



# BRUSHLESS DC MOTORS | Ø 22 - 86 mm 4 - 660 W

## B SERIES

We offer a broad range of high quality motors in standard and customized configurations. Our customer-centric approach makes us the ideal supplier for your project, especially to instrument and apparatus builders. In addition, we offer immediate delivery, thanks to always having a high number of motors in stock.

### Customizations include:

- ✓ Customized harness
- ✓ Winding configuration
- ✓ Shaft configuration
- ✓ And more...

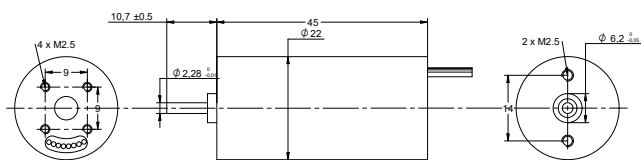
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MODEL	DIAMETER mm	LENGTH mm	VOLTAGE <sup>1</sup> V	SPEED <sup>1</sup> rpm	TORQUE <sup>1</sup> mNm	POWER <sup>1</sup> W	PAGE
BR2245	22	45	12   24	4800   4800	8   8	4   4	<a href="#">1</a>
BR2268	22	68	12   24	3500   3800	20   20	7.3   8	<a href="#">2</a>
BR2826	28	26	12   24	8000   8000	7   7	5.9   5.9	<a href="#">3</a>
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BR4285	42	85	24	4000	150	63	<a href="#">12</a>
BR4293	42	93	24	6300	120	76	<a href="#">13</a>
B42100	42	100	24	4000	250	100	<a href="#">14</a>
BR5743	57	43	12   24	4000   4000	55   55	23   23	<a href="#">15</a>
BR5753	57	53	12   24	4000   4000	100   110	42   46	<a href="#">16</a>
B5755	57	55	24	4000	110	46	<a href="#">17</a>
BR5793	57	93	12   24	4000   4000	330   320	140   130	<a href="#">18</a>
BR57115	57	115	24	4000	400	170	<a href="#">19</a>
B8672	86	72	24   48	3500   3700	350   350	110   110	<a href="#">20</a>
B8686	86	86	24   48	3000   3000	700   700	220   220	<a href="#">21</a>
B86112	86	112	24   48	3200   3000	1200   1400	400   440	<a href="#">22</a>
B86139	86	139	48	3000	2100	660	<a href="#">23</a>

## NOTES

1. Nominal value.

## DRAWING (mm)



## PHOTO

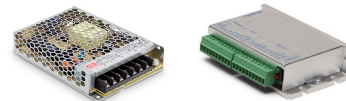


## MODEL NO. DESIGNATION

BR2245 - VOLTAGE

Example: BR2245-12

## ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		BR2245-12	BR2245-24	C
Nominal voltage	V	12	24	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	7500	7000	
No load current	A	0.4	0.3	
Nominal speed	rpm	4800	4800	
Nominal torque	mNm	8	8	
Nominal current	A	0.51	0.27	
Start/Stall torque	mNm	20	21	
Efficiency	%	65	62	
Nominal power	W	4	4	
Terminal resistance	Ω	5.3	23	
Terminal inductance	mH	1.6	6.2	
Torque constant	mNm/A	16	30	
Rotor inertia	gcm <sup>2</sup>	0.66	1.1	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.08		
Axial play at axial load > 3.5 N	mm	0.08		
Radial play	mm	0.02		
Max. dynamic axial load	N	2		
Max. radial load <sup>1</sup>	N	10		

## NOTES

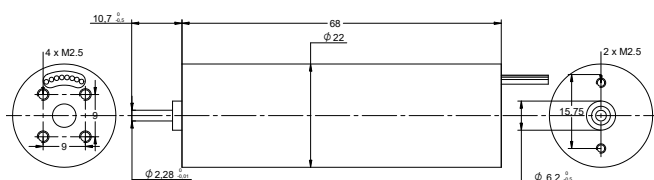
1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		BR2245-12	BR2245-24	C
Number of pole pairs		4		
Number of phases		3		
Weight	g	70		
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	300		●
Power harness		UL1007 AWG26		●
Hall sensors harness		UL1007 AWG28		●
Shaft length from flange	mm	10.7		●
Shaft diameter ø	mm	2.28		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

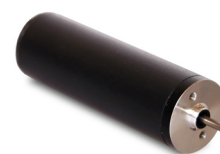
## CABLE AND PIN CONFIGURATION

Power		Hall		C
Phase	Cable color	Phase	Cable color	
U	RED	HU	YEL	
V	BRN	HV	BRN	
W	BLK	HW	RED	
		+5V	BLU	
		GND	GRN	

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

BR2268 - VOLTAGE

Example: BR2268-12

ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		BR2268-12	BR2268-24	C
Nominal voltage	V	12	24	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	6500	6000	
No load current	A	0.5	0.4	
Nominal speed	rpm	3500	3800	
Nominal torque	mNm	20	20	
Nominal current	A	1.14	0.55	
Start/Stall torque	mNm	48	50	
Efficiency	%	53	61	
Nominal power	W	7.3	8	
Terminal resistance	Ω	2.9	12	
Terminal inductance	mH	1.1	4.3	
Torque constant	mNm/A	18	36	
Rotor inertia	gcm <sup>2</sup>	1.3	2.1	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.14		
Axial play at axial load > 3.5 N	mm	0.14		
Radial play	mm	0.02		
Max. dynamic axial load	N	2		
Max. radial load <sup>1</sup>	N	10		

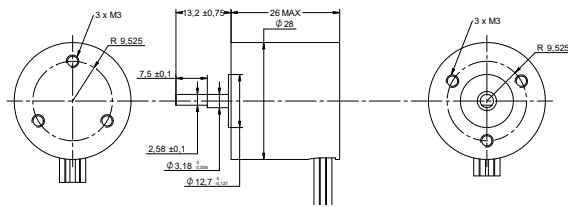
NOTES

1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		BR2268-12	BR2268-24	C
Number of pole pairs		4		
Number of phases		3		
Weight	g	128	120	
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	300		●
Power harness		UL1007 AWG26		●
Hall sensors harness		UL1007 AWG28		●
Shaft length from flange	mm	10.7		●
Shaft diameter Ø	mm	2.28		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	RED	HU	YEL	
V	BRN	HV	BRN	
W	BLK	HW	RED	
		+5V	BLU	
		GND	GRN	

DRAWING (mm)



PHOTO

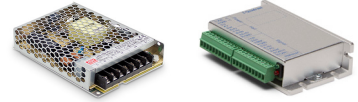


MODEL NO. DESIGNATION

BR2826 - VOLTAGE

Example: BR2826-12

ACCESSORIES



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BRUSHLESS DC MOTOR DATA		BR2826-12	BR2826-24	C
Nominal voltage	V	12	24	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	10000	10000	
No load current	A	0.1	0.9	
Nominal speed	rpm	8000	8000	
Nominal torque	mNm	7	7	
Nominal current	A	0.69	0.34	
Start/Stall torque	mNm	21	21	
Efficiency	%	71	72	
Nominal power	W	5.9	5.9	
Terminal resistance	Ω	5.4	21	
Terminal inductance	mH	1.7	6.7	
Torque constant	mNm/A	10	21	
Rotor inertia	gcm <sup>2</sup>	1.2	1.2	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.08		
Axial play at axial load > 3.5 N	mm	0.08		
Radial play	mm	0.02		
Max. dynamic axial load	N	2		
Max. radial load <sup>1</sup>	N	10		

NOTES

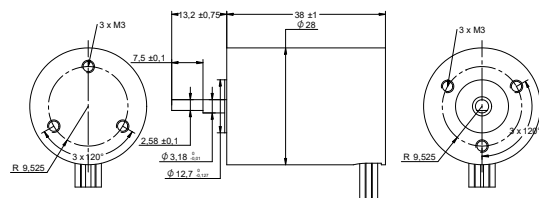
1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		BR2826-12	BR2826-24	C
Number of pole pairs		2		
Number of phases		3		
Weight	g	60		
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	210		
Power harness		UL1007 AWG26		
Hall sensors harness		UL1007 AWG26		
Shaft length from flange	mm	13.2		
Shaft diameter Ø	mm	3.175		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

CABLE AND PIN CONFIGURATION

Power		Hall		C
Phase	Cable color	Phase	Cable color	
U	GRN	HU	BLU	
V	RED	HV	ORG	
W	BLK	HW	BRN	
		+5V	YEL	
		GND	WHT	

## DRAWING (mm)



## MODEL NO. DESIGNATION

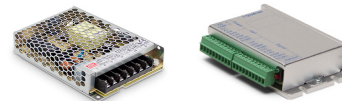
BR2838 - VOLTAGE

Example: BR2838-12

## PHOTO



## ACCESSORIES



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BRUSHLESS DC MOTOR DATA		BR2838-12	BR2838-24	C
Nominal voltage	V	12	24	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	13000	14000	
No load current	A	0.3	0.3	
Nominal speed	rpm	10000	10000	
Nominal torque	mNm	14	14	
Nominal current	A	1.4	0.9	
Start/Stall torque	mNm	45	45	
Efficiency	%	89	69	
Nominal power	W	15	15	
Terminal resistance	Ω	1.1	4.2	
Terminal inductance	mH	0.4	1.7	
Torque constant	mNm/A	10	16	
Rotor inertia	gcm <sup>2</sup>	2.1	3.7	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.14		
Axial play at axial load > 3.5 N	mm	0.14		
Radial play	mm	0.02		
Max. dynamic axial load	N	2		
Max. radial load <sup>1</sup>	N	10		

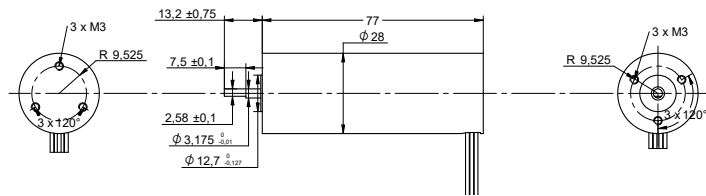
## NOTES

1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		BR2838-12	BR2838-24	C
Number of pole pairs		2	4	
Number of phases		3		
Weight	g	82		
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	200		
Power harness		UL1007 AWG26		
Hall sensors harness		UL1007 AWG26		
Shaft length from flange	mm	13.22		
Shaft diameter Ø	mm	3.175		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	GRN	HU	BLU	
V	RED	HV	ORG	
W	BLK	HW	BRN	
		+5V	YEL	
		GND	WHT	

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

BR2877 - VOLTAGE

Example: BR2877-12

ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		BR2877-12	BR2877-24	C
Nominal voltage	V	12	24	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	6000	6000	
No load current	A	0.5	0.4	
Nominal speed	rpm	3700	4000	
Nominal torque	mNm	50	50	
Nominal current	A	2.7	1.4	
Start/Stall torque	mNm	150	150	
Efficiency	%	62	63	
Nominal power	W	20	21	
Terminal resistance	Ω	1.3	4.2	
Terminal inductance	mH	0.65	2.3	
Torque constant	mNm/A	19	36	
Rotor inertia	gcm <sup>2</sup>	11	11	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.14		
Axial play at axial load > 3.5 N	mm	0.14		
Radial play	mm	0.02		
Max. dynamic axial load	N	2		
Max. radial load <sup>1</sup>	N	10		

NOTES

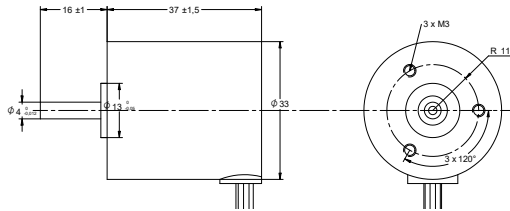
1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		BR2877-12	BR2877-24	C
Number of pole pairs		2		
Number of phases		3		
Weight	g	280		
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	200		●
Power harness		UL1007 AWG26		●
Hall sensors harness		UL1007 AWG26		●
Shaft length from flange	mm	13.2		●
Shaft diameter Ø	mm	2.58		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

CABLE AND PIN CONFIGURATION

Power		Hall		C
Phase	Cable color	Phase	Cable color	
U	GRN	HU	BLU	
V	RED	HV	ORG	
W	BLK	HW	BRN	
		+5V	YEL	
		GND	WHT	

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

BR3337 - VOLTAGE

Example: BR3337-12

ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		BR3337-12	BR3337-24	C
Nominal voltage	V	12	24	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	4700	4500	
No load current	A	0.5	0.3	
Nominal speed	rpm	3000	3000	
Nominal torque	mNm	22	22	
Nominal current	A	0.96	0.48	
Start/Stall torque	mNm	50	66	
Efficiency	%	60	60	
Nominal power	W	6.9	6.9	
Terminal resistance	Ω	3.1	13	
Terminal inductance	mH	1.7	7	
Torque constant	mNm/A	23	46	
Rotor inertia	gcm <sup>2</sup>	8	8	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.14		
Axial play at axial load > 3.5 N	mm	0.14		
Radial play	mm	0.02		
Max. dynamic axial load	N	2		
Max. radial load <sup>1</sup>	N	10		

NOTES

1. 10 mm from flange.

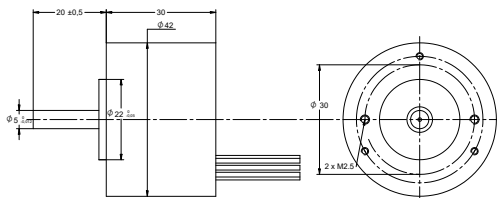
OTHER BRUSHLESS DC MOTOR DATA		BR3337-12	BR3337-24	C
Number of pole pairs		2		
Number of phases		3		
Weight	g	120		
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	200		●
Power harness		UL1007 AWG26		●
Hall sensors harness		UL1007 AWG26		●
Shaft length from flange	mm	16		●
Shaft diameter ø	mm	4		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

CABLE AND PIN CONFIGURATION

Power		Hall		C
Phase	Cable color	Phase	Cable color	
U	GRN	HU	BLU	
V	RED	HV	ORG	
W	BLK	HW	BRN	
		+5V	YEL	
		GND	WHT	



## DRAWING (mm)



## PHOTO

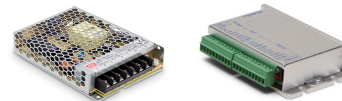


## MODEL NO. DESIGNATION

BR4230 - VOLTAGE

Example: BR4230-12

## ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		BR4230-12	BR4230-24	C
Nominal voltage	V	12	24	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	5500	5500	
No load current	A	0.4	0.4	
Nominal speed	rpm	4000	4000	
Nominal torque	mNm	20	20	
Nominal current	A	0.83	0.42	
Start/Stall torque	mNm	60	60	
Efficiency	%	84	83	
Nominal power	W	8.4	8.4	
Terminal resistance	Ω	1.5	5.9	
Terminal inductance	mH	1.3	5.1	
Torque constant	mNm/A	24	48	
Rotor inertia	gcm <sup>2</sup>	16	16	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.08		
Axial play at axial load > 3.5 N	mm	0.08		
Radial play	mm	0.02		
Max. dynamic axial load	N	2		
Max. radial load <sup>1</sup>	N	10		

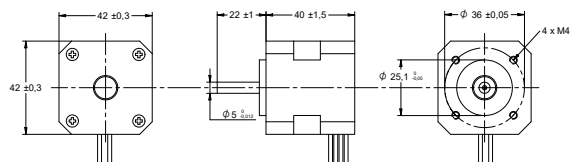
## NOTES

1. 10 mm from flange.

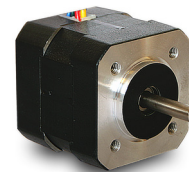
OTHER BRUSHLESS DC MOTOR DATA		BR4230-12	BR4230-24	C
Number of pole pairs		4		
Number of phases		3		
Weight	g	120		
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	300		●
Power harness		UL1007 AWG22		
Hall sensors harness		UL1007 AWG26		●
Shaft length from flange	mm	20		●
Shaft diameter Ø	mm	5		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	RED	HU	YEL	
V	BRN	HV	BRN	
W	BLK	HW	RED	
		+5V	BLU	
		GND	GRN	

**DRAWING (mm)**



**PHOTO**



**MODEL NO. DESIGNATION**

B4240 - VOLTAGE

Example: B4240-12

**ACCESSORIES**



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		B4240-12	B4240-24	C
Nominal voltage	V	12	24	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	6700	6500	
No load current	A	0.5	0.5	
Nominal speed	rpm	4000	4000	
Nominal torque	mNm	63	63	
Nominal current	A	3.7	1.9	
Start/Stall torque	mNm	200	240	
Efficiency	%	59	57	
Nominal power	W	26	26	
Terminal resistance	Ω	0.41	1.5	
Terminal inductance	mH	0.51	2.1	
Torque constant	mNm/A	17	33	
Rotor inertia	gcm <sup>2</sup>	24	24	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.14		
Axial play at axial load > 3.5 N	mm	0.14		
Radial play	mm	0.02		
Max. dynamic axial load	N	10		
Max. radial load <sup>1</sup>	N	28		

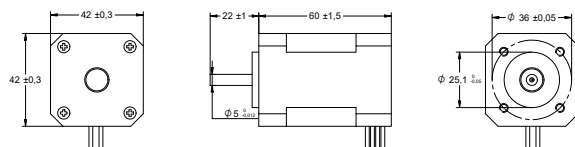
**NOTES**

1. 10 mm from flange.

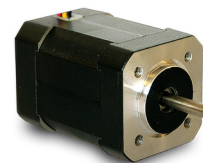
OTHER BRUSHLESS DC MOTOR DATA		B4240-12	B4240-24	C
Number of pole pairs		4		
Number of phases		3		
Weight	g	300		
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	400		●
Power harness		UL1430 AWG20		
Hall sensors harness		UL1430 AWG26		
Shaft length from flange	mm	22		●
Shaft diameter ø	mm	5		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	YEL	HU	BLU	
V	RED	HV	GRN	
W	BLK	HW	WHT	
		+5V	RED	
		GND	BLK	

## DRAWING (mm)



## PHOTO

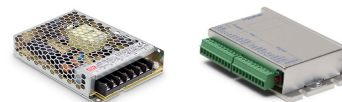


## MODEL NO. DESIGNATION

B4260 - VOLTAGE

Example: B4260-12

## ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		B4260-12	B4260-24	C
Nominal voltage	V	12	24	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	7100	6500	
No load current	A	0.6	0.5	
Nominal speed	rpm	4000	4000	
Nominal torque	mNm	130	130	
Nominal current	A	7.4	3.5	
Start/Stall torque	mNm	350	380	
Efficiency	%	59	62	
Nominal power	W	52	52	
Terminal resistance	Ω	0.18	0.8	
Terminal inductance	mH	0.23	1.2	
Torque constant	mNm/A	17	36	
Rotor inertia	gcm <sup>2</sup>	48	48	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.08		
Axial play at axial load > 3.5 N	mm	0.08		
Radial play	mm	0.02		
Max. dynamic axial load	N	10		
Max. radial load <sup>1</sup>	N	28		

## NOTES

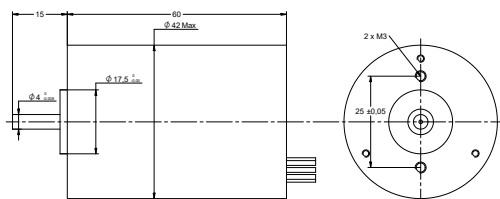
1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		B4260-12	B4260-24	C
Number of pole pairs		4		
Number of phases		3		
Weight	g	300		
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	400		●
Power harness		UL1430 AWG20		
Hall sensors harness		UL1430 AWG26		
Shaft length from flange	mm	22		●
Shaft diameter ø	mm	5		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

## CABLE AND PIN CONFIGURATION

Power		Hall		C
Phase	Cable color	Phase	Cable color	
U	YEL	HU	BLU	
V	RED	HV	GRN	
W	BLK	HW	WHT	
		+5V	RED	
		GND	BLK	

## DRAWING (mm)



## PHOTO

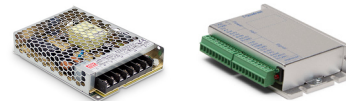


## MODEL NO. DESIGNATION

BR4260 - VOLTAGE

Example: BR4260-12

## ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		BR4260-12	BR4260-24	C
Nominal voltage	V	12	24	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	5600	5400	
No load current	A	0.6	0.3	
Nominal speed	rpm	4200	4200	
Nominal torque	mNm	56	56	
Nominal current	A	2.8	1.4	
Start/Stall torque	mNm	210	240	
Efficiency	%	74	74	
Nominal power	W	25	25	
Terminal resistance	Ω	0.48	1.6	
Terminal inductance	mH	0.44	1.9	
Torque constant	mNm/A	20	39	
Rotor inertia	gcm <sup>2</sup>	48	48	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.08		
Axial play at axial load > 3.5 N	mm	0.08		
Radial play	mm	0.02		
Max. dynamic axial load	N	10		
Max. radial load <sup>1</sup>	N	15		

## NOTES

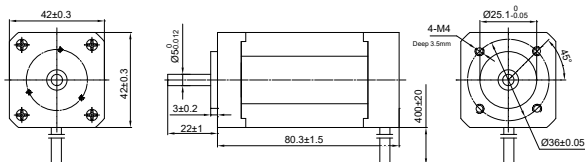
1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		BR4260-12	BR4260-24	C
Number of pole pairs		4		
Number of phases		3		
Weight	g	400		
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	300		●
Power harness		UL1007 AWG22		
Hall sensors harness		UL1007 AWG26		
Shaft length from flange	mm	15		●
Shaft diameter ø	mm	4		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

## CABLE AND PIN CONFIGURATION

Power		Hall		C
Phase	Cable color	Phase	Cable color	
U	GRN	HU	BLU	
V	RED	HV	ORG	
W	BLK	HW	BRN	
		+5V	YEL	
		GND	WHT	

DRAWING (mm)



PHOTO

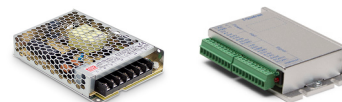


MODEL NO. DESIGNATION

B4280 - VOLTAGE

Example: B4280-24

ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		B4280-24	C
Nominal voltage	V	24	
Commutator hall voltage	V	5 ~ 24	
No load speed	rpm	6100	
No load current	A	0.5	
Nominal speed	rpm	4000	
Nominal torque	mNm	190	
Nominal current	A	5	
Start/Stall torque	mNm	560	
Efficiency	%	67	
Nominal power	W	80	
Terminal resistance	Ω	0.43	
Terminal inductance	mH	0.71	
Torque constant	mNm/A	37	
Rotor inertia	gcm <sup>2</sup>	72	
Bearing type		Ball bearing	
Axial play at axial load < 3.5 N	mm	0.14	
Axial play at axial load > 3.5 N	mm	0.14	
Radial play	mm	0.02	
Max. dynamic axial load	N	10	
Max. radial load <sup>1</sup>	N	28	

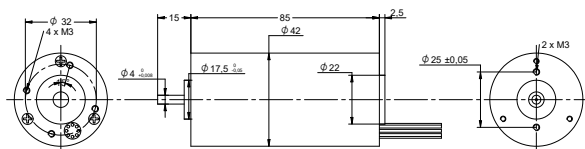
NOTES

1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		B4280-24	C
Number of pole pairs		4	
Number of phases		3	
Weight	g	650	
Operating temperature	°C	-20 to 50	
Max. winding temperature	°C	130	
Motor insulation class		B	
IP rating		IP40	
Hall sensors and power harness length	mm	400	●
Power harness		UL1430 AWG20	
Hall sensors harness		UL1430 AWG26	
Shaft length from flange	mm	22	●
Shaft diameter ø	mm	5	
Service life	h	10000	
Manufacturing standard		ISO9001   ISO14001   TS16949	

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	YEL	HU	BLU	
V	RED	HV	GRN	
W	BLK	HW	WHT	
		+5V	RED	
		GND	BLK	

## DRAWING (mm)



## PHOTO

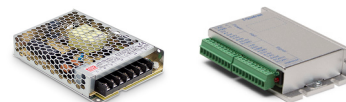


## MODEL NO. DESIGNATION

BR4285 - VOLTAGE

Example: BR4285-24

## ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		BR4285-24	C
Nominal voltage	V	24	
Commutator hall voltage	V	5 ~ 24	
No load speed	rpm	5200	
No load current	A	0.35	
Nominal speed	rpm	4000	
Nominal torque	mNm	150	
Nominal current	A	4.1	
Start/Stall torque	mNm	450	
Efficiency	%	64	
Nominal power	W	63	
Terminal resistance	$\Omega$	0.71	
Terminal inductance	mH	0.86	
Torque constant	mNm/A	37	
Rotor inertia	gcm <sup>2</sup>	84	
Bearing type		Ball bearing	
Axial play at axial load < 3.5 N	mm	0.14	
Axial play at axial load > 3.5 N	mm	0.14	
Radial play	mm	0.02	
Max. dynamic axial load	N	10	
Max. radial load <sup>1</sup>	N	28	

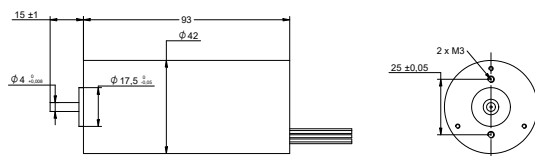
## NOTES

1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		BR4285-24	C
Number of pole pairs		4	
Number of phases		3	
Weight	g	700	
Operating temperature	°C	-20 to 50	
Max. winding temperature	°C	130	
Motor insulation class		B	
IP rating		IP40	
Hall sensors and power harness length	mm	300	●
Power harness		UL1007 AWG22	
Hall sensors harness		UL1007 AWG26	
Shaft length from flange	mm	15	●
Shaft diameter $\phi$	mm	4	
Service life	h	10000	
Manufacturing standard		ISO9001   ISO14001   TS16949	

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	GRN	HU	BLU	
V	RED	HV	ORG	
W	BLK	HW	BRN	
		+5V	YEL	
		GND	WHT	

## DRAWING (mm)



## PHOTO

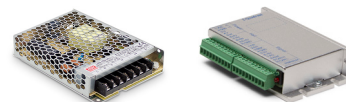


## MODEL NO. DESIGNATION

BR4293 - VOLTAGE

Example: BR4293-24

## ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		BR4293-24	C
Nominal voltage	V	24	
Commutator hall voltage	V	5 ~ 24	
No load speed	rpm	8000	
No load current	A	0.55	
Nominal speed	rpm	6300	
Nominal torque	mNm	120	
Nominal current	A	4	
Start/Stall torque	mNm	500	
Efficiency	%	79	
Nominal power	W	76	
Terminal resistance	Ω	0.33	
Terminal inductance	mH	0.36	
Torque constant	mNm/A	36	
Rotor inertia	gcm <sup>2</sup>	94	
Bearing type		Ball bearing	
Axial play at axial load < 3.5 N	mm	0.14	
Axial play at axial load > 3.5 N	mm	0.14	
Radial play	mm	0.02	
Max. dynamic axial load	N	10	
Max. radial load <sup>1</sup>	N	28	

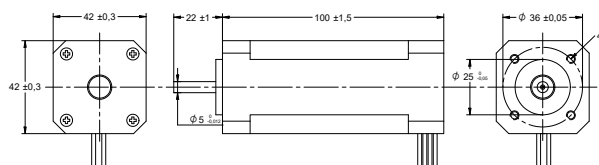
## NOTES

1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		BR4293-24	C
Number of pole pairs		4	
Number of phases		3	
Weight	g	800	
Operating temperature	°C	-20 to 50	
Max. winding temperature	°C	130	
Motor insulation class		B	
IP rating		IP40	
Hall sensors and power harness length	mm	300	●
Power harness		UL1007 AWG22	
Hall sensors harness		UL1007 AWG26	
Shaft length from flange	mm	15	●
Shaft diameter Ø	mm	4	
Service life	h	10000	
Manufacturing standard		ISO9001   ISO14001   TS16949	

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	RED	HU	YEL	
V	BRN	HV	BRN	
W	BLK	HW	RED	
		+5V	BLU	
		GND	GRN	

## DRAWING (mm)



## PHOTO

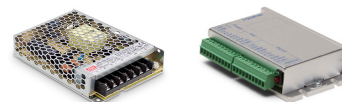


## MODEL NO. DESIGNATION

B42100 - VOLTAGE

Example: B42100-24

## ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		B42100-24	C
Nominal voltage	V	24	
Commutator hall voltage	V	5 ~ 24	
No load speed	rpm	6300	
No load current	A	0.6	
Nominal speed	rpm	4000	
Nominal torque	mNm	250	
Nominal current	A	7.1	
Start/Stall torque	mNm	750	
Efficiency	%	59	
Nominal power	W	100	
Terminal resistance	Ω	0.3	
Terminal inductance	mH	0.5	
Torque constant	mNm/A	0.35	
Rotor inertia	gcm <sup>2</sup>	96	
Bearing type		Ball bearing	
Axial play at axial load < 3.5 N	mm	0.14	
Axial play at axial load > 3.5 N	mm	0.14	
Radial play	mm	0.02	
Max. dynamic axial load	N	10	
Max. radial load <sup>1</sup>	N	28	

## NOTES

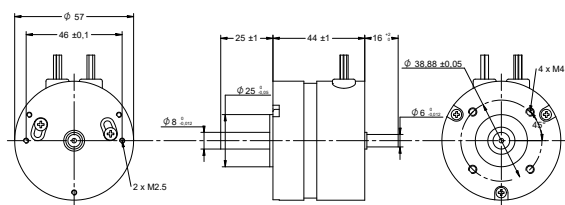
1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		B42100-24	C
Number of pole pairs		4	
Number of phases		3	
Weight	g	800	
Operating temperature	°C	-20 to 50	
Max. winding temperature	°C	130	
Motor insulation class		B	
IP rating		IP40	
Hall sensors and power harness length	mm	400	●
Power harness		UL1430 AWG20	
Hall sensors harness		UL1430 AWG26	
Shaft length from flange	mm	22	●
Shaft diameter ø	mm	5	
Service life	h	10000	
Manufacturing standard		ISO9001   ISO14001   TS16949	

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	YEL	HU	BLU	
V	RED	HV	GRN	
W	BLK	HW	WHT	
		+5V	RED	
		GND	BLK	



DRAWING (mm)



PHOTO

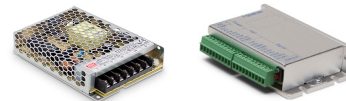


MODEL NO. DESIGNATION

BR5743 - VOLTAGE

Example: BR5743-12

ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		BR5743-12	BR5743-24	C
Nominal voltage	V	12	24	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	5800	5900	
No load current	A	1.2	0.32	
Nominal speed	rpm	4000	4000	
Nominal torque	mNm	55	55	
Nominal current	A	3.1	1.6	
Start/Stall torque	mNm	170	170	
Efficiency	%	63	61	
Nominal power	W	23	23	
Terminal resistance	Ω	0.56	2.1	
Terminal inductance	mH	1.1	4.1	
Torque constant	mNm/A	18	35	
Rotor inertia	gcm <sup>2</sup>	30	30	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.025		
Axial play at axial load > 3.5 N	mm	0.025		
Radial play	mm	0.025		
Max. dynamic axial load	N	15		
Max. radial load <sup>1</sup>	N	75		

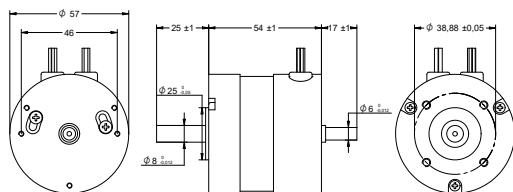
NOTES

1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		BR5743-12	BR5743-24	C
Number of pole pairs		2		
Number of phases		3		
Weight	g	350	250	
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	330		
Power harness		UL1430 AWG20		
Hall sensors harness		UL1430 AWG26		
Shaft length from flange	mm	25		●
Shaft diameter Ø	mm	8		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	YEL	HU	BLU	
V	RED	HV	GRN	
W	BLK	HW	WHT	
		+5V	RED	
		GND	BLK	

## DRAWING (mm)



## MODEL NO. DESIGNATION

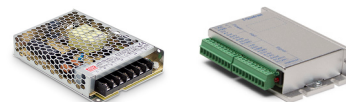
BR5753 - VOLTAGE

Example: BR5753-12

## PHOTO



## ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		BR5753-12	BR5753-24	C
Nominal voltage	V	12	24	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	5600	5400	
No load current	A	0.6	0.5	
Nominal speed	rpm	4000	4000	
Nominal torque	mNm	100	110	
Nominal current	A	7.1	2.8	
Start/Stall torque	mNm	300	330	
Efficiency	%	49	68	
Nominal power	W	42	46	
Terminal resistance	Ω	0.23	0.82	
Terminal inductance	mH	0.45	2.3	
Torque constant	mNm/A	14	39	
Rotor inertia	gcm <sup>2</sup>	75	75	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.025		
Axial play at axial load > 3.5 N	mm	0.025		
Radial play	mm	0.025		
Max. dynamic axial load	N	15		
Max. radial load <sup>1</sup>	N	75		

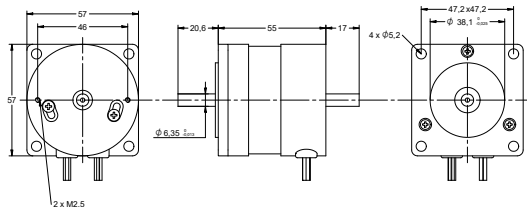
## NOTES

1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		BR5753-12	BR5753-24	C
Number of pole pairs		2		
Number of phases		3		
Weight	g	440	500	
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	330		
Power harness		UL1430 AWG20		
Hall sensors harness		UL1430 AWG26		
Shaft length from flange	mm	25		●
Shaft diameter Ø	mm	8		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	YEL	HU	BLU	
V	RED	HV	GRN	
W	BLK	HW	WHT	
		+5V	RED	
		GND	BLK	

**DRAWING (mm)**

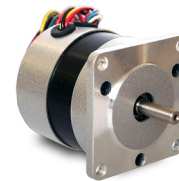


**MODEL NO. DESIGNATION**

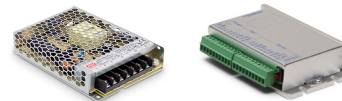
B5755 - VOLTAGE

Example: B5755-24

**PHOTO**



**ACCESSORIES**



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		B5755-24	C
Nominal voltage	V	24	
Commutator hall voltage	V	5 ~ 24	
No load speed	rpm	5400	
No load current	A	0.5	
Nominal speed	rpm	4000	
Nominal torque	mNm	110	
Nominal current	A	2.8	
Start/Stall torque	mNm	330	
Efficiency	%	68	
Nominal power	W	46	
Terminal resistance	Ω	0.82	
Terminal inductance	mH	2.3	
Torque constant	mNm/A	39	
Rotor inertia	gcm <sup>2</sup>	75	
Bearing type		Ball bearing	
Axial play at axial load < 3.5 N	mm	0.025	
Axial play at axial load > 3.5 N	mm	0.025	
Radial play	mm	0.025	
Max. dynamic axial load	N	15	
Max. radial load <sup>1</sup>	N	75	

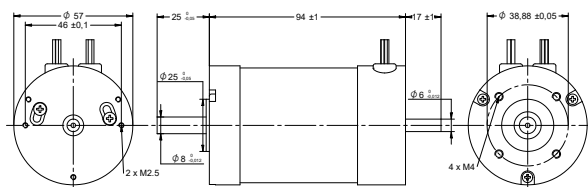
**NOTES**

1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		B5755-24	C
Number of pole pairs		2	
Number of phases		3	
Weight	g	500	
Operating temperature	°C	-20 to 50	
Max. winding temperature	°C	130	
Motor insulation class		B	
IP rating		IP40	
Hall sensors and power harness length	mm	330	
Power harness		UL1430 AWG20	
Hall sensors harness		UL1430 AWG26	
Shaft length from flange	mm	20.6	●
Shaft diameter ø	mm	6.35	
Service life	h	10000	
Manufacturing standard		ISO9001   ISO14001   TS16949	

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	YEL	HU	BLU	
V	RED	HV	GRN	
W	BLK	HW	WHT	
		+5V	RED	
		GND	BLK	

## DRAWING (mm)



## PHOTO

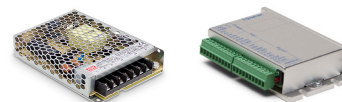


## MODEL NO. DESIGNATION

BR5793 - VOLTAGE

Example: BR5793-12

## ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		BR5793-12	BR5793-24	C
Nominal voltage	V	12	24	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	5500	5200	
No load current	A	1.2	1.2	
Nominal speed	rpm	4000	4000	
Nominal torque	mNm	330	320	
Nominal current	A	14	8	
Start/Stall torque	mNm	990	990	
Efficiency	%	85	68	
Nominal power	W	140	130	
Terminal resistance	Ω	0.064	0.19	
Terminal inductance	mH	0.15	0.61	
Torque constant	mNm/A	24	40	
Rotor inertia	gcm <sup>2</sup>	170	170	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.025		
Axial play at axial load > 3.5 N	mm	0.025		
Radial play	mm	0.025		
Max. dynamic axial load	N	15		
Max. radial load <sup>1</sup>	N	75		

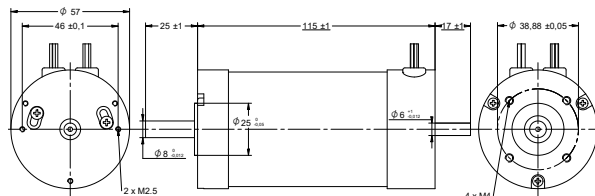
## NOTES

1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		BR5793-12	BR5793-24	C
Number of pole pairs		2		
Number of phases		3		
Weight	g	950	1000	
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	330		
Power harness		UL1332 AWG16		
Hall sensors harness		UL1430 AWG26		
Shaft length from flange	mm	25		
Shaft diameter Ø	mm	8		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	YEL	HU	BLU	
V	RED	HV	GRN	
W	BLK	HW	WHT	
		+5V	RED	
		GND	BLK	

DRAWING (mm)



MODEL NO. DESIGNATION

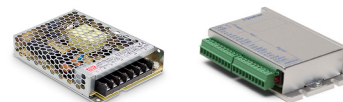
BR57115 - VOLTAGE

Example: BR57115-12

PHOTO



ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		BR57115-24	C
Nominal voltage	V	24	
Commutator hall voltage	V	5 ~ 24	
No load speed	rpm	5800	
No load current	A	0.4	
Nominal speed	rpm	4000	
Nominal torque	mNm	400	
Nominal current	A	10	
Start/Stall torque	mNm	1300	
Efficiency	%	69	
Nominal power	W	170	
Terminal resistance	Ω	0.16	
Terminal inductance	mH	0.44	
Torque constant	mNm/A	39	
Rotor inertia	gcm <sup>2</sup>	230	
Bearing type		Ball bearing	
Axial play at axial load < 3.5 N	mm	0.025	
Axial play at axial load > 3.5 N	mm	0.025	
Radial play	mm	0.025	
Max. dynamic axial load	N	15	
Max. radial load <sup>1</sup>	N	75	

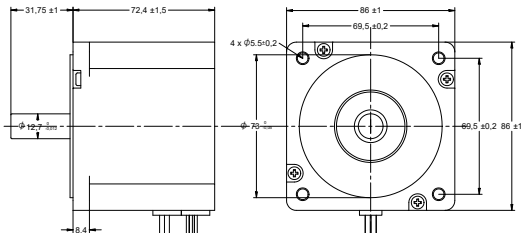
NOTES

1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		BR57115-24	C
Number of pole pairs		2	
Number of phases		3	
Weight	g	1300	
Operating temperature	°C	-20 to 50	
Max. winding temperature	°C	130	
Motor insulation class		B	
IP rating		IP40	
Hall sensors and power harness length	mm	330	
Power harness		UL1430 AWG20	
Hall sensors harness		UL1430 AWG26	
Shaft length from flange	mm	25	●
Shaft diameter ø	mm	8	
Service life	h	10000	
Manufacturing standard		ISO9001   ISO14001   TS16949	

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	YEL	HU	BLU	
V	RED	HV	GRN	
W	BLK	HW	WHT	
		+5V	RED	
		GND	BLK	

**DRAWING (mm)**

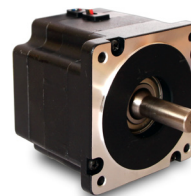


**MODEL NO. DESIGNATION**

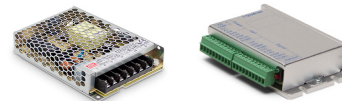
B8672 - VOLTAGE

Example: B8672-24

**PHOTO**



**ACCESSORIES**



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		B8672-24	B8672-48	C
Nominal voltage	V	24	48	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	3500	3700	
No load current	A	1.4	0.6	
Nominal speed	rpm	3000	3000	
Nominal torque	mNm	350	350	
Nominal current	A	6.6	3.1	
Start/Stall torque	mNm	1000	1000	
Efficiency	%	69	74	
Nominal power	W	110	110	
Terminal resistance	Ω	0.21	0.9	
Terminal inductance	mH	0.51	2.6	
Torque constant	mNm/A	53	110	
Rotor inertia	gcm <sup>2</sup>	400	400	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.08		
Axial play at axial load > 3.5 N	mm	0.08		
Radial play	mm	0.02		
Max. dynamic axial load	N	60		
Max. radial load <sup>1</sup>	N	220		

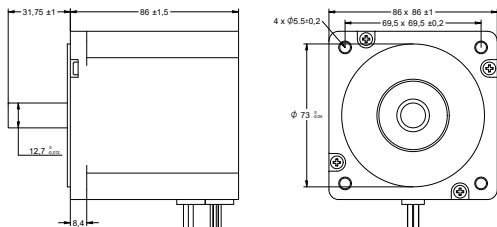
**NOTES**

1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		B8672-24	B8672-48	C
Number of pole pairs		4		
Number of phases		3		
Weight	g	1600		
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	300		
Power harness		UL1332 AWG18		
Hall sensors harness		UL1332 AWG22		
Shaft length from flange	mm	31.75 ●		
Shaft diameter ø	mm	12.7		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	YEL	HU	BLU	
V	RED	HV	GRN	
W	BLK	HW	WHT	
		+5V	RED	
		GND	BLK	

**DRAWING (mm)**

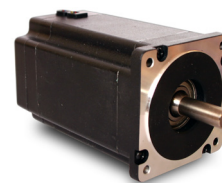


**MODEL NO. DESIGNATION**

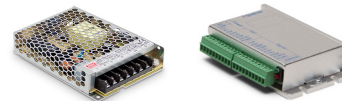
B8686 - VOLTAGE

Example: B8686-24

**PHOTO**



**ACCESSORIES**



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		B8686-24	B8686-48	C
Nominal voltage	V	24	48	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	3900	3800	
No load current	A	1.4	0.95	
Nominal speed	rpm	3000	3000	
Nominal torque	mNm	700	700	
Nominal current	A	12	6.4	
Start/Stall torque	mNm	3200	4000	
Efficiency	%	77	72	
Nominal power	W	220	220	
Terminal resistance	Ω	0.091	0.34	
Terminal inductance	mH	0.23	1	
Torque constant	mNm/A	59	110	
Rotor inertia	gcm <sup>2</sup>	800	800	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.08		
Axial play at axial load > 3.5 N	mm	0.08		
Radial play	mm	0.02		
Max. dynamic axial load	N	60		
Max. radial load <sup>1</sup>	N	220		

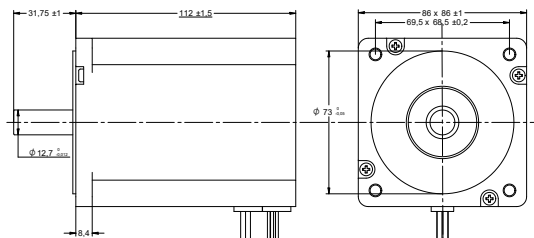
**NOTES**

1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		B8686-24	B8686-48	C
Number of pole pairs		4		
Number of phases		3		
Weight	g	2100		
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	300		
Power harness		AWM3135 AWG16	UL1332 AWG18	
Hall sensors harness		UL1332 AWG22		
Shaft length from flange	mm	31.75 ●		
Shaft diameter ø	mm	12.7		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	YEL	HU	BLU	
V	RED	HV	GRN	
W	BLK	HW	WHT	
		+5V	RED	
		GND	BLK	

DRAWING (mm)



MODEL NO. DESIGNATION

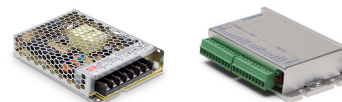
B86112 - VOLTAGE

Example: B86112-24

PHOTO



ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		B86112-24	B86112-48	C
Nominal voltage	V	24	48	
Commutator hall voltage	V	5 ~ 24	5 ~ 24	
No load speed	rpm	3900	3600	
No load current	A	2.4	1.2	
Nominal speed	rpm	3200	3000	
Nominal torque	mNm	1200	1400	
Nominal current	A	20	11	
Start/Stall torque	mNm	6200	8000	
Efficiency	%	82	85	
Nominal power	W	400	440	
Terminal resistance	Ω	0.04	0.16	
Terminal inductance	mH	0.096	0.5	
Torque constant	mNm/A	59	130	
Rotor inertia	gcm <sup>2</sup>	1600	1600	
Bearing type		Ball bearing		
Axial play at axial load < 3.5 N	mm	0.08		
Axial play at axial load > 3.5 N	mm	0.08		
Radial play	mm	0.02		
Max. dynamic axial load	N	60		
Max. radial load <sup>1</sup>	N	220		

NOTES

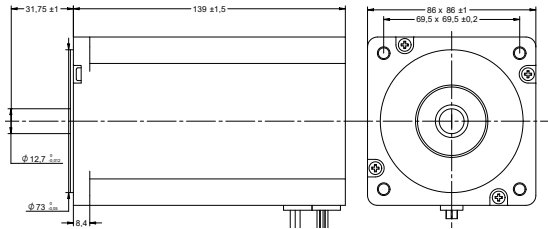
1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		B86112-24	B86112-48	C
Number of pole pairs		4		
Number of phases		3		
Weight	g	2100		
Operating temperature	°C	-20 to 50		
Max. winding temperature	°C	130		
Motor insulation class		B		
IP rating		IP40		
Hall sensors and power harness length	mm	300		
Power harness		UL1332 AWG18		
Hall sensors harness		UL1332 AWG22		
Shaft length from flange	mm	31.75 ●		
Shaft diameter ø	mm	12.7		
Service life	h	10000		
Manufacturing standard		ISO9001   ISO14001   TS16949		

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	YEL	HU	BLU	
V	RED	HV	GRN	
W	BLK	HW	WHT	
		+5V	RED	
		GND	BLK	



**DRAWING (mm)**

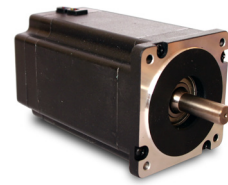


**MODEL NO. DESIGNATION**

B86139 - VOLTAGE

Example: B86139-48

**PHOTO**



**ACCESSORIES**



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

BRUSHLESS DC MOTOR DATA		B86139-48	C
Nominal voltage	V	48	
Commutator hall voltage	V	5 ~ 24	
No load speed	rpm	3500	
No load current	A	1.8	
Nominal speed	rpm	3000	
Nominal torque	mNm	2100	
Nominal current	A	19	
Start/Stall torque	mNm	6300	
Efficiency	%	72	
Nominal power	W	660	
Terminal resistance	Ω	0.1	
Terminal inductance	mH	0.31	
Torque constant	mNm/A	110	
Rotor inertia	gcm <sup>2</sup>	2400	
Bearing type		Ball bearing	
Axial play at axial load < 3.5 N	mm	0.08	
Axial play at axial load > 3.5 N	mm	0.08	
Radial play	mm	0.02	
Max. dynamic axial load	N	60	
Max. radial load <sup>1</sup>	N	220	

**NOTES**

1. 10 mm from flange.

OTHER BRUSHLESS DC MOTOR DATA		B86139-48	C
Number of pole pairs		4	
Number of phases		3	
Weight	g	4200	
Operating temperature	°C	-20 to 50	
Max. winding temperature	°C	130	
Motor insulation class		B	
IP rating		IP40	
Hall sensors and power harness length	mm	300	
Power harness		UL1332 AWG18	
Hall sensors harness		UL1332 AWG22	
Shaft length from flange	mm	31.75	●
Shaft diameter φ	mm	12.7	
Service life	h	10000	
Manufacturing standard		ISO9001   ISO14001   TS16949	

CABLE AND PIN CONFIGURATION				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	YEL	HU	BLU	
V	RED	HV	GRN	
W	BLK	HW	WHT	
		+5V	RED	
		GND	BLK	