



BLDC Gear Motor Catalog



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BLDC Gear Motor Series

Features



Aluminum flange with sealed double ball bearings for low friction and high axial load capacity.



The stator and rotor feature pure copper coils for superior conductivity, increasing motor torque.



The gear reducer is a right-angle hollow type, eliminating the need for a sprocket, chain guard, and preventing tooth skipping.

Applications



30W BLDC Gear Motor - 12V/24V



Basic Information

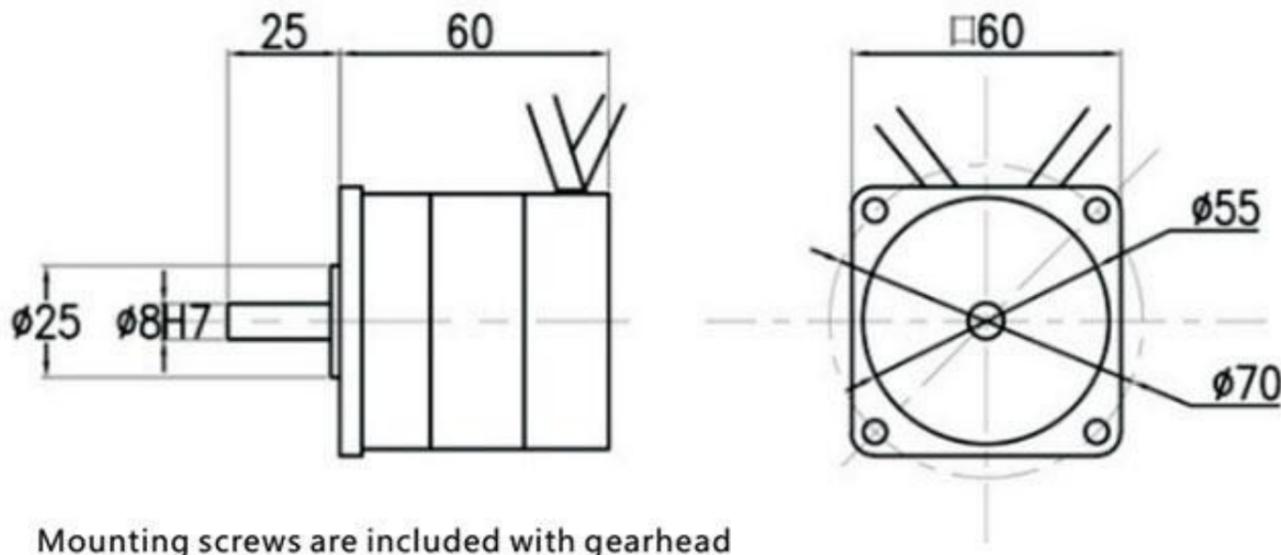
- **Temperature:** 0~50°C
- **Protection Grade:** IP54
- **Motor Lead Length:** 300mm
- **Gearbox Model:** 2GN□K, Enter the gear ratio into the box (□) within the model name
- **Gear Ratio:** 3, 5, 7.5, 10, 12.5, 15, 18, 20, 25, 30, 36, 40, 50, 60, 75, 90, 100, 120, 150, 180, 200

Specification

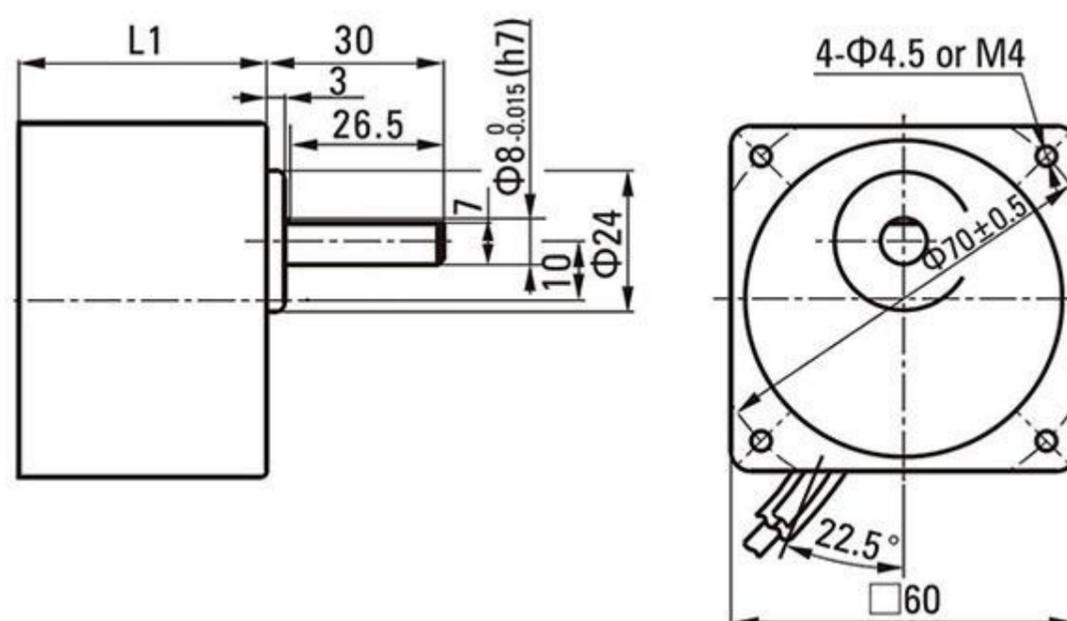
Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Peak Torque	Rated Speed	Matched Controller	Weight
BLDC-D2BLD30	30W	12V DC	3.13A	<0.6A	0.1Nm	0.29Nm	3000rpm	BLDC-BLD120A	1.5kg
BLDC-D2BLD30	30W	24V DC	1.56A	<0.4A	0.1Nm	0.29Nm	3000rpm	BLDC-BLD120A	1.5kg

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

DC Gear Motor Dimension (Unit: mm)



Gearbox Dimension (Unit: mm)





Allowable Torque with a Gearbox

Gear Ratio	Speed (r/min)	Allowable Torque (N.M)	Allowable Torque (kgf.cm)
3	1000	0.23	2.32
5	600	0.39	3.87
7.5	400	0.58	5.8
10	300	0.74	7.73
12.5	240	0.97	9.67
15	200	1.16	11.6
18	167	1.39	13.92
20	150	1.39	13.94
25	120	1.74	17.43
30	100	2.09	20.91
36	83.33	2.51	25.1
40	75	2.8	27.89
50	60	3	30
60	50	3	30
75	40	3	30
90	33	3	30
100	30	3	30
120	25	3	30
150	20	3	30
180	17	3	30

Line Define

Power Wire		Hall Wire	
Red	U	Red	5V
Yellow	V	Black	GND
Black	W	Blue	Hu
		Green	Hv
		White	Hw

Customizable Items

Motor Length	Yes
Motor Shaft	Yes
Speed	Yes
Voltage	Yes
Power	Yes
Motor Lead	Yes
Controller Interface	Yes

50W BLDC Gear Motor - 12V/24V



Basic Information

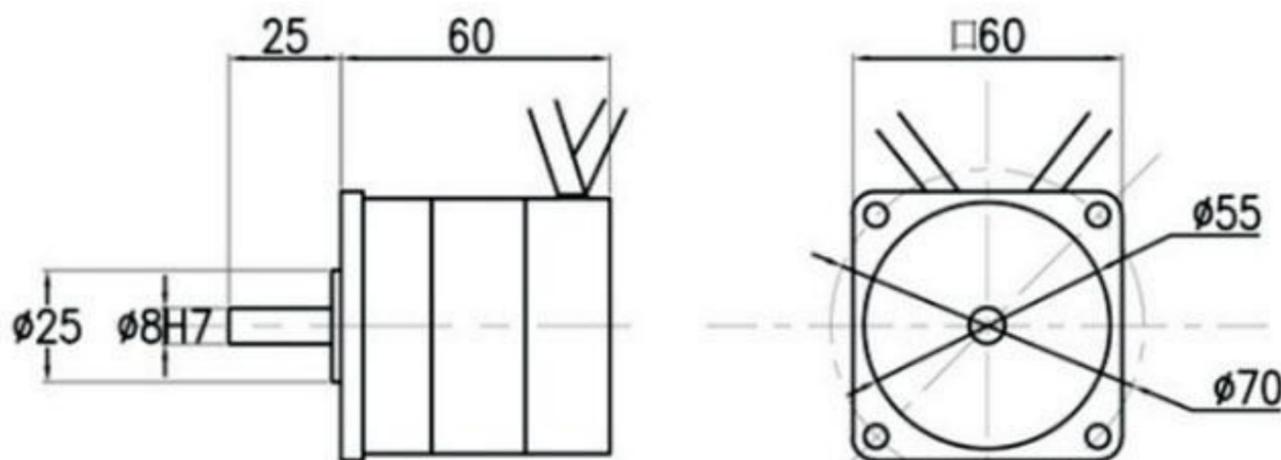
- **Temperature:** 0~50°C
- **Protection Grade:** IP54
- **Motor Lead Length:** 300mm
- **Gearbox Model:** 2GN□K, Enter the gear ratio into the box (□) within the model name
- **Gear Ratio:** 3, 5, 7.5, 10, 12.5, 15, 18, 20, 25, 30, 36, 40, 50, 60, 75, 90, 100, 120, 150, 180, 200

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Peak Torque	Rated Speed	Matched Controller	Weight
BLDC-D2BLD50	50W	12V DC	5.21A	<0.85A	0.16Nm	0.48Nm	3000rpm	BLDC-BLD300	2kg
BLDC-D2BLD50	50W	24V DC	2.6A	<0.7A	0.18Nm	0.48Nm	3000rpm	BLDC-BLD120A	2kg

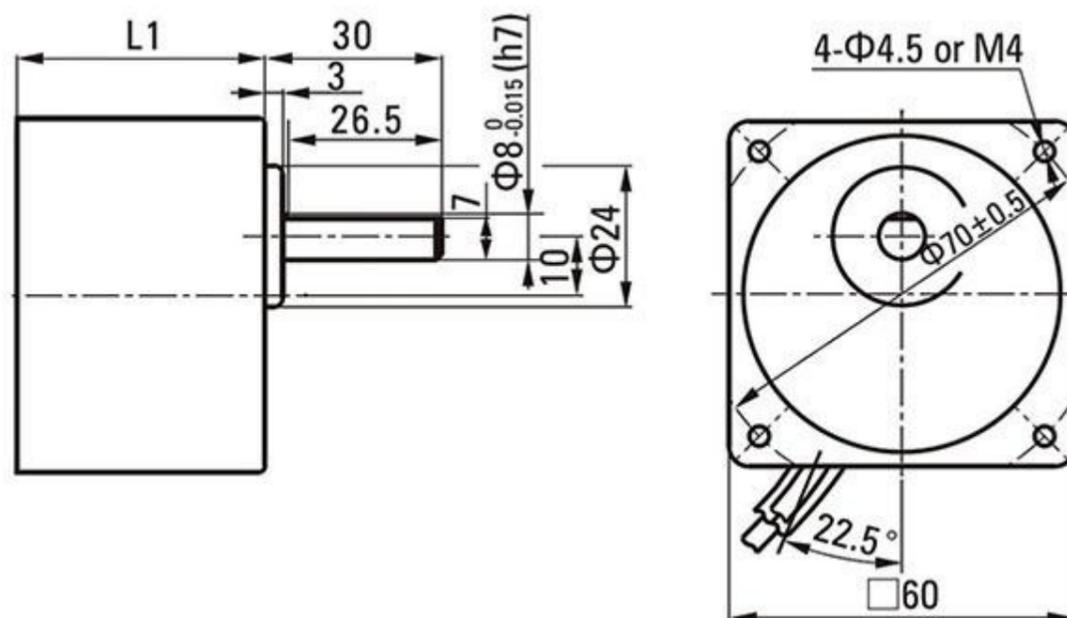
Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

DC Gear Motor Dimension (Unit: mm)



Mounting screws are included with gearhead

Gearbox Dimension (Unit: mm)





Allowable Torque with a Gearbox

Gear Ratio	Speed (r/min)	Allowable Torque (N.M)	Allowable Torque (kgf.cm)
3	1000	0.39	3.86
5	600	0.64	6.44
7.5	400	0.97	9.66
10	300	1.29	12.88
12.5	240	1.61	16.1
15	200	1.93	19.32
18	167	2.32	23.18
20	150	2.32	23.21
25	120	2.9	29.02
30	100	3	30
36	83.33	3	30
40	75	3	30
50	60	3	30
60	50	3	30
75	40	3	30
90	33	3	30
100	30	3	30
120	25	3	30
150	20	3	30
180	17	3	30
200	15	3	30

Line Define

Power Wire		Hall Wire	
Red	U	Red	5V
Yellow	V	Black	GND
Black	W	Blue	Hu
		Green	Hv
		White	Hw

Customizable Items

Motor Length	Yes
Motor Shaft	Yes
Speed	Yes
Voltage	Yes
Power	Yes
Motor Lead	Yes
Controller Interface	Yes

90W BLDC Gear Motor - 12V/24V/48V



Basic Information

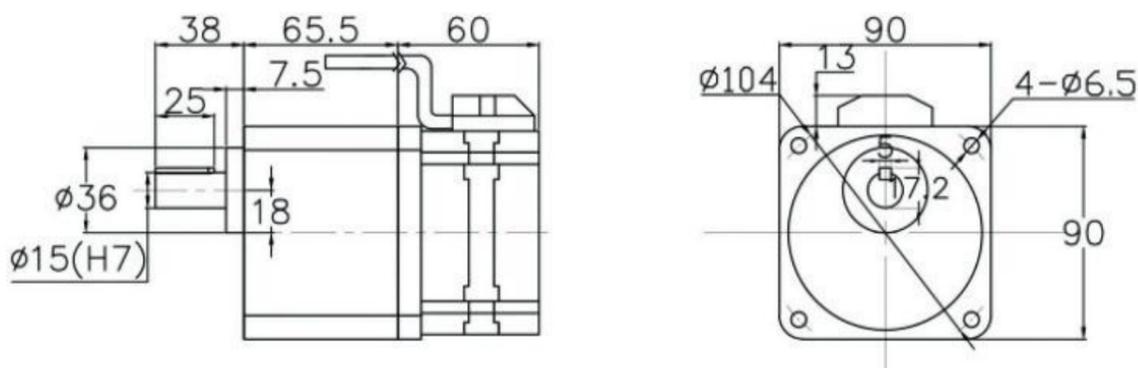
- Temperature: 0~50°C
- Protection Grade: IP54
- Motor Lead Length: 300mm
- Gearbox Model: 2GN□K, Enter the gear ratio into the box (□) within the model name
- Gear Ratio: 3, 5, 7.5, 10, 12.5, 15, 18, 20, 25, 30, 36, 40, 50, 60, 75, 90, 100, 120, 150, 180, 200

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Peak Torque	Rated Speed	Matched Controller	Weight
BLDC-D5BLD90-12	90W	12V DC	9.38A	<0.85A	0.29Nm	0.86Nm	3000rpm	BLDC-BLD300	2.3kg
BLDC-D5BLD90-24	90W	24V DC	4.69A	<0.7A	0.29Nm	0.86Nm	3000rpm	BLDC-BLD300	2.3kg
BLDC-D5BLD90-48	90W	48V DC	2.34A	<0.5A	0.29Nm	0.86Nm	3000rpm	BLDC-BLD120A	2.3kg

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

DC Gear Motor Dimension (Unit: mm)



Allowable Torque with a Gearbox

Gear Ratio	Speed (r/min)	Allowable Torque (N.M)	Allowable Torque (kgf.cm)
3	1000	0.67	6.96
5	600	1.16	11.6
7.5	400	1.74	17.4
10	300	2.32	23.21
12.5	240	2.61	26.14
15	200	3.14	3.77
18	167	3.77	37.65
20	150	3.78	37.82
25	120	4.73	47.27
30	100	5.67	56.73
36	83.33	6.81	68.07
40	75	7.56	75.64
50	60	9.46	94.55
60	50	11.35	113.5
75	40	14.18	141.8
90	33	15.21	152.1
100	30	16.9	169
120	25	20	200
150	20	20	200
180	17	20	200
200	15	20	200

150W BLDC Gear Motor - 12V/24V/48V



Basic Information

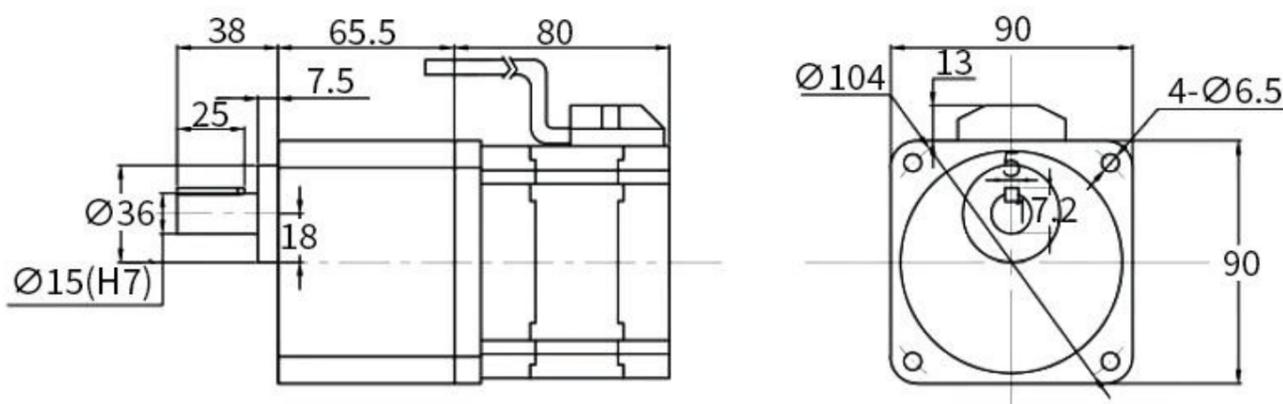
- **Temperature:** 0~50°C
- **Protection Grade:** IP54
- **Motor Lead Length:** 300mm
- **Gearbox Model:** 2GN□K, Enter the gear ratio into the box (□) within the model name
- **Gear Ratio:** 3, 5, 7.5, 10, 12.5, 15, 18, 20, 25, 30, 36, 40, 50, 60, 75, 90, 100, 120, 150, 180, 200

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Peak Torque	Rated Speed	Matched Controller	Weight
BLDC-D5BLD150-12	150W	12V DC	15.63A	<5.2A	0.48Nm	1.43Nm	3000rpm	BLDC-KVD2412N	3kg
BLDC-D5BLD150-24	150W	24V DC	7.81A	<3.13A	0.48Nm	1.43Nm	3000rpm	BLDC-KVD2412N	3kg
BLDC-D5BLD150-48	150W	48V DC	3.91A	<1.61A	0.48Nm	1.43Nm	3000rpm	BLDC-BLD300	3kg

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

DC Gear Motor Dimension (Unit: mm)



Allowable Torque with a Gearbox

Gear Ratio	Speed (r/min)	Allowable Torque (N.M)	Allowable Torque (kgf.cm)
3	1000	1.16	11.6
5	600	1.93	19.34
7.5	400	2.9	29.01
10	300	2.87	38.68
12.5	240	4.36	43.57
15	200	5.23	52.29
18	167	6.27	62.74
20	150	6.3	63.03
25	120	7.88	78.79
30	100	9.46	94.55
36	83.33	11.35	113.5
40	75	12.61	126.1
50	60	15.76	157.6
60	50	18.91	189.1
75	40	20	200
90	33	20	200
100	30	20	200
120	25	20	200
150	20	20	200
180	17	20	200
200	15	20	200

200W BLDC Gear Motor - 12V/24V/48V



Basic Information

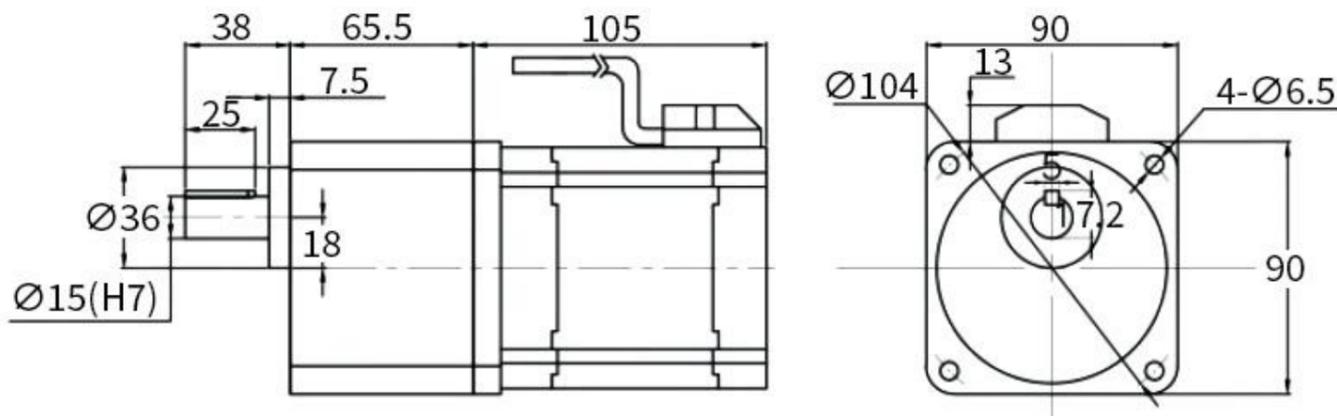
- **Temperature:** 0~50°C
- **Protection Grade:** IP54
- **Motor Lead Length:** 300mm
- **Gearbox Model:** 2GN□K, Enter the gear ratio into the box (□) within the model name
- **Gear Ratio:** 3, 5, 7.5, 10, 12.5, 15, 18, 20, 25, 30, 36, 40, 50, 60, 75, 90, 100, 120, 150, 180, 200

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Peak Torque	Rated Speed	Matched Controller	Weight
BLDC-D5BLD200-12	200W	12V DC	20.83A	<6.2A	0.64Nm	1.91Nm	3000rpm	BLDC-KVD2412N	3kg
BLDC-D5BLD200-24	200W	24V DC	10.42A	<4.13A	0.64Nm	1.91Nm	3000rpm	BLDC-KVD2412N	3kg
BLDC-D5BLD200-48	200W	48V DC	5.21A	<1.61A	0.64Nm	1.91Nm	3000rpm	BLDC-BLD300	3kg

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

DC Gear Motor Dimension (Unit: mm)



Allowable Torque with a Gearbox

Gear Ratio	Speed (r/min)	Allowable Torque (N.M)	Allowable Torque (kgf.cm)
3	1000	1.55	15.47
5	600	2.58	25.79
7.5	400	3.87	38.68
10	300	5.16	51.57
12.5	240	5.81	58.1
15	200	6.97	69.72
18	167	8.37	83.66
20	150	8.4	84.04
25	120	10.51	105.1
30	100	12.61	126.1
36	83.33	15.13	151.3
40	75	16.81	168.1
50	60	20	200
60	50	20	200
75	40	20	200
90	33	20	200
100	30	20	200
120	25	20	200
150	20	20	200
180	17	20	200
200	15	20	200

300W BLDC Gear Motor - 12V/24V/48V



Basic Information

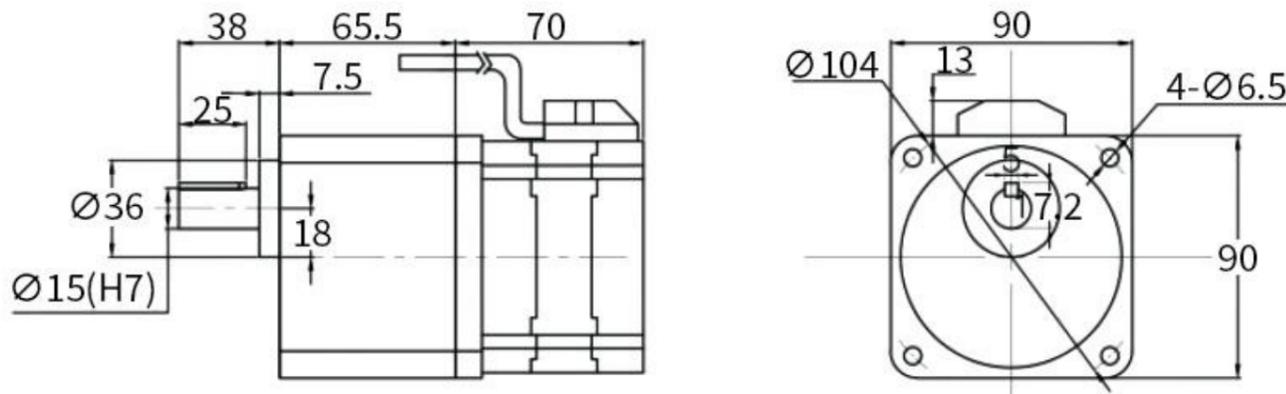
- **Temperature:** 0~50°C
- **Protection Grade:** IP54
- **Motor Lead Length:** 300mm
- **Gearbox Model:** 2GN□K, Enter the gear ratio into the box (□) within the model name
- **Gear Ratio:** 3, 5, 7.5, 10, 12.5, 15, 18, 20, 25, 30, 36, 40, 50, 60, 75, 90, 100, 120, 150, 180, 200

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Peak Torque	Rated Speed	Matched Controller	Weight
BLDC-D5BLD300-12	300W	12V DC	31.25A	<7.2A	0.96Nm	2.87Nm	3000rpm	BLDC-KVD2412N	3kg
BLDC-D5BLD300-24	300W	24V DC	15.63A	<6.13A	0.96Nm	2.87Nm	3000rpm	BLDC-BLD750	3kg
BLDC-D5BLD300-48	300W	48V DC	7.81A	<4.61A	0.96Nm	2.87Nm	3000rpm	BLDC-BLD300	3kg

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

DC Gear Motor Dimension (Unit: mm)



Allowable Torque with a Gearbox

Gear Ratio	Speed (r/min)	Allowable Torque (N.M)	Allowable Torque (kgf.cm)
3	1000	2.32	23.21
5	600	3.87	38.68
7.5	400	5.8	58.02
10	300	7.74	77.36
12.5	240	8.71	87.14
15	200	10.46	104.6
18	167	12.55	125.5
20	150	12.61	126.1
25	120	15.76	157.6
30	100	18.91	189.1
36	83.33	20	200
40	75	20	200
50	60	20	200
60	50	20	200
75	40	20	200
90	33	20	200
100	30	20	200
120	25	20	200
150	20	20	200
180	17	20	200
200	15	20	200

450W BLDC Gear Motor - 12V/24V/48V



Basic Information

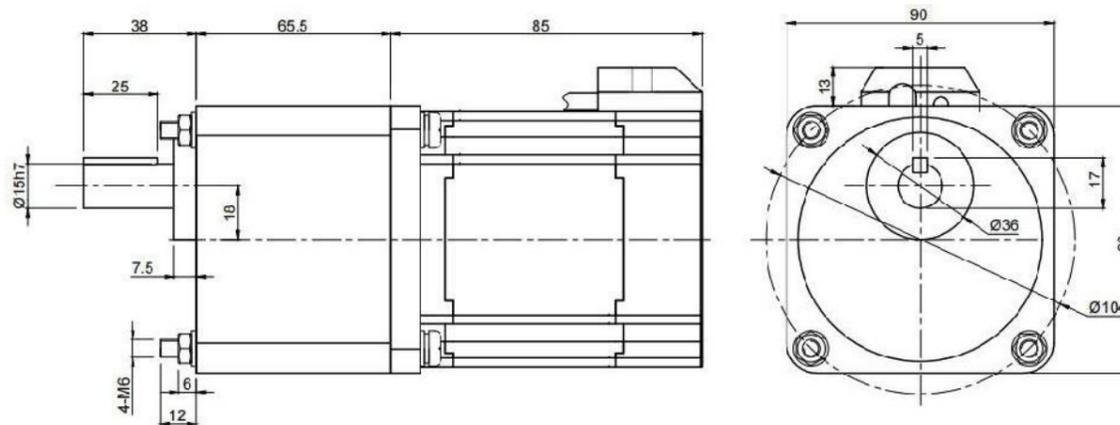
- **Temperature:** 0~50°C
- **Protection Grade:** IP54
- **Motor Lead Length:** 300mm
- **Gearbox Model:** 2GN□K, Enter the gear ratio into the box (□) within the model name
- **Gear Ratio:** 3, 5, 7.5, 10, 12.5, 15, 18, 20, 25, 30, 36, 40, 50, 60, 75, 90, 100, 120, 150, 180, 200

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Peak Torque	Rated Speed	Matched Controller	Weight
BLDC-D5BLD450-12	450W	12V DC	46.88A	<10.2A	1.41Nm	4.3Nm	3000rpm	BLDC-KVD2412N	3kg
BLDC-D5BLD450-24	450W	24V DC	23.443A	<7.13A	1.41Nm	4.3Nm	3000rpm	BLDC-BD50	3kg
BLDC-D5BLD450-48	450W	48V DC	11.71A	<5.61A	1.41Nm	4.3Nm	3000rpm	BLDC-BLD750	3kg

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

DC Gear Motor Dimension (Unit: mm)



Allowable Torque with a Gearbox

Gear Ratio	Speed (r/min)	Allowable Torque (N.M)	Allowable Torque (kgf.cm)
3	1000	3.48	34.81
5	600	5.8	58.02
7.5	400	8.7	87.02
10	300	11.6	116
12.5	240	13.07	130.7
15	200	15.69	156.9
18	167	18.82	188.2
20	150	20	200
25	120	20	200
30	100	20	200
36	83.33	20	200
40	75	20	200
50	60	20	200
60	50	20	200
75	40	20	200
90	33	20	200
100	30	20	200
120	25	20	200
150	20	20	200
180	17	20	200
200	15	20	200

750W BLDC Gear Motor - 24V/36V/48V



Basic Information

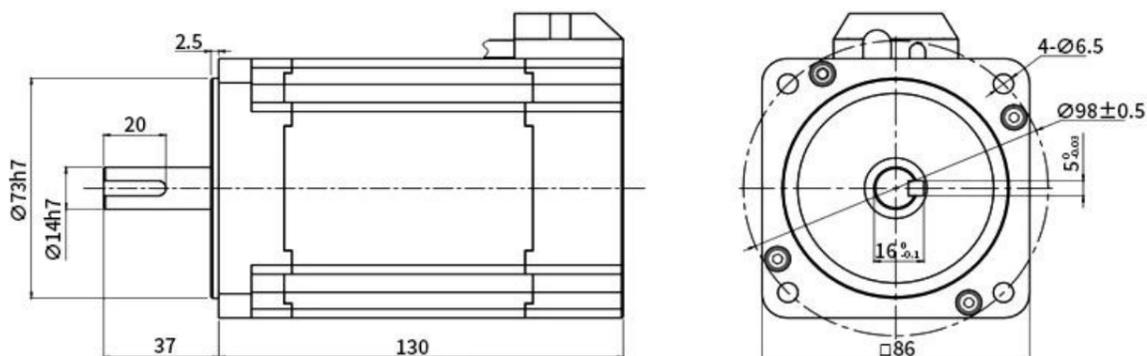
- **Temperature:** 0~50°C
- **Protection Grade:** IP54
- **Motor Lead Length:** 300mm
- **Gearbox Model:** 2GN□K, Enter the gear ratio into the box (□) within the model name
- **Gear Ratio:** 3, 5, 7.5, 10, 12.5, 15, 18, 20, 25, 30, 36, 40, 50, 60, 75, 90, 100, 120, 150, 180, 200

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Peak Torque	Rated Speed	Matched Controller	Weight
BLDC-D5BLD750-24	750W	24V DC	39.06A	<9.2A	2.39Nm	7.16Nm	3000rpm	BLDC-KVD2412N	4kg
BLDC-D5BLD750-36	750W	36V DC	26.04A	<8.13A	2.39Nm	7.16Nm	3000rpm	BLDC-BD50	4kg
BLDC-D5BLD750-48	750W	48V DC	19.53A	<6.5A	2.39Nm	7.16Nm	3000rpm	BLDC-BLD750	4kg

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

DC Gear Motor Dimension (Unit: mm)



Allowable Torque with a Gearbox

Gear Ratio	Speed (r/min)	Allowable Torque (N.M)	Allowable Torque (kgf.cm)
3	1000	5.8	58.02
5	600	9.67	96.69
7.5	400	14.5	145
10	300	19.34	193.4
12.5	240	20	200
15	200	20	200
18	167	20	200
20	150	20	200
25	120	20	200
30	100	20	200
36	83.33	20	200
40	75	20	200
50	60	20	200
60	50	20	200
75	40	20	200
90	33	20	200
100	30	20	200
120	25	20	200
150	20	20	200
180	17	20	200
200	15	20	200

BLDC Worm Gear Motor Series

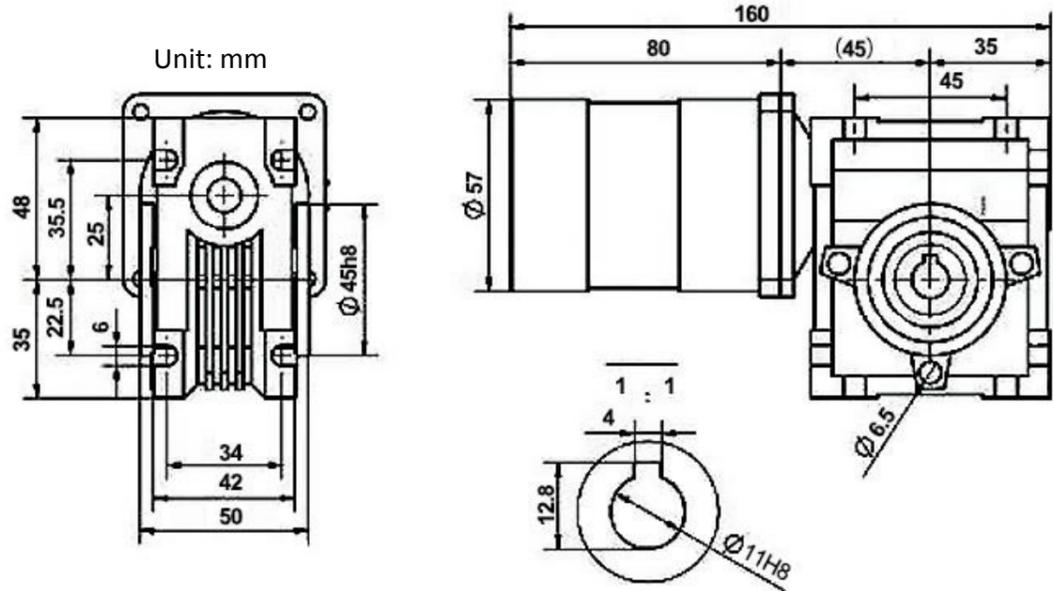
Details



Applications



50W BLDC Worm Gear Motor - 12V/24V/36V



Basic Information

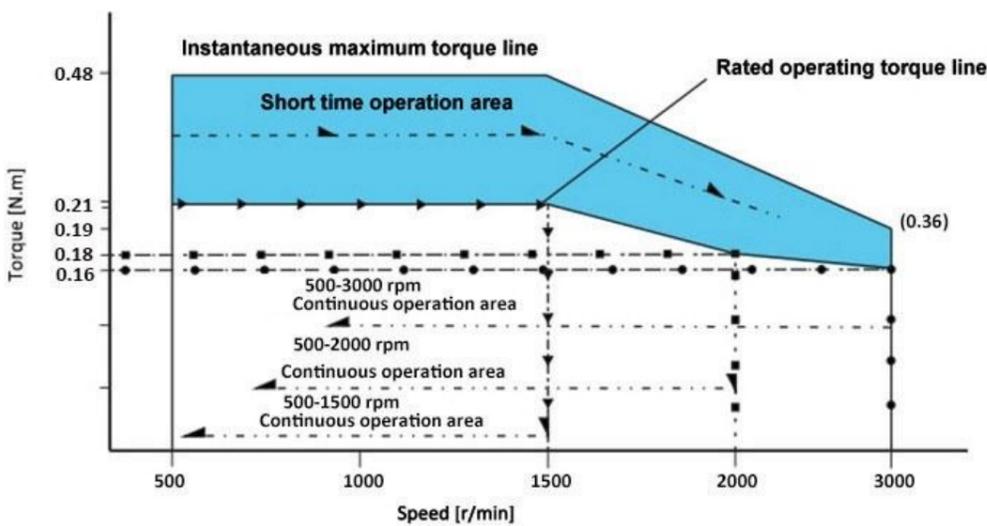
- **Motor Dimension:** 57mm
- **Shaft Diameter:** 11mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 7.5, 10, 15, 20, 30, 40, 50, 60
- **Certificate:** CCC, CE, RoHS, LVD, EMC

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D2BLD50-12GN	50W	12V DC	5.21A	<0.8A	0.16Nm	0.48Nm	2000rpm	2800rpm	BLDC-BLD750
BLDC-D2BLD50-24GN	50W	24V DC	2.60A	<0.4A	0.16Nm	0.48Nm	2000rpm	2800rpm	BLDC-BLD300
BLDC-D2BLD50-36GN	50W	36V DC	1.74A	<0.3A	0.16Nm	0.48Nm	2000rpm	2800rpm	BLDC-BLD120A

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

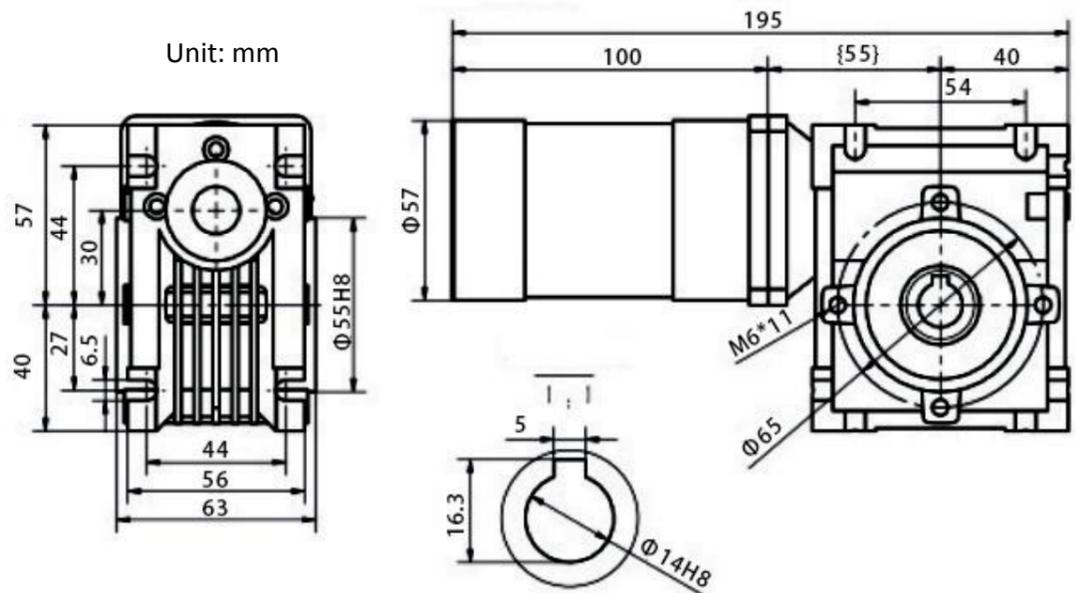
Allowable Torque with Gear Head

Gear Ratio	7.5	10	15	20	30	40	50	60
Rated Output Speed (rpm)	267	200	133	100	67	50	40	33
Rated Output Torque (Nm)	1.4	1.9	2.9	3.7	5.3	6.7	7.8	9.3

Note:

- This torque value is the rated output value of the reducer, not the final motor + output torque value T after reducer.
- The formula for calculating the output torque after the final motor + reducer: $T = \text{rated torque of the motor} * \text{reduction ratio} * 0.6$, and $T \leq \text{rated allowable output torque value of the reducer}$.

100W BLDC Worm Gear Motor - 12V/24V/36V/48V



Basic Information

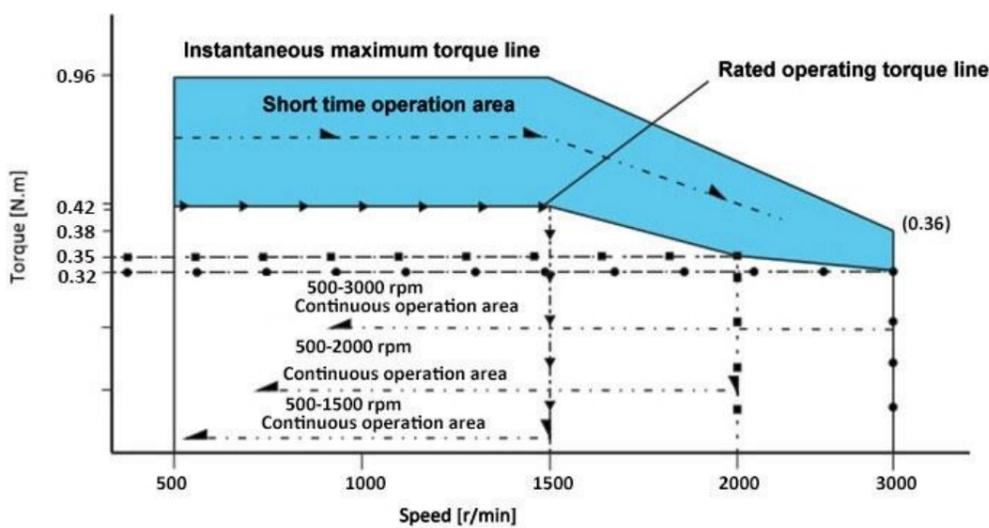
- **Motor Dimension:** 57mm
- **Shaft Diameter:** 11mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 7.5, 10, 15, 20, 30, 40, 50, 60
- **Certificate:** CCC, CE, RoHS, LVD, EMC

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D2BLD100-12A	100W	12V DC	10.42A	<1.2A	0.32Nm	0.96Nm	2000rpm	2800rpm	BLDC-BLD300
BLDC-D2BLD100-24A	100W	24V DC	5.21A	<0.8A	0.32Nm	0.96Nm	2000rpm	2800rpm	BLDC-BLD300
BLDC-D2BLD100-36A	100W	36V DC	3.47A	<0.6A	0.32Nm	0.96Nm	2000rpm	2800rpm	BLDC-BLD300
BLDC-D2BLD100-48A	100W	48V DC	2.6A	<0.4A	0.32Nm	0.96Nm	2000rpm	2800rpm	BLDC-BLD300

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

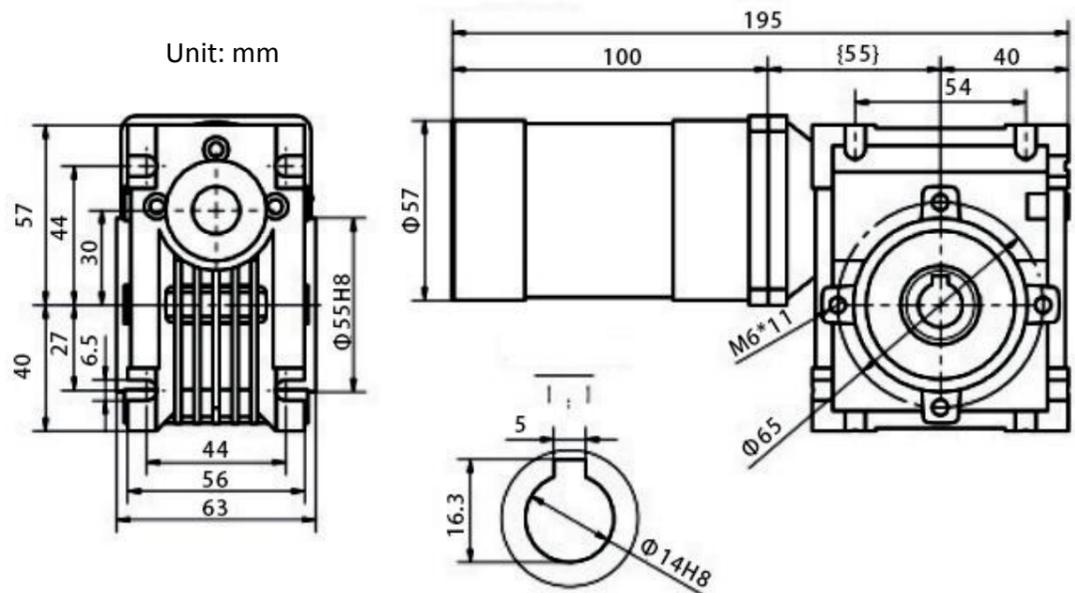
Allowable Torque with Gear Head

Gear Ratio	7.5	10	15	20	25	30	40	50	60	80
Rated Output Speed (rpm)	267	200	133	100	80	67	50	40	33	25
Rated Output Torque (Nm)	2.9	3.8	5.7	7.4	9.1	10.6	13.4	12	17	12

Note:

- This torque value is the rated output value of the reducer, not the final motor + output torque value T after reducer.
- The formula for calculating the output torque after the final motor + reducer: $T = \text{rated torque of the motor} * \text{reduction ratio} * 0.6$, and $T \leq \text{rated allowable output torque value of the reducer}$.

150W BLDC Worm Gear Motor - 12V/24V/36V/48V



Basic Information

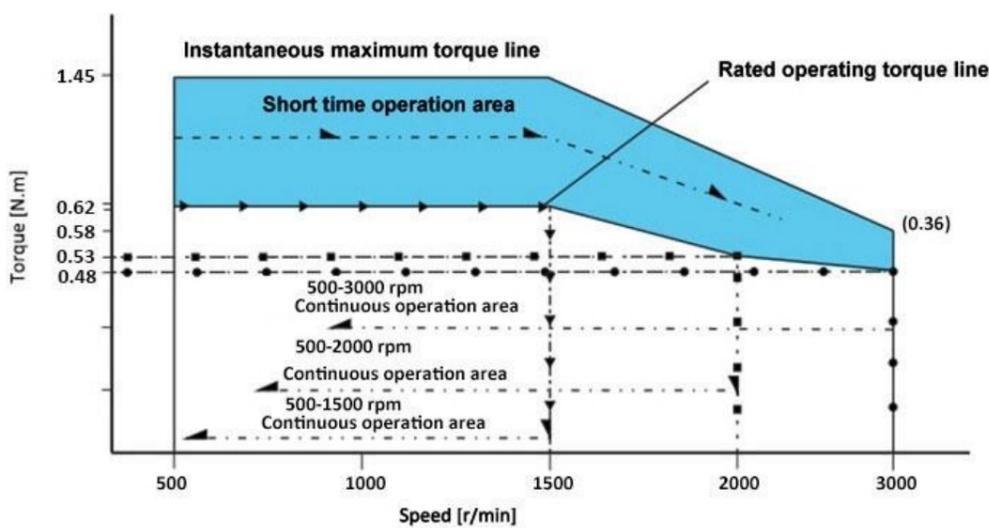
- **Motor Dimension:** 57mm
- **Shaft Diameter:** 11mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 7.5, 10, 15, 20, 25, 30, 40, 50, 60, 80
- **Certificate:** CCC, CE, RoHS, LVD, EMC

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D2BLD150-12GN	150W	12V DC	15.63A	<1.5A	0.48Nm	1.44Nm	2000rpm	2800rpm	BLDC-KVD2412N
BLDC-D2BLD150-24GN	150W	24V DC	7.81A	<1.0A	0.48Nm	1.44Nm	2000rpm	2800rpm	BLDC-BLD300
BLDC-D2BLD150-36GN	150W	36V DC	5.21A	<0.8A	0.48Nm	1.44Nm	2000rpm	2800rpm	BLDC-BLD300
BLDC-D2BLD150-48GN	150W	48V DC	3.91A	<0.6A	0.48Nm	1.44Nm	2000rpm	2800rpm	BLDC-BLD300

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

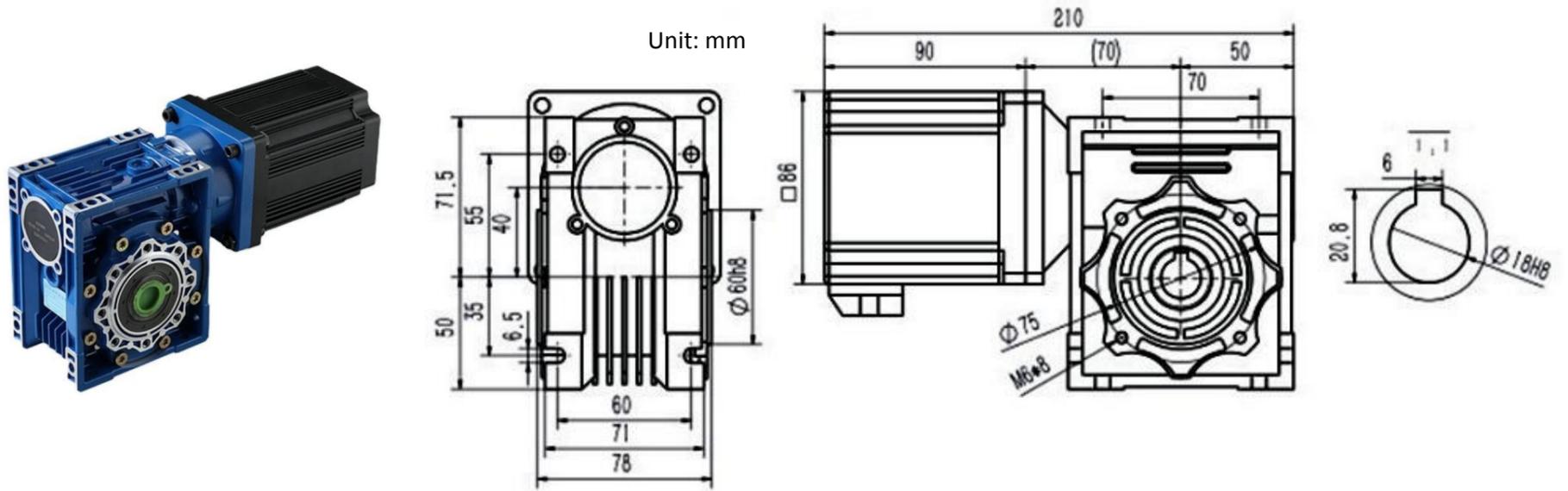
Allowable Torque with Gear Head

Gear Ratio	7.5	10	15	20	25	30	40	50	60	80
Rated Output Speed (rpm)	267	200	133	100	80	67	50	40	33	25
Rated Output Torque (Nm)	4.3	5.7	8.6	11.2	13.6	15.9	17	12	17	12

Note:

- This torque value is the rated output value of the reducer, not the final motor + output torque value T after reducer.
- The formula for calculating the output torque after the final motor + reducer: $T = \text{rated torque of the motor} * \text{reduction ratio} * 0.6$, and $T \leq \text{rated allowable output torque value of the reducer}$.

300W BLDC Worm Gear Motor - 12V/24V/36V/48V



Basic Information

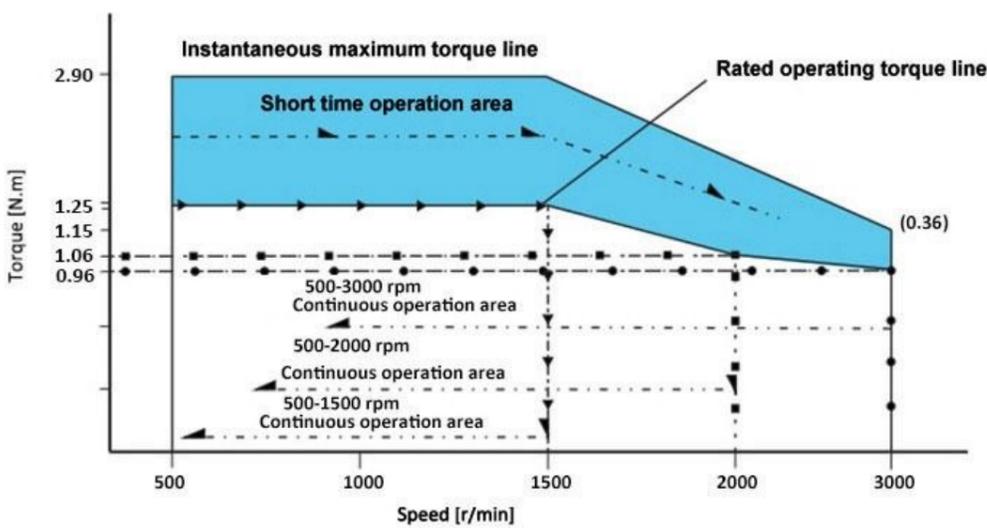
- **Motor Dimension:** 86mm
- **Shaft Diameter:** 11mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 7.5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100
- **Certificate:** CCC, CE, RoHS, LVD, EMC

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D5BLD300-12A	300W	12V DC	31.25A	<7.2A	0.96Nm	2.88Nm	2000rpm	2700rpm	BLDC-KVD2412N
BLDC-D5BLD300-24A	300W	24V DC	15.63A	<6.13A	0.96Nm	2.88Nm	2000rpm	2700rpm	BLDC-BLD750
BLDC-D5BLD300-36A	300W	36V DC	10.42A	<3.5A	0.96Nm	2.88Nm	2000rpm	2700rpm	BLDC-BLD750
BLDC-D5BLD300-48A	300W	48V DC	7.81A	<4.61A	0.96Nm	2.88Nm	2000rpm	2700rpm	BLDC-BLD300

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

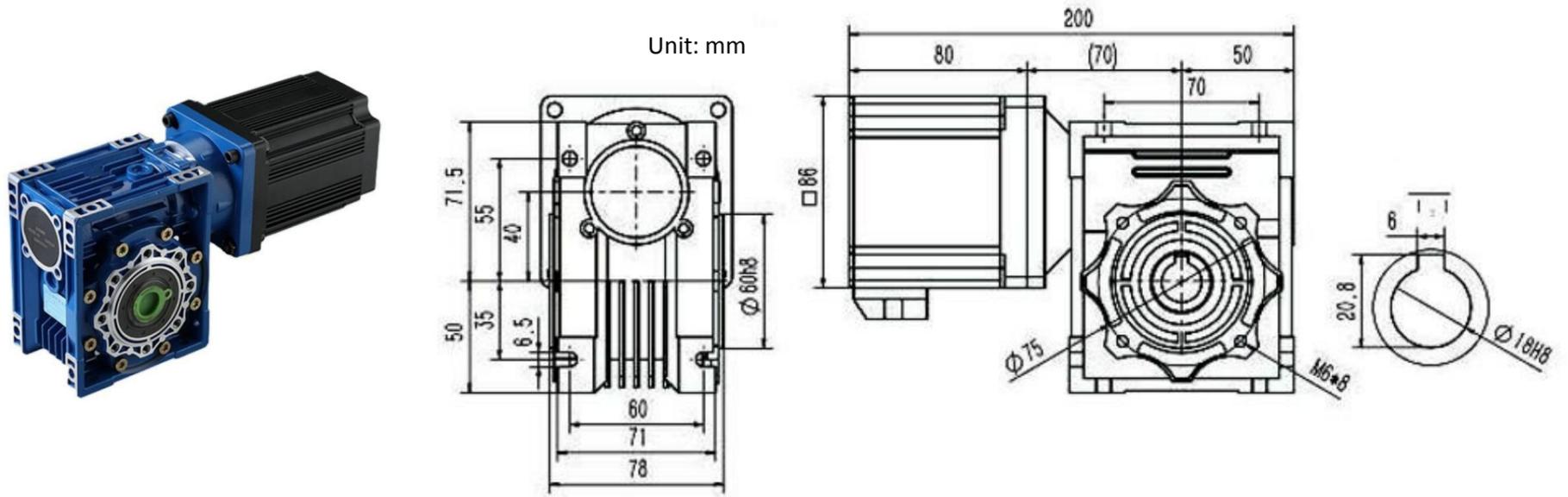
Allowable Torque with Gear Head

Gear Ratio	7.5	10	15	20	25	30	40	50	60	80	100
Rated Output Speed (rpm)	267	200	133	100	80	67	50	40	33	25	20
Rated Output Torque (Nm)	6.4	8.6	12.9	17.2	32	36	32	38	28	34	29

Note:

- This torque value is the rated output value of the reducer, not the final motor + output torque value T after reducer.
- The formula for calculating the output torque after the final motor + reducer: $T = \text{rated torque of the motor} * \text{reduction ratio} * 0.6$, and $T \leq \text{rated allowable output torque value of the reducer}$.

450W BLDC Worm Gear Motor - 12V/24V/36V/48V



Basic Information

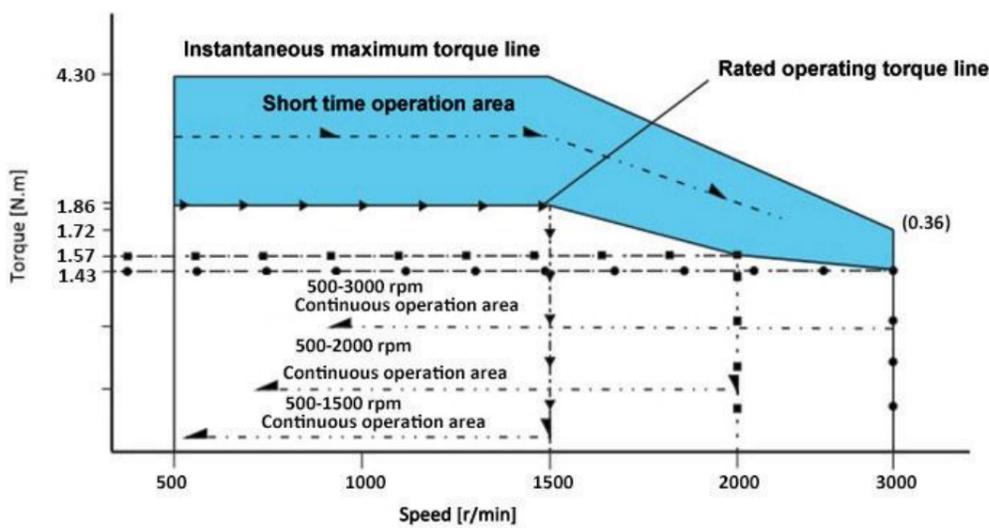
- **Motor Dimension:** 86mm
- **Shaft Diameter:** 11mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 7.5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100
- **Certificate:** CCC, CE, RoHS, LVD, EMC

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D5BLD450-12A	450W	12V DC	46.88A	<10.2A	1.43Nm	4.29Nm	2000rpm	2700rpm	BLDC-KVD2412N
BLDC-D5BLD450-24A	450W	24V DC	23.44A	<7.13A	1.43Nm	4.29Nm	2000rpm	2700rpm	BLDC-BD50
BLDC-D5BLD450-36A	450W	36V DC	15.63A	<6.5A	1.43Nm	4.29Nm	2000rpm	2700rpm	BLDC-BLD750
BLDC-D5BLD450-48A	450W	48V DC	11.72A	<5.61A	1.43Nm	4.29Nm	2000rpm	2700rpm	BLDC-BLD750

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

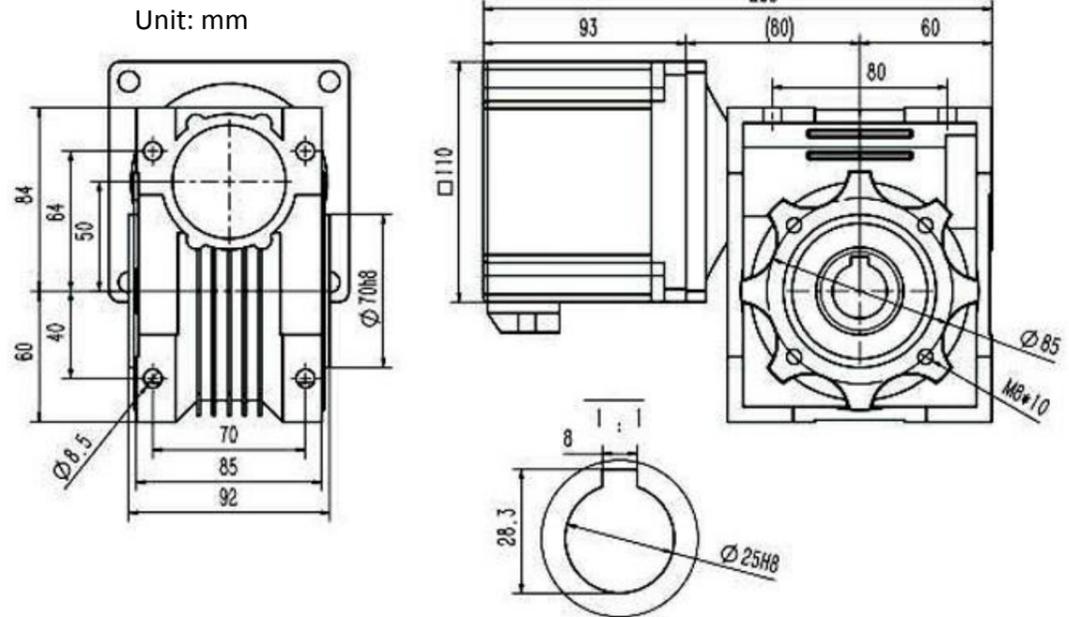
Allowable Torque with Gear Head

Gear Ratio	7.5	10	15	20	25	30	40	50	60	80	100
Rated Output Speed (rpm)	267	200	133	100	80	67	50	40	33	25	20
Rated Output Torque (Nm)	9.7	12.9	19.4	25.8	32	36	32	38	28	34	29

Note:

- This torque value is the rated output value of the reducer, not the final motor + output torque value T after reducer.
- The formula for calculating the output torque after the final motor + reducer: $T = \text{rated torque of the motor} * \text{reduction ratio} * 0.6$, and $T \leq \text{rated allowable output torque value of the reducer}$.

600W BLDC Worm Gear Motor - 24V/36V/48V



Basic Information

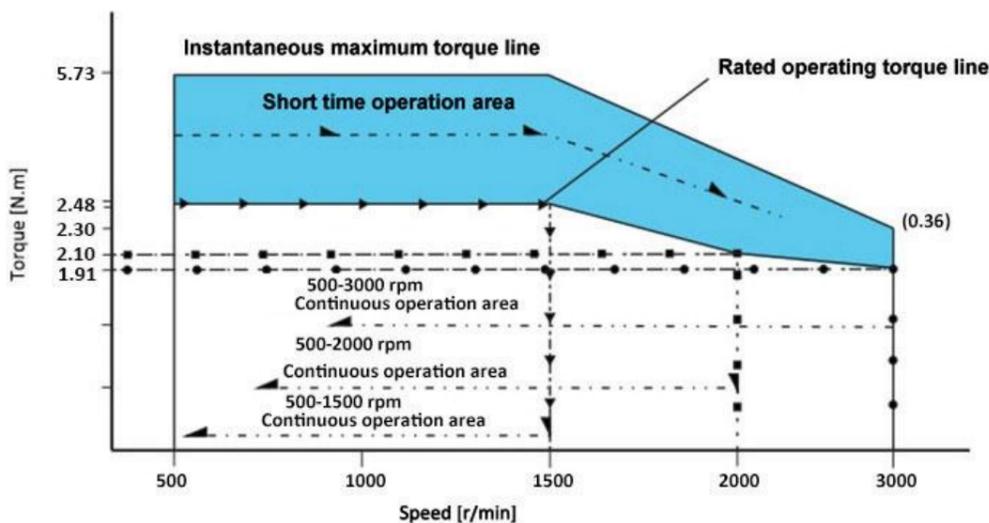
- **Motor Dimension:** 110mm
- **Shaft Diameter:** 11mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 7.5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100
- **Certificate:** CCC, CE, RoHS, LVD, EMC

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D5BLD600-24A	600W	24V DC	31.25A	<7.5A	1.91Nm	5.73Nm	2000rpm	2700rpm	BLDC-BD100
BLDC-D5BLD600-36A	600W	36V DC	20.83A	<5A	1.91Nm	5.73Nm	2000rpm	2700rpm	BLDC-BD50
BLDC-D5BLD600-48A	600W	48V DC	15.63A	<3.8A	1.91Nm	5.73Nm	2000rpm	2700rpm	BLDC-BLD750

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

Allowable Torque with Gear Head

Gear Ratio	7.5	10	15	20	25	30	40	50	60	80	100
Rated Output Speed (rpm)	267	200	133	100	80	67	50	40	33	25	20
Rated Output Torque (Nm)	17.2	22.9	34.4	44.7	54.4	63.6	68	54	60	52	40

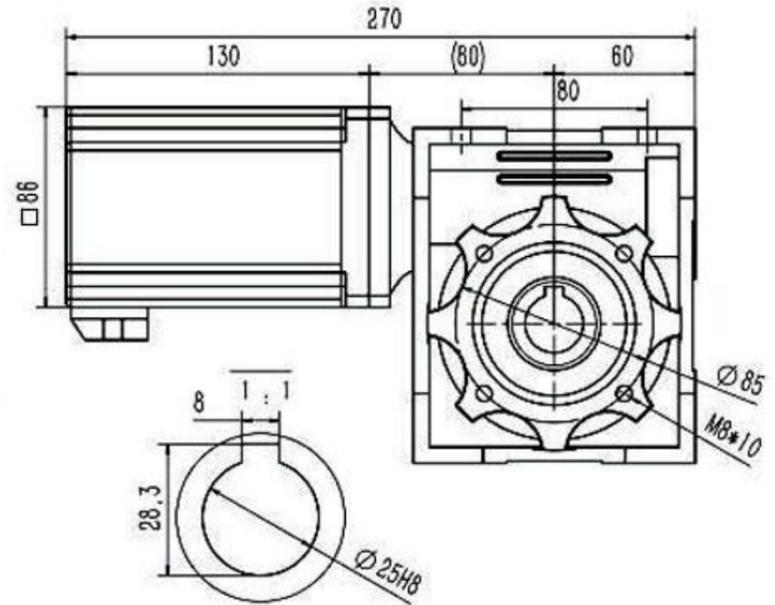
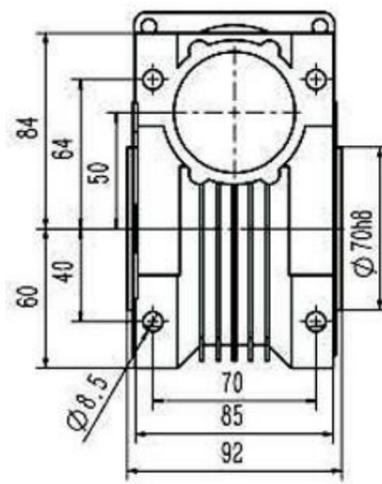
Note:

- This torque value is the rated output value of the reducer, not the final motor + output torque value T after reducer.
- The formula for calculating the output torque after the final motor + reducer: $T = \text{rated torque of the motor} * \text{reduction ratio} * 0.6$, and $T \leq \text{rated allowable output torque value of the reducer}$.

750W BLDC Worm Gear Motor - 24V/36V/48V



Unit: mm



Basic Information

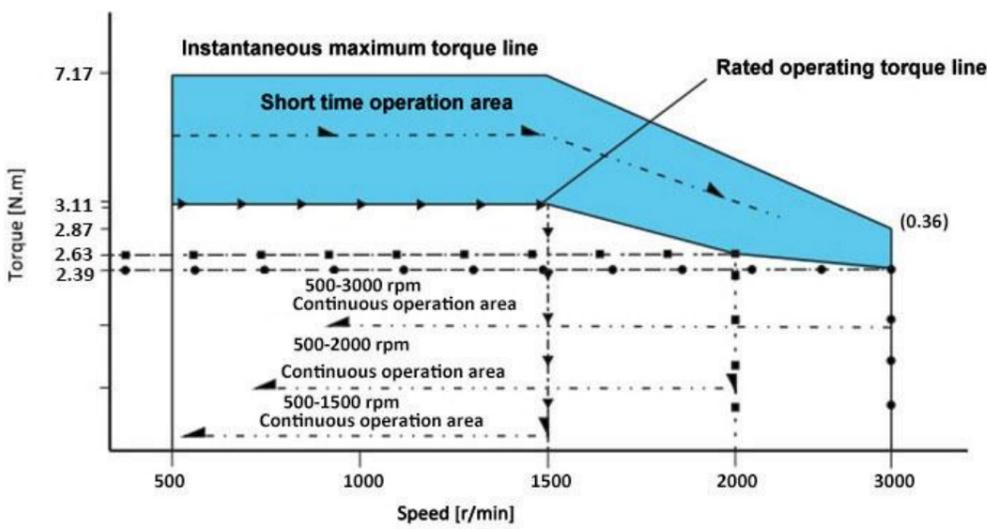
- **Motor Dimension:** 86mm
- **Shaft Diameter:** 11mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 7.5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100
- **Certificate:** CCC, CE, RoHS, LVD, EMC

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D5BLD750-24A	750W	24V DC	39.06A	<9.2A	2.39Nm	7.17Nm	2000rpm	2700rpm	BLDC-BD100
BLDC-D5BLD750-36A	750W	36V DC	26.04A	<8.13A	2.39Nm	7.17Nm	2000rpm	2700rpm	BLDC-BD50
BLDC-D5BLD750-48A	750W	48V DC	19.53A	<6.5A	2.39Nm	7.17Nm	2000rpm	2700rpm	BLDC-BLD750

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

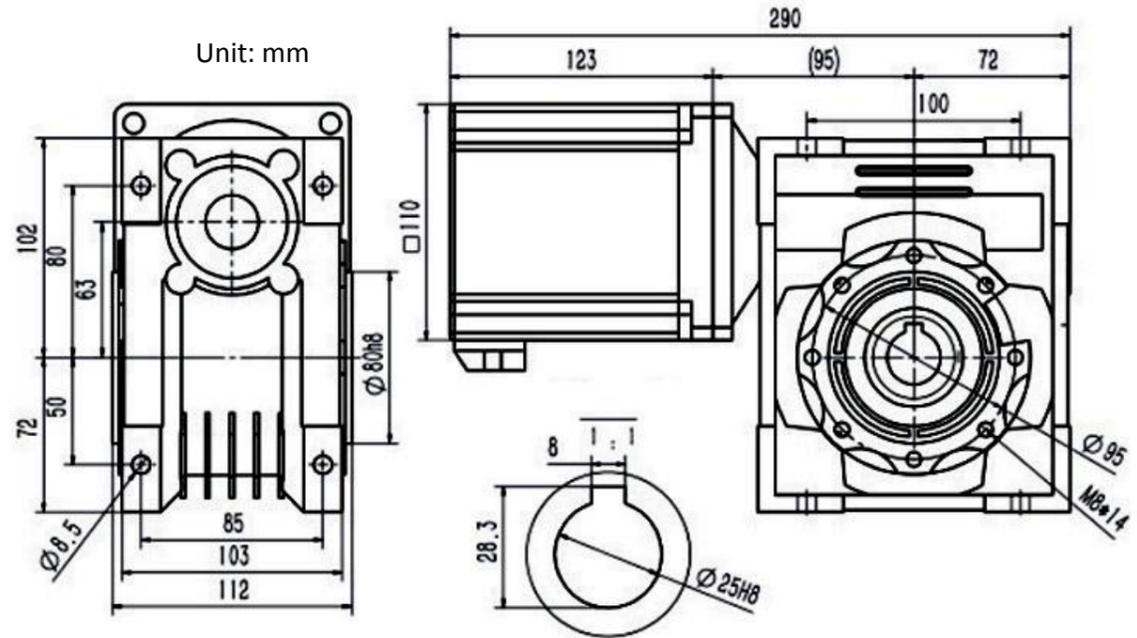
Allowable Torque with Gear Head

Gear Ratio	7.5	10	15	20	25	30	40	50	60	80	100
Rated Output Speed (rpm)	267	200	133	100	80	67	50	40	33	25	20
Rated Output Torque (Nm)	21.5	28.7	43	55.9	68	79.5	68	54	60	52	40

Note:

- This torque value is the rated output value of the reducer, not the final motor + output torque value T after reducer.
- The formula for calculating the output torque after the final motor + reducer: $T = \text{rated torque of the motor} \times \text{reduction ratio} \times 0.6$, and $T \leq \text{rated allowable output torque value of the reducer}$.

1000W BLDC Worm Gear Motor - 24V/36V/48V



Basic Information

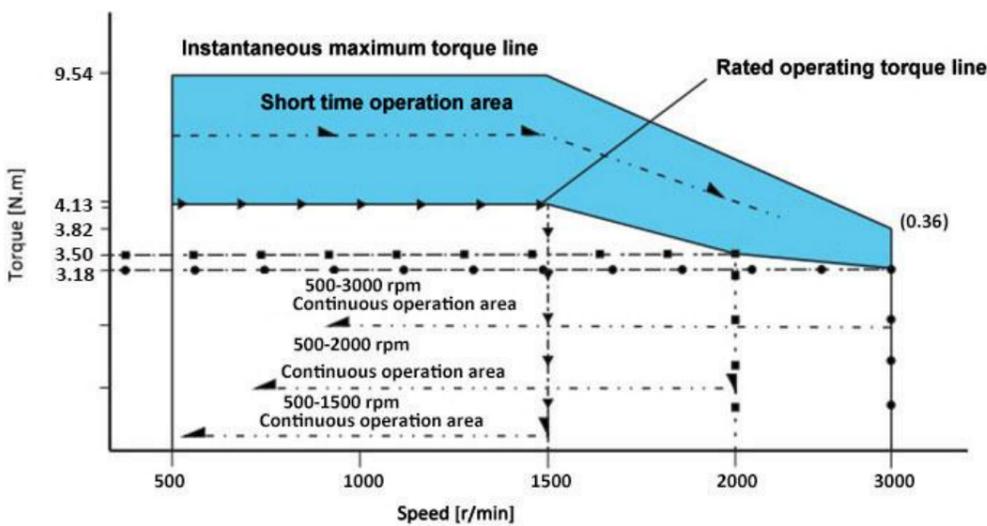
- **Motor Dimension:** 110mm
- **Shaft Diameter:** 11mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 7.5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100
- **Certificate:** CCC, CE, RoHS, LVD, EMC

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D5BLD1000-24A	1000W	24V DC	52.08A	<12A	3.18Nm	9.54Nm	2000rpm	2700rpm	BBLDC-BD100
BLDC-D5BLD1000-36A	1000W	36V DC	34.72A	<8.5A	3.18Nm	9.54Nm	2000rpm	2700rpm	BLDC-BD100
BLDC-D5BLD1000-48A	1000W	48V DC	26.04A	<6A	3.18Nm	9.54Nm	2000rpm	2700rpm	BLDC-BD50

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

Allowable Torque with Gear Head

Gear Ratio	7.5	10	15	20	25	30	40	50	60	80	100
Rated Output Speed (rpm)	267	200	133	100	80	67	50	40	33	25	20
Rated Output Torque (Nm)	28.7	38.2	57.3	47.5	90.7	106	133.7	124	94	115	87

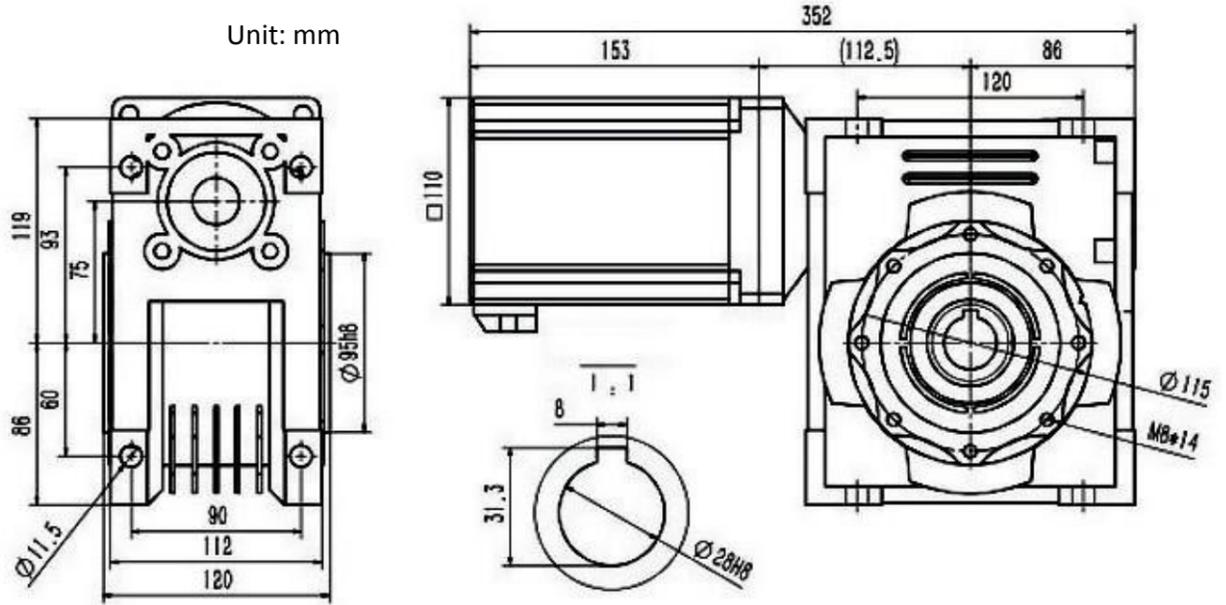
Note:

- This torque value is the rated output value of the reducer, not the final motor + output torque value T after reducer.
- The formula for calculating the output torque after the final motor + reducer: $T = \text{rated torque of the motor} * \text{reduction ratio} * 0.6$, and $T \leq \text{rated allowable output torque value of the reducer}$.

1500W BLDC Worm Gear Motor - 36V/48V



Unit: mm



Basic Information

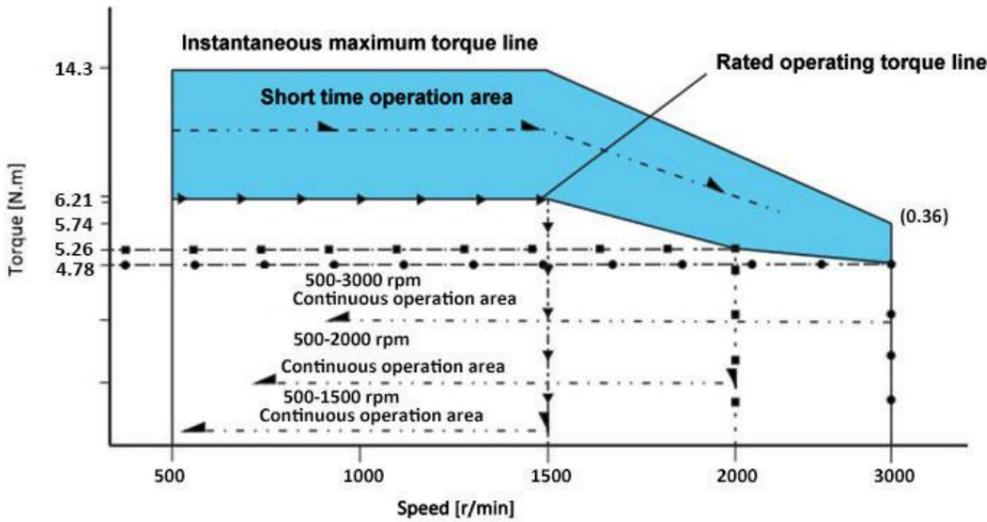
- **Motor Dimension:** 110mm
- **Shaft Diameter:** 11mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 7.5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100
- **Certificate:** CCC, CE, RoHS, LVD, EMC

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D5BLD1500-36A	1500W	36V DC	52.08A	<20A	4.78Nm	14.34Nm	2000rpm	2700rpm	BLDC-BD100
BLDC-D5BLD1500-48A	1500W	48V DC	39.06A	<15A	4.78Nm	14.34Nm	2000rpm	2700rpm	BLDC-BD100

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

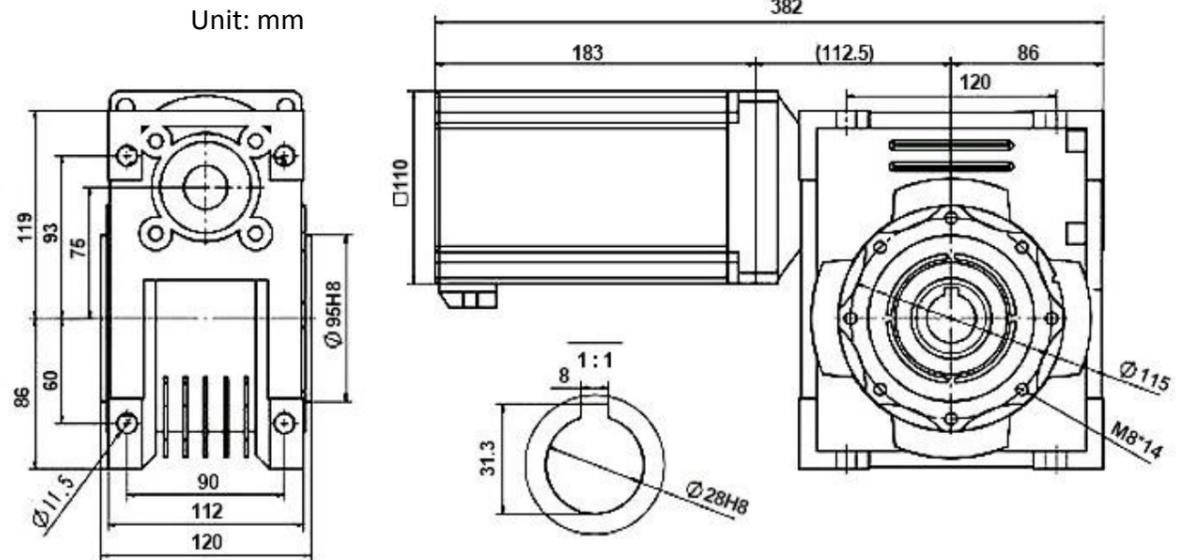
Allowable Torque with Gear Head

Gear Ratio	7.5	10	15	20	25	30	40	50	60	80	100
Rated Output Speed (rpm)	267	200	133	100	80	67	50	40	33	25	20
Rated Output Torque (Nm)	43.0	57.3	86.0	111.7	136.1	159	200.6	177	200	180	139

Note:

- This torque value is the rated output value of the reducer, not the final motor + output torque value T after reducer.
- The formula for calculating the output torque after the final motor + reducer: $T = \text{rated torque of the motor} * \text{reduction ratio} * 0.6$, and $T \leq \text{rated allowable output torque value of the reducer}$.

2000W BLDC Worm Gear Motor - 48V



Basic Information

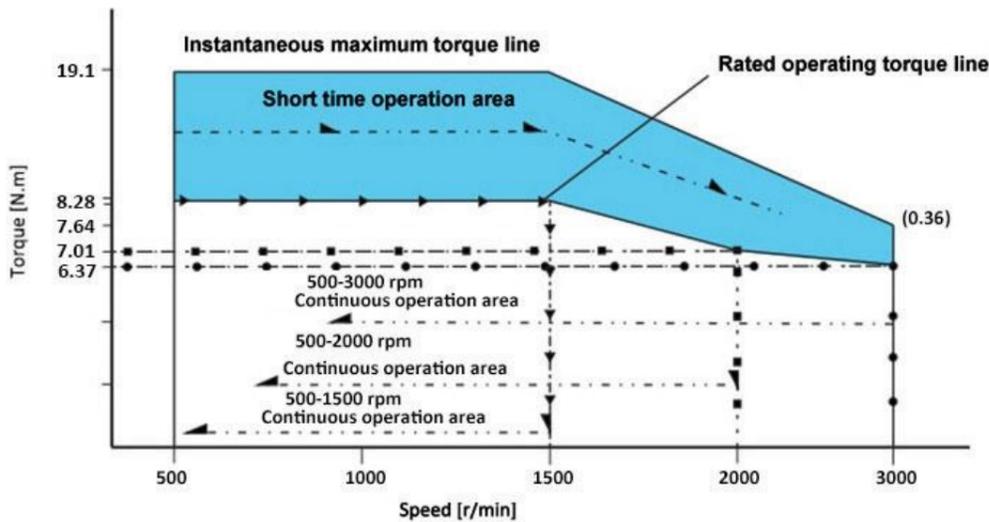
- **Motor Dimension:** 110mm
- **Shaft Diameter:** 11mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 7.5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100
- **Certificate:** CCC, CE, RoHS, LVD, EMC

Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D5BLD2000-48A	750W	48V DC	52.08A	<16A	9.55Nm	19.8Nm	2000rpm	2700rpm	BLDC-BD100

Note: Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

Allowable Torque with Gear Head

Gear Ratio	7.5	10	15	20	25	30	40	50	60	80	100
Rated Output Speed (rpm)	267	200	133	100	80	67	50	40	33	25	20
Rated Output Torque (Nm)	57.3	76.4	114.6	149	181.5	212	216	177	200	180	139

Note:

- This torque value is the rated output value of the reducer, not the final motor + output torque value T after reducer.
- The formula for calculating the output torque after the final motor + reducer: $T = \text{rated torque of the motor} * \text{reduction ratio} * 0.6$, and $T \leq \text{rated allowable output torque value of the reducer}$.

BLDC Planetary Gear Motor Series

Features

- **Multiple Voltage Options:** Available in 12V, 24V, 36V, and 48V DC to meet various requirements.
- **High Planetary Gear Ratio of up to 250:1:** Equipped with a planetary gearbox offering a high reduction ratio of up to 250:1 for efficient power transmission.
- **Customizable Specifications:** Power, voltage, speed, shaft size, motor length, and lead can all be tailored to suit specific needs.
- **Energy-efficient BLDC Motor:** Features a brushless DC motor (BLDC) that ensures low power consumption, high efficiency, and longer battery life.
- **High Torque at Low Speeds:** The planetary gear motor provides excellent torque output even at low speeds, ideal for high-torque applications.
- **Easy Speed Adjustment and Reversible Direction:** Supports convenient speed control and reversible direction for flexible operation.

Applications



100W BLDC Planetary Gear Motor - 12V/24V/36V/48V



Basic Information

- **Motor Dimension:** 57mm/60mm
- **Shaft Diameter:** 14mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 4, 5, 7, 10, 16, 20, 25, 28, 35, 40, 50, 70, 80, 100, 125, 140, 175, 200, 250
- **Certificate:** CCC, CE, RoHS, LVD, EMC

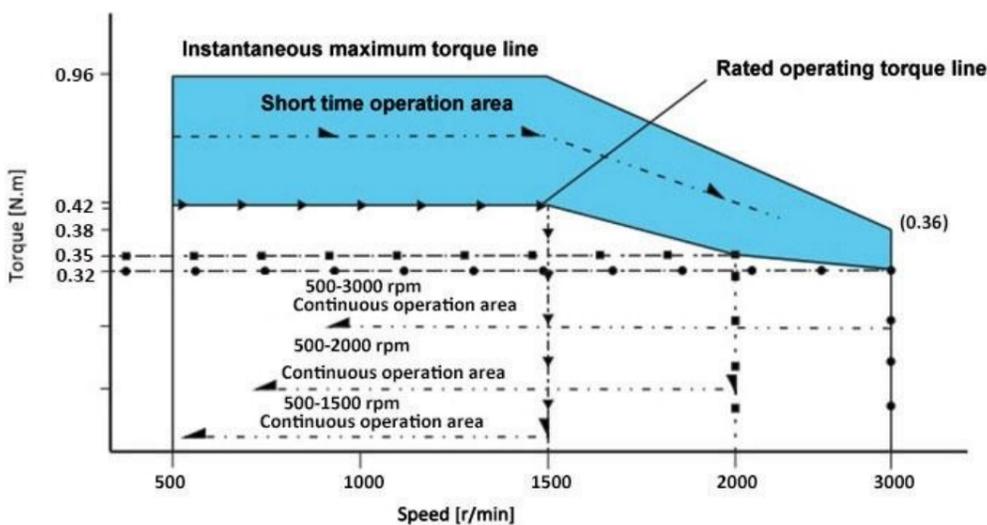
Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D2BLD100-12A-30S	100W	12V DC	10.42A	<1.2A	0.32Nm	0.96Nm	3000rpm	3300rpm	BLDC-BLD300
BLDC-D2BLD100-24A-30S	100W	24V DC	5.21A	<0.8A	0.32Nm	0.96Nm	3000rpm	3300rpm	BLDC-BLD300
BLDC-D2BLD100-36A-30S	100W	36V DC	3.47A	<0.6A	0.32Nm	0.96Nm	3000rpm	3300rpm	BLDC-BLD300
BLDC-D2BLD100-48A-30S	100W	48V DC	0.32A	<0.4A	0.32Nm	0.96Nm	3000rpm	3300rpm	BLDC-BLD300

Note:

1. If you would like CAD drawings of the motor and planetary gearbox, please contact us.
2. Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

150W BLDC Planetary Gear Motor - 12V/24V/36V/48V



Basic Information

- **Motor Dimension:** 57mm/60mm
- **Shaft Diameter:** 14mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 4, 5, 7, 10, 16, 20, 25, 28, 35, 40, 50, 70, 80, 100, 125, 140, 175, 200, 250
- **Certificate:** CCC, CE, RoHS, LVD, EMC

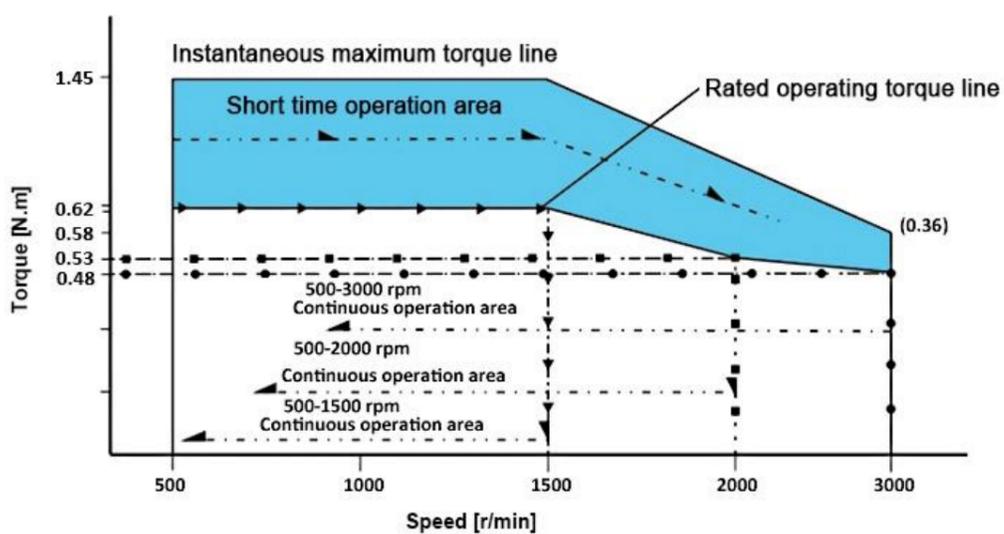
Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D2BLD150-12A-30S	150W	12V DC	15.63A	<1.2A	0.48Nm	1.43Nm	3000rpm	3300rpm	BLDC-BD100
BLDC-D2BLD150-24A-30S	150W	24V DC	7.81A	<0.8A	0.48Nm	1.43Nm	3000rpm	3300rpm	BLDC-BLD300
BLDC-D2BLD150-36A-30S	150W	36V DC	5.21A	<0.6A	0.48Nm	1.43Nm	3000rpm	3300rpm	BLDC-BLD300
BLDC-D2BLD150-48A-30S	150W	48V DC	3.91A	<0.4A	0.48Nm	1.43Nm	3000rpm	3300rpm	BLDC-BLD300

Note:

1. If you would like CAD drawings of the motor and planetary gearbox, please contact us.
2. Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

200W BLDC Planetary Gear Motor - 12V/24V/36V/48V



Basic Information

- **Motor Dimension:** 86mm
- **Shaft Diameter:** 14mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 4, 5, 7, 10, 16, 20, 25, 28, 35, 40, 50, 70, 80, 100, 125, 140, 175, 200, 250
- **Certificate:** CCC, CE, RoHS, LVD, EMC

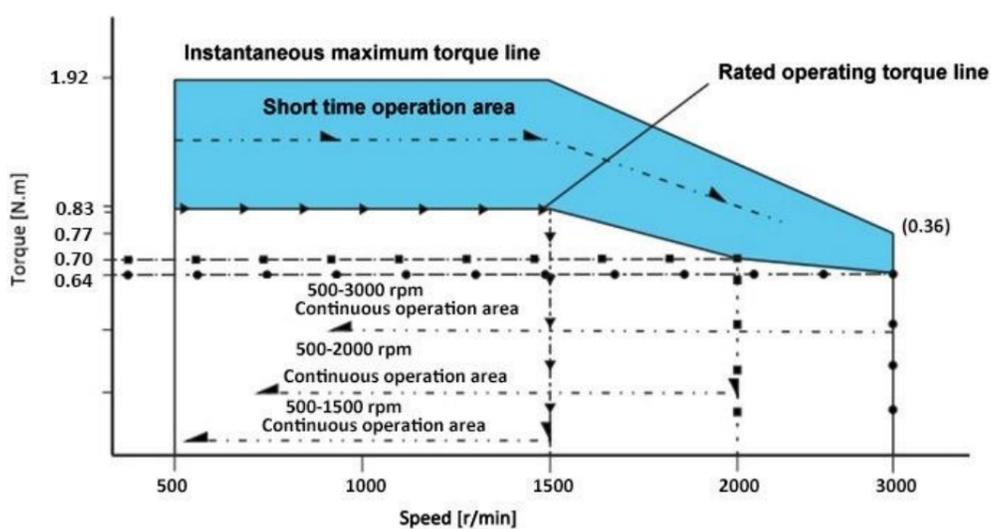
Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D5BLD200-12A-30S	200W	12V DC	20.83A	<6.2A	0.64Nm	1.91Nm	3000rpm	3300rpm	BLDC-BD100
BLDC-D5BLD200-24A-30S	200W	24V DC	10.42A	<4.13A	0.64Nm	1.91Nm	3000rpm	3300rpm	BLDC-BLD300
BLDC-D5BLD200-36A-30S	200W	36V DC	6.94A	<2.5A	0.64Nm	1.91Nm	3000rpm	3300rpm	BLDC-BLD300
BLDC-D5BLD200-48A-30S	200W	48V DC	5.21A	<1.61A	0.64Nm	1.91Nm	3000rpm	3300rpm	BLDC-BLD300

Note:

1. If you would like CAD drawings of the motor and planetary gearbox, please contact us.
2. Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

300W BLDC Planetary Gear Motor - 12V/24V/36V/48V



Basic Information

- **Motor Dimension:** 86mm
- **Shaft Diameter:** 14mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 4, 5, 7, 10, 16, 20, 25, 28, 35, 40, 50, 70, 80, 100, 125, 140, 175, 200, 250
- **Certificate:** CCC, CE, RoHS, LVD, EMC

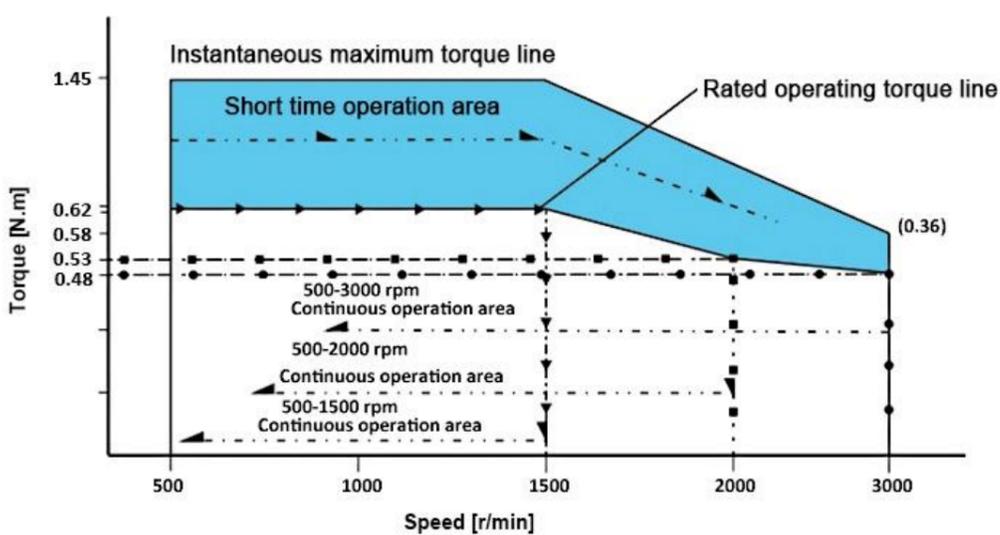
Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D5BLD300-12A-30S	300W	12V DC	31.25A	<7.2A	0.96Nm	2.87Nm	3000rpm	3300rpm	BLDC-BD100
BLDC-D5BLD300-24A-30S	300W	24V DC	15.63A	<6.13A	0.96Nm	2.87Nm	3000rpm	3300rpm	BLDC-BLD750
BLDC-D5BLD300-36A-30S	300W	36V DC	10.42A	<3.5A	0.96Nm	2.87Nm	3000rpm	3300rpm	BLDC-BLD750
BLDC-D5BLD300-48A-30S	300W	48V DC	7.81A	<4.61A	0.96Nm	2.87Nm	3000rpm	3300rpm	BLDC-BLD300

Note:

1. If you would like CAD drawings of the motor and planetary gearbox, please contact us.
2. Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

450W BLDC Planetary Gear Motor - 12V/24V/36V/48V



Basic Information

- **Motor Dimension:** 86mm
- **Shaft Diameter:** 14mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 4, 5, 7, 10, 16, 20, 25, 28, 35, 40, 50, 70, 80, 100, 125, 140, 175, 200, 250
- **Certificate:** CCC, CE, RoHS, LVD, EMC

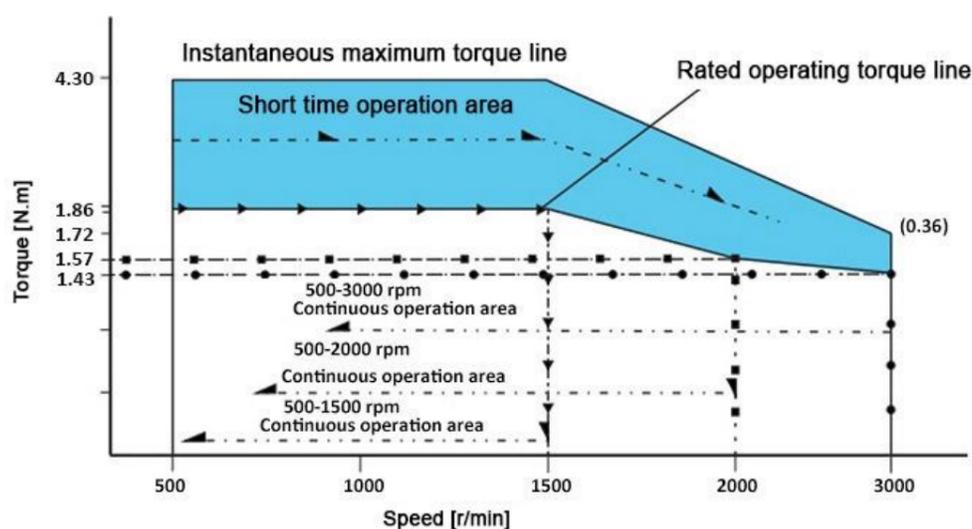
Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D5BLD450-12A-30S	450W	12V DC	46.88A	<10.2A	1.43Nm	4.30Nm	3000rpm	3300rpm	BLDC-BD100
BLDC-D5BLD450-24A-30S	450W	24V DC	23.44A	<7.13A	1.43Nm	4.30Nm	3000rpm	3300rpm	BLDC-BD50
BLDC-D5BLD450-36A-30S	450W	36V DC	15.63A	<6.5A	1.43Nm	4.30Nm	3000rpm	3300rpm	BLDC-BLD750
BLDC-D5BLD450-48A-30S	450W	48V DC	11.72A	<5.61A	1.43Nm	4.30Nm	3000rpm	3300rpm	BLDC-BLD750

Note:

1. If you would like CAD drawings of the motor and planetary gearbox, please contact us.
2. Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

600W BLDC Planetary Gear Motor - 24V/36V/48V



Basic Information

- **Motor Dimension:** 110mm
- **Shaft Diameter:** 14mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 4, 5, 7, 10, 16, 20, 25, 28, 35, 40, 50, 70, 80, 100, 125, 140, 175, 200, 250
- **Certificate:** CCC, CE, RoHS, LVD, EMC

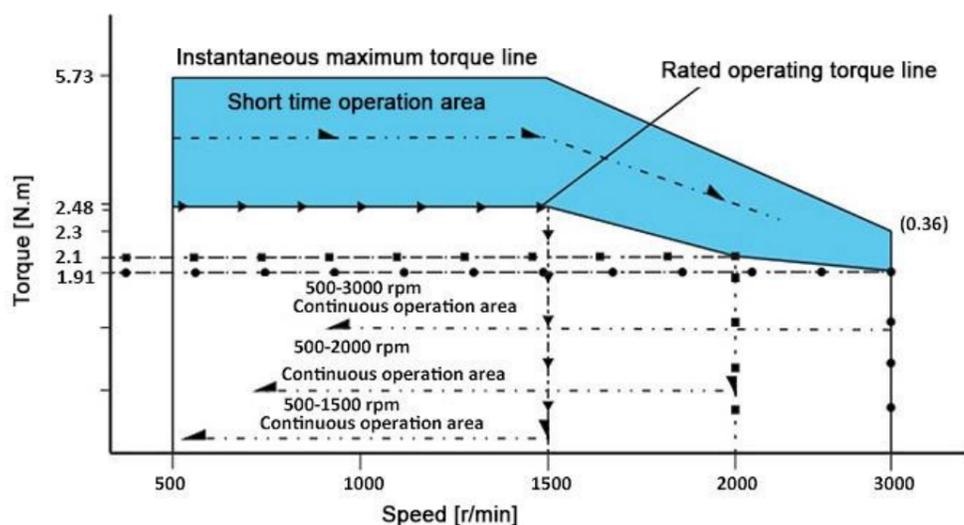
Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D110BLD600-24A-30S	600W	24V DC	31.25A	<7.5A	1.91Nm	5.73Nm	3000rpm	3300rpm	BLDC-BD100
BLDC-D110BLD600-36A-30S	600W	36V DC	20.83A	<5A	1.91Nm	5.73Nm	3000rpm	3300rpm	BLDC-BD50
BLDC-D110BLD600-48A-30S	600W	48V DC	15.63A	<3.8A	1.91Nm	5.73Nm	3000rpm	3300rpm	BLDC-BLD750

Note:

1. If you would like CAD drawings of the motor and planetary gearbox, please contact us.
2. Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

750W BLDC Planetary Gear Motor - 24V/36V/48V



Basic Information

- **Motor Dimension:** 86mm
- **Shaft Diameter:** 14mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 4, 5, 7, 10, 16, 20, 25, 28, 35, 40, 50, 70, 80, 100, 125, 140, 175, 200, 250
- **Certificate:** CCC, CE, RoHS, LVD, EMC

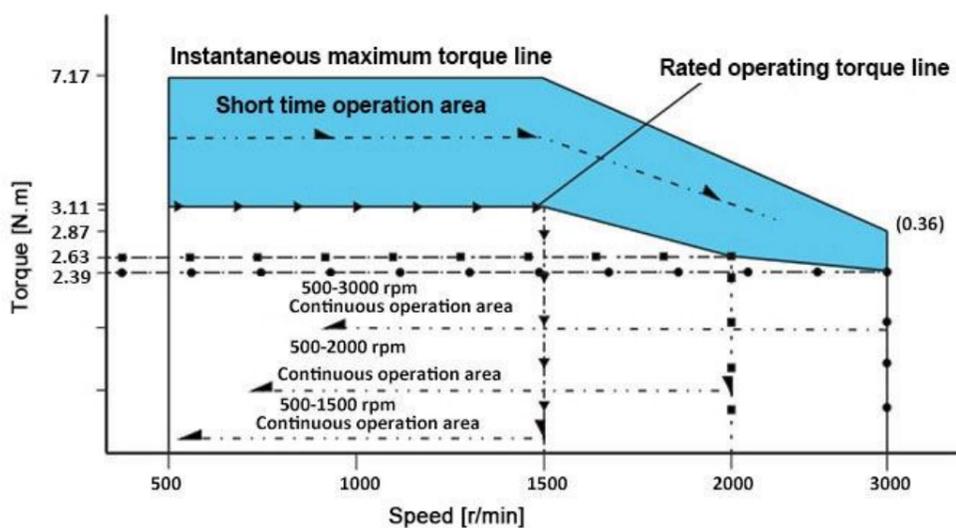
Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D5BLD750-24A-30S	750W	24V DC	39.06A	<9.2A	2.39Nm	7.16Nm	3000rpm	3300rpm	BLDC-BD100
BLDC-D5BLD750-36A-30S	750W	36V DC	26.04A	<8.13A	2.39Nm	7.16Nm	3000rpm	3300rpm	BLDC-BD100
BLDC-D5BLD750-48A-30S	750W	48V DC	19.53A	<6.5A	2.39Nm	7.16Nm	3000rpm	3300rpm	BLDC-BD100

Note:

1. If you would like CAD drawings of the motor and planetary gearbox, please contact us.
2. Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

1000W BLDC Planetary Gear Motor - 24V/36V/48V



Basic Information

- **Motor Dimension:** 110mm
- **Shaft Diameter:** 14mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 4, 5, 7, 10, 16, 20, 25, 28, 35, 40, 50, 70, 80, 100, 125, 140, 175, 200, 250
- **Certificate:** CCC, CE, RoHS, LVD, EMC

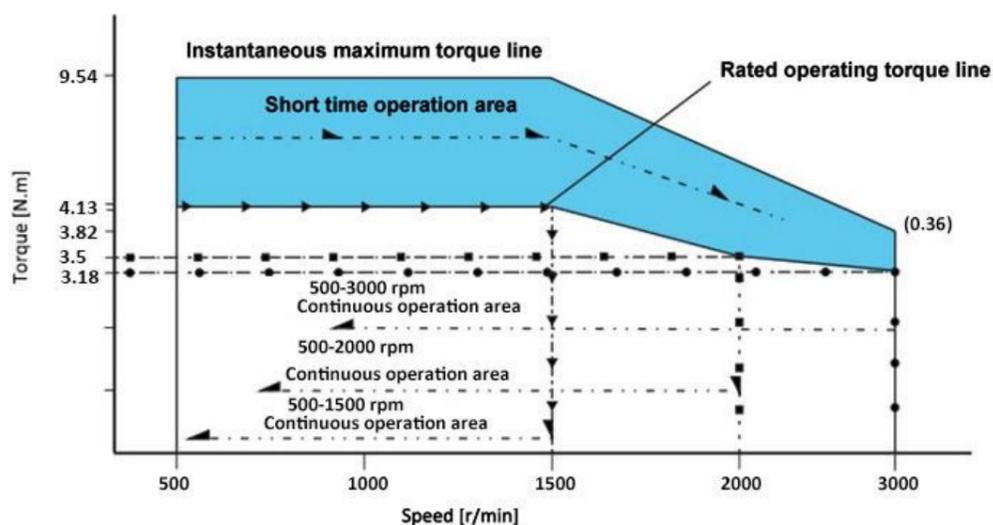
Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D110BLD1000-24A-30S	1000W	24V DC	52.08A	<12A	3.18Nm	9.55Nm	3000rpm	4200rpm	BLDC-BD100
BLDC-D110BLD1000-36A-30S	1000W	36V DC	34.72A	<8.5A	3.18Nm	9.55Nm	3000rpm	4200rpm	BLDC-BD100
BLDC-D110BLD1000-48A-30S	1000W	48V DC	26.04A	<6A	3.18Nm	9.55Nm	3000rpm	4200rpm	BLDC-BD100

Note:

1. If you would like CAD drawings of the motor and planetary gearbox, please contact us.
2. Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

1500W BLDC Planetary Gear Motor - 36V/48V



Basic Information

- **Motor Dimension:** 110mm
- **Shaft Diameter:** 14mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 4, 5, 7, 10, 16, 20, 25, 28, 35, 40, 50, 70, 80, 100, 125, 140, 175, 200, 250
- **Certificate:** CCC, CE, RoHS, LVD, EMC

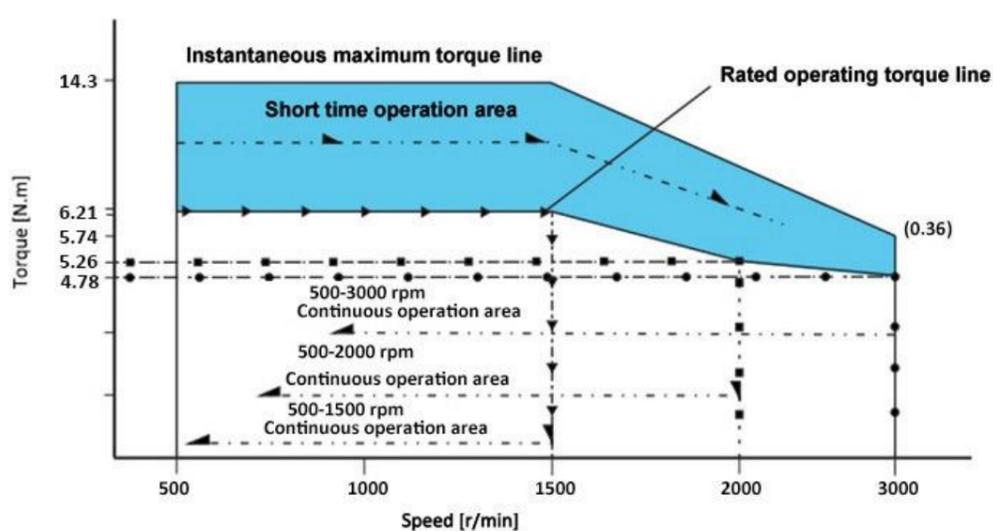
Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D110BLD1500-36A-30S	1500W	36V DC	52.8A	<20A	4.78Nm	14.33Nm	3000rpm	3300rpm	BLDC-BD100
BLDC-D110BLD1500-48A-30S	1500W	48V DC	39.06A	<15A	4.78Nm	14.33Nm	3000rpm	3300rpm	BLDC-BD100

Note:

1. If you would like CAD drawings of the motor and planetary gearbox, please contact us.
2. Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.

2000W BLDC Planetary Gear Motor - 48V



Basic Information

- **Motor Dimension:** 110mm
- **Shaft Diameter:** 14mm
- **Construction:** Permanent Magnet
- **Direction of Rotation:** CW/CCW
- **Gear Ratio:** 4, 5, 7, 10, 16, 20, 25, 28, 35, 40, 50, 70, 80, 100, 125, 140, 175, 200, 250
- **Certificate:** CCC, CE, RoHS, LVD, EMC

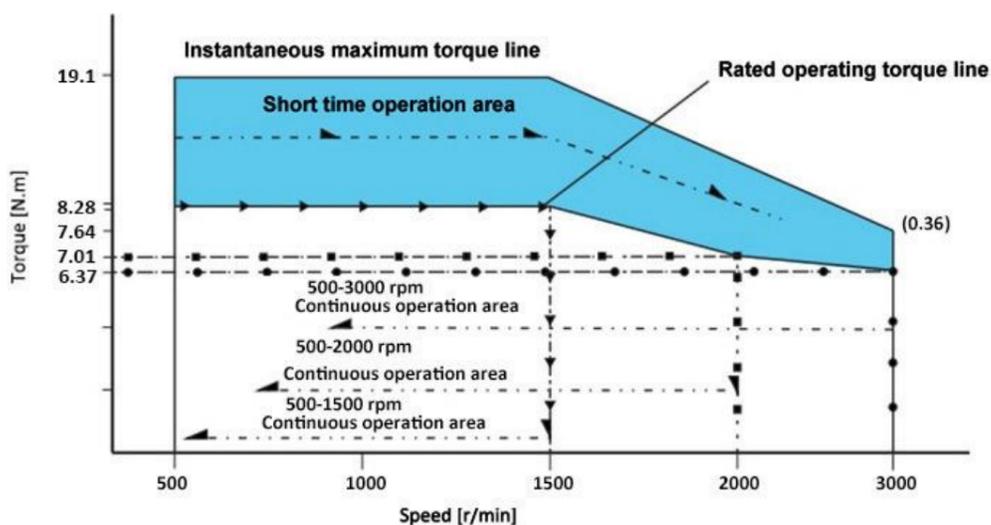
Specification

Model	Rated Power	Rated Voltage	Rated Current	No-load Current	Rated Torque	Max. Torque	Rated Speed	No-load Speed	Matched Controller
BLDC-D110BLD2000-48A-30S	2000W	48V DC	52.08A	<16A	6.37Nm	19.1Nm	3000rpm	3300rpm	BLDC-BLD300

Note:

1. If you would like CAD drawings of the motor and planetary gearbox, please contact us.
2. Power, voltage, speed, shaft, motor length, and motor lead of BLDC motors can be customized.

Speed - Torque Curve



- **Instantaneous maximum torque line:** The peak torque the motor delivers briefly at startup. Exceeding this level triggers the driver's over-current protection, shutting down the motor.
- **Short-time operation area:** The motor can operate within this torque range for limited periods at various speeds. Prolonged use generates excess heat, which can lead to shutdown or motor damage.
- **Rated operating torque line:** The rated torque of the motor can sustain at different speeds for continuous, long-term operation.
- **Continuous operating area:** Within this area, the BLDC motor can run non-stop across a range of speeds without overheating or triggering protection mechanisms.