

Signal connector (P1):	GH1.25-F-5P
Signal cable :	GH5P-M-28AWG-15cm
Phase connector (P2) :	AMASS MR30PW-F
Phase cable:	MR30-M-22AWG-15cm

P1: P2: 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

Motor Configuration	Unit		Unit	
Mechanical structure		outrunner	Ingress protection	IP 54
Number of pole pairs		7	Speed constant	KV 200
Number of phases		3	Torque constant	mNm/A 45
Winding connection		star	Single phase resistance	mOhm 580
Total weight	g	130	DQ inductance	uH 120
Rotor inertia	uNm*s <sup>2</sup>	1.8	Friction	uN*m*s 0.5

## Thermal Data

Thermal resistance housing -ambient	4.8K/W
Thermal resistance winding-housing	7.1K/W
Ambient temperature	-20 °C - 60 °C
Maximal winding temperature	120 °C

## Sensoric

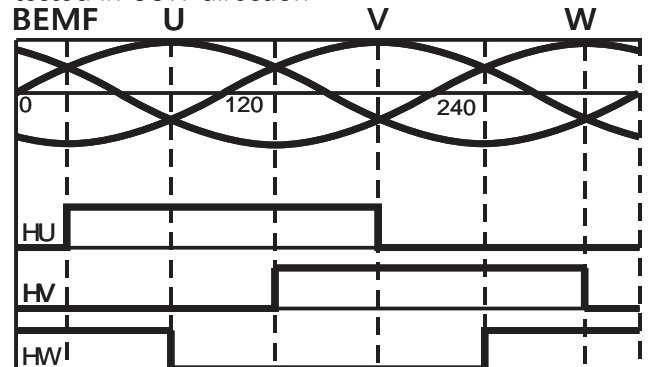
Sensor type	bipolar self-locking hall
Number of halls	3
Supply voltage	5V
Electrical angle	120 degrees

## Nominal & Stall

	Unit			
Nominal voltage	V	12	24	48
No load speed	rpm	2400	4800	9600
No load current	mA	150	270	320
Nominal speed	rpm	1500	3400	7800
Nominal torque	mNm	100	180	350
Nominal current	A	2.2	3.7	5.4
Maximal power	W	20	70	260
Maximal efficiency		80%	86%	86%
Stall torque	mNm	300	500	840
Stall current	A	6.5	12	20

## Hall sequence regards to back EMF

tested in CCW direction



Pull-up resistance yes

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.