

SEB-MAX® Series

Spring-Engaged Power-Off Brakes for Aerospace & Defense

Nine standard frame sizes available:

- Torque rating up to 30g combined shock and vibration
- Holding @8 VDC up to 60g max. combined shock
- Operates from -67°F – 158°F & up to 10,000 FT altitude
- Class “H” Insulation
- Nitrocarburized plates & ENP magnet body
- SS hardware & locking HELICOIL inserts



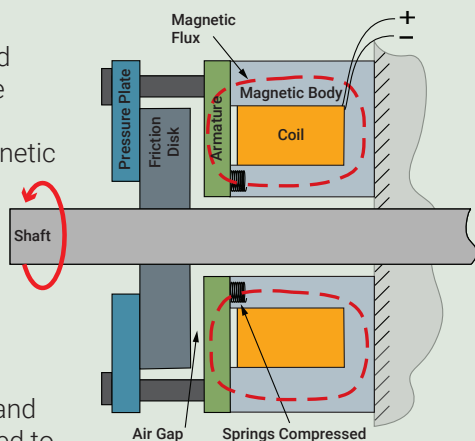
Performance/ Mechanical Specifications

	P/N Model Size	SEB-Max Series								
		20305 100	20306 125	20313 150	20314 175	20307 200	40258 250	40260 300	40262 350	40256 400
Torque Rating (Static)	In-lb	1.57	3.84	7.90	14.70	25.10	61.00	127.0	236.0	402.0
	ft-lb	0.13	0.32	0.66	1.23	2.09	5.13	10.58	19.67	33.50
	(NM)	(0.18)	(0.43)	(0.90)	(1.67)	(2.84)	(6.95)	(14.35)	(26.7)	(45.4)
Resistance @ 20°C	ohms	34.15	22.45	15.93	15.52	14.00	11.53	7.56	7.22	6.54
Release Voltage	VDC	28	28	28	28	28	28	28	28	28
Current at 28VDC @ 20°C	A	0.820	1.240	1.750	1.804	1.995	2.428	3.703	3.878	4.281
Holding Voltage	VDC	8	8	8	8	8	8	8	8	8
Holding Current @ 20°C	A	0.23	0.36	0.50	0.51	0.57	0.69	1.06	1.11	1.22
Rec. Max Speed	rpm	20,000	16,500	14,000	12,200	11,000	9,000	7,600	6,700	6,000

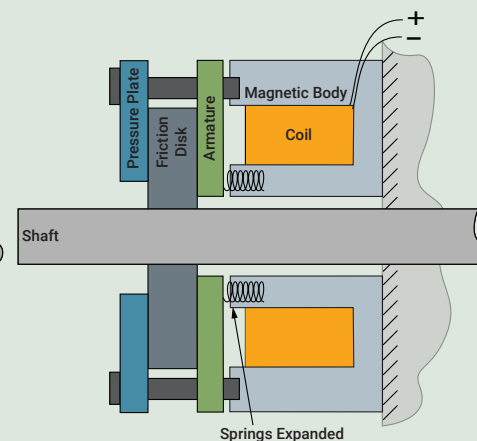
SEB-Max Operation:

The magnet body is attached to a fixed surface that can react the shaft torque and the friction disk interfaces directly with the shaft with the provided drive feature. When the coil is energized the electromagnetic field attracts the armature plate and compresses the springs. This allows the friction disk to rotate freely with the shaft. After about one second of energization at the pull in voltage the brakes should be reduced to the holding voltage. This voltage will maintain the disengaged state while reducing power consumption and heat generation. Most applications will need to utilize the hold voltage to prevent thermal stresses in the brake but specific duty cycles can be reviewed by SEPAAC. When power is turned off, the electromagnetic field dissipates, allowing the springs to push the armature plate into contact with the friction disk. This squeezes the friction disk between the pressure plate and the armature plate, thus transmitting torque, and stopping/holding the friction disk and shaft.

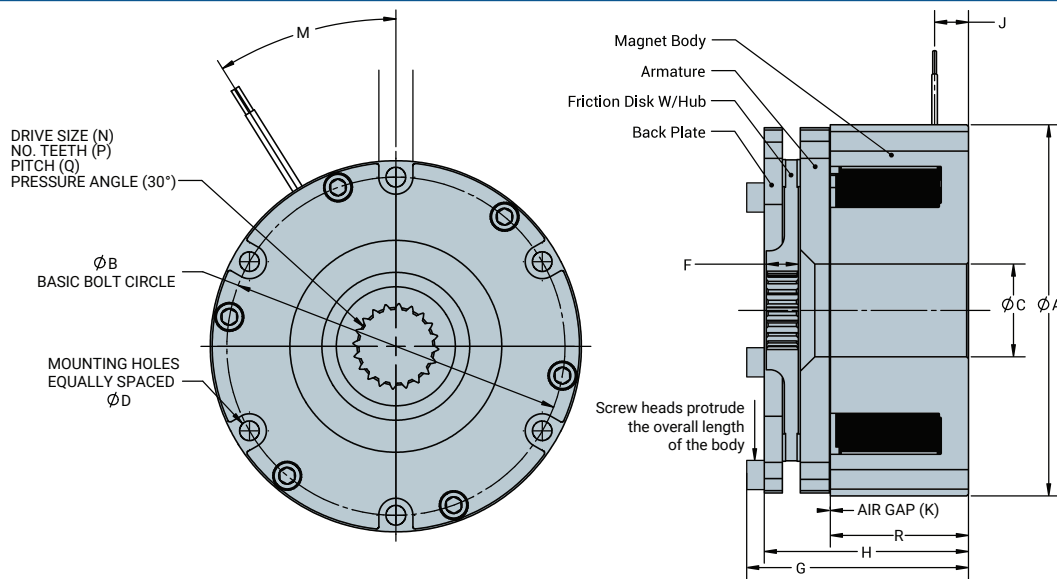
Power On – Brake Disengaged



Power On – Brake Engaged



Aerospace & Defense Spring-Engaged Brakes



SEB-Max Series

Dimensions – Inches (mm)	P/N Model Size	20305	20306	20313	20314	20307	40258	40260	40262	40256
		100	125	150	175	200	250	300	350	400
Weight	lb	0.15	0.35	0.40	0.55	1.00	1.75	2.75	4.00	6.00
	kg	(0.06)	(0.16)	(0.18)	(0.25)	(0.45)	(0.79)	(1.25)	(1.81)	(2.72)
Outside Diameter	A	1.00 (25.40)	1.25 (31.75)	1.50 (38.10)	1.75 (44.44)	2.00 (50.79)	2.50 (63.49)	3.00 (76.19)	3.50 (88.89)	4.00 (101.59)
	C	0.25 (6.35)	0.25 (6.35)	0.32 (8.05)	0.31 (7.99)	0.46 (11.68)	0.57 (14.39)	0.75 (19.05)	0.88 (22.32)	1.00 (25.50)
Overall Length	H	0.75 (19.15)	0.94 (23.92)	1.00 (25.40)	1.06 (26.79)	1.11 (28.09)	1.38 (35.10)	1.70 (43.05)	1.93 (49.02)	2.20 (56.87)
	G	0.779	0.988	1.090	1.165	1.210	1.514	1.852	2.087	2.387
Mounting Hole Ø	D	3x .078	3x .104	3x .104	3x .130	3x .136	4x .157	4x .184	6x .187	6x .211
	B	0.872	1.078	1.326	1.532	1.782	2.245	2.708	3.203	3.642
Drive Feature	DD or Spline	DD	DD	DD	DD	Spline	Spline	Spline	Spline	Spline
	N	0.188	0.188	0.250	0.250	0.423	0.505	0.693	0.755	0.921
Pitch	Q	x	x	x	x	48/98	32/64	32/64	24/48	24/48
	P	x	x	x	x	18	14	20	16	20
Mag Body L	R	0.53	0.67	0.68	0.70	0.72	0.89	1.12	1.27	1.49
	M	20°	20°	20°	20°	18°	16°	30°	34°	32°
Lead Wire Location	J	0.088	0.108	0.156	0.17	0.17	0.26	0.31	0.34	0.37
	K	0.005	0.006	0.007	0.007	0.007	0.011	0.010	0.010	0.011
Drive Thickness	F	0.100	0.100	0.110	0.130	0.213	0.263	0.290	0.345	0.345

* Specifications are nominal, rounded values provided for reference only and are subject to change without notice.
Please consult SEPAC Engineering prior to final selection.