

PGM-16P050



Gearbox material: Carbon steel

Raidal load: $\leq 1.5\text{kgf}$

Axial load: $\leq 0.5\text{kgf}$

Endplay: $\leq 0.3\text{mm}$

Backlash: $\leq 3^\circ$

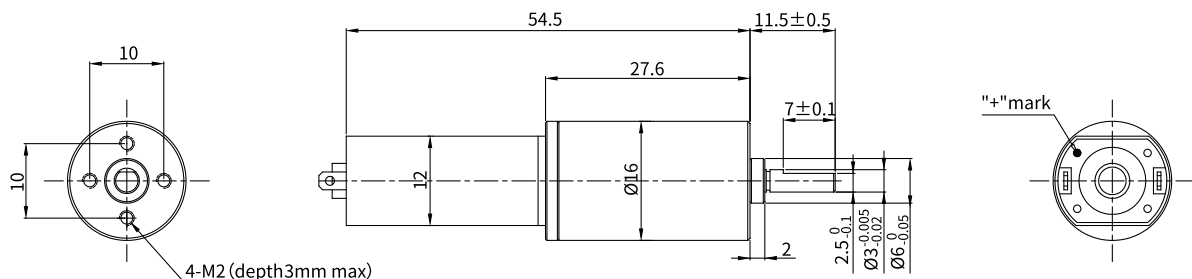
Reduction ratio

Stage	Gear ratio			Length	Rated torque	Max allowed torque (short time)	Efficiency
1	3.75	4.67	-	12.8	10~30g.cm	0.15kg.cm	94%
2	14.06	17.50	-	16.5	0.04~0.15kg.cm	1kg.cm	88%
	-	21.78	-				
3	52.73	65.62	-	20.2	0.2~0.7kg.cm	3.5kg.cm	83%
	81.66	101.63	-				
4	197.75	246.09	-	23.9	0.4~2kg.cm	3.5kg.cm	78%
	306.24	-	-				
	381.09	474.24	-				
5	741.58	922.84	-	27.6	1~3kg.cm	10kg.cm	73%
	1148.40	1778.42	-				
	1429.11	2213.11	-				

Geared Motor Data

Gear ratio		3.75	4.67	14	21.78	52.73	101.63	197.75	474	2213	
3V	No load speed	rpm	2747	2206	736	473	195	101	52	22	5
	Rated torque	g.cm	25	31	86	134	306	590	1080	2588	8000
	Rated speed	rpm	2267	1820	607	390	161	84	43	18	4
12V	No load speed	rpm	2133	1713	571	367	152	79	40	17	4
	Rated torque	g.cm	26	33	92	144	328	633	1157	2773	3000
	Rated speed	rpm	1478	1184	396	255	105	55	28	12	3
Gearbox length		mm	12.8		16.5		20.2		23.9		27.6

Dimensions



PGM-22P180



Gearbox material: Carbon steel

Raidal load: $\leq 3.5\text{kgf}$

Axial load: $\leq 2\text{kgf}$

Endplay: $\leq 0.3\text{mm}$

Backlash: $\leq 3^\circ$

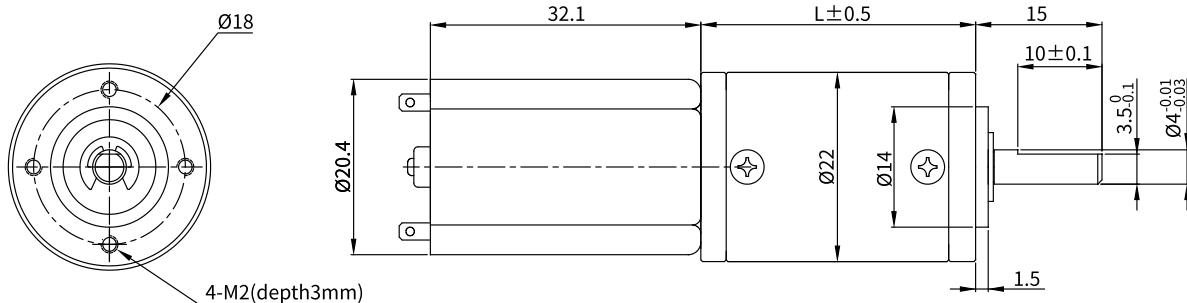
Reduction ratio

Stage	Gear ratio			Length	Rated torque	Max allowed torque (short time)	Efficiency
1	3.71	4.29	-	21.8	80-300g.cm	1.5kg.cm	94%
2	13.73	15.88	-	27.2	0.5~2kg.cm	3kg.cm	88%
	-	18.37	-				
3	50.90	58.86	-	32.6	1.5~3.5kg.cm	5kg.cm	83%
	68.07	78.72	-				
4	188.61	218.12	-	38.0	3~8kg.cm	15kg.cm	78%
	252.25	337.35	-				
	291.72	-	-				
5	698.99	808.34	-	43.4	3~8kg.cm	15kg.cm	73%
	934.81	1250.20	-				
	1081.07	1445.80	-				

Geared Motor Data

Gear ratio			3.7	4.3	13.7	18.3	50.9	78	188	337	1445
3V	No load speed	rpm	1405	1209	380	284	102	67	28	15	4
	Rated torque	g.cm	63	73	217	290	760	1165	2640	4731	8000
	Rated speed	rpm	1108	953	299	224	81	53	22	12	3
12V	No load speed	rpm	2162	1860	584	437	157	103	43	24	6
	Rated torque	g.cm	64	75	223	298	782	1198	2713	4863	8000
	Rated speed	rpm	1892	1628	511	383	138	90	37	21	5
Gearbox length			mm		21.8	27.2	32.6	38	43.4		

Dimensions



PGM-28P395



Gearbox material: Carbon steel

Raidal load: $\leq 3.5\text{kgf}$

Axial load: $\leq 2\text{kgf}$

Endplay: $\leq 0.3\text{mm}$

Backlash: $\leq 3^\circ$

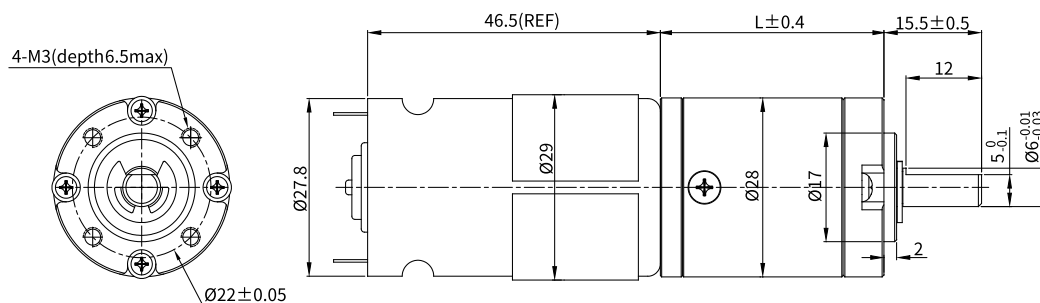
Reduction ratio

Stage	Gear ratio			Length	Rated torque	Max allowed torque (short time)	Efficiency
1	3.67	4.20	5.00	27.5	0.5-2.5kg.cm	6kg.cm	94%
2	13.44	15.40	18.33	35.5	0.5~3.5kg.cm	9kg.cm	88%
	-	17.64	21.00				
	-	-	25.00				
3	49.30	56.47	67.22	43.5	0.5~8kg.cm	15kg.cm	83%
	64.68	77.00	91.67				
	-	74.09	88.20				
	-	-	105.00				
	-	-	125.00				
4	180.76	207.05	246.49	51.5	0.5~10kg.cm	30kg.cm	78%
	237.16	282.34	336.12				
	271.66	323.40	385.00				
	458.34	311.17	370.44				
	-	441.00	525.00				
	-	-	625.00				

Geared Motor Data

Gear ratio		3.67	5	13.44	25	49.3	88.2	105	207	525	
12V	No load speed	rpm	2343	1720	640	344	174	98	82	42	16
	Rated torque	g.cm	321	437	1100	2046	3805	6808	7617	8000	8000
	Rated speed	rpm	1935	1420	528	284	144	80	68	34	14
24V	No load speed	rpm	1526	1120	417	224	114	63	53	27	11
	Rated torque	g.cm	217	296	745	1386	2578	4612	5160	10000	20000
	Rated speed	rpm	1240	910	339	182	92	52	43	22	9
Gearbox length		mm	27.5		35.5		43.5		51.5		

Dimensions



PGM-32P3329



Gearbox material: Carbon steel

Raidal load: $\leq 5\text{kgf}$

Axial load: $\leq 2.5\text{kgf}$

Endplay: $\leq 0.3\text{mm}$

Backlash: $\leq 3^\circ$

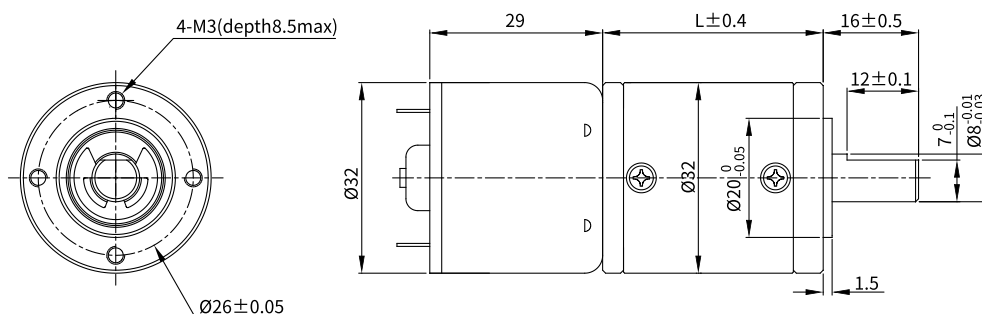
Reduction ratio

Stage	Gear ratio			Length	Rated torque	Max allowed torque (short time)	Efficiency
1	3.67	4.20	5.00	28.5	0.5-2.5kg.cm	6kg.cm	94%
	13.44	15.40	18.33				
2	-	17.64	21.00	36.5	0.5~10kg.cm	25kg.cm	88%
	-	-	25.00				
	49.30	56.47	67.22				
3	64.68	77.00	91.67	44.5	0.5~30kg.cm	60kg.cm	83%
	-	74.09	88.20				
	-	-	105.00				
	-	-	125.00				
	180.76	207.05	246.49				
4	237.16	282.34	336.12	52.5	0.5~35kg.cm	80kg.cm	78%
	271.66	323.40	385.00				
	458.34	311.17	370.44				
	-	441.00	525.00				
	-	-	625.00				
	662.79	759.19	903.80				
5	869.61	1035.25	1232.44	60.5	0.5~35kg.cm	80kg.cm	73%
	996.09	1185.82	1411.69				
	1680.59	1140.97	1358.29				
	1617.01	1925.02	2291.69				
	-	1306.91	1555.85				
	-	1852.20	2205.00				
	-	-	3125.00				
	-	2625.00	3125.00				

Geared Motor Data

Gear ratio		3.67	4.2	13.44	18.33	56.47	125	246.49	323.4	2205	
9V	No load speed	rpm	2589	2262	707	518	168	76	39	4	
	Rated torque	g.cm	335	383	1147	1565	4546	35000	35000	35000	
	Rated speed	rpm	2125	1857	580	426	138	62	32	24	4
24V	No load speed	rpm	1689	1476	461	338	110	50	25	19	3
	Rated torque	g.cm	252	288	863	1178	3422	7574	35000	35000	35000
	Rated speed	rpm	1362	1190	372	273	89	40	20	15	2
Gearbox length		mm	28.5		36.5		44.5		52.5		605

Dimensions



PGM-36P555



Gearbox material: Carbon steel

Raidal load: ≤ 5kgf

Axial load: ≤ 2.5kgf

Endplay: ≤ 0.3mm

Backlash: ≤ 3°

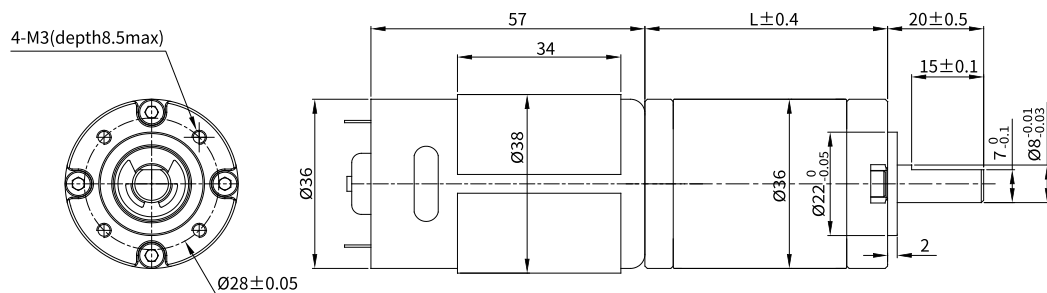
Reduction ratio

Stage	Gear ratio			Length	Rated torque	Max allowed torque (short time)	Efficiency
1	3.67	4.20	5.00	26.5	0.5-2.5kg.cm	6kg.cm	94%
	13.44	15.40	18.33				
2	-	17.64	21.00	34.5	0.5~10kg.cm	25kg.cm	88%
	-	-	25.00				
	49.30	56.47	67.22				
3	64.68	77.00	91.67	42.5	0.5~30kg.cm	60kg.cm	83%
	-	74.09	88.20				
	-	-	105.00				
	-	-	125.00				
	180.76	207.05	246.49				
4	237.16	282.34	336.12	50.5	0.5~35kg.cm	80kg.cm	78%
	271.66	323.40	385.00				
	458.34	311.17	370.44				
	-	441.00	525.00				
	-	-	625.00				
	662.79	759.19	903.80				
5	869.61	1035.25	1232.44	58.5	0.5~35kg.cm	80kg.cm	73%
	996.09	1185.82	1411.69				
	1680.59	1140.97	1358.29				
	1617.01	1925.02	2291.69				
	-	1306.91	1555.85				
	-	1852.20	2205.00				
	-	-	3125.00				
	-	2625.00	3125.00				

Geared Motor Data

Gear ratio		3.67	4.2	13.44	18.33	56.47	125	246.49	323.4	2205	
12V	No load speed	rpm	2289	2000	625	458	149	67	34	26	4
	Rated torque	g.cm	1497	1713	5133	7001	20342	35000	35000	35000	35000
	Rated speed	rpm	1717	1500	469	344	112	50	26	19	3
24V	No load speed	rpm	1798	1571	491	360	117	53	27	20	3
	Rated torque	g.cm	835	955	2862	3904	11343	25108	35000	35000	35000
	Rated speed	rpm	1580	1381	432	316	103	46	24	18	3
Gearbox length		mm	26.5	34.5	42.5	50.5	58.5				

Dimensions



PGM-42P775



Gearbox material: Carbon steel

Raidal load: $\leq 8\text{kgf}$

Axial load: $\leq 3\text{kgf}$

Endplay: $\leq 0.5\text{mm}$

Backlash: $\leq 3^\circ$

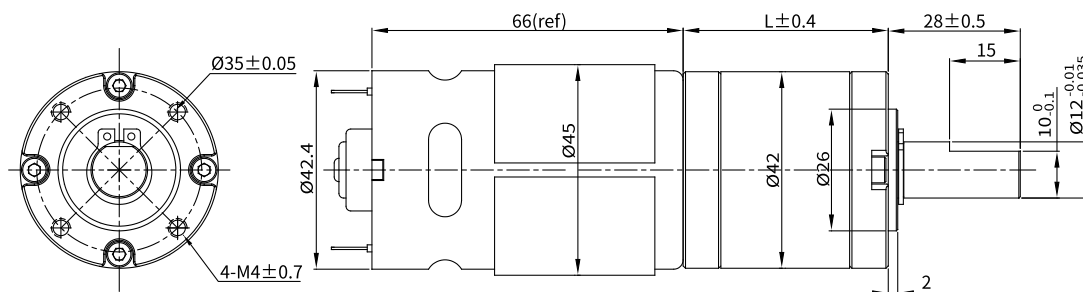
Reduction ratio

Stage	Gear ratio			Length	Rated torque	Max allowed torque (short time)	Efficiency
1	3.67	4.20	5.00	33.5	0.5-3kg.cm	12kg.cm	94%
2	13.44	15.40	18.33	43.5	0.5-15kg.cm	35kg.cm	88%
	-	17.64	21.00				
	-	-	25.00				
3	49.30	56.47	67.22	53.5	0.5-35kg.cm	75kg.cm	83%
	64.68	77.00	91.67				
	-	74.09	88.20				
	-	-	105.00				
	-	-	125.00				
4	180.76	207.05	246.49	63.5	0.5-50kg.cm	110kg.cm	78%
	237.16	282.34	336.12				
	271.66	323.40	385.00				
	458.34	311.17	370.44				
	-	441.00	525.00				
	-	-	625.00				

Geared Motor Data

Gear ratio		3.67	4.2	13.44	18.33	56.47	125	246.49	323.4	525	
12V	No load speed	rpm	1240	1083	339	248	81	36	18	14	9
	Rated torque	g.cm	1973	2258	6765	9227	26810	59345	109974	110000	110000
	Rated speed	rpm	954	833	260	191	62	28	14	11	7
24V	No load speed	rpm	1907	1667	521	382	124	56	28	22	13
	Rated torque	g.cm	2139	2448	7333	10001	29059	64325	110000	110000	110000
	Rated speed	rpm	1608	1405	439	322	104	47	24	18	11
Gearbox length		mm	33.5		43.5		53.5		63.5		

Dimensions



PGM-42SP775



Gearbox material: Powder metal

Raidal load: $\leq 8\text{kgf}$

Axial load: $\leq 3\text{kgf}$

Endplay: $\leq 0.5\text{mm}$

Backlash: $\leq 3^\circ$

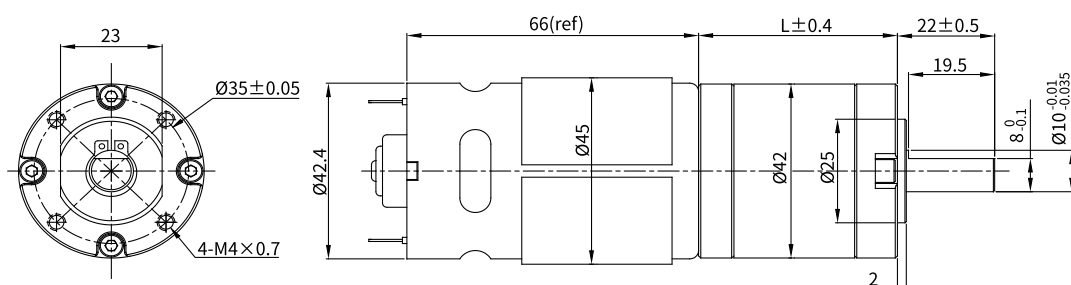
Reduction ratio

Stage	Gear ratio			Length	Rated torque	Max allowed torque (short time)	Efficiency
1	3.09	3.56	-	35.0	0.5-3kg.cm	12kg.cm	94%
2	9.55	10.99	-	45.0	0.5~15kg.cm	35kg.cm	88%
	-	12.64	-				
3	29.53	33.97	-	55.0	0.5~35kg.cm	75kg.cm	83%
	39.08	44.95	-				
4	91.27	104.99	-	65.0	0.5~50kg.cm	110kg.cm	78%
	120.78	159.82	-				
	138.93	-	-				

Geared Motor Data

Gear ratio		3.09	3.56	9.55	12.64	29.53	44.95	91.27	120.78	159.82
12V	No load speed	rpm	1472	1278	476	360	154	101	50	28
	Rated torque	g.cm	1661	1914	4807	6362	14020	21340	40721	53887
	Rated speed	rpm	1133	983	366	277	119	78	38	29
24V	No load speed	rpm	2265	1966	733	554	237	156	77	44
	Rated torque	g.cm	1801	2075	5210	6896	15196	23131	44138	58409
	Rated speed	rpm	1909	1657	618	467	200	131	65	49
Gearbox length		mm	35		45		55		65	

Dimensions



PGM-52P997



Gearbox material: Carbon steel

Raidal load: ≤ 10kgf

Axial load: ≤ 5kgf

Endplay: ≤ 0.5mm

Backlash: ≤ 3°

Reduction ratio

Stage	Gear ratio			Length	Rated torque	Max allowed torque (short time)	Efficiency
1	4.00	5.00	-	41.9	2-5kg.cm	50kg.cm	94%
2	16.00	20.00	-	54.4	5~25kg.cm	150kg.cm	88%
		25.00	-				
3	64.00	80.00	-	66.9	25~130kg.cm	300kg.cm	83%
	100.00	125.00	-				
4	256.00	320.00	-	79.4	25~200kg.cm	400kg.cm	78%
	400.00	625.00	-				
	500.00	-	-				

Geared Motor Data

Gear ratio			4	5	16	25	64	125	256	400	625	
12V	No load speed	rpm	4350	3480	1088	696	272	139	68	44	28	
	Rated torque	g.cm	6437	8046	24105	37664	90941	177620	341852	400000	400000	
	Rated speed	rpm	3775	3020	944	604	236	121	59	38	24	
24V	No load speed	rpm	1225	980	306	196	77	39	19	12	8	
	Rated torque	g.cm	4501	5626	16854	26334	63585	124189	239017	373464	400000	
	Rated speed	rpm	1050	840	263	168	66	34	16	11	7	
Gearbox length			mm		41.9		54.4		66.9		79.4	

Dimensions

