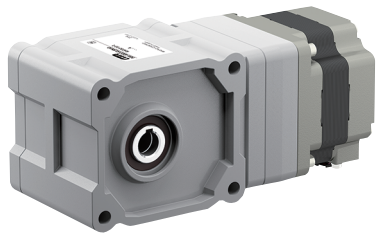
Right-Angle Hollow Shaft Hypoid JH Gear
60 W (1/12 HP), 120 W (1/6 HP)



Specifications

Product Name			BLM460SHPK-4H ☐ S		BLM5120HPK-5H ☐ C	
	Driver		BMUD60-A2	BMUD60-C2	BMUD120-A2	BMUD120-C2
Rated Output Power (Continuous)		W (HP)	60 (1/12)		120 (1/6)	
Power Supply Input	Rated Voltage	VAC	Single-Phase 100-120	Single-Phase 200-240 / Three-Phase 200-240	Single-Phase 100-120	Single-Phase 200-240 / Three-Phase 200-240
	Permissible Voltage Range		−15 ～ +10%		−15 ～ +10%	
	Frequency	Hz	50 / 60		50 / 60	
	Permissible Frequency Range		±5%		±5%	
	Rated Input Current	A	1.7	Single-Phase: 1.0/Three-Phase: 0.52	3.3	Single-Phase: 2.0/Three-Phase: 1.1
	Maximum Input Current	A	3.3	Single-Phase: 1.9/Three-Phase: 1.1	6.8	Single-Phase: 4.1/Three-Phase: 2.0
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 ~ +40°C (+32 ~ +104°F), rated speed, no load, rated voltage			

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

Gear Ratio				10	15	20	30	50	100	200
(Actual Gear Ratio)				(10.25)	(15.38)	(20.50)	(30.75)	(51.25)	(102.5)	(205.0)
Rotation Direction *1				Same direction as the motor					Opposite direction to the motor	
Output Shaft Speed			80 r/min	8	5.3	4	2.7	1.6	0.8	0.4
[r/min] *2			3600 r/min	360	240	180	120	72	36	18
Permissible Torque [N·m (lb-in)]		60 W (1/12 HP)	At 80 ~ 1500 r/min	1.2 (10.6)	1.8 (15.9)	2.7 (23)	4 (35)	6.7 (59)	13.3 (117)	20.6 (182)
			At 3000 r/min	1.2 (10.6)	1.8 (15.9)	2.5 (22)	3.8 (33)	6.4 (56)	12.7 (112)	15.6 (138)
			At 3600 r/min	0.74 (6.5)	1.1 (9.7)	1.8 (15.9)	2.7 (23)	4.4 (38)	8.9 (78)	11.5 (101)
		120 W (1/6 HP)	At 80 ~ 1500 r/min	3.2 (28)	4.8 (42)	6.5 (57)	9.7 (85)	16.0 (141)	32.3 (280)	53.9 (470)
			At 3000 r/min	2.5 (22)	3.8 (33)	5.1 (45)	7.6 (67)	12.7 (112)	25.5 (220)	41.0 (360)
			At 3600 r/min	1.8 (15.9)	2.6 (23)	3.5 (30)	5.3 (46)	8.8 (77)	17.7 (156)	30.2 (260)
Permissible Radial Load [N (lb.)] *3	20 mm (0.79 in.) from Installation Surface	60 W (1/12 HP)	At 80 ~ 1500 r/min	265 (59)	341 (76)	417 (93)	531 (119)	682 (153)	758 (170)	836 (188)
			At 3000 r/min	201 (45)	259 (58)	317 (71)	404 (90)	518 (116)	576 (129)	635 (142)
			At 3600 r/min	148 (33)	191 (42)	234 (52)	297 (66)	382 (85)	424 (95)	468 (105)
		120 W (1/6 HP)	At 80 ~ 1500 r/min	363 (81)	484 (108)	605 (136)	806 (181)	971 (210)	1045 (230)	1127 (250)
			At 3000 r/min	276 (62)	368 (82)	460 (103)	613 (137)	738 (166)	794 (178)	857 (192)
			At 3600 r/min	203 (45)	271 (60)	339 (76)	451 (101)	544 (122)	585 (131)	631 (141)
Permissible Axial Load [N (lb.)]		60 W (1/12 HP)	At 80 ~ 1500 r/min	88 (19.8)	108 (24)	137 (30)	177 (39)	226 (50)	245 (55)	275 (61)
			At 3000 r/min	67 (15.0)	82 (18.4)	104 (23)	135 (30)	172 (38)	186 (41)	209 (47)
			At 3600 r/min	49 (11.0)	60 (13.5)	77 (17.3)	99 (22)	127 (28)	137 (30)	154 (34)
		120 W (1/6 HP)	At 80 ~ 1500 r/min	108 (24)	147 (33)	186 (41)	245 (55)	294 (66)	324 (72)	343 (77)
			At 3000 r/min	82 (18.4)	112 (25)	141 (31)	186 (41)	223 (50)	246 (55)	261 (58)
			At 3600 r/min	60 (13.5)	82 (18.4)	104 (23)	137 (30)	165 (37)	181 (40)	192 (43)
Permissible Inertia J [$\times 10^{-4}$kg·m^2 (oz-in^2)]		60 W (1/12 HP)	At 80 ~ 1500 r/min	100 (550)	225 (1230)	400 (2200)	900 (4900)	2500 (13700)	10000 (55000)	40000 (220000)
			At 3000 r/min	36 (197)	81 (440)	144 (790)	324 (1770)	900 (4900)	3600 (19700)	14400 (79000)
			At 3600 r/min	20.3 (111)	45.6 (250)	81 (440)	182 (1000)	506 (2800)	2025 (11100)	8100 (44000)
		120 W (1/6 HP)	At 80 ~ 1500 r/min	200 (1090)	450 (2500)	800 (4400)	1800 (9800)	5000 (27000)	20000 (109000)	80000 (440000)
			At 3000 r/min	72 (390)	162 (890)	288 (1580)	648 (3500)	1800 (9800)	7200 (39000)	28800 (158000)
			At 3600 r/min	40.5 (220)	91.1 (500)	162 (890)	365 (2000)	1013 (5500)	4050 (22000)	16200 (89000)
	When Instantaneous Stop or Bi-Directional Operation is performed *4	60 W (1/12 HP)	At 80 ~ 1500 r/min	33.3 (182)	75 (410)	133 (730)	300 (1640)	833 (4600)	3333 (18200)	13333 (73000)
			At 3000 r/min	12 (66)	27 (148)	48 (260)	108 (590)	300 (1640)	1200 (6600)	4800 (26000)
			At 3600 r/min	6.8 (37)	15.2 (83)	27 (148)	60.8 (330)	169 (920)	675 (3700)	2700 (14800)
		120 W (1/6 HP)	At 80 ~ 1500 r/min	66.7 (360)	150 (820)	267 (1460)	600 (3300)	1667 (9100)	6667 (36000)	26667 (146000)
			At 3000 r/min	24 (131)	54 (300)	96 (530)	216 (1180)	600 (3300)	2400 (13100)	9600 (53000)
			At 3600 r/min	13.5 (74)	30.4 (166)	54 (300)	122 (670)	338 (1850)	1350 (7400)	5400 (30000)

*1 The rotation direction is as seen from the gear flange surface (drawing on the right).

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

*3 The radial load at each distance can be calculated with a formula. ➜ Page ◆◆◆

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