

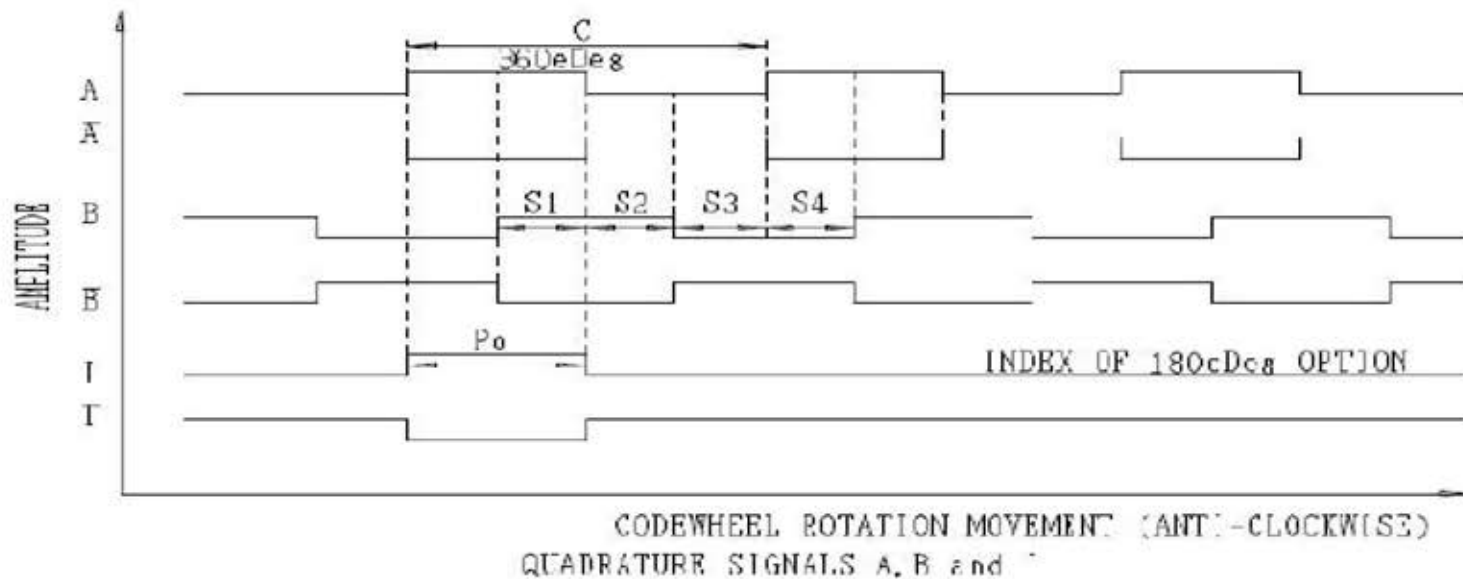
Electrical characteristics									
Rated voltage	2.1 V								
Rated current	3.0 A								
Max. input	12.6 W								
Step angle	1.8 °								
Step accuracy(positional)	1.8 °	±	0.09 °	at	Rated current DUAL				
Max. holding torque	1.53 Nm	{	15.6 kgfcm	MIN.	at Rated current DUAL				
Detent torque	60 mNm	{	610 gfcm	REF.					
Pull out torque	-	mNm	{	-	gfcm	MIN.	at	-	Hz
Pull in torque	-	mNm	{	-	gfcm	MIN.	at	-	Hz
Max. no load response	-	Hz	MIN.						
Max. slew speed	-	Hz	MIN.						
Driving condition	DC		24 V		3 A[φ]		DUAL	STK682-001-E	
Winding resistance	0.7 Ω		±		0.1 Ω				
Winding inductance	2.7 mH		REF.		at 1 kHz, 1 V[RMS]				
Insulation resistance	100M Ω MIN. with DC 500 V insulation resistance tester applied between winding and case.								
Dielectric strength	There shall be no breakdown at AC500 V (50 or 60) Hz applied for 60 s between winding and case.								
Temperature rise	80°C MAX. determined by means of resistance method with "A" phase and "B" phase energized simultaneously at rated voltage.								
Class of insulation	JIS B								
Ambient temperature	-10 °C ~ +50 °C								
Mechanical characteristics									
Direction of shaft rotation	Rotation of shaft to be CW facing mounting end when connection FIG.1 and sequenced as FIG. 2.								
Radial play	20 μm MAX. at 4.4 N[450 gf] LOAD								
End play	0.2 mm MAX. at 49 N[5 kgf] LOAD								
Rotor inertia	490 gcm ² REF.								
Mass	1150 g				REF.				
Environmental harmony									
Composed parts are RoHS compliant.									

Special specifications

(i) Encoder specifications

ITEM	Specifications
Encoder type	AVAGO AEDR-8501 Incremental
Detection method	Reflective surface
Output seal	A, \bar{A} , B, \bar{B} , I, \bar{I} (Three channel) Line driver output
Resolution	4,000 CPR
Supply voltage	DC 5 V \pm 0.25 V
Supply current	25 mA REF.
Output voltage	-0.5 V to +5.5 V
Wave form	Rectangle wave
Count frequency	220 kHz MAX. (4X)
State S_1, S_2, S_3, S_4	$(C/4) \pm (C/8)$
Index pulse width P_0	$(C/4) \leq P_0 \leq (3C/4)$
Duty	$(C/2) \pm (C/4)$

出力波形図 OUTPUT WAVE FORM



STEP	L/W COLOR			
	RED	BLU	YEL	ORG
1	+	+	-	-
2	-	+	+	-
3	-	-	+	+
4	+	-	-	+

FIG. 2

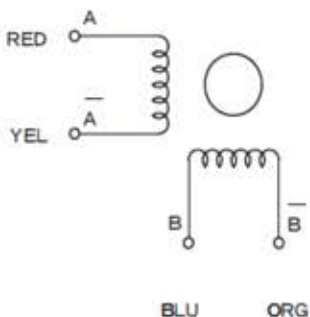
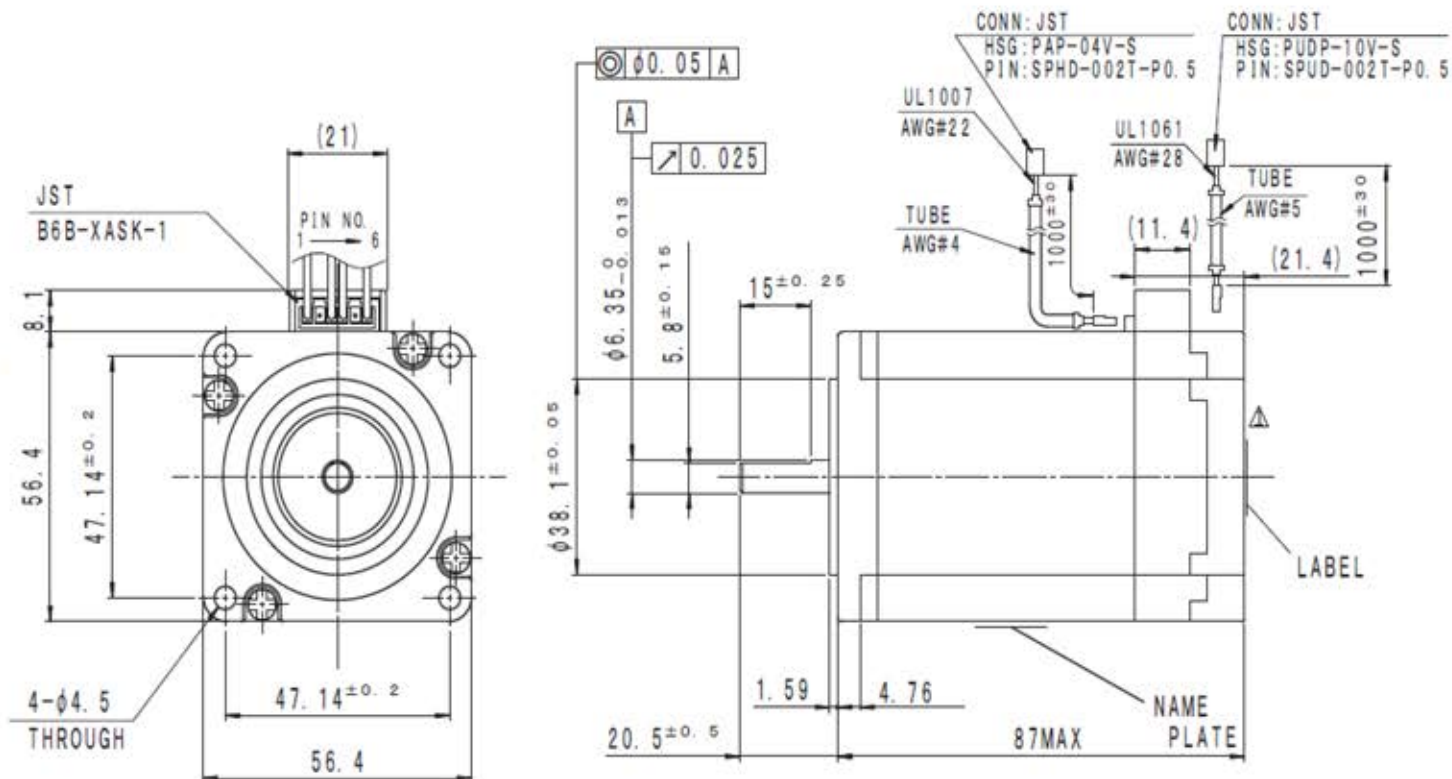


FIG. 1



FOR MOTOR

PIN NO.	L/W COLOR
1	RED
2	YEL
3	BLU
4	ORG

FOR ENCODER

PIN NO.	SIGNAL	L/W COLOR
1	Vcc	RED
2	GND	BLK
3	CH. A	WHT
4	CH. A̅	GRN
5	CH. B	BRN
6	CH. B̅	YEL
7	CH. I	BLU
8	CH. I̅	ORG
9	-	-
10	-	-

MOTOR AND L/WIRE CONN. ASS'Y ARE SEPARATED, BUT PACKED IN SAME BOX.

REFERENCE

MARK	DATE	REASON	ECN NO.	ENGINEER	APPROVED	APPROVED	CHECKED	DRAWN	UNIT	MATERIAL	DATE	DESCRIPTION	SHEET
									UNIT	MATERIAL	MAR./08/'17	DESCRIPTION	1/1
									SCALE	SURF. FINISH		HYBRID STEP MOTOR	
										HEAT TREAT		PART NO. (MODEL NO.)	REV
										FINISH		DRAWING NO.	A
												A23KMH744CNVA0578	

