

Parallel Shaft Gearhead JV Gear

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



Specifications



Product	Motor		BLM5200HPK-5KV □ C	BLM5300HPK-5 ■ V □ S	BLM5400HPK-5 ■ V □ C
Name	Driver		BLE2D200-C	BLE2D300-C	BLE2D400-S
Rated Output Power (Continuous)		W (HP)	200 (1/4)	300 (2/5)	400 (1/2)
Power Supply Input	Rated Voltage	VAC	Single-Phase 200-240 / Three-Phase 200-240	Single-Phase 200-240 / Three-Phase 200-240	Three-Phase 200-240
	Permissible Voltage Range		-15 ~ +10%	-15 ~ +10%	-15 ~ +10%
	Frequency	Hz	50 / 60	50 / 60	50 / 60
	Permissible Frequency Range		±5%	±5%	±5%
	Rated Input Current	A	Single-Phase: 2.4/Three-Phase: 1.4	Single-Phase: 3.2/Three-Phase: 1.8	2.3
	Maximum Input Current	A	Single-Phase: 6.5/Three-Phase: 4.3	Single-Phase: 8.5/Three-Phase: 6.0	6.1
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		100 * ¹	200 * ¹	300	450	
(Actual Gear Ratio)		(104.1)	(196.4)	(300.5)	(450.8)	
Gearhead Size Code		D		K		
Rotation Direction		Opposite direction to the motor		Same direction as the motor		
Output Shaft Speed [r/min] * ²		80 r/min	0.8	0.4	0.27	0.18
		3600 r/min	36	18	12	8
Permissible Torque [N·m (lb-in)]	200 W (1/4 HP)	At 80 ~ 3000 r/min	—	—	132	198
			—	—	(1160)	(1750)
		At 3600 r/min	—	—	92.3	138
			—	—	(810)	(1220)
	300 W (2/5 HP)	At 80 ~ 3000 r/min	—	137	198	297
			—	(1210)	(1750)	(2600)
		At 3600 r/min	—	117	157	216
			—	(1030)	(1380)	(1910)
	400 W (1/2 HP)	At 80 ~ 1500 r/min	108	205	298	431
			(950)	(1810)	(2600)	(3800)
		At 3000 r/min	81.9	164	219	302
			(720)	(1450)	(1930)	(2600)
	At 3600 r/min	58.5	117	157	216	
		(510)	(1030)	(1380)	(1910)	
Permissible Radial Load [N (lb.)]	10 mm (0.39 in.) from End of Output Shaft	At 80 ~ 1500 r/min	2888	3483	4461	
			(640)	(780)	(1000)	
		At 3000 r/min	2022	2438	3123	
		(450)	(540)	(700)		
		At 3600 r/min	1444	1742	2231	
		(320)	(390)	(500)		
	20 mm (0.79 in.) from End of Output Shaft	At 80 ~ 1500 r/min	3496	4216	5174	
			(780)	(940)	(1160)	
At 3000 r/min		2447	2951	3622		
	(550)	(660)	(810)			
	At 3600 r/min	1748	2108	2587		
	(390)	(470)	(580)			
Permissible Axial Load [N (lb.)]	At 80 ~ 1500 r/min	422	461	686		
		(94)	(103)	(154)		
	At 3000 r/min	295	323	480		
		(66)	(72)	(108)		
At 3600 r/min	211	231	343			
	(47)	(51)	(77)			
Permissible Inertia J [× 10-4kg·m2 (oz-in2)]	At 80 ~ 1500 r/min	100000	400000	900000	2025000	
		(550000)	(2200000)	(4900000)	(11100000)	
		At 3000 r/min	36000	144000	324000	729000
		(197000)	(790000)	(1770000)	(4000000)	
	At 3600 r/min	20250	81000	182250	410063	
		(111000)	(440000)	(1000000)	(2200000)	
	When Instantaneous Stop or Bi-Directional Operation is performed * ³	At 80 ~ 1500 r/min	33333	133333	300000	675000
			(182000)	(730000)	(1640000)	(3700000)
At 3000 r/min		12000	48000	108000	243000	
		(66000)	(260000)	(590000)	(1330000)	
	At 3600 r/min	6750	27000	60750	136688	
		(37000)	(148000)	(330000)	(750000)	

*1 Gear ratio 100: Only for output 400 W (1/2 HP) type.

Gear ratio 200: Corresponds to output of 300 W (2/5 HP) and 400 W (1/2 HP) types.

*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.

◇◇ Load Position