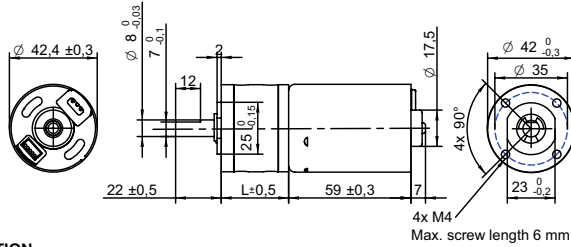


DRAWING (mm)
EXTERNAL DRIVER



PHOTO

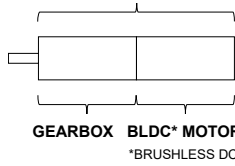


MODEL NO. DESIGNATION

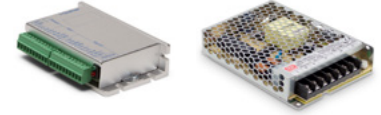


Example: PBT4259-24-4

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	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	24	74	78 ^A	78 ^A	180 ^A	180 ^A	180 ^A	200 ^A	200 ^A	250 ^A	250 ^A	290 ^A	290 ^A	290 ^A	290 ^A	290 ^A	290 ^A	290 ^A	290 ^A	290 ^A	290 ^A
Nominal speed	rpm	1300	370	300	220	110	84	61	50	36	24	18	10	8	7	6	5	4	2	2	1	1
Peak torque	Ncm	88	240	240	240	530	530	530	590	590	740	740	880	880	880	880	880	880	880	880	880	880
Nominal power	W	33	29	29	29	25	25	25	25	25	20	20	20	20	20	20	16	16	16	16	16	16
Gearbox efficiency	%	80	70	70	70	60	60	60	60	60	50	50	50	50	50	50	40	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	59.6
Weight	g	480	540	540	540	580	580	580	580	580	630	630	630	630	630	630	670	670	670	670	670	670

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	150		Direction of rotation	CCW or CW by reversed V polarity		
Manufacturing standard		ISO9001 ISO 14001 IATF 16949		Backlash no load	°	≤ 3		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 BT4259-24				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	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		9S6P				
No load current	mA	270		Rotor magnet		BNM-8				
Nominal speed	rpm	5200	●	Hall sensors and power harness length	mm	155 ± 10				
Nominal torque	mNm	76		Power harness end connector		A2502X-03P	●			
Nominal current	A	2.2		Power harness		UL3132 20AWG 300V 150°C	●			
Start/Stall torque	mNm	540		Hall sensors harness end connector		KR1500 MX1.5mm	●			
Start/Stall current	A	14		Hall sensors harness		UL10368 26AWG 300V 105°C	●			
Max. efficiency	%	78		Housing material		SECD-0 1.4T				
Nominal power	W	41		Magnet material		Bonding NdFeB				
Terminal resistance	Ω	0.9		Rotor balancing grade		G6.3				

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

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