

Frame Size: □80mm (□3.15 in.) Spur Gearhead with PMDC Motor

● General Specifications:

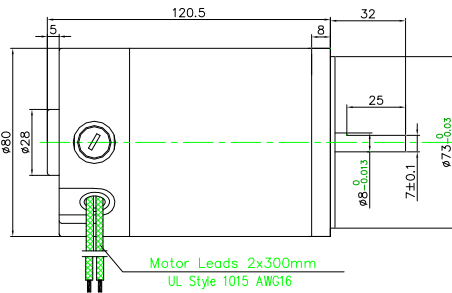
Item	Specifications
Insulation Resistance	100 MΩ Min. @ 500VDC
Dielectric Strength	1.5 kVAC for one minute
Temperature Rise	≤ 80°C
Insulation Class	Class B (130C)
Ambient Temperature	14°F-104°F (-10°C ~ +40°C)(Nonfreezing)
Ambient Humidity	85% or less (Noncondensing)
Speed tolerance	±15%
Torque tolerance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



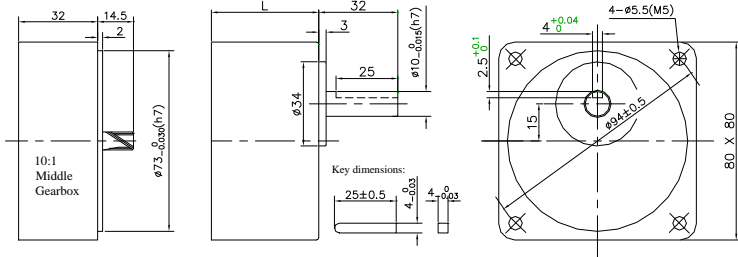
● Motor specifications:

Motor				Model #	No load		Rated				Weight Kg		
Frame		Length (L)			Vdc	Speed	Current	Speed	Current	Torque		Power	
mm	Inch	mm	Inch			RPM	Amp	RPM	Amp	mN.m		oz-in	W
80	2.76	121	4.8	80ZYT121-25W1232	12	3200	1.4	2800	3.6	85	12.04	25	1.7
				80ZYT121-25W2432	24	3200	0.7	2800	1.7	85	12.04		
				80ZYT121-25W9032	90	3200	0.2	2800	0.5	85	12.04		
		121	4.8	80ZYT121-40W1232	12	3200	2	2800	5.2	136	19.26	40	1.8
				80ZYT121-40W2432	24	3200	0.8	2800	2.1	136	19.26		
				80ZYT121-40W9032	90	3200	0.3	2800	2.1	136	19.26		

● Dimensions: Motor



● Gearhead



● 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	81	81	81	73	73	73	66	66	66	66	66	66	66	66	66
80ZYT121-25Wxxxx	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	0.21	0.25	0.34	0.41	0.52	0.62	0.86	1.03	1.24	1.55	1.86	2.23	2.81	3.37	4.21	5.05	5.61	6.73	8	8
80ZYT121-40Wxxxx	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	0.33	0.40	0.55	0.66	0.83	0.99	1.38	1.65	1.98	2.48	2.98	3.57	4.49	5.39	6.73	8	8	8	8	8
Gearhead Length / Weight		mm/Kg	32 / 0.43									42 / 0.57			42 / 0.61								

- 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		
4GNxxK	3 - 18 25 - 200	71	8	22.5	100	33.7	150	11	50
				44.9	200	67.4	300		

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

● Product Code:

<u>4</u>	<u>GN</u>	<u>50</u>	<u>K</u>	/	<u>80</u>	<u>ZYT</u>	<u>121 -</u>	<u>25W</u>	<u>12</u>	<u>32</u>
Size	Type	Ratio	Bearing		Size	Type	Length	Power	Voltage	Speed (NL)
80mm	GN type	50:1	Ball		80mm	PMDC	121mm	25Watts	12VDC	3200RPM