

BXR Models Square Hub Type

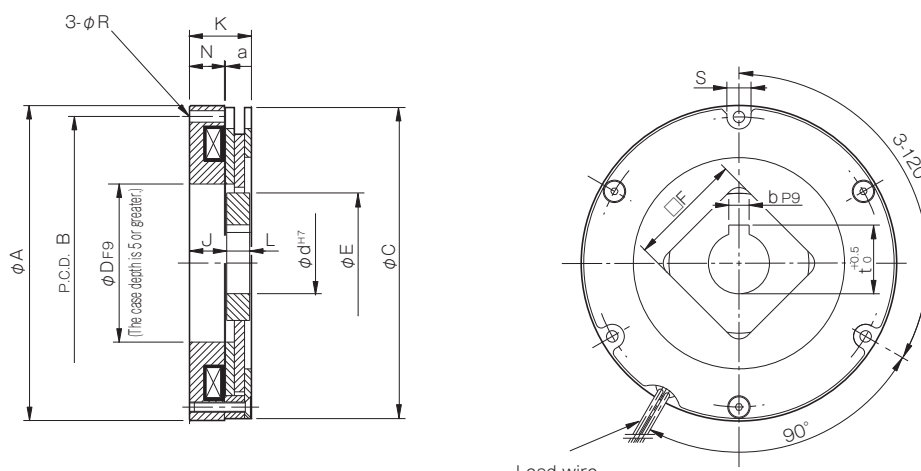
Specifications (BXR-□-10)

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 $E_{ba\ell}$ [J]	Total braking energy E_r [J]	Armature pull-in time t_a [s]	Armature release time t_{ar} [s]	Backlash [°]	Mass [kg]
			Voltage [V]	Wattage [W]	Current [A]	Resistance [Ω]									
BXR-06-10-005	06	5	24	17.6	0.73	32.7	F	5000	2.35×10^{-5}	500	2.0×10^5	0.050	0.020	1.2	0.9
BXR-08-10-012	08	12	24	19.4	0.81	29.7	F	5000	3.45×10^{-5}	800	2.0×10^5	0.080	0.020	1.2	1.2
BXR-10-10-016	10	16	24	21.5	0.90	26.8	F	5000	1.12×10^{-4}	1500	2.2×10^6	0.110	0.050	0.9	1.3
BXR-12-10-030	12	30	24	23.7	0.99	24.3	F	5000	1.88×10^{-4}	1500	2.5×10^6	0.120	0.030	0.8	2.3
BXR-14-10-038	14	38	24	31.0	1.29	18.6	F	3600	4.22×10^{-4}	1800	3.0×10^6	0.120	0.030	0.5	3.0
BXR-16-10-055	16	55	24	19.0	0.79	30.3	F	3600	7.10×10^{-4}	2000	3.0×10^6	0.220	0.100	0.5	3.6

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

* Backlash is the value between the rotor and rotor hub.

Dimension (BXR-□-10)



Lead wire length: 400

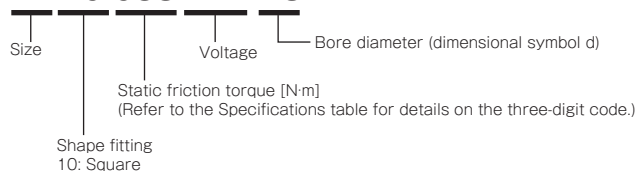
*The lead wire extraction position for size 14° is 60°.

Unit [mm]

Size	Radial direction dimensions								Axial direction dimensions					Bore diameter			
	A	B	C	D	E	F	R	S	J	L	N	K	a	d	b	t	d max
06	83.5	76	82	47	42	35	4.5	9	17.0	7	14.7	25.0	0.10	20	6	22.5	25
08	93.5	85	92	49	42	35	4.5	10	19.0	7	15.7	27.0	0.10	20	6	22.5	25
10	123.5	115	122	62	55	45	4.5	9.5	14.6	9	13.7	24.3	0.10	24	8	27	28
12	137.5	130	136	65	62	50	4.5	12	15.4	9	12.5	25.0	0.15	24	8	27	30
14	167.5	158	166	80	74	60	5.5	12	16.0	9	12.0	25.0	0.15	28	8	31	38
16	185	175	184	100	86	65	5.5	12.5	21.3	11.5	19.4	32.8	0.20	28	8	31	45

How to Place an Order

BXR-14-10-038-24V-28DIN



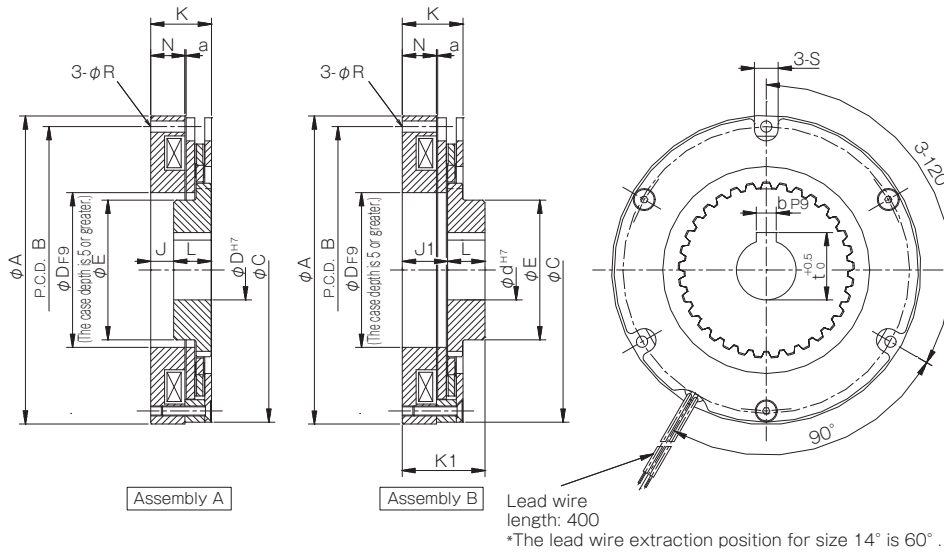
BXR Models Spline Hub Type

Specifications (BXR-□-20)

Model	Size	Static friction torque Ts [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 Eba [J]	Total braking energy Et [J]	Armature pull-in time ta [s]	Armature release time tr [s]	Backlash [°]	Mass [kg]
			Voltage [V]	Wattage [W]	Current [A]	Resistance [Ω]									
BXR-06-20-005	06	5	24	17.6	0.73	32.7	F	5000	3.43 × 10 ⁻⁵	500	2.0 × 10 ⁵	0.050	0.020	0.5	1.0
BXR-08-20-012	08	12	24	19.4	0.81	29.7	F	5000	6.75 × 10 ⁻⁵	800	2.0 × 10 ⁵	0.080	0.020	0.4	1.3
BXR-10-20-016	10	16	24	21.5	0.90	26.8	F	5000	2.32 × 10 ⁻⁴	1500	2.2 × 10 ⁶	0.110	0.050	0.3	1.5
BXR-12-20-030	12	30	24	23.7	0.99	24.3	F	5000	3.02 × 10 ⁻⁴	1500	2.5 × 10 ⁶	0.120	0.030	0.3	2.5
BXR-14-20-038	14	38	24	31.0	1.29	18.6	F	3600	9.41 × 10 ⁻⁴	1800	3.0 × 10 ⁶	0.120	0.030	0.2	3.4
BXR-16-20-055	16	55	24	19.0	0.79	30.3	F	3600	15.2 × 10 ⁻⁴	2000	3.0 × 10 ⁶	0.220	0.100	0.2	4.0

* The armature pull-in time and armature release time are taken during DC switching.
 * Backlash is the value between the rotor and rotor hub.

Dimension (BXR-□-20)

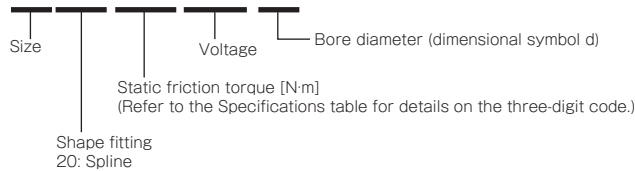


Unit [mm]

Size	Radial direction dimensions							Axial direction dimensions							Bore diameter			
	A	B	C	D	E	R	S	J	J1	L	N	K	K1	a	d	b	t	d max
06	83.5	76	82	47	36	4.5	9	10.5	18	12.5	14.7	25.0	30.5	0.10	20	6	22.5	25
08	93.5	85	92	49	42	4.5	10	11.5	20	13.5	15.7	27.0	33.5	0.10	20	6	22.5	30
10	123.5	115	122	62	56	4.5	9.5	9	18	15	13.7	24.3	33	0.10	24	8	27	40
12	137.5	130	136	65	61	4.5	12	8.7	17.7	15	12.5	25.0	32.7	0.15	24	8	27	45
14	167.5	158	166	80	75	5.5	12	7.2	17.2	16	12.0	25.0	33.2	0.15	28	8	31	55
16	185	175	184	100	82	5.5	12.5	13.6	24.6	18	19.4	32.8	42.6	0.20	28	8	31	65

How to Place an Order

BXR-14-20-038-24V-28DIN



COUPLINGS

ETP BUSHINGS

ELECTROMAGNETIC CLUTCHES & BRAKES

SPEED CHANGERS & REDUCERS

INVERTERS

LINEAR SHAFT DRIVES

TORQUE LIMITERS

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SERIES

ELECTROMAGNETIC-ACTUATED MICRO CLUTCHES & BRAKES
 ELECTROMAGNETIC-ACTUATED CLUTCHES & BRAKES
 ELECTROMAGNETIC CLUTCH & BRAKE UNITS

SPRING-ACTUATED BRAKE

ELECTROMAGNETIC TOOTH CLUTCHES

BRAKE MOTORS

POWER SUPPLIES

MODELS

BXW

BXR

BXL

BXH

BXL-N

BXR Models

Items Checked for Design Purposes

I 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.

I 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. Attach the protective cover when working in areas with oil, moisture, dust, and other particles that could affect the braking system.

■ Operating Temperature

The operating temperature range is -10°C to 40°C . If you will use the product at other temperatures, consult Miki Pulley.

■ Power Supplies

BXR models use commercial AC 100 V or 200 V single phase, full-wave rectified. Select as appropriate for your application. See the table, "Recommended power supplies and circuit protectors," for the power supply devices we recommend.

■ 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 $\pm 10\%$ of the rated voltage value.

■ Air Gap Adjustment

BXR 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 that is not equipped with a circuit protector for DC switching, make sure to connect the recommended circuit protector device in parallel with the brake.

Precautions for Mounting

Affixing the Rotor Hub

Affix the rotor hub to the shaft with bolts, snap rings, or the like such that the rotor hub does not touch the armature or stator. Leave at least dimension J on spline hub types, since the rotor hub may contact the armature.

Bolts and Screws

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

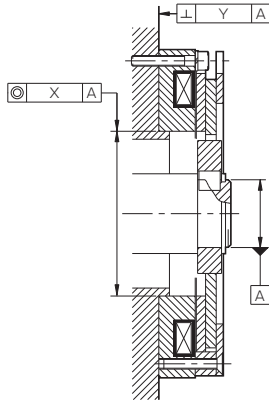
Shafts

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

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.

Size	Concentricity (X)	Perpendicularity (Y)
	T.I.R. [mm]	T.I.R. [mm]
06	0.3	0.04
08	0.3	0.05
10	0.4	0.05
12	0.4	0.06
14	0.6	0.06
16	0.6	0.07



Recommended Power Supplies and Circuit Protectors

Recommended power supplies

Input AC power	Brake voltage	Rectification method	Brake size	Recommended power supply model
AC100V 50/60Hz	DC24V	Single-phase, full-wave	06,08,10	BES-20-71-1
AC100V 50/60Hz	DC24V	Single-phase, full-wave	12,14,16	BES-20-72-1
AC200V 50/60Hz	DC24V	Single-phase, full-wave	06,08,10	BES-20-71
AC200V 50/60Hz	DC24V	Single-phase, full-wave	12,14,16	BES-20-72

* A DC power supply such as a battery can also be used to supply the 24 V DC required for the brake voltage.

Circuit protector

Brake voltage	Included varistors
DC24V	NVD07SCD082 or an equivalent

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

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