



Electromagnetic Brakes

Product description

Characteristics

- Low noise
- Wear contained
- Powered by a separate external rectifier
- Applied directly on the rotor of the Motorized Pulley
- When the power to the motor is lost or stopped the brake will close (mechanically engage)

Applications

- For reversible inclined and declined conveyors
- For holding loads*
- For approximate positioning

* For faster stopping times and accurate positioning, please use a variable frequency drive with braking function and, if necessary, an encoder with feedback control.

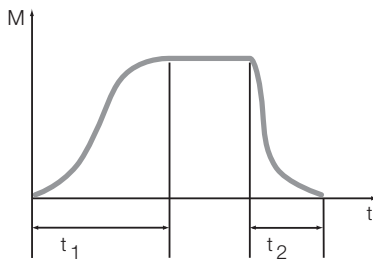


Fig.: Time t/Torque M brake closure

- t_1 Closing response time (de-excitation coil): stop
- t_2 Opening response time (excitation coil): start

Response time

The response time for opening of the brake (Motorized Pulley start) and closing (stop motorized pulley), may vary substantially according to:

- Type and viscosity of the oil
- Level of oil in the drum motor
- Ambient temperature
- Internal motor working temperature
- Switching at input (AC-switching) or at output (DC-switching)
- Control contact of the coil brake into the alternating current supply of the rectifier (long response times), or on the output DC of the rectifier (fast response)
- Type and output voltage of the rectifier control of the brake coil

The difference between the control in alternating current and direct current is shown in the following table:

	AC Switching	DC Switching
Intervention time	Slow	Fast
Braking voltage	Nearly 1Volt	Nearly 500volt

Note: For the brake coil command in DC, the contacts must be protected against surges.

Reduction of braking torque

The rated brake holding torque M, is strongly influenced by the operating conditions of the Motorized Pulley (with oil at high temperatures) and the ambient temperature. To conservatively calculate the load which can be safely held by the brake, reduce the braking torque presented in the table by 50%.



Product range							
Motorized Pulley	Rated holding torque M (ft-lbs)	Rated power (W)	Rated voltage (VDC)	Rated current (A)	DC switching t1 (ms)	AC switching t1 (ms)	Opening delay time t2 (start) (ms)
80LS	0.81	12	24	0.5	13	80	20
			104	0.12	13	80	20
113LS 138LS	4.43	24	24	1.00	26	200	30
			104	0.23	26	200	30
			207	0.12	26	200	30
165LS	8.85	33	24	1.38	46	260	40
			104	0.32	46	260	40
			207	0.16	46	260	40