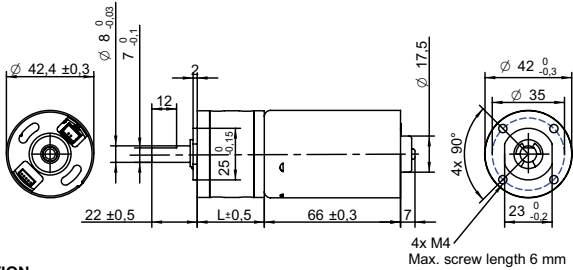


PBTI4266-12 | Ø 42 mm | BRUSHLESS DC PLANETARY GEAR MOTOR



DRAWING (mm)
INTERNAL DRIVER



PHOTO



MODEL NO. DESIGNATION

PBTI4266

-

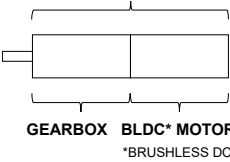
VOLTAGE

-

GEAR RATIO

Example: PBTI4266-12-4

GEAR MOTOR



OPTIONS 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	14:1	17:1	24:1	49:1	61:1	84:1	104:1	144:1	212:1	294:1	504:1	624:1	720:1	864:1	1062:1	1470:1	2500:1	3000:1	3600:1
Nominal torque ^ gearbox limit	Ncm	22	66	78^	78^	180^	180^	180^	200^	200^	250^	250^	290^	290^	290^	290^	290^	290^	290^	290^	290^
Nominal speed	rpm	1300	360	300	210	100	82	60	48	35	24	17	10	8	7	6	5	3	2	2	1
Peak torque	Ncm	88	240	240	240	530	530	530	590	590	740	740	880	880	880	880	880	880	880	880	880
Nominal power	W	28	25	25	25	21	21	21	21	21	18	18	18	18	18	18	14	14	14	14	14
Gearbox efficiency	%	80	70	70	70	60	60	60	60	60	50	50	50	50	50	50	40	40	40	40	40
Gearbox length L	mm	32.5	39.2	39.2	39.2	45.9	45.9	45.9	45.9	45.9	52.6	52.6	52.6	52.6	52.6	52.6	59.6	59.6	59.6	59.6	59.6
Weight	g	520	580	580	580	620	620	620	620	620	670	670	670	670	670	670	710	710	710	710	710

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 4:1 sintered steel		●
Performance tolerances	%	± 15		Shaft axial load	N	29		Material 14:1-24:1 ratio / stage	POM first + steel		●
Operating temperature	°C	-10 to 60	●	Radial load	N	79		Material > 24:1 ratio / stage	POM first + sintered steel + steel last		
IP rating		IP30		Press fit force max.	N	147		Direction of rotation	CCW or CW by reversed DIR polarity		
Manufacturing standard		ISO9001 ISO 14001 IATF 16949		Backlash no load	°	≤ 3.0		Assembly front bell	mm	Maximum screw depth 6.0	
Compliance		RoHS and REACH		Bearing type shaft material		Ball bearing SCM435					
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 BT4266-12-I				Number of pole pairs		3		Nominal voltage		V 12 24	See separte data sheet
Driver type		Internal		Number of phases		3		Nominal power		W 1.5 - 41	See separte data sheet
Nominal voltage		V	12	Max. winding temperature		°C	150	Diameter		mm 28 - 42	See separte data sheet
No load speed		rpm	6000	Motor insulation class		A		BRUSHLESS DC MOTOR DATA DIAGRAM			
No load current		mA	640	Slot pole pairs		9S6P					
Nominal speed		rpm	5000	Rotor magnet		BNM-8					
Nominal torque		mNm	67	Control and power harness length		mm	220 ± 10				
Nominal current		A	4.5	Control harness end connector		A1501H00-6P					
Start/Stall torque		mNm	410	Control harness		UL10368 26AWG 300V 105°C					
Start/Stall current		A	22	Power harness		UL3266 20AWG					
Max. efficiency		%	68	Power harness end connector		XH-2P					
Nominal power		W	35	Housing material		SECD-0 1.4T					
Terminal resistance		Ω	0.32	Magnet material		Bonding NdFeB					
Terminal inductance		mH	0.12	Rotor balancing grade		G6.3					
Torque constant		mNm/A	20	Speed constant		rpm/V					
Speed/ torque gradient		rpm/mNm	75	Rotor inertia		gcm²					
Rotor inertia		154~156		Speed/ torque gradient		rpm/mNm					
Speed constant		500		Torque constant		mNm/A					

ACCESSORIES

Power supplies LRS V 3.3 - 48 See separte data sheet

CABLE AND PIN CONFIGURATION INTERNAL DRIVER			C
Yellow	DIR	Motor direction. Open DIR: CCW DIR connect to GND: CW	
Brown	PWM	375 Hz 5V. FHI/LO: 100/0, max RPM 0/100, no RPM	
Green	+5V	May connect to PWM for max RPM	
Blue	FG	Presents the internal RPM signal	
White	Enable	Enable control. Open: motor runs Connect to GND: motor stops	
Black	GND	0 V	
Red	Vcc	Supply voltage 12 V 24 V	