COBRA BRAKE INSTALLATION MANUAL

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THREE-PHASE BRAKE MOTOR

The brake motor consists of an induction, TEFC, IP55 degree of protection, class “F” (155°C) motor coupled to a spring applied electromagnetic brake.

The REACH brake is supplied with class “F” (155°C) insulation and is suitable to operate in ambient temperature ranging from 10°C to 40°C.

- 205VDC Coil
- Long service life guaranteed by using German wear-proof friction disk without lead and asbestos
- Preset air gap for convenient and efficient mounting

Installation

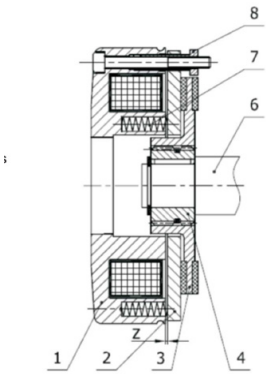
INSTALLATION

The brake can be installed in any position, providing the brake is not exposed to excessive penetration of water, oil or abrasive dust.

2.2 TOOLS NEEDED

- 7mm wrench/nut driver
- Phillips head screw driver
- Snap ring pliers
- 5mm allen wrench (REB0410)
- 4mm allen wrench (REB0408)
- 12 mm open end wrench
- 0.8mm feeler gauge
- 0.2mm feeler gauge

2.3 Stator of B-Type Brake + Friction Disk Components + Splined Hub

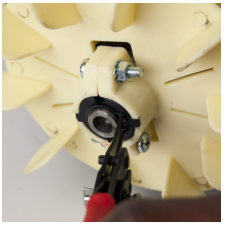


1. Stator
2. Armature
3. Friction Disk
4. Splined Hub
6. Shaft
7. Spring
8. Hollow Screws
Z. Air Gap

Installation Instruction

Remove motor fan cover

1

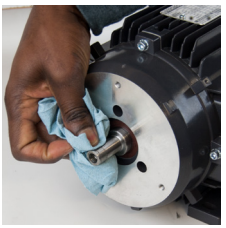


Remove circlip at end of shaft

2

Loosen fan retaining bolts and remove fan

3



Clean shaft and end-bell of any grease and debris

4

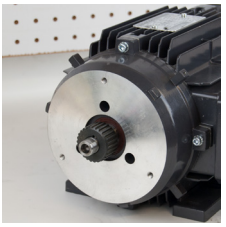
Install supplied key into shaft

5

Installation Instruction

Place friction plate against end-bell (plate mounted with lip pointing away from the end plate and towards the brake)

6



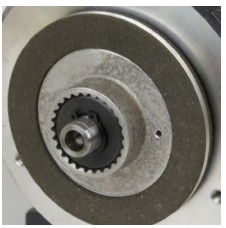
Install splined hub onto motor shaft

7

Align friction disk with splined hub

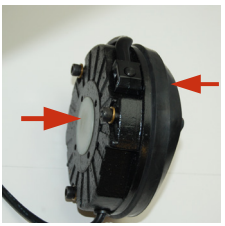
Slide onto hub against the friction plate

8



Install circlip in groove closest to splined hub

9



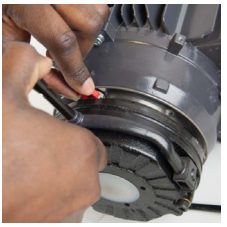
Remove dust cap from stator bore

Remove dust seal

10

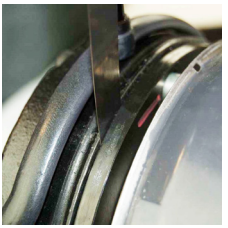
Install brake stator evenly, tightening the retaining bolts

11



Remove all plastic spacers

12



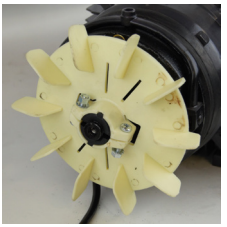
Check friction plate and manual release handle air gap (See 7.4 - 7.5)

Adjust if necessary

13

Install stub shaft

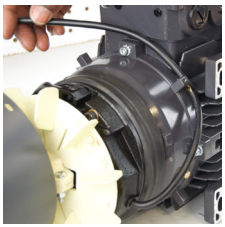
14



Install fan and circlip

15

Installation Instruction



Route brake cable around fan cover mounting post

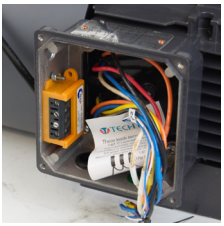
16

Install supplied extended fan cover

17

Install manual release handle

18



Route brake cable through cable gland

Install rectifier in motor terminal box

19

Connect brake leads to rectifier (Brown +, Black -) (See Connection Method)

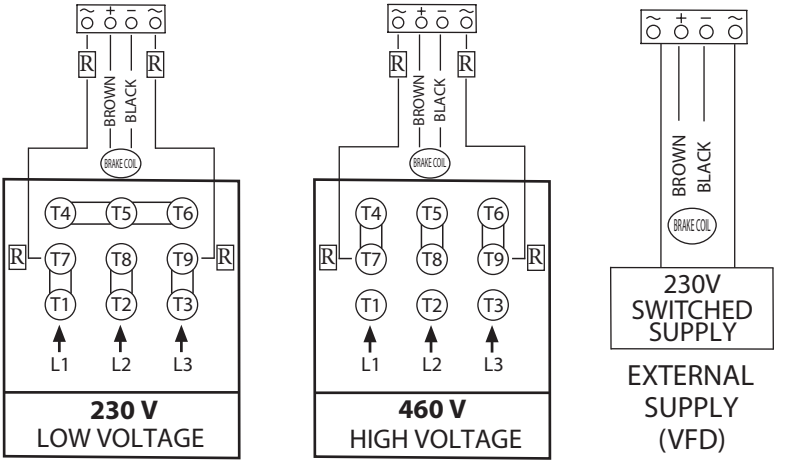
20

Connection Method

The bridge rectifier is connected directly to the motor terminal without any interruption.

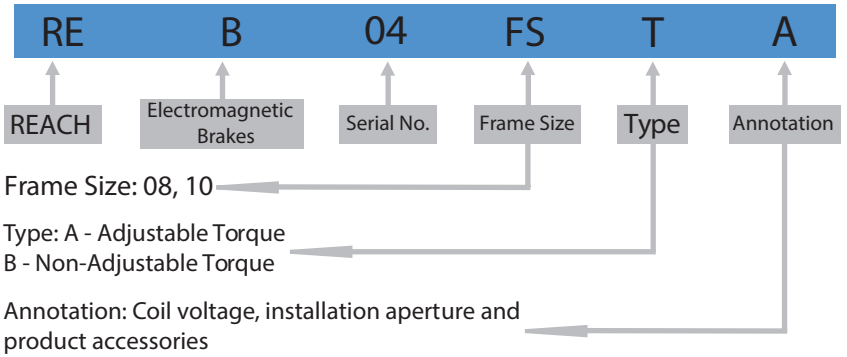
WARNING: Please observe the correct power supply to the brake.

- 230/460V connect the bridge rectifier termi nal to motor terminals 7 and 9.
- Independent AC Power Supply
- Connect the bridge rectifier terminals to the independent 220V or 230V source, but always through a N.O. contact that operates simultaneously with the connection of the motor supply voltage.



Product Model

REB04 Series Spring - applied Electromagnetic Brakes



Braking Torque (N.m)

Frame Size	8	10	
Motor Frame	56	56H	Decelerating Brake
Rated Torque (Rotation Speed 100r/min)	6	11	
	7	14	
	8	16	Rated Braking Torque
	10	20	Holding Brake
	12	23	

Brake Operation

REB-04 Series spring-applied single-disk electromagnetic brakes are very safe to the user. The friction disk which has two friction surfaces is mounted to the motor shaft using a splined hub and keyed to the motor shaft.

The brake is engaged when no power is supplied and disengaged when power is applied. When no power is applied, the springs press the friction disk and the friction plate.

When power is applied, the stator coil acts as an electromagnet, to pull the friction disk away from the friction plate, allowing the motor to rotate.

7.1 BRAKE MAINTENANCE

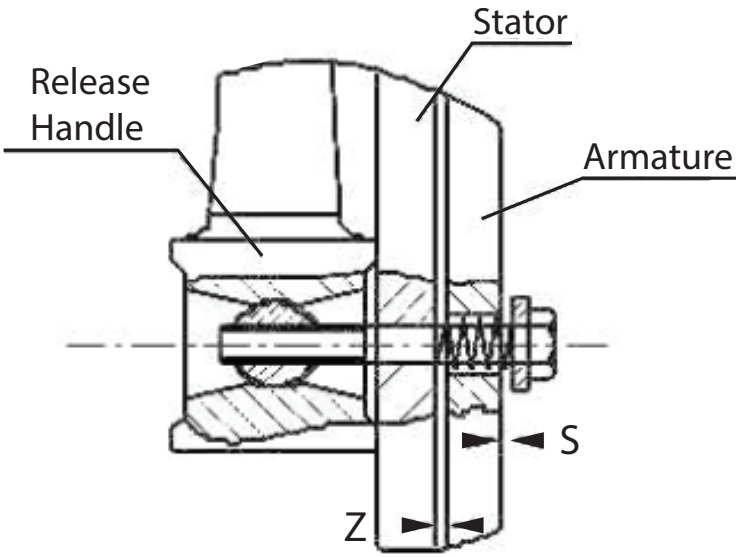
Periodic checking and adjusting of brake air gap is required, based upon user maintenance schedule. Internal cleaning may be required in the event of penetration of water or dust.

7.2 TOOLS NEEDED

REB0408
4 mm allen wrench
10 mm low profile open end wrench
7 mm low profile open end wrench
0.8 mm feeler gauge
0.2 mm feeler gauge

REB0410
5 mm allen wrench
12 mm low profile open end wrench
7 mm low profile open end wrench
0.8 mm feeler gauge
0.2 mm feeler gauge

7.3 AIR GAP ADJUSTMENT



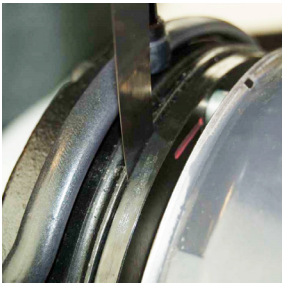
Product Size	Rated Air Gap "Z" (+0.1/-0.05)(mm)	Installation Air Gap "S" (+0.1/0)(mm)	"Z" + "S" (mm)
REB0408 REB0410	0.2	0.8	1

7.4 BRAKE AIR GAP “Z”

The brake air gap is preset at factory, and typically will not require additional adjustment at the time of installation. The checking of the brake gap during the installation process is a secondary check to verify the correct gap setting. As the brake is used, the air gap will need to be periodically checked and adjusted to ensure proper braking operation. To check and adjust the brake gap, follow the steps outlined below.

Ensure the power to the motor is off and follow your facilities lock out tag out procedure to prevent any unexpected starting of the motor.

1



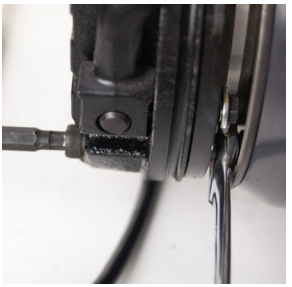
Check the air gap using a 0.8mm feeler gauge referring to the picture below and brake part diagram. The acceptable air gap range is from 0.9mm to 0.8mm. If the air gap is outside the acceptable range continue to step 3 below to perform adjustment.

2

Loosen the brake mounting screws.

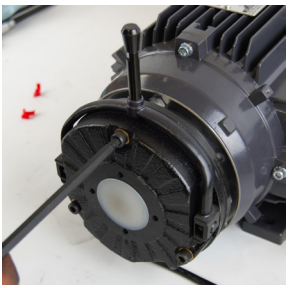
3

Brake Maintenance



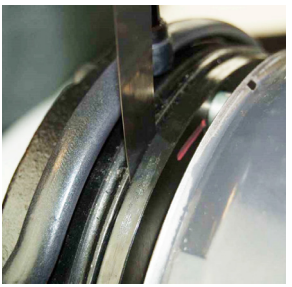
Adjust the brake mounting hollow screws to obtain proper air gap. Only small adjustments should be required.

4



Tighten brake mounting screws.

5



Recheck air gap next to each mounting screw to ensure even adjustment. Repeat as necessary to obtain proper air gap.

6

7.5 RELEASE HANDLE AIR GAP “S”

With Power Off, check air gap “S”. If adjustment is needed, adjust using the release handle installation screws. Ensure the gap is the same on both sides.

Ensure the power to the motor is off and follow your facilities lock out tag out procedure to prevent any unexpected starting of the motor.

1

Check release handle air gap at position “S”.

2

If adjustment is needed, adjust using the release handle installation screws

Ensure the gap is the same on both sides

3

Brake Maintenance Schedule

Date:	Inspector:
Airgap Z:	Airgap S:
Date:	Inspector:
Airgap Z:	Airgap S:
Date:	Inspector:
Airgap Z:	Airgap S:
Date:	Inspector:
Airgap Z:	Airgap S:
Date:	Inspector:
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Notes

For any additional questions
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