

Cross Reference From Stearns® AC Solenoid-Actuated Brakes to Dings Direct-Acting Disc Brakes

This brochure offers a simple guide to cross reference standard Stearns AC Solenoid Actuated Brakes to Dings Company Dynamics Group brakes. Dings Dynamics offers a complete line of AC brakes to fit NEMA motors from 48C through 405TC, including End Mount, Double C Face Coupler, and Hazardous Location brakes. Enclosures are offered for all environments from interior applications to harsh exterior and marine duty applications.

This guide is organized by NEMA motor size. To determine the proper Dings Dynamics Magnetic Disc Brake to replace a Stearns AC Solenoid Actuated Brake, follow these simple steps:

1. Determine the model number of the Stearns brake you are replacing.
2. Locate the Stearns model number in the following charts.
3. Determine the equivalent Dings brake model number, including voltage and hub size.
4. Note if brake is mounted vertically (above or below the motor).
5. Contact your local Dings distributor or factory representative to order the brake.
6. Complete installation instructions are included with each brake to allow for easy brake replacement. Installation manuals can also be found at www.dingsbrakes.com.

If you are unable to locate the correct brake in this cross reference manual, please contact your local Dings representative or the Dings Company directly at 414/672-7830.

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NEMA Frame 48C

Torque (lb-ft)	Stearns 48,100	Dings 50 Series
1.5	1-048-151-00- YZ	51001-080- Z1Y
	1-048-151-01- YZ	51001-050- Z1Y
3	1-048-161-00- YZ	51003-080- Z1Y
	1-048-161-01- YZ	51003-050- Z1Y
6	1-048-171-00- YZ	51006-080- Z1Y
	1-048-171-01- YZ	51006-050- Z1Y

Refer to last page for letter designations for input bore size, output shaft diameter, and coil voltages.

Y– Input Shaft Diameter Cross Reference

Z– Voltage Cross Reference

T– Double C Coupler Hub/Shaft Cross Reference

NEMA Frames 56C-145TC

STAINLESS STEEL End Mount Brakes

Torque (lb-ft)	Stearns 56,900	Dings 60 Series
3	1-056-914-00- YZF	61003-5140- Z1Y
6	1-056-924-00- YZF	61006-5140- Z1Y
10	1-056-934-00- YZF	62010-5140- Z1Y
15	1-056-944-00- YZF	63015-5140- Z1Y
20	1-056-954-00- YZF	63020-5140- Z1Y
25	1-056-964-00- YZF	64025-5140- Z1Y

STAINLESS STEEL Double C Face Brakes

Torque (lb-ft)	Stearns 56,900	Dings 60 Series
3	1-056-914-0 T-ZF	61003-5145- Z1T
6	1-056-924-0 T-ZF	61006-5145- Z1T
10	1-056-934-0 T-ZF	62010-5145- Z1T
15	1-056-944-0 T-ZF	63015-5145- Z1T
20	1-056-954-0 T-ZF	63020-5145- Z1T
25	1-056-964-0 T-ZF	64025-5145- Z1T

NEMA Frames 56C-145TC

End Mount Brakes

Torque (lb-ft)	Stearns® 56,000	Stearns® 55,000	Stearns® 55,500	Dings 60 Series
1.5	1-056-W01-00-YZF	1-055-011-01-YZF	1-055-501-00-YZF	61001-524-Z1Y
	1-056-W02-00-YZF	1-055-012-01-YZF		61001-535-Z1Y
	1-056-W02-80-YZF			61001-545-Z1Y
	1-056-W04-00-YZF	1-055-012-B1-YZF		61001-5116-Z1Y
3	1-056-W11-00-YZF	1-055-021-01-YZF	1-055-511-00-YZF	61003-524-Z1Y
	1-056-W12-00-YZF	1-055-022-01-YZF		61003-535-Z1Y
	1-056-W12-80-YZF			61003-545-Z1Y
	1-056-W14-00-YZF	1-055-022-B1-YZF		61003-5116-Z1Y
6	1-056-W21-00-YZF	1-055-031-01-YZF	1-055-521-00-YZF	61006-524-Z1Y
	1-056-W22-00-YZF	1-055-032-01-YZF		61006-535-Z1Y
	1-056-W22-80-YZF			61006-545-Z1Y
	1-056-W24-00-YZF	1-055-032-B1-YZF		61006-5116-Z1Y
10	1-056-W31-00-YZF	1-055-043-01-YZF	1-055-531-00-YZF	62010-524-Z1Y
	1-056-W32-00-YZF	1-055-044-01-YZF		62010-535-Z1Y
	1-056-W32-80-YZF			62010-545-Z1Y
	1-056-W34-00-YZF	1-055-044-B1-YZF		62010-5116-Z1Y
15	1-056-W41-00-YZF	1-055-051-01-YZF	1-055-541-00-YZF	63015-524-Z1Y
	1-056-W42-00-YZF	1-055-052-01-YZF		63015-535-Z1Y
	1-056-W42-80-YZF			63015-545-Z1Y
	1-056-W44-00-YZF	1-055-052-B1-YZF		63015-5116-Z1Y
20	1-056-W51-00-YZF			63020-524-Z1Y
	1-056-W52-00-YZF			63020-535-Z1Y
	1-056-W52-80-YZF			63020-545-Z1Y
	1-056-W54-00-YZF			63020-5116-Z1Y
25	1-056-W61-00-YZF	1-055-053-01-YZF		64025-524-Z1Y
	1-056-W62-00-YZF	1-055-054-01-YZF		64025-530-Z1Y
	1-056-W62-80-YZF			64025-543-Z1Y
	1-056-W64-00-YZF	1-055-054-B1-YZF		64025-5116-Z1Y

W = 0, 1, 2, 3, 4, or 6 Stearns housing and manual release configuration which Dings can retrofit. All Dings 60 Series manual releases are maintained with automatic reset.

Hazardous Location Brakes

NEMA Frames 56C-145TC

Torque (lb-ft)	Stearns® 65,000/65,300	Dings 60 Series
1.5	1-065-012-00-YZB	F8-61001-66B-Z1Y
	1-065-311-05-YZB	F8-61001-66B-Z1Y
3	1-065-022-00-YZB	F8-61003-66B-Z1Y
	1-065-321-05-YZB	F8-61003-66B-Z1Y
6	1-065-032-00-ZYB	F8-62006-66B-Z1Y
	1-065-331-05-ZYB	F8-62006-66B-Z1Y
10	1-065-052-00-ZYB	F8-63010-66B-Z1Y
	1-065-351-05-ZYB	F8-63010-66B-Z1Y
15	1-065-062-00-ZYB	F8-63015-66B-Z1Y
	1-065-361-05-ZYB	F8-63015-66B-Z1Y

Refer to last page for letter designations for input bore size, output shaft diameter, and coil voltages.

Y– Input Shaft Diameter Cross Reference

Z– Voltage Cross Reference **R** – Phase (Single Phase=1 or Three Phase =3)

NEMA Frames 56C-145TC

Double C Face Coupler Brakes

Stearns® 56,700	Stearns® 55,700	Dings 60 Series
1-056-701-0T-ZF	1-055-701-0T-ZF	61001-551-Z1T
1-056-702-0T-ZF	1-055-702-0T-ZF	61001-5153-Z1T
1-056-704-0T-ZF	1-055-702-BT-ZF	61001-5155-Z1T
1-056-711-0T-ZF	1-055-711-0T-ZF	61003-551-Z1T
1-056-712-0T-ZF	1-055-712-0T-ZF	61003-5153-Z1T
1-056-714-0T-ZF	1-055-712-BT-ZF	61003-5155-Z1T
1-056-721-0T-ZF	1-055-721-0T-ZF	61006-551-Z1T
1-056-722-0T-ZF	1-055-722-0T-ZF	61006-5153-Z1T
1-056-724-0T-ZF	1-055-722-BT-ZF	61006-5155-Z1T
1-056-731-0T-ZF	1-055-741-0T-ZF	62010-551-Z1T
1-056-732-0T-ZF	1-055-742-0T-ZF	62010-5153-Z1T
1-056-734-0T-ZF	1-055-742-BT-ZF	62010-5155-Z1T
1-056-741-0T-ZF	1-055-751-0T-ZF	63015-551-Z1T
1-056-742-0T-ZF	1-055-752-0T-ZF	63015-5153-Z1T
1-056-744-0T-ZF	1-055-752-BT-ZF	63015-5155-Z1T
1-056-751-0T-ZF		63020-551-Z1T
1-056-752-0T-ZF		63020-5153-Z1T
1-056-754-0T-ZF		63020-5155-Z1T

Refer to last page for letter designations for input bore size, output shaft diameter, and coil voltages.

Z– Voltage Cross Reference

T– Double C Coupler Hub/Shaft Cross Reference

Y– Input Shaft Diameter Cross Reference

NEMA Frames 182TC-256TC

Torque (lb-ft)	Stearns® 87,300	Dings 60 Series
10	1-087-311-01-YZB	FR71010-9-ZRY
	1-087-311-02-YZB	
15	1-087-321-01-YZB	FR71015-9-ZRY
	1-087-321-02-YZB	
25	1-087-331-01-YZB	FR72025-9-ZRY
	1-087-331-02-YZB	
35	1-087-341-01-YZB	FR72035-9-ZRY
	1-087-341-02-YZB	
50	1-087-351-01-YZB	FR73050-9-ZRY
	1-087-351-02-YZB	
75	1-087-361-01-YZB	FR74075-9-ZRY
	1-087-361-02-YZB	

NEMA Frames 180TC-184TC

Torque (lb-ft)	Stearns® 56,500	Stearns® 57,500	Dings 1-70 Series
10	1-056-531-00- YZF	1-057-511-00- YZF	72010-115- Z1Y
15	1-056-541-00- YZF	1-057-521-00- YZF	73015-115- Z1Y
20	1-056-551-00- YZF	1-057-531-00- YZF	73020-115- Z1Y
25	1-056-561-00- YZF	1-057-541-00- YZF	74025-115- Z1Y

NEMA Frames 182TC-256TC

End Mount Brakes

Torque (lb-ft)	Stearns® 87,000	Dings 70 Series
10	1-087-011-00- YZF	71010-ES4S- ZRY
	1-087-012-00- YZF	71010-SC6S- ZRY
	1-087-012-B0- YZF	71010-SC6T- ZRY
	1-087-014-00- YZF	71010-SC6S- ZRY Ⓞ
	1-087-014-B0- YZF	71010-SC6T- ZRY Ⓞ
15	1-087-021-00- YZF	71015-ES4S- ZRY
	1-087-022-00- YZF	71015-SC6S- ZRY
	1-087-022-B0- YZF	71015-SC6T- ZRY
	1-087-024-00- YZF	71015-SC6S- ZRY Ⓞ
	1-087-024-B0- YZF	71015-SC6T- ZRY Ⓞ
25	1-087-031-00- YZF	71025-ES4S- ZRY
	1-087-032-00- YZF	71025-SC6S- ZRY
	1-087-032-B0- YZF	71025-SC6T- ZRY
	1-087-034-00- YZF	71025-SC6S- ZRY Ⓞ
	1-087-034-B0- YZF	71025-SC6T- ZRY Ⓞ
35	1-087-041-00- YZF	72035-ES4S- ZRY
	1-087-042-00- YZF	72035-SC6S- ZRY
	1-087-042-B0- YZF	72035-SC6T- ZRY
	1-087-044-00- YZF	72035-SC6S- ZRY Ⓞ
	1-087-044-B0- YZF	72035-SC6T- ZRY Ⓞ
50	1-087-051-00- YZF	72050-ES4S- ZRY
	1-087-052-00- YZF	72050-SC6S- ZRY
	1-087-052-B0- YZF	72050-SC6T- ZRY
	1-087-054-00- YZF	72050-SC6S- ZRY Ⓞ
	1-087-054-B0- YZF	72050-SC6T- ZRY Ⓞ
75	1-087-061-00- YZF	73075-ES4S- ZRY
	1-087-062-00- YZF	73075-SC6S- ZRY
	1-087-062-B0- YZF	73075-SC6T- ZRY
	1-087-064-00- YZF	73075-SC6S- ZRY Ⓞ
	1-087-064-B0- YZF	73075-SC6T- ZRY Ⓞ
105	1-087-081-00- YZF	74105-ES4S- ZRY
	1-087-082-00- YZF	74105-SC6S- ZRY
	1-087-082-B0- YZF	74105-SC6T- ZRY
	1-087-084-00- YZF	74105-SC6S- ZRY Ⓞ
	1-087-084-B0- YZF	74105-SC6T- ZRY Ⓞ

Ⓞ Stearns enclosure is aluminum endplate & steel cover;
Dings enclosure is cast iron

Double C Face Coupler Brakes

Torque (lb-ft)	Stearns® 87,700	Dings 70 Series
		Standard
10	1-087-711-0 T-ZG	71010-CE42- ZRT
	1-087-712-0 T-ZG	71010-CE62- ZRT
	1-087-712- BT-ZG	71010-CE64- ZRT
15	1-087-721-0 T-ZG	71015-CE42- ZRT
	1-087-722-0 T-ZG	71015-CE62- ZRT
	1-087-722- BT-ZG	71015-CE64- ZRT
25	1-087-731-0 T-ZG	72025-CE42- ZRT
	1-087-732-0 T-ZG	72025-CE62- ZRT
	1-087-732- BT-ZG	72025-CE64- ZRT
35	1-087-741-0 T-ZG	72035-CE42- ZRT
	1-087-742-0 T-ZG	72035-CE62- ZRT
	1-087-742- BT-ZG	72035-CE64- ZRT
50	1-087-751-0 T-ZG	72050-CE42- ZRT
	1-087-752-0 T-ZG	72050-CE62- ZRT
	1-087-752- BT-ZG	72050-CE64- ZRT
75	1-087-761-0 T-ZG	74075-CE41- ZRT
	1-087-762-0 T-ZG	74075-CE61- ZRT
	1-087-762- BT-ZG	74075-CE63- ZRT
105	1-087-781-0 T-ZG	74105-CE41- ZRT
	1-087-782-0 T-ZG	74105-CE61- ZRT
	1-087-782- BT-ZG	74105-CE63- ZRT

Refer to last page for letter designations for input bore size, output shaft diameter, and coil voltages.

Y – Input Shaft Diameter Cross Reference

Z – Voltage Cross Reference

R – Phase (Single Phase=1 or Three Phase =3)

T – Double C Coupler Hub/Shaft Cross Reference

NEMA Frames 280TC-286TC

Torque (lb-ft)	Stearns® 87,100	Dings 80 Series
50	1-087-151-00- YZF	82050-58- ZRY
	1-087-152-00- YZF	82050-29- ZRY
75	1-087-161-00- YZF	83075-58- ZRY
	1-087-162-00- YZF	83075-29- ZRY
105	1-087-181-00- YZF	83105-58- ZRY
	1-087-182-00- YZF	83105-29- ZRY

R – Phase (Single Phase=1 or Three Phase =3)

Y– Input Shaft Diameter Cross Reference

Hub Diameter	Keyway	Stearns®	Stearns®	Dings
		55,000; 56,000; 87,000;87,100	81,000; 82,000	
1/2"	1/8 x 1/16	K		Z
9/16"	1/8 x 1/16	N		Z
.600"	Pilot Bore	Z		Z
5/8"	1/8 x 1/16	A		Z
5/8"	3/16 x 3/32	B		D
11/16"	3/16 x 3/32	O		Z
3/4"	3/16 x 3/32	C		E
13/16"	3/16 x 3/32	R		Z
7/8"	3/16 x 3/32	D		F
15/16"	1/4 x 1/8	S		Z
1"	1/4 x 1/8	L		G
1 1/16"	1/4 x 1/8	P		Z
1 1/8"	Pilot Bore		W	Z
1 1/8"	1/4 x 1/8	E	A	H
1 3/16"	1/4 x 1/8	T		Z
1 1/4"	1/4 x 1/8	F	B	J
1 5/16"	5/16 x 5/32	U		Z
1 3/8"	5/16 x 5/32	G	C	K
1 7/16"	3/8 x 3/16	Q		Z
1 1/2"	3/8 x 3/16	M	D	L
1 9/16"	3/8 x 3/16		E	Z
1 5/8"	3/8 x 3/16	H	F	M
1 11/16"	3/8 x 3/16		G	Z
1 3/4"	3/8 x 3/16	I	H	Z
1 13/16"	1/2 x 1/4		I	Z
1 7/8"	1/2 x 1/4		J	N
1 15/16"	1/2 x 1/4		K	Z
2"	1/2 x 1/4		L	Z
2 1/16"	1/2 x 1/4		M	Z
2 1/8"	1/2 x 1/4		N	O
2 3/16"	1/2 x 1/4		O	Z
2 1/4"	1/2 x 1/4		P	Z
2 5/16"	5/8 x 5/16		Q	Z
2 3/8"	5/8 x 5/16		R	P
2 7/16"	5/8 x 5/16		S	Z
2 1/2"	5/8 x 5/16		T	Z
2 5/8"	5/8 x 5/16		U	Z
2 3/4"	5/8 x 5/16		V	Z
2 7/8"	3/4 x 3/8		X	Q

NEMA Frames 324TC–405TC

Torque (lb-ft)	Stearns®		Dings 90 Series
	81,000	82,000	
125	1-081-011-02- YZF	1-082-011-02- YZF	92125-50- Z3Y
	1-081-012-02- YZF	1-082-012-02- YZF	92125-51- Z3Y
175	1-081-021-02- YZF	1-082-021-02- YZF	92180-50- Z3Y
	1-081-022-02- YZF	1-082-022-02- YZF	92180-51- Z3Y
230	1-081-031-02- YZF	1-082-031-02- YZF	93230-50- Z3Y
	1-081-032-02- YZF	1-082-032-02- YZF	93230-51- Z3Y
270	Not Available	Not Available	93270-50- Z3Y
	Not Available	Not Available	93270-51- Z3Y
330	Not Available	1-082-041-02- YZF	94330-50- Z3Y
	Not Available	1-082-042-02- YZF	94330-51- Z3Y
360	Not Available	Not Available	94360-50- Z3Y
	Not Available	Not Available	94360-51- Z3Y
440 (Dings 450)	Not Available	1-082-051-02- YZF	95450-50- Z3Y
	Not Available	1-082-052-02- YZF	95450-51- Z3Y

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Z– Voltage Cross Reference

Voltage	Hz	Stearns	Dings
110	50	D	Z*
110/220	50	O	Y
115	60	B	H
115/230	60	P	R
115/208-230	60	P	1
200	60	E	2
200/400	60	R	K
230/460	60	Q	U
208-230/460	60	Q	5
190/380	50		
220	50	H	Z*
230	60	F	M
190	50		
415	50	M	Z*
460	60	L	O
380	50		
575	60	N	P

*When designating a “Z” voltage, also specify required voltage rating

T– Double C Coupler Hub/Shaft Cross Reference

Shaft Dimension	Stearns® 56,700 & 55,700	Stearns® 87,700	Dings
5/8 Input – 5/8 Output	5		DD
7/8 Input – 7/8 Output	7		FF
7/8 Input – 5/8 Output	8		FD
1 1/8 Input – 1 1/8 Output		1	HH
1 3/8 Input – 1 3/8 Output		3	KK
1 5/8 Input – 1 5/8 Output		5	MM