

# 2-Phase Hybrid Stepping Motor

1.8°

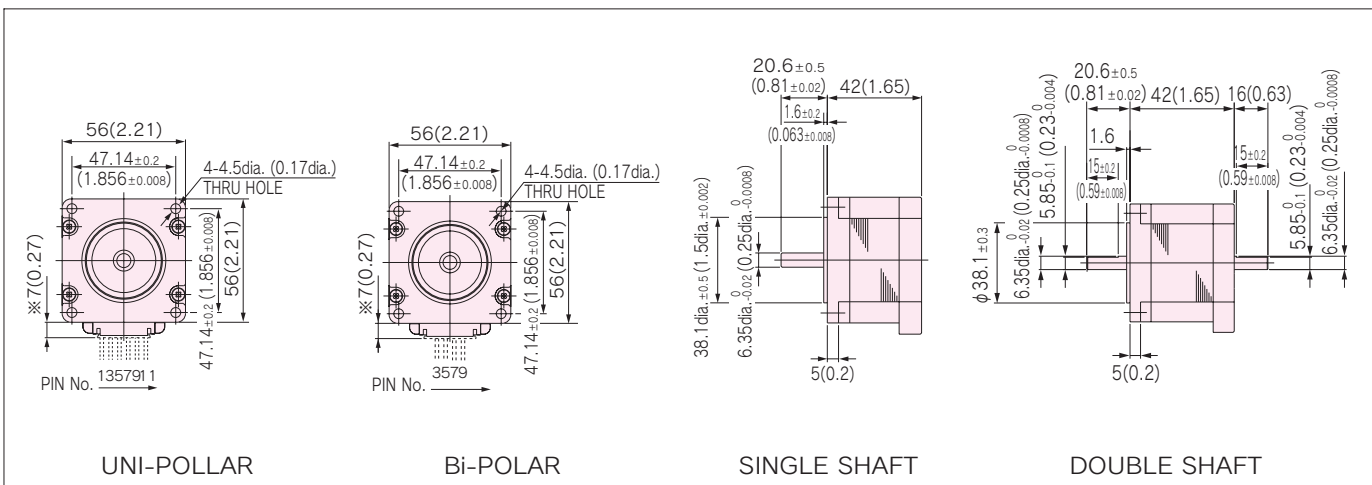
## KH56 series

HIGH TORQUE, LOW VIBRATION AND LOW NOISE

### STANDARD SPECIFICATIONS

M O D E L		KH56JM2			
		SINGLE SHAFT	-901	-902	-903
		DOUBLE SHAFT	-911	-912	-913
DRIVE METHOD	—	UNI-POLAR			BI-POLAR
NUMBER OF PHASES	—	2			2
STEP ANGLE	deg./step	1.8			1.8
VOLTAGE	V	1.68	2.78	4.9	1.96
CURRENT	A/PHASE	3.0	2.0	1.0	2.0
WINDING RESISTANCE	Ω/PHASE	0.58	1.39	4.9	0.98
INDUCTANCE	mH/PHASE	0.61	1.8	6.68	2.27
HOLDING TORQUE	mN · m	422	422	422	490
	oz · in	60	60	60	69
DETENT TORQUE	mN · m	25	25	25	25
	oz · in	3.5	3.5	3.5	3.5
ROTOR INERTIA	g · cm <sup>2</sup>	115	115	115	115
	oz · in <sup>2</sup>	0.62	0.62	0.62	0.62
WEIGHTS	g	400	400	400	400
	lb	0.88	0.88	0.88	0.88
INSULATION CLASS	—	JIS Class E (120°C 248° F) (UL VALUE : CLASS B 130°C 266° F)			
INSULATION RESISTANCE	—	500VDC 100MΩmin.			
DIELECTRIC STRENGTH	—	500VAC 50HZ 1min.			
OPERATING TEMP. RANGE	°C	0 to 50			
ALLOWABLE TEMP.RISE	K	70			

### DIMENSIONS unit = mm (inch)





## Features

- Stronger torque generated in higher speed zone (KH56KM2-901 generates 1.2 times torque of our previous model at 1200 r/min. speed)
- Lowered Vibration by increased stiffness of body construction (lowered by 10% than our previous model)
- Improved Efficiency (1.1 times of our previous model, by high grade materials)

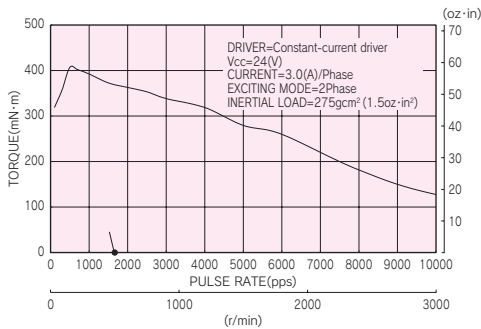
## TORQUE CHARACTERISTICS vs. PULSE RATE

UNI-POLAR

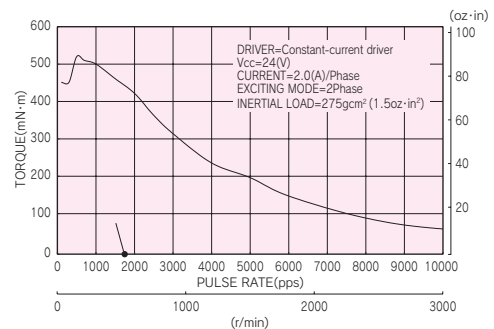
BI-POLAR

— PULL-OUT  
● PULL-IN

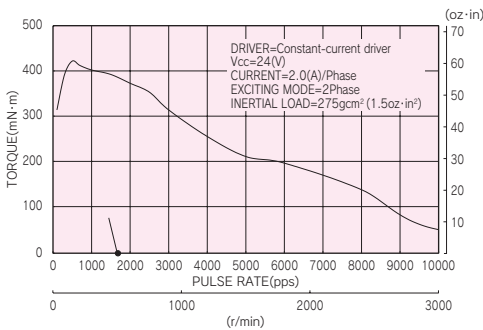
KH56JM2-901, 911



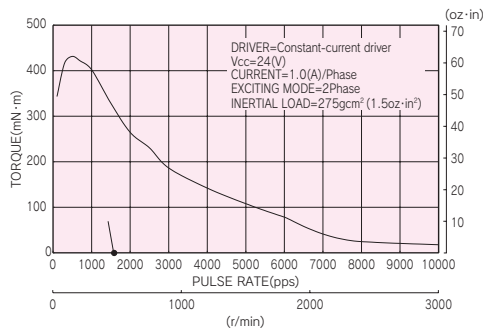
KH56JM2-951, 961



KH56JM2-902, 912

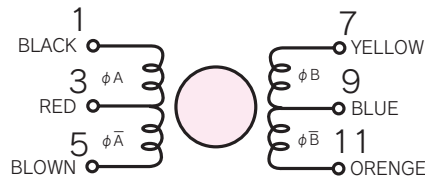


KH56JM2-903, 913



## CONNECTION DIAGRAMS

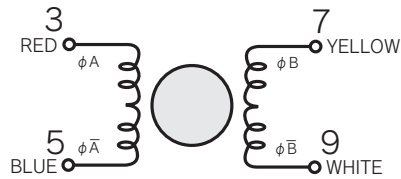
UNI-POLAR



EXCITATION SEQUENCE

STEP	1	2	3	4
BLACK	-	-	-	-
YELLOW	-	-	-	-
BROWN	-	-	-	-
ORANGE	-	-	-	-
RED	+	+	+	+
BLUE	+	+	+	+

BI-POLAR

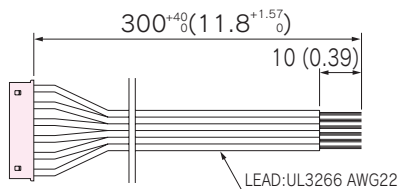


EXCITATION SEQUENCE

STEP	1	2	3	4
RED	+	+	-	-
YELLOW	-	+	+	-
BLUE	-	-	+	+
WHITE	+	-	-	+

## CONNECTION CABLE TO MOTOR unit = mm (inch)

UNI-POLAR



BI-POLAR

