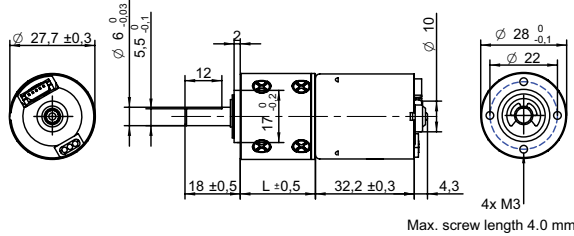


DRAWING (mm)
EXTERNAL DRIVER



PHOTO

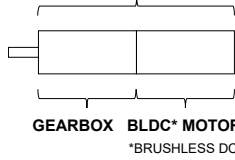


MODEL NO. DESIGNATION

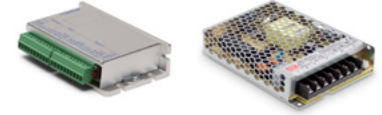


Example: PBT2832-12-4

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	1.9	2.3	5.7	7.7	11	14	18	25	35	48	55	76	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	2.6	2.6	2.3	2.3	2.3	2.3	1.9	1.9	1.9	1.9	1.6	1.6	1.6	1.6	1.6
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 model: Transmotec BT2832-12				
Driver type	External			
Nominal voltage	V	12		
Commutator (hall) voltage	V	3.3-5		
No load speed	rpm	6000		
No load current	mA	90		
Nominal speed	rpm	5300		●
Nominal torque	mNm	5.8		
Nominal current	A	0.40		
Start/Stall torque	mNm	42		
Start/Stall current	A	2.5		
Max. efficiency	%	66		
Nominal power	W	3.2		
Terminal resistance	Ω	4.1		
Terminal inductance	mH	1.7		
Torque constant	mNm/A	18		
Speed constant	rpm/V	500		
Speed/ torque gradient	rpm/mNm	920		
Rotor inertia	gcm ²	13~17		

BRUSHLESS DC MOTOR OTHER DATA				C	
Number of pole pairs					2
Number of phases					3
Max. winding temperature	°C				150
Motor insulation class					A
Slot pole pairs					6S4P
Rotor magnet					BNM-8
Hall sensors and power harness length	mm				160 ± 10
Power harness end connector					A2502X-03P
Power harness					UL3132 22AWG 300V 150°C
Hall sensors harness end connector					KR1500 MX1.5mm
Hall sensors harness					UL10368 26AWG 300V 105°C
Housing material					SECD-0 0.7T
Magnet material					Bonding NdFeB
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

GEAR MOTOR RANGE STANDARD AVAILABILITY			
Nominal voltage	V	12 24	See separate data sheet
Nominal power	W	1.6 - 39	See separate data sheet
Diameter	mm	28 - 42	See separate data sheet

