



力精机电
PEP MOTOR

Changzhou Lijing Electromechanical Technology
Co., Ltd.

Phone: 0519-68783344

Fax: 0519-82059019

<http://www.pepmotor.com>

define

22BLY Series

Winding connection type----- Star connection

Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----minimum 100 MΩ. Dielectric strength at

500 V DC-----500 V AC, 1 minute



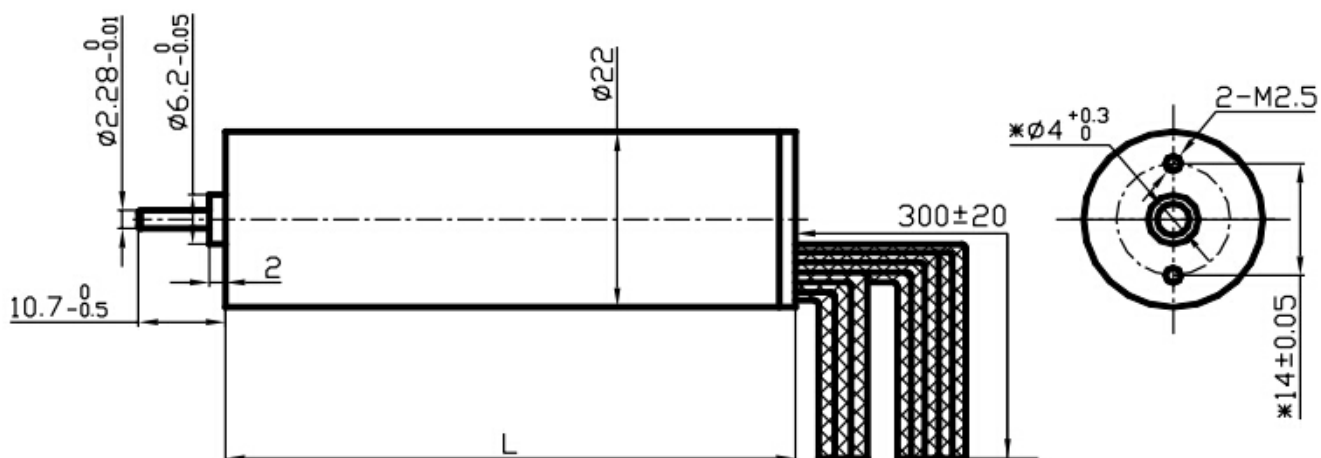
Electrical Performance Specification

Motor model		22BLY45-01	22BLY68-01
Extreme value		8	
Number of phases		3	
Rated voltage	VDC	24	24
Rated speed	RPM	4600	3500
Nominal torque	mN.m	8.0	22.0
Continuous operating torque	mN.m	9.6	26.4
Power rating	Watts	3.8	8.0
Peak torque	mN-m	21	50
Peak point current	Amps	1.1	1.5
Resistance	ohms	23	11.8
Inductance	mH	6.2	4.2
Torque constant	mNm/A	30.2	35.5
Moment of inertia	g · cm ²	1.083	2.098
Body length	mm	45	68
Weight	kg	0.07	0.12

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

Outline Dimension





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500 V DC----500 V AC, 1 minute

28BLY Series



Electrical Performance Specification

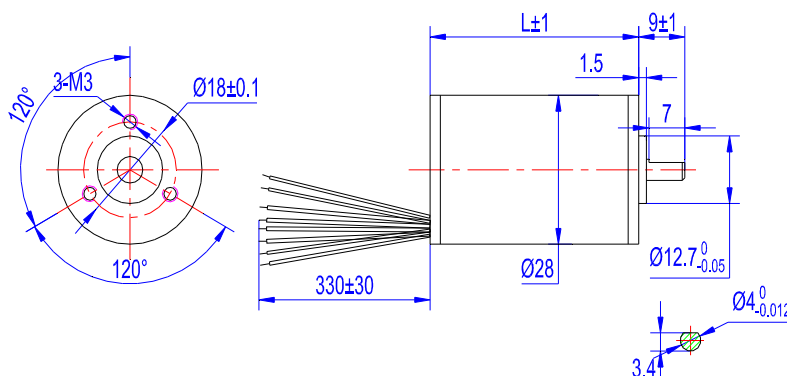
Motor model		28BLY41-01	28BLY53-01	28BLY78-01
Extreme value		4		
Number of phases		3		
Rated voltage	VDC	12	24	24
Rated speed	RPM	3000	3000	3000
Nominal torque	N-m	0.015	0.03	0.05
Rated current	Amps	0.9	1	1.5
Output power	Watts	4.7	9.4	15.7
Peak torque	N-m	0.045	0.09	0.15
Peak point current	Amps	2.7	3	4.5
Torque constant	N-m/Amps	0.035	0.058	0.057
Back EMF constant	V/kRPM	3.37	6.1	6.1
Moment of inertia	g · cm ²	1.5	2.5	6
Body length	mm	41	53	78
Weight	kg	0.08	0.1	0.3

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

outline dimension

Motor wiring configuration



+5V	红	UL1007 AWG26
HALL A	绿	
HALL B	蓝	
HALL C	白	
GND	黑	
PHASE A	橙	
PHASE B	黄	
PHASE C	棕	



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28BLYX Series

Winding connection type----- Star connection

Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ. Dielectric strength at

500 V DC----500 V AC, 1 minute



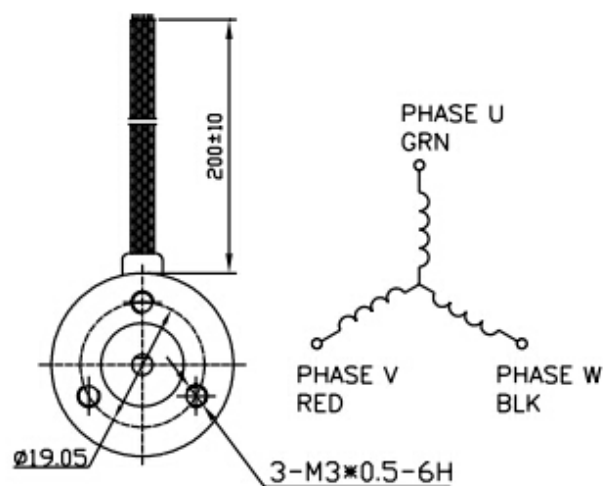
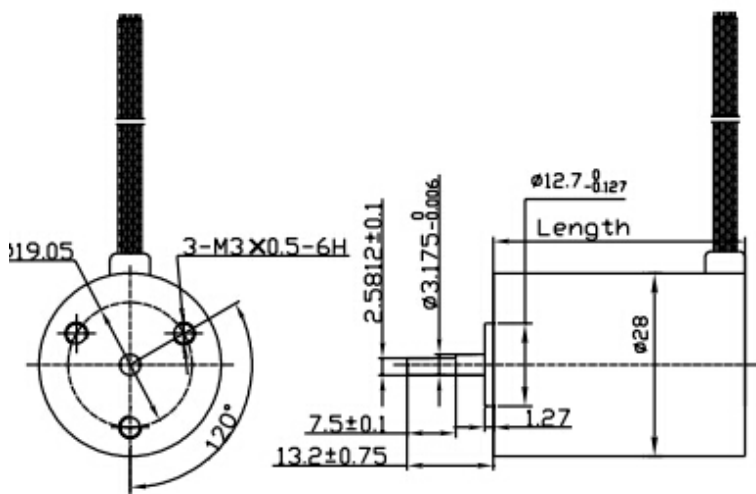
Electrical Performance Specification

Motor model		28BLYX26-01	28BLYX38-01	28BLYX77-01
Extreme value		4		
Number of phases		3		
Rated voltage	VDC	15	24	24
Rated speed	RPM	8000	10000	3700
Nominal torque	mN.m	7	14.12	50
Continuous operating torque	mN.m	8.4	17	60
Power rating	Watts	6	14.78	16
Peak torque	mN-m	21	42.4	150
Peak point current	Amps	2.5	2.8	3.0
Resistance	ohms	8.0	4.2	4.2
Inductance	mH	2.5	1.69	2.2
Torque constant	mNm/A	13.7	16	35.56
Moment of inertia	g · cm ²	2.35	3.69	10.98
Body length	mm	26	38	77
Weight	kg	0.06	0.082	0.2

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

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External Dimensions;





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33BLY Series

Winding connection type----- Star connection

Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----minimum 100 MΩ. Dielectric strength at

500 V DC-----500 V AC, 1 minute



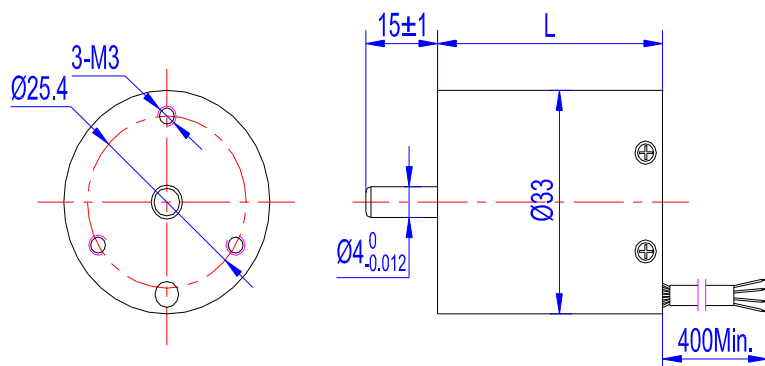
Electrical Performance Specification

Motor model		33BLY38-01	33BLY51-01
Extreme value		4	
Number of phases		3	
Rated voltage	VDC	12	24
Rated speed	RPM	4580	5800
Nominal torque	N-m	0.025	0.049
Rated current	Amps	1	1.7
Output power	Watts	11.9	26
Peak torque	N-m	0.09	0.226
Peak point current	Amps	6.18	7.7
Torque constant	N-m/Amps	0.0155	0.0311
Back EMF constant	/kRPM	1.2	3.2
Moment of inertia	Kg • cm ²	1.2	1.9
Body length	mm	38	51
Weight	kg	0.12	0.18

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

outline dimension



Motor wiring configuration

+5V	红	UL1007 AWG26
HALL A	绿	
HALL B	蓝	
HALL C	白	
GND	黑	
PHASE A	橙	
PHASE B	黄	
PHASE C	棕	



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33BLYX Series

Winding connection type----- Star connection

Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ. Dielectric strength at

500 V DC----500 V AC, 1 minute



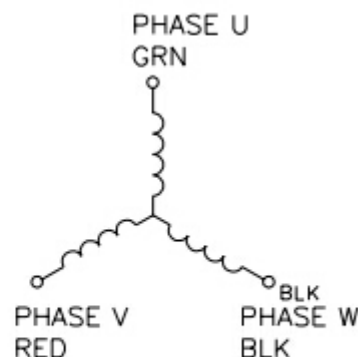
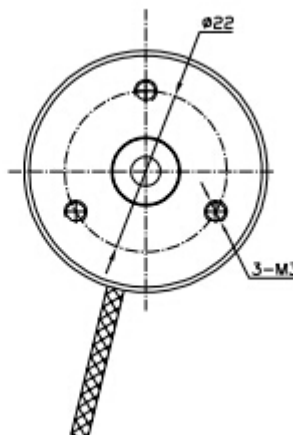
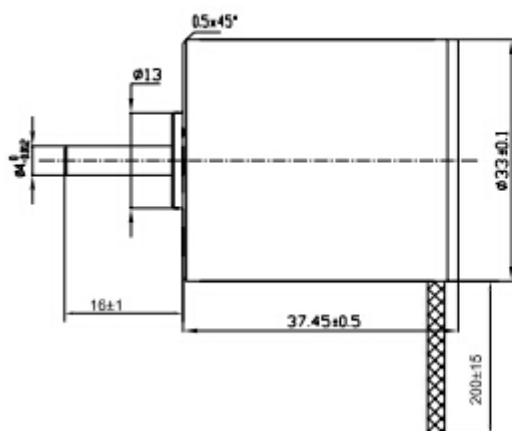
Electrical Performance Specification

Motor model		33BLYX38-01	33BLYX80-01	33BLYX80-02
Extreme value		4		
Number of phases		3		
Rated voltage	VDC	24	48	24
Rated speed	RPM	3000	10000	7800
Nominal torque	mN.m	22	40	50
Continuous operating torque	mN.m	26	48	60
Power rating	Watts	7.0	40	40
Peak torque	mN-m	66	350	350
Peak point current	Amps	0.64	3.5	11
Resistance	ohms	14.2	2.3	0.86
Inductance	mH	7.0	1.45	0.55
Torque constant	mNm/A	46.09	39.16	25.16
Moment of inertia	g • cm ²	7.96	23.55	23.55
Body length	mm	38	80	80
Weight	kg	0.115	0.2	0.2

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

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External Dimensions;





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42BLF Series

Winding connection type----- Star connection

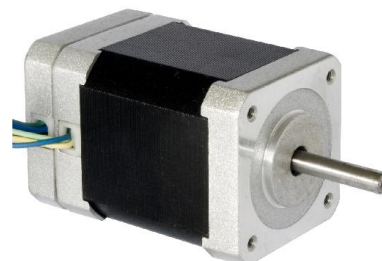
Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ. Dielectric strength at

500 V DC-----500 V AC, 1 minute



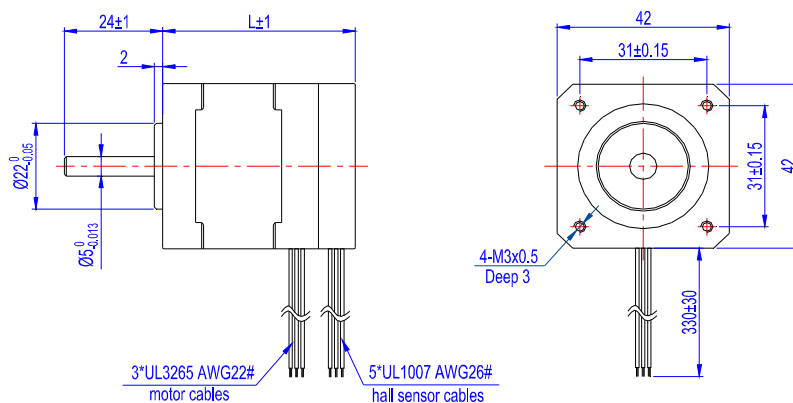
Electrical Performance Specification

Motor model		42BLF47-01	42BLF63-01	42BLF79-01
Extreme value		8		
Number of phases		3		
Rated voltage	VDC	24	24	24
Rated speed	RPM	4000	4000	4000
Nominal torque	N-m	0.063	0.125	0.188
Rated current	Amps	1.9	3.4	5.7
Output power	Watts	26	52	78
Peak torque	N-m	0.18	0.38	0.75
Peak point current	Amps	5.7	10.2	18
Torque constant	N-m/Amps	0.035	0.036	0.036
Back EMF constant	V/kRPM	3.7	3.8	3.8
Moment of inertia	g · cm ²	24	48	72
Body length	mm	47	63	79
Weight	kg	0.33	0.48	0.63

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

Outline Dimension





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define

42BLFX Series

Winding connection type----- Star connection

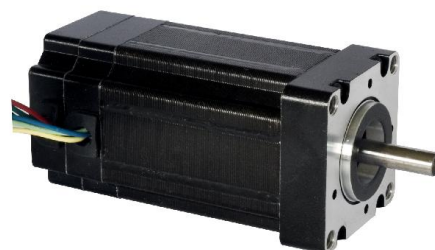
Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ. Dielectric strength at

500 V DC----500 V AC, 1 minute



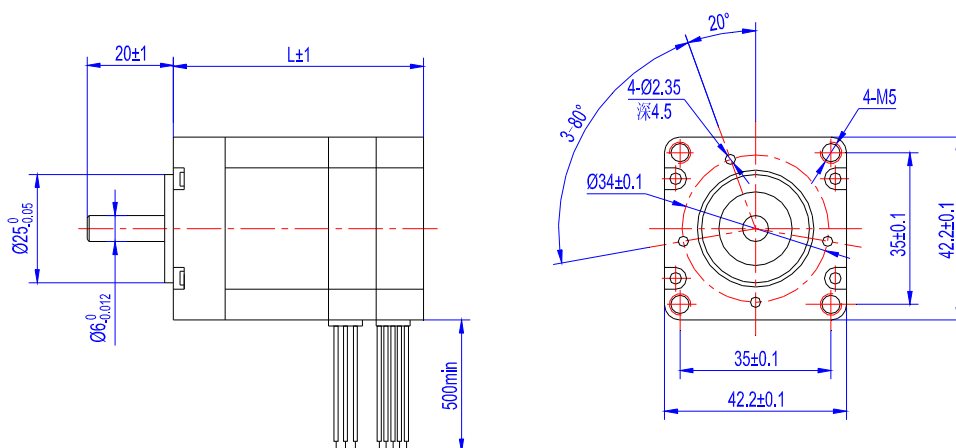
Electrical Performance Specification

Model		42BLFX59-01	42BLFX84-01
Extreme value		8	
Number of phases		3	
Rated voltage	VDC	48	48
Rated speed	RPM	4000	4000
Nominal torque	N-m	0.12	0.2
Rated current	Amps	1.2	2.1
Output power	Watts	50	84
Peak torque	N-m	0.36	0.6
Peak point current	Amps	3.6	6.3
Torque constant	N-m/Amps	0.108	0.104
Back EMF constant	V/kRPM	11.3	10.9
Moment of inertia	g · cm ²	62	123
Body length	mm	59	84
Weight	kg	0.35	0.5

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Define

42BLY Series

Winding connection type-----Star

Hall effect measurement angle-----120°; Electrical

insulation class-----Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ. Dielectric strength at

500 V DC-----500 V AC, 1 minute



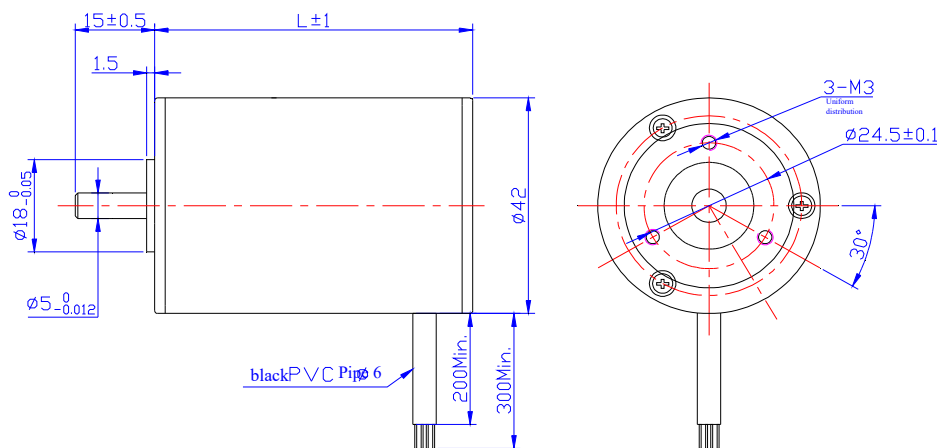
Electrical Performance Specification

Motor model		42BLY42-01	42BLY60-01	42BLY78-01
Extreme value		4		
Number of phases		3		
Rated voltage	VDC	24	24	24
Rated speed	RPM	3000	3000	3000
Rated moment	N-m	0.035	0.07	0.105
Rated current	Amps	0.9	2.1	3
Output power	Watts	11	22	33
Peak torque	N-m	0.11	0.21	0.315
Peak point current	Amps	2.7	6.3	9
Torque constant	N-m/Amps	0.035	0.035	0.036
Back EMF constant	V/kRPM	3.37	3.37	3.38
Moment of inertia	g · cm ²	25	35	45
Body length	mm	42	60	78
Weight	kg	0.35	0.5	0.8

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

Outline Dimension





define

42BLYX Series

Winding connection type----- Star connection

Hall effect measurement angle----- 120°; Electrical
insulation class----- Class B; Ambient temperature
range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ. Dielectric strength at
500 V DC----500 V AC, 1 minute



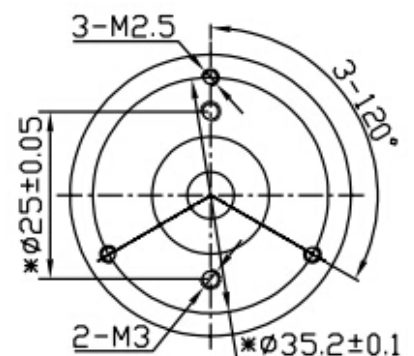
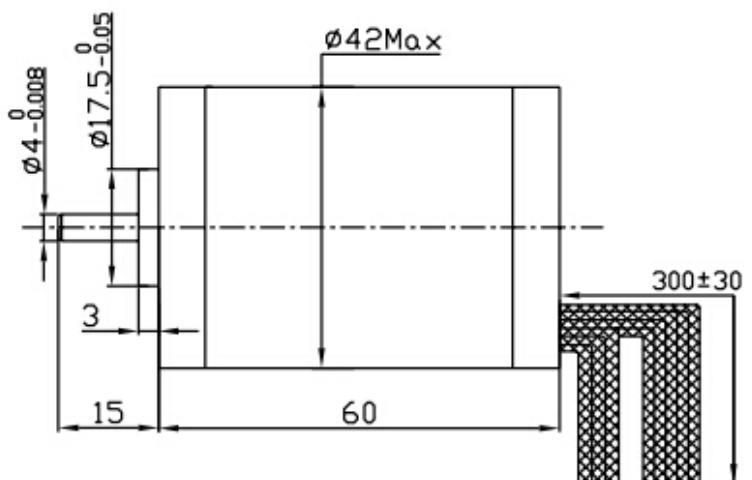
Electrical Performance Specification

Motor model		42BLYX30-01	42BLYX60-01	42BLYX85-01	42BLYX93-01
Extreme value		8			
Number of phases		3			
Rated voltage	VDC	24	36	24	24
Rated speed	RPM	3500	4000	4000	6300
Nominal torque	mN.m	18	80	150	115
Maximum continuous operating torque	mN.m	21.6	96	180	138
Power rating	Watts	6.5	32	62	76
Peak torque	mN-m	60	240	450	500
Peak point current	Amps	1.5	5.0	7.5	10
Resistance	ohms	9.8	1.6	0.71	0.325
Inductance	mH	7.5	1.94	0.86	0.36
Torque constant	mNm/A	48.7	38.5	38.6	28.7
Moment of inertia	g · cm ²	15.6	33	84	94
Body length	mm	30	60	85	93
Weight	kg	0.25	0.35	0.7	0.8

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

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External Dimensions





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57BLF Series

Winding connection type----- Star connection

Hall effect measurement angle----- 120°; Electrical insulation class----- Class B; Ambient temperature range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ at 500 V DC. Dielectric strength-----700 V AC for 1 minute



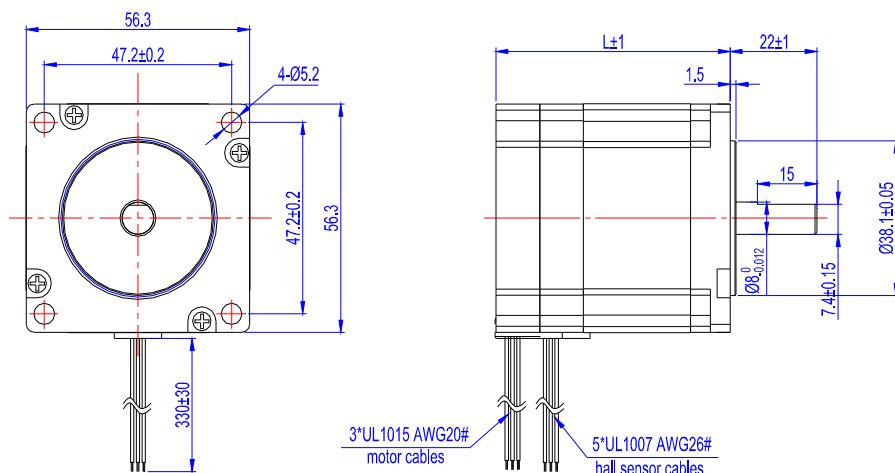
Electrical Performance Specification

Motor model		57BLF59-01	57BLF80-01	57BLF101-01	57BLF122-01
Extreme value		8			
Number of phases		3			
Rated voltage	VDC	24	24	24	36
Rated speed	RPM	3000	3000	3000	3000
Rated moment	N-m	0.2	0.4	0.6	0.8
Rated current	Amps	4	7.8	12	15
Output power	Watts	63	125	188	250
Peak torque	N-m	0.6	1.2	1.8	2.4
Peak point current	Amps	12	23.5	36	45
Torque constant	N-m/Amps	0.065	0.066	0.066	0.066
Back EMF constant	V/kRPM	6.23	6.3	6.3	6.3
Moment of inertia	g · cm ²	120	170	220	270
Body length	mm	59	80	101	122
Weight	kg	0.65	1.0	1.4	2.0

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

External Dimensions



Winding connection type----- Star connection

Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ at 500 V DC. Dielect-

ric strength-----700 V AC for 1 minute



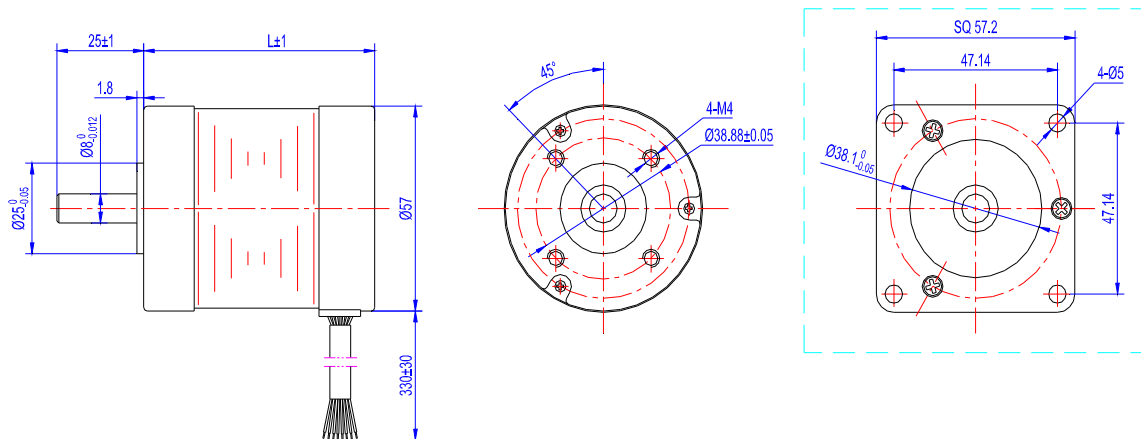
Electrical Performance Specification

Motor model		57BLY42-01	57BLY47-01	57BLY57-01	57BLY67-01	57BLY87-01	57BLY107-01
Extreme value		4					
Number of phases		3					
Rated voltage	VDC	24	24	24	24	24	24
Rated speed	RPM	2500	3000	3000	3000	3000	3000
Nominal torque	N-m	0.057	0.11	0.165	0.22	0.33	0.44
Rated current	Amps	1.2	2.3	3.0	4.4	6.6	8.6
Output power	Watts	15	34	52	69	103	138
Peak torque	N-m	0.18	0.38	0.58	0.8	1.2	1.6
Peak point current	Amps	3.6	6.8	9	13.2	19.8	25.8
Torque constant	N-m/Amps	0.074	0.059	0.06	0.062	0.062	0.063
Back EMF constant	V/kRPM	7.75	6.2	6.3	6.5	6.5	6.6
Moment of inertia	g • cm ²	32	42	58	72	106	140
Body length	mm	42	47	57	67	87	107
Weight	kg	0.43	0.5	0.67	0.75	1.0	1.25

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

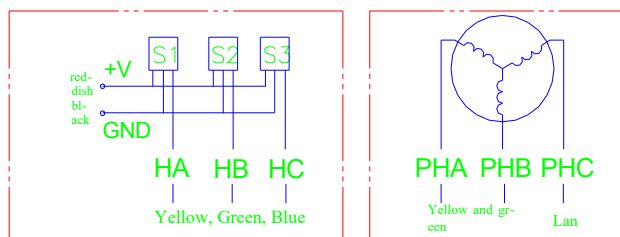
Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

External dimensions



Motor Wiring Configuration

Connection Schematic:



Note: The operating voltage range for the Hall effect sensor is +5VDC--- +20 VDC.



Define

57BLYX Series

Winding connection type----- Star connection

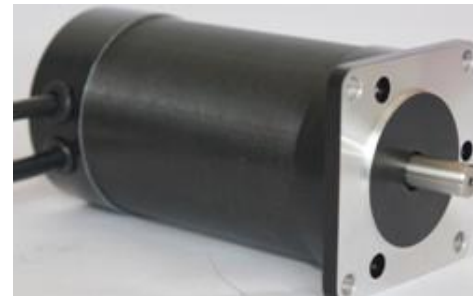
Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ at 500 V DC. Dielectric

strength-----700 V AC for 1 minute



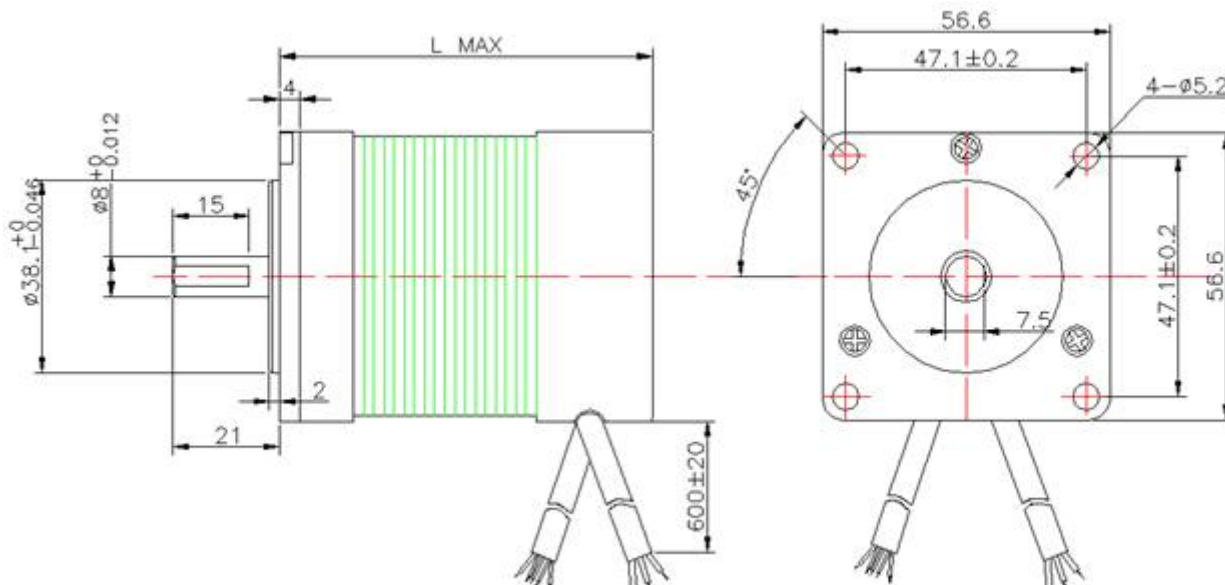
Electrical Performance Specification

Motor model		57BLYX54-01	57BLY74-01	57BLY94-01	57BLYX114-01	57BLYX114-02
Extreme value		4				
Number of phases		3				
Rated voltage	VDC	24	24	36	48	310
Rated speed	RPM	3000				
Nominal torque	N-m	0.11	0.22	0.33	0.45	0.45
Rated current	Amps	2.4	4.8	4.9	4.9	0.8
Output power	Watts	35	70	105	140	140
Peak torque	N-m	0.33	0.66	0.99	1.35	1.35
Peak point current	Amps	7.2	14.4	14.7	14.7	2.4
Torque constant	N-m/Amps	0.05	0.05	0.07	0.095	0.6
Back EMF constant	V/kRPM	3.4	3.4	5.1	6.8	44
Moment of inertia	$g \cdot cm^2$	75	119	173	230	230
Body length	mm	54	74	94	114	114
Weight	kg	0.5	0.75	1.0	1.25	1.25

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

External Dimensions





Define

60BLF Series

Winding connection type----- Star connection

Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ at 500 V DC. Dielect-

ric strength-----750 V AC for 1 minute



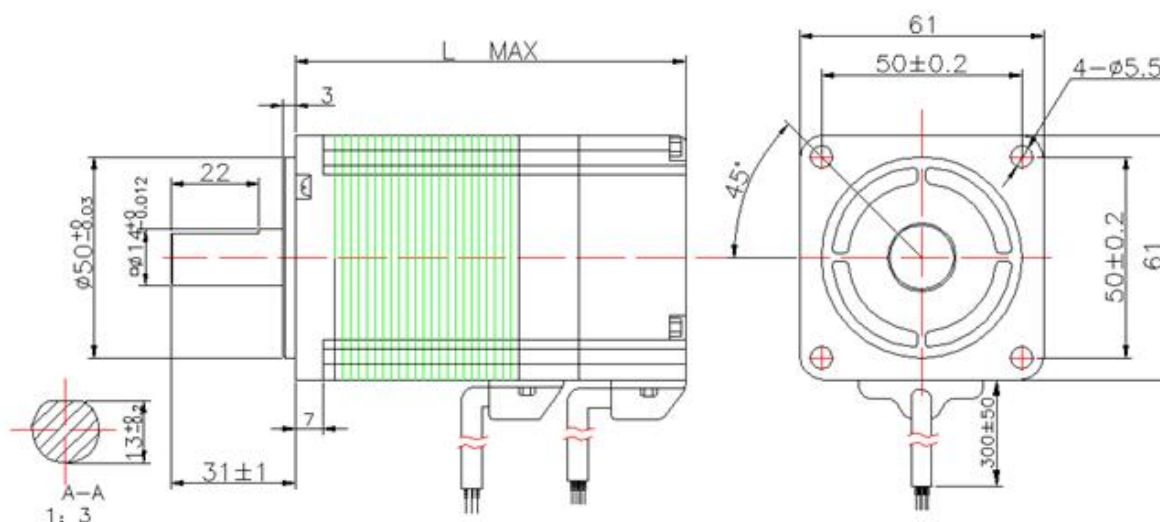
Electrical Performance Specification

Motor model		60BLF78-01	60BLF99-01	60BLF120-01	60BLF141-01	60BLF141-02
Extreme value		8				
Number of phases		3				
Rated voltage	VDC	24	24	36	48	310
Rated speed	RPM	3000				
Rated moment	N-m	0.32	0.64	0.96	1.28	1.28
Rated current	Amps	5.5	11	11	11	17
Output power	Watts	100	200	300	400	400
Peak torque	N-m	1.0	1.92	2.88	3.84	3.84
Peak point current	Amps	16.5	33	33	33	5.1
Torque constant	N-m/A	0.06	0.06	0.09	0.12	0.76
Back EMF constant	V/kRPM	4.2	4.2	6.4	8.4	55
Moment of inertia	$g \cdot cm^2$	240	480	720	960	960
Body length	mm	78	99	120	141	141
Weight	kg	0.85	1.25	1.65	2.05	2.05

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

External Dimensions





力精机电
PEP MOTOR

Changzhou Lijing Electromechanical Technology
Co., Ltd.

Phone: 0519-68783344

Fax: 0519-82059019

<http://www.pepmotor.com>

Define

Winding connection type----- Star connection

Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ at 500 V DC. Dielect-

ric strength-----750 V AC for 1 minute

60BLFX Series



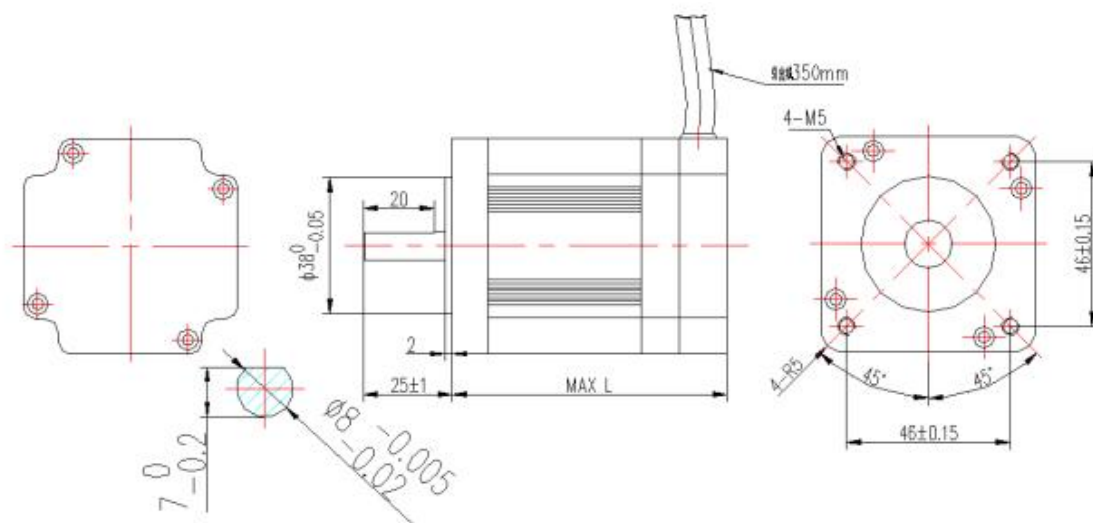
Electrical Performance Specification

Motor model	60BLFX77-01	60BLFX97-01	60BLFX115-01
Extreme value	8		
Number of phases	3		
Rated voltageVDC	48	48	48
Rated speed RPM	3000		
Rated moment N-m	0.21	0.42	0.62
Rated current (Amps)	2	4	6
Output power: Watts	66	132	198
Peak torque N-m	0.63	1.26	1.89
Peak current (Amps)	6	12	18
Torque constant N-m/A	0.127	0.127	0.127
Back EMF constant V/KRPM	13.3	13.3	13.3
Moment of inertia: g·cm ²	137	264	392
Body length mm	77	97	115
Weight kg	0.7	1.0	1.3

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

External Dimensions





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Define

Winding connection type----- Star connection

Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ at 500 V DC. Dielect-

ric strength-----750 V AC for 1 minute

70BLF Series



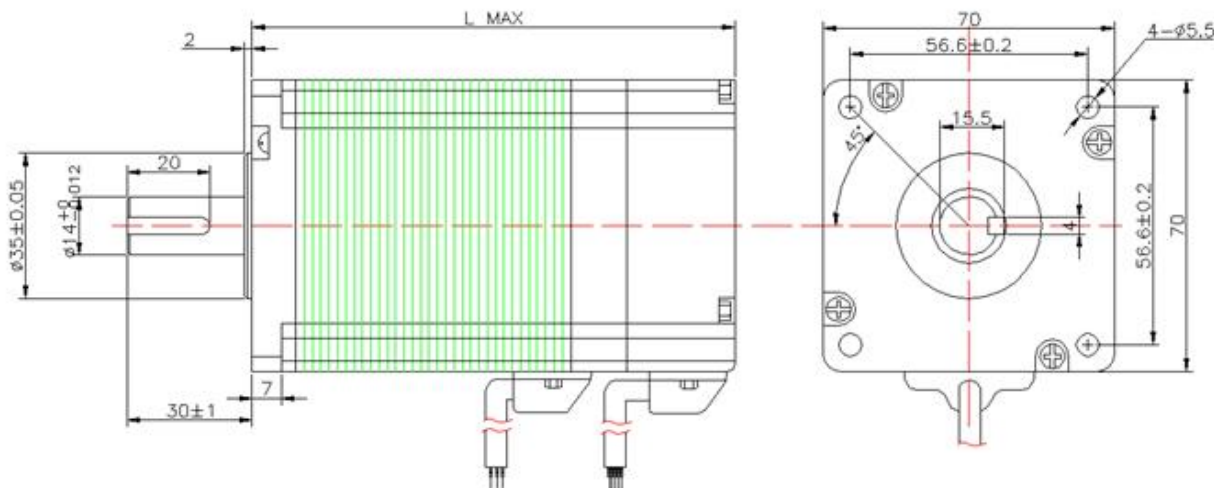
Electrical Performance Specification

Motor model		70BLF86-01	70BLF86-02	70BLF116-01	70BLF116-02	70BLF146-01
Extreme value		8				
Number of phases		3				
Rated voltage	VDC	24	48	48	310	310
Rated speed	RPM	3000				
Rated moment	N-m	0.5	0.5	1.0	1.0	1.5
Rated current	Amps	8.7	4.4	8.7	1.4	2.1
Output power	Watts	157	157	313	313	470
Peak torque	N-m	1.5	1.5	3.0	3.0	4.5
Peak point current	Amps	26	13.2	26	4.2	6.3
Torque constant	N-m/A	0.06	0.12	0.12	0.72	0.72
Back EMF constant	V/kRPM	4.2	8.4	8.4	55	55
Moment of inertia	g • cm ²	380	380	760	760	1140
Body length	mm	86	86	116	116	146
Weight	kg	1.3	1.3	2.1	2.1	2.8

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

External Dimensions





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Define

80BLF Series

Winding connection type----- Star connection

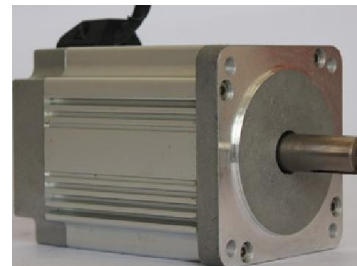
Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ at 500 V DC. Dielect-

ric strength-----750 V AC for 1 minute



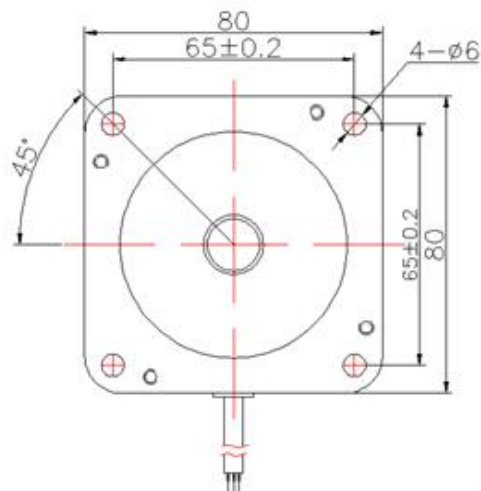
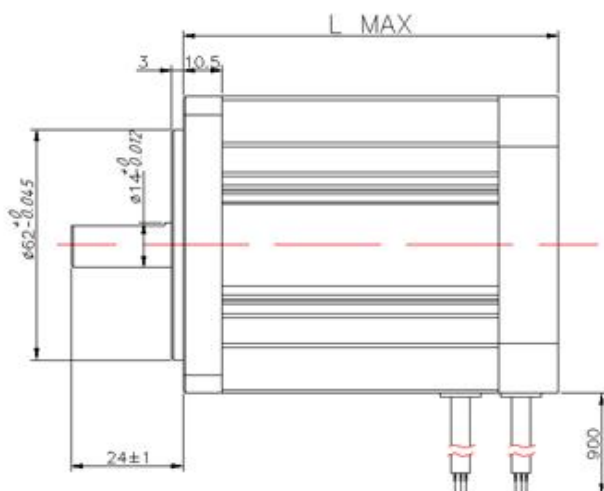
Electrical Performance Specification

Motor model	80BLF86-01	80BLF106-01	80BLF126-01	80BLF126-02	80BLF126-03	80BLF161-01
Extreme value	4					
Number of phases	3					
Rated voltageVDC	48	48	48	48	310	310
Rated speed RPM	3000					
Rated moment N-m	0.4	0.7	1.2	1.2	1.2	1.6
Rated current (Amps)	5	7	12	12	2.1	2.2
Output power: Watts	126	220	376	628	376	500
Peak torque N-m	1.2	2.1	3	3	4.5	6.6
Peak current (Amps)	15	21	36	36	6.3	7
Torque constant N-m/A	0.11	0.11	0.11	0.11	0.72	0.74
Back EMF constant V/ KRPM	4.52	4.52	4.52	4.52	55	77.5
Moment of inertia: g·cm ²	390	530	650	650	650	750
Body length mm	86	106	126	126	126	161
Weight kg	2	2.5	3	3	3	5.5

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

External Dimensions





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Define

86BLF Series

Winding connection type----- Star connection

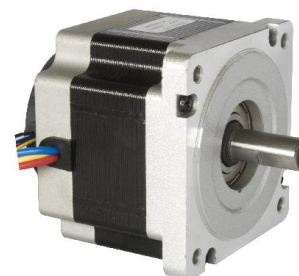
Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ at 500 V DC. Dielect-

ric strength-----750 V AC for 1 minute



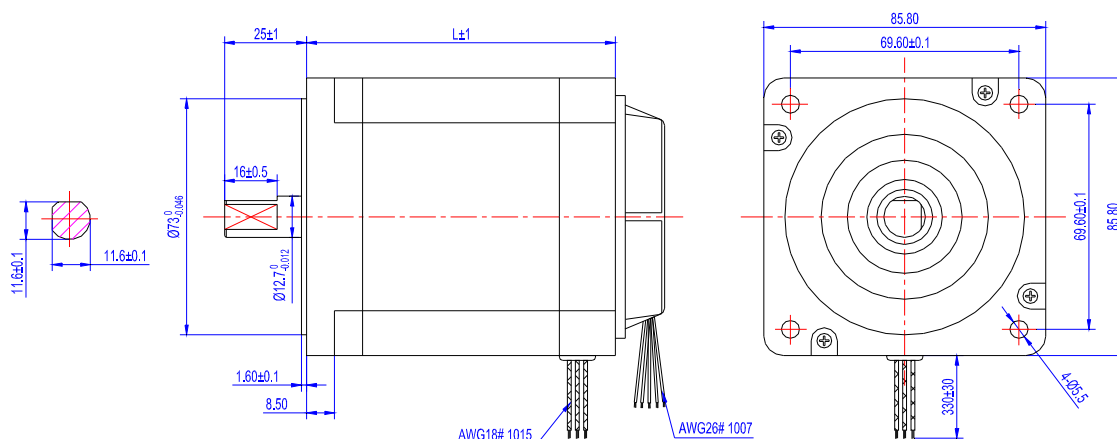
Electrical Performance Specification

Motor model		86BLF124-01	86BLF109-01	86BLF94-01	86BLF81-01	86BLF67-01	86BLF57-01
Extreme value		8					
Number of phases		3					
Rated voltage	VDC	48	48	48	48	48	48
Rated speed	RPM	3000	3000	3000	3000	3000	3000
Rated moment	N-m	2.1	1.8	1.4	1.05	0.7	0.35
Rated current	Amps	22	18	14	9.6	6.6	3.9
Output power	Watts	660	550	440	330	220	110
Peak torque	N-m	6.3	5.4	4.2	3.2	2.1	1.05
Peak point current	Amps	55	46	38.0	29.0	19.8	10.8
Torque constant	N-m/A	0.116	0.115	0.115	0.115	0.112	0.11
Back EMF constant	V/kRPM	12.2	12.0	12.0	12.0	11.8	11.5
Moment of inertia	g · cm ²	1850	1550	1250	950	650	350
Body length	mm	124	109	94	81	67	57
Weight	kg	2.75	2.75	2.75	2.2	1.75	1.1

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

External Dimensions





Define

Winding connection type----- Star connection

Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ at 500 V DC. Dielect-

ric strength-----750 V AC for 1 minute

86BLFX Series



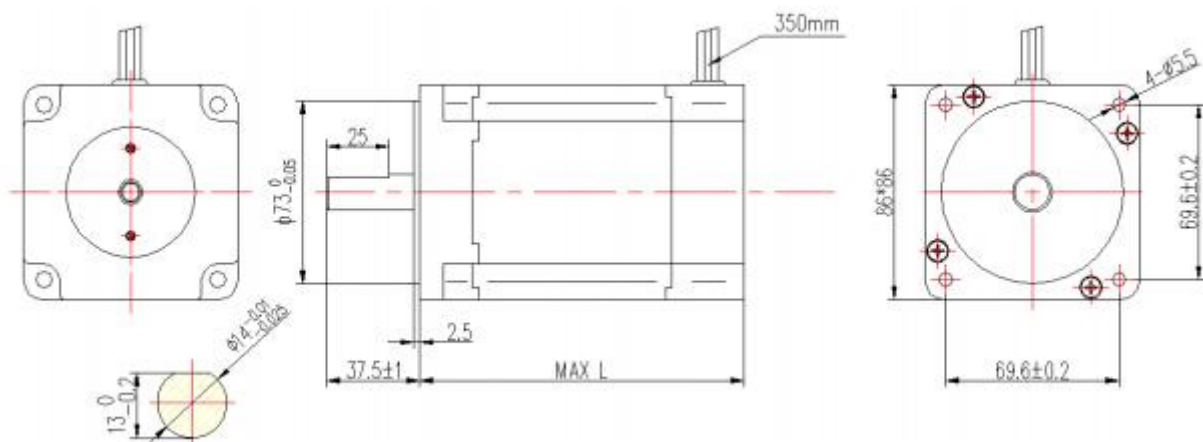
Electrical Performance Specification

Motor model	86BLFX80-01	86BLFX105-01	86BLFX115-01	86BLFX130-01	86BLFX130-02
Extreme value	4				
Number of phases	3				
Rated voltageVDC	48	48	48	48	310
Rated speed RPM	3000				
Rated moment N-m	1.0	1.8	2.1	2.5	2.5
Rated current (Amps)	8.5	14.8	17	19.5	4.0
Output power: Watts	314	565	659	785	785
Peak torque N-m	3.0	5.4	6.3	7.5	7.5
Peak current (Amps)	25	42	51	55	12
Torque constant N-m/A	0.131	0.131	0.127	0.127	0.127
Back EMF constant V/KRPM	13.7	13.7	13.3	13.3	13.3
Moment of inertia: g·cm ²	950	1600	1800	2600	2600
Body length mm	80	105	115	130	130
Weight kg	2.3	3.4	3.8	4.3	4.3

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

External Dimensions





Define

90BLF Series

Winding connection type----- Star connection

Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ at 500 V DC. Dielect-

ric strength-----750 V AC for 1 minute



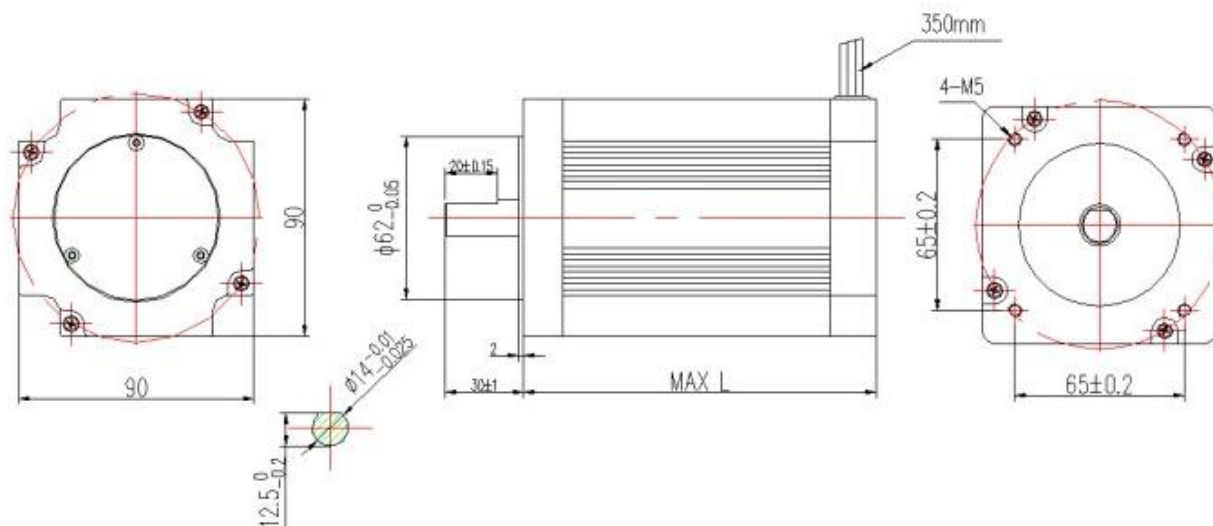
Electrical Performance Specification

Motor model	90BLF110-01	90BLF135-01
Extreme value	4	
Number of phases	3	
Rated voltageVDC	48	48
Rated speed RPM	3000	
Rated moment N-m	1.8	2.5
Rated current (Amps)	14.8	19.5
Output power: Watts	565	785
Peak torque N-m	5.4	7.5
Peak current (Amps)	42	55
Torque constant N-m/A	0.131	0.127
Back EMF constant V/KRPM	13.7	13.3
Moment of inertia: g·cm ²	250	340
Body length mm	110	135
Weight kg	4.5	5

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

External Dimensions





Define

110BLF Series

Winding connection type----- Star connection

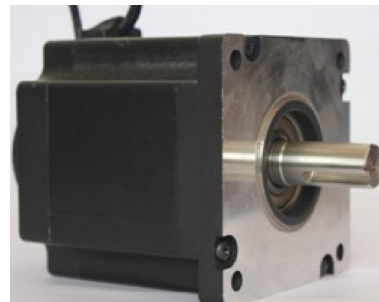
Hall effect measurement angle----- 120°; Electrical

insulation class----- Class B; Ambient temperature

range----- -20 °C to +50 °C

Insulation resistance-----Minimum: 100 MΩ at 500 V DC. Dielect-

ric strength-----750 V AC for 1 minute



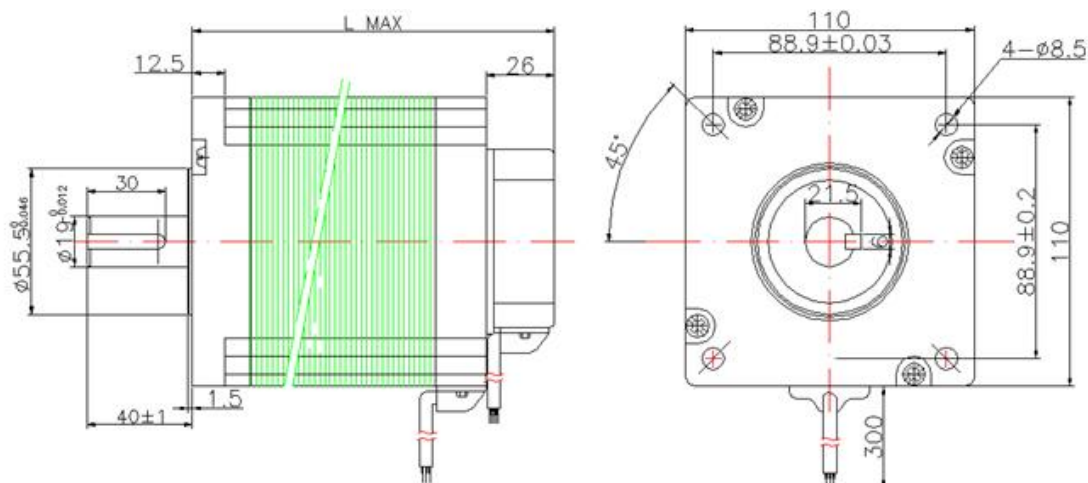
Electrical Performance Specification

Motor model		110BLF110-01	110BLF110-02	110BLF170-01	110BLF230-01	110BLF230-02
Extreme value		8				
Number of phases		3				
Rated voltage	VDC	48	310	310	310	520
Rated speed	RPM	3000				
Rated moment	N-m	3.2	3.2	6.4	9.6	9.6
Rated current	Amps	28	4.1	8.2	13	7.3
Output power	Watts	1000	1000	2000	3000	3000
Peak torque	N-m	10	10	20	30	30
Peak point current	Amps	84	13	25	39	22
Torque constant	N-m/A	0.12	0.79	0.79	0.74	1.32
Back EMF constant	V/kRPM	8.4	55	55	55	95
Moment of inertia	g • cm ²	3000	3000	6000	6000	9000
Body length	mm	110	110	170	230	230
Weight	kg	4.5	4.5	7	9.5	9.5

Warning 1: The peak torque is provided solely as a reference parameter; operating under these conditions or approaching them over an extended period may cause motor damage.

Note: The above products are for illustrative purposes only; derivative products may be manufactured according to customer requirements.

External Dimensions





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DC brushless planetary reduction motor, outer diameter 42 mm
GEAR MOTOR

NEMA 17 BRUSHLESS DC PLANET

Standard Parameters of Planetary Gear Reducers

Internal gear ring material: Housing material	MetalMetal
Output shaft bearing type: Bearing at output	Ball Bearings
Radial play of the shaft	$\leq 0.04\text{mm}$
Axial reduction thrust play of the shaft	$\leq 0.3\text{mm}$
Backlash (no-load)	$\leq 3^\circ$



Technical Data: Electrical Specifications

ModelModel	42BLF47-001	42BLF63-001	42BLF79-001
Number of Poles	8		
Number of Phases	3		
Nominal voltage VDC	24		
Rated speed: RPM	4000		
Rated Torque: N·m	0.0625	0.125	0.185
Rated Current: Amperes	1.8	3.5	5.2
Output Power: Watts	26	52	78
Peak Torque: N·m	0.18	0.38	0.55
Peak Current (Amps)	5.4	10.5	15.6
Torque constant: N·m/A	0.035	0.036	0.036
Back EMF constant: V/k·RPM	2.45	2.71	2.74
Moment of inertia: Rotor inertia, g·cm ²	24	48	72
Motor Length – Body Length (L) mm	47	63	79
Mass (kg)	0.33	0.45	0.65

Planetary Gear Reducer Technical Parameters PLANET GEAR Electrical Specifications

Number of gear trains		1 Level	2 Level	3 Level	4 Level
Reduction ratio		3.7 , 5.2	14 , 19, 27	51, 71, 100, 139	189, 264, 369
Reductor length (L 2)	mm	31	35.8	42.1	48.9
Nominal torque	N. m	0.3	1	2	3
Instantaneous al- lowable torque	N. m	0.9	3	6	9
Productiveness	%	90	81	73	66
Weight	g	191	207	288	312



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Outer diameter: 57 mm; Brushless DC Gearbox Motor, NEMA 23

Standard Parameters of Eccentric Gear Reducer

Gear Material Housing Material	MetalMetal
Output shaft bearing type: Bearing at output	Ball Bearings
Lubrication	Lifelong lubrication of oils and greases
NoisedB	≤50
Ambient Temperature	-20℃~+50℃



Technical Data: Electrical Specifications

ModelModel	57BLYX44-001	57BLYX54-001	57BLYX74-001	57BLYX94-001	57BLYX114-001
Number of Poles	4				
Number of Phases	3				
Nominal voltage VDC	24	24	24	24	24
Rated speed: RPM	3000				
Rated Torque: N·m	0.055	0.11	0.22	0.33	0.45
Rated Current: Amperes	1.16	2.4	4.8	6.6	8.6
Output Power: Watts	17	35	70	105	140
Peak Torque: N·m	0.165	0.33	0.66	0.99	1.35
Peak Current (Amps)	3.48	7.2	14.4	19.8	25.8
Torque constant: N·m/A	0.052	0.06	0.06	0.063	0.063
Back EMF constant: V/k·RPM	3.8	6.6	6.6	6.6	6.6
Moment of inertia: Rotor inertia, g·cm ²	32	75	119	173	230
Motor Length – Body Length (L) mm	44	54	74	94	114
Mass (kg)	0.33	0.44	0.75	1.0	1.25

Technical Parameters of the Eccentric Gearbox GEARBOX Electrical Specifications

Number of gear trains		1 Level	2 Level	3 Level
Reduction ratio		3, 3. 6, 5, 6, 7. 5, 9, 12. 5, 15, 18	25, 30, 36	50, 60, 75, 90, 100, 120, 150, 180, 200
Reductor length (L 2)	mm	32	42	42
Productiveness	%	81	73	66
Return difference		3. 5°	3°	2°



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57 mm Outer Diameter Brushless DC Planet Gear Motor

Standard Parameters of Planetary Gear Reducers

Internal gear ring material: Housing material	MetalMetal
Output shaft bearing type: Bearing at output	Ball Bearings
Radial play of the shaft	$\leq 0.04\text{mm}$
Axial reduction thrust play of the shaft	$\leq 0.3\text{mm}$
Backlash (no-load)	$\leq 3^\circ$



Technical Data: Electrical Specifications

ModelModel	57BLYX44-001	57BLYX54-001	57BLYX74-001	57BLYX94-001	57BLYX114-001
Number of Poles	4				
Number of Phases	3				
Nominal voltage VDC	24	24	24	24	24
Rated speed: RPM	3000				
Rated Torque: N·m	0.055	0.11	0.22	0.33	0.45
Rated Current: Amperes	1.16	2.4	4.8	6.6	8.6
Output Power: Watts	17	35	70	105	140
Peak Torque: N·m	0.165	0.33	0.66	0.99	1.35
Peak Current (Amps)	3.48	7.2	14.4	19.8	25.8
Torque constant: N·m/A	0.052	0.06	0.06	0.063	0.063
Back EMF constant: V/k·RPM	3.8	6.6	6.6	6.6	6.6
Moment of inertia: Rotor inertia, g·cm ²	32	75	119	173	230
Motor Length – Body Length (L) mm	44	54	74	94	114
Mass (kg)	0.33	0.44	0.75	1.0	1.25

Planetary Gear Reducer Technical Parameters PLANET GEAR Electrical Specifications

Number of gear trains		1 Level	2 Level	3 Level	4 Level
Reduction ratio		3. 71, 5. 18	14, 19, 27	51, 71, 100, 139	189, 264, 369
Reductor length (L 2)	mm	53	61	72	84
Nominal torque	N. m	15. 3	21. 5	38. 4	46. 3
Instantaneous allowable torque	N. m	42	54	75	100
Productiveness	%	90	81	73	66
Weight	g	660	745	922	1098



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<http://www.pepmotor.com>

60 mm outer diameter brushless DC geared motor, NEMA 24

Standard Parameters of Eccentric Gear Reducer

Gear Material Housing Material	MetalMetal
Output shaft bearing type: Bearing at output	Ball Bearings
Lubrication	Lifelong lubrication of oils and greases
NoisedB	≤50
Ambient Temperature	-20℃~+50℃



Technical Data: Electrical Specifications

Model	Model	60BLFX77-001	60BLFX97-001	60BLFX115-001
Number of poles		8		
Number of phases		3		
Nominal voltage VDC		48	48	48
Rated speed: RPM		3000	3000	3000
Rated torque: N·M		0.21	0.42	0.63
Rated current: Amperes		2	4	6
Output power: W		66	132	198
Peak torque (N·m)		0.63	1.26	1.89
Peak current: Amperes		6	12	18
Torque constant: N·m/A		0.127	0.127	0.127
Back EMF constant: V/KRPM		13.3	13.3	13.3
Moment of inertia Rotor inertia kg·mm ²		13.7	26.4	39.2
Body length (mm)		77	97	115
Weight	Mass Kg	0.7	1.0	1.3

Technical Parameters of the Eccentric Gearbox GEARBOX Electrical Specifications

Number of gear trains		1 Level	2 Level	3 Level
Reduction ratio		3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18	25, 30, 36	50, 60, 75, 90, 100, 120, 150, 180, 200
Reductor length (L2)	mm	32	42	42
Productiveness	%	81	73	66
Return difference	\	3.5°	3°	2°



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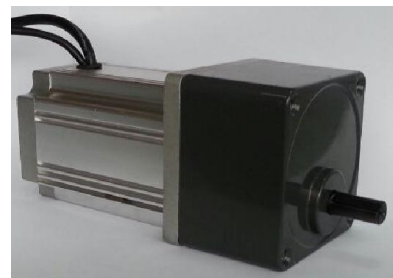
Fax: 0519-82059019

<http://www.pepmotor.com>

Outer diameter 80 mm, brushless DC geared motor, NEMA 32

Standard Parameters of Eccentric Gear Reducer

Gear Material Housing Material	MetalMetal
Output shaft bearing type: Bearing at output	Ball Bearings
Lubrication	Lifelong lubrication of oils and greases
NoisedB	≤50
Ambient Temperature	-20℃~+50℃



Technical Data: Electrical Specifications

ModelModel	80BLF86-001	80BLF106-001	80BLF126-001	80BLF126-002	80BLF126-003
Number of Poles	4				
Number of Phases	3				
Nominal voltage VDC	48	48	48	48	310
Rated speed: RPM	3000	3000	3000	5000	3000
Rated Torque: N·m	0.4	0.7	1.2	1.2	1.2
Rated Current: Amperes	5	7	12	12	2.1
Output Power: Watts	126	220	376	628	376
Peak Torque: N·m	1.2	2.1	3	3	4.5
Peak Current (Amps)	15	21	36	36	6.3
Torque constant: N·m/A	0.11	0.11	0.11	0.11	0.72
Back EMF constant: V/k·RPM	4.52	4.52	4.52	4.52	55
Moment of inertia Rotor inertia kg·cm ²	390	530	650	650	0.6
Motor Length – Body Length (L) mm	86	106	126	126	126
Mass (kg)	2	2.5	3	3	3

Eccentric Gearbox Technical Parameters – Electrical Specifications

Eccentric gearbox with outer diameter 90 mm				
Number of gear trains		1 Level	2 Level	3 Level
Reduction ratio		3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18	25, 30, 36	50, 60, 75, 90, 100, 120, 150, 180, 200
Reductor length (L 2)	mm	42	60	60
Productiveness	%	81	73	66
Eccentric gearbox with outer diameter 104 mm				
Number of gear trains		1 Level	2 Level	3 Level
Reduction ratio		3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18	25, 30, 36	50, 60, 75, 90, 100, 120, 150, 180, 200
Reductor length (L 2)	mm	72	72	72
Productiveness	%	81	73	66



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<http://www.pepmotor.com>

Outer diameter: 86 mm; Brushless DC planetary gear motor, NEMA 34

Standard Parameters of Planetary Gear Reducers

Internal gear ring material: Housing material	MetalMetal
Output shaft bearing type: Bearing at output	Ball Bearings
Rated input speed	3000rpm
Average life span Average life span	20000 hours
Ambient Temperature	-20℃~+50℃



Technical Data: Electrical Specifications

ModelModel	86BLFX80-001	86BLFX105-001	86BLFX115-001	86BLFX130-001	86BLFX130-002
Number of poles	4				
Number of phases	3				
Nominal voltage VDC	48	48	48	48	310
Rated speed: RPM	3000	3000	3000	3000	3000
Rated torque: N·M	1	1.8	2.1	2.5	2.5
Rated current: Amperes	8.5	14.8	17	19.5	4
Output power: W	314	565	659	785	785
Peak torque (N·m)	3	5.4	6.3	7.5	7.5
Peak current: Amperes	25	42	51	55	12
Torque constant N·m/A	0.131	0.131	0.127	0.127	0.127
Back EMF constant: V/KRPM	13.7	13.7	13.3	13.3	13.3
Moment of inertia Rotor inertia kg·mm ²	120	230	266	320	320
Body length (mm)	80	105	115	130	130
Mass (kg)	2.3	3.4	3.8	4.3	4.3

Planetary Gear Reducer Technical Parameters PLANET GEAR Electrical Specifications

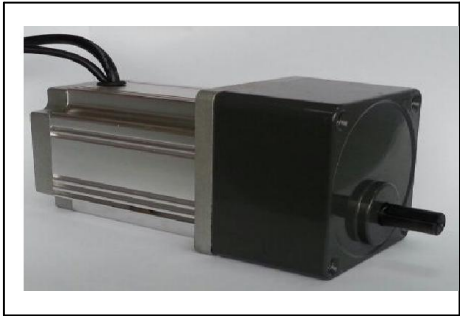
Number of gear trains		1 Level	2 Level	3 Level
Reduction ratio		4, 5, 7, 9, 10	16, 20, 25, 28, 35, 36, 40, 45, 49, 50, 63	70, 81, 90, 100
Reductor length (L ₂)	mm	73	87	111
Nominal torque	N. m	32	80	120
Instantaneous allowable torque	N. m	64	160	240
Productiveness	%	96	94	90
Weight	KG	2. 35	2. 7	3. 2



Outer diameter 90 mm, brushless DC geared motor, NEMA 36

Standard Parameters of Eccentric Gear Reducer

Gear Material Housing Material	MetalMetal
Output shaft bearing type: Bearing at output	Ball Bearings
Lubrication	Lifelong lubrication of oils and greases
NoisedB	≤50
Ambient Temperature	-20℃~+50℃



Technical Data: Electrical Specifications

ModelModel	90BLF85-001	90BLF110-001	90BLF135-001
Number of poles; Number of phases	4		
	3		
Nominal voltage VDC	24	48	48
Rated speed: RPM	3000	3000	3000
Rated torque: N·M	1	1.8	2.5
Rated current: Amperes	18	14.8	19.5
Output power: W	315	565	785
Peak torque (N·m)	3	5.4	7.5
Peak current: Amperes	54	42	55
Torque constant: N·m/A	0.120	0.131	0.127
Back EMF constant: V/KRPM	13	13.7	13.3
Moment of inertia Rotor inertia kg·mm ²	160	250	340
Body length (mm)	85	110	135
Mass (kg)	3.5	4.5	5

Eccentric Gearbox Technical Parameters – Electrical Specifications

Eccentric gearbox with outer diameter 90 mm				
Number of gear trains		1 Level	2 Level	3 Level
Reduction ratio		3, 3. 6, 5, 6, 7. 5, 9, 12. 5, 15, 18	25, 30, 36	50, 60, 75, 90, 100, 120, 150, 180, 200
Reductor length (L 2)	mm	42	60	60
Productiveness	%	81	73	66

Motor外形 and installation dimensions Mechanical Dimensions unit=mm

