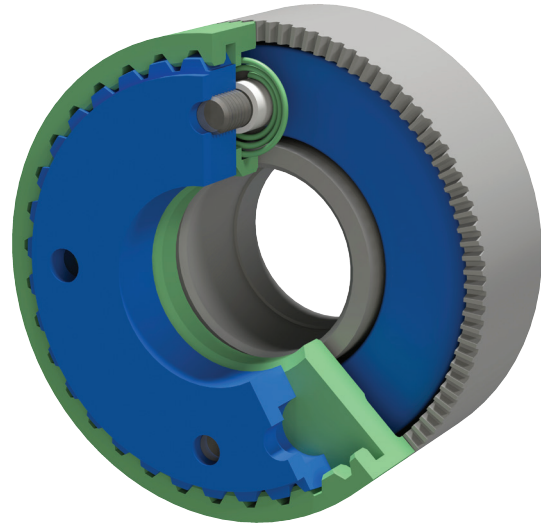


METB Series

Magnetically Engaged Tooth Brakes

Eight standard frame sizes available:

- 2.8 to 9.6" diameter ; 1.4 to 4.7" length
- Bore sizes from 1.7 to 5.8"
- Static torque from 40 to 5200 lb-ft
- 2500 to 8000 RPM max speed
- Operates both dry and in oil
- Modified designs and customized assemblies available



Performance/Mechanical Specifications

METB Series — Model Size

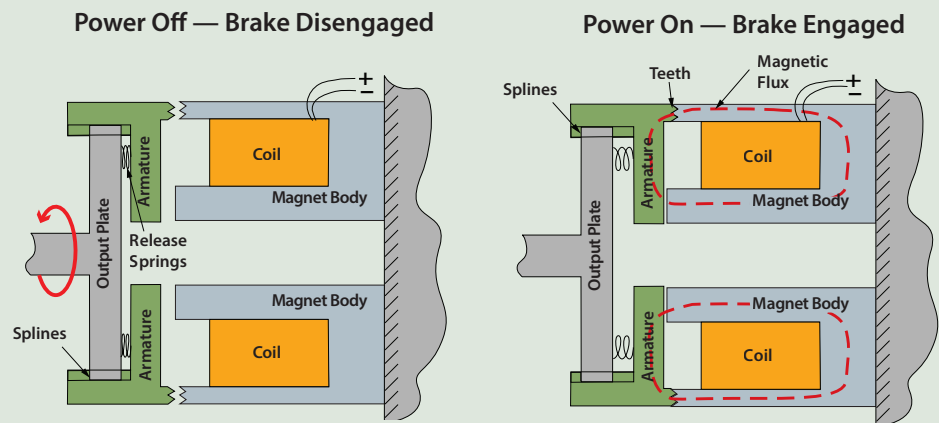
		320	375	450	525	630	760	895	1065
Torque Rating (Static)*	lb-ft	40	80	160	320	650	1300	2600	5200
	Nm	54.2	108.5	216.9	433.9	881.3	1762.6	3525.1	7050.2
Recommended Max Speed	RPM	8000	7500	7000	6500	5500	4500	3500	2500
Coil Data – 24VDC 110VDC	Amps	0.7	1.3	1.4	1.8	2.2	2.7	3.0	5.0
		0.1	0.2	0.3	0.3	0.4	0.5	0.5	1.5
Rotor Inertia	lb-ft ²	0.010	0.020	0.030	0.070	0.160	0.400	0.700	1.800
	kg-cm ²	4.214	8.428	12.642	29.498	67.424	168.561	294.982	758.524
Output Plate Inertia	lb-ft ²	0.003	0.007	0.010	0.023	0.053	0.133	0.233	0.600
	kg-cm ²	1.264	2.950	4.214	9.833	22.475	56.187	98.327	252.841
Approximate Weight	lb	2.0	3.3	5.5	10.0	18.0	30.0	36.0	75.0
	kg	0.91	1.50	2.49	4.54	8.16	13.61	16.33	34.02

*Refer to Design Considerations – General Notes & Data for dynamic rating.

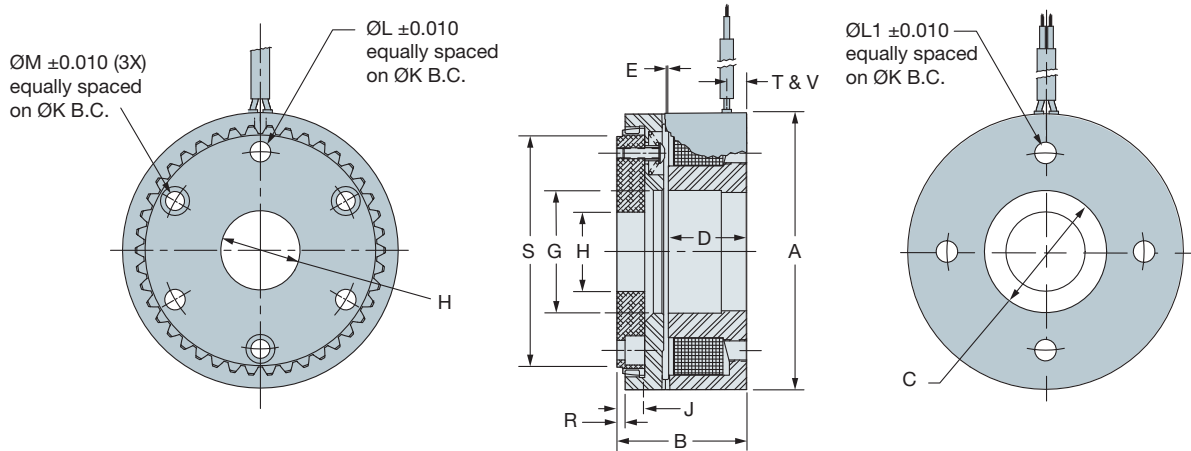
METB Operation:

With the current removed, the armature is disengaged from the magnet body. Release springs pull on the armature to assist holding this disengaged position.

When current is applied to the coil, a magnetic field is created. This causes the armature to override the springs and slide on the splined output plate and become engaged with the magnet body. As the teeth engage, the load attached to the output plate is held.



Tooth Clutches & Brakes



METB Series — Model Size

Dimensions — Inches (mm)		320	375	450	525	630	760	895	1065
Magnet Body Diameter	A	2.87 (72.90)	3.44 (87.38)	4.11 (104.39)	4.78 (121.41)	5.75 (146.05)	6.97 (177.04)	8.19 (208.03)	9.66 (245.36)
Overall Length (ref)	B	1.41 (35.81)	1.62 (41.15)	1.92 (48.77)	2.25 (57.15)	2.70 (68.58)	3.14 (79.76)	3.94 (100.08)	4.75 (120.65)
Pilot Diameter Max	C	1.25 (31.75)	1.51 (38.35)	1.86 (47.24)	2.12 (53.85)	2.73 (69.34)	3.40 (86.36)	4.30 (109.22)	5.00 (127.00)
Bore Length	D	0.83 (21.08)	0.98 (24.89)	1.16 (29.46)	1.37 (34.80)	1.63 (41.40)	1.88 (47.75)	2.38 (60.45)	2.75 (69.85)
Disengaged Clearance	E	0.010 (0.254)	0.012 (0.305)	0.014 (0.356)	0.016 (0.406)	0.018 (0.457)	0.020 (0.508)	0.024 (0.610)	0.028 (0.711)
Armature Bore Diameter	G	1.26 (32.00)	1.52 (38.61)	1.87 (47.50)	2.13 (54.10)	2.74 (69.60)	3.41 (86.61)	4.31 (109.47)	5.18 (131.57)
Bore (min.)	H	1.000 (25.400)	1.125 (28.575)	1.250 (31.750)	1.375 (34.925)	1.625 (41.275)	2.000 (50.800)	2.500 (63.500)	3.000 (76.200)
Bore (max.)	H	1.690 (42.926)	2.000 (50.800)	2.340 (59.436)	2.760 (70.104)	3.320 (84.328)	4.120 (104.648)	5.000 (127.000)	5.875 (149.225)
Thickness	J	0.31 (7.87)	0.34 (8.64)	0.41 (10.41)	0.48 (12.19)	0.58 (14.73)	0.70 (17.78)	1.00 (25.40)	1.30 (33.02)
Mounting Adapter Bolt Circle	K	2.12 (53.85)	2.46 (62.48)	2.87 (72.90)	3.42 (86.87)	4.00 (101.60)	4.90 (124.46)	6.00 (152.40)	7.00 (177.80)
Holes-Screw (Qty)	L	#10 (3)	#10 (3)	1/4 (3)	5/16 (3)	5/16 (6)	3/8 (6)	7/16 (6)	1/2 (6)
Magnet Body Mounting Holes	L1	1/4-28 (4)	1/4-28 (4)	5/16-24 (4)	3/8-24 (4)	3/8-24 (4)	7/16-20 (4)	1/2-20 (4)	1/2-20 (6)
Holes - Dowel (3X)	M	0.235 (5.969)	0.235 (5.969)	0.297 (7.544)	0.360 (9.144)	0.422 (10.719)	0.485 (12.319)	0.485 (12.319)	0.485 (12.319)
Adapter Protrusion	R	0.09 (2.29)	0.10 (2.54)	0.12 (3.05)	0.14 (3.56)	0.16 (4.06)	0.19 (4.83)	0.22 (5.590)	0.26 (6.60)
Adapter Diameter	S	2.69 (68.33)	3.10 (78.74)	3.70 (93.98)	4.30 (109.22)	5.20 (132.08)	6.10 (154.94)	7.25 (184.15)	8.25 (209.55)
Lead Wire Location	T	0.23 (5.84)	0.25 (6.35)	0.28 (7.11)	0.34 (8.64)	0.39 (9.91)	0.41 (10.41)	0.51 (12.95)	0.57 (14.48)
Mounting Hole Depth	V	0.23 (5.84)	0.25 (6.35)	0.28 (7.11)	0.34 (8.64)	0.39 (9.91)	0.41 (10.41)	0.51 (12.95)	0.57 (14.48)