

Foot Mount Gearhead JB Gear

200 W (1/4 HP), 300 W (2/5 HP), 400 W (1/2 HP)



Specifications



Product	Motor	BLM5200HPK-5 ■ B □ A-L	BLM5300HPK-5 ■ B □ B-L	BLM5400HPK-5 ■ B □ A-L
Name	Driver	BLE2D200-C	BLE2D300-C	BLE2D400-S
Rated Output Power (Continuous)	W (HP)	200 (1/4)	300 (2/5)	400 (1/2)
Power	Rated Voltage	VAC	Single-Phase 200-240 / Three-Phase 200-240	Single-Phase 200-240 / Three-Phase 200-240
	Permissible Voltage Range		-15 ~ +10%	-15 ~ +10%
Supply	Frequency	Hz	50 / 60	50 / 60
Input	Permissible Frequency Range		±5%	±5%
	Rated Input Current	A	Single-Phase: 2.4/Three-Phase: 1.4	Single-Phase: 3.2/Three-Phase: 1.8
	Maximum Input Current	A	Single-Phase: 6.5/Three-Phase: 4.3	Single-Phase: 8.5/Three-Phase: 6.0
Rated Speed	r/min	3000		
Speed Control Range		80 ~ 3600 r/min (Speed ratio 45:1)		
Speed Regulation*	Load	Max. ±0.2%: Conditions 0 ~ rated torque, rated speed, rated voltage, normal temperature		
	Voltage	Max. ±0.2%: Conditions Rated voltage -15 ~ +10%, rated speed, no load, normal temperature		
	Temperature	Max. ±0.2%: Conditions Operating ambient temperature 0 ~ +50°C (+32 ~ +122°F), rated speed, no load, rated voltage		

* () The number in the parentheses is the specified value for the analog setting.

● The values correspond to each specification and characteristics of a stand-alone motor.

Gear Ratio		5	10	20	30	50	100	200	300	450	600	1200 *1		
(Actual Gear Ratio)		(4.97)	(10.12)	(20.08)	(30.86)	(49.09)	(104.1)	(196.4)	(300.5)	(450.8)	(588.9)	(1178)		
Gearhead Size Code		A			C		E		K		S			
Rotation Direction		Same direction as the motor				Opposite direction to the motor				Same direction as the motor				
Output Shaft Speed [r/min] *2		80 r/min	16	8	4	2.7	1.6	0.8	0.4	0.27	0.18	0.13	0.07	
		3600 r/min	720	360	180	120	72	36	18	12	8	6	3	
Permissible Torque [N·m (lb-in)]	200 W (1/4 HP)	At 80 - 3000 r/min	2.4 (21)	4.9 (43)	9.7 (85)	13.0 (115)	22.5 (199)	48.4 (420)	91.3 (800)	132 (1160)	198 (1750)	259 (2200)	518 (4500)	
		At 3600 r/min	1.7 (15.0)	3.4 (30)	6.8 (60)	8.2 (72)	15.6 (138)	32.0 (280)	60.3 (530)	92.3 (810)	138 (1220)	181 (1600)	362 (3200)	
	300 W (2/5 HP)	At 80 - 3000 r/min	3.6 (31)	7.3 (64)	14.6 (129)	19.4 (171)	33.8 (290)	72.6 (640)	137 (1210)	198 (1750)	297 (2600)	388 (3400)	— —	
		At 3600 r/min	2.5 (22)	5.1 (45)	10.1 (89)	12.2 (107)	23.2 (200)	47.7 (420)	90 (790)	138 (1220)	207 (1830)	270 (2300)	— —	
	400 W (1/2 HP)	At 80 - 1500 r/min	5.4 (47)	10.9 (96)	21.7 (192)	31.7 (280)	49.9 (440)	108 (950)	205 (1810)	298 (2600)	431 (3800)	583 (5100)	— —	
		At 3000 r/min	4.3 (38)	8.3 (73)	17.2 (152)	25.4 (220)	41.2 (360)	81.9 (720)	164 (1450)	219 (1930)	302 (2600)	438 (3800)	— —	
		At 3600 r/min	3.1 (27)	5.9 (52)	12.3 (108)	18.2 (161)	29.4 (260)	58.5 (510)	117 (1030)	157 (1380)	216 (1910)	313 (2700)	— —	
	Permissible Radial Load [N (lb.)]	10 mm (0.39 in.) from End of Output Shaft	At 80 - 1500 r/min	521 (117)	977 (210)	1243 (270)	1824 (410)	2032 (450)	2888 (640)	3483 (780)	4461 (1000)		5245 (1180)	
			At 3000 r/min	365 (82)	684 (153)	870 (195)	1277 (280)	1422 (310)	2022 (450)	2438 (540)	3123 (700)		3672 (820)	
			At 3600 r/min	261 (58)	489 (110)	622 (139)	912 (200)	1016 (220)	1444 (320)	1742 (390)	2231 (500)		2623 (590)	
		20 mm (0.79 in.) from End of Output Shaft	At 80 - 1500 r/min	663 (149)	1244 (270)	1582 (350)	2280 (510)	2540 (570)	3496 (780)	4216 (940)	5174 (1160)		5921 (1330)	
			At 3000 r/min	464 (104)	871 (195)	1107 (240)	1596 (350)	1778 (400)	2447 (550)	2951 (660)	3622 (810)		4145 (930)	
At 3600 r/min			332 (74)	622 (139)	791 (177)	1140 (250)	1270 (280)	1748 (390)	2108 (470)	2587 (580)		2961 (660)		
Permissible Axial Load [N (lb.)]	At 80 - 1500 r/min	39 (8.7)	88 (19.8)	177 (39)	255 (57)	275 (61)	422 (94)	461 (103)	686 (154)		824 (185)			
	At 3000 r/min	27.3 (6.1)	61.6 (13.8)	124 (27)	179 (40)	193 (43)	295 (66)	323 (72)	480 (108)		577 (129)			
	At 3600 r/min	19.5 (4.3)	44 (9.9)	88.5 (19.9)	128 (28)	138 (31)	211 (47)	231 (51)	343 (77)		412 (92)			
Permissible Inertia J [× 10 ⁻⁴ kg·m ² (oz-in ²)	At 80 - 1500 r/min		250 (1370)	1000 (5500)	4000 (22000)	9000 (49000)	25000 (137000)	100000 (550000)	400000 (2200000)	900000 (4900000)	2025000 (11100000)	3600000 (19700000)	14400000 (79000000)	
		At 3000 r/min	90 (490)	360 (1970)	1440 (7900)	3240 (17700)	9000 (49000)	36000 (197000)	144000 (790000)	324000 (1770000)	729000 (4000000)	1296000 (7100000)	5184000 (28000000)	
		At 3600 r/min	50.6 (280)	203 (1110)	810 (4400)	1823 (10000)	5063 (28000)	20250 (111000)	81000 (440000)	182250 (1000000)	410063 (2200000)	729000 (4000000)	2916000 (16000000)	
	When Instantaneous Stop or Bi-Directional Operation is performed * ³	At 80 - 1500 r/min	83.3 (460)	333 (1820)	1333 (7300)	3000 (16400)	8333 (46000)	33333 (182000)	133333 (730000)	300000 (1640000)	675000 (3700000)	1200000 (6600000)	4800000 (26000000)	
		At 3000 r/min	30 (164)	120 (660)	480 (2600)	1080 (5900)	3000 (16400)	12000 (66000)	48000 (260000)	108000 (590000)	243000 (1330000)	432000 (2400000)	1728000 (9500000)	
		At 3600 r/min	16.9 (92)	67.5 (370)	270 (1480)	608 (3300)	1688 (9200)	6750 (37000)	27000 (148000)	60750 (330000)	136688 (750000)	243000 (1330000)	972000 (5300000)	

*1 Limited to 200 W (1/4 HP) type.

*2 The output shaft speed is calculated by dividing the speed by the gear ratio.

*3 It is also applicable when digitally setting the deceleration time to below 0.1 seconds.

Do not perform instantaneous bi-directional operations on motors with an output power of 300 W (2/5 HP) and 400 W (1/2 HP).