

# 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](http://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.

## NEMA Frame 48C

Torque (lb-ft)	Stearns 48,100	Dings 50 Series
1.5	1-048-151-00- <b>YZ</b>	2-51001-080- <b>Z1Y</b>
	1-048-151-01- <b>YZ</b>	2-51001-050- <b>Z1Y</b>
3	1-048-161-00- <b>YZ</b>	2-51003-080- <b>Z1Y</b>
	1-048-161-01- <b>YZ</b>	2-51003-050- <b>Z1Y</b>
6	1-048-171-00- <b>YZ</b>	2-51006-080- <b>Z1Y</b>
	1-048-171-01- <b>YZ</b>	2-51006-050- <b>Z1Y</b>

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- <b>YZF</b>	6-61003-5140- <b>Z1Y</b>
6	1-056-924-00- <b>YZF</b>	6-62006-5140- <b>Z1Y</b>
10	1-056-934-00- <b>YZF</b>	6-62010-5140- <b>Z1Y</b>
15	1-056-944-00- <b>YZF</b>	6-63015-5140- <b>Z1Y</b>
20	1-056-954-00- <b>YZF</b>	6-63020-5140- <b>Z1Y</b>
25	1-056-964-00- <b>YZF</b>	6-64025-5140- <b>Z1Y</b>

### STAINLESS STEEL Double C Face Brakes

Torque (lb-ft)	Stearns 56,900	Dings 60 Series
3	1-056-914-0 <b>T-ZF</b>	6-61003-5145- <b>Z1T</b>
6	1-056-924-0 <b>T-ZF</b>	6-62006-5145- <b>Z1T</b>
10	1-056-934-0 <b>T-ZF</b>	6-62010-5145- <b>Z1T</b>
15	1-056-944-0 <b>T-ZF</b>	6-63015-5145- <b>Z1T</b>
20	1-056-954-0 <b>T-ZF</b>	6-63020-5145- <b>Z1T</b>
25	1-056-964-0 <b>T-ZF</b>	6-64025-5145- <b>Z1T</b>

## 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	2-61001-524-Z1Y
	1-056-W02-00-YZF	1-055-012-01-YZF		6-61001-535-Z1Y
	1-056-W02-80-YZF			6-61001-545-Z1Y
	1-056-W04-00-YZF	1-055-012-B1-YZF		6-61001-5116-Z1Y
3	1-056-W11-00-YZF	1-055-021-01-YZF	1-055-511-00-YZF	2-61003-524-Z1Y
	1-056-W12-00-YZF	1-055-022-01-YZF		6-61003-535-Z1Y
	1-056-W12-80-YZF			6-61003-545-Z1Y
	1-056-W14-00-YZF	1-055-022-B1-YZF		6-61003-5116-Z1Y
6	1-056-W21-00-YZF	1-055-031-01-YZF	1-055-521-00-YZF	2-62006-524-Z1Y
	1-056-W22-00-YZF	1-055-032-01-YZF		6-62006-535-Z1Y
	1-056-W22-80-YZF			6-62006-545-Z1Y
	1-056-W24-00-YZF	1-055-032-B1-YZF		6-62006-5116-Z1Y
10	1-056-W31-00-YZF	1-055-043-01-YZF	1-055-531-00-YZF	2-62010-524-Z1Y
	1-056-W32-00-YZF	1-055-044-01-YZF		6-62010-535-Z1Y
	1-056-W32-80-YZF			6-62010-545-Z1Y
	1-056-W34-00-YZF	1-055-044-B1-YZF		6-62010-5116-Z1Y
15	1-056-W41-00-YZF	1-055-051-01-YZF	1-055-541-00-YZF	2-63015-524-Z1Y
	1-056-W42-00-YZF	1-055-052-01-YZF		6-63015-535-Z1Y
	1-056-W42-80-YZF			6-63015-545-Z1Y
	1-056-W44-00-YZF	1-055-052-B1-YZF		6-63015-5116-Z1Y
20	1-056-W51-00-YZF			2-63020-524-Z1Y
	1-056-W52-00-YZF			6-63020-535-Z1Y
	1-056-W52-80-YZF			6-63020-545-Z1Y
	1-056-W54-00-YZF			6-63020-5116-Z1Y
25	1-056-W61-00-YZF	1-055-053-01-YZF		2-64025-524-Z1Y
	1-056-W62-00-YZF	1-055-054-01-YZF		4-64025-530-Z1Y
	1-056-W62-80-YZF			4-64025-543-Z1Y
	1-056-W64-00-YZF	1-055-054-B1-YZF		6-64025-5116-Z1Y

## NEMA Frames 56C-145TC

### Double C Face Coupler Brakes

Torque (lb-ft)	Stearns 56,700	Stearns 55,700	Dings 60 Series
1.5	1-056-701-0T-ZF	1-055-701-0T-ZF	2-61001-551-Z1T
	1-056-702-0T-ZF	1-055-702-0T-ZF	6-61001-5153-Z1T
	1-056-704-0T-ZF	1-055-702-BT-ZF	6-61001-5155-Z1T
3	1-056-711-0T-ZF	1-055-711-0T-ZF	2-61003-551-Z1T
	1-056-712-0T-ZF	1-055-712-0T-ZF	6-61003-5153-Z1T
	1-056-714-0T-ZF	1-055-712-BT-ZF	6-61003-5155-Z1T
6	1-056-721-0T-ZF	1-055-721-0T-ZF	2-62006-551-Z1T
	1-056-722-0T-ZF	1-055-722-0T-ZF	6-62006-5153-Z1T
	1-056-724-0T-ZF	1-055-722-BT-ZF	6-62006-5155-Z1T
10	1-056-731-0T-ZF	1-055-741-0T-ZF	2-62010-551-Z1T
	1-056-732-0T-ZF	1-055-742-0T-ZF	6-62010-5153-Z1T
	1-056-734-0T-ZF	1-055-742-BT-ZF	6-62010-5155-Z1T
15	1-056-741-0T-ZF	1-055-751-0T-ZF	2-63015-551-Z1T
	1-056-742-0T-ZF	1-055-752-0T-ZF	6-63015-5153-Z1T
	1-056-744-0T-ZF	1-055-752-BT-ZF	6-63015-5155-Z1T
20	1-056-751-0T-ZF		2-63020-551-Z1T
	1-056-752-0T-ZF		6-63020-5153-Z1T
	1-056-754-0T-ZF		6-63020-5155-Z1T

**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	8-61001-66B-Z1Y
	1-065-311-06-YZB	8-61001-67B-Z1Y
3	1-065-022-00-YZB	F8-61003-66B-Z1Y
	1-065-321-05-YZB	8-61003-66B-Z1Y
	1-065-321-06-YZB	8-61003-67B-Z1Y
6	1-065-032-00-ZYB	F8-62006-66B-Z1Y
	1-065-331-05-ZYB	8-62006-66B-Z1Y
	1-065-331-06-ZYB	8-62006-67B-Z1Y
10	1-065-052-00-ZYB	F8-63010-66B-Z1Y
	1-065-351-05-ZYB	8-63010-66B-Z1Y
	1-065-351-06-ZYB	8-63010-67B-Z1Y
15	1-065-062-00-ZYB	F8-63015-66B-Z1Y
	1-065-361-05-ZYB	8-63015-66B-Z1Y
	1-065-361-06-ZYB	8-63015-67B-Z1Y

### NEMA Frames 182TC-256TC

Torque (lb-ft)	Stearns 87,300	Dings 60 Series
10	1-087-311-01-YZB	R71010-9-ZRY
	1-087-311-02-YZB	
15	1-087-321-01-YZB	R71015-9-ZRY
	1-087-321-02-YZB	
25	1-087-331-01-YZB	R72025-9-ZRY
	1-087-331-02-YZB	
35	1-087-341-01-YZB	R72035-9-ZRY
	1-087-341-02-YZB	
50	1-087-351-01-YZB	R73050-9-ZRY
	1-087-351-02-YZB	
75	1-087-361-01-YZB	R74075-9-ZRY
	1-087-361-02-YZB	

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

## NEMA Frames 180TC-184TC

Torque (lb-ft)	Stearns 56,500	Stearns 57,500	Dings 1-70 Series
10	1-056-531-00- <b>YZF</b>	1-057-511-00- <b>YZF</b>	2-72010-115- <b>Z1Y</b>
15	1-056-541-00- <b>YZF</b>	1-057-521-00- <b>YZF</b>	2-73015-115- <b>Z1Y</b>
20	1-056-551-00- <b>YZF</b>	1-057-531-00- <b>YZF</b>	2-73020-115- <b>Z1Y</b>
253	1-056-561-00- <b>YZF</b>	1-057-541-00- <b>YZF</b>	2-74025-115- <b>Z1Y</b>

## NEMA Frames 182TC-256TC

### End Mount Brakes

Torque (lb-ft)	Stearns 87,000	Dings 70 Series	
		Standard	Heavy Duty <sup>①</sup>
10	1-087-011-00- <b>YZF</b>	6-71010-96- <b>ZRY</b>	6-71010-97- <b>ZRY</b>
	1-087-012-00- <b>YZF</b>	R71010-4- <b>ZRY</b>	6-71010-57- <b>ZRY</b>
	1-087-012-B0- <b>YZF</b>	6-71010-93- <b>ZRY</b>	6-71010-94- <b>ZRY</b>
	1-087-014-00- <b>YZF</b>	4-71010-103- <b>ZRY</b> <sup>②</sup>	4-71010-102- <b>ZRY</b> <sup>②</sup>
	1-087-014-B0- <b>YZF</b>	6-71010-93- <b>ZRY</b> <sup>②</sup>	6-71010-94- <b>ZRY</b> <sup>②</sup>
15	1-087-021-00- <b>YZF</b>	6-71015-96- <b>ZRY</b>	6-71015-97- <b>ZRY</b>
	1-087-022-00- <b>YZF</b>	R71015-4- <b>ZRY</b>	6-71015-57- <b>ZRY</b>
	1-087-022-B0- <b>YZF</b>	6-71015-93- <b>ZRY</b>	6-71015-94- <b>ZRY</b>
	1-087-024-00- <b>YZF</b>	4-71015-103- <b>ZRY</b> <sup>②</sup>	4-71015-102- <b>ZRY</b> <sup>②</sup>
	1-087-024-B0- <b>YZF</b>	6-71015-93- <b>ZRY</b> <sup>②</sup>	6-71015-94- <b>ZRY</b> <sup>②</sup>
25	1-087-031-00- <b>YZF</b>	6-72025-96- <b>ZRY</b>	6-72025-97- <b>ZRY</b>
	1-087-032-00- <b>YZF</b>	R72025-4- <b>ZRY</b>	6-72025-57- <b>ZRY</b>
	1-087-032-B0- <b>YZF</b>	6-72025-93- <b>ZRY</b>	6-72025-94- <b>ZRY</b>
	1-087-034-00- <b>YZF</b>	4-72025-103- <b>ZRY</b> <sup>②</sup>	4-72025-102- <b>ZRY</b> <sup>②</sup>
	1-087-034-B0- <b>YZF</b>	6-72025-93- <b>ZRY</b> <sup>②</sup>	6-72025-94- <b>ZRY</b> <sup>②</sup>
35	1-087-041-00- <b>YZF</b>	6-72035-96- <b>ZRY</b>	6-72035-97- <b>ZRY</b>
	1-087-042-00- <b>YZF</b>	R72035-4- <b>ZRY</b>	6-72035-57- <b>ZRY</b>
	1-087-042-B0- <b>YZF</b>	6-72035-93- <b>ZRY</b>	6-72035-94- <b>ZRY</b>
	1-087-044-00- <b>YZF</b>	4-72035-103- <b>ZRY</b> <sup>②</sup>	4-72035-102- <b>ZRY</b> <sup>②</sup>
	1-087-044-B0- <b>YZF</b>	6-72035-93- <b>ZRY</b> <sup>②</sup>	6-72035-94- <b>ZRY</b> <sup>②</sup>
50	1-087-051-00- <b>YZF</b>	6-73050-96- <b>ZRY</b>	6-73050-97- <b>ZRY</b>
	1-087-052-00- <b>YZF</b>	R73050-4- <b>ZRY</b>	6-73050-57- <b>ZRY</b>
	1-087-052-B0- <b>YZF</b>	6-73050-93- <b>ZRY</b>	6-73050-94- <b>ZRY</b>
	1-087-054-00- <b>YZF</b>	4-73050-103- <b>ZRY</b> <sup>②</sup>	4-73050-102- <b>ZRY</b> <sup>②</sup>
	1-087-054-B0- <b>YZF</b>	6-73050-93- <b>ZRY</b> <sup>②</sup>	6-73050-94- <b>ZRY</b> <sup>②</sup>
75	1-087-061-00- <b>YZF</b>	6-74075-96- <b>ZRY</b>	6-74075-97- <b>ZRY</b>
	1-087-062-00- <b>YZF</b>	R74075-4- <b>ZRY</b>	6-74075-57- <b>ZRY</b>
	1-087-062-B0- <b>YZF</b>	6-74075-93- <b>ZRY</b>	6-74075-94- <b>ZRY</b>
	1-087-064-00- <b>YZF</b>	4-74075-103- <b>ZRY</b> <sup>②</sup>	4-74075-102- <b>ZRY</b> <sup>②</sup>
	1-087-064-B0- <b>YZF</b>	6-74075-93- <b>ZRY</b> <sup>②</sup>	6-74075-94- <b>ZRY</b> <sup>②</sup>
105	1-087-081-00- <b>YZF</b>	AB6-83105-57- <b>ZRY</b>	AB6-83105-58- <b>ZRY</b>
	1-087-082-00- <b>YZF</b>	AB4-83105-4- <b>ZRY</b>	AB4-83105-29- <b>ZRY</b>
	1-087-082-B0- <b>YZF</b>	Not Available	Not Available
	1-087-084-00- <b>YZF</b>	Not Available	Not Available
	1-087-084-B0- <b>YZF</b>	Not Available	Not Available

### Double C Face Coupler Brakes

Stearns 87,700	Dings 70 Series	
	Standard	<sup>③</sup>
1-087-711-0 <b>T-ZG</b>	6-71010-38- <b>ZRT</b>	
1-087-712-0 <b>T-ZG</b>	4-71010-46- <b>ZRT</b>	
1-087-712-B <b>T-ZG</b>	6-71010-105- <b>ZRT</b>	
1-087-721-0 <b>T-ZG</b>	6-71015-38- <b>ZRT</b>	
1-087-722-0 <b>T-ZG</b>	4-71015-46- <b>ZRT</b>	
1-087-722-B <b>T-ZG</b>	6-71015-105- <b>ZRT</b>	
1-087-731-0 <b>T-ZG</b>	6-72025-38- <b>ZRT</b>	6-73025-38- <b>ZRT</b> <sup>③</sup>
1-087-732-0 <b>T-ZG</b>	4-72025-46- <b>ZRT</b>	4-73025-46- <b>ZRT</b> <sup>③</sup>
1-087-732-B <b>T-ZG</b>	6-72025-105- <b>ZRT</b>	6-73025-105- <b>ZRT</b> <sup>③</sup>
1-087-741-0 <b>T-ZG</b>	6-72035-38- <b>ZRT</b>	6-73035-38- <b>ZRT</b> <sup>③</sup>
1-087-742-0 <b>T-ZG</b>	4-72035-46- <b>ZRT</b>	4-73035-46- <b>ZRT</b> <sup>③</sup>
1-087-742-B <b>T-ZG</b>	6-72035-105- <b>ZRT</b>	6-73035-105- <b>ZRT</b> <sup>③</sup>
1-087-751-0 <b>T-ZG</b>	6-73050-38- <b>ZRT</b>	
1-087-752-0 <b>T-ZG</b>	4-73050-46- <b>ZRT</b>	
1-087-752-B <b>T-ZG</b>	6-73050-105- <b>ZRT</b>	
1-087-761-0 <b>T-ZG</b>	6-74075-38- <b>ZRT</b>	
1-087-762-0 <b>T-ZG</b>	4-74075-46- <b>ZRT</b>	
1-087-762-B <b>T-ZG</b>	6-74075-105- <b>ZRT</b>	
1-087-781-0 <b>T-ZG</b>	Not Available	
1-087-782-0 <b>T-ZG</b>		
1-087-782-B <b>T-ZG</b>		

①Heavy duty recommended for high cycle rate/ high shock applications

②Stearns enclosure is aluminum endplate & steel cover; Dings enclosure is cast iron endplate & steel cover on models 4-70000-103, and all cast iron on models 6-70000-93.

③Model number recommended for brakes with 1-3/8" bore.

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

## NEMA Frames 280TC-286TC

Torque (lb-ft)	Stearns 87,100	Dings 80 Series	
		Standard	Heavy Duty®
50	1-087-151-00- <b>YZF</b>	6-82050-57- <b>ZRY</b>	6-82050-58- <b>ZRY</b>
	1-087-152-00- <b>YZF</b>	4-82050-4- <b>ZRY</b>	4-82050-29- <b>ZRY</b>
75	1-087-161-00- <b>YZF</b>	6-83075-57- <b>ZRY</b>	6-83075-58- <b>ZRY</b>
	1-087-162-00- <b>YZF</b>	4-83075-4- <b>ZRY</b>	4-83075-29- <b>ZRY</b>
105	1-087-181-00- <b>YZF</b>	6-83105-57- <b>ZRY</b>	6-83105-58- <b>ZRY</b>
	1-087-182-00- <b>YZF</b>	4-83105-4- <b>ZRY</b>	4-83105-29- <b>ZRY</b>

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

## Y– Input Shaft Diameter Cross Reference

Hub Diameter	Keyway	Stearns A	Stearns B	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	1-081-011-00- <b>YZF</b>	1-082-011-00- <b>YZF</b>	92125-50- <b>Z3Y</b>
	1-081-012-00- <b>YZF</b>	1-082-012-00- <b>YZF</b>	92125-51- <b>Z3Y</b>
175	1-081-021-00- <b>YZF</b>	1-082-021-00- <b>YZF</b>	92180-50- <b>Z3Y</b>
	1-081-022-00- <b>YZF</b>	1-082-022-00- <b>YZF</b>	92180-51- <b>Z3Y</b>
230	1-081-031-00- <b>YZF</b>	1-082-031-00- <b>YZF</b>	93230-50- <b>Z3Y</b>
	1-081-032-00- <b>YZF</b>	1-082-032-00- <b>YZF</b>	93230-51- <b>Z3Y</b>
270	Not Available	Not Available	93270-50- <b>Z3Y</b>
	Not Available	Not Available	93270-51- <b>Z3Y</b>
330	Not Available	1-082-041-00- <b>YZF</b>	94330-50- <b>Z3Y</b>
	Not Available	1-082-042-00- <b>YZF</b>	94330-51- <b>Z3Y</b>
360	Not Available	Not Available	2-94360-30- <b>Z3Y</b>
	Not Available	Not Available	4-94360-31- <b>Z3Y</b>
440	Not Available	1-082-051-00- <b>YZF</b>	2-95450-30- <b>Z3Y</b>
	Not Available	1-082-052-00- <b>YZF</b>	4-95450-31- <b>Z3Y</b>

## 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	X
200	60	E	2
200/400	60	R	K
230/460	60	Q	U
208-230/460	60	Q	5
190/380	50	Q	5
220	50	H	Z*
230	60	F	Z*
190	50	F	Z*
415	50	M	Z*
460	60	L	O
380	50	L	O
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 A (56,700 & 55,700)	Stearns B (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**

\*\* Contact factory for 1 5/8 input with 1 5/8 output