

MOTOR SPECIFICATION

CUSTOMER'S P/N : 4T5618S2404-A

1. SCOPE

1-1 Scope

This specification covers the general requirements for the step motor

1-2 Type

This step motor consists of bipolar winding stator and hybrid magnet rotor.

2. RATING

- 2-1 Duty : Continuous (Under the condition specified in paragraph 4-12.)
- 2-2 Step angle : 1.8 deg / full step
- 2-3 Number of phase : 2
- 2-4 Rated voltage : 1.25 V D.C.
- 2-5 Rated current : 3.6 A / phase
- 2-6 Insulation class (UL) : Materials to be equivalent to UL-B class. (Except lead wires)

3. STANDARD TEST CONDITION

Unless otherwise specified, all measurements and tests shall be made under the following condition.

- 3-1 Ambient temperature : 15 °C ~ 30 °C
- 3-2 Ambient humidity : 45 % ~ 80 %
- 3-3 Atmospheric pressure : 930 hPa ~ 1020 hPa
- 3-4 Exciting method : 2 phase exciting
- 3-5 Test circuit : According to Fig. 1

4. ELECTRICAL CHARACTERISTICS

- 4-1 Winding resistance : 0.35 Ω ± 15 % ... at 25 °C
- 4-2 Winding inductance : 1.2 mH ± 20 % ... 1kHz, 0.5Vrms
- 4-3 Holding torque : 79.4 N·cm (8.1kgf·cm) MIN. ... 3.6 A / phase, 2 phase exciting
- 4-4 Detent torque : 3.04 N·cm (310 gf·cm) NOMINAL
- 4-5 Maximum starting pulse rate : 860 pps MIN. ... No load
- 4-6 Positional accuracy : Less than ± 0.09 deg ... Excluding hysteresis
- 4-7 BACK EMF (300 rpm)

	Voltage [V]	Frequency [Hz]
PHASE A	4.76 ± 20%	250 ± 1%
PHASE B	4.76 ± 20%	250 ± 1%
PHASE A+B	6.65 ± 20%	

4-8 Direction of rotation

Phase sequence to produce clockwise rotation viewed from mounting end is as Table 1.

STEP	A	B	\bar{A}	\bar{B}
1	+	+	-	-
2	-	+	+	-
3	-	-	+	+
4	+	-	-	+
5	+	+	-	-

Table 1. Phase sequence

4-9 Lead wire

- 4-9-1 Type : AWG 22 , UL 3265 , CSA AWM
- 4-9-2 Color : According to Table 2.

Phase	A	B	\bar{A}	\bar{B}
Color	Brown	Red	Orange	Yellow

Table 2. lead color

4-10 Insulation resistance

: More than 100 MΩ
... Apply 500 V D.C. between motor frame and lead wires.

4-11 Dielectric strength

: 500 V A.C. ; 1 minute.
... Motor is capable of withstanding without break down, when 500 V A.C. is applied for period of a minute between motor frame and lead wires. Cut off current is less than 3mA.

4-12 Temperature rise

- 4-12-1 Coil temperature rise : Less than 80 K (80 deg)
... Measured by resistance method when two windings are excited by 1.25 V D.C. 0 pps, with aluminum heat sink 150×150×t2

一般公差 TOLERANCES (EXCEPT AS NOTED)		±							
材質 MATERIAL		仕上処理 FINISH		改訂 REV.	年月日 DATE	変更票番号 REVISION NO.	変更事項 REVISIONS	担当者 BY	備考 NOTE
				変更履歴 REVISION RECORD				成版日 FIRST ISSUE	97-11-21
製図 DRAWN	設計 DESIGNED	検図 CHECKED	検印 CHECKED	尺度 SCALE	品名 TITLE	MOTOR SPECIFICATION		三角法 THIRD ANGLE PROJECTION	
精電事 97-11-21 西沢(智)	精電事 97-11-21 西沢(智)	精電事 97.11.21 佐野	精電事 97.11.21 和田(一)		図番 DWG. NO.	X-140-8331-00		シート SHEET	
								1 / 3	

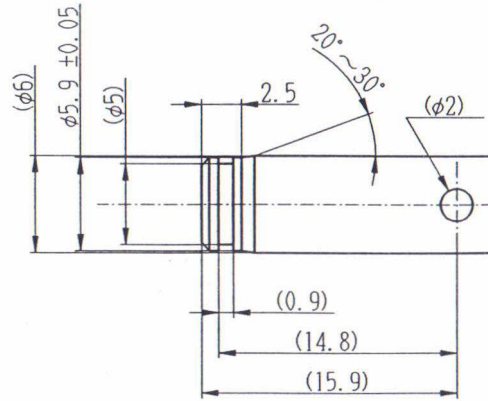
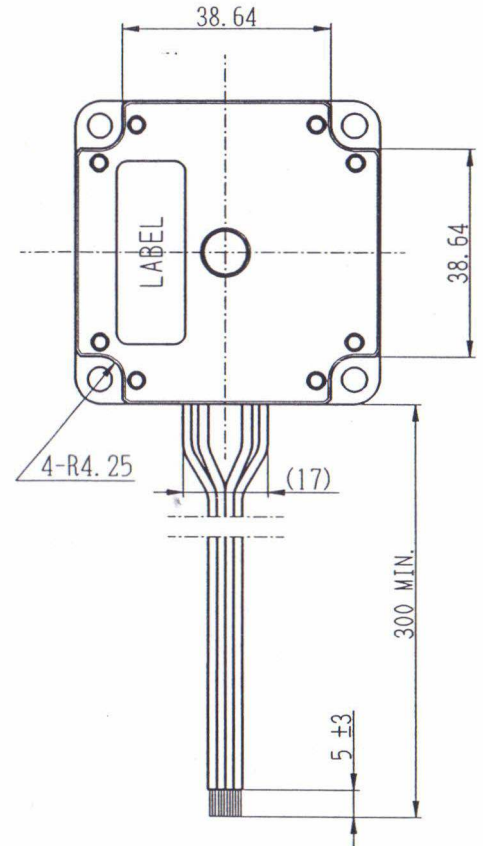
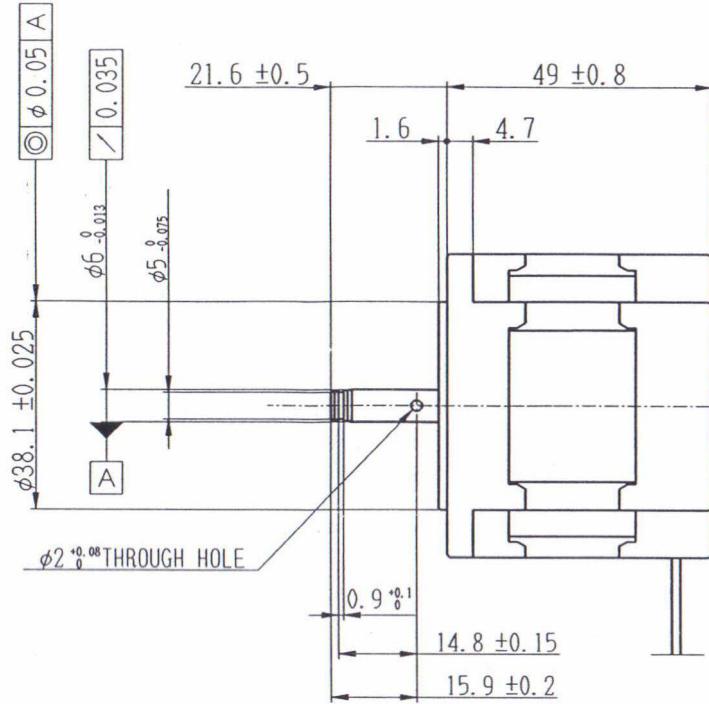
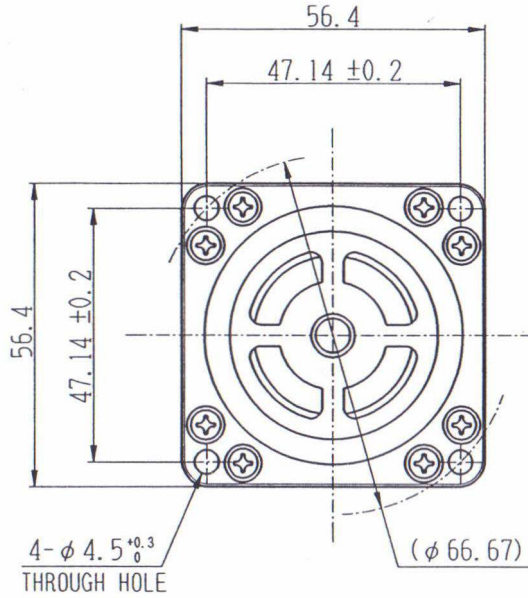
A

B

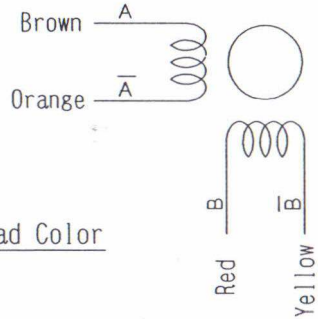
C

D

E



Shaft detail (3:1)



Lead Color

一般公差 TOLERANCES (EXCEPT AS NOTES)	± 0.3								
材質 MATERIAL		改訂 SYM	年月日 DATE	変更番号 REVISION NO.	変更事項 REVISIONS	担当者 BY	備考 NOTE		
仕上処理 FINISH		変更履歴 REVISION RECORD				成版日 FIRST ISSUE	97-11-21		
製図 DRAWN	設計 DESIGNED	検図 CHECKED	検印 CHECKED	尺度 SCALE	品名 TITLE	MOTOR SPECIFICATION		三角法 THIRD ANGLE PROJECTION	
精電事 97-11-21 西沢(智)	精電事 97-11-21 西沢(智)	精電事 97.11.21 佐野	精電事 97.11.21 和田	1:1	図番 DWG. NO.	X-140-8331-00			
							シート SHEET	3 / 3	