

Frame Size: □90mm (□3.54 in.) Spur Gearhead with 60-90W PMDC Motor

● General Specifications:

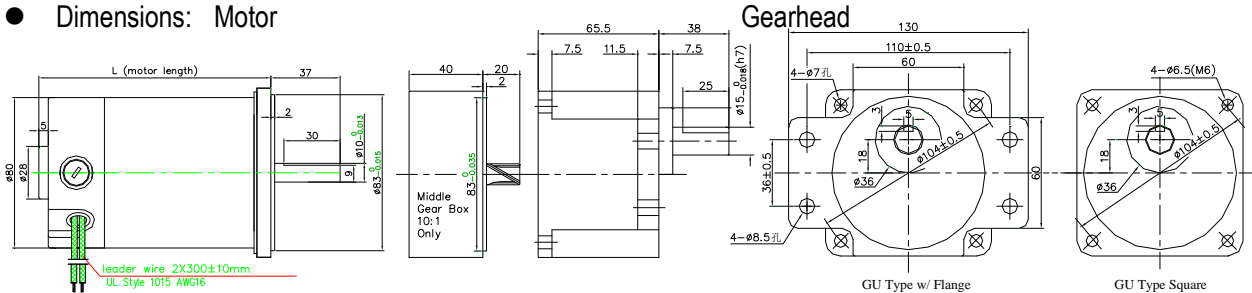
Item	Specifications
Insulation Resistance	100 MΩ Min. @ 500VDC
Dielectric Strength	1.5 kVAC for one minute
Temperature Rise	≤ 80°C
Insulation Class	Class B (130C)
Ambient Temperature	14°F-104°F (-10°C ~ +40°C)(Nonfreezing)
Ambient Humidity	85% or less (Noncondensing)
Speed tolerance	±15%
Torque tolerance	±20%



● Motor specifications:

Motor				Model #	Volt.	No load		Rated				Weight	
Frame		Length (L)				Speed	Current	Speed	Current	Torque			Power
mm	Inch	mm	Inch			RPM	Amp	RPM	Amp	mN.m	oz-in		W
80	2.76	145	5.7	80ZYT145-60W1232	12	3200	2	2800	9.0	205	29.03	60	2.2
				80ZYT145-60W2432	24	3200	1	2800	3.5	205	29.03		
				80ZYT145-60W9032	90	3200	0.3	2800	1.0	205	29.03		
		145	5.7	80ZYT145-90W1232	12	3200	2	2800	12.0	307	43.47	90	2.2
				80ZYT145-90W2433	24	3200	1	2800	5.0	307	43.47		
				80ZYT145-90W9032	90	3200	0.3	2800	1.4	307	43.47		

● Dimensions: Motor



● Gear Motor-Torque Table (Listed speeds are rated speeds)

Model	Ratio	X:1	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	200			
	Eff.	%	81	81	81	81	81	81	73	73	73	66	66	66	66	66	66	59	59	59	59	59	59			
80ZYT145-60Wxxxx	Speed	RPM	933	778	560	467	373	311	224	187	156	112	93	78	56	47	37	31	28	23	19	16	14			
		Torque	Nm	0.50	0.60	0.83	1.00	1.25	1.49	1.87	2.24	2.69	3.38	4.06	4.87	6.77	8.12	10.1	10.9	12.1	14.5	18.1	20	20		
80ZYT145-90Wxxxx	Speed	RPM	933	778	560	467	373	311	224	187	156	112	93	78	56	47	37	31	28	23	19	16	14			
		Torque	Nm	0.75	0.90	1.24	1.49	1.87	2.24	2.80	3.36	4.03	5.07	6.08	7.29	10.1	12.2	15.2	16.3	18.1	20	20	20	20		
Gearhead Length / Weight		mm/Kg	65.5 / 1.21						65.5 / 1.30						65.5 / 1.40						65.5 / 1.45					

- Enter the gear ratio in the box □. Colored background indicates the output shaft rotate in the same direction as the motor shaft.
- Higher gear ratio (>200) can be achieved by adding a middle gearbox (10:1). Using Middle Gearbox limits Max.torque to 3Nm (30kg.cm)

● Permissible load for gearheads

Frame Size	Gear Ratio	Maximum Permissible torque		Permissible overhung load (from end of shaft)				Permissible thrust load	
		lb-in	N.m	10 mm		20 mm		lb	N
				lb	N	lb	N		
5GU	3~9	177	20	89.9	400	112.4	500	34	150
	12.5~18			101.1	450	134.8	600		
	25~200			112.4	500	157.3	700		

- Wiring:** Rotation direction: Motor shaft rotates CW when RED(+) & BLK(-) and CCW when RED(-) & BLK(+)

● Product Code:

5 GU 50 K / 80 ZYT 145- 60W 12 32
 Size Type Ratio Bearing / Size Type Length Power Voltage Speed (NL)
 90mm GU type 50:1 Ball 80mm PMDC 145mm 60Watts 12VDC 3200RPM