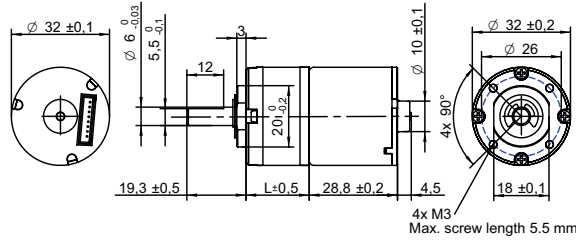


DRAWING (mm)
EXTERNAL DRIVER



PHOTO

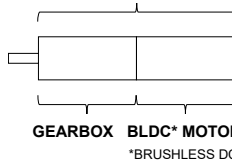


MODEL NO. DESIGNATION

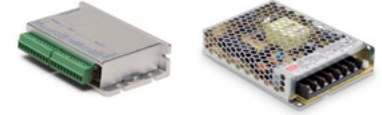


Example: PBT3229-12-4

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	2.6	3.2	7.9	11	15	20	25	34	48	67	76	110	120^	120^	120^
Nominal speed	rpm	1200	950	340	250	180	140	93	67	47	34	25	18	9	7	5
Peak torque	Ncm	59	59	120	120	180	180	240	240	290	290	350	350	350	350	350
Nominal power	W	3.2	3.2	2.8	2.8	2.8	2.8	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	20.6	20.6	27	27	27	27	33.4	33.4	33.4	33.4	39.8	39.8	39.8	39.8	39.8
Weight	g	180	180	200	200	200	200	230	230	230	230	250	250	250	250	250

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 5.5	
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 BT3229-12				Number of pole pairs		3		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	12		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		9S6P					
No load current	mA	85		Rotor magnet		BNM-6					
Nominal speed	rpm	4700	●	Hall sensors and power harness length	mm	160 ± 10	●				
Nominal torque	mNm	8		Hall sensors and power harness end connector		A2501 (XH-8P)	●				
Nominal current	A	0.5		Hall sensors and power harness		UL1007 26AWG 300V 80°C	●				
Start/Stall torque	mNm	42		Connector on motor body		JST:B8B-ZR	●				
Start/Stall current	A	2.1		Housing material		SECD-0.07T					
Max. efficiency	%	69		Magnet material		Bonding NdFeB					
Nominal power	W	4		Rotor balancing grade		G6.3					
Terminal resistance	Ω	4.2									

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

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