

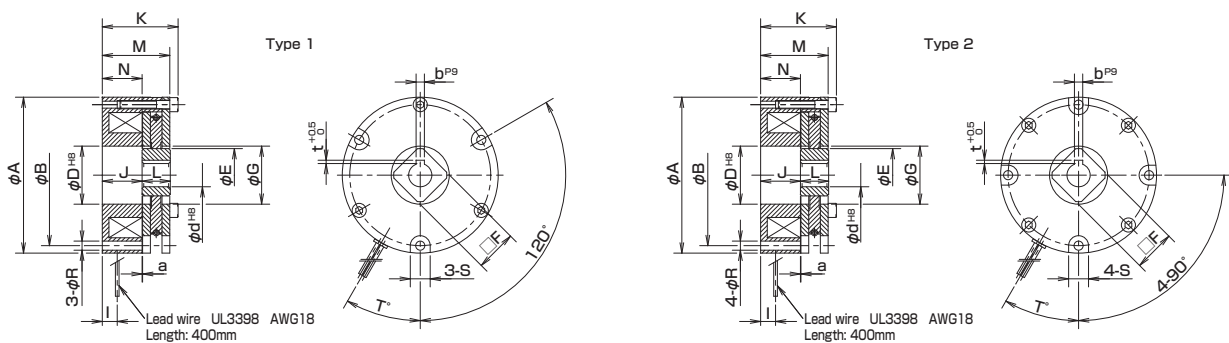
# BXL(N) Models

## Specifications

Model	Size	Static friction torque $T_s$ [N·m]	Coil (at 20°C)				Heat resistance class	Max. rotation speed [min <sup>-1</sup> ]	Rotating part moment of inertia J [kg·m <sup>2</sup> ]	Allowable braking energy rate Pbal [W]	Total braking energy Et [J]	Armature pull-in time $t_{ai}$ [s]	Armature release time $t_{ar}$ [s]	Applicable motor output (Reference) Four poles [kW]	Mass [kg]
			Voltage [V]	Wattage [W]	Current [A]	Resistance [Ω]									
BXL-08-10N-002	08	2	24	19.0	0.793	30.3	F	3600	$6.3 \times 10^{-5}$	60.0	$5.0 \times 10^7$	0.030	0.050	0.1/0.2	1.4
			99	19.0	0.192	515.8	F								
			171	19.0	0.111	1539	F								
BXL-08-10N-004	08	4	24	19.0	0.793	30.3	F	3600	$6.3 \times 10^{-5}$	60.0	$5.0 \times 10^7$	0.040	0.040	0.4	1.4
			99	19.0	0.192	515.8	F								
			171	19.0	0.111	1539	F								
BXL-10-10N-008	10	8	24	28.0	1.166	20.6	F	3600	$13.8 \times 10^{-5}$	70.0	$8.0 \times 10^7$	0.050	0.050	0.75	2.7
			99	28.0	0.283	350.0	F								
			171	28.0	0.164	1044	F								
BXL-10-10N-015	10	15	24	28.0	1.166	20.6	F	3600	$13.8 \times 10^{-5}$	70.0	$8.0 \times 10^7$	0.070	0.030	1.5	2.7
			99	28.0	0.283	350.0	F								
			171	28.0	0.164	1044	F								
BXL-12-10N-022	12	22	24	35.0	1.460	16.4	F	3600	$33.8 \times 10^{-5}$	90.0	$12.0 \times 10^7$	0.080	0.060	2.2	4.7
			99	35.0	0.353	280.1	F								
			171	35.0	0.205	835.5	F								
BXL-12-10N-030	12	30	24	35.0	1.460	16.4	F	3600	$33.8 \times 10^{-5}$	90.0	$12.0 \times 10^7$	0.100	0.030	3.0	4.7
			99	35.0	0.353	280.1	F								
			171	35.0	0.205	835.5	F								
BXL-16-10N-040	16	40	24	42.0	1.753	13.7	F	1800	$73.5 \times 10^{-5}$	120.0	$16.0 \times 10^7$	0.100	0.070	3.7	6.3
			99	42.0	0.424	233.3	F								
			171	42.0	0.246	696.1	F								
BXL-16-10N-060	16	60	24	55.0	2.294	10.5	F	1800	$74.6 \times 10^{-5}$	150.0	$16.0 \times 10^7$	0.100	0.050	5.5	6.7
			99	55.0	0.556	178.1	F								
			171	55.0	0.322	531.6	F								
BXL-16-10N-080	16	80	24	55.0	2.294	10.5	F	1800	$74.6 \times 10^{-5}$	150.0	$16.0 \times 10^7$	0.100	0.030	7.5	6.7
			99	55.0	0.556	178.1	F								
			171	55.0	0.322	531.6	F								

\*The armature pull-in time and armature release time are taken during DC switching.

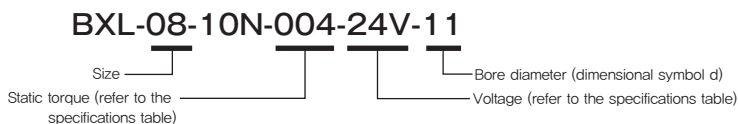
## Dimensions



Unit [mm]

Model	Type	A	B	D	E	F	G	I	J	K	L	M	N	R	S	T	a	d	b	t
BXL-08-10N-002	1	94	85	35	32	25	35	9	24	45.7	17	40.7	24	5.5	12	30	0.3	11	4	1.5
BXL-08-10N-004	1	94	85	35	32	25	35	9	24	45.7	17	40.7	24	5.5	12	30	0.3	14	5	2
BXL-10-10N-008	1	124	110	40	38	30	42	10	22	48.7	25	42.7	26	6.5	12	30	0.3	18	6	2.5
BXL-10-10N-015	1	124	110	40	38	30	42	10	22	48.7	25	42.7	26	6.5	12	30	0.3	20	6	2.5
BXL-12-10N-022	1	150	130	49	45	35	50	18	25	57.1	30	51.1	29	6.5	14	30	0.3	24	8	3
BXL-12-10N-030	1	150	130	49	45	35	50	18	25	57.1	30	51.1	29	6.5	14	30	0.3	24	8	3
BXL-16-10N-040	1	165	150	62	55	45	62	18	24	63.1	35	55.1	28	9	15	30	0.3	28	8	3
BXL-16-10N-060	2	165	150	64	61	50	64	20	29	68.1	35	60.1	33	9	15	15	0.3	37	10	3.5
BXL-16-10N-080	2	165	150	64	61	50	64	20	29	68.1	35	60.1	33	9	15	15	0.3	37	10	3.5

How to Place an Order



\* Contact Miki Pulley for assistance with bore diameters, d, not listed in the Dimensions tables and voltages not listed in the Specifications table.

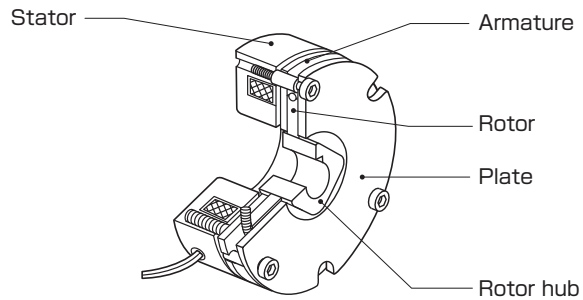
## Options

### Plate Installation

Standard installation is performed using stator installation, but a plate installation specification is also available as an option. Please contact Miki Pulley for assistance if desiring to use plate installation.

### Quiet Mechanism

There is a slight backlash between the rotor and the rotor hub. The armature may also strike the surface of the magnetic poles on the stator when electricity flows, generating a noise. There is a quiet mechanism available that works to suppress such clattering noises as well as operating noise. Please contact Miki Pulley for details.



## Items Checked for Design Purposes

### Precautions for Handling

#### Brakes

Most electromagnetic braking systems are made using flexible materials. Be careful when handling such parts and materials as striking or dropping them or applying excessive force could cause them to become damaged or deformed.

#### Lead Wires

Be careful not to pull excessively on the brake lead wires, bend them at sharp angles, or allow them to hang too low.

#### Frictional Surface

Since these are dry brakes, they must be used with the frictional surface dry. Keep water and oil off of the frictional surfaces when handling the brakes.

### Precautions for Use

#### Environment

These brake units are dry braking systems, meaning that the torque will drop if oil residue, moisture, or other liquids get onto friction surfaces. Lead wires are not oil resistant. Consider using a cover or other protection when using in an environment exposed to oil, cutting oil, etc.

#### Operating Temperature

The operating temperature is from 0°C to 40°C (no freezing or condensation). If you will use the product at other temperatures, consult Miki Pulley.

#### Power Supplies

BXL-N models use commercial AC 220 V or 380 V single phase, half-wave rectified. Select as appropriate for your application.

#### Power Supply Voltage Fluctuations

Full braking performance may not be guaranteed with extreme changes in power supply voltage. Make sure to keep power supply voltage to within ± 10% of the rated voltage value.

#### Air Gap Adjustment

BXL-N models do not require air gap adjustment. The brake air gap is adjusted when the braking system is shipped from the factory.

#### Circuit Protectors

If using a power supply for separate DC switching, make sure to connect the recommended circuit protector device in parallel with the brake.

### Recommended Power Supplies and Circuit Protectors

Model	Rectification method	Frequency [Hz]	Input AC voltage [V]	DC output voltage *1 [V]	Recommended circuit protectors *2 (Varistor)
BEM-2T	Single-phase, half-wave	50/60	AC220	DC99	NVD07SCD220 or an equivalent
BEM-4T	Single-phase, half-wave	50/60	AC380	DC171	NVD14SCD820 or an equivalent

\*1 The values given are for when there is electricity flowing to the brake coil.

\*2 NVD □ SCD □ parts are manufactured by KOA Corporation.

### Precautions for Mounting

#### Precautions for Mounting

Use a bolt or snap ring to lock the rotor hub onto the shaft.

#### Shaft

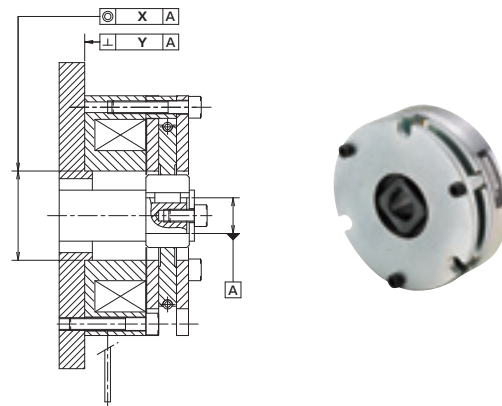
The shaft tolerance should be h7 class (JIS B 0401).

#### Bolts and Screws

Implement screw-locking measures such as use of an adhesive thread-locking compound to bolts and screws used to install brakes.

#### Accuracy of Brake Attachment Surfaces

Ensure that the concentricity (X) of the centering mark and shaft and the perpendicularity (Y) of the brake mounting surface and shaft do not exceed allowable values.



Allowable concentricity and perpendicularity values for the BXL-N Models

Size	Concentricity (X)		Perpendicularity (Y)	
	T.I.R. [mm]		T.I.R. [mm]	
08	0.4		0.05	
10	0.4		0.05	
12	0.6		0.05	
16	0.6		0.05	