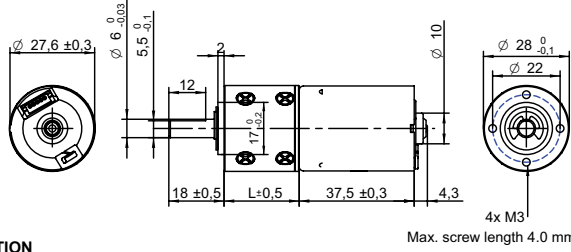


DRAWING (mm)
EXTERNAL DRIVER



PHOTO

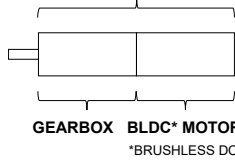


MODEL NO. DESIGNATION

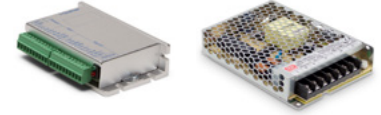


Example: PBT2838-24-4

GEAR MOTOR



OPTIONS DRIVERS AND POWER SUPPLIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

GEAR MOTOR DATA														C		
Gear ratio		4:1	5:1	14:1	19:1	27:1	35:1	51:1	71:1	100:1	139:1	189:1	264:1	516:1	721:1	939:1
Nominal torque ^ gearbox limit	Ncm	2.4	2.9	7.2	10	14	18	22	31	44	61	69	97	98 ^A	98 ^A	98 ^A
Nominal speed	rpm	1300	1100	380	280	200	150	100	75	53	38	28	20	10	7	6
Peak torque	Ncm	59	59	88	88	120	120	180	180	240	240	290	290	290	290	290
Nominal power	W	3.3	3.3	2.9	2.9	2.9	2.9	2.4	2.4	2.4	2.4	2.0	2.0	2.0	2.0	2.0
Gearbox efficiency	%	80	80	70	70	70	70	60	60	60	60	50	50	50	50	50
Gearbox length L	mm	24.5	24.5	30.9	30.9	30.9	30.9	37.3	37.3	37.3	37.3	43.7	43.7	43.7	43.7	43.7
Weight	g	140	140	150	150	150	150	160	160	160	160	180	180	180	180	180

GEAR MOTOR COMBINED DATA			C	GEARBOX SHAFT DATA			C	GEARBOX-SPECIFIC DATA			C
Service life	hrs	5000		Radial play thrust play	mm	≤ 0.05 ≤ 0.3		Material gear stage	Ratio 5:1 sintered steel	●	
Performance tolerances	%	± 15		Shaft axial load	N	25		Material > 5:1 ratio / stage	POM first + sintered steel	●	
Operating temperature	°C	-10 to 60	●	Radial load	N	34		Assembly front bell	mm	Maximum screw depth 4.0	
IP rating		IP30		Press fit force max.	N	98					
Manufacturing standard		ISO9001 ISO 14001 IATF 16949		Backlash no load	°	≤ 2.5					
Compliance		RoHS and REACH		Bearing type shaft material		Ball bearing AISI 1144					
Label CE UL		CE no UL no		Motor pinion material shape		Steel straight	●				

BRUSHLESS DC MOTOR DATA			C	BRUSHLESS DC MOTOR OTHER DATA			C	GEAR MOTOR RANGE STANDARD AVAILABILITY			
Brushless DC motor model: Transmotec BT2838-24				Number of pole pairs		2		Nominal voltage	V	12 24	See separate data sheet
Driver type		External		Number of phases		3		Nominal power	W	1.6 - 39	See separate data sheet
Nominal voltage	V	24		Max. winding temperature	°C	150		Diameter	mm	28 - 42	See separate data sheet
Commutator (hall) voltage	V	3.3-5		Motor insulation class		A		BRUSHLESS DC MOTOR DATA DIAGRAM			
No load speed	rpm	6000		Slot pole pairs		6S4P					
No load current	mA	44		Rotor magnet		BNM-8					
Nominal speed	rpm	5300	●	Hall sensors and power harness length	mm	160 ± 10	●				
Nominal torque	mNm	7.4		Power harness end connector		A2502X-03P	●				
Nominal current	A	0.3		Power harness		UL3132 22AWG 300V 150°C	●				
Start/Stall torque	mNm	52		Hall sensors harness end connector		KR1500 MX1.5mm	●				
Start/Stall current	A	1.4		Hall sensors harness		UL10368 26AWG 300V 80°C	●				
Max. efficiency	%	72		Housing material		SECD-0 0.7T					
Nominal power	W	4.1		Magnet material		Bonding NdFeB					
Terminal resistance	Ω	13		Rotor balancing grade		G6.3					

CABLE AND PIN CONFIGURATION EXTERNAL DRIVER				C
Power		Hall		
Phase	Cable color	Phase	Cable color	
U	Grey	HU	Green	
V	White	HV	Blue	
W	Brown	HW	Yellow	
		+5V	Red	
		GND	Black	

ACCESSORIES
Power supplies LRS V 3.3 - 48 See separate data sheet