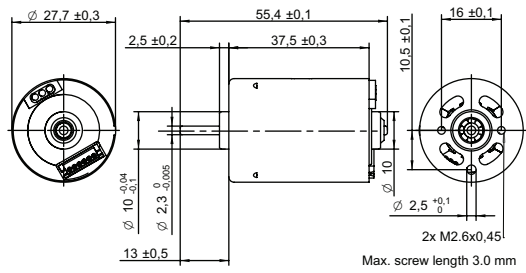


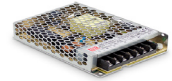
DRAWING (mm)



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

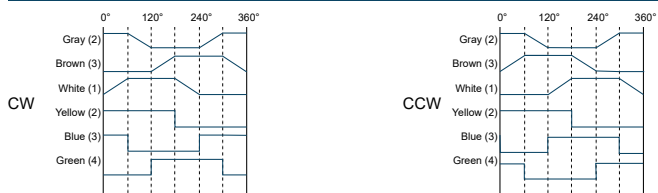
Brushless DC motor with integrated open loop speed control driver.

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	54	44	
Nominal speed	rpm	5100	5300	●
Nominal torque	mNm	6.6	7.4	
Nominal current	A	0.4	0.3	
Start/Stall torque	mNm	40	52	
Start/Stall current	A	2.1	1.4	
Max. efficiency	%	72	72	
Nominal mechanical power	W	3	4	
Terminal resistance	Ω	3.1	13	
Terminal inductance	mH	1.2	4.9	
Torque constant	mNm/A	190	380	
Speed constant	rpm/V	500	250	
Speed/ torque gradient	rpm/mNm	770	720	
Rotor inertia	gcm ²	14~17	50~58	

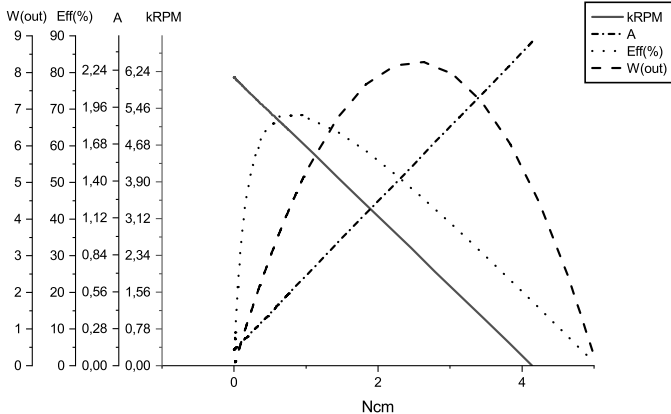
MECHANICAL DATA

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	70
Typical noise level	dBA	38	37
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			UL1007 26AWG 300V 80°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

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

