the motion of a body in response to forces imposed upon that body. Vibration in assembled motors can be measured as amplitude in inches, peak to peak, or as velocity in inches per second or as velocity in millimeters per second.

- Displacement, inches, Peak to Peak = $19.10 \times \text{Velocity, Inches per Second, Peak} \div \text{RPM}$
- Displacement, Inches, Peak to Peak = $1.062 \times \text{Velocity, Millimeters per Second, RMS} \div \text{RPM}$
- Displacement, Inches, Peak to Peak = $0.752 \times \text{Velocity, Millimeters per Second, Peak} \div \text{RPM}$
- Velocity, in/sec peak = $\text{Displacement, inches peak} \times 2 \pi \times f \div 60$ or $\text{Displacement, in-p} \times \pi \times f \div 60$
- RMS = $\text{Peak to Peak} \times 0.707$
- Peak = $\text{Peak to Peak} \times 0.50$ (f=rpm)

In addition to unbalance, there are other sources of motor vibration such as even air gap, frame distortion due to improper torquing of foot mounting bolts, operation at or near critical speed and various bearing, support, coupling and electromagnetic effect problems. Unbalance is the predominant component in vibration when displacement is measured. The many other, higher frequency components show up when measuring velocity.

Standard Reliance motors are manufactured in accordance with the vibration limits stated in NEMA MG1, Part 7. Per NEMA, bearing housing vibration is stated as "the peak value of the unfiltered vibration velocity in inches per second". Table I shows bearing housing vibration velocity in inches per second as well as other units for comparison. Shaft vibration measurements are recommended for sleeve bearing machines only. Contact Reliance when you have sleeve bearing requirements.

Table I - Standard Machine Vibration Limits

Speed rpm	(New NEMA Standard) Unfiltered Vibration Velocity mm/sec peak	Unfiltered Vibration Velocity in/sec peak	(IEC Terminology) Unfiltered Vibration Velocity mm/sec rms	(Old NEMA Terminology) Amplitude Displacement inch peak to peak	Location
1801-3600	0.15	3.8	2.7	0.00	RGG
1201-1800	0.15	3.8	2.7	0.00	
901-1200	0.15	3.8	2.7	0.00	
721-900	0.12	3	2	0.00	
601-720	0.09	2.3	1.6	0.00	
Less than 600	0.08	2	1.4	0.00	

Table II - Special Machine Vibration Limits

Vibration Category	Speed, RPM	Unfiltered Vibration Velocity (in/sec) peak
Ultra-Standard	1801-3600	0.1
	1201-1800	0.08
	Less than 1200	0.08
Precision	1801-3600	0.06
	1201-1800	0.04
	Less than 1200	0.04

Table III - List Price Addition for Machine Vibration Limits

Vibration Category	List Price								Location
	C180	C210	C250	C280	C320	C360	C400	C440	
Ultra-Standard	\$130	\$130	\$170	\$170	\$260	\$260	\$310	\$650	RGG
Precision	425	425	800	800	1,605	1,605	2,300	2,500	

For additional product information, go to www.reliance.com

RPM III Medium DC Motors

BEARINGS

Change stock motor bearings FROM ball bearings TO roller bearings for belted duty. Belting data must be supplied with order. No change in shaft dimensions is allowed with this modification. PRICE - \$500 NET per motor.	Location
	RGG
Change stock motor bearings FROM roller bearings TO ball bearings for direct connection to load. Data on required shaft dimensions must be supplied with order. Shaft turndown and length reduction, if required, is included in price. PRICE - \$1,000 NET per motor.	Location
	RGG

BLOWERS & BLOWER FILTERS

Add blower, less filter, part number 417077-51, on stock 180 frame DPG motors only. Blower motor is 240/480 volts, three phase. PRICE - \$750 LIST.	Location
	DCT
Add blower, less filter, with special blower motor rated at 380, 415 or 575 volts, three phase, on stock 180 frame DPG motors only. Specify voltage required on order. PRICE - \$1,250 LIST.	Location
	RGG
Filter - Filter addition for DPG-FV motor with motor mounted blower. Filter is washable type. Recommended when filterable contaminants are present. Totally enclosed construction rather than blower with filter is recommended for extremely dusty, dirty locations. Add filter kit from "Stock DC Motors Accessories and Kits" section.	Location
	DCT

BRACKETS

NEMA AC C-Face or D-Flange bracket with standard dimensions and feet. C-Face available on frames DC180ATZ thru C360ATZ only. D-Flange available on frames DC180ATDZ thru C440ATDZ except D-Flange not available on DC2112ATZ frame. Special Seals required when oil will be around the shaft. Refer to shaft seal modification for price.

Important: Motor C-Face is intended for mounting auxiliary equipment such as pumps, gears, etc. When mounted horizontally, frames C280ATCZ thru C360ATCZ should be supported by the feet and not by the C-Face. Installations requiring a horizontally mounted motor without feet supported should use a D-Flange bracket. (These D-Flange frames also require support by feet when mounted horizontal: C2515ATDZ, C2815ATDZ, C3214ATDZ, C3613ATDZ and all D-Flange C400, C440.

Mounting Bracket	List Price								Location
	C180	C210	C250	C280	C320	C360	C400	C440	
C-FACE	\$86	\$251	\$418	\$527	\$999	\$1,317	N/A	N/A	RGG
D-FLANGE	324	502	836	954	1,512	1,924	2,500	2,500	

NOTE - Prices above cover ONLY a bracket change with NO shaft change. Since C-Face reducers require different shaft dimensions, we can also reduce the shaft diameter and / or length if required. Dimensions must be specified on the order. Additional price for shaft dimension change is:
(180 - 280 Frame - \$250 NET); (320 - 440 Frame - \$500 NET).

BRAKES & BRAKE MODIFICATIONS

Drive End (Disc Type AC) - The Stearns double C-face 87,700 series brake can be mounted on the drive end of all stock enclosures. Motor mounting position, i.e. horizontal or vertical, must be specified on the order. Note: Drive end mounted brakes are not suitable for belted duty. Allow 4 to 5 Weeks Availability.

Motor Mounted Brake Drive End(1)	List Price		Maximum Speed		Location
	Standard Enclosure	Dust-Tight, Waterproof Enclosure	Ft.-lbs RPM	3-25 35 - 105	
AC Coil (230/460v 1-phase 60Hz)(2)					
Nominal Brake (ft.-lbs) (3)					
10	\$2,549	\$2,975	(1) For coupled duty only.		RGG
15	2,497	3,050	(2) Add \$50 list for 115 VAC coil.		
25	2,544	3,110	(3) Nominal Static Torque ft. lbs = HP x 5250		
35	2,625	3,205	for brake rated at 100% of Motor Base Speed rpm		
50	2,755	3,390			
75	3,610	4,330			
105	3,860	4,625			

Brake - Manual Release - Add to brake price when manual release is required on brakes 10 thru 15 ft.-lbs. Manual release is supplied as standard on brakes rated 25 ft.-lbs and larger. Add 10% of Brake Price.

Brake Limit Switch - Indicates condition on brake. Specify if switch is to be OPEN or CLOSED when brake coil is energized.

Switch List Price - \$310

BRUSH WEAR SENSOR

Add for ESP brushes and current isolation network installed in motor with special leads terminated in a conduit box (7) (8)

Provides output from motor when brushes wear to a predetermined length. Signal gives indication of brush wear so that corrective action may be taken to prevent malfunction of the motor and possible damage to the commutator from worn brushes. The voltage signal is the same magnitude as the motor armature voltage.	Frames C180AZ - C280ATZ	add \$400 list, per motor
	Frames C320ATZ - C400ATZ	add \$610 list, per motor
	Frame C440ATZ	add \$800 list, per motor

NOTE: Price does not include control monitor (9)

(7) Signal return isolation network is usually mounted in control cabinet but may be mounted in motor conduit box when specified for an additional \$120 list per motor

(8) Not available on UL listed explosion proof motors

(9) Above pricing does not include control monitor. This is normally mounted in the drive. Contact Renewal Parts for monitor pricing

For pricing information or to place orders, go to www.PTplace.com

RPM III Medium DC Motors

CONDUIT BOX

Refer to General Information Section for description of standard conduit box.

Conduit Box Feature	List Price								Location
	C180	C210	C250	C280	C320	C360	C400	C440	
One Size Larger Than Standard - (Not applicable on DC180, DC2112, C400 or C440 frames)	\$45	\$68	\$113	\$135	\$180	\$225	N/A	N/A	RGG
Cast Iron Standard Size - (Not applicable on C400ATZ & C440ATZ frames)	135	225	315	450	540	675	N/A	N/A	
Mill Type C/B* - (Not available on DC180ATZ or DC2112ATZ frames).	290	325	325	450	540	675	Std.	Std.	
* Heavy gauge, large rectangular metal box. Standard for C400ATZ and C440ATZ frame.									
Conduit Box Conversion - Location - Move conduit box from location on stock motor to top or opposite side. Conduit box cannot be located in same quadrant as blower on C400 frames and below. Conduit box conversion is not available on extruder duty designs PRICE - \$50 NET.									Location
									RGG

COVERS

Cover Feature	List Price								Location
	C180	C210	C250	C280	C320	C360	C400	C440	
Vertical Mount Hand Hole Covers(1)	\$89	\$135	\$210	\$365	\$507	\$725	\$850	\$850	RGG
Transparent Polycarbonate Plastic Hand Hole Cover(2)	135	203	203	203	203	270	270	270	
Splash proof Covers(3)	318	405	405	405	405	608	608	608	
(1) Special drip covers to insure drip-proof protection for vertically mounted foot or flange mounted motors.									
(2) As a substitute for one solid (not screen nor louvered) steel cover. This substitution does not change the basic enclosure (drip-proof), etc. Cannot be added to DC180ATZ frames with DPG enclosure or any explosion-proof enclosure.									
(3) For dripproof machines to meet NEMA MG1 - 1.25.2 requirements for splash proof enclosures. Provides protection against liquid drops or solid particles from entering the motor at any angle not greater than 100 degrees downward from the vertical.									

ENCLOSURE MODIFICATION

Separately Ventilated - For applications where ventilating air is piped into the machine from an external source, basic DPG-FV enclosures may be separately ventilated at 3, 6, 9 and 12 o'clock for the below list price deductions. Opposite drive end air entry only, except for extruder duty model numbers. The inlet pipe can be fastened to one end bracket, and, if required and specified, an outlet pipe can be fastened to the other end bracket. Price does not include blower or pipe. Motors must not be operated without the separate air supply. Refer to Application Data Section for separate ventilating air requirements. If air is to be vented out of the bottom, clearance must be provided for that example. To insure adequate protection of a separately ventilated motor against loss of cooling air, an over temperature device for interlocking with the controller overload protection circuit is recommended and should be added as standard practice. An air pressure differential switch is also recommended. See pricing deduction chart below.

Encl. Mod.	List Price								Location
	C180	C210	C250	C280	C320	C360	C400	C440	
Separately Ventilated	(\$516)	(\$907)	(\$1,159)	(\$1,159)	(\$1,507)	(\$2,153)	(\$3,545)	(\$3,545)	RGG
Totally Enclosed Air-Over (TEAO) - For applications requiring a totally enclosed fan-cooled motor with external ventilation independent of motor shaft speed. Required for continuous constant torque operation below 60% base speed. Allow 2 to 4 Week Availability.									
TEAO Inline - Add to TEFC Price - Similar to TEFC construction, except with external ventilating fan driven by AC motor flange mounted to fan shroud. Double shaft extension or tachometer mounting is not available except TGF 2100-00A tachometer may be mounted on frames C250ATZ thru C400ATZ. Includes 3-phase, 60Hz 230/460volts AC induction motor without starter. Available in frames C180ATZ thru C400ATZ.									
NOTE: Not available on DC180ATZ frame. To obtain this modification, price C180ATZ frame by using the 500 volt armature basic motor list price at same HP and base speed.									
Encl. Mod.	List Price								Location
	C180	C210	C250	C280	C320	C360	C400	C440	
TEAO Inline	\$647	\$647	\$687	\$1,040	\$1,457	N/A	N/A	N/A	RGG
TEAO-Piggyback - Add to TEFC Price - Similar to TEFC construction, except with top mounted blower and shroud to direct ventilate air over motor frame. Includes 3-phase, 60Hz 230/460volts AC induction motor without starter. Available in frames C180ATZ - C400ATZ. Not available on C440ATZ frame.									
NOTE - Not available on DC180ATZ frame. To obtain this modification, price a C180ATZ frame by using the 500 volt armature basic motor list price at same HP and base speed.									
Encl. Mod.	List Price								Location
	C180	C210	C250	C280	C320	C360	C400	C440	
TEAO Piggyback	\$1,488	\$1,677	\$1,859	\$2,060	\$2,287	N/A	N/A	N/A	RGG

For additional product information, go to www.reliance.com

ENCLOSURE MODIFICATION (continued)

XT-Features (IP54) - The Reliance XT motor is designed for operation in damp locations where the motor will be subjected to corrosive conditions. Typical applications are paper, chemical, petroleum, fertilizer and plastics industries. XT motors are provided in totally enclosed non-ventilated, totally enclosed fan-cooled, totally enclosed separately-ventilated, totally enclosed air-over & totally enclosed dual-cooled enclosures.

Encl. Mod.	List Price								Location
	C180	C210	C250	C280	C320	C360	C400	C440	
XT Features	\$655	\$705	\$935	\$1,155	\$1,628	\$1,856	\$2,300	\$2,300	RGG

The Reliance XT motor is designed for operation in damp locations when the motor will be subjected to corrosive conditions. Typical applications are paper, chemical, petroleum, fertilizer and plastics industries.

XT motors are provided in totally enclosed non-ventilated, totally enclosed fan-cooled, totally enclosed separately-ventilated, totally enclosed air-over and totally enclosed dual-cooled enclosures.

XT MOTOR CONSTRUCTION INCLUDES THE FOLLOWING FEATURES:

- Exterior surface of frame painted with epoxy enamel
 - Interior surfaces are epoxy coated
 - Armature and shaft (except shaft extension) epoxy coated
 - Stainless steel or neoprene slinger mounted on external shaft extensions
 - External fan on TEFC motors is plastic or epoxy coated cast iron
 - Fan cover on TEFC motors is finished with epoxy enamel
 - Automatic breather drains provided for positive drain
 - Assembled motor with mounted accessories painted with epoxy enamel
- Cast iron conduit box has pipe thread lead outlet. Neoprene gaskets on cover and box frame
- Box construction is -
- DC180ATZ - C360ATZ - Epoxy coated cast iron
 - C400ATZ and up - Epoxy coated mill type
- Bracket to frame rabbit fit sealed with special sealing compound
- Handhole covers sealed with neoprene gaskets
- All hardward corrosion resistant

XT construction avoids the use of exposed aluminum parts.

Motor accessories such as brakes must be specified and priced as totally enclosed construction for XT motors.

Motors located in damp, moist environments must have space heaters, or the fields energized at reduced (usually 50%) voltage to protect against condensation when the motor is not operating.

FEEDBACK DEVICES

ENCODERS

HOLLOWSHAFT ENCODERS

Type	PPR	Power VDC	Max Oper. Temp.	Max Oper. Speed	Output	List Price	Location
HS-35*	To 5000	5-15v	70° C	6000 rpm	Single Output	\$1,500	RGG

* BEI HS-35 Hollow shaft optical encoder mounts on motor stub shaft with no coupling required. Tether arm mounts to motor bracket and provides insulation from shaft currents. Enclosure meets IP65. Output is two channels (A & B), quadrature, with index and complements, with 10 Pin mating MS connector.

COUPLED ENCODERS

Type	PPR	Power VDC	Max Oper. Temp.	Max Oper. Speed	Footnotes	List Price	Location
H20*	1024 / 2048	5-15v	85° C	5000 rpm	Single Output	\$1,850	DCT
845H**	1024 / 2048	5-15v	60° C	6000 rpm	Single Output	2,100	DCT
H56***	1024 / 2048	5-26v	80° C	3600 rpm	Single Output	3,345	RGG
					Dual Output	3,800	RGG

* Dynapar H20 is an optical encoder, mounted by a flange face to an adapter. Encoder shaft is coupled to motor stub shaft. Enclosure is NEMA 4, IP66. All Dynapar encoders are CE labeled.

** Allen Bradley 845H is an optical encoder, that mounts to the motor via an adapter. It is coupled to the motor stub shaft. Enclosure is NEMA 4.

*** Dynapar H56 is the direct replacement for the RD62 for mill duty applications. The H56 is flange mounted, with adapter and coupling. All Dynapar encoders are CE labeled.

BEARINGLESS ENCODERS

Type	PPR	Power VDC	Max Oper. Temp.	Max Oper. Speed	Footnotes	List Price	Location
RD-120-1*	120	5-15v	80° C	6000 rpm	Single Output (1)(2)(3)	\$1,450	RGG
RD-120-2*	120	5-15v	80° C	6000 rpm	Dual Output (1)(2)	1,725	RGG
RL67**	1024 / 2048	5-15v	90° C	6000 rpm	Single Output	2,350	DCT

* RD-120 is a magneto-resistive encoder. It is designed to fit the front end cavity of RPM III motors. It adds only 1.88 inches to the overall motor length and is available for either single direction of motor operation (uni-directional), or as the RD-120-2 for reversing applications (bi-directional).

** Lakeshore RL67 is part of the Lakeshore SlimTach series of magneto-resistive encoders. The RL67 is bearingless and mounts directly to the motor stub shaft with no coupling required. The RL67 is designed specifically for RPM III motors and fits in the cavity on the opposite drive end of the motor. It adds only 1.00 inches to the overall motor length.

(1) Cannot be used with brake.

(2) May not be used on TENV frames DC180, DC210 or C180.

(3) Uni-directional

FEEDBACK DEVICES con't

TACHOMETERS							
Analog Tachometer Generators - Flange mounted on motor, price includes tachometer, coupling, adaptor and mounting.							
Type	V/1000rpm	Max. Speed	List Price	Location			
BC-42	50 VDC	5000 rpm	\$3,891	RGG			
	100 VDC	2750 rpm	3,891				
a - For Explosion Proof UL Listed, for Class I Group D, & Class II Group E, F & G; ADD to BC-42 LIST PRICE.			1,309				
c - Standard Double Shaft Extension, ADD to BC-42 LIST PRICE.			125				
d - Severe Duty, for outdoor or washdown, ADD to BC-42 LIST PRICE.			909				
RPY444	50 VDC	6000 rpm	1,465				
	100 VDC	3000 rpm	1,465				
5PY59	50 VDC	6000 rpm	3,037				
	100 VDC	3000 rpm	3,037				
TGF2100	19 VDC	4000 rpm	2,050				
RE045	45 VAC	6000 rpm	1,850				
RESOLVERS							
RESOLVERS - A resolver is a shaft angle sensing transducer. Interfacing with an input module, the resolver provides position and velocity feedback information to the Control System. Three outputs are available to meet application requirements. Resolvers are provided in industrial duty and heavy duty industrial enclosures and can be face or foot mounted. Heavy duty resolvers with double shaft extensions can be supplied when a second feedback device such as an overspeed switch is required mounted in line. The table below defines the available outputs and mounting arrangements. The price includes mounting of the resolver to the motor.							
			List Price	Location			
Resolver 800123-2R, used with 1750 rpm motors.			\$2,455	RGG			
Resolver 800123-2S, used with motor with top speeds of 1150 rpm and less.			2,741				
Resolver 800123-R, used with 1750 rpm motors.			2,990				
Resolver 800123-S, used with motor with top speeds of 1150 rpm and less.			4,420				
RESOLVER PART NO. 800123-	2R	2S	R	S			
1X (360° electrical = 360° mechanical)	X		X				
2X (360° electrical = 180° mechanical)		X		X			
5X (360° electrical = 72° mechanical)							
Flange Mount	X	X					
Foot Mount & C-Face			X	X			
Single Shaft	X	X	X	X			
Double Shaft							
General Industrial Duty	X	X					
Heavy Industrial Duty			X	X			
Use with Flange Type Mounting Adapter	X	X	X	X			
Use with Scoop Mount							
SPECIAL TACHOMETER OR RESOLVER MOUNTING							
MOUNTING OF CUSTOMER SUPPLIED 56 C-FACE TACHOMETER. Includes all mounting hardware and mounting. Tachometer must be received at plant one week prior to motor shipment with customer property tag attached.			List Price	Location			
			\$1,929	RGG			
PROVISIONS FOR MOUNTING ONLY							
APPLICABLE TO DPG, SP, TENV, SEP VENT, TEDC, FV & TEAO-PB ENCLOSURES.							
			List Price	Location			
Stub shaft in commutator end shaft with protective cover over the stub shaft. Must specify tachometer type.			\$450	RGG			
Adapter, stub shaft & coupling for any tachometer, encoder or resolver listed in this modification section EXCEPT RD120 & RL67. The RD120 & RL67 encoders require only a stub shaft. Please see the above listed Modification.			1,250				
Provision for mounting only - Applicable to TEFC Enclosures- Adapter, stub shaft & coupling for mounting of RPY444, 5PY59 & BC42 tachometers only. Contact Product Marketing for pricing for any other tachometer.			1,750				

For additional product information, go to www.reliance.com

RPM III Medium DC Motors

INSULATION SYSTEM

Insulation	Net Price								Location
	C180	C210	C250	C280	C320	C360	C400	C440	
Tropical Protection(1)	Add 5% to Basic Motor List Price								RGG

(1) Standard DC motors utilize an advanced insulation system that provides excellent protection against fungus and high humidity as found in tropical climates. The standard motor is suitable for operation in tropical climates without additional treatment. (Refer to General Information section for features of the insulation system.) For additional protection, especially during shipment and prolonged storage, this modification provides a fungicidal air dry varnish treatment per MIL-V-173C (Type I Treatment) applied over all motor windings. Note: Motors applied in highly corrosive, moist and dirt-laden environments should have an enclosure with XT features to limit the entrance of contaminants into the motor.

NAMEPLATES

	Frames	Enclosure	List Price	Location
Rerate of Stock Motors requires Marketing approval	C180 - C440	ALL	\$140	DCT
Separate nameplate for customer data			140	

PACKAGING

		Location
Domestic Packaging	Wooden framing provides extra protection, beyond the standard skid with plastic cover, for domestic shipments and international air freight (containerized) shipments. Not good for ocean freight. PRICE - (180 - 280 Frames - \$50NET); (320 - 440 Frames - \$100 NET).	DCT
Export Boxing	For ocean freight shipment. Does not include broker fees, customs, or documentation. Add 5% of MOTOR NET PRICE (Minimum \$600 Net) for all frames.	

PAINT

Special color - Supply Federal Standard, RAL number or paint chip with order.										Location
Special Finish	List Price									
	C180	C210	C250	C280	C320	C360	C400	C440		
	\$102	\$128	\$201	\$324	\$513	\$743	\$930	\$930	RGG	

SERVICE FACTOR

	Location
Standard listed motors are for 1.0 service factor. For greater than standard service factor, use the price of the listed machine with the same enclosure and speed with a horsepower rating equal to the rated HP times the required service factor. If the HP thus calculated is not standard, use the next higher standard rating. NOTE - A new nameplate showing the service factor information will be supplied for the stock motor. PRICE - \$50 NET.	DCT

SHAFT SEALS

Shaft Seal	List Price								Location
	C180	C210	C250	C280	C320	C360	C400	C440	
Lip Seal	\$700								RGG

This modification provides a lip seal on the drive end to protect the bearing when operated with oil splashing against the shaft. Typical application is on a horizontal motor mounted to a gear case where the stationary oil level is below the motor shaft. CAUTION: Seals operated dry for extended periods will be damaged.
LIST PRICE IS BASED PER BEARING.

SPACE HEATERS

Space Heaters	List Price								Location	
	C180	C210	C250	C280	C320	C360	C400	C440		
Space Heater(1)	\$291				\$829				RGG	
Space Heater Aux. Conduit Box(2)	\$207	377				440				

(1) Mounted inside the motor. Recommended to prevent condensation of moisture for motors remaining unenergized for long periods of time. Standard heater is single phase 120, 240, or 480 volts, 50/60 Hz. Leads are terminated in motor conduit boxes unless separate conduit box is specified. Supply voltage required on order. Not available on DC180ATZ or DC2112ATZ frames.
(2) Separate conduit box for space heater leads. Not available on DC180ATZ or DC2112ATZ frames.

SPEED LIMIT SWITCH

	Location
NEMA I enclosed centrifugal switch flange or scoop mounted on commutator end bracket. Provides output contact when motor reaches a predetermined calibrated speed. Form C contacts rated 120, 240 or 480 volts, 60Hz, 360 volt-amps or 125 VDC @ 12 amps. PRICE - \$1,283 PER MOTOR.	RGG

TECHNICAL DATA

	Location
Data Transmittal, Certified Dimension Sheets, Connection Diagrams & Performance Data - When requested at the time of order entry, Reliance Electric will provide an electronic copy via E-mail, of a software package for each order containing: Data Transmittal, Certified Dimension Sheet, Connection Diagram & Performance Data at NO CHARGE. E-mail address must be provided at time of order entry.	RGG
Performance Data is calculated and includes motor horsepower, speed, torque & efficiency as a function of armature current up to 150% of rated armature current. Standard motor is rated for 150% current for one minute. The data is presented in both tabular and graphical format. In addition, performance data includes a speed curve showing variation of speed and generated counter-emf with shunt field current for both no load and full load conditions. Values of field resistance and inductance are included. For paper copies of the software package, PRICE - \$50 NET PER SET. NOTE -Wiring diagrams showing the internal winding connections of the motor are not normally required by the customer and are not supplied as part of the order. Motor repair or service work requiring a wiring diagram, should be done by a Reliance Electric authorized service center.	RGG
Instruction Manual - An instruction manual is supplied at no charge with each motor shipment. When requested at the time of order entry, Reliance Electric will provide an electronic copy via E-mail at no additional charge. E-mail address must be provided at time of order entry. For paper copy of instruction manual, PRICE - \$50 NET EACH.	RGG

For pricing information or to place orders, go to www.PTplace.com

RPM III Medium DC Motors

TERMINAL BOARDS & LUGS

	List Price								Location
	C180	C210	C250	C280	C320	C360	C400	C440	
Terminal Board	\$500	\$500	\$1,000	\$1,000	\$1,000	\$1,650	\$1,650	\$1,650	RGG
Provides terminal board in conduit box for armature, shunt field & series field connections instead of the standard leads. Thermostat leads will not be connected to terminal board. Not available on DC180ATZ or DC2112ATZ frames.									
	List Price All Frames								Location
Terminal Lugs	\$350								RGG
Provides ring type terminals on motor leads only, not on thermostat leads or other accessory leads.									

TESTS

	Location
IMPORTANT - ALL PRICES FOR TESTS ARE NET	
<p>Routine Test - Certified copy of Test Report - This modification provides up to five (5) copies of the certified test report containing the data on the standard routine test per IEEE Standard 113 that is given each motor. This test provides assurance that the motor meets design specifications. The routine test consists of:</p> <ol style="list-style-type: none"> Neutral check Shunt field wiring resistance check Commutation check High potential check Motor operation under following conditions with speed, voltage and current checked <ol style="list-style-type: none"> No load at rated voltage at base speed and maximum field weakened speed Full load at rated voltage at base speed and maximum field weakened speed <p>For five copies of certified routine test report, add \$135 net per machine. For each additional copy, add \$6 net each. NOTE: All motors are subjected to routine test; however test data is not recorded and submitted to customer unless this modification is specified.</p>	RGG
<p>Witnessed Routine Test - The routine test described above to be witnessed by customer. Customer will be notified approximately 2 days before motor is ready for test. Includes six certified copies of test report.</p> <p>Witnessed Routine Test - Frames C180ATZ thru C280ATZ add \$1,620 net per motor Witnessed Routine Test - Frames C320ATZ thru C400ATZ add \$2,200 net per motor Witnessed Routine Test - Frames C440ATZ add \$4,500 net per motor</p>	RGG
<p>Performance Test - Provides complete motor performance test and heat run on dynamometer with motor horsepower, speed, torque and efficiency recorded as a function of armature current up to 150% of rated armature current. Includes six certified copies of test report.</p> <p>Performance Test - Frames C180ATZ thru C280ATZ add \$1,900 net per motor Performance Test - Frames C320ATZ thru C400ATZ add \$3,700 net per motor Performance Test - Frames C440ATZ add \$5,200 net per motor</p>	RGG
<p>Witnessed Performance Test - Performance test witnessed by customer. Customer will be notified approximately 2 days before motor is ready for test. Includes six certified copies of test report.</p> <p>Witnessed Performance Test - Frames C180ATZ thru C280ATZ add \$3,520 net per motor Witnessed Performance Test - Frames C320ATZ thru C400ATZ add \$6,850 net per motor Witnessed Performance Test - Frames C440ATZ add \$8,800 net per motor</p>	RGG
<p>Noise Test - No load. This modification covers a broadband noise test conducted at a Reliance facility. Measurements will be at five points with two of the points 3 ft. from each side, one point 3 ft. from the back end and one point 3 ft. from the front end with all points on a horizontal plane "D" inches above the base where "D" is equal to the NEMA shaft center height. The 5th point will be 3 ft. from the top of the motor. Motor will be operating at base speed from a power supply as specified on the order. Modification covers testing and five copies of certified test reports.</p> <p>NOTE: This modification covers testing of the motor only and does not provide a guarantee that the motor will meet a specified noise level since motor noise is dependent on the acoustical characteristics of the installation. The noise level at the customer's installation may be different than the value measured by this test.</p> <p>Noise test no load for Frames C180ATZ thru C360ATZ, add \$620 net per motor. Noise test no load for Frames C400ATZ thru C440ATZ, add \$1,250 net per motor.</p>	RGG
Combination motor and drive tests require pricing in addition to prices listed above. Contact Reliance.	
	RGG

For additional product information, go to www.reliance.com

Stock DC Motor Accessories and Kits

Blower Kits (Suitable For Operation on 230/460 V or 240/480 V, 3-Phase, 50/60 HZ)

Frame	Ordering Number	List Price	Price Symbol	Description
C180ATZ, DC180ATZ	417077-51	\$625	RM087	Blower Kit Without Filter
C210ATZ	419947-29	830	RM087	Blower Kit Without Filter
C250ATZ	419947-30	950	RM087	Blower Kit Without Filter
C280ATZ	419947-32	1,070	RM087	Blower Kit Without Filter
C320ATZ	419947-34	1,190	RM087	Blower Kit Without Filter
C3612ATZ	417077-74	1,350	RM087	Blower Kit Without Filter
C3613ATZ	417077-127	1,350	RM087	Blower Kit Without Filter
C400ATZ	417077-75	1,800	RM087	Blower Kit Without Filter
C440ATZ	417077-126	4,100	RM087	Blower Kit Without Filter

Filter Kits For Use With DPG-FV Motors

Frame	Ordering Number	List Price	Price Symbol	Description
C180ATZ, DC180ATZ	417077-57	\$345	RM087	Washable Wire Mesh Canister Type
C2113ATZ	417077-58	345	RM087	Washable Wire Mesh Canister Type
C2115ATZ	417077-59	345	RM087	Washable Wire Mesh Canister Type
C2512ATZ	417077-58	345	RM087	Washable Wire Mesh Canister Type
C2514ATZ	417077-59	345	RM087	Washable Wire Mesh Canister Type
C2515ATZ	417077-59	345	RM087	Washable Wire Mesh Canister Type
C2812ATZ	417077-59	345	RM087	Washable Wire Mesh Canister Type
C2813ATZ	417077-59	345	RM087	Washable Wire Mesh Canister Type
C2815ATZ	417077-59	345	RM087	Washable Wire Mesh Canister Type
C3210ATZ	417077-59	345	RM087	Washable Wire Mesh Canister Type
C3212ATZ	417077-59	345	RM087	Washable Wire Mesh Canister Type
C3214ATZ	417077-59	345	RM087	Washable Wire Mesh Canister Type
C3612ATZ	417077-65	400	RM087	Washable Wire Mesh Canister Type
C3613ATZ	417077-102	666	RM087	Washable Wire Mesh Canister Type
C400ATZ	417077-102	666	RM087	Washable Wire Mesh Canister Type
C440ATZ	417077-124	780	RM087	Square Replaceable Polyester Type

Sliding Bases

Frame	Ordering Number	List Price	Dis. Sym.	Description	Dimension Sheet
DC1810ATZ	42384-26D	\$225	RM087	Standard Duty	609987-501
DC1811ATZ	42384-26BE	270	RM087	Heavy Duty	609987-501
C1811ATZ	42384-26BE	270	RM087	Heavy Duty	609987-1
C1812ATZ	42384-26BF	270	RM087	Heavy Duty	609987-1
DC2112ATZ	42384-26BH	270	RM087	Heavy Duty	609958-51
C2113ATZ	419914-1A	270	RM087	Heavy Duty	609957-1
C2115ATZ	419914-1P	270	RM087	Heavy Duty	609957-1
C2512ATZ	419914-1B	315	RM087	Heavy Duty	609957-1
C2514ATZ	419914-1R	315	RM087	Heavy Duty	609957-1
C2515ATZ	419914-1S	315	RM087	Heavy Duty	609957-1
UC2812ATZ	419914-1C	405	RM087	Heavy Duty	609957-1
UC2813ATZ	419914-1T	405	RM087	Heavy Duty	609957-1
UC2815ATZ	419914-1U	405	RM087	Heavy Duty	609957-1
UC3212ATZ	419914-1D	405	RM087	Heavy Duty	609977-1
UC3214ATZ	419914-1W	405	RM087	Heavy Duty	609977-1
UC3612ATZ	419914-1E	800	RM087	Heavy Duty	609977-1
UC3613ATZ	419914-1X	800	RM087	Heavy Duty	609977-1

For pricing information or to place orders, go to www.PTplace.com

Stock DC Motor Accessories and Kits

Tachometer And Encoder Kits For Field Installation

These kits include the tachometer or encoder and all mounting hardware required for installation on RPM III DC Motors.

Device Type	Output	Part #	Frames	Enclosure	List Price	Symbol
RD120-1	1 x 120 ppr	417708-30	DC180, C180, DC2112	DPG, DPV	\$1,200	RM087
		417708-32	C210-C250	DPG, DPV, TENV	1,200	RM087
		417708-33	C280-C400	DPG, DPV, TENV	1,200	RM087
		417708-153	C440	DPG, DPV, TENV	1,200	RM087
RD120-2	2 x 120 ppr	417708-34	DC180, C180, DC2112	DPG, DPV	1,475	RM087
		417708-36	C210-C250	DPG, DPV, TENV	1,475	RM087
		417708-37	C280-C400	DPG, DPV, TENV	1,475	RM087
		417708-154	C440	DPG, DPV, TENV	1,475	RM087
H20	1024 ppr	417708-133	DC180, C180, DC2112	DPG, DPV, TENV	1,600	RM087
		417708-134	C210-C250	DPG, DPV, TENV	1,600	RM087
		417708-135	C280-C400	DPG, DPV, TENV	1,600	RM087
		417708-151	C440	DPG, DPV, TENV	1,600	RM087
RL67	1024z ppr	417708-126	DC180, C180, DC2112	DPG, DPV, TENV	2,100	RM087
		417708-136	C210-C250	DPG, DPV, TENV	2,100	RM087
		417708-137	C280-C400	DPG, DPV, TENV	2,100	RM087
		417708-138	C440	DPG, DPV	2,100	RM087
845H	1024 ppr	417708-105	DC180, C180, DC2112	DPG, DPV, TENV	1,850	RM087
		417708-106	C210-C250	DPG, DPV, TENV	1,850	RM087
		417708-107	C280-C400	DPG, DPV, TENV	1,850	RM087
		417708-108	C440	DPG, DPV, TENV	1,850	RM087
RE045	45 VAC/1000 RPM	413327-W	DC180, C180, DC2112	DPG, DPV, TENV	1,600	RM087
		417708-20	C210-C250	DPG, DPV, TENV	1,600	RM087
		417708-25	C280-C400	DPG, DPV, TENV	1,600	RM087
		417708-152	C440	DPG, DPV, TENV	1,600	RM087

Tachometers Only (Less Mounting Hardware)

Device Type	Output	Part #	Frames	Enclosure	List Price	Symbol
RPY444	50 VDC/1000 RPM	417708-45	all	all	\$830	RGKIT
	100 VDC/1000 RPM	417708-46	all	all	830	RGKIT
5PY	50 VDC/1000 RPM	R59E1050	all	all	2,420	RM087
	100 VDC/1000 RPM	R59E1100	all	all	2,420	RM087

Mounting Kits Only (Less Tachometer)

Device Type	Part #	Frames	Enclosure	List Price	Symbol
BC42, BC46, H56, RE210, RD62 800123-R & -S	413336-2R	DC180, C180, DC2112	DPG, DPV, TENV	\$530	RM087
	417708-22	C210-C250	DPG, DPV, TENV	530	RM087
	417708-27	C280-C400	DPG, DPV, TENV	530	RM087
	417708-155	C440	DPG, DPV, TENV	530	RM087
	417709-21	C180	TEFC	1,060	RM087
	417709-58	C210	TEFC	1,060	RM087
	417709-59	C250	TEFC	1,060	RM087
	417709-60	C280	TEFC	1,060	RM087
5PY, RPY444	417709-61	C320	TEFC	1,060	RM087
	413336-1R	DC180, C180, DC2112	DPG, DPV, TENV	530	RM087
	417708-21	C210-C250	DPG, DPV, TENV	530	RM087
	417708-26	C280-C400	DPG, DPV, TENV	530	RM087
	417708-156	C440	DPG, DPV, TENV	530	RM087
	417709-17	C180	TEFC	1,060	RM087
	417709-65	C210	TEFC	1,060	RM087
	417709-66	C250	TEFC	1,060	RM087
RL67	417709-67	C280	TEFC	1,060	RM087
	417709-68	C320	TEFC	1,060	RM087
	417708-40	DC180, C180, DC2112	DPG, DPV, TENV	100	RM087
	417708-41	C210 - C250	DPG, DPV, TENV	100	RM087
	417708-42	C280 - C400	DPG, DPV, TENV	100	RM087
	417708-157	C440	DPG, DPV, TENV	125	RM087

For additional product information, go to www.reliance.com