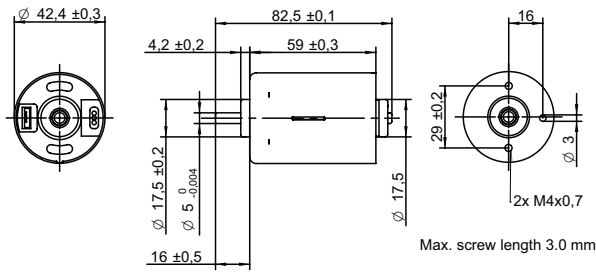


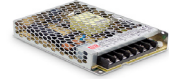
DRAWING (mm)



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

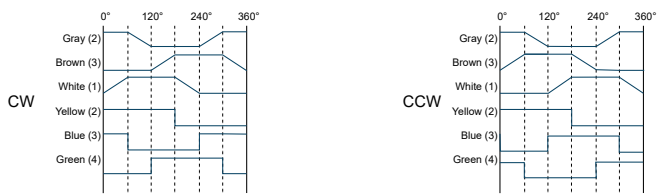
Brushless DC motor with integrated open loop speed control driver.

MOTOR DATA		12V	24V	C
Nominal voltage	V	12	24	
Commutator (hall) voltage	V	3.3~5	3.3~5	
No load speed	rpm	5700	6000	
No load current	mA	470	270	
Nominal speed	rpm	4600	5200	●
Nominal torque	mNm	54	76	
Nominal current	A	3.2	2.2	
Start/Stall torque	mNm	330	540	
Start/Stall current	A	16	14	
Max. efficiency	%	70	78	
Nominal mechanical power	W	25	30	
Terminal resistance	Ω	0.4	0.9	
Terminal inductance	mH	0.2	0.6	
Torque constant	mNm/A	220	400	
Speed constant	rpm/V	500	250	
Speed/ torque gradient	rpm/mNm	86	68	
Rotor inertia	gcm <sup>2</sup>	130~148	130~148	

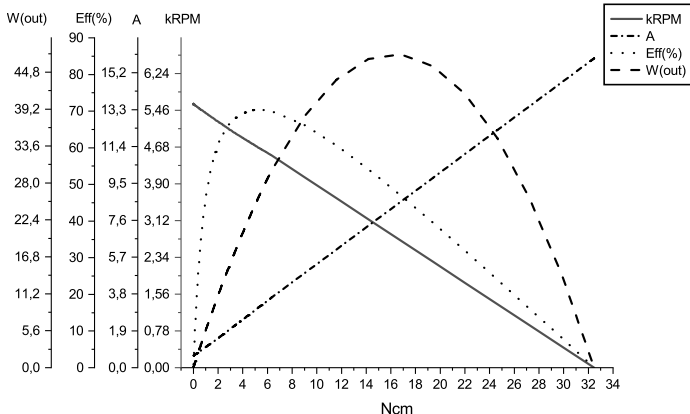
MECHANICAL DATA

Mechanical Data			C
Bearing type		Ball bearing	●
Axial play	mm	0.58	0.63
Bearing radial clearance	μm	13	
Max. axial load (dynamic)	N	7.1	

COMMUTATION SEQUENCE



MOTOR DATA DIAGRAM 12V



OTHER SPECIFICATIONS

Other Specifications		12V	24V	C
Number of pole pairs			3	
Number of phases			3	
Weight of motor	g		340	
Typical noise level	dBA	40	42	
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-8	
Hall sensors and power harness length	mm		155 ± 10	●
Power harness end connector			A2502X-03P	●
Power harness			UL3132 20AWG 300V 150°C	●
Hall sensors harness end connector			KR1500 MX1.5mm	●
Hall sensors harness			UL10368 26AWG 300V 105°C	●
Shaft length from flange	mm		16	●
Shaft diameter ø	mm		3.17	
Housing material			SECD-0 1.4T	
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

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

