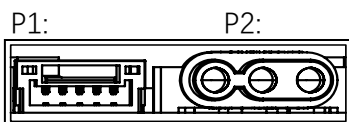


Signal connector: GH1.25-F-5P  
Signal cable : GH5P-M-28AWG-15cm  
Phase connector : MR30PW-F  
Phase cable: MR30-M-20AWG-15cm



Unit : mm

Pin definition(left to right):

**P1:** 1.HW 2.HV 3.HU 4.VCC 5.GND **P2:** 1.W 2.V 3.U

## General Characteristics :

### Basic Dimensions Unit

Diameter	mm	52
Body length	mm	69.5
Output shaft diam.	mm	12
Output shaft length	mm	25

### Motor Features Unit

Motor type	BLDC outrunner	
Motor model	MX4210KV150HA	
Pole pairs		7
Number of phases		3
*For more motor features please refer datasheet "MX4210KV150HA".		

### Gearbox Features Unit

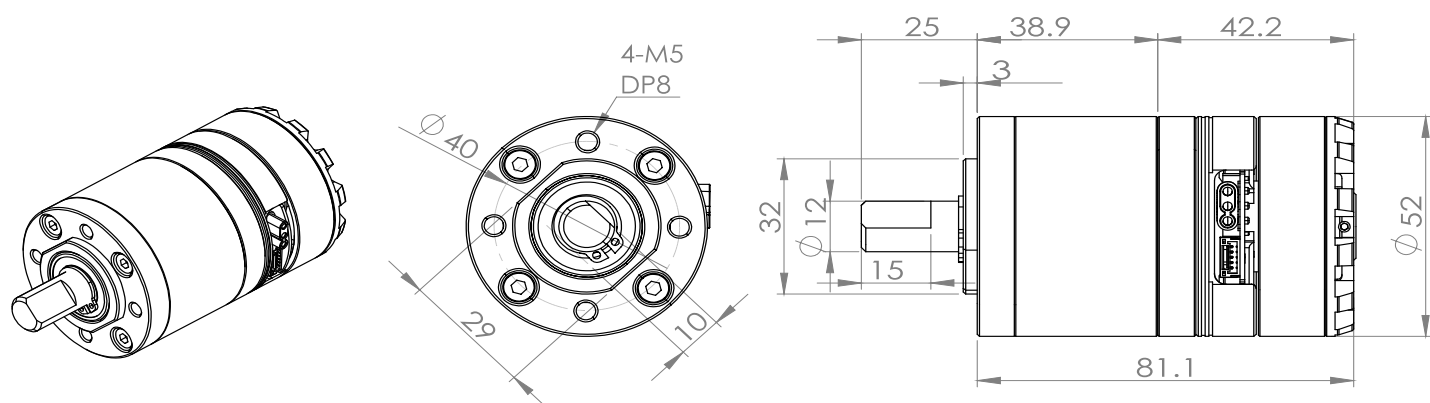
Gearbox model	GP52L2A	
Gearbox type	Planetary	
Gearbox ratio	K	3.7
Gearbox levels		1
Gearbox diameter	mm	52
Gearbox length	mm	36
Gearbox efficiency		90%
Operating torque	kg*cm	80
Brakeing torque	kg*cm	240

### Nominal & Stall Unit

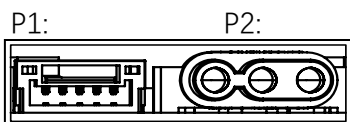
Gearbox ratio	K	3.7	3.7
Nominal voltage	V	24	48
Noload speed	rpm	973	1946
Nominal speed	rpm	689	1568
Nominal torque	Nm	1.0	1.5
Nominal current	A	4.6	6.5
Maximal power	W	81	270
Maximal efficiency		77%	77%
Stall torque	Nm	2.5	4.8
Stall current	A	11.5	25

\*Attention: Stall operation is not recommended, please do necessary protection to avoid irreparable damage!

\*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.



Signal connector: GH1.25-F-5P  
Signal cable : GH5P-M-28AWG-15cm  
Phase connector : MR30PW-F  
Phase cable: MR30-M-20AWG-15cm



Unit : mm

Pin definition(left to right):

**P1:** 1.HW 2.HV 3.HU 4.VCC 5.GND **P2:** 1.W 2.V 3.U

## General Characteristics :

### Basic Dimensions Unit

Diameter	mm	52
Body length	mm	81.1
Output shaft diam.	mm	12
Output shaft length	mm	25

### Motor Features Unit

Motor type	BLDC outrunner
Motor model	MX4210KV150HA
Pole pairs	7
Number of phases	3

\*For more motor features please refer datasheet "MX4210KV150HA".

### Gearbox Features Unit

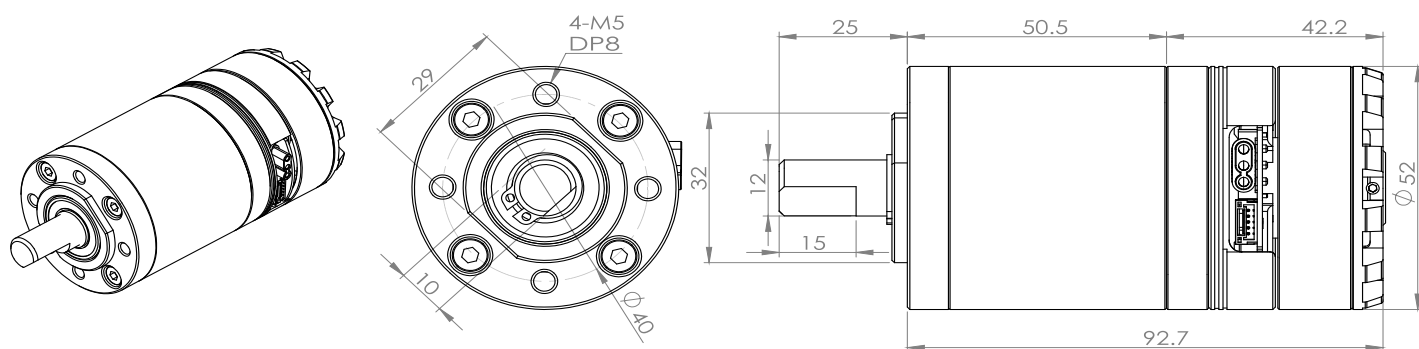
Gearbox model		GP52L2A
Gearbox type		Planetary
Gearbox ratio	K	13.7/19.2
Gearbox levels		2
Gearbox diameter	mm	52
Gearbox length	mm	38.9
Gearbox efficiency		90%
Operating torque	kg*cm	80
Brakeing torque	kg*cm	240

### Nominal & Stall Unit

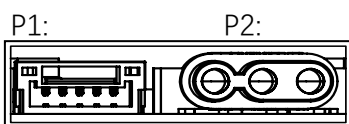
Gearbox ratio	K	13.7	19.2	13.7	19.2
Nominal voltage	V	24	24	48	48
Noload speed	rpm	263	188	526	375
Nominal speed	rpm	186	133	423	302
Nominal torque	Nm	3.8	5.4	5.5	7.7
Nominal current	A	4.6	4.6	6.5	6.5
Maximal power	W	81	81	270	270
Maximal efficiency		77%	77%	77%	77%
Stall torque	Nm	9.2	12.9	17.8	25.0
Stall current	A	11.5	11.5	25	25

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Signal connector: GH1.25-F-5P  
 Signal cable : GH5P-M-28AWG-15cm  
 Phase connector : MR30PW-F  
 Phase cable: MR30-M-20AWG-15cm



Pin definition(left to right):

**P1:** 1.HW 2.HV 3.HU 4.VCC 5.GND **P2:** 1.W 2.V 3.U

Unit : mm

## General Characteristics

### Basic Dimensions Unit

Diameter	mm	52
Body length	mm	92.7
Output shaft diam.	mm	12
Output shaft length	mm	25

### Motor Features Unit

Motor type	BLDC outrunner	
Motor model	MX4210KV150HA	
Pole pairs	7	
Number of phases	3	

\*For more motor features please refer datasheet "MX4210KV150HA".

### Gearbox Features Unit

Gearbox model	GP52L2A	
Gearbox type	Planetary	
Gearbox ratio	K	50.9/71.2
Gearbox levels	3	
Gearbox diameter	mm	52
Gearbox length	mm	50.5
Gearbox efficiency	90%	
Operating torque	kg*cm	80
Brakeing torque	kg*cm	240

### Nominal & Stall Unit

Gearbox ratio	K	50.9	71.2
Nominal voltage	V	24	24
Noload speed	rpm	71	51
Nominal speed	rpm	50	36
Nominal torque	Nm	14.3	19.9
Nominal current	A	4.6	4.6
Maximal power	W	81	81
Maximal efficiency	77%		77%
Stall torque*	Nm	34.1	47.7
Stall current*	A	11.5	11.5

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