

Planetary Gearboxes PH Series

PH42

This is a group of planetary gearboxes or planetary gearhead of PH series, commercial series 2.

Its diameter is $\text{Ø}42$ mm. It has 5 stages, 5 length, and 125 models for your selection.

It is for DC, step or servo motor that the power is less than 100W. The continuous output torque is 3-20 Nm.



Table 1: Features

Stages	Length (mm / in.)	Efficiency (%)	Backlash	Weight (g / oz)
1	34.2 / 1.35	90	0.5°	15 / 0.40
2	44.7 / 1.76	83	1.0°	20 / 0.53
3	51.5 / 2.03	77	1.2°	25 / 0.66
4	58.3 / 2.30	72	1.5°	30 / 0.79
5	65.1 / 2.56	67	1.5°	35 / 0.93

*-- The length of the shaft will be recalculated, if the diameter of the motor shaft more than 4 mm.

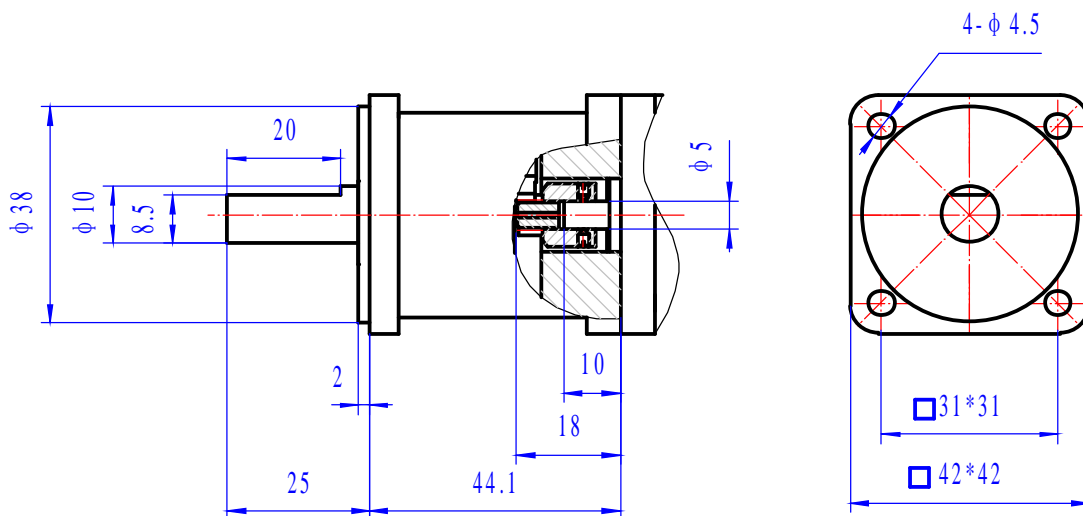


Table 2: Material and load

Items	Description
Shell Material	Stainless steel
Gear Material	Steel, hard gear surface*
Output Shaft Material	Stainless steel
Flange Material	Aluminum
Bearing on Output End	Rolling bearing
Max. Input Speed	6,500 rpm
Max. Radial Load	500 N
Max. Axial Load	100 N
Max. Install Force	220 N
Radial Clearance	0.02mm
Axial Clearance	0.02mm
Operating Temperature	-40 to 125 °C, (-40, to 257°F) -10 to 85 °C, (-14 to 185°F) for plastic gears

*-- Optional of nylon or steel gear for first stage

Table 3: Ratio and output torque

Model #	Ratio	Output Torque (Nm)		Stages
		Continuous	Intermittent	
1242001	3.5	3	5	1
1242002	4			
1242003	4.75			
1242004	6			
1242005	12.25	8	12	2
1242006	14			
1242007	16			
1242008	16.63			
1242009	19			
1242010	21	6	8	2
1242011	22.56			
1242012	24			
1242013	28.5			
1242014	36	18	25	3
1242015	42.88			
1242016	49			
1242017	56			
1242018	58.19			
1242019	64			

(Continued from Table 3: Ratio and output torque)

Model #	Ratio	Output Torque (Nm)		Stages
		Continuous	Intermittent	
1242020	66.50	18	25	3
1242021	73.50			
1242022	76.00			
1242023	78.97			
1242024	84.00			
1242025	90.25	18	25	3
1242026	96.00			
1242027	99.75			
1242028	107.17			
1242029	114.00	10	12	3
1242030	126.00	10	12	
1242031	135.38			
1242032	144.00			
1242033	171.00			
1242034	216.00	6	8	
1242035	150.06	18	25	4
1242036	171.50			
1242037	196.00			
1242038	203.66			
1242039	224.00	20	30	4
1242040	232.75			
1242041	256.00			
1242042	257.25			
1242043	266.00			
1242044	276.39	20	30	4
1242045	294.00			
1242046	304.00			
1242047	315.88			
1242048	336.00			
1242049	349.13	20	30	4
1242050	361.00			
1242051	375.10			
1242052	384.00			
1242053	399.00			
1242054	428.69	20	30	4
1242055	441.00			
1242056	456.00			
1242057	473.81			
1242058	504.00			

(Continued from Table 3: Ratio and output torque)

Model #	Ratio	Output Torque (Nm)		Stages
		Continuous	Intermittent	
1242059	509.07	10	12	4
1242060	541.50	20	30	
1242061	576.00			
1242062	598.50			
1242063	643.03	10	12	4
1242064	684.00	20	30	
1242065	756.00	10	12	
1242066	812.25			
1242067	864.00			
1242068	1026.00			
1242069	1296.00	6	8	4
1242070	525.22	20	30	5
1242071	600.25			
1242072	686.00			
1242073	712.80			
1242074	784.00	20	30	5
1242075	814.63			
1242076	896.00			
1242077	900.38			
1242078	931.00			
1242079	967.37	20	30	5
1242080	1024.00			
1242081	1029.00			
1242082	1064.00			
1242083	1105.56			
1242084	1176.00	20	30	5
1242085	1216.00			
1242086	1221.94			
1242087	1263.50			
1242088	1312.86			
1242089	1344.00			
1242090	1396.50			
1242091	1444.00			
1242092	1500.41			
1242093	1536.00			
1242094	1543.50	20	30	5
1242095	1596.00			
1242096	1658.34			
1242097	1714.75			
1242098	1764.00			

(Continued from Table 3: Ratio and output torque)

Model #	Ratio	Output Torque (Nm)		Stages
		Continuous	Intermittent	
1242099	1781. 73	20	30	5
1242100	1824. 00			
1242101	1895. 25			
1242102	2016. 00			
1242103	2036. 27			
1242104	2094. 75	20	30	5
1242105	2166. 00			
1242106	2250. 61			
1242107	2304. 00			
1242108	2394. 00			
1242109	2418. 07	10	12	5
1242110	2572. 13	20	30	
1242111	2646. 00			
1242112	2736. 00			
1242113	2842. 88			
1242114	3024. 00	20	30	5
1242115	3054. 40	10	12	
1242116	3249. 00	20	30	
1242117	3456. 00			
1242118	3591. 00			
1242119	3858. 19	10	12	5
1242120	4104. 00	20	30	
1242121	4536. 00	10	12	
1242122	4873. 50			
1242123	5184. 00	16	20	
1242124	6156. 00	10	12	5
1242125	7776. 00	8	10	

The output shaft length of motor in blue depends on the diameter of the motor. Please notice us when you put purchase order.

For more information about our planetary gearboxes in PJ series, PH series and PM series, please visit our website www.broadwaygear.com. Thanks!