

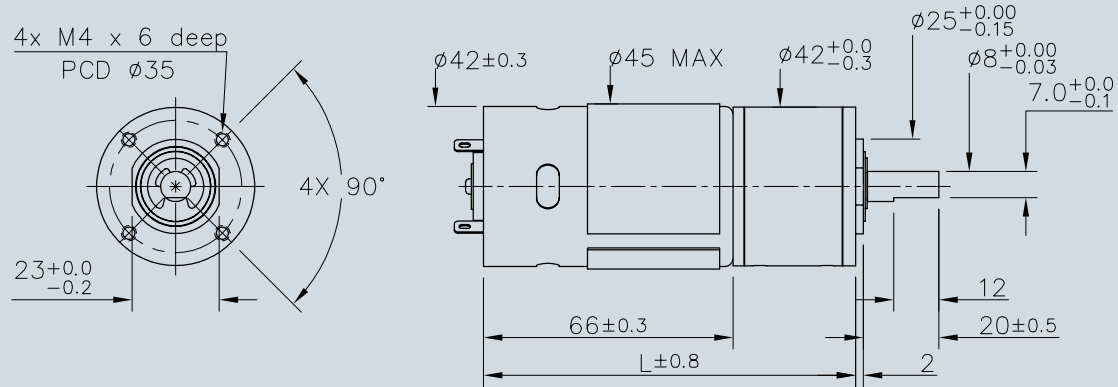
Series M42P

	M42P...		Y.GT1	Y.GT2	
Nominal voltage	U_N		12	24	Volt
Winding resistance	R	±20%	0.46	1.85	Ω
Output power	$P_2 \text{ max.}$		75.3	67.4	W
No-load speed (motor)	n_o	±15%	7,000	7,000	rpm
Speed constant	k_n		595	313	rpm/V
Back-EMF constant	k_E		1.68	3.19	mV/rpm
Torque constant	k_M		16.1	30.5	mNm/A
Current constant	k_I		0.062	0.033	A/mNm
Slope of n-M curve	$\Delta n/\Delta M$		17	18	rpm/mNm
Rotor inductance	L		0.2	1.5	mH
Rotor inertia	J		120	120	gcm ²
Bearings on output shaft		sleeve bearings		ball bearings	
Housing material		metal		metal	
Geartrain material		metal		metal	
Backlash, at no-load		≤ 3°		≤ 3°	
Shaft load max.:					
– radial at (10 mm from bearing)		≤ 49 N		≤ 78 N	
– axial		≤ 29.4 N		≤ 29.4 N	
Shaft press fit force, max.		≤ 147 N		≤ 147 N	
Shaft play:					
– radial (on bearing output)		≤ 0.08 mm		≤ 0.05 mm	
– axial		≤ 0.30 mm		≤ 0.30 mm	
Operating temperature range		– 10 to + 60 °C		– 10 to + 60 °C	

reduction ratio (nominal)	12 Volt output speed up to n_{max} rpm	24 volt output speed up to n_{max} rpm	weight with sleeve bearing g	weight with ball bearing g	length L mm	output torque		direction of rotation (reversible)	efficiency %
						continuous operation M max. Nm	intermittent operation M max. Nm		
4:1	1,400	1,445	501	499	98.5	0.2	0.6	=	80
14:1	405	420	553	551	105.2	0.6	1.9	=	70
17:1	325	340	553	551	105.2	0.8	2.4	=	70
24:1	248	240	553	551	105.2	1.0	2.9	=	70
49:1	120	122	593	591	111.9	1.6	4.7	=	60
61:1	98	102	593	591	111.9	1.8	5.3	=	60
84:1	76	77.5	593	591	111.9	1.8	5.3	=	60
104:1	63	63	593	591	111.9	2.0	5.9	=	60
144:1	45	47	593	591	111.9	2.0	5.9	=	60
212:1	31	31	643	641	118.6	2.5	7.4	=	50
294:1	24	23.8	643	641	118.6	2.5	7.4	=	50
504:1	13.5	13.5	643	641	118.6	2.9	8.8	=	50
624:1	10.9	10.9	643	641	118.6	2.9	8.8	=	50
720:1	9.5	9.5	643	641	118.6	2.9	8.8	=	50
864:1	8.0	8.0	643	641	118.6	2.9	8.8	=	50
1,062:1	6.5	6.5	688	686	125.6	2.9	8.8	=	40
1,470:1	4.6	4.6	688	686	125.6	2.9	8.8	=	40
2,500:1	2.7	2.7	688	686	125.6	2.9	8.8	=	40
3,000:1	2.3	2.3	688	686	125.6	2.9	8.8	=	40
3,600:1	1.9	1.9	688	686	125.6	2.9	8.8	=	40

Series M42P

M42P Gearmotor



Front View

M42P

How to order a M42P

Part number	Ratio	Voltage	Gearhead bearing	Stocked item
M42P0004YSGT1	4:1	12	sleeve	
M42P0014YSGT1	14:1	12	sleeve	
M42P0017YSGT1	17:1	12	sleeve	
M42P0024YSGT1	24:1	12	sleeve	
M42P0049YSGT1	49:1	12	sleeve	
M42P0061YSGT1	61:1	12	sleeve	
M42P0084YSGT1	84:1	12	sleeve	
M42P0104YSGT1	104:1	12	sleeve	
M42P0144YSGT1	144:1	12	sleeve	
M42P0212YSGT1	212:1	12	sleeve	
M42P0294YSGT1	294:1	12	sleeve	
M42P0504YSGT1	504:1	12	sleeve	
M42P0624YSGT1	624:1	12	sleeve	
M42P0720YSGT1	720:1	12	sleeve	
M42P0864YSGT1	864:1	12	sleeve	
M42P1062YSGT1	1,062:1	12	sleeve	
M42P1470YSGT1	1,470:1	12	sleeve	
M42P2500YSGT1	2,500:1	12	sleeve	
M42P3000YSGT1	3,000:1	12	sleeve	
M42P3600YSGT1	3,600:1	12	sleeve	

M42P0004YBGT1	4:1	12	ball	X
M42P0014YBGT1	14:1	12	ball	X
M42P0017YBGT1	17:1	12	ball	X
M42P0024YBGT1	24:1	12	ball	X
M42P0049YBGT1	49:1	12	ball	X
M42P0061YBGT1	61:1	12	ball	X
M42P0084YBGT1	84:1	12	ball	X
M42P0104YBGT1	104:1	12	ball	X
M42P0144YBGT1	144:1	12	ball	X
M42P0212YBGT1	212:1	12	ball	X
M42P0294YBGT1	294:1	12	ball	X
M42P0504YBGT1	504:1	12	ball	X
M42P0624YBGT1	624:1	12	ball	X
M42P0720YBGT1	720:1	12	ball	X
M42P0864YBGT1	864:1	12	ball	X
M42P1062YBGT1	1,062:1	12	ball	X
M42P1470YBGT1	1,470:1	12	ball	X
M42P2500YBGT1	2,500:1	12	ball	X
M42P3000YBGT1	3,000:1	12	ball	X
M42P3600YBGT1	3,600:1	12	ball	X

M42P0004YSGT2	4:1	24	sleeve	
M42P0014YSGT2	14:1	24	sleeve	
M42P0017YSGT2	17:1	24	sleeve	
M42P0024YSGT2	24:1	24	sleeve	
M42P0049YSGT2	49:1	24	sleeve	
M42P0061YSGT2	61:1	24	sleeve	
M42P0084YSGT2	84:1	24	sleeve	
M42P0104YSGT2	104:1	24	sleeve	
M42P0144YSGT2	144:1	24	sleeve	
M42P0212YSGT2	212:1	24	sleeve	
M42P0294YSGT2	294:1	24	sleeve	
M42P0504YSGT2	504:1	24	sleeve	
M42P0624YSGT2	624:1	24	sleeve	
M42P0720YSGT2	720:1	24	sleeve	
M42P0864YSGT2	864:1	24	sleeve	
M42P1062YSGT2	1,062:1	24	sleeve	
M42P1470YSGT2	1,470:1	24	sleeve	
M42P2500YSGT2	2,500:1	24	sleeve	
M42P3000YSGT2	3,000:1	24	sleeve	
M42P3600YSGT2	3,600:1	24	sleeve	

How to order a M42P

Part number	Ratio	Voltage	Gearhead bearing	Stocked items
M42P0004YBGT2	4:1	24	ball	X
M42P0014YBGT2	14:1	24	ball	X
M42P0017YBGT2	17:1	24	ball	X
M42P0024YBGT2	24:1	24	ball	X
M42P0049YBGT2	49:1	24	ball	X
M42P0061YBGT2	61:1	24	ball	X
M42P0084YBGT2	84:1	24	ball	X
M42P0104YBGT2	104:1	24	ball	X
M42P0144YBGT2	144:1	24	ball	X
M42P0212YBGT2	212:1	24	ball	X
M42P0294YBGT2	294:1	24	ball	X
M42P0504YBGT2	504:1	24	ball	X
M42P0624YBGT2	624:1	24	ball	X
M42P0720YBGT2	720:1	24	ball	X
M42P0864YBGT2	864:1	24	ball	X
M42P1062YBGT2	1,062:1	24	ball	X
M42P1470YBGT2	1,470:1	24	ball	X
M42P2500YBGT2	2,500:1	24	ball	X
M42P3000YBGT2	3,000:1	24	ball	X
M42P3600YBGT2	3,600:1	24	ball	X