

# Frame Size: □70mm (□2.76 in.) Spur Gearhead with PMDC Motor

## ● General Specifications:

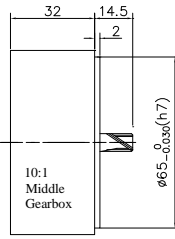
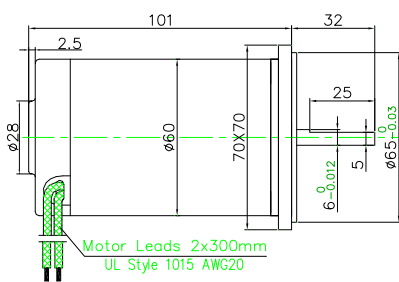
Item	Specifications
Insulation Resistance	100 MΩ Min. @ 500VDC
Dielectric Strength	1.5 kVAC for one minute
Temperature Rise	≤ 80°C
Insulation Class	Class B (130C)
Ambient Temperature	14°F-104°F (-10°C~+40°C)(Nonfreezing)
Ambient Humidity	85% or less (Noncondensing)
Speed tolerance	±15%
Torque tolerance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



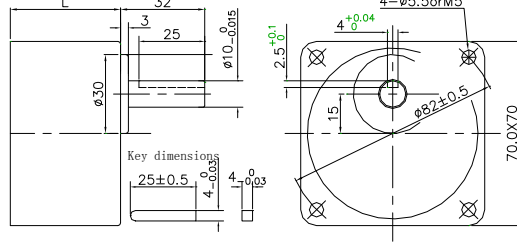
## ● Motor specifications:

Motor				Model #	Volt.	No load		Rated				Weight	
Frame		Length (L)				Speed	Current	Speed	Current	Torque			Power
mm	Inch	mm	Inch							RPM	Amp		
60	2.76	89	3.5	60ZYT89-15W1232	12	3200	0.6	2800	2	48	6.80	15	0.9
				60ZYT89-15W2432	24	3200	0.3	2800	1	48	6.80		
				60ZYT89-15W9032	90	3200	0.2	2800	0.4	48	6.80		
		101	4.0	60ZYT101-25W1232	12	3200	1.0	2800	3.5	85	12.04	25	1.0
				60ZYT101-25W2432	24	3200	0.5	2800	1.6	85	12.04		
				60ZYT101-25W9032	90	3200	0.3	2800	0.8	85	12.04		

## ● Dimensions: Motor



## ● Dimensions: 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
60ZYT89-15Wxxxx	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	0.12	0.14	0.19	0.23	0.29	0.35	0.49	0.58	0.70	0.88	1.05	1.26	1.58	1.90	2.38	2.85	3.17	3.80	4.75	5	5
60ZYT101-25Wxxxx	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	5	5	5	5	5
Gearhead Length / Weight		mm/Kg	32 / 0.38									42 / 0.47			42 / 0.52								

- 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		
3GNxxK	3 - 18	44	5	18.0	80	27.0	120	9.0	40
	25 - 200			33.7	150	56.2	250		

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

## ● Product Code:

<u>3</u>	<u>GN</u>	<u>50</u>	<u>K</u>	/	<u>60</u>	<u>ZYT</u>	<u>89</u>	-	<u>15W</u>	<u>12</u>	<u>32</u>
Size	Type	Ratio	Bearing		Size	Type	Length	Power	Voltage	Speed (NL)	
70mm	GN type	50:1	Ball		60mm	PMDC	89mm	15Watts	12VDC	3200RPM	