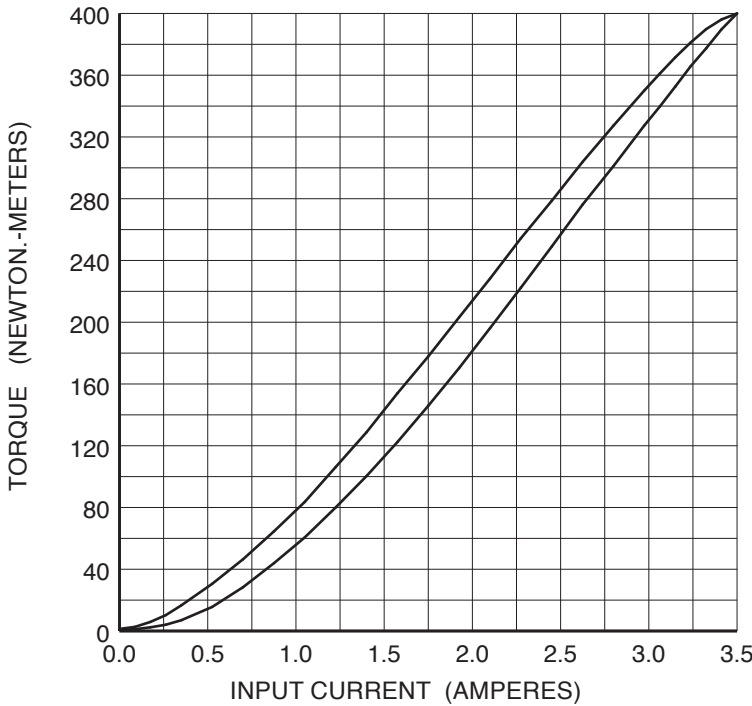


DATA SHEET



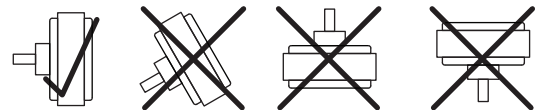
CHARACTERISTICS - With no electrical excitation, the shaft freely rotates. With electrical excitation, the shaft becomes coupled to the housing. Torque is proportional to input current (see torque graph), and independent of RPM. While the load torque is less than the output torque, the shaft won't rotate. When the load torque is increased, the brake will slip smoothly at the torque level set by the coil input current.

- Torque range 6 to 400 Newton-m.
- Maximum RPM 1800 RPM
- Heat dissipation, @ 100 RPM 550 watts
- Heat dissipation, @ 1000 RPM 1200 watts
- Heat dissipation, w/ piped air 1900 watts
- Piped air pressure 145 kiloPascals
- Piped air volume 0.40 m³/minute
- Maximum case temperature 75 degrees C
- Maximum overhung load 1450 Newtons
- Shaft inertia 0.24 kg.-m²
- Weight (no foot, POB-400) 95 kg.
- Weight (with foot, POB-400F) 102 kg.

TORQUE CURVE - Use the lower torque curve when an input current value is approached from 0 amperes. Use the upper torque curve when the input current value is approached from the 100% input current.

| At Brake Temperature : | 20°C | 75°C |
|--------------------------------|------|------|
| COIL RESISTANCE (Ohms) | 6.9 | 8.3 |
| INPUT D.C. VOLTAGE, @ 3.5 Amps | 24 | 29 |

Do not exceed 3.5 amperes or 400 N-m. torque.



Mount horizontally only.

BRAKE PERFORMANCE

TORQUE: At 24 volts, the brake will draw 100% of the rated input current, at 20°C. Output torque will be 400 N-meters.

POWER SUPPLY: A "constant-current" D.C. power supply is recommended for the best accuracy in open-loop control systems.

HEAT DISSIPATION: Fins on the internal rotor move air which increases cooling with increasing RPM. A fan or compressed air flowing into cooling port increases cooling. For continuous slip, calculate the heat input by the formula :

$$\text{HEAT (watts)} = \text{RPM} \times \text{TORQUE (N-m.)} / 9.6$$

Using the above formula: At rated torque, the maximum continuous RPM is 13, (45 with compressed air). The brake can dissipate higher amounts of heat for short periods of time, but the average must not exceed ratings. The case temperature must never exceed 75 degrees C.

INSTALLATION INFORMATION

Do not drop, or strike with a hammer. Keep away from fine metal filings and fine metal chips. Shield from liquids.

Do not attempt to remove the brake shaft or retaining ring.

All pulleys, sprockets, couplings, etc. must mount as slide fits. Use a puller to remove stuck components. Never pry or hammer to install or remove components.

Always use a flexible coupling when connecting the shaft of a rigidly mounted brake to the shaft of another rigidly mounted device. Precisely align both shafts.

Always electrically ground the brake.

COMPRESSED AIR COOLING For additional cooling, connect low pressure (145 kPa. max.) compressed air to the 3/8-19 BSPT tapped hole. (British Standard Tapered Pipe Thread). An adaptor fitting to 3/8" hose is included. Use clean, filtered, oil free, moisture free air.