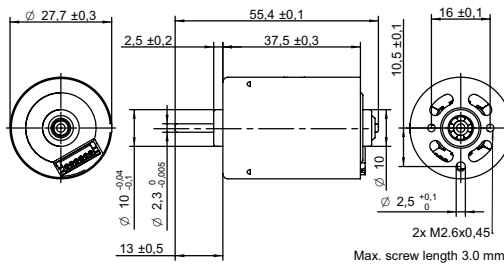


DRAWING (mm)



PHOTO

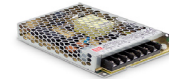


MODEL NAME DESIGNATION

BT2838 - VOLTAGE - INTEGRATED DRIVER

Example: BT2838-12-I

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 speed control driver.

MOTOR DATA		BT2838-12-I	BT2838-24-I	C
Nominal voltage	V	12	24	
No load speed	rpm	6000		
No load current	mA	58	73	
Nominal speed	rpm	5300	5100	●
Nominal torque	mNm	8.3	9.4	
Nominal current	A	0.6	0.3	
Start/Stall torque	mNm	52	37	
Start/Stall current	A	2.9	1.6	
Max. efficiency	%	69	65	
Nominal power	W	4.6	5	
Terminal resistance	Ω	3.1	13	
Terminal inductance	mH	1.2	4.9	
Torque constant	mNm/A	18	25	
Speed constant	rpm/V	500	250	
Speed/ torque gradient	rpm/mNm	630	540	
Rotor inertia	gcm ²	50~54	48~54	

MECHANICAL DATA

			C
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	

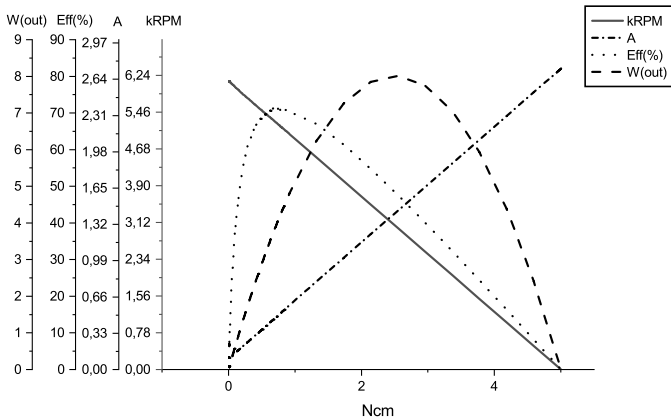
OTHER SPECIFICATIONS

		BT2838-12-I	BT2838-24-I	C
Number of pole pairs		2		
Number of phases		3		
Weight	g	71	70	
Typical noise level	dBA	41	35	
Operating 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		
Control and power harness length	mm	205 ± 10		●
Control and power harness end connector		A1501H00-6P		●
Control and power harness		UL1007 26AWG 300V 80°C		●
Connector on motor body		JST:B6B-ZR		
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	h	5000		
Manufacturing standard		ISO9001 TS16949		

CABLE AND PIN CONFIGURATION INTERNAL DRIVER

			C
Red	Vcc	Supply voltage 12 V 24 V	
Black	GND	0 V	
Yellow	DIR	Motor direction. Open DIR: CW DIR connect to GND: CCW	
Green	Speed	PWM toggle between 0 to 5 V 20 kHz or connect to Black GND for full speed	
Blue	Encoder	Output frequency related to speed	
White	Enable	Enable control. Open: motor runs Connect to GND: motor stops	

MOTOR DATA DIAGRAM 12V



MOTOR DATA DIAGRAM 24V

