

# Series 56,700 (1-056-7XX) Die Cast Aluminum

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## (1-056-7XS) Stainless Steel

### Mounting Face: NEMA 56C, 143TC and 145TC

#### 4.5" AK, 5.88" AJ



**Static Torque:** 1.5 through 25 lb-ft

**Enclosure Material:** IP 23, 54 & 55 Die Cast Aluminum; IP 56 Stainless Steel

**Release Type:** Knob, Maintained with automatic reset

**Enclosure Protection:** IP 23 & 54 (formerly referred to by Stearns as NEMA Type 2 & 4 respectively).

IP 55 & 56 (formerly referred to by Stearns as NEMA Type 4X BISSC Certified & Type 4X stainless steel enclosure, respectively).

- ABS Type Approval Certified
- Spring-Set Electrically Released
- Adjustable Torque
- Manual Release Knob, Maintained with Automatic Reset
- Manual Wear Adjustment
- Maximum Speed: 5000 rpm Horizontal  
3600 rpm Vertical

**Note:** 56,700 Series mounts between C-Face motor and reducer. Do not apply overhung load to brake output shaft.

**Installation and Service:**  
P/N 8-078-905-67

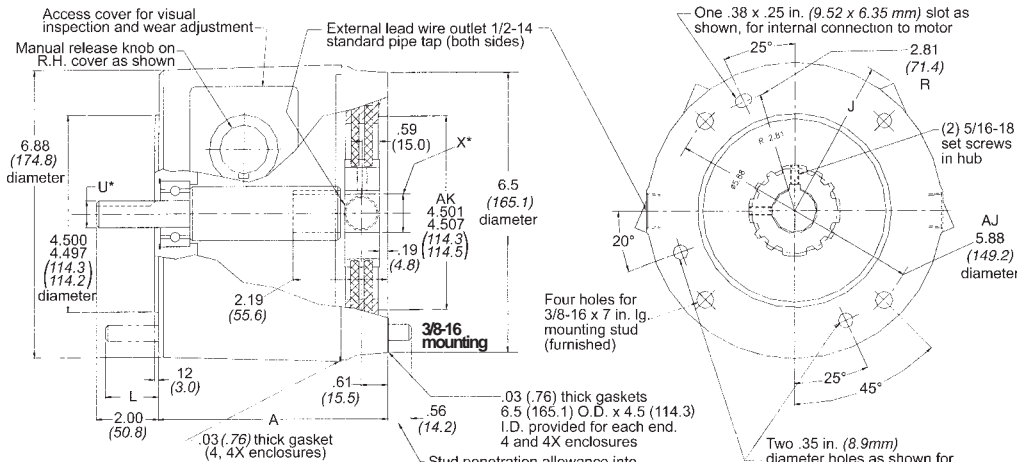
**Parts List:** P/N 8-078-906-07

**Modifications:** Pages 54-63

**Universal Mounting:** Through 15 lb-ft. 20 and 25 lb-ft. supplied with springs for vertical modification.

Brake set and release times in milliseconds, when brake and motor are switched separately (for T1/T2 definitions, see page 101)

Static Torque lb-ft	Coil Size	T1	T2
1½ - 25	4, K4, K4+, M4+	25	14



\* For X and U dimensions, see Ordering and Identification Information.

Dimensions for estimating only. For installation purposes request certified prints.

### Dimensions

Nominal Static Torque (lb-ft) (Nm)	Enclosure	Type	Basic Model Number	Dimensions in Inches (mm)			Wt. lbs (kg)
				A	J	L	
1.5 (2)	IP 23	AC	1-056-701-0X	4.91 (124.7)	3.81 (96.8)	1.53 (38.9)	12 (5.4)
		DC	1-056-705-0X				
	IP 54	AC	1-056-702-0X	4.94 (125.5)	3.88 (98.6)	1.53 (38.9)	13 (5.9)
		DC	1-056-706-0X				
	IP 55	AC	1-056-704-0X	4.94 (125.5)	3.88 (98.6)	1.53 (38.9)	13 (5.9)
		DC	1-056-708-0X				
3 (4)	IP 23	AC	1-056-711-0X	4.91 (124.7)	3.81 (96.8)	1.53 (38.9)	12 (5.4)
		DC	1-056-715-0X				
	IP 54	AC	1-056-712-0X	4.94 (125.5)	3.88 (98.6)	1.53 (38.9)	13 (5.9)
		DC	1-056-716-0X				
	IP 55	AC	1-056-714-0X	4.94 (125.5)	3.88 (98.6)	1.53 (38.9)	13 (5.9)
		DC	1-056-718-0X				
IP 56	AC	1-056-71S-0X	4.94 (125.5)	3.88 (98.6)	1.53 (38.9)	22 (10)	
6 (8)	IP 23	AC	1-056-721-0X	4.91 (124.7)	3.81 (96.8)	1.53 (38.9)	12 (5.4)
		DC	1-056-725-0X				
	IP 54	AC	1-056-722-0X	4.94 (125.5)	3.88 (98.6)	1.53 (38.9)	13 (5.9)
		DC	1-056-726-0X				
	IP 55	AC	1-056-724-0X	4.94 (125.5)	3.88 (98.6)	1.53 (38.9)	13 (5.9)
		DC	1-056-728-0X				
IP 56	AC	1-056-72S-0X	4.94 (125.5)	3.88 (98.6)	1.53 (38.9)	22 (10)	
10 (14)	IP 23	AC	1-056-731-0X	4.91 (124.7)	3.81 (96.8)	1.53 (38.9)	12 (5.4)
		DC	1-056-735-0X				
	IP 54	AC	1-056-732-0X	4.94 (125.5)	3.88 (98.6)	1.53 (38.9)	13 (5.9)
		DC	1-056-736-0X				
	IP 55	AC	1-056-734-0X	4.94 (125.5)	3.88 (98.6)	1.53 (38.9)	13 (5.9)
		DC	1-056-738-0X				
IP 56	AC	1-056-73S-0X	4.94 (125.5)	3.88 (98.6)	1.53 (38.9)	22 (10)	

### Dimensions

Nominal Static Torque (lb-ft) (Nm)	Enclosure	Type	Basic Model Number	Dimensions in Inches (mm)			Wt. lbs (kg)
				A	J	L	
15 (20)	IP 23	AC	1-056-741-0X	4.91 (124.7)	3.81 (96.8)	1.53 (38.9)	12 (5.4)
		DC	1-056-745-0X				
	IP 54	AC	1-056-742-0X	4.94 (125.5)	3.88 (98.6)	1.08 (27.4)	13 (5.9)
		DC	1-056-746-0X				
	IP 55	AC	1-056-744-0X	4.94 (125.5)	3.88 (98.6)	1.08 (27.4)	13 (5.9)
		DC	1-056-748-0X				
IP 56	AC	1-056-74S-0X	4.94 (125.5)	3.88 (98.6)	1.53 (38.9)	22 (10)	
20 (27)	IP 23	AC	1-056-751-07	5.36 (136.1)	3.81 (96.8)	1.08 (27.4)	12 (5.4)
		DC	1-056-755-07				
	IP 54	AC	1-056-752-07	5.39 (136.9)	3.88 (98.6)	1.08 (27.4)	14 (6.3)
		DC	1-056-756-07				
	IP 55	AC	1-056-754-07	5.39 (136.9)	3.88 (98.6)	1.08 (27.4)	14 (6.3)
		DC	1-056-758-07				
IP 56	AC	1-056-75S-0X	5.39 (136.9)	3.88 (98.6)	1.08 (27.4)	22 (10)	
25 (34)	IP 23	AC	1-056-761-07	5.36 (136.1)	3.81 (96.8)	1.08 (27.4)	13 (5.9)
		DC	1-056-765-07				
	IP 54	AC	1-056-762-07	5.39 (136.9)	3.88 (98.6)	1.08 (27.4)	14 (6.3)
		DC	1-056-766-07				
	IP 55	AC	1-056-764-07	5.39 (136.9)	3.88 (98.6)	1.08 (27.4)	14 (6.3)
		DC	1-056-768-07				
IP 56	AC	1-056-76S-0X	5.39 (136.9)	3.88 (98.6)	1.08 (27.4)	22 (10)	

\* X in 9th digit designates hub bore and shaft size.

Engineering Specifications

Nominal Static Torque	No. of Friction Discs	Coil Size		Maximum Solenoid Cycle Rate <sup>①</sup>		Thermal Capacity <sup>②</sup>		Inertia (Wk <sup>2</sup> )
		AC	DC	cycles/min		hp-sec/min (watts)		
				AC	DC	Horizontal	Vertical	
1.5 (2)	1	4	4+	36	20	9 (112)	6.5 (80)	.008 (3.36)
3 (4)	1	4	4+	36	20	9 (112)	6.5 (80)	.008 (3.36)
6 (8)	1	K4	K4-	36	20	9 (112)	6.5 (80)	.008 (3.36)
10 (14)	2	K4	K4+	36	20	9 (112)	6.5 (80)	.014 (5.88)
15 (20)	2	K4+	M4+	36	20	9 (112)	6.5 (80)	.014 (5.88)
20 (27)	3	K4+	M4+	36	20	9 (112)	6.5 (80)	.020 (8.40)
25 (34)	3	M4+	P4+	36	20	9 (112)	6.5 (80)	.020 (8.40)

- ① Maximum solenoid cycle rate is based on ambient temperature of 72°F (22°C) with 50% duty cycle. Does not relate to brake cycle rate (see Thermal Capacity).
- ② Thermal capacity rating is based on ambient temperature of 72°F (22°C), stop time of one second or less, with no heat absorbed from motor. Refer to Selection Procedure Section.

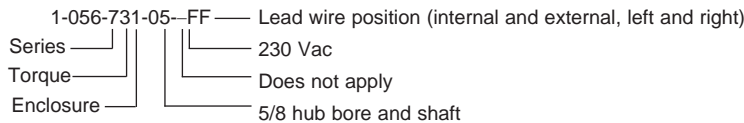
Current Ratings (amperes)

Solenoid Coil Size	AC Current	Voltage: 60 Hz						Voltage: 50 Hz			Voltage: DC			
		115	200	230	400	460	575	110	220	380	24	95	115	230
4	inrush holding	3.6 .3	2.1 .2	1.8 .2	1.1 .08	.9 .08	.7 .06	4.1 .3	2.1 .2	.9 .08	13.3 .3	3.6 .1	2.8 .05	1.5 .03
4+	inrush holding	—	—	—	—	—	—	—	—	—	12.0 .4	4.7 .1	3.7 .08	2.0 .04
K4	inrush holding	4.3 .3	2.5 .2	2.2 .2	1.3 .1	1.1 .08	.9 .07	3.8 .4	1.9 .2	1.1 .08	17.5 .4	4.7 .1	3.7 .08	2.0 .04
K4+	inrush holding	4.6 .4	2.5 .2	2.3 .2	1.2 .1	1.0 .1	.9 .08	4.9 .4	2.0 .2	1.0 .1	20.5 .5	7.5 .1	5.5 .08	2.0 .04
M4	inrush holding	3.0 .6	1.7 .3	1.5 .3	.9 .2	.8 .1	.6 .1	—	—	.8 .1	—	—	—	—
M4+	inrush holding	4.6 .4	2.5 .2	2.3 .2	1.2 .1	1.0 .1	.9 .08	4.1 .4	2.0 .2	1.3 .1	30.3 .5	7.9 .1	5.5 .08	2.0 .04
P4+	inrush holding	—	—	—	—	—	—	—	—	—	30.3 .5	11.3 .1	8.4 .08	3.0 .04

Ordering and Identification Information

The following example and tables provide information for selecting the appropriate three-letter suffix when ordering a Stearns Brake.

Example of a complete part number:



Hub Bore, Shaft and Keyway Sizes

9th Digit of Model No.	Bore Dia. (X)	Keyway**	Shaft Dia. (U)	Keyway**
5	.625	.19 x .09	.625	.19 x .09
7	.875	.19 x .09	.875	.19 x .09
8*	.875 with sleeve to convert to .625	.19 x .09	.625 with sleeve to convert to .875	.19 x .09

- \*One sleeve provided in each brake.
- \*\*Keyseats made to ANSI B17.1 standard.

Standard AC Voltage Ratings

Character	Voltage	Hz
B	115	60
D	110	50
E	200	60
F	230	60
H	190	50
L	220	50
M	460	60
N	380	50
O	415	50
P	575	60
Q	110/220	50
R	115/208	60
	230	60
	208	60
	230/460	50
	190/380	50
	200/400	60

Direct Current

Character	Voltage
T	12
U	24
V	36
W	48
X	95
Y	115
Z	230

Consult factory if other DC voltage is needed.

Modifications are available- see SAB Modification Section