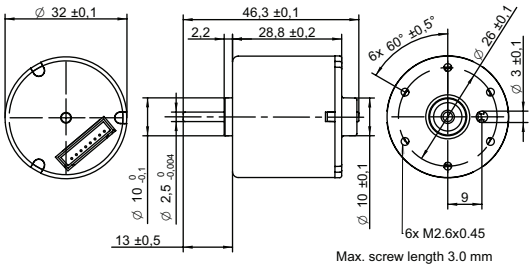
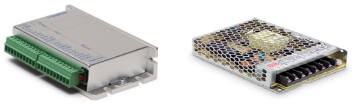
BT3229 | Ø 32 mm | BRUSHLESS DC MOTOR WITH EXTERNAL DRIVER

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		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 power	W	4	4.5	
Terminal resistance	Ω	4.2	17	
Terminal inductance	mH	1.2	3.7	
Torque constant	mNm/A	21	38	
Speed constant	rpm/V	500	250	
Speed/ torque gradient	rpm/mNm	590	530	
Rotor inertia	gcm²	24~28	20~23	

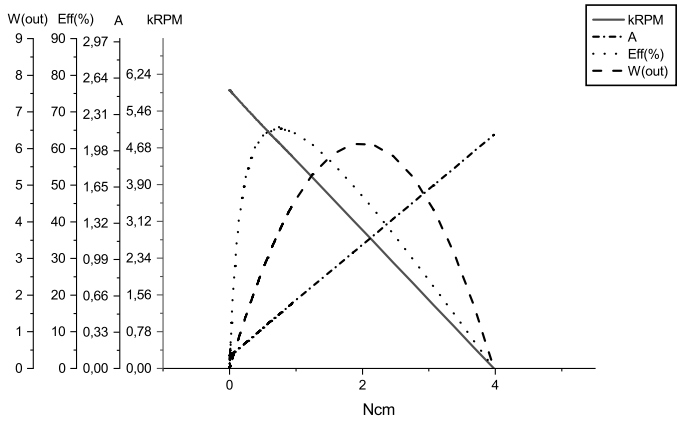
MECHANICAL DATA				C
Bearing type		Sleeve bearing		●
Axial play	mm	0.28	0.3	
Max. axial load (dynamic)	N	3.2		

OTHER SPECIFICATIONS		12V	24V	C
Number of pole pairs		3		
Number of phases		3		
Weight	g	79	76	
Typical noise level	dBA	29	31	
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-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	h	5000		
Manufacturing standard		ISO9001 | TS16949		

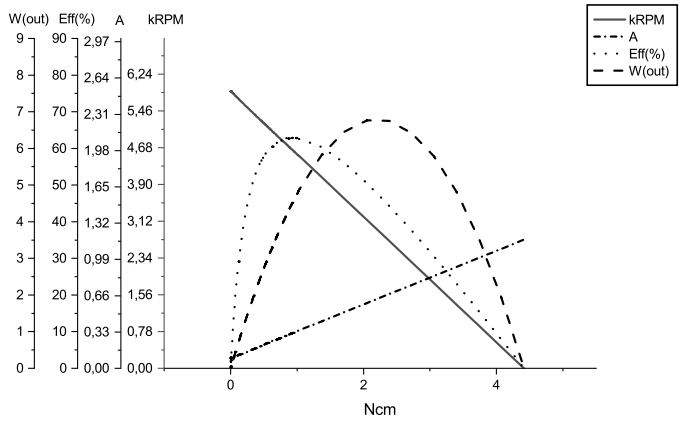
CABLE AND PIN CONFIGURATION EXTERNAL DRIVER

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

MOTOR DATA DIAGRAM 12V



MOTOR DATA DIAGRAM 24V



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