

# 80mm servo motor 5 pairs of poles



## General Specifications

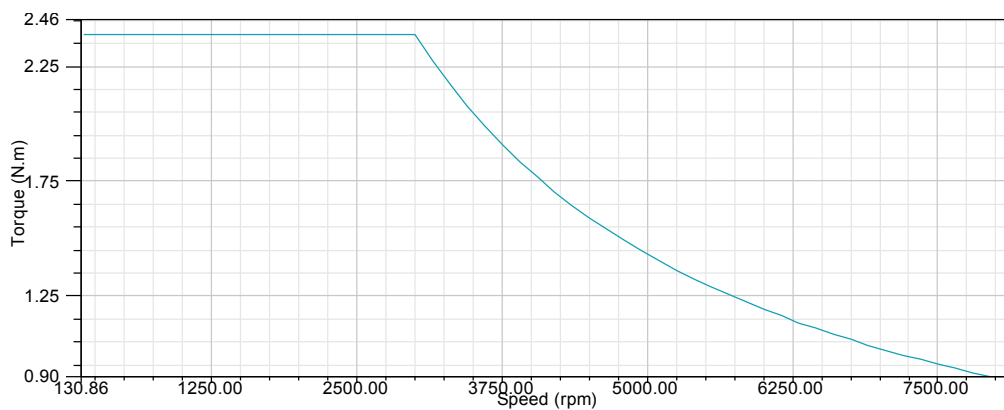
Pairs of poles	5
Numbers of Phases	3
Dielectric Strength	600 VAC/S
Insulation Resistance	100M $\Omega$ @500VDC
Shaft Axial Play	0.08mmMax.@4N
Shaft Radial Play	0.02mmMax.@4N
Distance from flange	10mm
Ambient Environment	-20...+55 $^{\circ}$ C, Humidity max 85%(No condensation)
Storage Environment	-10...+55 $^{\circ}$ C, Humidity max 85%(No condensation)
IP Grade	IP 65
Encoder	2500ppr Magnetic encoder Incremental/Absolute (optical / magnetic) encoder optional, multiple resolutions are available

## Electrical Specifications

Model		82220-4825	82220-4840	82220-22040	82220-4855	82220-4875	82220-48100
Rated Voltage	V	DC48	DC48	AC220	DC48	DC48	DC48
No-load Current	A	1.22	1.31	0.45	1.35	1.42	1.45
Rated Current	A	7	11	2.2	15	22	25

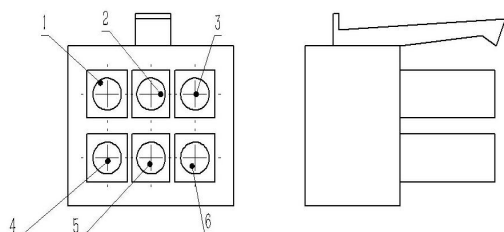
Rated Power	W	250	400	400	550	750	1000
Rated Speed	rpm	3000	3000	3000	3000	3000	3000
No-load Speed	rpm	3600	3600	3600	3600	3600	3500
Rated Torque	N.m	0.8	1.27	1.27	1.75	2.4	3.18
Peak Torque	N.m	1.67	2.7	2.7	3.7	5	6.7
Peak Current	A	16	26	6.8	35	50	60
Back-EMF Constant	vs/Krpm	9.6	9.87	64	10.5	10.7	10.3
Rotor inertia	*10 <sup>-4</sup> kg.m <sup>2</sup>	3.7	5.5	5.5	8.38	11.5	13.9
Resistance	mΩ	295	122	7400	104	82	60.2
Inductance	mH	0.56	0.148	16.3	0.192	0.22	0.11
Torque Constant	Nm/A	0.126	0.132	0.67	0.134	0.135	0.134
Electrical time constant	ms	0.63	0.8	0.7	0.89	0.92	0.92
Efficiency	%	85.4	86.5	88.3	87.7	89	80.1
Axial force	N	320	338	344	356	368	403
Radial force	N	157	160	162	180	204	227
Motor Length	mm	106	106	110	123	143	165
Motor length with brake L	mm	143	143	153	163	190	220
Weight	Kg	1.75	1.82	2.11	2.32	2.55	2.75
Weight with Brake	Kg	2.15	2.25	2.67	2.85	3.25	3.64

## Speed-torque Curve



## Connections

### Power wire



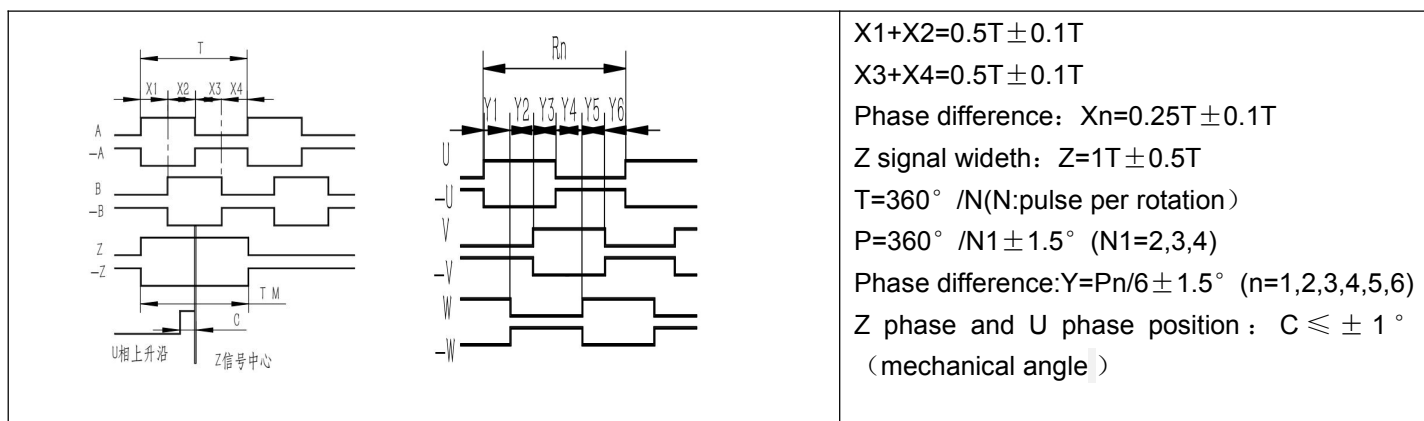
No.	Colour	Function	leadwire
1	Blue	U	16AWG
2	Green	V	
3	Yellow	W	
4	Yellow/Green	PE	22AWG
5	Brown	24+	
6	Black	GND	

## Encoder wire

No.	Function	Colour	No.	Function	Colour	No.	Function	Colour
1	+5V	Red	6	U-	Brown/Black	11	GND	Black
2	A-	Green/Black	7	V-	Gray/Black	12	AD	Shielded
3	A	Green	8	B-	White/Black	13	U+	Brown
4	Z	Yellow	9	B	White	14	V+	Gray
5	Z-	Yellow/Black	10	W-	Orange/Black	15	W+	Orange



## Encoder signal format



## Dimensions

