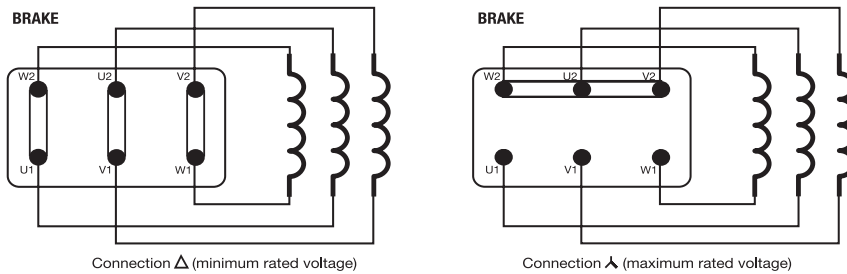


**3-Phase Brake Motors**

In the event of a power failure, the motor, and the machinery it is driving, will stop immediately, braking is SAFE, POWERFUL and FAST. The "dead" time created by the inertia of rotating parts is reduced to a minimum. Braking power is independent of the direction of rotation. The instant braking action of these motors is particularly suited to situations where accurate positioning and ability to repeat is essential.

The standard configuration includes two separate terminal blocks supplying electrical current and controls. One supplies the brake, the other supplies the motor. The materials used in the construction of all friction surfaces are designed to withstand frequent stops per hour. Special care has been taken to ensure proper heat dissipation.



All brake coils are designed with standard three phase voltage (AC) 230/460v or 333/575v - regardless of what voltage the motor winding might be. Special brake coil voltage can be supplied upon request.

**ELECTROMAGNET REPLACEMENT:**

Unscrew the manual releasing lever (41) if the brake has one. Remove the brake cover (39). Release the six wires connecting the brake to the terminal board (20). Unscrew the nuts (35/5) and remove the electromagnet (38) from the pilot pin (35/1). Place the new electromagnet on the pilot pin. Replace and tighten the nuts (35/5). Adjust the nuts (35/4) to equalize the value of the air gap to factory specifications (between 0.5 - 0.8mm).

Insert the feed cables through the hole from the braking section. Reconnect all previous connections.

**DISK BRAKE REPLACEMENT:**

Unscrew the manual release lever (41) if the brake has one. Unscrew the nuts (35/5) and remove the electromagnet (38). Unscrew nuts (35/4) and self locking nut (35/3) and extract the spring (35/2) and countermagnet (37) and extract the disk brake (36). With clean hands, install the new disk brake. Take precautions that the O-ring (34) is properly installed on the brake support flange (32). Make sure the disk brake has a minimum clearance of 0.3mm from the friction path. Replace the countermagnet (37) and spring (35/2) and replace nuts (35/3) and (35/4). Replace the electromagnet and nuts (35/5). Be sure to maintain an air gap of between 0.5 and 0.8mm to regulate the air gap and braking torque.

**AIR GAP REGULATION:**

The air gap i.e., the distance between the electromagnet (38) and the countermagnet (37) must be carefully set between 0.5 and 0.8mm. If this

distance is not carefully maintained because of worn disk brakes or incorrect adjustment procedures, vibration of the countermagnet or even the burning of the electromagnet could result.

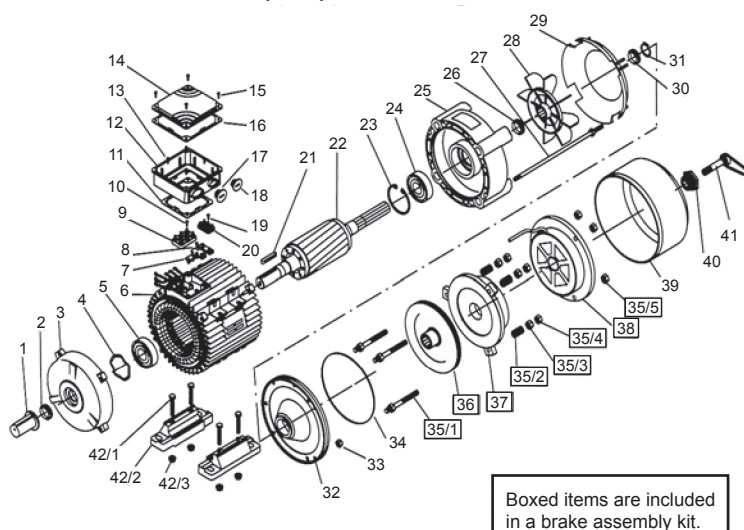
It is recommended that you check the air gap periodically (every 1,000,000 insertions) since the gap tends to increase with usage of the disk brake. Regular inspection will ensure trouble-free operation and reduced downtime. To regulate the air gap, adjust nuts (35/4) and (35/5). Be sure to maintain an even air gap of 0.5 and 0.8mm between the two mating surfaces.

**BRAKE TORQUE REGULATION:**

The braking torque can be manually adjusted over a wide range simply by varying the pressure of the springs acting on the moving armature of the electromagnet. Braking action is achieved by moving the mobile armature against a brake disc which is rigidly keyed to the motor shaft. Axial movement is blocked by the motor flange

The braking torque is proportional to the pressure exerted by the springs (35/2) and may be varied by adjusting the self-locking nuts (35/3). The pressure of the springs must be as uniform as possible. When applying the brake, the electromagnet (38) should attract the countermagnet (37) and hold it without creating vibration in order to achieve maximum braking torque. To reduce the braking torque, loosen the self-locking nuts (35/3) further until the desired amount of torque has been achieved.

**Parts Breakdown for (AAF) Brake Motors**



**Part description:**

- |   |   |
|---|---|
| 1 Shaft protection  | 26 Dust seal                            |
| 2 Dust seal drive end                                       | 27 Tie rod                              |
| 3 End shield drive end                                      | 28 Fan                                  |
| 4 Preload washer  | 29 Fan cover                            |
| 5 Bearing drive end   | 30 Dust seal (for IP55 only)            |
| 6 Slater frame  | 31 Circlip for fan locking              |
| 7 Terminal board support (for sizes 63 ... 112)             | 32 Brake support flange                 |
| 8 Fixing screw terminal board support (for sizes 63... 112] | 33 Tie rod fixing nut                   |
| 9 Motor terminal board                                      | 34 O-ring (for IP55 only)               |
| 10 Fixing screw motor terminal board                        | 35 Brake adjusting fixing kit:          |
| 11 Gasket terminal box                                      | [35/1] guiding column                   |
| 12 Terminal box   | [35/2] braking spring                   |
| 13 Fixing screw terminal box                                | [35/3] self-locking nut                 |
| 14 Gasket terminal box lid                                  | [35/4] electromagnet locking nut        |
| 15 Terminal box lid   | [35/5] electromagnet locking nut        |
| 16 Fixing screw terminal box lid                            | 36 Brake disk                           |
| 17 Blank gland plug   | 37 Countermagnet (Brake anchor)         |
| 18 Blank gland plug   | 38 Electromagnet                        |
| 19 Fixing screw brake terminal board (for sizes 63... 112)  | 39 Brake cover                          |
| 20 Brake terminal board (for sizes 63... 112)               | 40 Nipple                               |
| 21 Motor key  | 41 Manual brake release lever           |
| 22 Rotor complete   | 42 Foot kit (1 foot) for sizes 71 - 160 |
| 23 Circlip  | 42/1 fixing screw                       |
| 24 Bearing non drive end                                    | 42/2 foot                               |
| 25 End shield non-drive end                                 | 42/3 fixing nut                         |