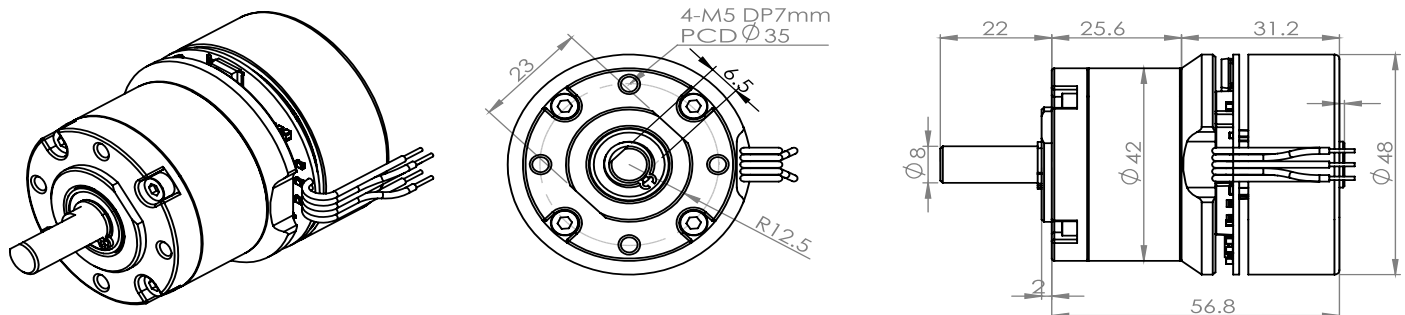


Motor, driver and gearbox are integrated in this product:



Unit : mm

General Characteristics

Basic Dimensions	Unit	Motor Features	Unit
Diameter	mm	Motor type	BLDC outrunner
Body length	mm	Motor model	MXL4825KV200HA
Output shaft diam.	mm	Pole pairs	5
Output shaft length	mm	Number of phases	3

Controller Features

Control type : Square-wave/openloop

Rated voltage: 24V(8V-25.2V)

Over Current Protection (OCP): 4.5 A

Signal voltage level: 5V

Pin definition(left to right):

1.Blue-PWM 2.Black-GND 3.Yellow-F/R 4.Green-FG 5.Red-VCC

PWM frequency: 10K -20K Hz

Frequency Generator(FG) : 5 PPR

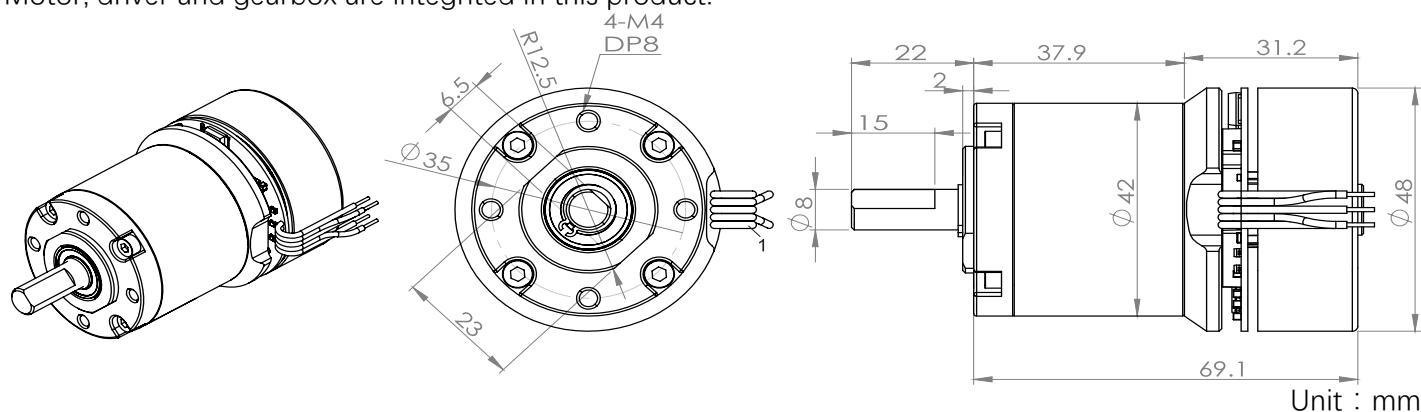
Gearbox Features

Gearbox Features	Unit	Nominal & Stall	Unit
Gearbox model	GP48L1A	Gearbox ratio	K 3.7
Gearbox type	Planetary	Nominal voltage	V 24
Gearbox ratio	K 3.7	Noload speed	rpm 1194
Gearbox stages	1	Nominal speed	rpm 1001
Gearbox diameter	mm 42	Nominal torque	Nm 0.4
Gearbox length	mm 25.6	Nominal current	A 3.0
Gearbox efficiency	80-90%	Maximal power	W 54
Operating torque	kg*cm 20	Maximal efficiency	65%
Brakeing torque	kg*cm 60	Stall torque*	Nm 1.3
		Stall current*	A 8

*Attention: Stall operation is only for reference due to Over Current Protection.

*In case specific shaft, connector, or any other features need to be customized, please visit www.damoto.tech and contact us.

Motor, driver and gearbox are integrated in this product:



General Characteristics

Basic Dimensions Unit

Diameter	mm	42/48
Body length	mm	69.1
Output shaft diam.	mm	8
Output shaft length	mm	22

Driver Features

Control type :	Square-wave/openloop
Rated voltage:	24V(8V-25.2V)
Over Currunt Protection (OCP):	4.5 A
Signal voltage level:	5V

Gearbox Features Unit

Gearbox model	GP48L2A
Gearbox type	Planetary
Gearbox ratio	K 10.2/13.7/19.2
Gearbox stages	2
Gearbox diameter	mm 42
Gearbox length	mm 69.1
Gearbox efficiency	80%
Operating torque	kg*cm 60
Brakeing torque	kg*cm 180

Motor Features Unit

Motor type	BLDC outrunner
Motor model	MXL4825KV200HA
Pole pairs	5
Number of phases	3

Pin definition(left to right):

1.Blue-PWM 2.Black-GND 3.Yellow-F/R 4.Green-FG 5.Red-VCC

PWM frequency:	10K -20K Hz
Frequency Generator(FG) :	5 PPR

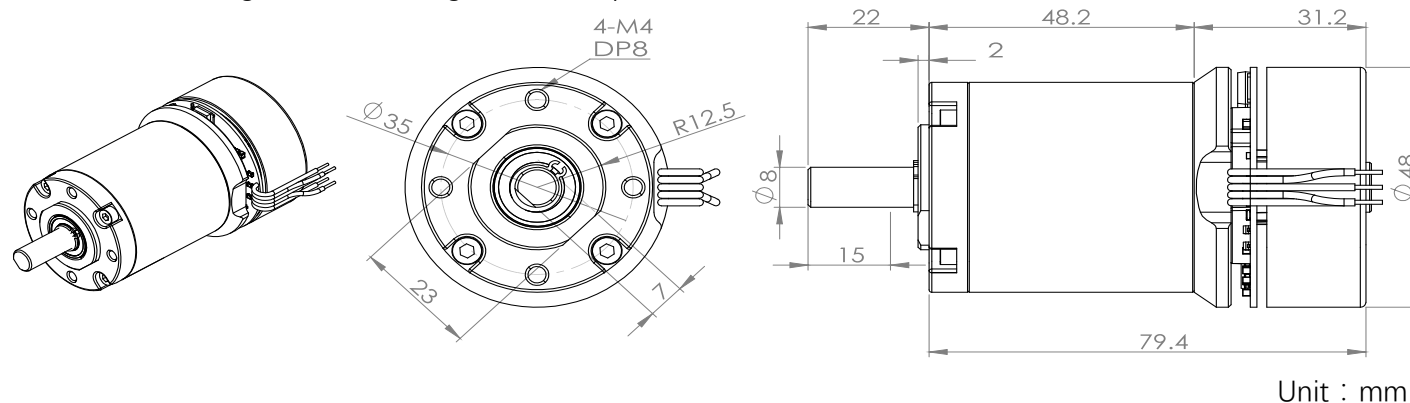
Nominal & Stall Unit

Gearbox ratio	K	10.2	13.7	19.2
Nominal voltage	V	24	24	24
Noload speed	rpm	433	322	230
Nominal speed	rpm	363	270	193
Nominal torque	Nm	1.1	1.5	2.1
Nominal current	A	3.0	3.0	3.0
Maximal power	W	54	54	54
Maximal efficiency		59%	59%	59%
Stall torque*	Nm	3.7	4.9	6.9
Stall current*	A	8	8	8

*Attention: Stall operation is only for reference due to Over Current Protection.

*In case specific shaft, connector, or any other features need to be customized, please visit www.damoto.tech and contact us.

Motor, driver and gearbox are integrated in this product:



Unit : mm

General Characteristics

Basic Dimensions

Unit

Diameter	mm	42/48
Body length	mm	79.4
Output shaft diam.	mm	8
Output shaft length	mm	22

Motor Features

Unit

Motor type	BLDC outrunner
Motor model	MXL4825KV200HA
Pole pairs	5
Number of phases	3

Driver Features

Control type : Square-wave/openloop

Rated voltage: 24V(8V-25.2V)

Over Currunt Protection (OCP): 4.5 A

Signal voltage level: 5V

Pin definition(left to right):

1.Blue-PWM 2.Black-GND 3.Yellow-F/R 4.Green-FG 5.Red-VCC

PWM frequency: 10K -20K Hz

Frequency Generator(FG) : 5 PPR

Gearbox Features

Unit

Gearbox model	GP48L3A
Gearbox type	Planetary
Gearbox ratio	K 32.5/50.9/71.2
Gearbox stages	3
Gearbox diameter	mm 42
Gearbox length	mm 48.2
Gearbox efficiency	70%
Operating torque	kg*cm 120
Brakeing torque	kg*cm 360

Nominal & Stall

Unit

Gearbox ratio	K	32.5	32.5	50.9	50.9	71.2	71.2
Nominal voltage	V	12	24	12	24	12	24
Noload speed	rpm	68	136	43	87	31	62
Nominal speed	rpm	53	114	34	73	24	52
Nominal torque	Nm	2.6	3.5	4.1	5.5	5.8	7.7
Nominal current	A	2.0	2.8	2.0	2.8	2.0	2.8
Maximal power	W	20	54	20	54	20	54
Maximal efficiency		51%	53%	51%	53%	51%	53%
Stall torque*	Nm	9	12	14	18	19	26
Stall current*	A	6	8	6	8	6	8

*Attention: Stall operation is only for reference due to Over Current Protection.

*In case specific shaft, connector, or any other features need to be customized, please visit www.damoto.tech and contact us.

Technical drawing of the 100W 24VDC brushless motor, showing three views: perspective, front, and side.

Front View Dimensions:

- Shaft diameter: $\Phi 12$
- Mounting holes: 4-M4 DP8
- Radius: R16
- Inner diameter: $\Phi 40$
- Outer diameter: $\Phi 55$

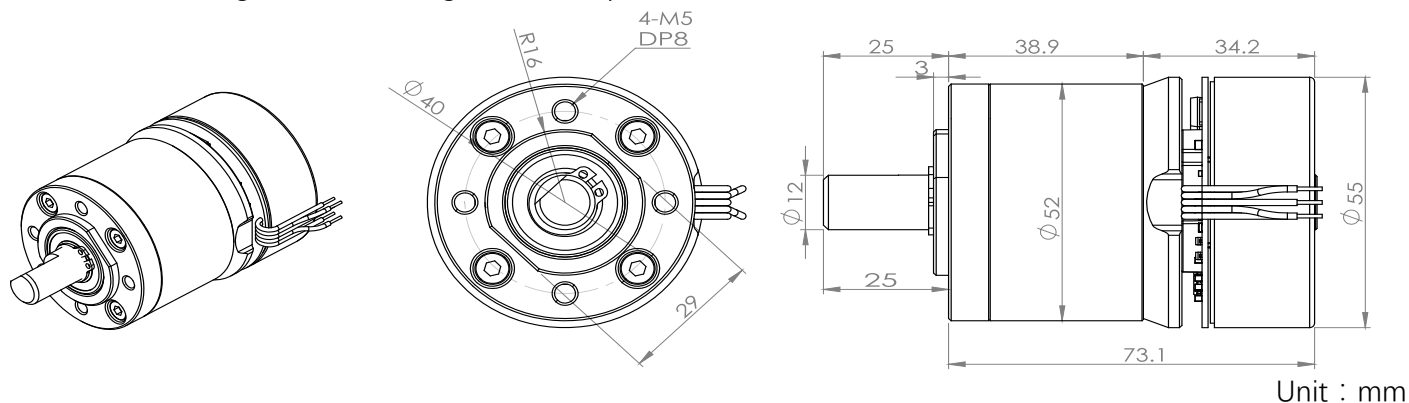
Side View Dimensions:

- Shaft diameter: $\Phi 12$
- Motor body length: 27.3
- Flange thickness: 3
- Flange diameter: $\Phi 52$
- Terminal block length: 25
- Terminal block diameter: $\Phi 12$
- Terminal block mounting holes: 4-M4 DP8
- Terminal block outer diameter: $\Phi 55$
- Total length: 61.5

Unit : mm

*In case specific shaft, connector, or any other features need to be customized, please visit www.damoto.tech and contact us.

Motor, driver and gearbox are integrated in this product:



Unit : mm

General Characteristics

Basic Dimensions

Unit

Diameter	mm	52/55
Body length	mm	73.1
Output shaft diam.	mm	12
Output shaft length	mm	25

Motor Features

Unit

Motor type	BLDC outrunner
Motor model	MXL5520KV190HA
Pole pairs	5
Number of phases	3

Controller Features

Control type :	Square-wave/openloop
Rated voltage:	24V(8V-25V)
Over Current Protection (OCP)	9 A
Signal voltage level:	5V

Pin definition(left to right):

1.PWM 2.GND 3.F/R 4.-FG 5.VCC

PWM frequency:	10K -20K Hz
Frequency Generator(FG) :	5 PPR

Gearbox Features

Unit

Gearbox model	GP52L2A
Gearbox type	Planetary
Gearbox ratio	K 13.7/19.2/26.9
Gearbox stages	2
Gearbox diameter	mm 52
Gearbox length	mm 38.9
Gearbox efficiency	80%
Operating torque	kg*cm 80
Brakeing torque	kg*cm 240

Nominal & Stall

Unit

Gearbox ratio	K	13.7	19.2	26.9
Nominal voltage	V	24	24	24
Noload speed	rpm	309	220	157
Nominal speed	rpm	236	168	120
Nominal torque	Nm	2.8	3.9	5.4
Nominal current	A	5.4	5.5	5.6
Maximal power	W	81	81	81
Maximal efficiency		62%	62%	62%
Stall torque*	Nm	6.6	9.2	12.9
Stall current*	A	12	12	12

*Attention: Stall operation is only for reference due to Over Current Protection.

*In case specific shaft, connector, or any other features need to be customized, please visit www.damoto.tech and contact us.