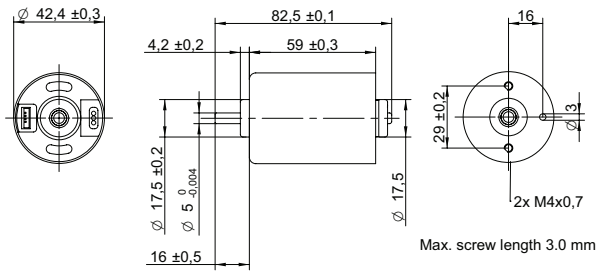


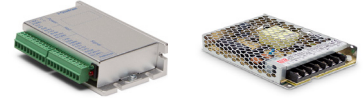
DRAWING (mm)



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

3-Phase, 120-degree, brushless DC Motor with integrated hall sensors.

MOTOR DATA		BT4259-12	BT4259-24	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 power	W	26	41	
Terminal resistance	Ω	0.4	0.9	
Terminal inductance	mH	0.2	0.6	
Torque constant	mNm/A	21	40	
Speed constant	rpm/V	500	250	
Speed/ torque gradient	rpm/mNm	86	68	
Rotor inertia	gcm ²	130~148	130~148	

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	

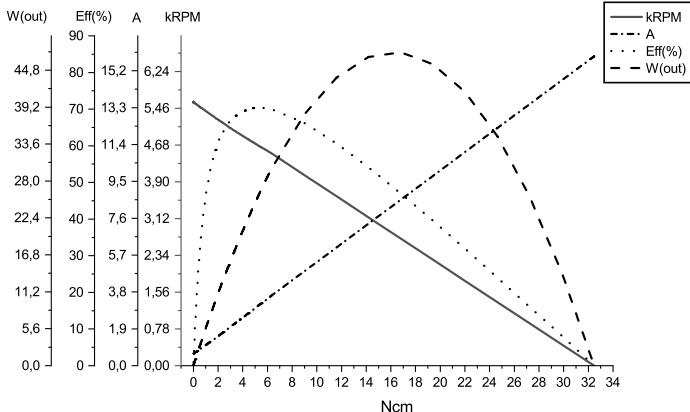
OTHER SPECIFICATIONS

	BT4259-12	BT4259-24	C
Number of pole pairs		3	
Number of phases		3	
Weight	g	340	
Typical noise level	dBA	40	42
Operating 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	5	
Housing material		SECD-0 1.4T	
Shaft material		SUS420 J2	
Magnet material		Bonding NdFeB	
Rotor balancing grade		G6.3	
Service life	h	5000	
Manufacturing standard		ISO9001 TS16949	

CABLE AND PIN CONFIGURATION EXTERNAL DRIVER

Power		Hall		C
Phase	Cable color	Phase	Cable color	
U	Brown	HU	Green	
V	Grey	HV	Blue	
W	White	HW	Yellow	
		+5V	Red	
		GND	Black	

MOTOR DATA DIAGRAM 12V



MOTOR DATA DIAGRAM 24V

