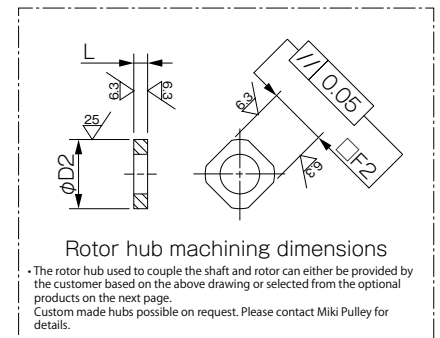
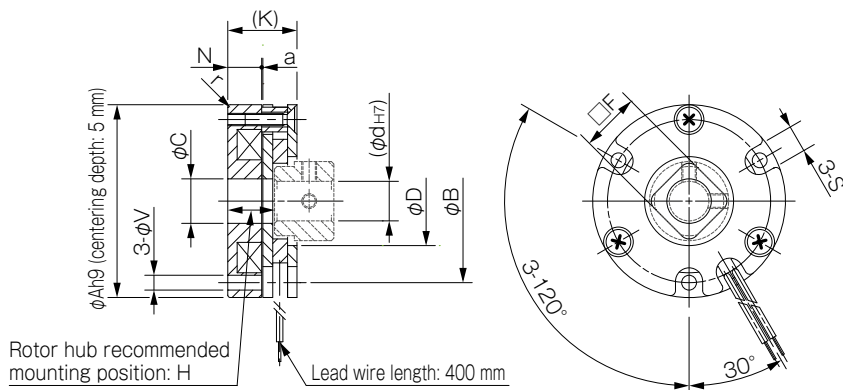


# BXR-LE Safety brakes - Datasheet

## Specifications (Brake)

Model	Size	Static friction torque $T_s$ [N-m]	Coil [at 20 °C]								Heat resistance class	Lead wire		Max. rotation speed [min <sup>-1</sup> ]	Rotating part moment of inertia J [kg·m <sup>2</sup> ]	Allowable braking energy rate $E_{ba\delta}$ [J]	Total braking energy $E_t$ [J]	Armature pull-in time $t_a$ [s]	Armature release time $t_r$ [s]	Mass [kg]
			Overexcitation output				Normal excitation output					UL style	Size							
			Voltage [V]	Wattage [W]	Current [A]	Resistance [ $\Omega$ ]	Voltage [V]	Wattage [W]	Current [A]	Resistance [ $\Omega$ ]										
BXR-015-10LE	015	0.06	24	16.5	0.688	35	7	1.4	0.200	35	F	UL3398 AWG26	6000	$3.34 \times 10^{-8}$	5	1000	0.020	0.020	0.03	
BXR-020-10LE	020	0.14	24	16.5	0.688	35	7	1.4	0.200	35	F	UL3398 AWG26	6000	$5.56 \times 10^{-8}$	15	3000	0.035	0.020	0.06	
BXR-025-10LE	025	0.32	24	16.5	0.688	35	7	1.4	0.200	35	F	UL3398 AWG26	6000	$1.56 \times 10^{-7}$	15	3000	0.035	0.020	0.08	
BXR-035-10LE	035	0.62	24	16.5	0.688	35	7	1.4	0.200	35	F	UL3398 AWG26	6000	$4.83 \times 10^{-7}$	87	17000	0.050	0.020	0.12	
BXR-040-10LE	040	1.32	24	16.5	0.688	35	7	1.4	0.200	35	F	UL3398 AWG26	6000	$6.32 \times 10^{-7}$	87	17000	0.060	0.020	0.16	
BXR-050-10LE	050	3.20	24	16.5	0.688	35	7	1.4	0.200	35	F	UL3398 AWG26	6000	$1.51 \times 10^{-6}$	200	40000	0.060	0.020	0.40	

## Dimensions (Brake)



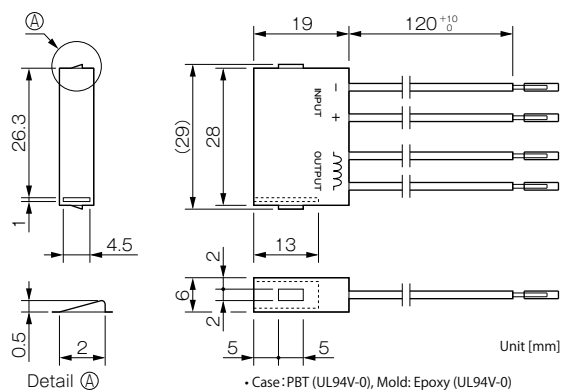
Model	Size	Radial direction dimensions										Axial direction dimensions			Rotor hub machining dimensions			Unit [mm]
		A	r	B	C	D	d max.	□ F	S	V	H	K	N	a	L	D2	□ F2	
BXR-015-10LE	015	26	R0.5	22	7	12	5	8	4.3	2.3	9.5 ~ 10.0	14.0	7.0	0.1	4 or more	10 <sup>0</sup> <sub>-0.1</sub>	8 <sup>0</sup> <sub>-0.07</sub>	
BXR-020-10LE	020	32	R0.5	28	9	16	8	12	5.0	2.3	9.5 ~ 10.0	14.0	7.0	0.1	4 or more	14 <sup>0</sup> <sub>-0.1</sub>	12 <sup>0</sup> <sub>-0.07</sub>	
BXR-025-10LE	025	39	R0.5	33	9	18	8	12	5.5	3.0	9.5 ~ 10.0	14.0	7.0	0.1	4 or more	14 <sup>0</sup> <sub>-0.1</sub>	12 <sup>0</sup> <sub>-0.07</sub>	
BXR-035-10LE	035	48	R0.5	42	15	28	14	19	5.5	3.0	9.5 ~ 10.0	14.0	7.0	0.1	4 or more	23 <sup>0</sup> <sub>-0.1</sub>	19 <sup>0</sup> <sub>-0.07</sub>	
BXR-040-10LE	040	56	R0.5	50	15	27	14	19	6.5	3.4	9.9 ~ 10.4	14.5	7.4	0.1	4 or more	23 <sup>0</sup> <sub>-0.1</sub>	19 <sup>0</sup> <sub>-0.07</sub>	
BXR-050-10LE	050	71	R0.5	65	22	37	20	25	8.0	4.4	14.0 ~ 14.4	19.0	10.5	0.1	4.5 or more	31 <sup>0</sup> <sub>-0.1</sub>	25 <sup>0</sup> <sub>-0.07</sub>	

## Specifications (Controller)

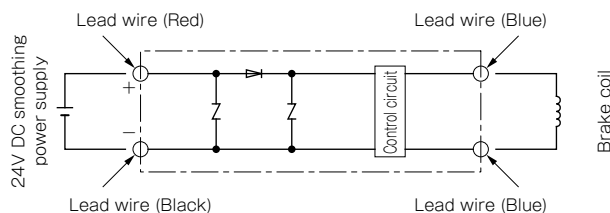
Model	BEM-24ESN7-120N
Input voltage	24V DC $\pm$ 10% smoothing power supply
Output voltage	Initial: 24V DC (0.2 sec.) Constant: 7V DC ( $\pm$ 10%), PWM control *When the input voltage is 21V DC, the output voltage is cut off.
Max. output current	1.0 A DC (ambient temp.: 20 °C), 0.8 A DC (ambient temp.: 60 °C)
Insulating resistance	500V DC, 100 M $\Omega$ with Megger (input/output – between terminal and case)
Dielectric strength voltage	1000V AC, 50/60 Hz, 1 min. (input/output – between terminal and case)
Ambient environment	-20 to 60 °C, 5 to 95% RH, no condensation/freezing
Mass	0.02 kg

Lead wire	Function	Description	Specification
Red	Input (+)	Connects the 24V DC smoothing power supply (+)	UL3398 AWG26
Black	Input (-)	Connects the 24V DC smoothing power supply (-)	UL3398 AWG27
Blue	Output	Connects the spring-actuated brake (either pole)	UL3398 AWG28
Blue	Output	Connects the spring-actuated brake (either pole)	UL3398 AWG29

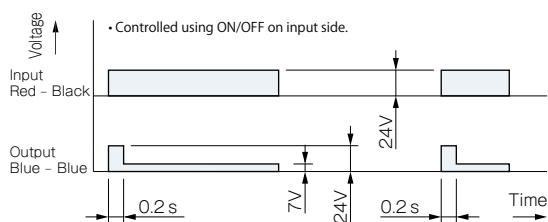
## Dimensions (Controller)



## Structure (Controller)

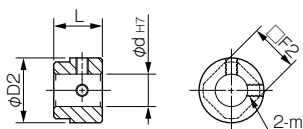


## Timing Chart (Controller)



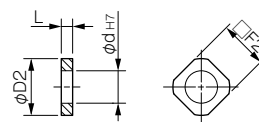
## Options Rotor Hub

### Set screw type (C)



Model	Size	L	D2	□ F2	m Nominal dia.	d		
						Standard	Min.	Max.
BXR-015-10LE	015	10	10	8 $\frac{0}{-0.07}$	M2.5	5	4	5
BXR-020-10LE	020	10	14	12 $\frac{0}{-0.07}$	M3	8	5	8
BXR-025-10LE	025	10	16	12 $\frac{0}{-0.07}$	M3	8	5	8
BXR-035-10LE	035	12	26	19 $\frac{0}{-0.07}$	M4	14	8	14
BXR-040-10LE	040	12	26	19 $\frac{0}{-0.07}$	M4	14	11	14
BXR-050-10LE	050	15	35	25 $\frac{0}{-0.07}$	M5	20	15	20

### Press fit type (P)



Model	Size	L	D2	□ F2	d		
					Standard	Min.	Max.
BXR-015-10LE	015	4	9.58	8 $\frac{0}{-0.07}$	5	5	6
BXR-020-10LE	020	4	14	12 $\frac{0}{-0.07}$	8	7	8
BXR-025-10LE	025	4	14	12 $\frac{0}{-0.07}$	8	7	8
BXR-035-10LE	035	4	23	19 $\frac{0}{-0.07}$	14	9	14
BXR-040-10LE	040	4	23	19 $\frac{0}{-0.07}$	14	11	14
BXR-050-10LE	050	4.5	31	25 $\frac{0}{-0.07}$	20	15	20

## How to Place an Order

### BXR-015-10LE-006-C5

Size ——— Bore diameter (dimension symbol: d)  
 Controller set type ——— Option (Rotor Hub)  
 Nominal static friction torque (3-digit number listed in the specifications tables) ——— Blank: Without rotor hub  
 C: Set screw type  
 P: Press fit type