

## Brakes - for Underground Mines and other Mining Equipment Applications

Stearns 1-082-3X4-06 series of electric fail-safe motor brakes are now certified for use in underground mines by the federal Mine Safety and Health Administration (MSHA).

Stearns is the only supplier of MSHA certified motor brakes.

MSHA approves and certifies products for use in underground coal and gassy mines to ensure that they do not cause a fire or explosion.

### Features:

#### Fan Guard Mounted

**Mounting face:** 12.5" AK, 11.0" AJ

(NEMA 324 and 326 TC, NEMA 364 and 365 TC,  
NEMA 404 and 405 TC)

**Static Torque:** 125 through 330 lb-ft

#### Spring-Set Electrically-Released

**Enclosure Material:** Cast Iron

**Manual Release Type:** Side lever, latching with automatic reset when electric power is applied to the brake coil

**Enclosure Protection:** IP 56 (NEMA 4)

**Self-Adjust Design:** automatic adjustment for friction disc wear - to reduce maintenance

#### Class H Coil Insulation

#### Thermal Cut-Out Switch

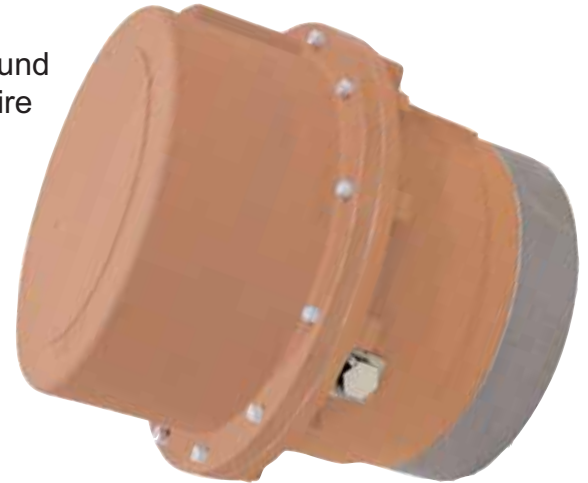
**Electrical Connections** terminate at terminal block

**MSHA Certification Number:** 18-XPA070006-0

See reverse side of page for engineering information.

**Stearns**<sup>®</sup> has become the #1 supplier of spring-set electrically-released brakes to the North American Motor Manufacturers

- by being responsive, innovative and reliable
- with an *unmatched record of on-time deliveries*



### Options:

- ~ Internal Encoder
- ~ Internal Electric Heater
- ~ Electrical Release Indicator Switch
- ~ Carrier Ring Friction Discs



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### Engineering Specifications

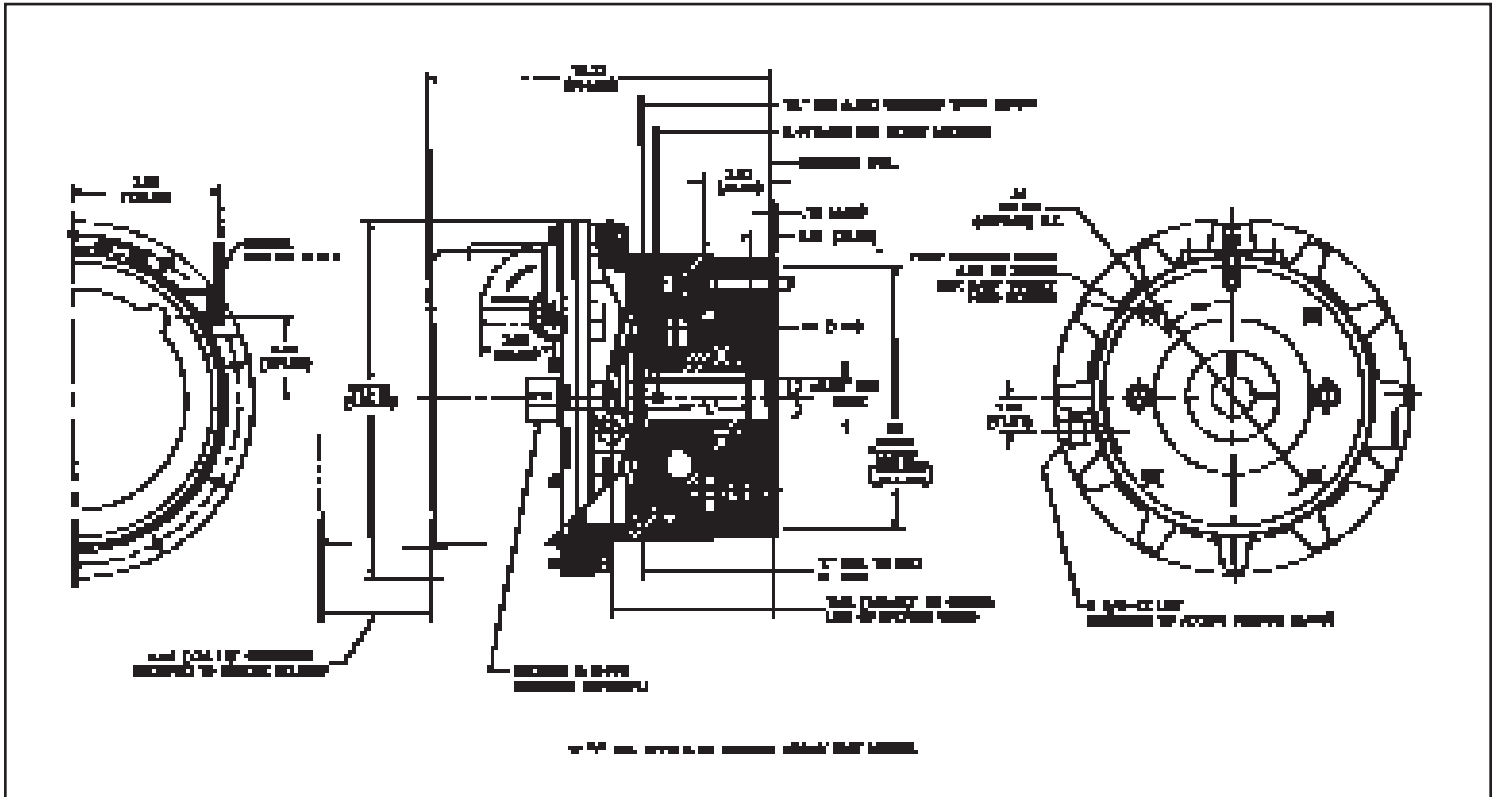
Nominal Static Torque (lb-ft) (Nm)	No. of Friction Discs	Coil Size	Maximum Solenoid Cycle Rate <sup>1</sup>	Thermal Capacity <sup>2</sup>	Inertia (Wk <sup>2</sup> )	Shaft Length	
			cycles/min	hp-sec/min (watts)	lb-ft <sup>2</sup> (kgm <sup>2</sup> x 10 <sup>-4</sup> )	L	SL
125 (169)	2	9	15	10 (124)	.228 (95.76)	4.63	5.65
175 (237)	2	9	15	10 (124)	.228 (95.76)	4.63	5.65
230 (312)	3	9	15	10 (124)	.317 (133.14)	5.13	6.15
330 (447)	3	K9	13	10 (124)	.317 (133.14)	5.13	6.15

**Motor Frame Adapters -**  
Adapters are available for mounting to 182TC-256TC, and 444-445TC motor C-face registers. See 82,000 Series in Stearns catalog No. 200 for details.

Modification required for vertical mounting.

- 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.

### Dimensions



Drawing: 1-082-304-6D

### Unit Pricing (Discount Symbol D1)

Model Number	Enclosure	Nominal Static Torque lb-ft (Nm)	List Price
1-082-314-06	IP56	125 (169)	\$26,700
1-082-324-06	IP56	175 (237)	\$27,800
1-082-334-06	IP56	230 (312)	\$29,000
1-082-344-06	IP56	330 (447)	\$30,000

### Ordering Information - Specify<sup>1</sup>:

- Model Number
- Bore & Keyway<sup>2</sup>
- Voltage<sup>2</sup>
- Options
- Leadwire packing gland - left or right (looking towards brake mounting face) Note: encoder option requires that the encoder wiring enters the brake from the opposite side of all of the other brake wiring.

<sup>1</sup> These brakes need to be purchased from the motor manufacturer, as the required shaft length (dimension "SL" above) is not standard.

<sup>2</sup> Refer to Stearns Catalog #200 (pg 34)