

NEMA FRAME MOTORS • SCR RATED

General Specifications:

High voltage permanent magnet DC motors are typically used with an SCR (thyristor) controller in applications requiring adjustable speed and constant torque throughout the speed range. They are also widely used in applications requiring dynamic braking or adjustable speed/reversing capabilities.



Mechanical Features:

Low profile space-saving design. Unique brush holder design provides easy access to brushes and integral constant pressure brush/spring assembly for servicing. Large oversized brushes assure longer brush life. Heavy-duty, stamped steel, bolt-on base (removable). NEMA C face mounting at no additional cost. Rugged die cast aluminum endshields with cast iron bearing inserts. Permanently lubricated sealed ball bearings. May be converted NEMA 48 base and/or C face using modification kits noted below.

Electrical Features:

Input power of 115 or 230 volts rectified AC when used with an appropriate SCR control. Linear speed/torque characteristics over entire speed range. High starting torque for heavy load applications. Capable of dynamic braking for faster stops. Reversible rotation with simple two-lead connection. For further information on Direct Current Motors, request Bulletin 1600.

PWM RATED PM DC MOTORS

The DC motors listed above have been designed for use on unfiltered SCR (Thyristor) type rectified AC input. These motors may also be used with PWM (pulse width modulated) type DC adjustable speed drives at a higher HP rating. See the chart on page 308 for re-rating data.

TACHOMETER MOUNTING KITS FOR DC MOTORS

All necessary parts to mount listed tachometers to stock TEFC SCR motors. Consists of machined cast fan cover, coupling and hardware. Does not include tachometer. Tach adapter kit is not suitable for catalog number 108502.



Tachometer Type	NEMA Frame	IEC Frame	Catalog Number	Disc. Sym.	App. Wt. (lbs.)
GE 5PY Series	SS56	71	175156	A	5
	S56	80	175193	A	5
	56/145	—	175158	A	5
Servo-tek	SS56	71	175157	A	8
SA740 Series	S56	80	175194	A	8
	56/145	—	175159	A	8

MODIFICATION KITS

Motors with S56C or SS56C frame sizes may be converted to 42/48 C face using the following:

Frame	Catalog No.	Disc. Sym.
SS56C	175182	A
S56C	175082 ◇	A

DC motors in NEMA S56C frame may be converted to 48 base using the following:

Frame	Catalog No.	Disc. Sym.
S56C	175080 ◇	A

TEFC • SCR RATED 90 & 180 VOLTS
NEMA 56C • C FACE WITH REMOVABLE BASE^Δ

HP	Full Load RPM	NEMA Frame□	Catalog Number	Disc. Sym.	App. Wgt. (lbs.)	Arm. Volts DC	Control Volts AC Input	F.L. Amps DC	"C" Dim. (Inches)
1/4	1750	SS56C	098002	A	19	90	115	2.5	10.81
	1750	SS56C	098003	A	22	180	230	1.4	11.31
1/3	1750	SS56C	098004	A	23	90	115	3.5	11.31
	1750	SS56C	098005	A	23	180	230	1.7	11.31
	1140	S56C	109098	A	32	90	115	3.5	12.81
1/2	2500	SS56C	098006	A	22	90	115	5.0	10.81
	2500	SS56C	098007	A	22	180	230	2.5	10.81
	1750	SS56C	098000	A	26	90	115	5.0	11.81
	1750	S56C	108014	A	29	90	115	5.0	12.81
	1750	SS56C	098008	A	25	180	230	2.5	11.81
	1750	S56C	108015	A	30	180	230	2.5	12.81
3/4	1140	S56C	109099	A	40	90	115	5.0	13.81
	2500	SS56C	098009	A	26	90	115	7.6	11.81
	2500	S56C	108016	A	29	90	115	7.6	12.81
	2500	SS56C	098010	A	25	180	230	3.8	11.81
	2500	S56C	108017	A	29	180	230	3.8	12.81
	1750	SS56C	098032	A	36	90	115	7.6	13.81
	1750	S56C	108018	A	38	90	115	7.6	13.81
	1750	SS56C	098069	A	36	180	230	3.8	13.81
	1750	S56C	108019	A	35	180	230	3.8	13.81
	1140	S56C	109100	A	49	90	115	7.5	16.81
1	2500	S56C	108020	A	34	90	115	10.0	13.81
	2500	S56C	108021	A	38	180	230	5.0	13.81
	1750	S56C	108022	A	47	90	115	10.0	16.31
	1750	S56C	108023	A	39	180	230	5.0	14.81
	1140	S56C	128023	B	82	90	115	11.0	18.34
1 1/2	2500	S56C	108265	A	43	180	230	7.5	14.81
	1750	S56C	108092	A	53	180	230	7.6	16.88
	1750	S56/145TC	108262 ■	A	54	180	230	7.6	17.38
	1750	145TC	128000	B	70	180	230	7.5	18.34
2	2500	S56/145TC	108266 ■	A	51	180	230	8.6	16.88
	1750	145TC	128010	B	83	180	230	9.5	19.34
	1750	182/145TC	128001 F	B	84	180	230	9.5	19.34
3	1750	182/145TC	108502 F	B	88	180	230	14.0	21.75

Δ If base is removed, do not reinstall bolts without using washers to compensate for thickness of base.

F NEMA 145TC face mounting with removable NEMA 182T rigid base.

■ NEMA 145TC frame shaft 7/8" x 2 1/4" and NEMA 56 removable base.

□ SS56C motors have a 4.88 inch diameter frame. S56C motors have a 5.61 inch diameter frame.



TEFC • SCR RATED 90 & 180 VOLTS
NEMA 56C • C FACE LESS BASE*

HP	Full Load RPM	NEMA Frame	Catalog Number	Disc. Sym.	App. Wgt. (lbs.)	Arm. Volts DC	Control Volts AC Input	F.L. Amps DC	"C" Dim. (Inches)
1/4	1750	SS56C	098377	A	19	90	115	2.5	10.81
1/3	1750	SS56C	098378	A	23	90	115	3.5	11.31
1/2	1750	SS56C	098379	A	29	90	115	5.0	11.81
3/4	1750	SS56C	098380	A	38	90	115	7.6	13.81
1	1750	S56C	109096	A	47	90	115	10.0	16.31
	1750	S56C	109097	A	39	180	230	5.0	14.81

* No tapped holes provided for attaching a bolt-on base.

◇ Addition of base kit will result in non-NEMA BA dimension of 2 3/4". Addition of C face kit will result in conduit box located at 1 o'clock facing lead end.