



BRAKEMOTORS

SINGLE & THREE PHASE



BRAKEMOTORS

Fail-safe positive, stop and hold brakemotors. Brakes are spring set. Load is stopped automatically when power is turned off. LEESON brakemotors feature a power off manual release for convenience, and for use in case of a power failure. The manual release resets automatically. The standard brake is manufactured by Stearns. The brake

coil leads are brought into the conduit box of the motor for easy connection and may be connected to operate when power to the motor is shut off, or to be actuated independent of power to the motor. Three phase motors have brake coils rated 230/460 VAC, 60 Hz. Single phase brake coils are 115/230 VAC, 60 Hz.



SINGLE PHASE • TENV/TEFC • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1725	56C	3	114165	\$792	A	28	115/208-230	None	2.9	14.06	
1/2	1725	56C	3	111950	857	A	32	115/208-230	None	4.4	15.06	
3/4	1725	56C	6	114167	1126	A	38	115/208-230	None	5.4	15.56	
1	1725	56C	6	111951	1193	A	38	115/208-230	None	5.3	16.07	
1 1/2	1725	145TC	10	121816	1293	A	40	115/208-230	None	9.2	19.23	

THREE PHASE • DRIP-PROOF • RIGID BASE

HP	RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	1725	56	3	114162	\$772	A	28	208-230/460		2.0	74.0	13.56
3/4	1725	56	6	114163	901	A	29	208-230/460		2.8	77.0	14.06
1	1725	56	6	114164	980	A	32	208-230/460		4.2	78.5	14.06
1 1/2	1725	145T	10	G120370	1125	B	44	208-230/460		4.4	84.0	16.00
2	1725	145T	10	G120371	1277	B	45	208-230/460		6.0	84.0	16.00
3	1740	182T	15	G131626	1576	B	65	208-230/460		8.4	86.5	16.89
5	1740	184T	25	G131627	1981	B	95	208-230/460		13.2	87.5	17.89
7 1/2	1760	213T	35	G140611	2422	B	130	208-230/460		20.0	88.5	23.01
10	1760	215T	50	G140635	3066	B	138	208-230/460		28.0	89.5	25.01

- These motors are totally enclosed, non-ventilated – Others are fan cooled.
- ☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.



THREE PHASE • DRIP-PROOF • C FACE LESS BASE

HP	RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	1725	56C	3	114156	\$792	A	28	208-230/460		2.0	74.0	13.56
3/4	1725	56C	6	114157	924	A	38	208-230/460		2.8	77.0	14.06
1	1725	56C	6	114166	999	A	40	208-230/460		3.4	78.5	14.06
	1725	143TC	6	121678	999	B	42	208-230/460		3.4	78.5	14.50
1 1/2	1725	145TC	10	120372	1162	B	43	208-230/460		5.6	78.5	15.50
	1725	56C	10	116766	1162	A	43	208-230/460		5.6	78.5	15.50
2	1725	145TC	10	120373	1309	B	47	208-230/460		6.2	78.5	16.00
3	1740	182TC	15	131624	1647	B	56	208-230/460		10.0	80.0	16.40
5	1740	184TC	25	131625	2045	B	76	208-230/460		14.2	84.0	17.35

THREE PHASE • DRIP-PROOF • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/2	1725	56C	3	111326	\$801	A	31	208-230/460		2.0	74.0	13.56
3/4	1725	56C	6	111327	937	A	34	208-230/460		2.8	77.0	14.06
1	1725	56C	6	111328	1012	A	42	208-230/460		4.2	78.5	14.06
1 1/2	1725	145TC	10	G121053	1165	B	42	208-230/460		4.4	84.0	16.00
2	1725	145TC	10	G121054	1309	B	51	208-230/460		6.0	84.0	16.50
3	1740	182TC	15	G131558	1813	B	84	208-230/460		8.4	86.5	16.90
5	1740	184TC	25	G131559	2209	B	97	208-230/460		13.2	87.5	18.35
7 1/2	1760	213TC	35	G140610	2574	B	115	208-230/460		20.0	88.5	23.51
10	1760	215TC	50	G140638	4343	B	125	208-230/460		28.0	89.5	25.01

Catalog numbers in green are EPACT motors.
Catalog numbers in blue are NEW motors.



THREE PHASE • TEFC • RIGID BASE

HP	RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL. Amps 230V	% FL. Eff.	"C" Dim. (Inches)
1/3	1725	56	3	114151●	\$753	A	28	208-230/460	1.3	72.0	13.56
1/2	1725	56	3	114150●	820	A	33	208-230/460	1.8	78.5	14.06
	1140	56	6	114149	1131	A	33	208-230/460	2.4	70.0	15.56
3/4	1725	56	6	114147	961	A	34	208-230/460	2.8	77.0	15.56
	1140	56	6	114148	1188	A	43	208-230/460	3.0	75.5	16.06
1	1725	56	6	114146	1113	A	37	208-230/460	3.8	77.0	16.06
	1725	143T	6	G121679	1099	B	40	208-230/460	3.1	82.5	17.50
	1140	145T	10	G121050	1567	B	45	208-230/460	3.6	80.0	17.52
1½	1725	56	10	116767	1250	A	44	208-230/460	4.4	84.0	17.08
	1725	145T	10	G120329	1232	B	44	208-230/460	4.4	84.0	17.52
2	1725	145T	10	G120330	1262	B	53	208-230/460	5.6	84.0	18.00
	1140	184T	15	G131620	2106	B	80	208-230/460	7.2	86.5	20.33
3	1740	182T	15	G131613	1722	B	78	230/460	8.2	87.5	18.83
	1170	213T	35	G140601	3124	B	147	208-230/460	12.0	87.5	26.49
5	1740	184T	25	G131614	2137	B	102	230/460	13.0	87.5	20.78
7½	1760	213T	35	G140603	2749	B	162	208-230/460	20.4	89.5	26.49
10	1760	215T	50	G140636	3153	B	174	208-230/460	26.0	89.5	27.99



THREE PHASE • TEFC • C FACE LESS BASE

HP	RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL. Amps 230V	% FL. Eff.	"C" Dim. (Inches)
1/3	1725	56C	3	114158●	\$768	A	26	208-230/460	1.3	72.0	13.56
1/2	1725	56C	3	114159	837	A	26	208-230/460	2.0	74.0	15.06
3/4	1725	56C	6	114160	981	A	34	208-230/460	2.8	77.0	15.06
1	1725	56C	6	114161	1133	A	31	208-230/460	3.6	77.0	15.56
	1725	143TC	6	121556	1133	B	37	208-230/460	3.8	77.0	17.00
1½	1725	56C	10	116768	1270	A	40	208-230/460	5.0	78.5	16.56
	1725	145TC	10	120331	1270	B	40	208-230/460	5.0	78.5	17.00
2	1725	145TC	10	120332	1304	B	51	208-230/460	6.0	84.0	18.00
3	1740	182TC	15	131610	1806	B	69	230/460	9.0	84.0	18.73
5	1740	184TC	25	131611	2234	B	92	230/460	13.2	86.0	19.18
7½	1740	S213TC	35	131612	2858	B	149	230/460	19.6	87.0	25.29
10	1760	215TC	50	140637	3630	B	136	208-230/460	26.0	89.5	27.99

● These motors are totally enclosed, non-ventilated.
† Class F insulated.

All 180 and 210 frame Rolled Steel motors have Class F Insulation.

Catalog numbers in green are EPACT motors.



THREE PHASE • TEFC • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL. Amps 230V	% FL. Eff.	"C" Dim. (Inches)
1/3	1725	56C	3	110669●	\$756	A	30	208-230/460	1.3	72.0	13.56
1/2	1725	56C	3	110670●†	850	A	34	208-230/460	1.8	78.5	14.06
	1725	56C	3	114154	850	A	34	208-230/460	2.4	74.0	15.06
1140	56C	3	114152	1223	A	34	208-230/460	2.4	70.0	15.56	
3/4	1725	56C	6	110671●†	994	A	34	208-230/460	2.5	80.0	14.56
	1725	56C	6	114155	994	A	46	208-230/460	2.8	77.0	15.56
1	1725	56C	6	110679	1170	A	32	208-230/460	3.6	77.0	15.56
	1725	143TC	6	G121557	1153	B	43	208-230/460	3.1	82.5	17.50
1½	1725	145TC	10	G121051	1291	B	45	230/460	4.4	84.0	17.50
2	1725	145TC	10	G121052	1329	B	59	208-230/460	5.6	84.0	18.00
3	1740	182TC	15	G131617	1805	B	79	230/460	8.2	87.5	18.83
5	1740	184TC	25	G131618	2255	B	117	230/460	13.0	87.5	20.78
7½	1760	213TC	35	G140605	2879	B	163	208-230/460	20.4	89.5	26.49
10	1760	215TC	50	G140639	3697	B	175	208-230/460	26.0	89.5	27.99



WASHGUARD • TENV/TEFC • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL. Amps 230V	% FL. Eff.	"C" Dim. (Inches)
1/3	1725	56C	3	116466●	\$1087	A	40	208-230/460	1.3	72.0	14.00
1/2	1725	56C	3	116467●	1108	A	42	208-230/460	1.8	78.5	14.50
3/4	1725	56C	6	116468●	1315	A	44	208-230/460	2.5	80.0	15.00
1	1725	56C	6	116469●	1358	A	48	208-230/460	3.2	80.0	15.50
	1725	143TC	6	121616●	1358	A	49	208-230/460	3.2	80.0	16.06
1½	1725	145TC	10	G121617	1883	A	50	208-230/460	4.4	84.0	19.01
2	1725	145TC	10	G121618	1952	A	62	208-230/460	5.6	84.0	19.01

WASHGUARD • TENV/TEFC • C FACE LESS BASE

HP	RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL. Amps 230V	% FL. Eff.	"C" Dim. (Inches)
1/3	1725	56C	3	116462●	\$1049	A	39	208-230/460	1.3	72.0	14.00
1/2	1725	56C	3	116463●	1075	A	41	208-230/460	1.8	78.5	14.50
3/4	1725	56C	6	116464●	1279	A	43	208-230/460	2.5	80.0	15.00
1	1725	56C	6	116465●	1325	A	45	208-230/460	3.2	80.0	15.50
	1725	143TC	6	121613●	1325	A	46	208-230/460	3.2	80.0	15.56
1½	1725	145TC	10	121614	1835	A	49	208-230/460	5.0	78.5	18.01
2	1725	145TC	10	121615	1888	A	61	208-230/460	6.2	81.5	18.51

ALL-STAINLESS • TENV • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Brake Rating (ft-lbs)	Catalog Number	List Price	Disc. Sym.	App. Wgt. (lbs.)	Voltage	FL. Amps 230V	% FL. Eff.	"C" Dim. (Inches)
1/2	1725	56C	3	116483●	\$4098	A	59	208-230/460	1.6	78.5	15.85
1	1725	56C	6	116484●	4319	A	69	208-230/460	3.0	81.5	15.85

● These motors are totally enclosed, non-ventilated.

LEESON BRAKEKITS



LEESON BRAKEKITS

Kit of components to convert 56 through 256T frame stock TEFC motors to fail-safe brakemotors.

Kit mounts on fan end of motor. Kits for 56-184T steel frame motors include totally enclosed Stearns AC brake, replacement cast fan cover, shaft extension, fan and hardware. Kits for 213T-256T cast iron frame motors **do not include brake**, but are designed for Stearns 87,000 series brake.

Two 1/2" NPT holes with 18" leads are provided for connections. The BRAKEKIT adds 5/8" to the overall length of 56 and 143-5T frame, and 5/8" to the overall length of 182-184T frame.

BRAKEKITS

Brake Rating (ft.-lbs)	Mounts to NEMA Frame	Max. HP @ 1725rpm	Cat. No.	Cat. No.	Cat. No.	List Price	Disc. Sym.	App. Wt. (lbs.)
			115-208/230 V Brake Coil Voltage	208-230/460 V Brake Coil Voltage	575 V Brake Coil Voltage			
3	48/S56	1	—	175615 ①	—	\$552	A	10
3	56/143-5T	1	175659 175762 ②	175139 175765 ②	175177 175768 ②	552	A	10
6	56/143-5T	2	175660 175763 ②	175140 175766 ②	175178 175769 ②	635	A	10
10	56/143-5T	3	175662 175764 ②	175141 175767 ②	175179 175770 ②	727	A	10
15	182-4T	3	—	175696	175698	1356	B	12
25	182-4T	5	—	175697	175699	1538	B	12

- 56/143-5T frame Brakekits cannot be used on S56 frame motors.
 - Use the 182-4T frame Brakekits on motors having catalog numbers with a "G" prefix or that are 131454 or higher.
 - 182-4T frame Brakekits can also be used on single-phase 4-pole (1725RPM) motors, but can only be connected for 208-230V. All brake coils are single phase.
- ① For motors having a "P" for the suffix letter on the date code and having a face mount fan guard.
 ② For 56/145 frame motors having a "B" for the suffix letter for the date code and having a **face mount fan guard**.

BRAKE ADAPTER KITS

Brake Rating (ft.-lbs)	Mounts to NEMA Frame	Max. HP @ 1725rpm	Catalog Number	List Price	Disc. Sym.	App. Wt. (lbs.)
6-105	213-5T	10	175710	\$251	C	30
6-105	254-6T	20	175711	356	C	40

- Brake Adapter Kits include adapter casting/fan guard, brake fan, adapter shaft and hardware needed to mount a Stearns® 87,000 series brake (sold separately by Stearns®).
- Shaded frame sizes are for use with cast iron motors.



WASHGUARD Brakekits have the same convenient assembly method as general purpose models.

BRAKEKITS FOR WASHGUARD MOTORS

Kit of components including a Stearns NEMA 4X brake to convert 56 thru 145T frame stock TEFC only motors to fail-safe brakemotors. Food safe white epoxy finish. BISSC Certified. Adds 5 1/8" to the overall length of 56 thru 145T WASHGUARD TEFC motors.

WASHGUARD BRAKEKITS

For 230/460V Three Phase and 230V Single Phase Motors

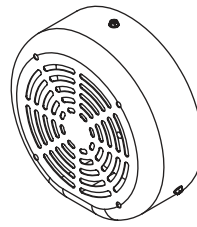
Brake Rating (ft.-lbs)	Mounts to NEMA Frame	Max. HP @ 1725rpm	Cat. No.	List Price	Disc. Sym.	App. Wt. (lbs.)
			208-230/460 V Brake Coil Voltage			
3	56/143-5T	1	175616 175771 ②	\$1066	A	24
6	56/143-5T	2	175617 175772 ②	1125	A	36
10	56/143-5T	3	175618 175773 ②	1185	A	43

② For 56/145 frame motors having a "B" for the suffix letter for the date code and having a face mount fan guard.

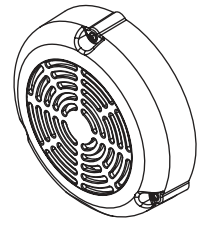
BRAKE SELECTION

In this table, brake torque ratings are no less than 140% of the motor full load torque. Match HP & frame size of motor with appropriately rated BRAKEKIT.

Motor HP	Brakemotor RPM Torque Rating of Brake (Lb-Ft)		
	3450	1725	1140
1/3	3	3	3
1/2	3	3	3
3/4	3	6	6
1	3	6	6
1 1/2	6	10	10
2	6	10	15
3	10	15	25
5	15	25	35
7.5	25	35	50
10	25	50	75
15	35	75	105
20	50	105	—



Old Design



New Design - Face Mount



Numbers in blue are available 3rd Quarter 2008.

DOUBLE C-FACE COUPLER BRAKES

A new and expanded line of Coupler Brakes designed for applications where mounting the brake between the motor and driven load is the preferred, or most convenient, location. They are an excellent problem solver for applications where a brake needs to be added to existing equipment – without replacing the motor.

Rugged cast aluminum or cast iron construction Stearns brakes are well suited to most industrial applications. Coupler brakes are designed to be C-face connected on both ends – these brakes are not suited for overhung loads to be applied to the output shaft.

A wide range of voltages and brake torque ratings in both NEMA 2 and NEMA 4X enclosures are available from stock. NEMA 2 brakes are best suited for use with standard ODP and TEFC motors. NEMA 4X brakes are designed for use with LEESON WASHGUARD motors.

GENERAL PURPOSE COUPLER BRAKES

Mounts directly to the face and shaft of NEMA 56 through 215T-frame C-face motors to create a fail-safe brakemotor.

The 6 ft.lb. brake mounts to NEMA 56C or 143-5TC motors using an optional adaptor sleeve, which is included with the brake. Output shaft can be either 56C or 143-5TC depending on the location of the provided adaptor sleeve. A 1/2 NPT threaded lead exit hole is provided for power connections.



Stearns

GENERAL PURPOSE (NEMA 2) COUPLER BRAKES

For Both Single and Three Phase Motors

Cat. No. 115/208-230V Single Phase	Cat. No. 208-230/460V Three Phase	Cat. No. 575V Three Phase	Brake Rating (ft-lbs)	Max. HP @ 1725 rpm	Mounts to NEMA Frame	Coupler Brake Output Shaft and Face	Add to Motor "C" Dim.	List Price	Disc. Sym.	App. Wt. (lbs.)
175563	175564	175565	3	1	56C	5/8", 56C	4.91	\$545	A	13
175569	175570	175571	6	2	56C/143-5TC	5/8" or 7/8", 56C	4.91	625	A	14
175575	175576	175577	10	3	143-5TC	7/8", 143-5TC	4.91	655	A	15
—	175581	—	15	3	143-5TC	7/8", 143-5TC	4.91	748	A	16
—	175583	—	15	3	182-4TC	1 1/8", 182-4TC	8.38	2663	A	58
—	175585	—	25	5	182-4TC	1 1/8", 182-4TC	8.38	2785	A	58
—	175587	—	35	7 1/2	213-5TC	1 3/8", 213-5TC	8.88	3057	A	60
—	175589	—	50	10	213-5TC	1 3/8", 213-5TC	8.88	3384	A	62

WASHGUARD COUPLER BRAKES

Solid die-cast aluminum Stearns NEMA 4X coupler brake converts any TEFC or TENV 56C thru 215TC motor to a fail-safe brakemotor by mounting between the C-face motor and driven equipment. Food safe white epoxy finish. BISSC Certified. Adds 5" to the overall length of 56C thru 145TC WASHGUARD TEFC or TENV motors. Includes all mounting components.



WASHGUARD (NEMA 4X) COUPLER BRAKES

For Both Single and Three Phase Motors

Cat. No. 115/208-230V Single Phase	Cat. No. 208-230/460V Three Phase	Cat. No. 575V Three Phase	Brake Rating (ft-lbs)	Max. HP @ 1725 rpm	Mounts to NEMA Frame	Coupler Brake Output Shaft and Face	Add to Motor "C" Dim.	List Price	Disc. Sym.	App. Wt. (lbs.)
175566	175567	175568	3	1	56C	5/8", 56C	4.94	\$960	A	13
175572	175573	175574	6	2	56C/143-5TC	5/8" or 7/8", 56C	4.94	1033	A	14
175578	175579	175580	10	3	143-5TC	7/8", 143-5TC	4.94	1093	A	15
—	175582	—	15	3	143-5TC	7/8", 143-5TC	4.94	1271	A	16
—	175584	—	15	3	182-4TC	1 1/8", 182-4TC	8.38	3443	A	58
—	175586	—	25	5	182-4TC	1 1/8", 182-4TC	8.38	3511	A	58
—	175588	—	35	7 1/2	213-5TC	1 3/8", 213-5TC	8.88	3640	A	60
—	175590	—	50	10	213-5TC	1 3/8", 213-5TC	8.88	4066	A	62

