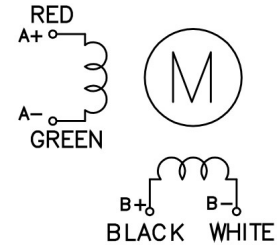


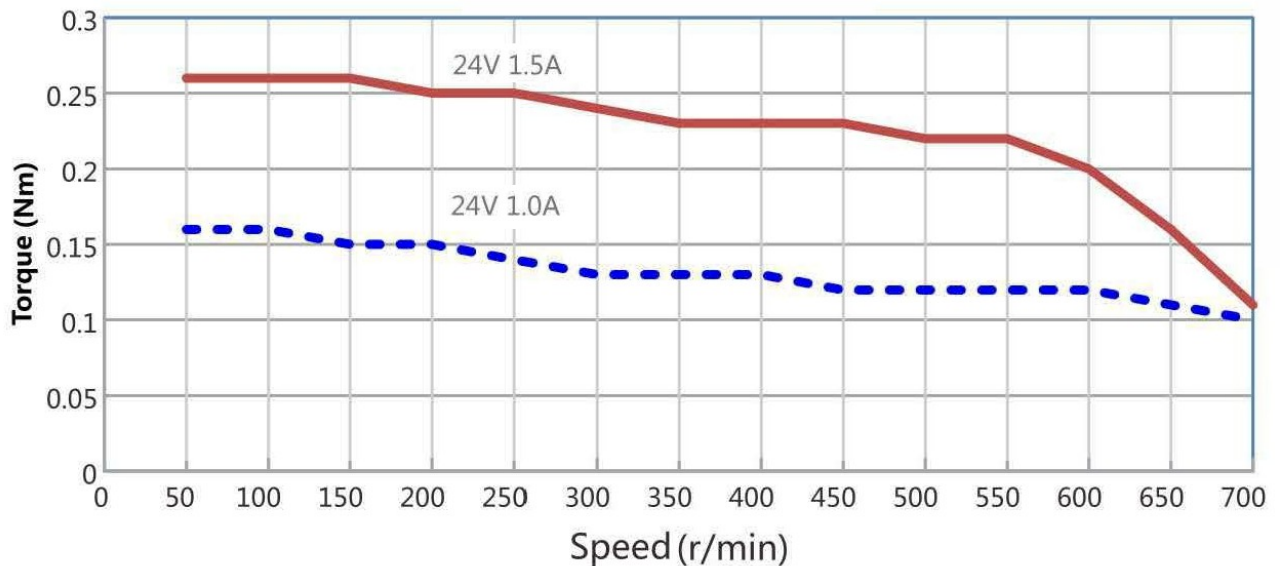
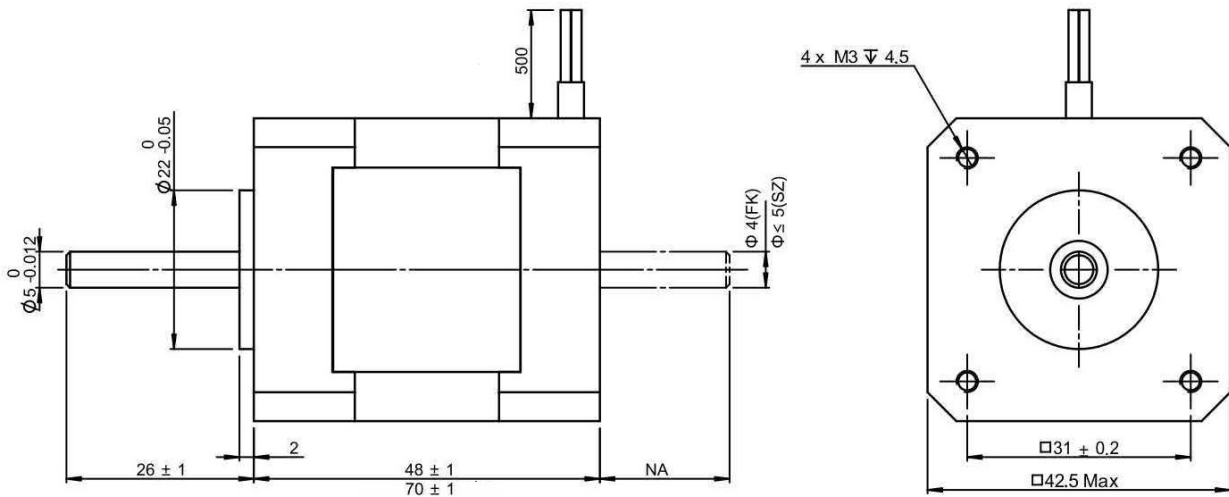
## NEMA17-3015-VAC

## 2-Phase Vacuum Stepper Motor

Specifications	Specifications
Step Angle	1.8°
Step Angle Accuracy	±5% (full step, no load)
Temperature Rise	80°C Max. (rated current, 2 phase on)
Insulation Resistance	100 M Ohm Minn., 500VDC
Dielectric Strength	500 VAC for one minute
Shaft Radial Play	0.02 Max. (450 g-load)
Shaft Axial Play	0.08 Max. (450 g-load)
Max. Radial Force	28N (20mm from the flange)
Max. Axial Force	10N
Temperature Rise	80°C Max. (rated current, 2 phase on)
Ambient Temperature	Selectable in Full Vacuum Class Code Range



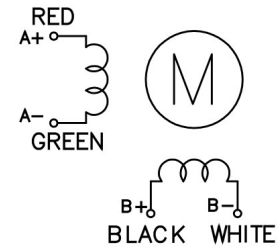
Rated Voltage (V)	2
Current/ Phase (A)	1.5
Resistance/ Phase (Ohm)	1.8
Inductance/ Phase (mH)	2.5
Holding Torque (Nm)	0.3
Rotor Inertia (gcm <sup>2</sup> )	68
Body Length (mm)	48
Weight (kg)	0.38
Motor Length (mm)	48



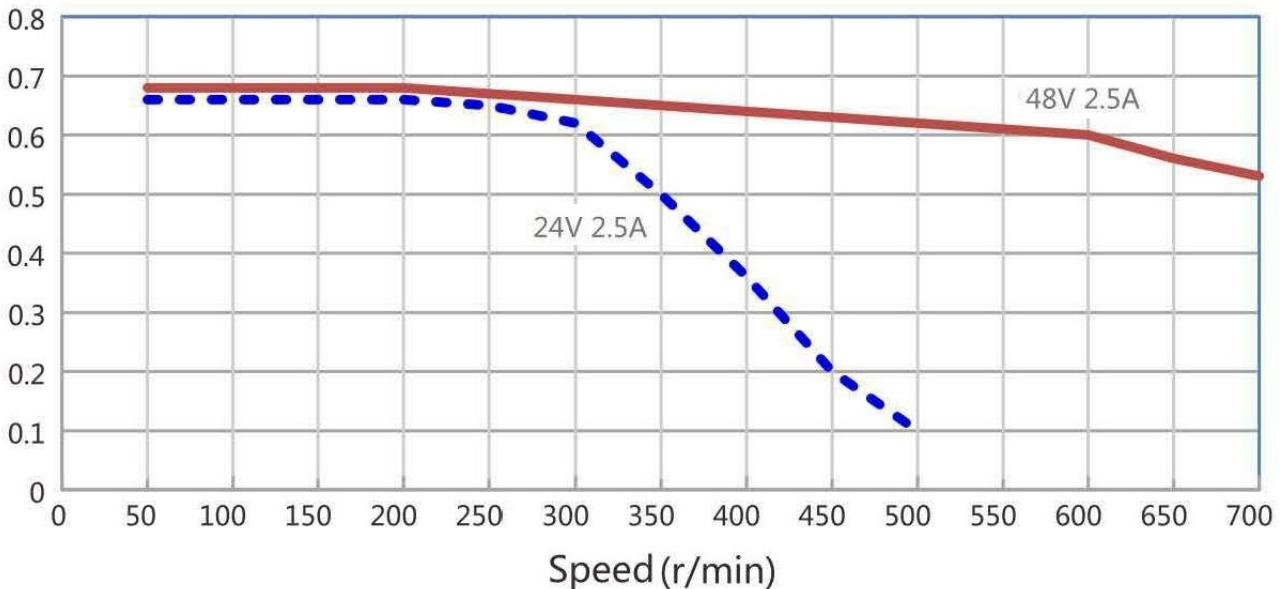
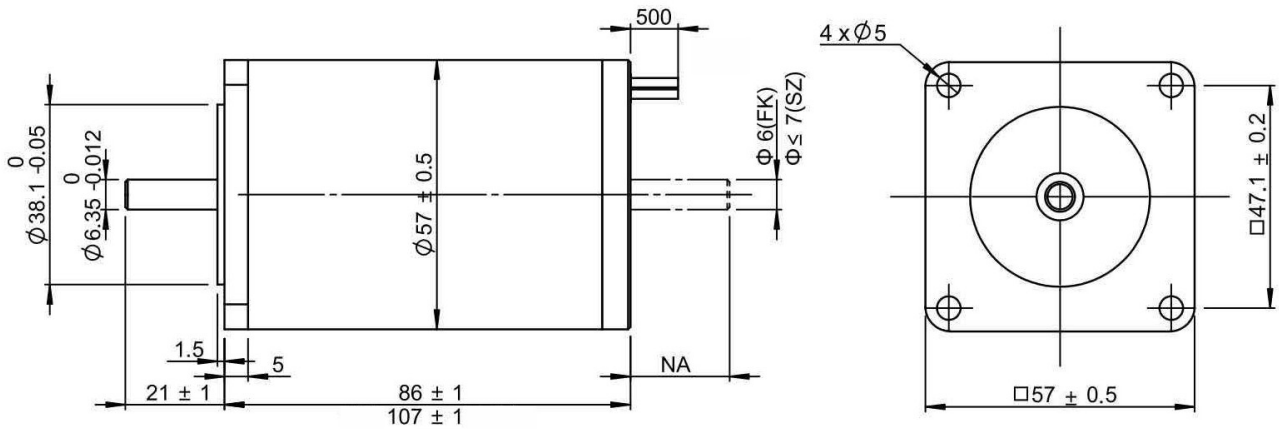
## NEMA23-0825-VAC

## 2-Phase Vacuum Stepper 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)
Insulation Resistance	100 M Ohm 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	75N (20mm from the flange)
Max. Axial Force	15N
Temperature Rise	80°C Max. (rated current, 2 phase on)
Ambient Temperature	Selectable in Full Vacuum Class Code Range



Rated Voltage (V)	1.9
Current/ Phase (A)	2.5
Resistance/ Phase (Ohm)	1.3
Inductance/ Phase (mH)	2.7
Holding Torque (Nm)	0.8
Rotor Inertia (gcm <sup>2</sup> )	350
Weight (kg)	1.2
Motor Length (mm)	86



## Vacuum Classes

Code	Ambient Temperature (°C)	T_R (°C)	T_max (°C)	Vacuum (Pa)	Resolver (FK)	Double-shaft (SZ)	Temp. Sensor	Anti-radiation (RA)
VHT1	-20 ~ +200	200	220	10-5	Optional	Optional	Optional	Optional
VHT2	-20 ~ +160	160	180	10-5	Optional	Optional	Optional	-
SHT	-20 ~ +200	200	220	10-3	Optional	Optional	Optional	-
HT	-20 ~ +150	150	170	10-3	Optional	Optional	Optional	-
VTL1	-20 ~ +100	130	150	10-1	Optional	Optional	Optional	-
VTL2	-40 ~ +100	130	150	10-1	Optional	Optional	Optional	-
VTL3	-60 ~ +100	130	150	10-1	Optional	Optional	Optional	-
LT	-100 ~ +40	100	120	10-7	Optional	Optional	Optional	-
SLT	-196 ~ +40	100	120	10-7	Optional	Optional	Optional	Optional
L*H*	Customized	300	350	10-7	Optional	Optional	Optional	Optional

**T\_R – Rated Temperature - Baked Housing – Rated Temp.**

- After reaching the max temperature, the motor should be run again when the housing temperature is at the ambient.

**T\_max – Max Temperature - Baked Housing - Max Temp.**

- The max temperature on the surface of motor housing lasts 5-minute.