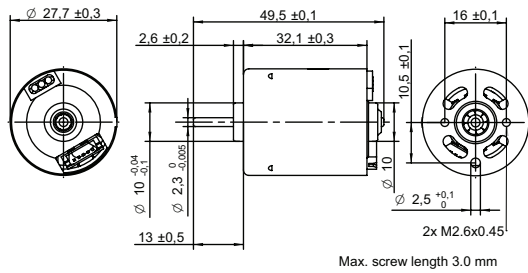


DRAWING (mm)



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

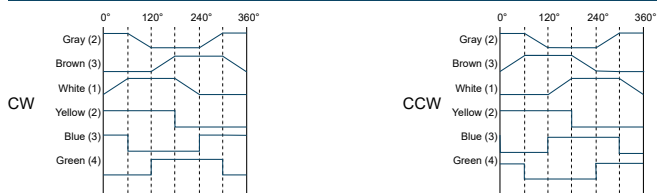
Brushless DC motor with integrated open loop speed control driver.

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	90	62	
Nominal speed	rpm	5300	4800	●
Nominal torque	mNm	5.8	7.9	
Nominal current	A	0.40	0.30	
Start/Stall torque	mNm	42	38.	
Start/Stall current	A	2.5	1.2	
Max. efficiency	%	66	56	
Nominal mechanical power	W	3		
Terminal resistance	Ω	4.1	19	
Terminal inductance	mH	1.7	7	
Torque constant	mNm/A	180	340	
Speed constant	rpm/V	500	250	
Speed/ torque gradient	rpm/mNm	920	610	
Rotor inertia	gcm <sup>2</sup>	13~17	14~18	

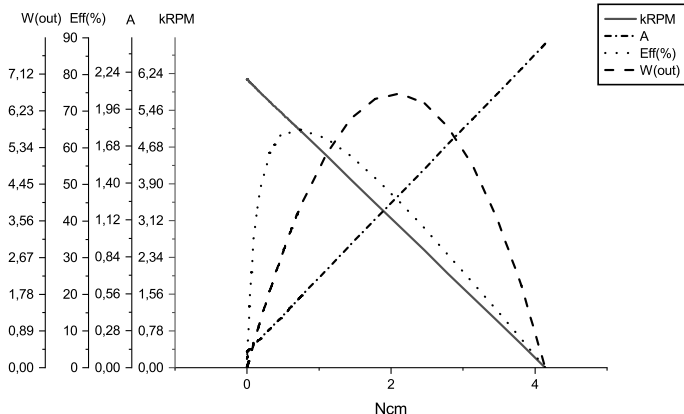
MECHANICAL DATA

Bearing type		Ball bearing	●
Axial play	mm	0	
Bearing radial clearance	µm	10	
Max. axial load (dynamic)	N	3.2	
Max. force for press fits (static)	N	4.9	

COMMUTATION SEQUENCE



MOTOR DATA DIAGRAM 12V



OTHER SPECIFICATIONS

	12V	24V	C
Number of pole pairs	2		
Number of phases	3		
Weight of motor	g	71	71
Typical noise level	dBA	34	34
Ambient temperature	°C	-40 to +80	
Max. winding temperature	°C	150	
Motor insulation class	A		
IP rating	IP40		
Slot pole pairs	6S4P		
Rotor magnet	BNM-8		
Hall sensors and power harness length	mm	160 ± 10	●
Power harness end connector	A2502X-03P		●
Power harness	UL3132 22AWG 300V 150°C		●
Hall sensors harness end connector	KR1500 MX1.5mm		●
Hall sensors harness	UL10368 26AWG 300V 105°C		●
Shaft length from flange	mm	13	●
Shaft diameter ø	mm	2.3	
Housing material	SECD-0 0.7T		
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

			C
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

