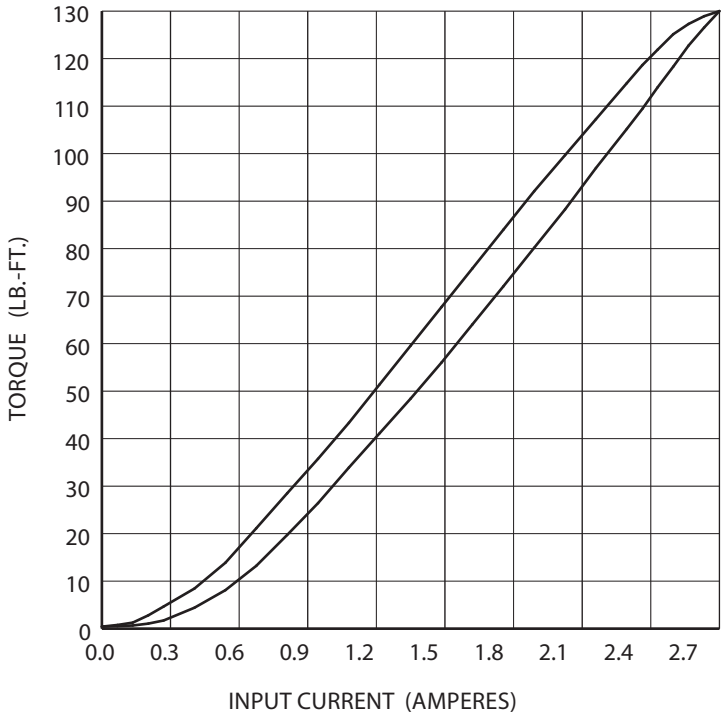
magnetic particle BRAKE POB-200 2 to 130 lb.-ft.

DATA SHEET



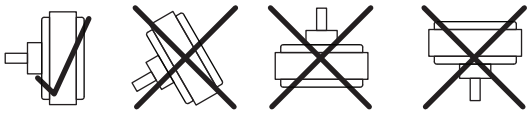
At Brake Temperature :	68°F	160°F
COIL RESISTANCE (ohms)	7.9	9.5
INPUT D.C. VOLTAGE, @ 2.7 amps	21	26

Do not exceed 2.7 amps or 130 lb.-feet torque.

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	2 to 130	lb.-ft.
Maximum RPM	1800	RPM
Heat dissipation, @ 100 RPM	425	watts
Heat dissipation, @ 1000 RPM	800	watts
Heat dissipation, w/ piped air	1200	watts
Piped air pressure	7	psi
Piped air volume	6	$ft.^3$/minute
Maximum case temperature	160	degrees F
Maximum overhung load	200	lbs.
Shaft inertia	0.81	lb.-in.-sec ^{2}
Weight	117	lbs.

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.



Mount horizontally only.

BRAKE PERFORMANCE

TORQUE: At 21 volts, the brake will draw 100% of the rated input current, at 68°F. Output torque will be 130 lb.-ft.

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 :

HEAT (watts) = RPM x TORQUE (lb.-ft.) x 0 .14

Using the above formula: At rated torque, the maximum continuous RPM is 23, (66 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 160 degrees F.

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 (7 psi 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.

PLACID INDUSTRIES
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