

SB02 Spring-Applied Brake

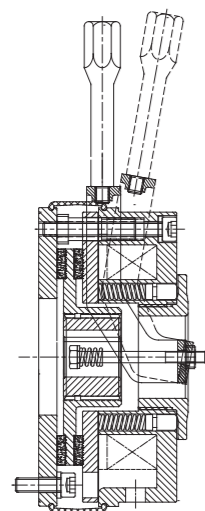


Product Overview

SB02 Brake is a practical spring-applied safety brake. Its main purpose is to make the machine stop instantly. However, the selection & application of the SB02 brake needs to fit with the operation of the designed machine requirement, so as to guarantee normal operation of the brake.

Its major features are:

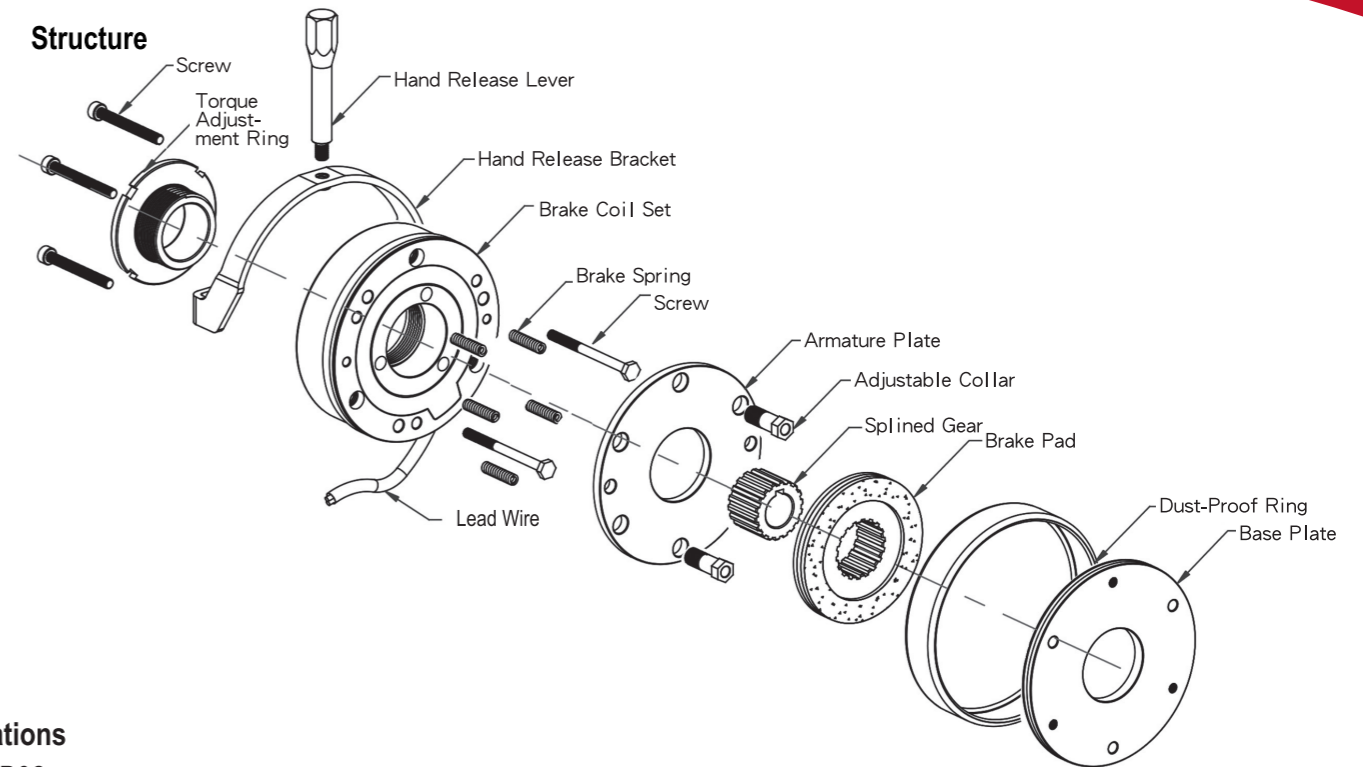
- Solid Structure
- Operation with Silent
- Simplified Installation & Maintenance easily
- The brake coil is covered and encircled by epoxy resin, while mechanical parts are also protected by heat-resistant coating materials so that can enhance the protection capacity of its inner structure.
- Heat Radiation Smoothly: The impurity generated from frictions during operation is blown away by fan easily.
- The brake can be installed onto the motor end-cap directly. (i.e. the motor end-cap is served as the brake surface which shall be composed of steel or cast iron coupled with precisely machining and smoothly in its surface.)



Brake Working Principle

The brake pad is installed onto the motor shaft through the splined gear, coupled with the flange fastened onto the motor end cap. Also, the pad is suppressed by the armature plate through the force of compressed brake springs so that the brake pad is held between the armature plate and base plate by means of friction.

After installation, an air gap between the brake coil set and the armature plate is kept in specified value. When the power is connected to the brake coil, the force of the magnetic field is used for torque transmission. Then the armature plate is pulled in axial direction towards the brake coil set so that the brake pad is released and can be free rotation with the motor shaft.



Specifications

Model : SB02

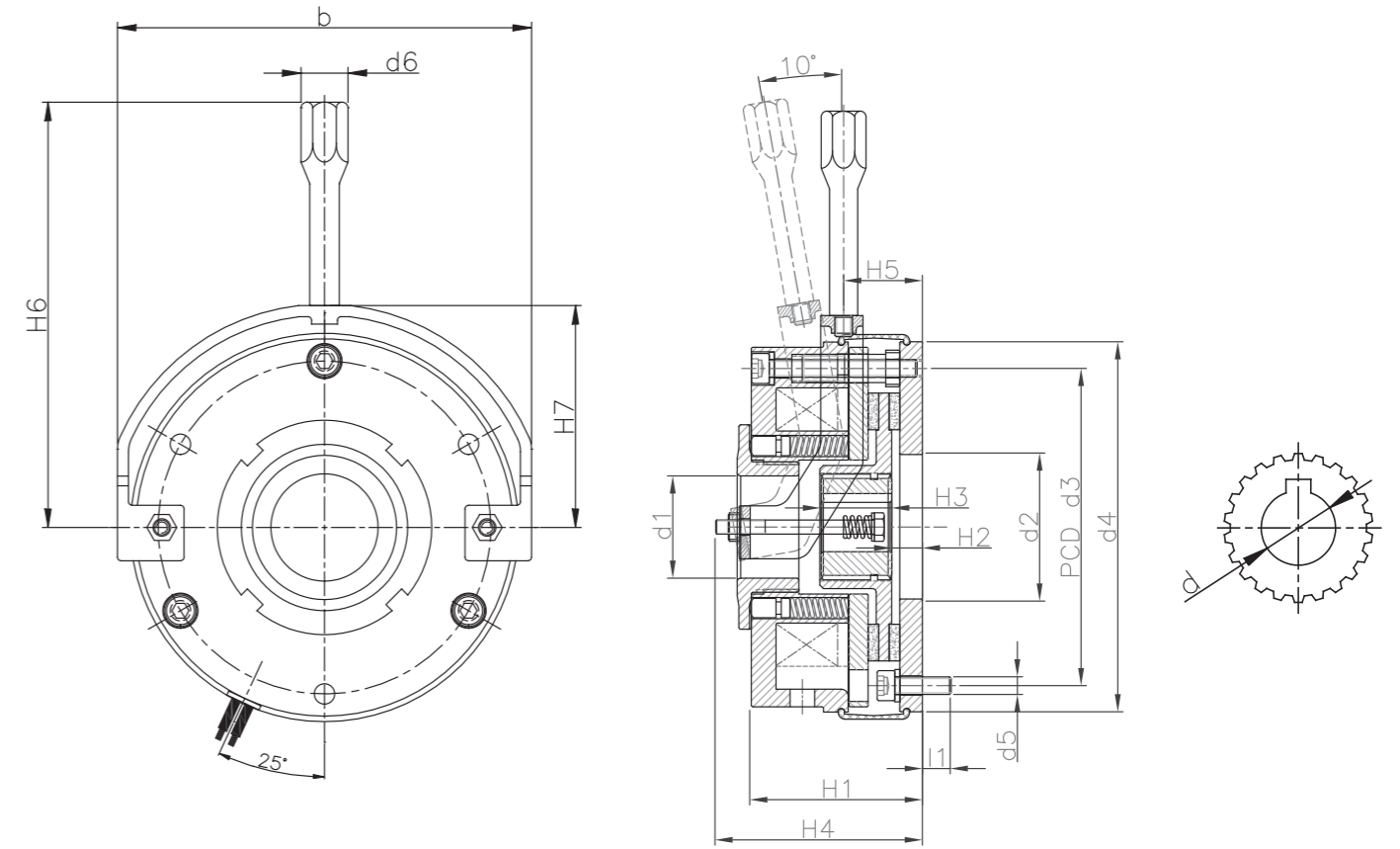
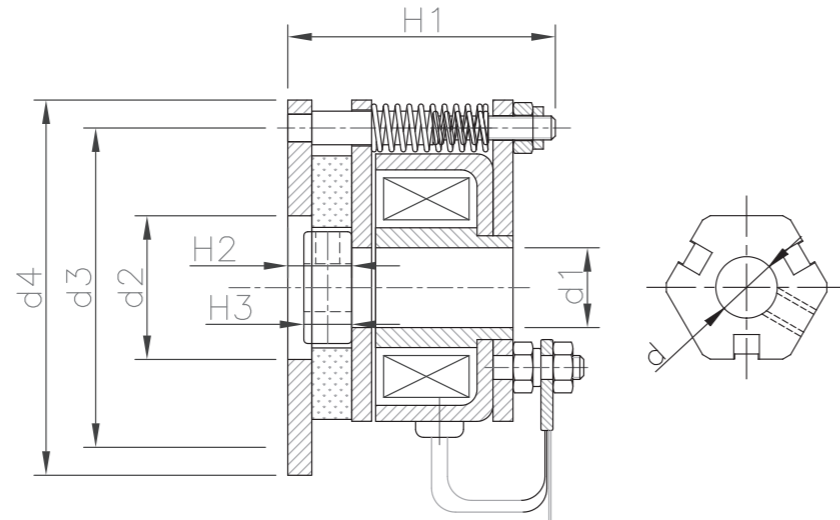
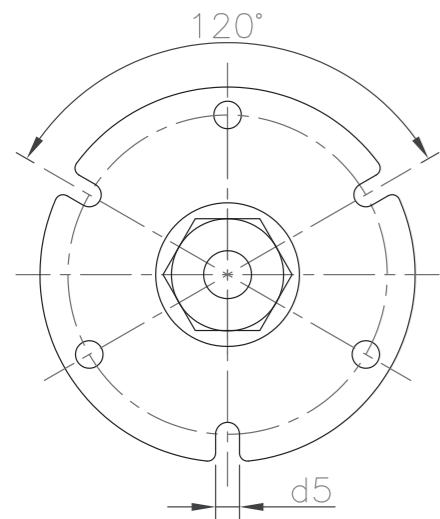
Series	M3	M5	6	8	10	12	14	16	18	20	25
Rated Torque (N.M) ^{Note1}	0.2	0.5	4	8	16	32	60	80	150	260	400
Max. Torque (Max-N.M) ^{Note2}	0.5	1	6	12	23	46	95	125	188	325	500
Rated Voltage(DC-V)	DC96	DC96	DC96	DC96	DC96	DC96	DC96	DC96	DC96	DC96	DC96
Consumption Power (W)	2.2	7.7	20	25	31	40	50	55	85	100	110
Heat Resistant Class	E	E	F	F	F	F	F	F	F	F	F
Max. Rotation Speed (RPM)	5000	5000	3000	3000	3000	3000	3000	3000	2000	2000	2000
Moment of Inertia of Rotation Parts (J·kg·m ²)	4.2×10 ⁻⁶	12.5×10 ⁻⁶	1.5×10 ⁻⁵	6.1×10 ⁻⁵	2×10 ⁻⁴	4.5×10 ⁻⁴	6.3×10 ⁻⁴	1.5×10 ⁻³	2.9×10 ⁻³	7.3×10 ⁻³	2.0×10 ⁻²
Suction Time of Amarture Plate (S)	0.025	0.030	0.045	0.057	0.076	0.115	0.210	0.220	0.270	0.340	0.390
Release Time of Amarture Plate (S)	0.035	0.045	0.025	0.029	0.035	0.045	0.05	0.071	0.033	0.065	0.110

Note 1 : The rated torque is the standard brake torque.
Note 2 : The Max. torque is the holding brake torque.

Product Series Selection As Ordering

Model	Size Spec	Options	Brake Power	Voltage
SB02	14	B Standard	0.06	A DC12V
SB02	M3	A Standard	Customization is available, Please contact with Sunso Industry Ltd.	A DC12V
	M5	B Hand Release		B DC24V
	06	C Hand Release & Dust-proof		C DC48V
	08	D Standard w/o Base Plate		D DC96V
	10	E Hand Release w/o Base Plate		E DC130V
	12	F Hand Release & Dust-proof w/o Base Plate		F DC190V
	14			G DC220V

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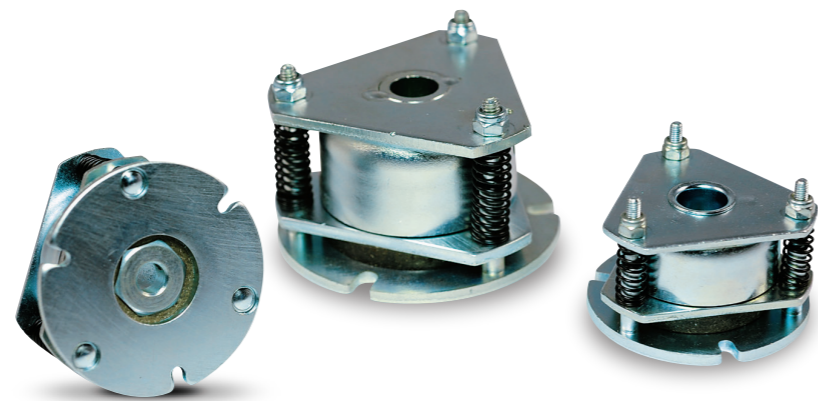


Dimensions

Model : SB02

Unit: mm

Series	M3	M5
b	na	na
d1	10	11.6
d2	18	23
d3	40	55
d4	47	65
d5	3	4.5
H1	35.5	45
H2	8	8
H3	6	8
Weight (Kg)	0.2	0.5
d	6/7	8/9



Dimensions

Model : SB02

Unit: mm

Series	06	08	10	12	14	16	18	20	25
b	94	112	143	165	180	207	238	270	318
d1	31	38	44	52	60	70	62	72	102
d2	31	42	44	52	60	70	77	90	120
d3	72	90	112	132	145	170	196	230	278
d4	84	102	130	150	165	190	217	254	302
d5	3xM4	3xM5	3xM6	3xM6	3xM8	3xM8	4xM8	4xM10	4xM10
l1	10	8	16	14	14	13	13	15	16
d6	12.7	12.7	15	15	17	17	22	22	22
H1	43	49	58	69	75	86	94.4	98.3	121.6
H2	7	9	10	11	12	13	13.9	14.9	17
H3	18	20	20	25	30	30	35	40	50
H4	52	59	72	85	90	102	112	110.5	144
H5	21	23	35	39	43	48	52.6	54.5	69.6
H6	107	115	142	162	201	250	267	285	327
H7	52	60	76	89	97	111	128.5	147	189
Weight (Kg)	1.1	1.9	3.8	5.7	8.6	12	15	21.5	33
d	10/11/12/14/15	11/12/14/15/20	11/12/14/15/20	15/17/20/25/27	20/25/30/31	25/30/35/38	30/35/40/45	30/35/40/45	50/60