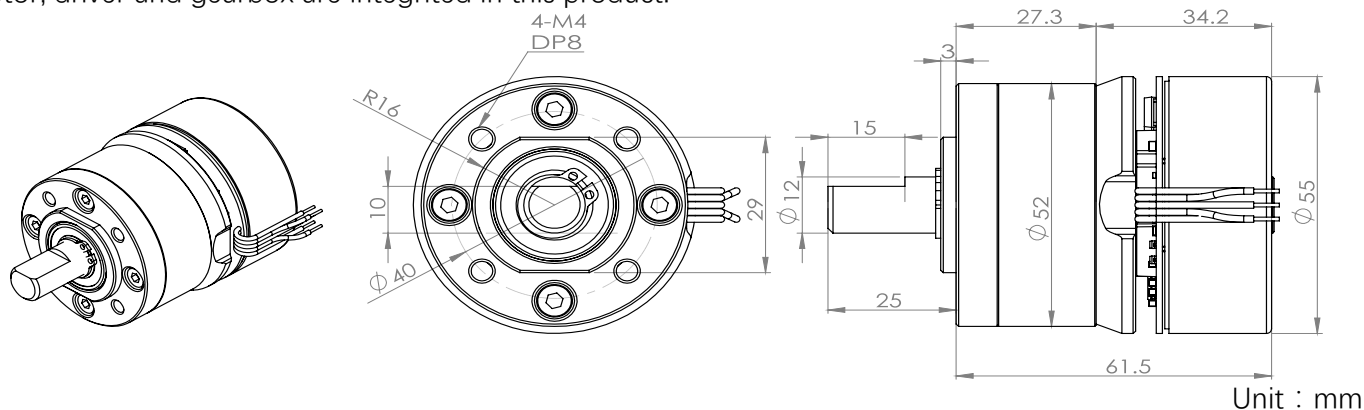


Motor, driver and gearbox are integrated in this product:



## General Characteristics

### Basic Dimensions

Unit

Diameter	mm	52/55
Body length	mm	61.5
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

### Driver Features

Control type :	Square-wave/openloop
Rated voltage:	24V(8V-25V)
Over Currunt 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	3.7
Gearbox stages		1
Gearbox diameter	mm	52
Gearbox length	mm	27.3
Gearbox efficiency		90%
Operating torque	kg*cm	20
Brakeing torque	kg*cm	60

### Nominal & Stall

Unit

Gearbox ratio	K	3.7
Nominal voltage	V	24
Noload speed	rpm	1144
Nominal speed	rpm	873
Nominal torque	Nm	0.7
Nominal current	A	5.5
Maximal power	W	81
Maximal efficiency		65%
Stall torque*	Nm	1.8
Stall current*	A	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](http://www.damoto.tech) and contact us.