

**1.8° Size 57mm High Torque Hybrid Stepping Motor**

■ **General Specification for High Torque Hybrid Stepping Motor**

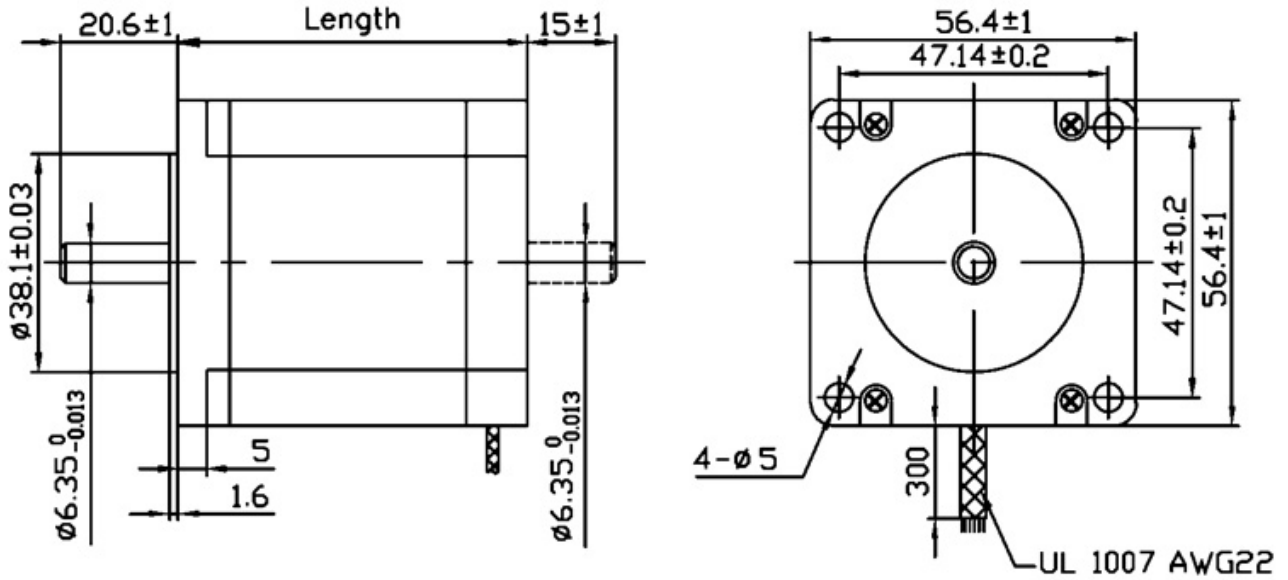
Item	Specifications
Step Angle	1.8°
Step Angle Accuracy	±5% (full step, no load)
Resistance Accuracy	±10%
Inductance Accuracy	±20%
Temperature Rise	80°C Max.(rated current,2 phase on)
Ambient Temperature	-20°C~+50°C
Insulation Resistance	100M Ω Min. ,500VDC
Dielectric Strength	500VAC for one minute
Shaft Radial Play	0.02Max. (450 g-load)
Shaft Axial Play	0.08Max. (450 g-load)
Max. radial force	75 N ( 20mm from the Flange )
Max. axial force	15N
Rotation	CW( See from Front Flange )

■ **Size 57mm Hybrid Stepping Motor Specifications**

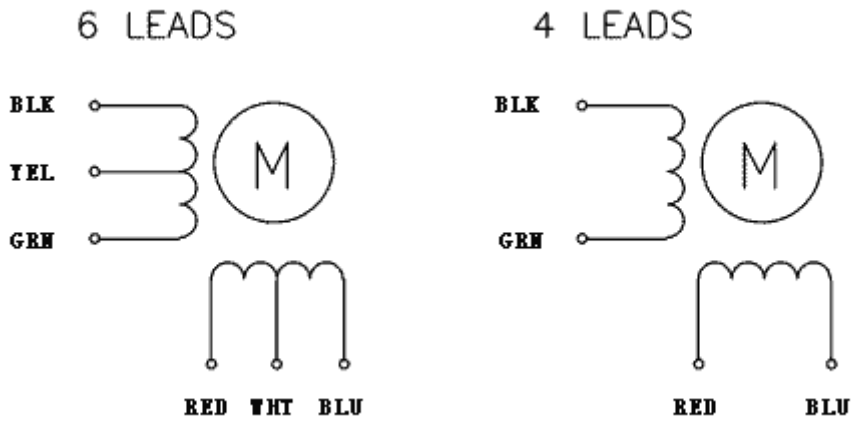
Model No.		Rated Voltage	Current /Phase	Resistance /Phase	Inductance /Phase	Holding Torque	# of Leads	Rotor Inertia	Weight	Detent Torque	Length
Single Shaft	Double Shaft	V	A	Ω	mH	kg-cm		g-cm <sup>2</sup>	kg	kg-cm	mm
SY57STH41-1006A	SY57STH41-1006B	5.7	1	5.7	5.4	3.9	6	120	0.45	0.21	41
SY57STH41-2006A	SY57STH41-2006B	2.8	2	1.4	1.4						
SY57STH41-3006A	SY57STH41-3006B	1.9	3	0.63	0.6						
SY57STH41-2804A	SY57STH41-2804B	2	2.8	0.7	1.4	5.5	4				
SY57STH51-1006A	SY57STH51-1006B	6.6	1	6.6	8.2	7.2	6	275	0.65	0.36	51
SY57STH51-2006A	SY57STH51-2006B	3.3	2	1.65	2.2						
SY57STH51-3006A	SY57STH51-3006B	2.2	3	0.74	0.9						
SY57STH51-2804A	SY57STH51-2804B	2.3	2.8	0.83	2.2	10.1	4				
SY57STH56-1006A	SY57STH56-1006B	7.4	1	7.4	10	9.0	6	300	0.7	0.4	56

SY57STH56-2006A	SY57STH56-2006B	3.6	2	1.8	2.5						
SY57STH56-3006A	SY57STH56-3006B	2.3	3	0.75	1.1						
SY57STH56-2804A	SY57STH56-2804B	2.5	2.8	0.9	2.5	12.6	4				
SY57STH76-1006A	SY57STH76-1006B	8.6	1	8.6	14	13.5	6	480	1	0.68	76
SY57STH76-2006A	SY57STH76-2006B	4.5	2	2.25	3.6						
SY57STH76-3006A	SY57STH76-3006B	3	3	1	1.6						
SY57STH76-2804A	SY57STH76-2804B	3.2	2.8	1.13	3.6	18.9	4				

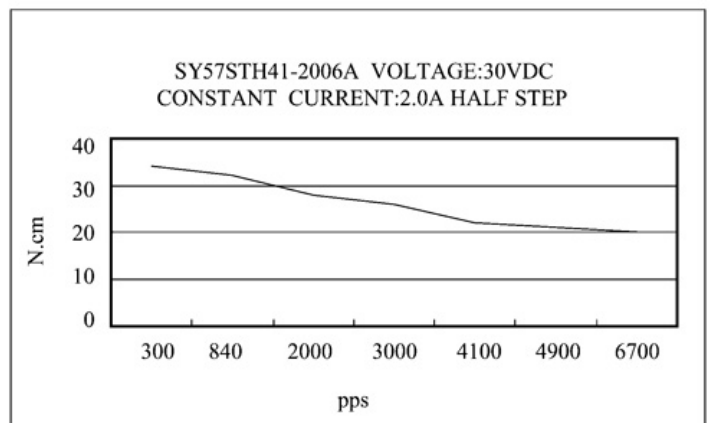
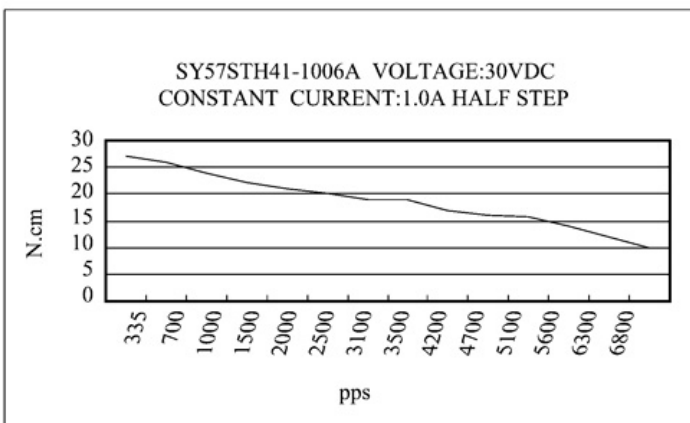
■ Dimension

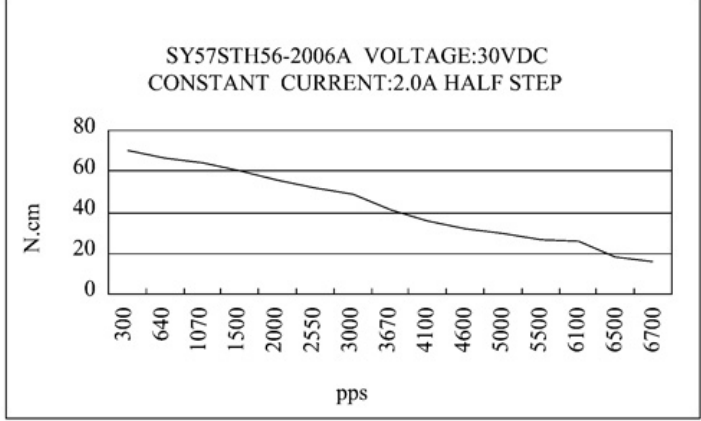
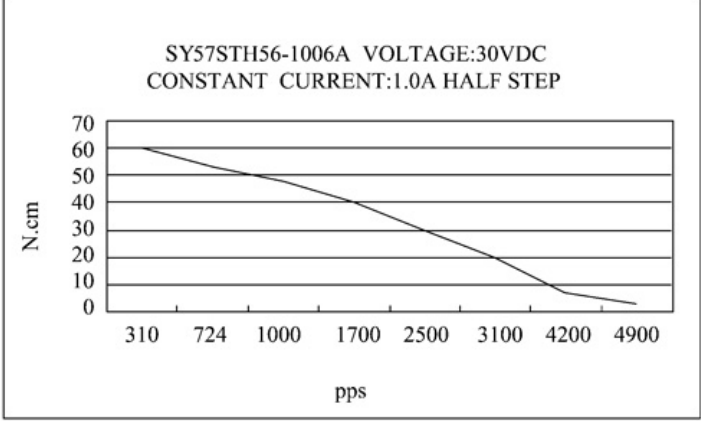
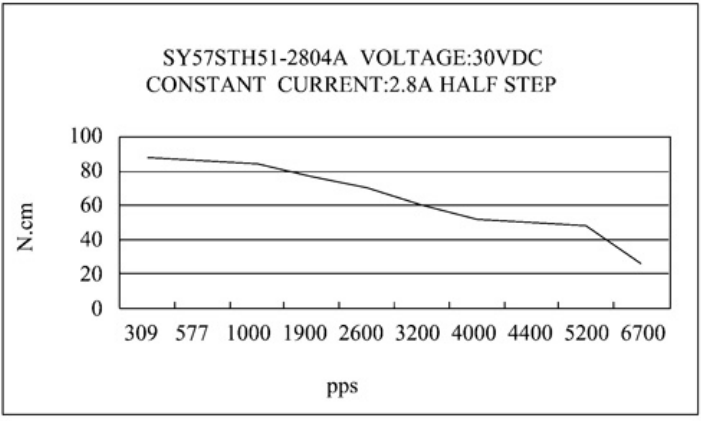
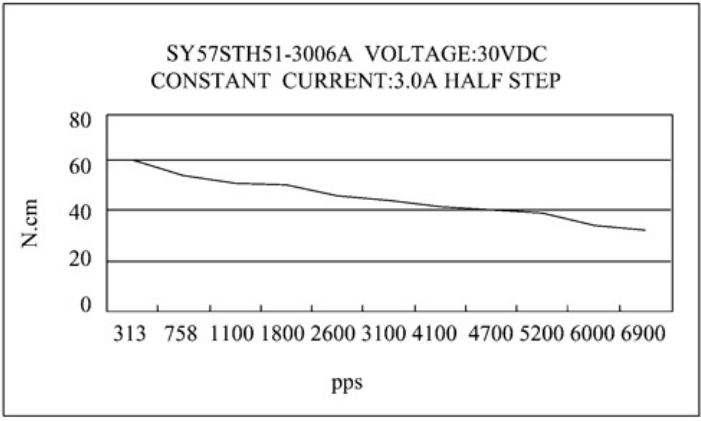
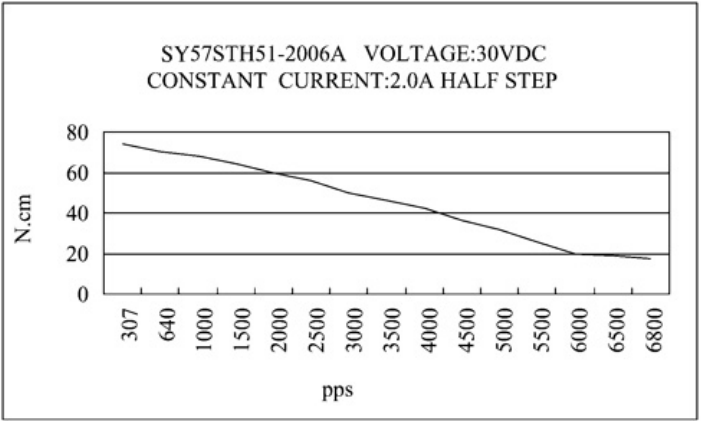
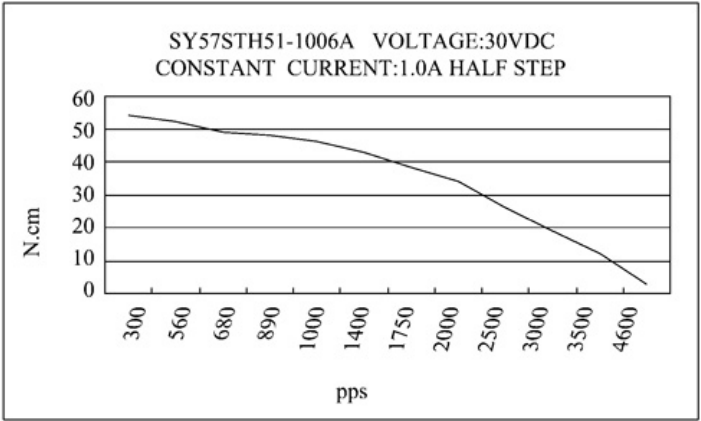
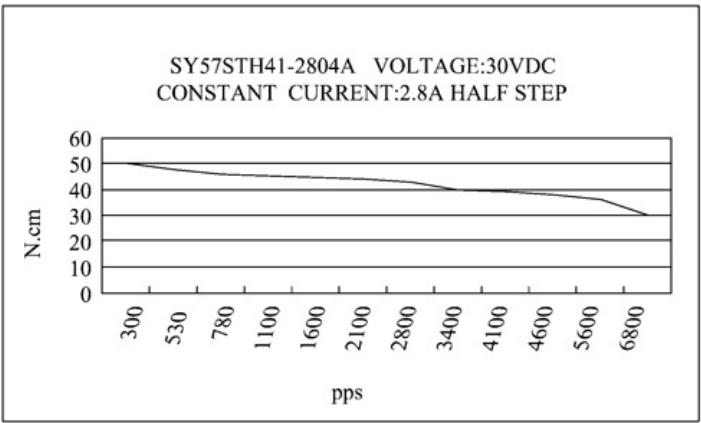
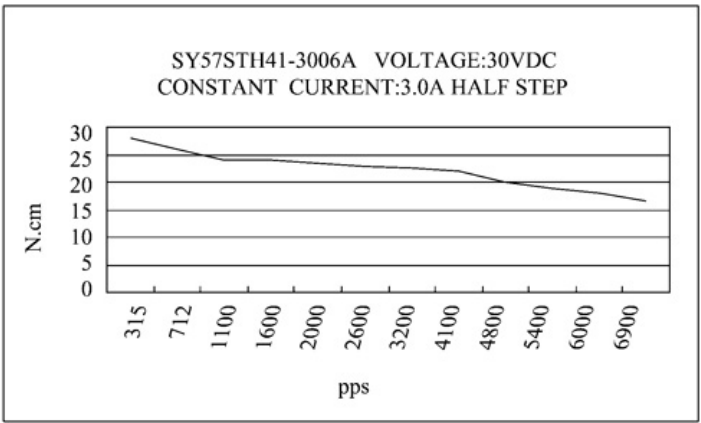


■ Wiring Diagram

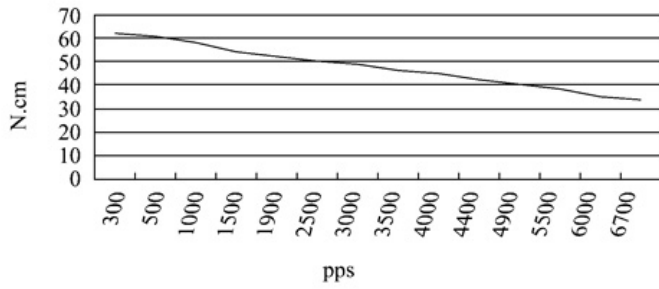


■ Pull out torque

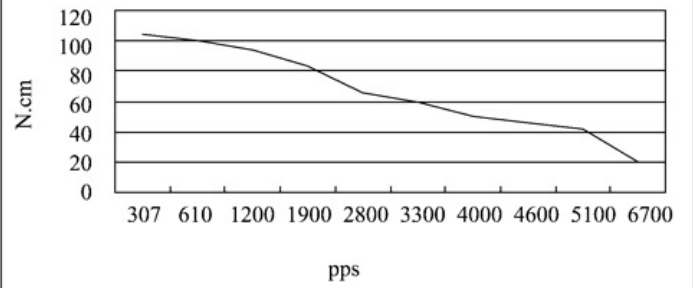




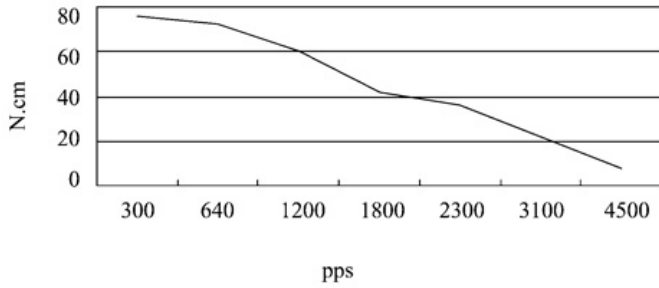
SY57STH56-3006A VOLTAGE:30VDC  
CONSTANT CURRENT:3.0A HALF STEP



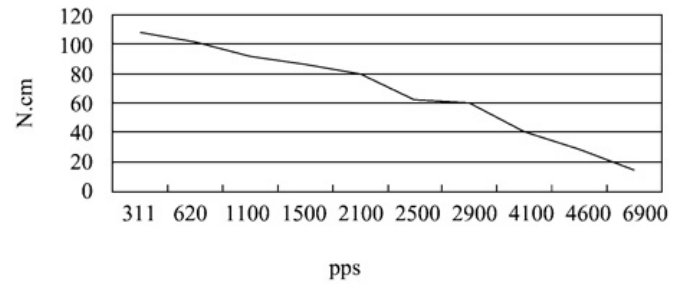
SY57STH56-2804A VOLTAGE:30VDC  
CONSTANT CURRENT:2.8A HALF STEP



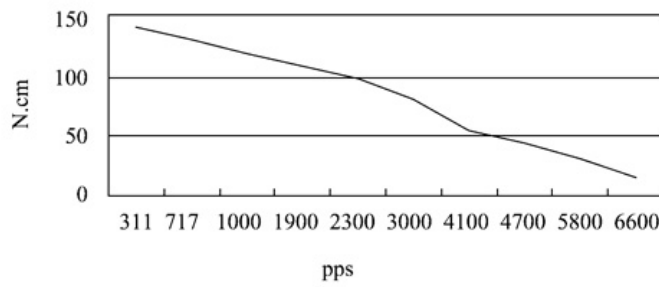
SY57STH76-1006A VOLTAGE:30VDC  
CONSTANT CURRENT:1.0A HALF STEP



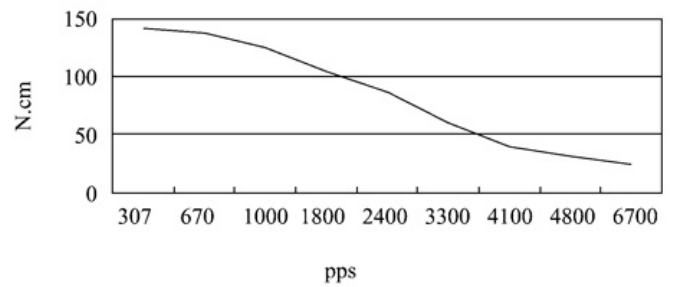
SY57STH76-2006A VOLTAGE:30VDC  
CONSTANT CURRENT:2.0A HALF STEP



SY57STH76-3006A VOLTAGE:30VDC  
CONSTANT CURRENT:3.0A HALF STEP



SY57STH76-2804A VOLTAGE:30VDC  
CONSTANT CURRENT:2.8A HALF STEP





**1.8° Size 85mm High Torque Hybrid Stepping Motor**

■ **General Specification for High Torque Hybrid Stepping Motor**

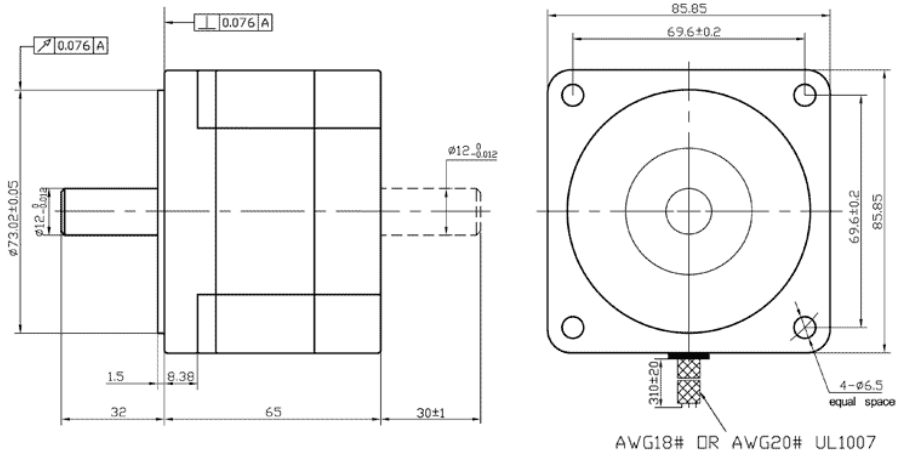
Item	Specifications
Step Angle	1.8°
Step Angle Accuracy	±5% (full step, no load)
Resistance Accuracy	±10%
Inductance Accuracy	±20%
Temperature Rise	80°C Max.(rated current,2 phase on)
Ambient Temperature	-20°C~+50°C
Insulation Resistance	100M Ω Min. ,500VDC
Dielectric Strength	500VAC for one minute
Shaft Radial Play	0.02Max. (450 g-load)
Shaft Axial Play	0.08Max. (450 g-load)
Max. radial force	200 N ( 20mm from the Flange )
Max. axial force	60N
Rotation	CW( See from Front Flange )

■ **Size 85mm Hybrid Stepping Motor Specifications**

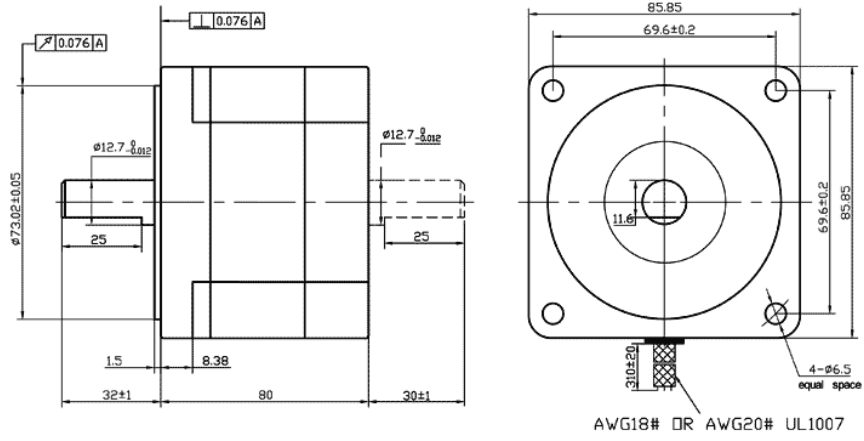
Model No.		Current /Phase	Resistance /Phase	Inductance /Phase	Holding Torque	# of Leads	Rotor Inertia	Weight	Detent Torque	Length
Single Shaft	Double Shaft	A	Ω	mH	kg-cm		g-cm <sup>2</sup>	kg	kg-cm	mm
SY85STH65-5904A	SY85STH65-5904B	5.9	0.28	1.7	34	4	1000	1.7	0.8	65
SY85STH65-2808A	SY85STH65-2808B	2.8	1.4	3.9	34	8				
SY85STH80-5504A	SY85STH80-5504B	5.5	0.46	4	46	4	1400	2.3	1.2	80
SY85STH80-4208A	SY85STH80-4208B	4.2	0.75	3.4	46	8				
SY85STH118-6004A	SY85STH118-6004B	6	0.6	6.5	87	4	2700	3.8	2.4	118
SY85STH118-4208A	SY85STH118-4208B	4.2	0.9	6	87	8				
SY85STH156-6204A	SY85STH156-6204B	6.2	0.75	9	122	4	4000	5.4	3.6	156

■ **Dimension**

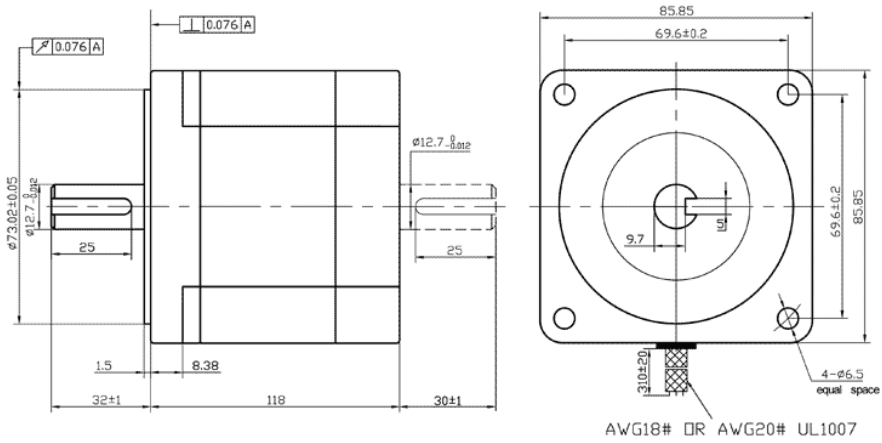
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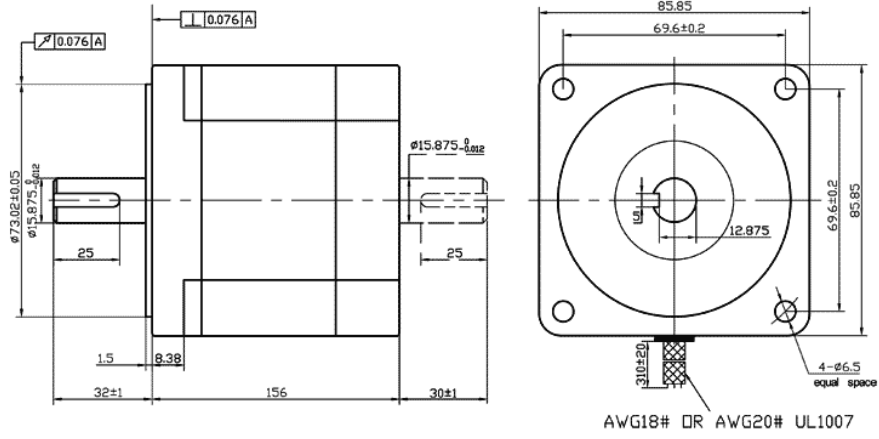
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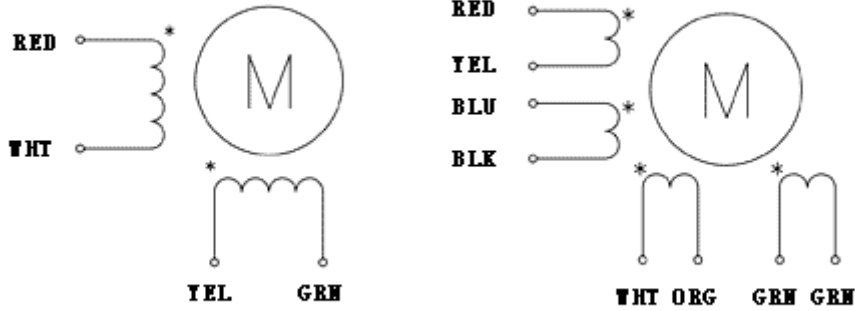
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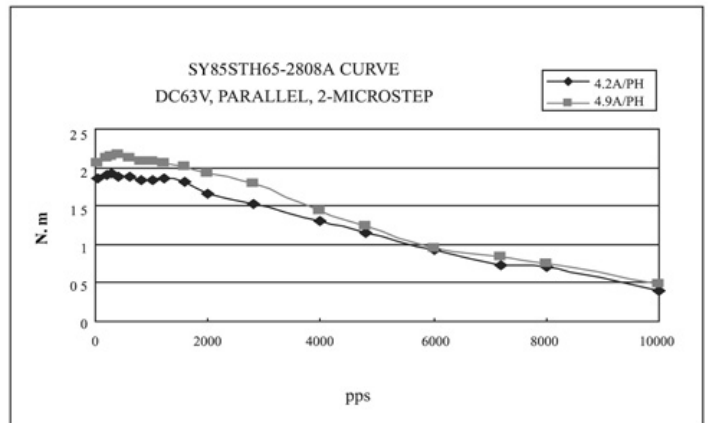
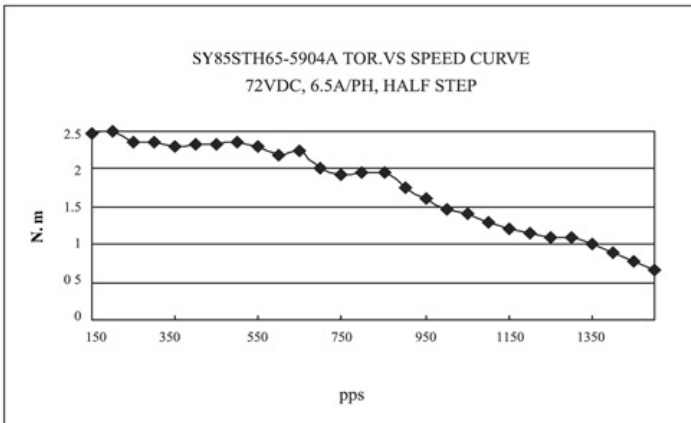
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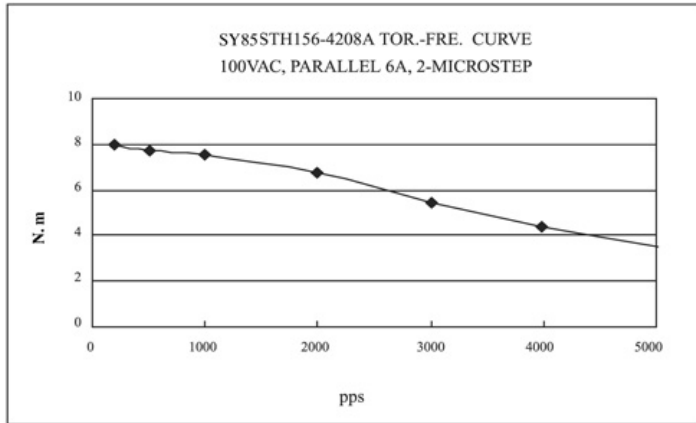
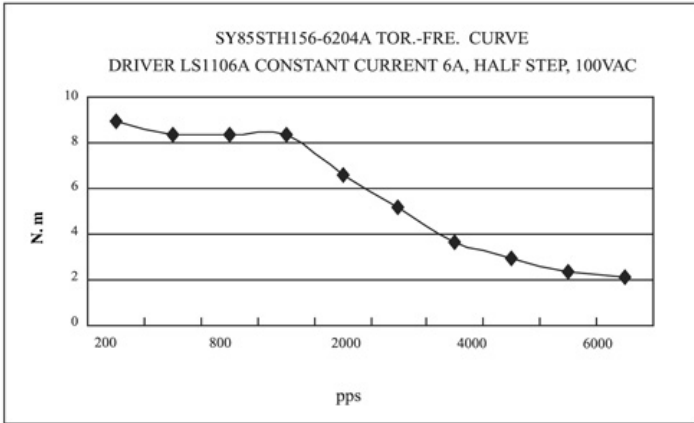
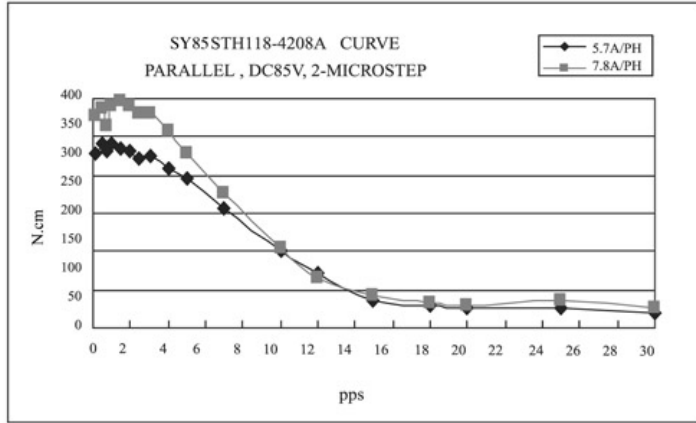
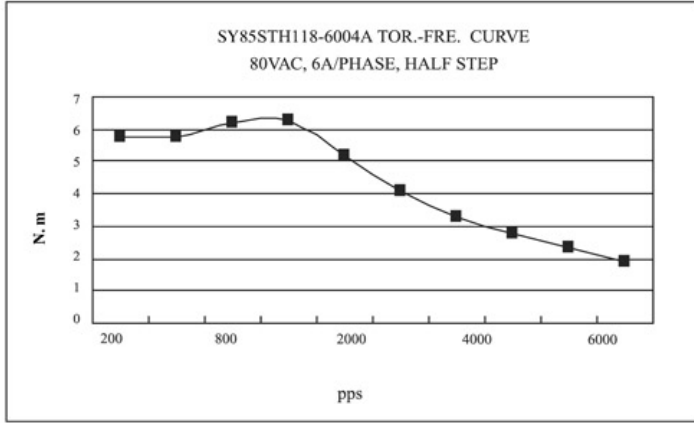
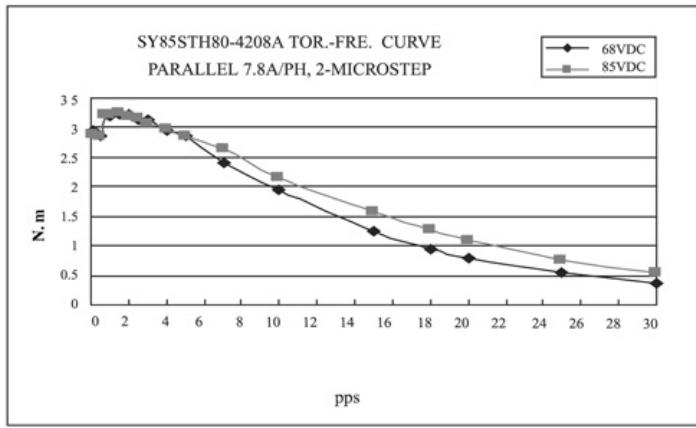
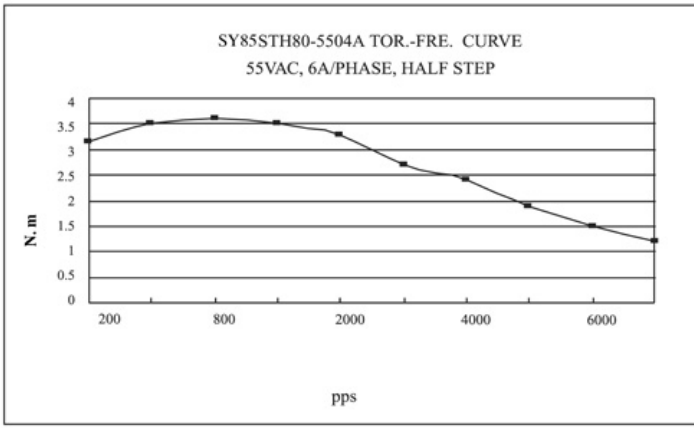


## Wiring Diagram

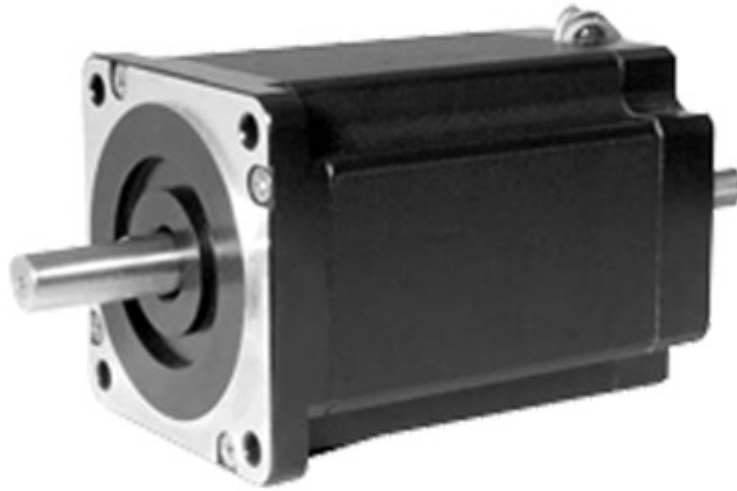


## Pull out torque









### 1.8° Size 110mm High Torque Hybrid Stepping Motor

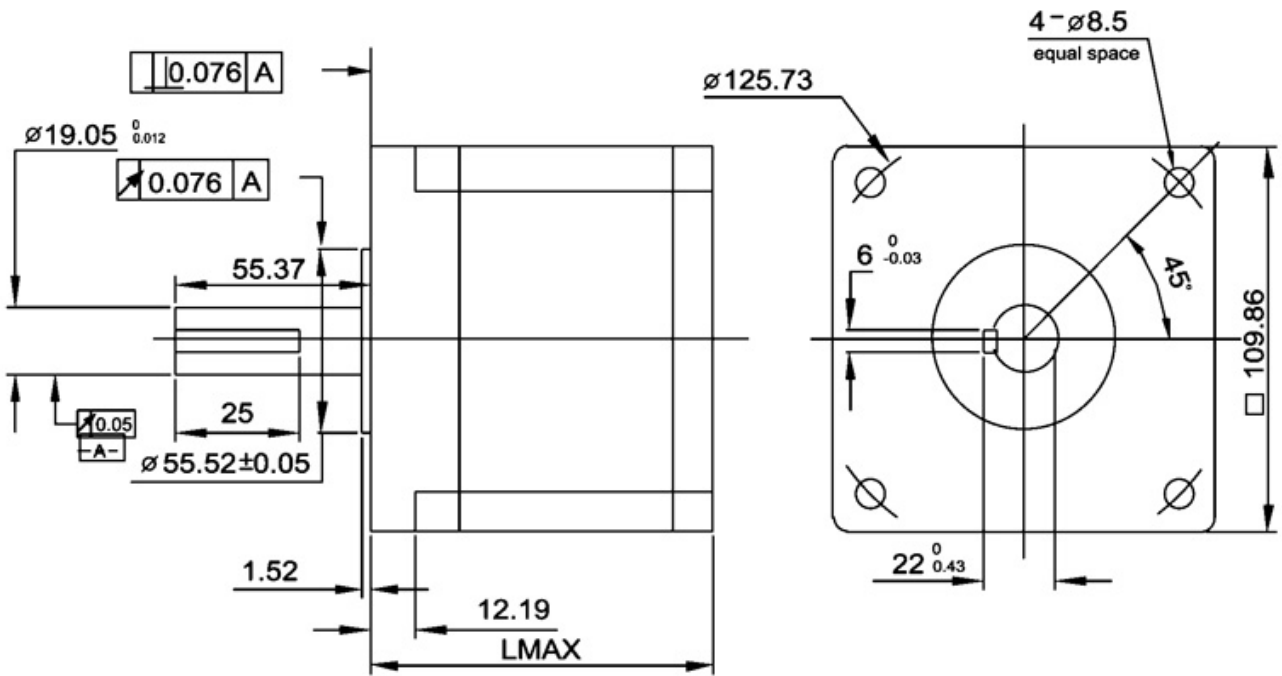
#### General Specification for High Torque Hybrid Stepping Motor

Item	Specifications
Step Angle	1.8°
Step Angle Accuracy	±5% (full step, no load)
Resistance Accuracy	±10%
Inductance Accuracy	±20%
Temperature Rise	80°C Max.(rated current,2 phase on)
Ambient Temperature	-20°C~+50°C
Insulation Resistance	100M Ω Min. ,500VDC
Dielectric Strength	500VAC for one minute
Shaft Radial Play	0.02Max. (450 g-load)
Shaft Axial Play	0.08Max. (450 g-load)
Max. radial force	220N ( 20mm from the flange )
Max. axial force	60N
Rotation	CW( See from Front Flange )

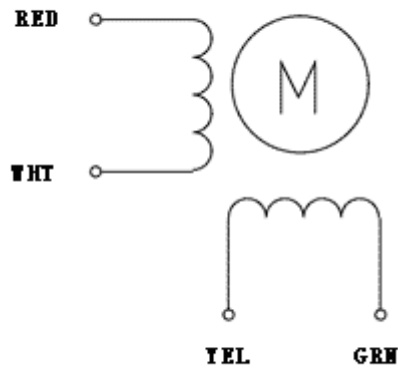
#### Size 110mm High Torque Hybrid Stepping Motor Specifications

Model No.	Current /Phase	Resistance /Phase	Inductance /Phase	Holding Torque	# of Leads	Rotor Inertia	Weight	Detent Torque	Length
Unit	A	Ω	mH	N.m		g-cm <sup>2</sup>	kg	kg-cm	mm
SY110STH99-5504A	5.5	0.9	12	112	4	5500	5	3	99
SY110STH150-6504A	6.5	0.8	15	21	4	10900	8.4	5.9	150
SY110STH201-8004A	8	0.67	12	28	4	16200	11.7	7.5	201

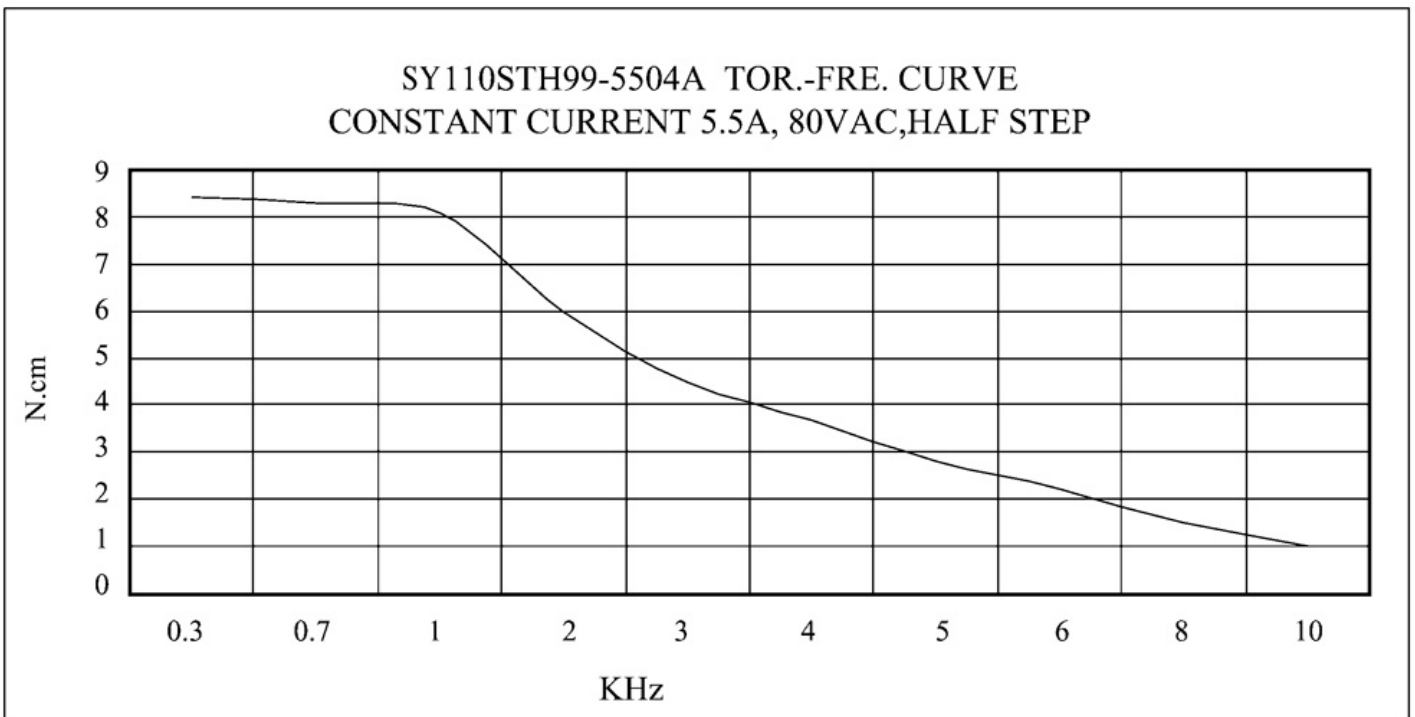
#### Dimension



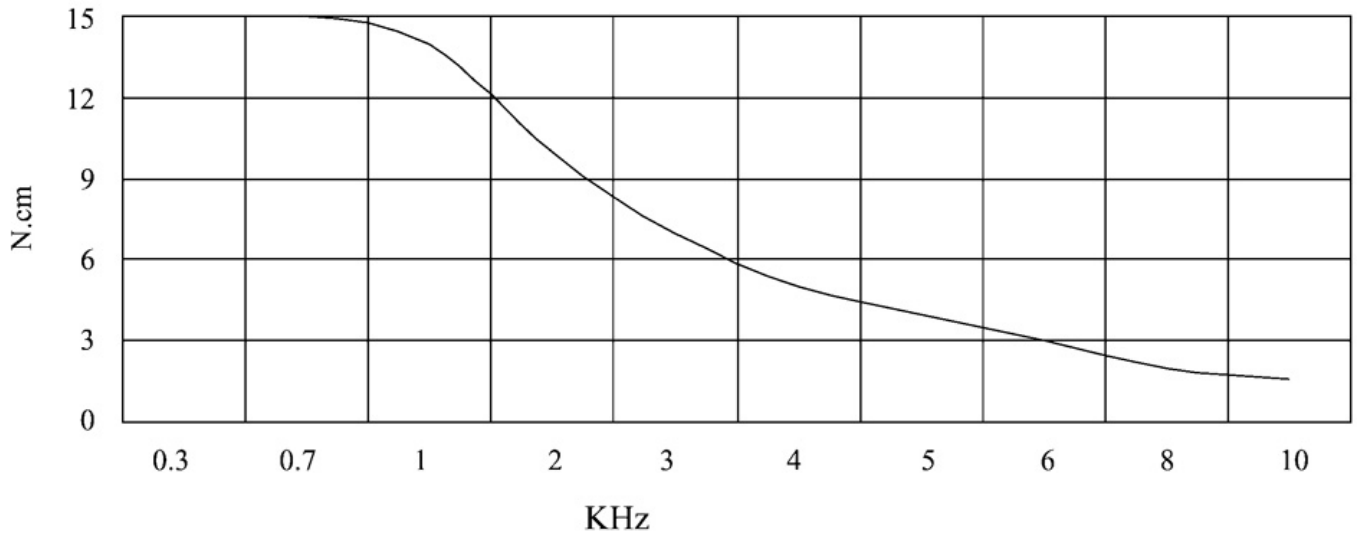
Wiring Diagram



Pull out torque



SY 110STH150-6504A TOR.-FRE. CURVE  
CONSTANT CURRENT 6A,100VAC,HALF STEP



SY110STH201-8004A TOR.-FRE. CURVE  
CONSTANT CURRENT 6A,110VAC,HALF STEP

