

80mm servo motor 3 pairs of poles



General Specifications

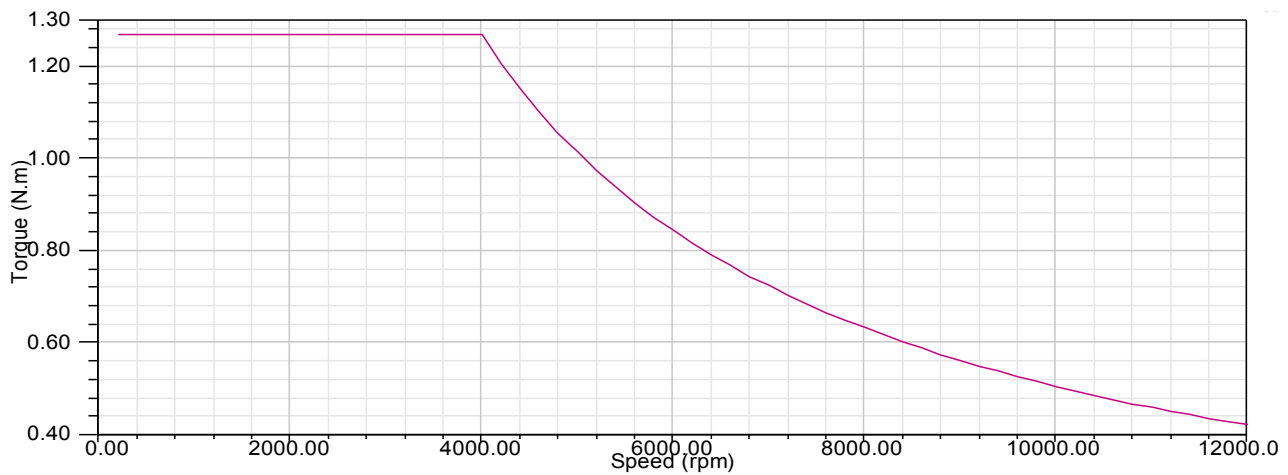
Pairs of poles	3
Numbers of Phases	3
Dielectric Strength	600 VAC/S
Insulation Resistance	100MOhm @500VDC
Shaft Axial Play	0.08mmMax.@4N
Shaft Radial Play	0.02mmMax.@4N
Distance from flange	10mm
Ambient Environment	-20...+55°C, Humidity max 85%(No condensation)
Storage Environment	-10...+55°C, Humidity 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		81100-4825	81100-4840	81100-2453	81100-4853	81100-4875	81100-48100
Rated Voltage	V	DC48	DC48	DC24	DC48	DC48	DC48
No-load Current	A	1.03	1.15	2.3	1.35	1.47	1.45
Rated Current	A	8	9	26	13.4	20	25
Rated Power	W	250	400	530	550	750	1000
Rated Speed	rpm	3000	4000	4000	4000	4000	4000
No-load Speed	rpm	3800	5400	5400	5300	5200	5200
Rated Torque	N.m	0.7	0.95	1.27	1.27	1.79	2.3
Peak Torque	N.m	1.47	1.93	2.7	2.7	3.8	5.1
Peak Current	A	16.3	18.6	6.8	26.4	42.4	55.4
Back-EMF Constant	vs/Krpm	11.3	8.6	4	8.3	8.4	8.4

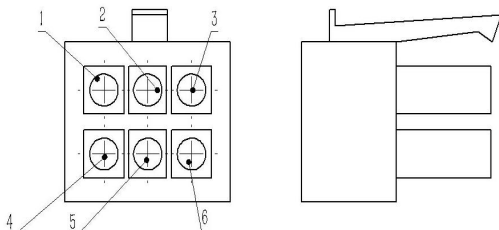
Rotor inertia	*10 ⁻⁴ kg.m ²	5.3	5.5	8.3	8.38	12	16.6
Resistance	mΩ	315	220	55	120	110	98
Inductance	mH	0.77	0.31	0.13	0.35	0.23	0.18
Torque Constant	Nm/A	0.126	0.16	0.05	0.11	0.11	0.11
Electrical time constant	ms	1.03	1.16	1.16	1.18	1.42	1.45
Efficiency	%	81.2	84.2	82	87.2	88	89.3
Axial force	N	360	338	422	422	442	457
Radial force	N	177	160	198	198	204	242
Motor Length	mm	96	101	106	106	143	165
Motor length with brake L	mm	133	138	143	143	190	220
Weight	Kg	1.58	1.82	1.82	1.82	2.55	2.75
Weight with Brake	Kg	2	2.25	2.25	2.25	3.25	3.64

Speed-torque Curve



Connections

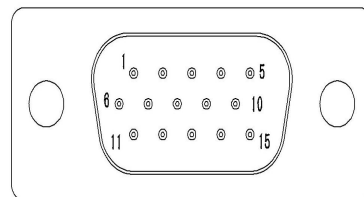
Power wire



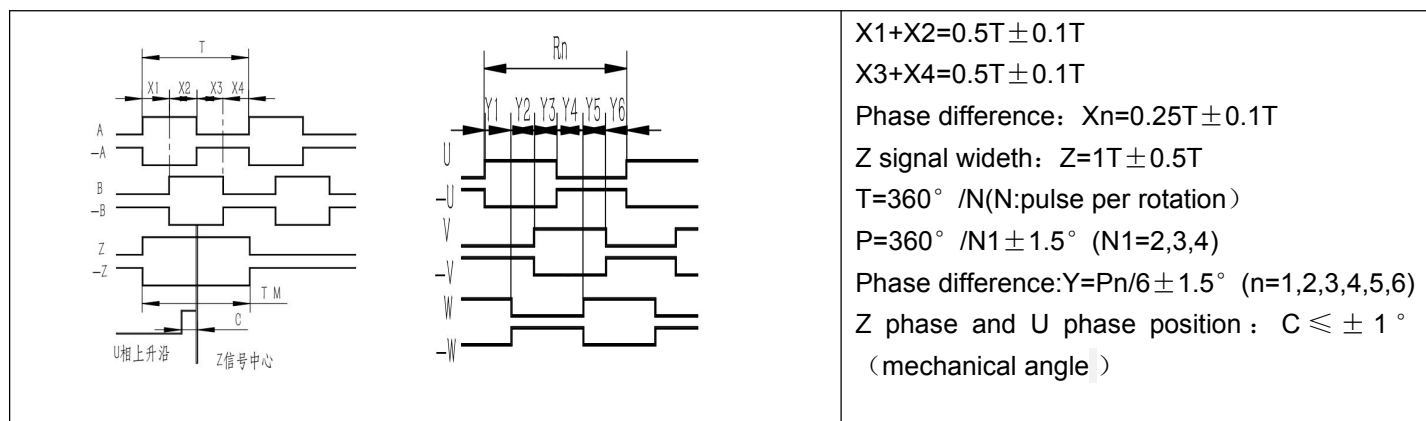
No.	Colour	Function	leadwire
1	Blue	U	16AWG
2	Green	V	
3	Yellow	W	
4	Yellow/Green	PE	22AWG
5	Brown	24+	
6	Black	GND	

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

