Oriental motor



Brushless DC Motor

High Torque Gearheads

Parallel Shaft Gearhead

60W, 120W, 200W, 300W Gear Ratio 5 - 600

Right-Angle Hollow Shaft Hypoid JH Gearhead Foot Mount Type JB Gearhead Parallel Shaft JV Gearhead





Right-Angle Hollow Shaft Hypoid Gearhead





BMU Series Driver

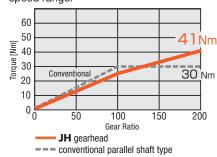
BLE2 Series Driver

These gearheads are designed for our compact motors of BMU and BLE2 series. They are specified with high torque and big axial and radial loads.

Right-Angle Hollow Shaft Hypoid JH Gearhead

Permissible Torque

No torque saturation over the entire speed range.



High Strength

Compared to conventional gearheads



[200:1 at 3000 r/min]

Degree of Protection IP66

The degree of protection is IP66 which is realized by the stainless steel shaft (JH and ${f JV}$ gearhead).

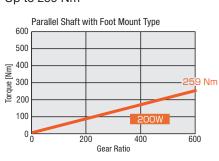
O-Ring Stainless Steel Gasket Shaft



Foot Mount Type JB Gearhead • Parallel Shaft JV Gearhead

High Permissible Torque

Up to 259 Nm



High Strength

Foot Mount Type



[1/600 by 3000 r/min]

[1/450 by 3000 r/min] Permissible radial load Permissible radial load Permissible axial load Permissible axial load

...... 577 N 480 N

Flange Type

High Gear Ratio

Foot Mount Type JB Gearhead



5 10 20 30 50 100 200 300 450 600



Parallel Shaft JV Gearhead

Gear ratio

200 300 450

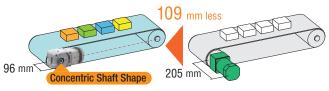




Features of Right-Angle Hollow Shaft Hypoid Gearhead

Downsizing

Downsizes the construction by direct mounting to the conveyor. Furthermore, the concentric shaft offers more flexibility for the mounting direction.

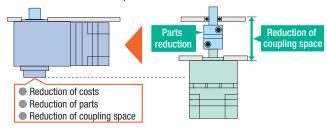


Right-Angle Hollow Shaft Hypoid Gearhead

90 W AC Motor Parallel Shaft Gearhead

Lower Cost

Reduction of costs and parts thanks to direct connection.



[Right-Angle Hollow Shaft Hypoid Gearhead]

[Parallel Shaft Gearhead]

Features of Foot Mount Gearhead

No Need for Mounting Bracket

Can be mounted directly to the application.



One-piece construction for easy shaft centering.



Line up

	Make							
	ı	Motor		ı		Driver		
Туре	Output Power [W]	Permissible Torque [Nm]	Gear Ratio	Degree of Protection	Ima	age	Power Supply Voltage [V]	Connection Cable
Right-Angle Hollow	60	20.6			-			
Shaft Hypoid JH Geared	120	41	10, 15, 20, 30, 50, 100, 200	IP66				BMU Series 0.5 - 10 m
	200	82.8	5, 10, 15, 20, 30		BLE2 Series			BLE2 Series 0.5 - 20 m
	300	134	50, 100, 200		-			Cable drawn by the
Foot Mount Type JB Geared	200	518	5, 10 , 20, 30, 50 100, 200, 300, 450, 600	IP44	BLE2 Series	36ac	Single-Phase 200-240 VAC Three-Phase 200-240 VAC	output shaft side / the opposite side of the output shaft
	300	388	5, 10, 20, 30, 50 100, 200, 300, 450, 600		-	BMU Series		
Parallel Shaft JV Geared*	200	198	300, 450	IP66	BLE2 Series			
	300	297	200,300,450		_			

*For low gear ratios of 5 - 200 of the parallel shaft gearhead the GFV gearhead is also available.

For details please refer to the BMU Series or BLE2 Series catalogue or the website: www.orientalmotor.eu

- «Specifications»
- Rated Speed: 3000 r/min
- Speed Control Range: 80-3600 r/min (speed ratio 1:45)

For the following information please refer to the **BMU** or **BLE2** Series catalogue or the website: www.orientalmotor.eu

- Motor Features
- Details of the GFV Parallel Shaft Gearhead
- Driver Dimensions
- Connection and Operation



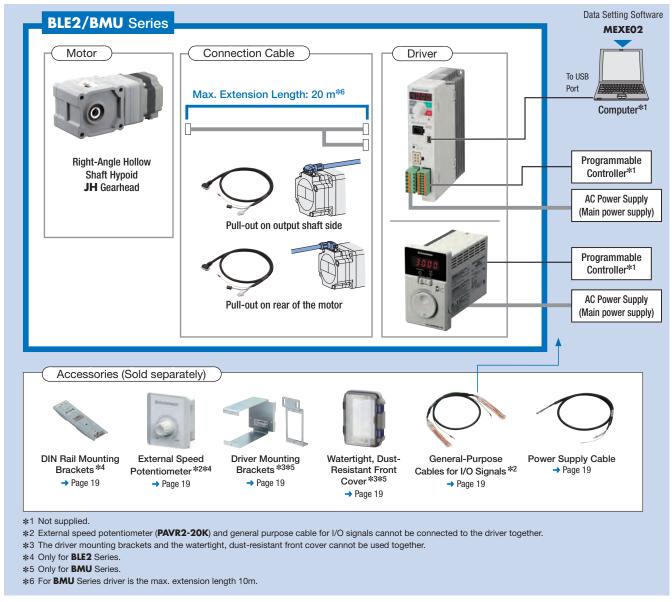


BMU Series Catalogue

BLE2 Series Catalogue

System Configuration

Motors, drivers and connection cables are sold separately.



Evample of System Configuration

BLE2 Series				Sold Se	parately
Right-Angle Hollow Shaft Hypoid JH Gearhead	Driver	Connection Cable (3 m)	+	Din Rail Mounting Bracket	External Speed Potentiometer
BLM5120HPK-5H10S	BLE2D120-C	CC030HBLF		MADP02	PAVR2-20K
BMU Series					
	BMU Series			Sold Se	parately
Right-Angle Hollow Shaft Hypoid JH Gearhead	BMU Series Driver	Connection Cable (3 m)	+	Sold Se	parately Watertight, Dust-Resistant Front Cover

[■] The system configuration shown above is an example. Other combinations are also available.

Product Number

Motor (Combination Type/Round Shaft Type)

Foot Mount Type JB Geared / Parallel Shaft JV Geared

BLM 5 200 H P K - 5 C B 50 B - L

1 2 4 5 6 7890 11 (12)

Motor Product Code

Gearhead Product Code

1

Driver Type

	1	Motor Type	BLM: Brushless Motor
	2	Frame Size	5 : 90 mm
	3	Output Power	60 : 60 W 120 : 120 W 200 : 200 W 300 : 300 W
Motor	4	Motor Connection Method	H: Connector Type
	(5)	Motor Degree of Protection	P : IP66
	6	Combined Motor	K: Round Shaft Type (Key included)
	7	Combined Motor Frame Size	5 : 90 mm
Gearhead	8	Gearhead Size	Symbol For the gearhead size symbol please refer to Specifications on → pages 7-8.
	9	Gearhead Type	H: JH Gear B: JB Gear V: JV Gear
	10	Gear Ratio	Number: Reduction Ratio of Gearhead
	11)	Output Shaft Material	S: Stainless B: Iron
	12)	Connector Position	-U: Up -R: Right None: Bottom -L: Left

Driver **BLE2D 120 - C** 1 2

BMUD 120 - C 2 1 2 3 4

Connection Cable CC 010 H BL F 2

3

2	Output Power	60 : 60 W 120 : 120 W 200 : 200 W 300 : 300 W
3	Power Supply Voltage	C: Single-Phase, Three-Phase 200-240 VAC
4	Reference Number	

BLE2D: Driver for BLE2 Series

BMUD: Driver for BMU Series

1	Cable Type	CC: Connection	n Cable	
	Length	005 : 0.5 m 020 : 2 m	010 : 1 m 025 : 2.5 m	015 : 1.5 m 030 : 3 m
2		040: 4 m 100: 10 m	050 : 5 m 150 : 15 m	070 : 7 m 200 : 20 m
3	Motor Connection Method	H: Connector		
4	Applicable Motor	BL: Brushless	Motor	
(5)	Direction of Cable Outlet	F : Output Shaft Side B : Counter-Output Shaft Side		

Product Line

Motors, drivers and connection cables must be ordered individually.

For the single-phase 100-120 VAC models, please contact the nearest Oriental Motor sales office.

Motors

♦ Right-Angle Hollow Shaft Hypoid JH Geared



Output Power	Product Name	Gear Ratio
		10, 15, 20
60 W	BLM460SHPK-4H□S	30, 50, 100
		200
		10, 15, 20
120 W	BLM5120HPK-5H□S	30, 50, 100
		200
		5, 10, 15, 20
	BLM5200HPK-5XH S	30
200 W		50
	BLM5200HPK-5YH□S	100
	BLM3200HPR-31H_3	200
		5, 10, 15, 20
	BLM5300HPK-5XH□S	30
300 W		50
	DIMESONUDY EVUTE	100
	BLM5300HPK-5YH□S	200

*	**	
Outpu Powe	Product Name	Gear Ratio
	BLM5200HPK-5AB□B-■	5, 10, 20
	BLM5200HPK-5CB□B-■	30, 50
200 V	BLM5200HPK-5EB B-	100, 200
	BLM5200HPK-5KB□B-■	300, 450
	BLM5200HPK-5SB B-	600
	BLM5300HPK-5AB□B-■	5, 10, 20
	BLM5300HPK-5CB□B-■	30, 50
300 V	BLM5300HPK-5EB□B-■	100, 200
	BLM5300HPK-5KB□B-■	300, 450
	RIM5300HDK-55R R.	600



◇Parallel Shaft JV Geared

Output Power	Product Name	Gear Ratio
200 W	BLM5200HPK-5KV□S	300, 450
200 W	BLM5300HPK-5DV□S	200
300 W	BLM5300HPK-5KV□S	300,450

Other Lineup

Connector Position Selection of 4 Directions.

For details please contact the nearest Oriental Motor sales office.

Included

Motor

Туре	Parallel Key	Safety Cover	Installation Screw	Operating Manual
JH Gearhead	1 Piece	1 Piece	1 Set	
JB Gearhead	_	_	_	1 Copy
JV Gearhead	_	_	_	

Drivers

♦ BLE2 Series

V		
Output Power	Power Supply Voltage	Product Name
60 W	Single-Phase, Three-Phase 200-240 VAC	BLE2D60-C
120 W	Single-Phase, Three-Phase 200-240 VAC	BLE2D120-C
200 W	Single-Phase, Three-Phase 200-240 VAC	BLE2D200-C



♦ BMU Series

Product Name	Power Supply Voltage	Output Power
BMUD60-C2	Single-Phase, Three-Phase 200-240 VAC	60 W
BMUD120-C2	Single-Phase, Three-Phase 200-240 VAC	120 W
BMUD200-C	Single-Phase, Three-Phase 200-240 VAC	200 W
BMUD300-C	Single-Phase, Three-Phase 200-240 VAC	300 W



Connection Cables

		_
Length	Product Name	
0.5 m	CC005HBL	
1 m	CC010HBL	
1.5 m	CC015HBL	
2 m	CC020HBL	
2.5 m	CC025HBL	
3 m	CC030HBL	

	Length	Product Name
	4 m	CC040HBL■
	5 m	CC050HBL
-	7 m	CC070HBL
	10 m	CC100HBL
-	15 m	CC150HBL
	20 m	CC200HBL■

Two types of the connection cables with different drawing directions are available

F: Cable drawn by the output shaft side

B: Cable drawn in the opposite side of
the output shaft





Driver

Connector	Startup Guide	Operating Manual
Connector for CN1 (1 Piece)	1 Conv	1 Conv
Connector for CN4 (1 Piece)	1 Copy	1 Copy

Right-Angle Hollow Shaft Hypoid JH Geared 60W, 120W



Specifications

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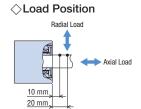
Product	Right-Angle Hollow Shaft Hypoid	JH Geared	BLM460SHPK-4H□S	BLM5120F	IPK-5H□S				
Name	Driver		BMUD60-C2	BMUD120-C2	BLE2D120-C				
Rated Output Powe	r (Continuous)	W	60	12	20				
	Rated Voltage	V	Single-Pha	se 200-240 / Three-Phase 200-240					
	Permissible Voltage Range			-15 - +10%					
Power	Frequency	Hz		50/60					
Supply	Permissible Frequency Range			±5%					
Voltage	Rated Input Current	А	Single-Phase 1.0/	Single-Phase 2.0/	Single-Phase 1.7/				
	nated input ourient		Three-Phase 0.52	Three-Phase 1.1	Three-Phase 1.02				
	Maximum Input Current	Α	Single-Phase 1.9/	Single-Phase 4.1/	Single-Phase 4.8/				
	Maximum input current		Three-Phase 1.1	Three-Phase 2.0	Three-Phase 3.3				
Rated Speed		r/min	3000						
Speed Control Rang	je	r/min	80 - 3600 r/min (Speed ratio 1:45)						
Load			$\pm 0.2\%$ ($\pm 0.5\%$) or less: Conditions 0 - rated torque, rated speed, rated voltage, normal ambient temperature						
Speed Regulation*1 Voltage			$\pm 0.2\%$ ($\pm 0.5\%$) or less: Conditions Rated voltage	ge $-15 - +10\%$, rated speed, no load,	normal ambient temperature				
nogulation	Temperature		$\pm 0.2\%$ ($\pm 0.5\%$) or less: Conditions Operating ambient temperature 0 - $+50^{\circ}$ C*2, rated speed, no load, rated voltage						

- *1 Only for **BLE2** series driver: The brackets () indicate specification for analog setting.
- *2 For **BMU** series, the Conditions Operating ambient temperature is 0 +40°C
- The values correspond to each specification and characteristic 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)
Direction of rotation*1	Direction of rotation*1				Di	Opposite direction of the motor				
0.1.100.000.000.000.000.000	* 2		80 r/min	8	5.3	4	2.7	1.6	0.8	0.4
Output Shaft Speed [r/min]	~ _		3600 r/min	360	240	180	120	72	36	18
,			At 80 - 1500 r/min	1.2	1.8	2.7	4.0	6.7	13.3	20.6
		60W	At 3000 r/min	1.2	1.8	2.5	3.8	6.4	12.7	15.6
Dannaia aible Tannas (Nort)			At 3600 r/min	0.74	1.1	1.8	2.7	4.4	8.9	11.5
Permissible Torque [Nm]			At 80 - 1500 r/min	3.2	4.8	6.5	9.7	16.0	32.3	53.9
		120W	At 3000 r/min	2.5	3.8	5.1	7.6	12.7	25.5	41.0
			At 3600 r/min	1.8	2.6	3.5	5.3	8.8	17.7	30.2
			At 80 - 1500 r/min	265	341	417	531	682	758	836
	20 mm	60W	At 3000 r/min	201	259	317	404	518	576	635
Permissible Radial	from the		At 3600 r/min	148	191	234	297	382	424	468
Load [N]*3	mounting		At 80 - 1500 r/min	363	484	605	806	971	1045	1127
	surface 12	120W	At 3000 r/min	276	368	460	613	738	794	857
			At 3600 r/min	203	271	339	451	544	585	631
			At 80 - 1500 r/min	88	108	137	177	226	245	275
		60W	At 3000 r/min	67	82	104	135	172	186	209
Permissible Axial			At 3600 r/min	49	60	77	99	127	137	154
Load [N]	•	120W	At 80 - 1500 r/min	108	147	186	245	294	324	343
			At 3000 r/min	82	112	141	186	223	246	261
			At 3600 r/min	60	82	104	137	165	181	192
			At 80 - 1500 r/min	100	225	400	900	2500	10000	40000
		60W	At 3000 r/min	36	81	144	324	900	3600	14400
			At 3600 r/min	20.3	45.6	81	182	506	2025	8100
			At 80 - 1500 r/min	200	450	800	1800	5000	20000	80000
		120W	At 3000 r/min	72	162	288	648	1800	7200	28800
			At 3600 r/min	40.5	91.1	162	365	1013	4050	16200
			At 80 - 1500 r/min	33.3	75	133	300	833	3333	13333
Permissible Load Inertia J			At 3000 r/min	12	27	48	108	300	1200	4800
$[\times 10^{-4} \text{kgm}^2]$		aneous stop or	At 3600 r/min	6.8	15.2	27	60.8	169	675	2700
	instantaneous operation is p	s bi-directional performed*4	At 80 - 1500 r/min	66.7	150	267	600	1667	6667	26667
	ороганоп ю р	Jon Jilliou	At 3000 r/min	24	54	96	216	600	2400	9600
		At 3600 r/mi		13.5	30.4	54	122	338	1350	5400
Mass [kg]							4.1			

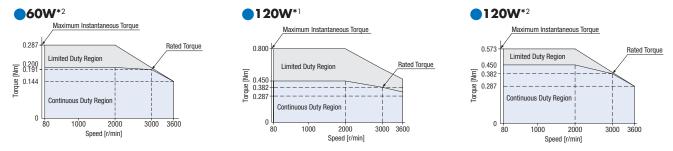
- \$1 The rotation direction is viewed from the gear flange side (see illustration on the right).
- $\ensuremath{\$2}$ The speed of the output shaft is the value of the speed divided by the gear ratio.
- *****3 The permissible radial load can also be calculated with a formula. → Page 18
- *4 It is also applicable when digitally setting the deceleration time to below 0.1 seconds.





Speed - Torque Characteristics

Continuous Duty Region: Continuous operation is possible in this region. Limited Duty Region: This region is used primarily when accelerating



- The values correspond to each specification and characteristic of a motor without gearhead. The speed-torque characteristics show the values when rated voltage is applied.
- \blacksquare A number indicating the gear ratio is entered where the box \square is located within the product name.
- *1 BLE2 Driver
- *2 BMU Driver

Right-Angle Hollow Shaft Hypoid JH Geared 200 W, 300 W



Specifications

71°us (6

Product	Product Name Right-Angle Hollow Shaft Hypoid JH Geared		BLM5200H	IPK-5 ⊞ H□S	BLM5300HPK-5⊞H□S			
Name	Driver		BMUD200-C	BLE2D200-C	BMUD300-C			
Rated Output Powe	r (Continuous)	W	20	00	300			
	Rated Voltage	V		Single-Phase 200-240	/ Three-Phase 200-240			
	Permissible Voltage Range			-15 -	+10%			
Power	Frequency	Hz		50	50/60			
Supply	Permissible Frequency Range			$\pm 5\%$				
Voltage	Rated Input Current	А	Single-Phase 2.7/ Three-Phase 1.5	Single-Phase 2.4/ Three-Phase 1.4	Single-Phase 3.4/ Three-Phase 2.1			
	Maximum Input Current	Α	Single-Phase 4.9/Three-Phase 3.4 Single-Phase 7.8/Three-Phase 4.7					
Rated Speed		r/min	3000					
Speed Control Range r/min		80 - 3600 r/min (Speed ratio 1:45)						
Load		$\pm 0.2\%$ ($\pm 0.5\%$) or less: Conditions 0 - rated torque, rated speed, rated voltage, normal ambient temperature						
Speed Regulation*1 Voltage		_	$\pm 0.2\%$ ($\pm 0.5\%$) or less: Conditions Rated voltage -15 - $+10\%$, rated speed, no load, normal ambient temperature					
Hogulation	Temperature		$\pm 0.2\%$ ($\pm 0.5\%$) or less: Con	ditions Operating ambient temp	perature 0 - +50°C*2, rated speed, no load, rated voltage			

^{\$1} Only for **BLE2** series driver: The brackets () indicate specification for analog setting.

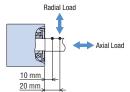
[■]The values correspond to each specification and characteristic of a stand-alone motor.

				1	1	1	1	1	1	l
Gear Ratio	5	10	15	20	30	50	100	200		
(Actual Gear Ratio)		(5)	(10)	(15)	(20)	(30)	(50)	(98.95)	(200)	
Gearhead Size						K			,	Y
Direction of rotation*1					Direction o	f the motor			Opposite direc	tion of the motor
0 1 101 (10 15 / 13	±?	80 r/min	16	8	5.3	4	2.7	1.6	0.8	0.4
Output Shaft Speed [r/min]	r2	3600 r/min	720	360	240	180	120	72	36	18
	000144	At 80 - 3000 r/min	2.1	4.1	6.2	8.3	13.4	22.3	41.0	82.8
	200W	At 3600 r/min	1.3	2.6	4.0	5.3	9.4	15.6	28.5	57.6
Permissible Torque [Nm]		At 80 - 1500 r/min	4.8	9.5	14.3	19.1	30.5	50.8	88.0	178
	300W	At 3000 r/min	3.8	7.7	11.9	16.1	23.1	38.5	73.5	128
		At 3600 r/min	2.7	5.5	8.5	11.5	16.5	27.5	52.5	92.0
December 2014 a December 2014 and	00 (At 80 - 1500 r/min	1346	1663	1882	2035	2309	2681	34	436
Permissible Radial Load	20 mm from the mounting surface	At 3000 r/min	942	1164	1317	1425	1616	1877	24	405
[N] · ·	mounting surface	At 3600 r/min	673	832	941	1018	1155	1341	17	718
		At 80 - 1500 r/min	307	380	429	466	527	613	7	85
Permissible Axial Load [N]		At 3000 r/min	215	266	300	326	369	429	5	50
		At 3600 r/min	154	190	215	233	264	307	3	93
		At 80 - 1500 r/min	250	1000	2250	4000	9000	25000	100000	400000
		At 3000 r/min	90	360	810	1440	3240	9000	36000	144000
Permissible Load Inertia J		At 3600 r/min	50.6	203	456	810	1823	5063	20250	81000
$[\times 10^{-4} \text{kgm}^2]$	When instantaneous stop or	At 80 - 1500 r/min	83.3	333	750	1333	3000	8333	33333	133333
	instantaneous bi-directional	At 3000 r/min	30	120	270	480	1080	3000	12000	48000
	operation is performed*4	At 3600 r/min	16.9	67.5	152	270	608	1688	6750	27000
Mass [kg]					6	.6			8	3.1

- *1 The rotation direction is viewed from the gear flange side (see illustration on the right).
- *2 The speed of the output shaft is the value of the speed divided by the gear ratio.
- ***3** The permissible radial load can also be calculated with a formula. → Page 18
- *****4 It is also applicable when digitally setting the deceleration time to below 0.1 seconds.

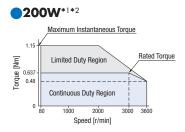


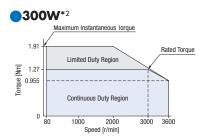




Speed – Torque Characteristics

Continuous Duty Region: Continuous operation is possible in this region. Limited Duty Region: This region is used primarily when accelerating.





- ■The values correspond to each specification and characteristic of a motor without gearhead. The speed-torque characteristics show the values when rated voltage is applied.
- lacktriangle X or Y indicating the gearhead size is entered where the box lacktriangle is located within the product name.
 - A number indicating the gear ratio is entered where the box \square is located within the product name.
- *1 BLE2 Driver
- *2 BMU Driver

^{*2} For **BMU** series, the Conditions Operating ambient temperature is 0∼+40°C

Foot Mount Type JB Geared 200 W, 300 W



Specifications

C 7 US	L

Product	Foot Mount Type JB Geared		BLM5200H	PK-5∭B∏B-L	BLM5300HPK-5IBBB-L			
Name	Driver		BMUD200-C	BLE2D200-C	BMUD300-C			
Rated Output Pow	ver (Continuous)	W	2	200	300			
	Rated Voltage	V		Single-Phase 200-240 /	Three-Phase 200-240			
	Permissible Voltage Range			-15 -	+10%			
Danner	Frequency	Hz		50/	60			
Power Supply	Permissible Frequency Range			±5%				
Voltage	Rated Input Current	А	Single-Phase 2.4/ Three-Phase 1.4	Single-Phase 2.4/ Three-Phase 1.4	Single-Phase 3.4/ Three-Phase 2.1			
	Maximum Input Current	А	Single-Phase 6.5/ Three-Phase 4.3	Single-Phase 6.5/ Three-Phase 4.3	Single-Phase 7.8/ Three-Phase 4.7			
Rated Speed		r/min	3000					
Speed Control Range r/min			80 - 3600 r/min (Speed ratio 1:45)					
Load			$\pm 0.2\%$ ($\pm 0.5\%$) or less: Conditions 0 - rated torque, rated speed, rated voltage, normal ambient temperature					
Speed Regulation*1 Voltage			±0.2% (±0.5%) or less: Con	ditions Rated voltage -15 - +10	0%, rated speed, no load, normal ambient temperature			
negulation	Temperature		$\pm 0.2\%$ ($\pm 0.5\%$) or less: Conditions Operating ambient temperature 0 - $+50^{\circ}$ C*2, rated speed, no load, rated voltage					

^{*1} Only for **BLE2** series driver: The brackets () indicate specification for analog setting.

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

Gear Ratio			5	10	20	30	50	100	200	300	450	600
(Actual Gear Ratio	n)		(4.97)	(10.12)	(20.08)	(30.86)	(49.09)	(104.1)	(196.4)	(300.5)	(450.8)	(588.9)
Gearhead Size				Α		(c	ı	Ē	K		S
Rotation Direction	1			Direction	n of Motor		Opposi	te Direction o	f Motor	Di	rection of Mo	tor
Output Shaft Spee	nd [r/min]*1	80 r/min	16	8	4	2.7	1.6	0.8	0.4	0.27	0.18	0.13
Output Shart Spec	eu [i/iiiii] · ·	3600 r/min	720	360	180	120	72	36	18	12	8	6
	200W	At 80 - 3000 r/min	2.4	4.9	9.7	13.0	22.5	48.4	91.3	132	198	259
Dorminaible		At 3600 r/min	1.7	3.4	6.8	8.2	15.6	32.0	60.3	92.3	138	181
Permissible Torque [Nm]		At 80 - 1500 r/min	5.4	10.9	21.7	31.7	49.9	108	205	298	431	583
iorque [iviii]	300W	At 3000 r/min	4.3	8.3	17.2	25.4	41.2	81.9	164	219	302	438
		At 3600 r/min	3.1	5.9	12.3	18.2	29.4	58.5	117	157	216	313
	10	At 80 - 1500 r/min	521	977	1243	1824	2032	2888	3483	44	61	5245
	10 mm from the mounting surface	At 3000 r/min	365	684	870	1277	1422	2022	2438	31	23	3672
Permissible	mounting surface	At 3600 r/min	261	489	622	912	1016	1444	1742	22	231	2623
Radial Load [N]	00 from the	At 80 - 1500 r/min	663	1244	1582	2280	2540	3496	4216	51	74	5921
	20 mm from the mounting surface	At 3000 r/min	464	871	1107	1596	1778	2447	2951	36	22	4145
	mounting surface	At 3600 r/min	332	622	791	1140	1270	1748	2108	25	87	2961
		At 80 - 1500 r/min	39	88	177	255	275	422	461	68	36	824
Permissible Axial	Load [N]	At 3000 r/min	27.3	61.6	124	179	193	295	323	48	30	577
		At 3600 r/min	19.5	44	88.5	128	138	211	231	34	43	412
		At 80 - 1500 r/min	250	1000	4000	9000	25000	100000	400000	900000	2025000	3600000
		At 3000 r/min	90	360	1440	3240	9000	36000	144000	324000	729000	1296000
Permissible Load Inertia J		At 3600 r/min	50.6	203	810	1823	5063	20250	81000	182250	410063	729000
$[\times 10^{-4} \text{kgm}^2]$	When instantaneous	At 80 - 1500 r/min	83.3	333	1333	3000	8333	33333	133333	300000	675000	1200000
[XIO Rgill]	stop or instantaneous bi-directional operation	At 3000 r/min	30	120	480	1080	3000	12000	48000	108000	243000	432000
	is performed*2	At 3600 r/min	16.9	67.5	270	608	1688	6750	27000	60750	136688	243000
Mass [kg]				4.6		5	.6	7	.6	11	1.6	18.1

^{\$1} The speed of the output shaft is the value of the speed divided by the gear ratio.

Speed - Torque Characteristics

Continuous Duty Region: Continuous operation is possible in this region. Limited Duty Region: This region is used primarily when accelerating.

Maximum Instantaneous Torque 1.15 Limited Duty Region Rated Torque Continuous Duty Region Speed [r/min]

Distance from Outout Shaft End Maximum Instantaneous Torque 1.91 Limited Duty Region 1.27 Continuous Duty Region Speed [r/min]

Axial Load

10 mm

A number indicating the gear ratio is entered where the box \square is located within the product name.

^{*2} It is also applicable when digitally setting the deceleration time to below 0.1 seconds.

The values correspond to each specification and characteristic of a motor without gearhead. The speed-torque characteristics show the values when rated voltage is applied.

[■] A, C, E, K or S indicating the gearhead size is entered where the box ■ is located within the product name.

^{*1} BLE2 Driver

^{*2} BMU Driver

Parallel Shaft JV Geared 200 W, 300 W



Specifications

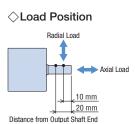
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Product	Parallel Shaft JV Geared		BLM5200H	IPK-5KV□S	BLM5300HPK-5 Ⅲ V□S			
Name	Driver		BMUD200-C	BLE2D200-C	BMUD300-C			
Rated Output Pow	ver (Continuous)	W	20	00	300			
	Rated Voltage	V		Single-Phase 200-240	/ Three-Phase 200-240			
	Permissible Voltage Range			−15 -	+10%			
Power	Frequency	Hz		50.	/60			
Supply	Permissible Frequency Range			±5%				
Voltage	Rated Input Current	А	Single-Phase 2.7 /Three-Phase 1.5	Single-Phase 2.4 /Three-Phase 1.4	Single-Phase 3.4/ Three-Phase 2.1			
	Maximum Input Current	А	Single-Phase 4.9 /Three-Phase 3.4	Single-Phase 6.5 /Three-Phase 4.3	Single-Phase 7.8/ Three-Phase 4.7			
Rated Speed		r/min		30	000			
Speed Control Ran	nge	r/min	r/min 80 - 3600 r/min (Speed ratio 1:45)					
Carad	Load		$\pm 0.2\%$ ($\pm 0.5\%$) or less: Con	(±0.5%) or less: Conditions 0 - rated torque, rated speed, rated voltage, normal ambient temperature				
Speed Regulation*1	tion 1 tion 2 Voltage ±0.2% (±0.5%) or less: Conditions Rated voltage -15 - +10%, rated speed, no load, normal ambient te							
rioguiation	Temperature		$\pm 0.2\%$ ($\pm 0.5\%$) or less: Con	ditions Operating ambient temp	perature 0 - +50°C*2, rated speed, no load, rated voltage			

^{\$1} Only for **BLE2** series driver: The brackets () indicate specification for analog setting.

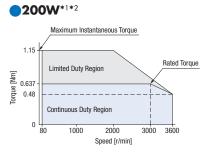
[■]The values correspond to each specification and characteristic of a stand-alone motor.

Gear Ratio		200* 3	300	450	
(Actual Gear Ratio)		(196.4)	(300.5)	(450.8)	
Gearhead Size		D		K	
Direction of rotation	Opposite Direction of Motor	Direction of Motor			
Output Shaft Speed [r/min1*1	80 r/min	0.4	0.27	0.18
Output Shart Speed [r/minj**	3600 r/min	18	12	8
	W000W	At 80 - 3000 r/min	-	132	198
Bernete State Terre	200W	At 3600 r/min	-	92.3	138
Permissible Torque [Nm]		At 80 - 1500 r/min	205	298	431
[INIII]	300W	At 3000 r/min	164	219	302
		At 3600 r/min	117	157	216
	40 (11	At 80 - 1500 r/min	3483	4461	
	10 mm from the mounting surface	At 3000 r/min	2438	3123	
Permissible Radial	mounting surface	At 3600 r/min	1742	2231	
Load [N]		At 80 - 1500 r/min	4216	5174	
	20 mm from the mounting surface	At 3000 r/min	2951	3622	
	mounting surface	At 3600 r/min	2108	2	587
		At 80 - 1500 r/min	461	(686
Permissible Axial Loa	id [N]	At 3000 r/min	323	480	
		At 3600 r/min	231	(343
		At 80 - 1500 r/min	400000	900000	2025000
	•	At 3000 r/min	144000	324000	729000
Permissible Load		At 3600 r/min	81000	182250	410063
Inertia J [×10 ⁻⁴ kgm ²]	When instantaneous stop or	At 80 - 1500 r/min	133333	300000	675000
[X TO RGIII]	instantaneous bi-directional	At 3000 r/min	48000	108000	243000
	operation is performed*2	At 3600 r/min	27000	60750	136688
Mass [kg]				1	2.1



Speed – Torque Characteristics

Continuous Duty Region: Continuous operation is possible in this region. Limited Duty Region: This region is used primarily when accelerating.



Maximum Instantaneous Torque 1.91 Limited Duty Region Rated Torque Continuous Duty Region 80 1000 2000 Speed [//min]

- The values correspond to each specification and characteristic of a motor without gearhead. The speed-torque characteristics show the values when rated voltage is applied.
- lacktriangle A number indicating the gear ratio is entered where the box \Box is located within the product name.
- *1 BLE2 Driver
- *2 BMU Driver

^{*2} For **BMU** series, the Conditions Operating ambient temperature is 0 - +40°C

^{*1} The speed of the output shaft is the value of the speed divided by the gear ratio.

 $[\]ensuremath{ \star 2}$ It is also applicable when digitally setting the deceleration time to below 0.1 seconds.

^{*3 300} W Type only

BLE2 Series - Common Specifications

Item		Specifications					
Speed Setting Methods	Digital Setting	Control Panel Data Setting Software MEXEO2					
Speed Setting Methods	Analog Setting	Set using an external speed potentiometer PAVR2-20K (sold separately): 0 - 20 kΩ, 0.05 W min. Set using external DC voltage: 0 - 10 VDC, 1 mA min. (Initial setting: 0 - 5 VDC)					
Acceleration/	Setting Range	0.0 - 15.0 s (Initial setting: 0.5 s)					
Deceleration Time	Setting Method	- Control Panel - Data Setting Software MEXEO2					
	Setting Range	0 - 300%(Initial setting: 300%)					
Torque Limit*1	Digital Setting	Control Panel Data Setting Software MEXEO2					
	Analog Setting	Set using an external speed potentiometer PAVR2-20K (sold separately): 0 - 20 kΩ, 0.05 W min. Set using external DC voltage: 0 - 10 VDC, 1 mA min. (Initial setting: 0 - 5 VDC)					
Number of Operation Data	Setting	16 Points max. (Initial setting: 4 points)					
Input Signals		Photocoupler input Input resistance: 6.6 kΩ Connectable external DC power supply: 24 VDC –15 - +20% 100 mA min Source input/sink input Supplied through external wring Arbitrary signal assignment to INO - IN6 input (7 points) is possible []: Initial setting [FWD], [REV], [STOP-MODE], [MO], [M1], [ALARM-RESET], M2, M3, H-FREE, TL, HMI, EXT-ERROR, START/STOP*2, RUN/RRAKE*2, CW/CCW*2					
Output Signals		Photocoupler and Open-Collector Output (ON Power: 1.6 V max.) External power supply: 4.5 - 30 VDC 100 mA max. (5 mA min. for SPEED-OUT output) Source output/sink output Supplied through external wiring Arbitrary signal assignment to OUTO, OUT1 (2 points) is possible []: Initial setting [SPEED-OUT], [ALARM-OUT], MOVE, INFO, TLC, VA, DIR					
Protective Functions		When the following protective functions are activated, ALARM-OUT output turns OFF and the motor will coast to a stop. The alarm code will be displayed and ALARM LED will blink at the same time. Overcurrent, main circuit overheat, overvoltage, undervoltage, sensor error, main circuit output error, overload, over-speed, EEPROM error, initial sensor error, initial operation prohibited, external stop					
Information		When the information occurs, INFO output turns ON. The motor operation continues. Overvoltage, undervoltage, overload, starting limit mode, I/O test mode, requiring CONFIG, requiring power ON again, operation prohibit					
Max. Extension Distance		Motor and driver distance: 20.5 m (when an accessory connection cable is used)					
Time Rating		Continuous					

^{\$1} An error up to a maximum of approximately ±10% (at rated torque and rated speed) may occur between the setting value and generated torque due to the setting speed, power supply voltage and motor cable extension length.

BMU Series - Common Specifications

Item	Specifi	cations							
Item	120 W	200 W							
Speed Setting Methods	Digital setting with dial 4 speed settings								
Acceleration/ Deceleration Time	Analog Setting: 0.1 - 15.0 s (set time from stopped state to rated speed) Common setting for acceleration/deceleration time with acce Digital Setting: 0.0 - 15.0 s (set time from current speed to setting speed) Individual acceleration times and deceleration times can be sacceleration time/deceleration time varies with the load condition of the mot	set for each operating data*							
Input Signals	Photocoupler input Input resistance: $5.7 k\Omega$ Operated by internal power supply: DC5 V Connectable external DC power supply: 24 VDC -15 - $+20$ % 100 mA min. Source input/sink input Supplied through external wiring	Photocoupler input Input resistance: $6.6 \text{ k}\Omega$ Operated by internal power supply: DC5 V Connectable external DC power supply: $24\text{VDC} - 15 - +20\% \ 100 \text{ mA min.}$ Source input/Sink input Supplied through external wiring							
Input Signals	Arbitrary signal assignment to X0 - X2 input (3 points) is possible []: Initial setting [FWD], [REV], [M0], M1, ALARM-RESET, EXT-ERROR, H-FREE	Arbitrary signal assignment to INO - IN4 input (5 points) is possible []: Initia setting [FWD], [REV], [M0], [M1], [ALARM-RESET], EXT-ERROR, H-FREE							
Output Signals	Photocoupler and Open-Collector Output External power supply: 4.5 - 30 VDC 100 mA max. Source output/sink output Supplied through external wiring	Photocoupler and Open-Collector Output External power supply: 4.5 - 30 VDC 100 mA max. Source output/sink output Supplied through external wiring							
output Signais	Arbitrary signal assignment to Y0, Y1 (2 points) is possible []: Initial setting [ALARM-OUT1], [SPEED-OUT], ALARM-OUT2, MOVE, VA, WNG	Arbitrary signal assignment to OUTO, OUT1 (2 points) is possible []: Initial setting [ALARM-OUT1], [SPEED-OUT], ALARM-OUT2, MOVE, VA, WNG							
Protective Functions	When the following protective functions are activated, ALARM-OUT1 output turns OFF and the motor will coast to a stop. The alarm code will be displayed at the same time. (Instantaneous stop for external stop only) Overcurrent, main circuit overheat, overvoltage, undervoltage, sensor error, overload, over-speed, EEPROM error, initial sensor error, initial operation prohibited, external stop								
Max. Extension Distance	Motor and driver distance: 10.5 m (when a connection cable is used)								
Time Rating	Conti	nuous							

Overload alarm detection time

The overload alarm is generated if the operation goes beyond the continuous duty region.

The detection time for this overload alarm can be set from 0.1 - 60.0 seconds. (Initial value: 30.0 Seconds)

However, an alarm is generated for a maximum length of 5 seconds in the following cases.

- If an applied load goes beyond the limited duty region
- If the output shaft is locked

General Specifications

Iter	n	Motor	Driver							
Insulation Resista	ance	$100\ M\Omega$ or more when $500\ VDC$ megger is applied between the windings and the case after continuous operation under normal ambient temperature and humidity.	$100~M\Omega$ or more when 500 VDC megger is applied between the power supply terminal and the protective earth terminal, and between the power supply terminal and the I/O signal terminal after continuous operation under normal ambient temperature and humidity.							
Dielectric Strengt	th	Suffi cient to withstand 1.5 kVAC at 50 Hz applied between the windings and the case for 1 minute after continuous operation under normal ambient temperature and humidity.	Suffi cient to withstand 1.5 kVAC at 50 Hz applied between the pow supply terminal and the protective earth terminal for 1 minute, and 1.5 kVAC at 50 Hz applied between the power supply terminal and the I/O signal terminal for 1 minute after continuous operation unde normal ambient temperature and humidity.							
Temperature Rise	9	The temperature rise of the windings is 50°C max. and that of the case surface is 40°C max., measured by the thermocouple method after rated continuous operation under normal ambient temperature and humidity.	The temperature rise of the heat sink is 50°C max., measured by the thermocouple method after rated continuous operation under normal ambient temperature and humidity.							
	Ambient Temperature	0 - +40°C (Non-freezing)	0 - +40°C (Non-freezing) BLE2 Series: 0 - +50°C* ² (Non-freezing)							
Onerating	Ambient Humidity	85% or less (Non-condensing)								
Environment*1	Altitude	Up to 1000 m above sea level								
perating _ nvironment*1 _	Atmosphere	No corrosive gases or dust. Cannot be used in a radioactive	ea, magnetic fi eld, vacuum, or other special environments.							
	Vibration		mance with JIS C 60068-2-6, "Sine-wave vibration test method" ep Direction: 3 directions (X, Y, Z), Number of Sweeps: 20 times							
	Ambient Temperature	-10 - +60°C (Non-freezing)	-25 - +70°C (Non-freezing)							
Storage Condition* ³	Ambient Humidity	85% or less (N	85% or less (Non-condensing)							
o o	Altitude	Up to 1000 m	above sea level							
	Atmosphere	No corrosive gases, dust or oil. Cannot be stored in a radioactive	ve area, magnetic fi eld, vacuum, or other special environments.							
Thermal Class		UL/CSA Standards: 105 (A), EN Standards: 120 (E)	-							
Degree of Protection*4		JH Gear, JV Gear: IP66 JB Gear: IP44 (When using the connection cable, except the driver connector)	IP20							

*1 Attach the **BLE2** series driver to a location that has the same heat radiation capability as an aluminum metal plate.

Single installed 200x200 mm, 2 mm thick Installed in contact 350x350 mm, 2 mm thick

\$2 When using a DIN rail mounting bracket, the ambient temperature is 0 - +40°C.

\$3 The storage condition applies to a short period such as a period during transportation.

*4 The IP indication that shows the watertight and dust-resistant performance are specified under IEC 60529 and IEC 60034-5.

Note

Do not measure insulation resistance or perform the dielectric strength test while the motor and driver are connected.

Materials and Finish of the Motor for JH Gear and JVGear (IP66)

Materials Case: Aluminum

Output Shaft: Stainless Steel

Screws: Stainless Steel (except protective earth terminal)

Finish Case: Paint (except installing surface)

Dimensions Unit: mm

- The motor dimensions in this catalogue are illustrated with the separately-sold connection cable (_____parts in the figure).
 The described masses do not include the connection cable mass.
- lacktriangle A number indicating the gear ratio is entered where the box \Box is located within the product name.
- A symbol indicating the gearhead size is located in the box within the product name.

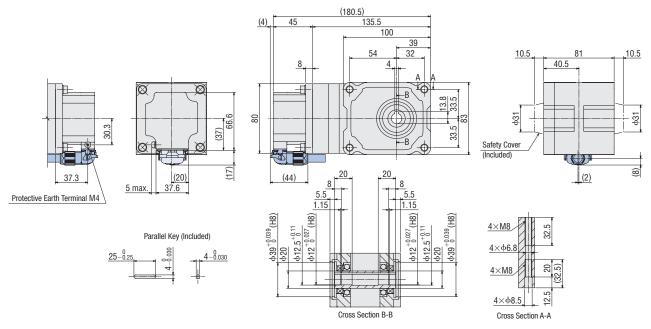
Motor

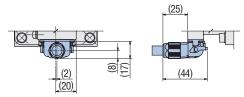
◇Right-Angle Hollow Shaft Hypoid JH Geared

•60 W

Product Name	Product Name Motor Product Name		Mass [kg]
BLM460SHPK-4H□S	BLM460SHPK	4H□S	2.6

• When attaching a connection cable drawn by the output shaft side.

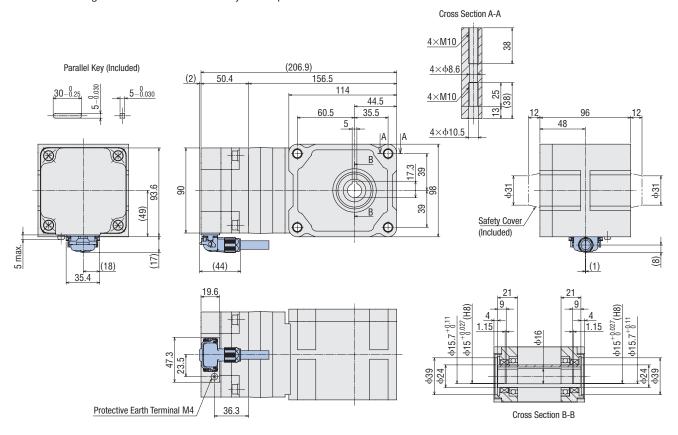


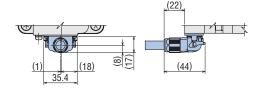


•120 W

Product Name	Motor Product Name	Gearhead Product Name	Mass [kg]
BLM5120HPK-5H S	BLM5120HPK	5H□S	4.1

• When attaching a connection cable drawn by the output shaft side.

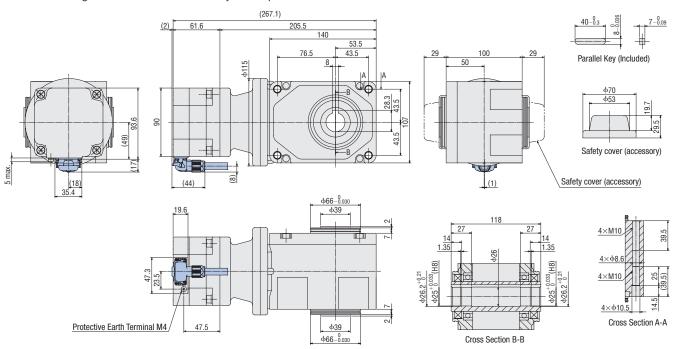


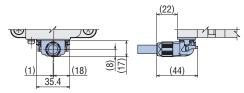


•200 W

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	Mass [kg]
BLM5200HPK-5XH\(\sigma\)S	BLM5200HPK	5XH□S	5, 10, 15, 20, 30, 50	6.6

• When attaching a connection cable drawn by the output shaft side.

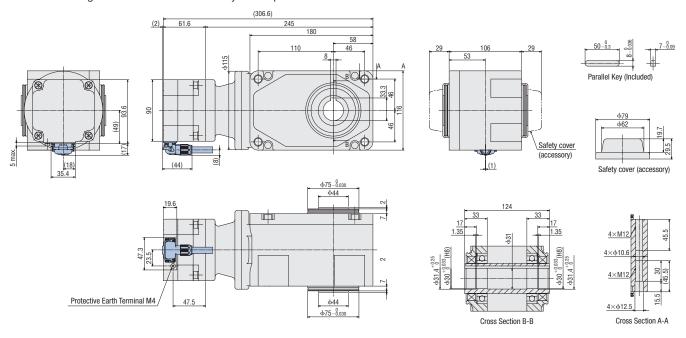


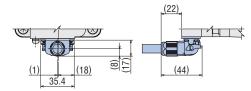


•200 W

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	Mass [kg]
BLM5200HPK-5YH□S	BLM5200HPK	5YH□S	100, 200	8.1

• When attaching a connection cable drawn by the output shaft side.

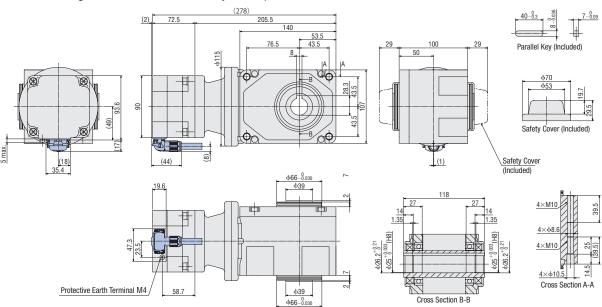




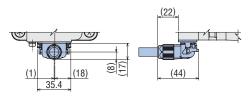
•300 W

Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	Mass [kg]
BLM5300HPK-5XH□S	BLM5300HPK	5XH□S	5, 10, 15, 20, 30, 50	7.1

• When attaching a connection cable drawn by the output shaft side.

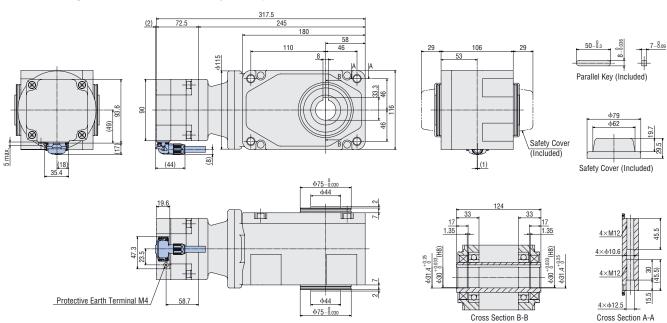


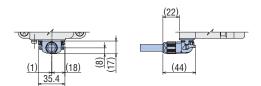
• When attaching a connection cable drawn in the opposite side of the output shaft.



Product Name	Motor Product Name	Name	Gear Ratio	[kg]
BLM5300HPK-5YH_S	BLM5300HPK	5YH□S	100, 200	8.6

• When attaching a connection cable drawn by the output shaft side.





\diamondsuit Foot Mount Type ${f JB}$ Geared

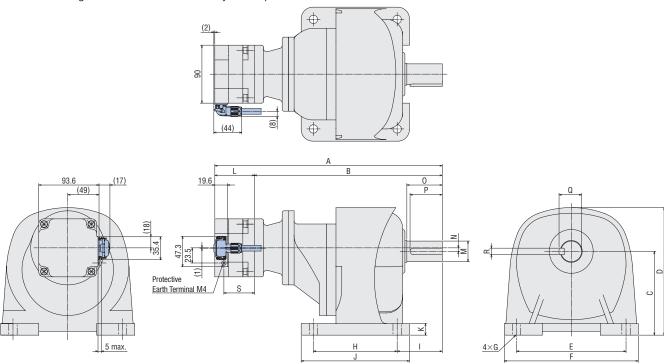
•200 W

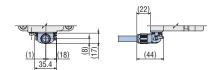
Product Name	Motor Product Name	Gearhead Product Name	L	Dimension Number	Gear Ratio	Mass [kg]
	BLM5200HPK			1)	5, 10, 20	4.6
				2	30, 50	5.6
BLM5200HPK-5 BBB-L		5 ⊞ B□B	61.6	3	100, 200	7.6
				4	300, 450	11.6
				(5)	600	18.1

Dimension Number	Total Length				Gearhe	ad Dime	nsions				Output Shaft Dimensions							
	Α	В	С	D	Е	F	G	Н	I	J	K	M	N	0	Р	Q	R	S
1	(219.1)	157.5	85±0.2	131	110	134	ф9	40	45	64	10	ф18 _{-0.011} (h6)	16.5*	30	27	20.5	6	
2	(245.1)	183.5	90±0.2	139	130	154	ф11	65	55	90	12	ф22 _{-0.013} (h6)	19 *	40	35	24.5	6	
3	(258.1)	196.5	110±0.2	167	140	175	ф11	90	65	125	15	ф28 _{-0.013} (h6)	23.5*	45	40	31	8	47.5
4	(353.1)	291.5	130±0.2	198	170	208	ф13	130	70	168	18	ф32 _{_0.016} (h6)	5.5	55	50	35	10	
(5)	(375.1)	313.5	150±0.2	230	210	254	ф15	150	90	196	20	ф40 _{-0.016} (h6)	0	65	60	43	12	

^{*}The center of the gearhead output shaft is offset above the center of the motor.

• When attaching a connection cable drawn by the output shaft side.





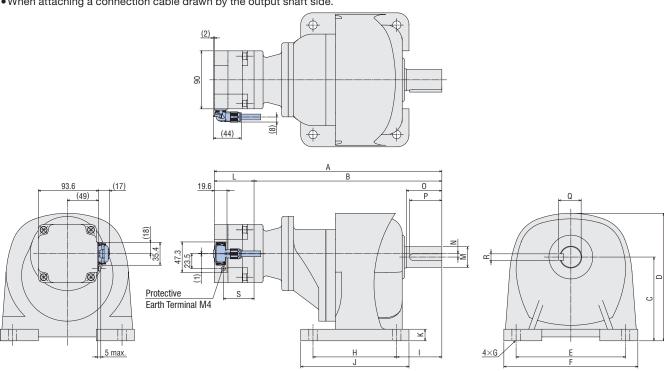
•300 W

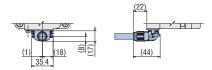
Product Name	Motor Product Name	Gearhead Product Name	L	Dimension Number	Gear Ratio	Mass [kg]
BLM5300HPK-5⊞B□B-L	BLM5300HPK			2	5, 10, 20	5.1
			72.5	4	30, 50	6.1
		5 B□B		6	100, 200	8.1
				8	300, 450	12.1
				10	600	18.6

Dimension Number	Total Length		Gearhead Dimensions								Output Shaft Dimensions							
	А	В	С	D	Е	F	G	Н	- 1	J	K	M	N	0	Р	Q	R	S
2	(230)	157.5	85±0.2	131	110	134	ф9	40	45	64	10	ф18 _{-0.011} (h6)	16.5*	30	27	20.5	6	
4	(256)	183.5	90±0.2	139	130	154	ф11	65	55	90	12	ф22 _{-0.013} (h6)	19 *	40	35	24.5	6	
6	(269)	196.5	110±0.2	167	140	175	ф11	90	65	125	15	ф28 _{-0.013} (h6)	23.5 *	45	40	31	8	58.7
8	(364)	291.5	130±0.2	198	170	208	ф13	130	70	168	18	ф32 _{-0.016} (h6)	5.5	55	50	35	10	
100	(386)	313.5	150±0.2	230	210	254	ф15	150	90	196	20	ф40 _{-0.016} (h6)	0	65	60	43	12	

^{*}The center of the gearhead output shaft is offset above the center of the motor.

• When attaching a connection cable drawn by the output shaft side.



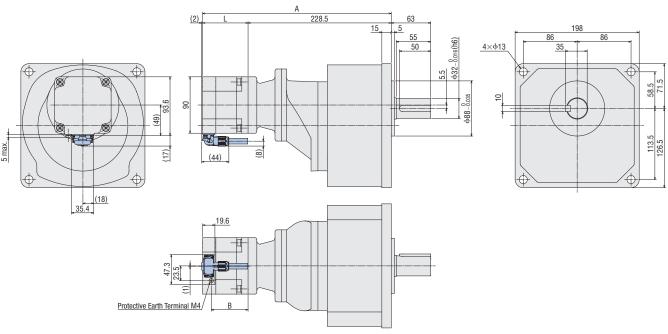


◇Parallel Shaft JV Geared

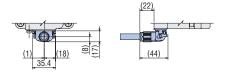
•200 W

	Mater Dundrich Coordinated Dundrich	Dimensions			Mana		
Product Name	Motor Product Name	Gearhead Product Name	Gear Ratio	А	L	В	Mass [kg]
BLM5200HPK-5KV S	BLM5200HPK	5KV□S	300, 450	(290.1)	61.6	47.5	12.1

• When attaching a connection cable drawn by the output shaft side.



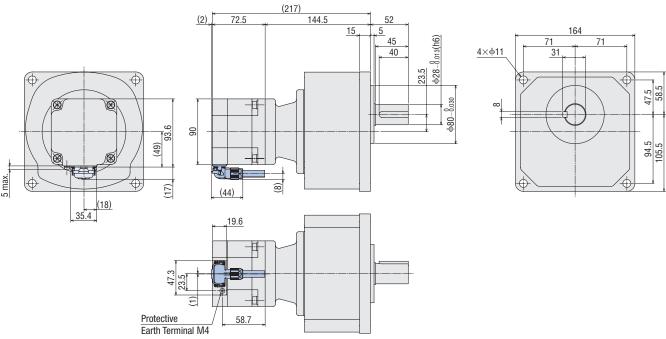
• When attaching a connection cable drawn in the opposite side of the output shaft.

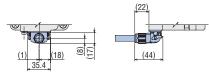


•300 W

Product Name Motor Product Name		Gearhead Product Name	Gear Ratio	Mass [kg]
BLM5300HPK-5DV S	BLM5300HPK	5KV□S	200	8.6

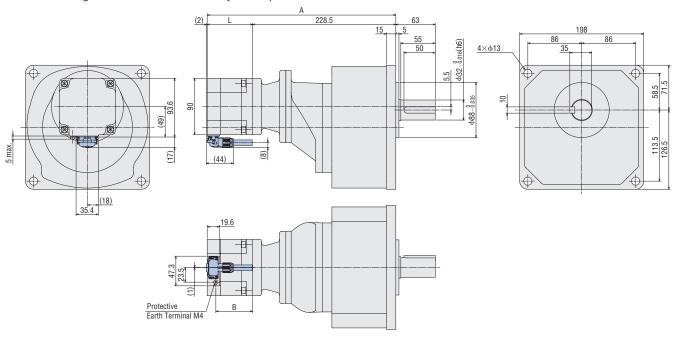
• When attaching a connection cable drawn by the output shaft side.



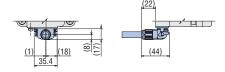


Product Name Motor Product Name		Gearhead Product Name	Gear Ratio	Mass [kg]
BLM5300HPK-5KV□S	BLM5300HPK	5KV□S	300, 450	12.6

• When attaching a connection cable drawn by the output shaft side.



• When attaching a connection cable drawn in the opposite side of the output shaft.



Mounting the Hollow Shaft Load

Load Shaft Mounting Examples

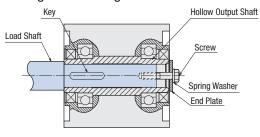
Installation of the load shaft varies according to the fixing method. Please refer to the illustrations below.

- The hollow output shaft with an inner diameter tolerance of H8 has a key slot. Machine a matching key slot on the load shaft and use the supplied key to affix the two shafts across the slots.
- The recommended tolerance of the load shaft is h7.

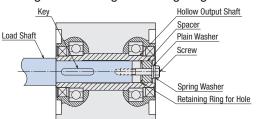
Note

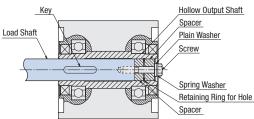
To prevent sticking, apply grease on the exterior surface of the load shaft and interior surface of the hollow output shaft.

•Fixing Method Using an End Plate



• Fixing Method Using a Retaining Ring for Hole



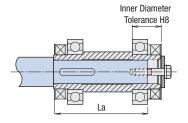


◇Recommended Load Shaft Installation Dimensions Unit: [mm]

Output Power		120 W	200 W, 300 W	
Gear Ratio		10 - 200	5 - 50	100, 200
Inner Diameter of Hollow Shaft (H8)		ф15 ^{+0.027}	ф25 ^{+0.033}	ф30 ^{+0.033}
Recommended Load Shaft Dimensions (h7)		ф15 _{-0.018}	ф25_0.021	ф30_0021
Stepped shaft La length		72	96	
Screw Size		M6		M8
	Outer Diameter	ф14.5	ф24.5	ф29.5
Spacer Dimensions	Inner Diameter	ф7		ф9
	Thickness	3	4	5
Nominal Hole Diameter of Retaining Ring		ф15	ф25	ф30
		C type retaining ring	C type retaining ring	C type retaining ring
End Plate Thickness		3	4	5

Retaining rings for holes, spacers, screws and other parts used to install the load shaft are not included.

Length of Load Shaft

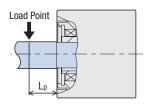


It is recommended that the inner diameter tolerance H8 for the load shaft on the fixing side be 5 mm or

Hollow Shaft Type Permissible Radial Load Calculation

The formula for permissible radial load varies depending on the mechanism.

♦ When End of Shaft being Driven is Not Supported by a Bearing



•60W

Permissible Radial Load W [N]= -

•120W

Permissible Radial Load W [N]= -

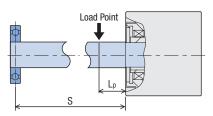
•200W, 300W (Gear Ratio 5~50)

Permissible Radial Load W [N]= $\frac{95.5}{75.5 + L_{\text{p}}}$

•200W, 300W (Gear Ratio 100, 200)

Permissible Radial Load W [N]= -

When End of Shaft being Driven is Supported by a Bearing



•60W

Permissible Radial Load W [N]= $\frac{68.5 \text{ (S+5.5)}}{62.1 \text{ (S+5.5)}} \times \text{F}_0$

•120W

Permissible Radial Load W [N]= -

•200W, 300W (Gear Ratio 5~50)

Permissible Radial Load W [N]= -

•200W, 300W (Gear Ratio 100, 200)

Permissible Radial Load W [N]= -

Fo [N]: Permissible Radial Load 20 mm from Flange-Mounting Surface

Lp [mm]: Distance from Flange-Mounting Surface to Radial Load Point

S [mm]: Distance from Flange-Mounting Surface to Bearing Unit

● For the permissible radial load 20 mm from the flange-mounting surface please refer to the Specifications. → Page 11

Accessories

Torque Arms

In order to prevent gearheads from rotating due to the reactive force of the shaft being driven, the torque arm acts as an anti-spin mechanism when a right-angle, hollow shaft hypoid JH gearhead is installed.

Product Name	Applicable Product	Main Specifications
TAF2S-12-NS	BLM460SHPK-4H□S	
TAF2S-15-NS	BLM5120HPK-5H S	Material: SS400
TAF3S-25-2-NS	BLM5200HPK-5XH S	Surface treatment:
IAF33-23-2-I43	BLM5300HPK-5XH\(\sigma\)S	Trivalent chromate
TAF35-30-3-NS	BLM5200HPK-5YH□S BLM5300HPK-5YH□S	
	DEMOCOUTE K-5111_5	







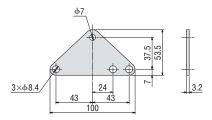
(Application Example)

ullet A number indicating the gear ratio is entered where the box \square is located within the applicable product name.

Dimensions Unit: mm

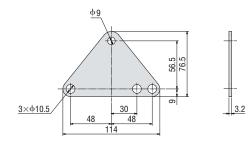
♦ TAF2S-12-NS

Mass: 75 g



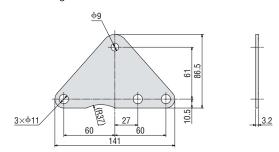
♦ TAF2S-15-NS

Mass: 125 g



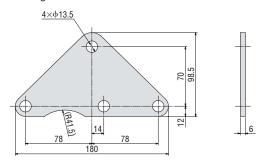
♦ TAF3S-25-2-NS

Mass: 200 g



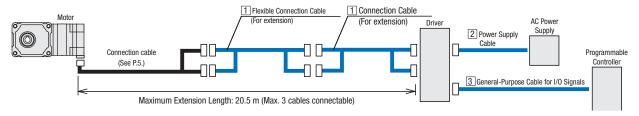
♦ TAF3S-30-3-NS

Mass: 400 g



Option (Sold Separately)

Cable System Configuration



1 Connection Cables (For extension), Flexible Connection Cables (For extension)

These cables are used to connect the motor and the driver. When using after extending the cables included with the product, the overall length of the cables should not exceed 20.5 m (maximum of 3 connected cables). Use the flexible connection cable in applications where the cable is bent and flexed.

Product Line

Product Name	Length L [m]	
CC01BL2	1	
CC02BL2	2	
CC03BL2	3	
CC05BL2	5	
CC07BL2	7	
CC10BL2	10	



Product Name	Length L [m]
CC01BL2R	1
CC02BL2R	2
CC03BL2R	3
CC05BL2R	5
CC07BL2R	7
CC10BL2R	10



2 Power Supply Cables

These cables are used to connect the driver and the power supply.

Product Line

_			
Product Name	Power Supply Voltage	Length L [m]	
CC01AC03N	O' I - Di	1	
CC02AC03N	Single-Phase 200-240 VAC	2	
CC03AC03N	200-240 VAO	3	
CC01AC04N	Thurs Dhass	1	
CC02AC04N	Three-Phase 200-240 VAC	2	
CC03AC04N	200-240 VAC	3	



3 General-Purpose Cables for I/O Signals

Cables for connecting the driver and programmable controller

Product Line

Product Name	Length L [m]	Number of Lead Wire Cores	Outer Diameter D [mm]	AWG
CC06D005B-1	0.5			- 24
CC06D010B-1	1	6	15.4	
CC06D015B-1	1.5] 0	ф5.4	
CC06D020B-1	2			
CC10D005B-1	0.5			
CC10D010B-1	1	10	ф6.7	
CC10D015B-1	1.5			
CC10D020B-1	2			
CC12D005B-1	0.5		ф7.5	
CC12D010B-1	1	12		
CC12D015B-1	1.5	12		
CC12D020B-1	2			
CC16D005B-1	0.5	16	ф7.5	
CC16D010B-1	1			
CC16D015B-1	1.5	10		
CC16D020B-1	2			

Note

The general-purpose cable for I/O signals cannot be used together with an external speed potentiometer **PAVR2-20K.**

Oriental motor

Diese Produkte werden in Werken hergestellt, die nach den internationalen Normen ISO 9001 (Qualitätssicherung) und ISO 14001 (Systeme für Umweltmanagement) zertifiziert sind.

Die Angaben können jederzeit ohne Vorankündigung geändert werden. Dieser Katalog wurde im Januar 2024 veröffentlicht.

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