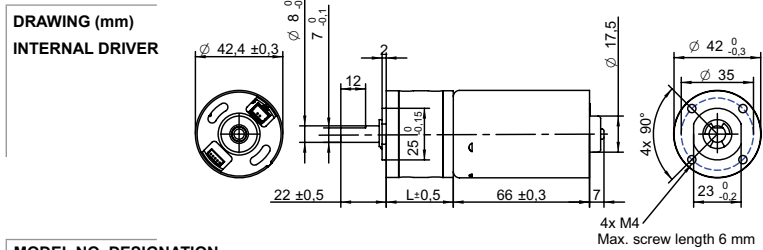


PBTI4266-24 | Ø 42 mm | BRUSHLESS DC PLANETARY GEAR MOTOR



MODEL NO. DESIGNATION

PBTI4266

 -

VOLTAGE

 -

GEAR RATIO

Example: PBTI4266-24-4

GEAR MOTOR

GEARBOX

BLDC* MOTOR

*BRUSHLESS DC



● 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	29^	78^	78^	78^	180^	180^	180^	200^	200^	250^	250^	290^	290^	290^	290^	290^	290^	290^	290^	290^
Nominal speed	rpm	1300	370	310	220	110	85	62	50	36	25	18	10	8	7	6	5	4	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	41	36	36	36	31	31	31	31	31	26	26	26	26	26	26	20	20	20	20	20
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	530	590	590	590	630	630	630	630	630	680	680	680	680	680	680	720	720	720	720	720

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 BT4266-24-I				Number of pole pairs				3	Nominal voltage		V	12 24	See seporate data sheet		
Driver type		Internal		Number of phases				3	Nominal power		W	1.5 - 41	See seporate data sheet		
Nominal voltage		V	24	Max. winding temperature				°C	150	Diameter		mm	28 - 42	See seporate data sheet	
No load speed		rpm	6000	Motor insulation class					A	BRUSHLESS DC MOTOR DATA DIAGRAM The diagram is a multi-axis line graph. The x-axis represents Ncm (0 to 70). The left y-axes are W(out) (0 to 117) and ER(%) (0.00 to 90). The right y-axes are A (0.00 to 15.2) and kRPM (0 to 624). Four curves are plotted: kRPM (solid line, increasing linearly), A (dashed line, peaking at ~13.3 around Ncm=25), ER(%) (dotted line, peaking at ~80 around Ncm=15), and W(out) (dash-dot line, peaking at ~62.4 around Ncm=25).					
No load current		mA	330	Slot pole pairs					9S6P						
Nominal speed		rpm	5200	Rotor magnet					BNM-8						
Nominal torque		mNm	94	Control and power harness length				mm	220 ± 10					●	
Nominal current		A	3.0	Control harness end connector					A1501H00-6P						
Start/Stall torque		mNm	710	Control harness					UL10368 26AWG 300V 105°C						
Start/Stall current		A	19	Power harness					UL3266 20AWG						
Max. efficiency		%	76	Power harness end connector					XH-2P					●	
Nominal power		W	51	Housing material					SECD-0 1.4T						
Terminal resistance		Ω	0.74	Magnet material					Bonding NdFeB						
Terminal inductance		mH	0.48	Rotor balancing grade					G6.3						

ACCESSORIES			C
Power supplies LRS	V	3.3 - 48	See seporate data sheet
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	