

Energy saving spring-applied brakes

Half power consumption Brakes



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It is the same dimension with the conventional company products for braking Spring-applied brakes BXL model. However the performance is improved to half power consumption, 1.5 times long life span and shorter responsiveness. Adapted to the Restriction of Hazardous Substances that bans the use of 6 substances such as mercury or lead can be selected as option. Also the exclusive use power supply BEW model for set use is approximately 70% reduced by volume compared to the conventional company products and achieved drastically downsizing. Energy conservation is a grovel concern. Please consider our "Energy saving Spring-applied brakes& exclusive use Power supply "

● Half power consumption

Higher power consumption →

Conventional model	████████████████████
ENERGY SAVING BRAKES	████████████████████

● 1.5 times long life span

Longer life span →

Conventional model	████████████████████
ENERGY SAVING BRAKES	████████████████████

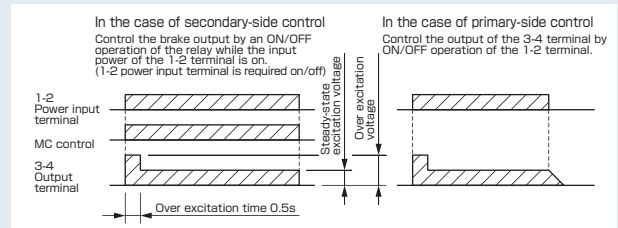
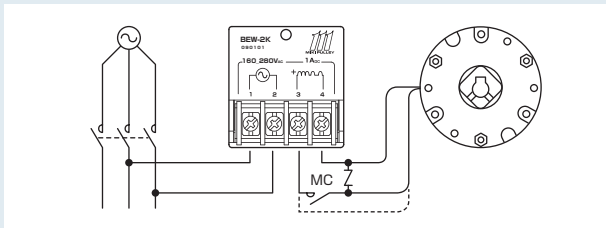
● 25% shorter responsiveness

Response time longer →

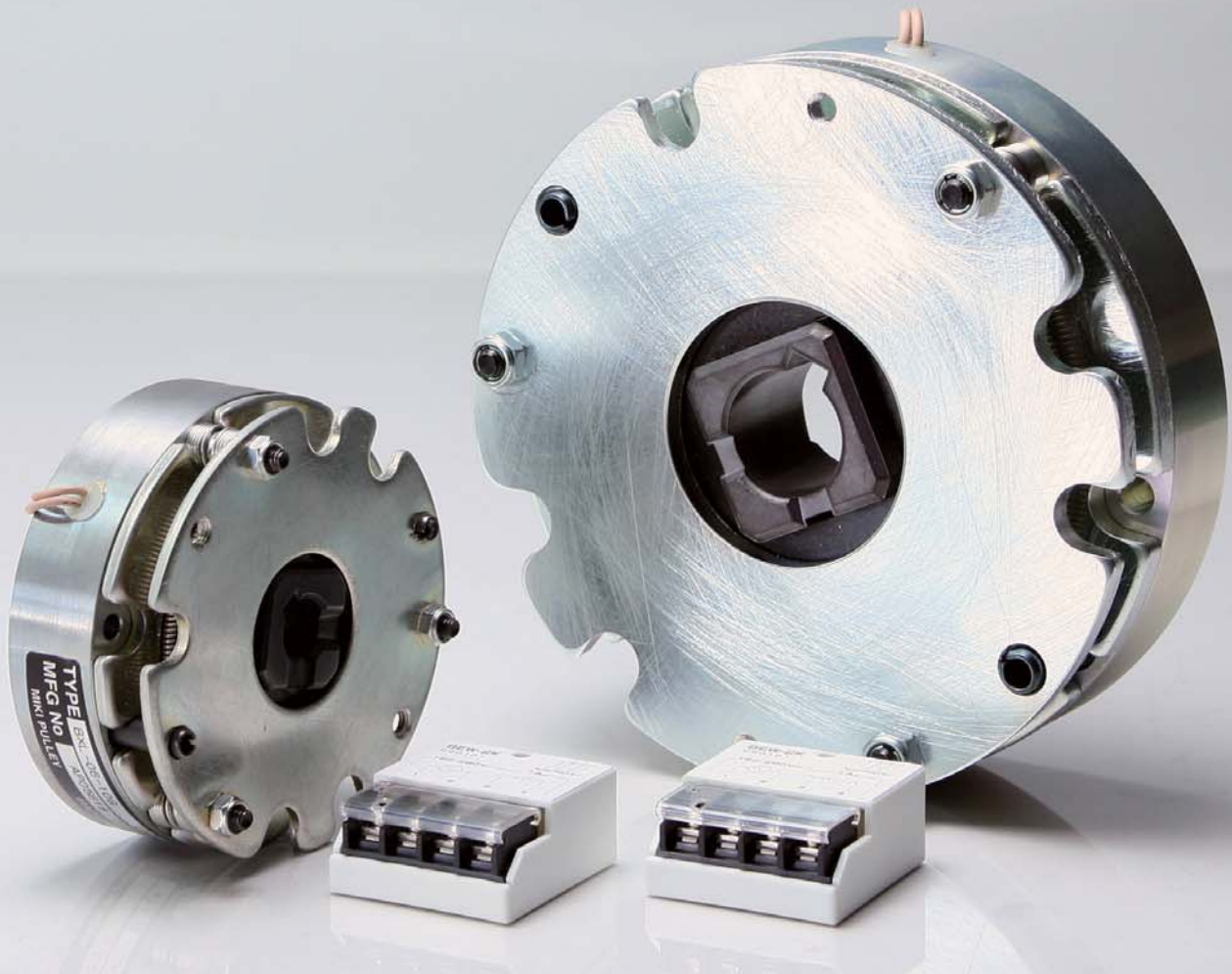
Conventional model	████████████████████
ENERGY SAVING BRAKES	████████████████████

● Wire connection and control

This Spring-applied brakes save energy. Exclusive use power supply controlled with full wave over excitation with voltag Afterwards, the power supply switch to half wave and save energy.



*Compared to the conventional company products BXL · BEW model



ENERGY SAVING BRAKES

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■ Brake unit: Specifications and Dimensions

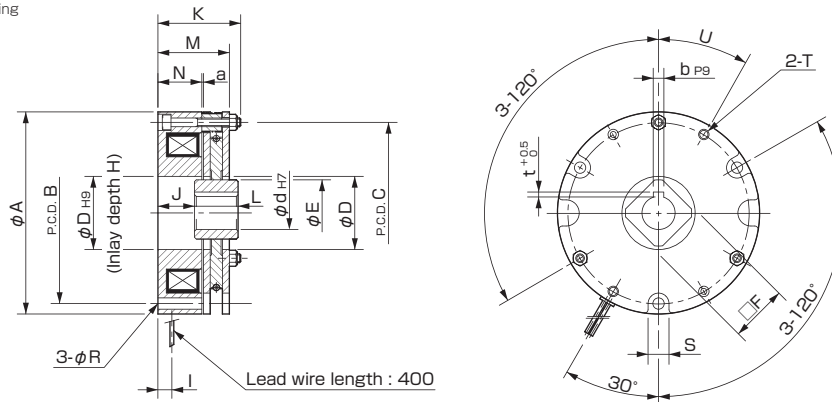
Model	Size	Static friction torque T_s [N·m]	Coil (at 20°C)				Heat-resistance class	Max. rotation speed [min ⁻¹]	Rotating part moment of inertia J [kg·m ²]	Allowable braking energy rate P_{brk} [W]	Total braking energy E_T [J]	Armature pull in time t_a [s]	Armature release time t_{ar} [s]	Mass [kg]
			Voltage DC [V]	Wattage [W]	Amperage [A]	Resistance [Ω]								
BXL-06-10G-4ES	06	2	180	5	0.030	6075	F	5000	3.75×10^{-5}	58.3	3.00×10^7	0.030	0.020	0.9
BXL-08-10G-4ES	08	4	180	8	0.044	4050	F	5000	6.25×10^{-5}	91.7	5.25×10^7	0.030	0.020	1.3
BXL-10-10G-4ES	10	8	180	11	0.062	2916	F	4000	13.75×10^{-5}	108.3	9.30×10^7	0.040	0.025	2.3
BXL-12-10G-4ES	12	16	180	13	0.074	2430	F	3600	33.75×10^{-5}	133.3	1.35×10^8	0.055	0.030	3.4
BXL-16-10G-4ES	16	22	180	17	0.096	1869	F	3000	7.35×10^{-4}	183.3	1.71×10^8	0.075	0.035	5.4

*For control the brake, over excitation control by exclusive use power supply BEW-4K is required. Please be aware that the brake is not always released by only 180V voltage.

*The indicated values of the armature pull in time and release time are in the case of direct-current side switching using exclusive use power supply BEW-4K.

*The operating temperature range is from -10 to 40°C.

*This spring-applied brakes is for braking

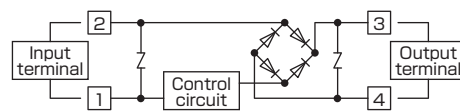
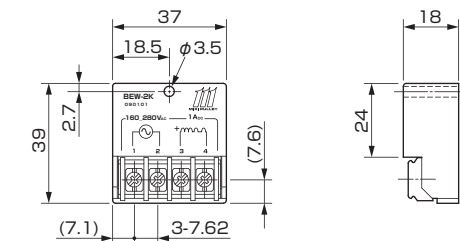


Unit [mm]

Model	A	B	C	D	E	F	H	I	J	K	L	M	N	R	S	T	U	a	d	b	t	CAD file No.
BXL-06-10G-4ES	83	73	73	28	26.5	22	3	10	20.5	39.5	14	33.6	20	4.5	9	2-M5	30°	0.15	11	4	1.5	BXL1
BXL-08-10G-4ES	96	86	86	35	32	25	3	12	20	41	17	35	20.8	5.5	10	2-M5	30°	0.15	14	5	2	BXL2
BXL-10-10G-4ES	116	104	104	42	38	30	3	9.5	21	47.5	25	41	25.3	6.5	12	2-M6	30°	0.2	19	6	2.5	BXL3
BXL-12-10G-4ES	138	124	124	50	45	35	4	12	19	49.8	30	43.5	23.3	6.5	12	2-M6	30°	0.2	24	8	3	BXL4
BXL-16-10G-4ES	158	142	142	59	55	45	4	14	22.5	57.5	35	51	27.7	9	15	2-M8	40°	0.25	28	8	3	BXL5

■ Power supply unit : Specifications and Dimensions

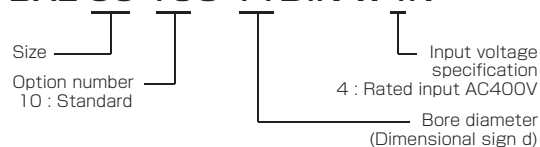
Model	BEW-4K
Input voltage	AC400V $\pm 10\%$ 50/60Hz
Input voltage range	AC320 to 480V 50/60Hz
Output voltage	Over excitation DC360V (Full-wave rectification)
Output voltage	Steady-state excitation DC180V (Half-wave rectification)
Output current	DC0.7A (When the ambient temp. is 20°C.)
Output current	DC0.5A (When the ambient temp. is 60°C.)
Over excitation time	0.5 s (When the ambient temp. is 20°C.)
Dielectric resistance	DC500V At megger 100M Ω (Terminal - product)
Dielectric strength voltage	AC2000V 50Hz 1 min (Terminal - product)
Use environment	-20 to 60°C Non condensing



Terminal marking	Terminal name	Function explanation
1-2	Power input terminal	Connect a commercial power.
3-4	Output terminal	Connect a spring-applied brake.

Ordering Information

BXL-06-10G-11DIN-W4K



Size	Brake model	Power supply model
06	BXL-06-10G-4ES-11DIN	BEW-4K
08	BXL-08-10G-4ES-14DIN	BEW-4K
10	BXL-10-10G-4ES-19DIN	BEW-4K
12	BXL-12-10G-4ES-24DIN	BEW-4K
16	BXL-16-10G-4ES-28DIN	BEW-4K

*Above is the model name for the set of spring-applied brakes and power supply unit. For the model name for brake only or power supply only, refer to the table on the right.

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