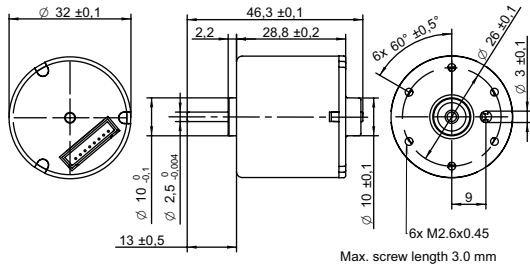


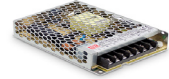
DRAWING (mm)



PHOTO



OPTIONS POWER SUPPLIES



● C = Customizations are offered on demand even for smaller quantities. Typical customizations indicated with green dot at column end. Please contact us for any customization request.

MOTOR TYPE

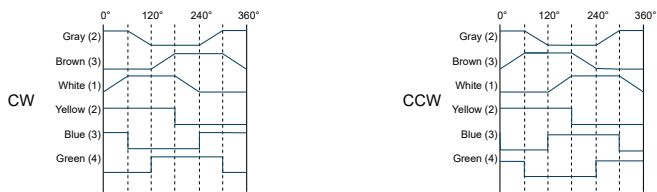
Brushless DC motor with integrated open loop speed control driver.

MOTOR DATA		12V	24V	C
Nominal voltage	V	12	24	
Commutator (hall) voltage	V	3.3~5	3.3~5	
No load speed	rpm	6000		
No load current	mA	85	40	
Nominal speed	rpm	4700	4700	●
Nominal torque	mNm	8	9	
Nominal current	A	0.5	0.3	
Start/Stall torque	mNm	42	47	
Start/Stall current	A	2.1	1.3	
Max. efficiency	%	69	65	
Nominal mechanical power	W	4		
Terminal resistance	Ω	4.2	17	
Terminal inductance	mH	1.2	3.7	
Torque constant	mNm/A	210	390	
Speed constant	rpm/V	500	250	
Speed/ torque gradient	rpm/mNm	590	530	
Rotor inertia	gcm ²	24~28	20~23	

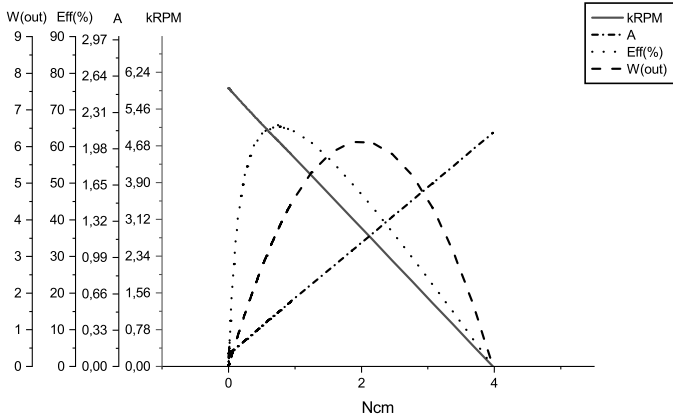
MECHANICAL DATA

Bearing type		Sleeve bearing		●
Axial play	mm	0.28	0.3	
Max. axial load (dynamic)	N	3.2		

COMMUTATION SEQUENCE



MOTOR DATA DIAGRAM 12V



OTHER SPECIFICATIONS

		12V	24V	C
Number of pole pairs		3		
Number of phases		3		
Weight of motor	g	79	76	
Typical noise level	dBA	29	31	
Ambient temperature	°C	-40 to +80		
Max. winding temperature	°C	150		
Motor insulation class		A		
IP rating		IP40		
Slot pole pairs		9S6P		
Rotor magnet		BNM-6	BNM-8	
Hall sensors and power harness length	mm	160 ± 10		●
Hall sensors and power harness end connector		A2501 (XH-8P)		●
Hall sensors and power harness		UL1007 26AWG 300V 80°C		●
Connector on motor body		JST:B8B-ZR		●
Shaft length from flange	mm	13		●
Shaft diameter ø	mm	2.5		
Housing material		SECD-0 1.0T		
Shaft material		SUS420 J2		
Magnet material		Bonding NdFeB		
Rotor balancing grade		G6.3		
Service life	hrs	5000		
Manufacturing standard		ISO9001 TS16949		

CABLE AND PIN CONFIGURATION

1	Brown	Power harness	Motor phase V (HB)
2	White	Power harness	Motor phase W (HC)
3	Grey	Power harness	Motor phase U (HA)
4	Black	Hall harness	Hall sensor GND
5	Green	Hall harness	Hall sensor signal HA
6	Blue	Hall harness	Hall sensor signal HB
7	Yellow	Hall harness	Hall sensor signal HC
8	Red	Hall harness	Hall sensor VCC

MOTOR DATA DIAGRAM 24V

