# SST41D (Size 17) series

**2 phase 1.8 deg Hybrid stepper motor**

**Application** * Printer, Image scanner, Copier and others
**Feature** * Low profile construction & High output power
* Stamped end-bell & reliable sleeve bearing

**Step angle** :1.8 deg / Full step
**Number of phase** :2
**Position accuracy** :±0.144 deg C (max)
**Insulation class** :Class B (except leadwire)
**Insulation resistance**:100MΩ min
**Operating condition**
  **Temperature** : 0-50 deg C
  **Humidity** : 20-95%
  (No condensation)

## SPECIFICATION

| Model | Rated Voltage | Rated Current | Winding Resistance | Inductance | Holding Torque | Lead number | Motor length |
|---|---|---|---|---|---|---|---|
| | V | A/Φ | Ω/Φ | mH/Φ | mN-m | Lead | L |
| SST42D0050 | 5.3 | 0.5 | 10.5 | 20.0 | 137 | 4 | 22.0 |
| SST41D0070 | 3.4 | 0.7 | 4.9 | 9.0 | 137 | 4 | 22.0 |
| SST41D0100 | 2.3 | 1.0 | 2.3 | 3.9 | 127 | 4 | 22.0 |
| SST41D0120 | 1.6 | 1.2 | 1.3 | 2.3 | 118 | 4 | 22.0 |
| SST41D1070 | 3.9 | 0.7 | 5.5 | 11.0 | 230 | 4 | 29.5 |
| SST41D1100 | 2.3 | 1.0 | 2.3 | 4.7 | 226 | 4 | 29.5 |
| SST41D1120 | 1.9 | 1.2 | 1.6 | 2.7 | 196 | 4 | 29.5 |
| SST41D1140 | 1.6 | 1.2 | 1.3 | 1.9 | 167 | 4 | 29.5 |

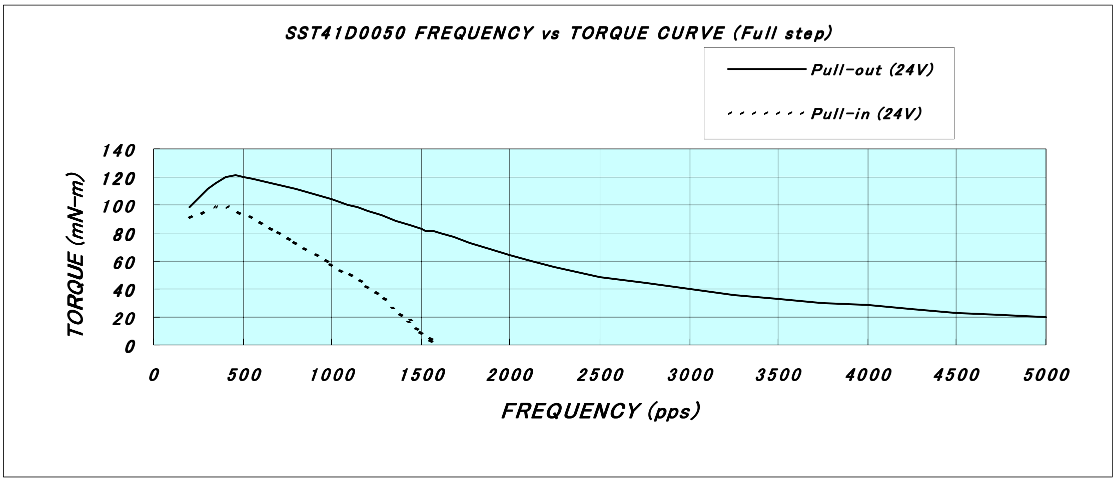
## TABLE (CW)

| Pin No. | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Phase | A | B | $\overline{A}$ | $\overline{B}$ |
| Step 1 | + | + | - | - |
| Step 2 | - | + | + | - |
| Step 3 | - | - | + | + |
| Step 4 | + | - | - | + |
| Step 5 | + | + | - | - |

# SST41D0 (Size 17) series

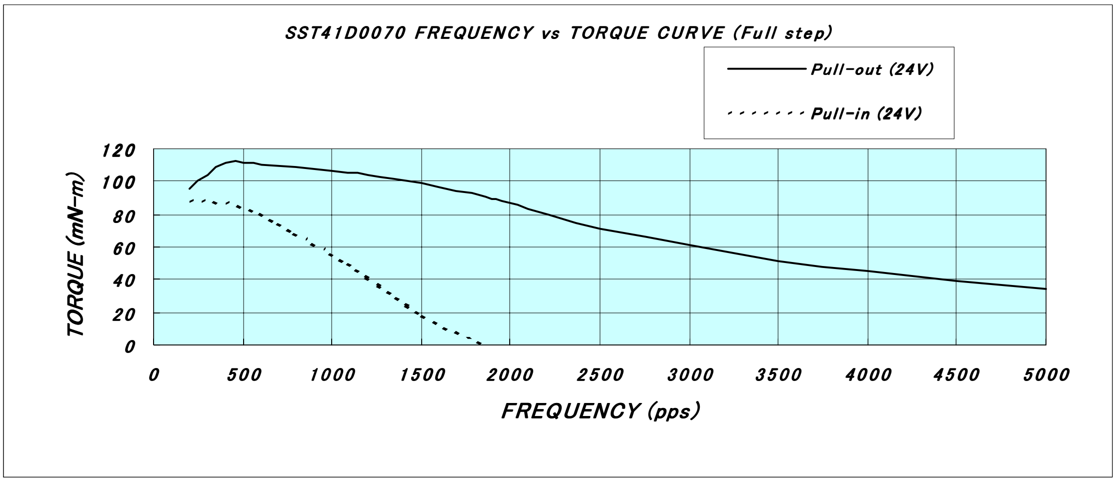
## SST41D0050

| | |
|---|---|
| **Voltage** | **24V DC** |
| **Current** | **0.5A** |
| **Driver** | **MTD2005** |
| **Inertia Load** | **3g-cm2** |
| **Exciting mode** | **Bipolar 2 phase** |




## SST41D0070

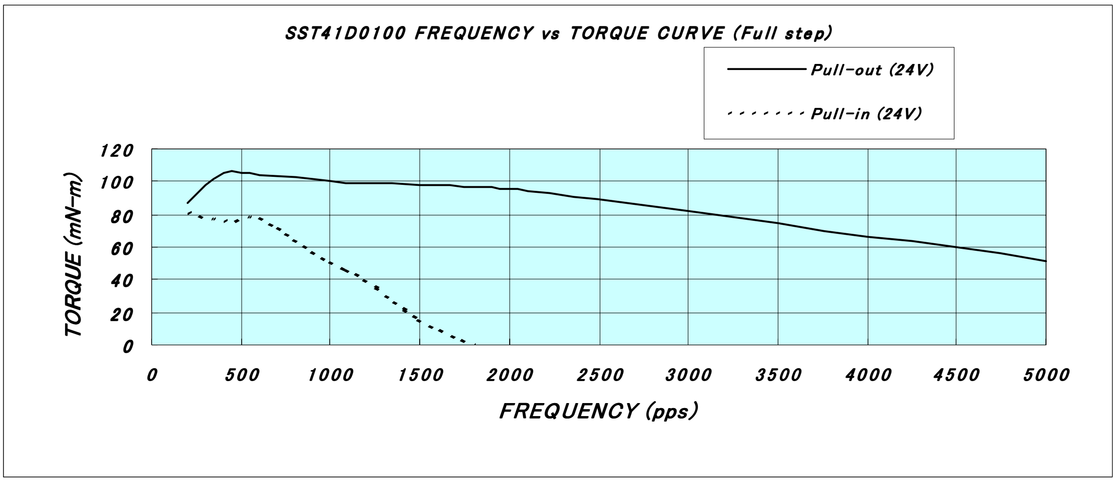
| | |
|---|---|
| **Voltage** | **24V DC** |
| **Current** | **0.7A** |
| **Driver** | **MTD2005** |
| **Inertia Load** | **3g-cm2** |
| **Exciting mode** | **Bipolar 2 phase** |



# SST41D0 (Size 17) series

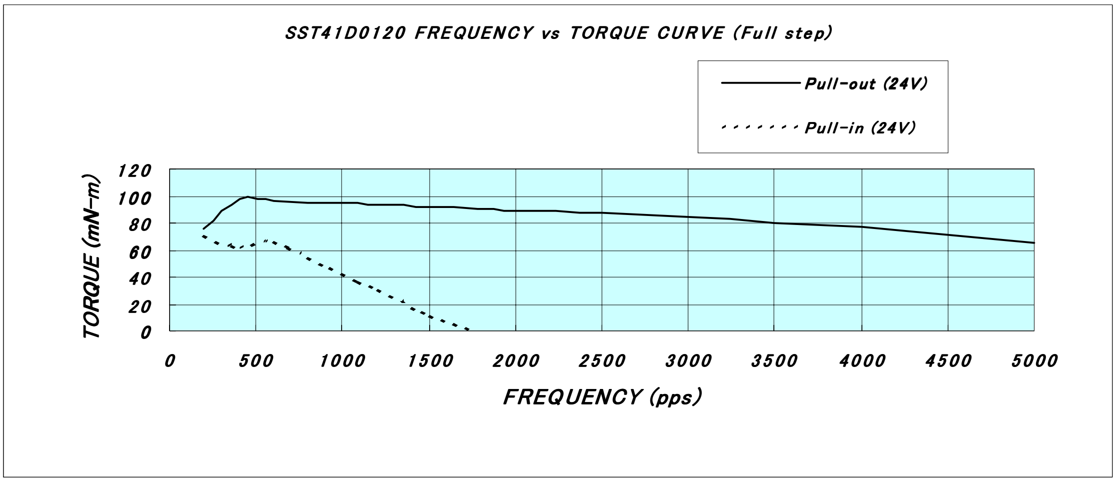
## SST41D0100

| | |
|---|---|
| Voltage | 24V DC |
| Current | 1.0A |
| Driver | MTD2005 |
| Inertia Load | 3g-cm2 |
| Exciting mode | Bipolar 2 phase |




## SST41D0120

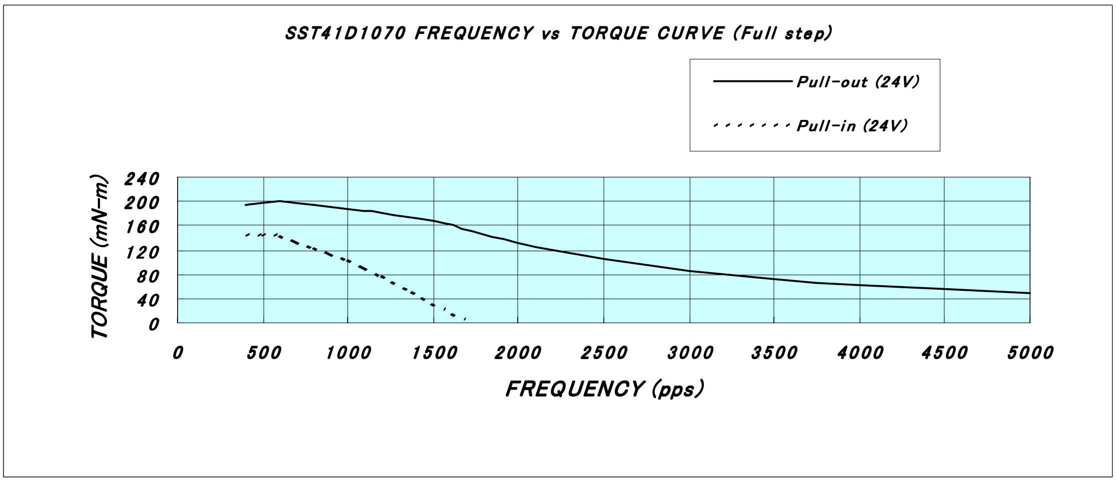
| | |
|---|---|
| Voltage | 24V DC |
| Current | 1.2A |
| Driver | MTD2005 |
| Inertia Load | 3g-cm2 |
| Exciting mode | Bipolar 2 phase |



# SST41D 1(Size 17) series

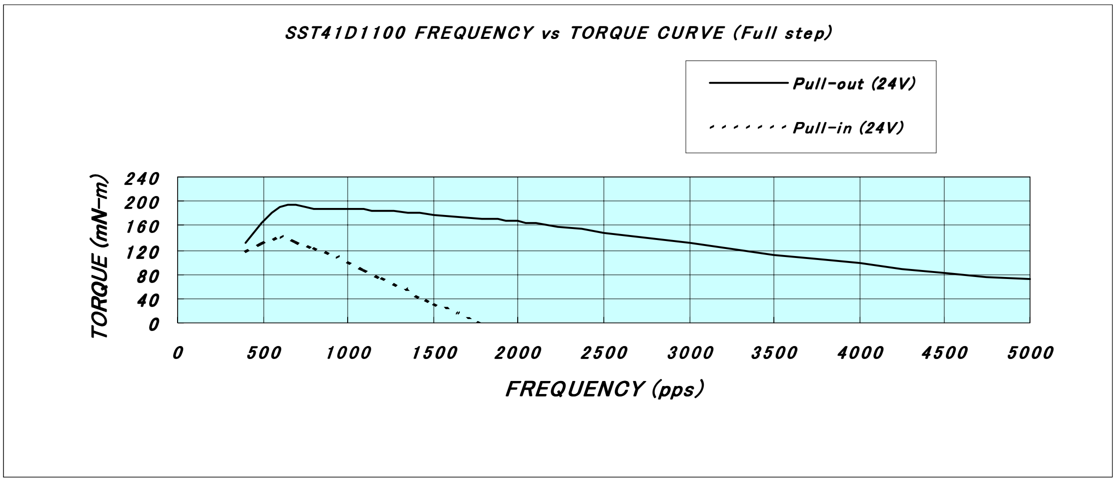
## SST41D1070

| Voltage | 24V DC |
|---|---|
| Current | 0.7A |
| Driver | MTD2005 |
| Inertia Load | 3g-cm2 |
| Exciting mode | Bipolar 2 phase |




## SST41D1100

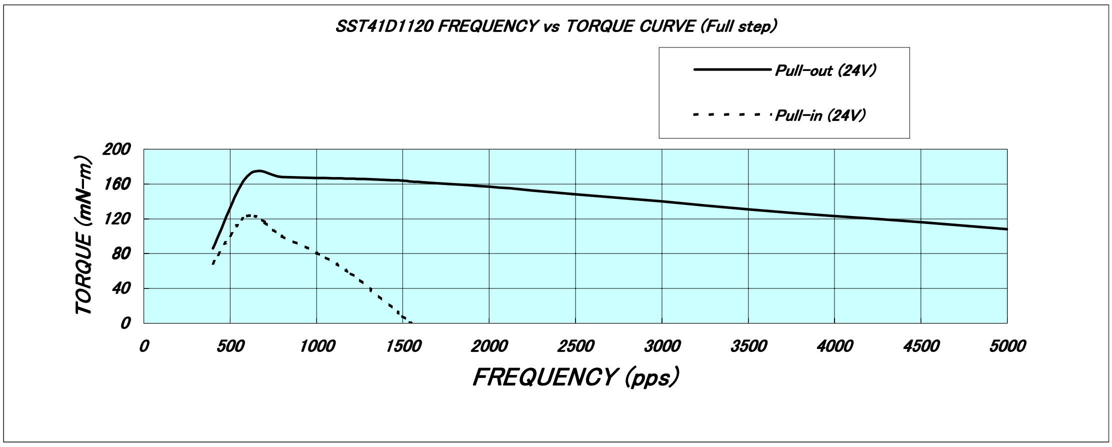
| Voltage | 24V DC |
|---|---|
| Current | 1.0A |
| Driver | MTD2005 |
| Inertia Load | 3g-cm2 |
| Exciting mode | Bipolar 2 phase |



# SST41D1 (Size 17) series

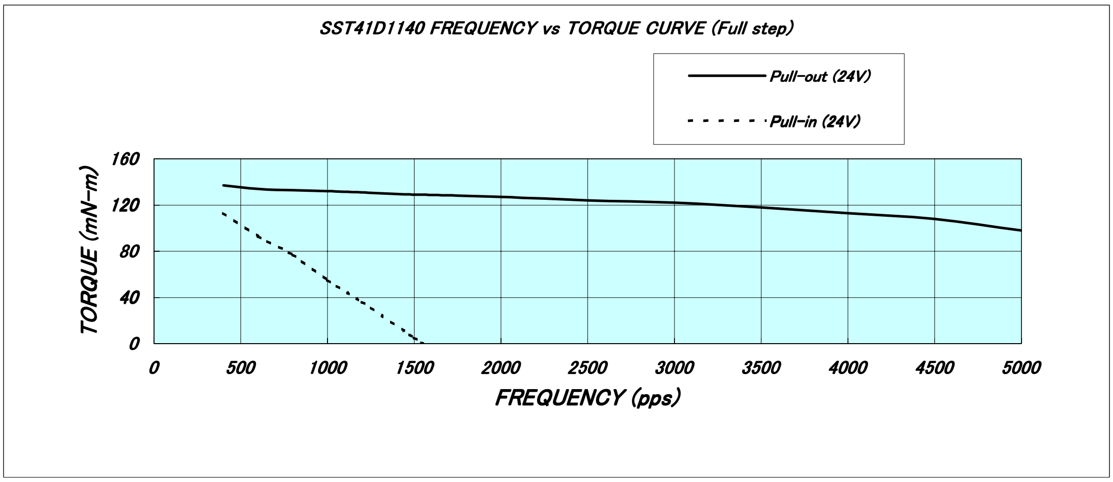
## SST41D1120

| | |
|---|---|
| **Voltage** | **24V DC** |
| **Current** | **1.2A** |
| **Driver** | **MTD2005** |
| **Inertia Load** | **3g-cm2** |
| **Exciting mode** | **Bipolar 2 phase** |



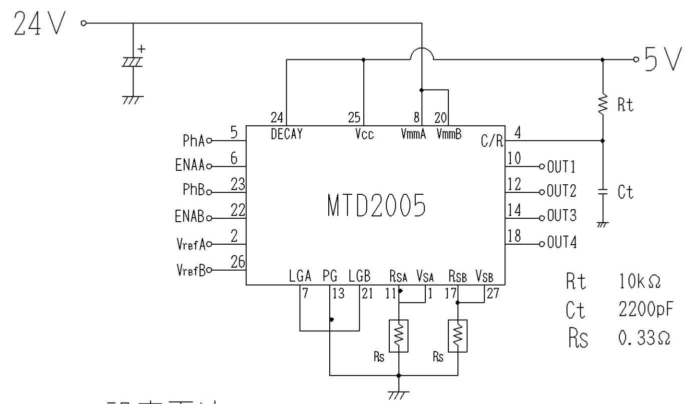

## SST41D1140

| | |
|---|---|
| **Voltage** | **24V DC** |
| **Current** | **1.2A** |
| **Driver** | **MTD2005** |
| **Inertia Load** | **3g-cm2** |
| **Exciting mode** | **Bipolar 2 phase** |



3. 試験条件と励磁シーケンス
3. Test condition & Phase sequence

| | | |
|---|---|---|
| 周囲温度 | Ambient temperature | +15 ℃ ～ +30 ℃ |
| 相対湿度 | Ambient humidity | 45 % ～ 80 % |
| 気圧 | Atmospheric pressure | 930 hPa ～ 1020 hPa |
| 励磁モード | Driving mode | 2 相 ／ 2 phase |



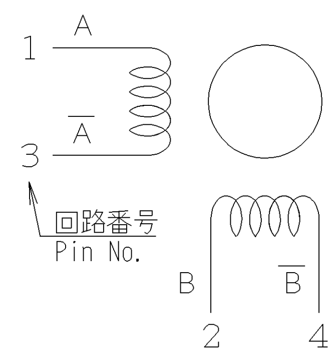

設定電流
Vrefにより0.5 A/相(ピーク)に調整する
I=0.5A/phase(peak)

図1. 試験回路 ／ Fig 1. Test circuit

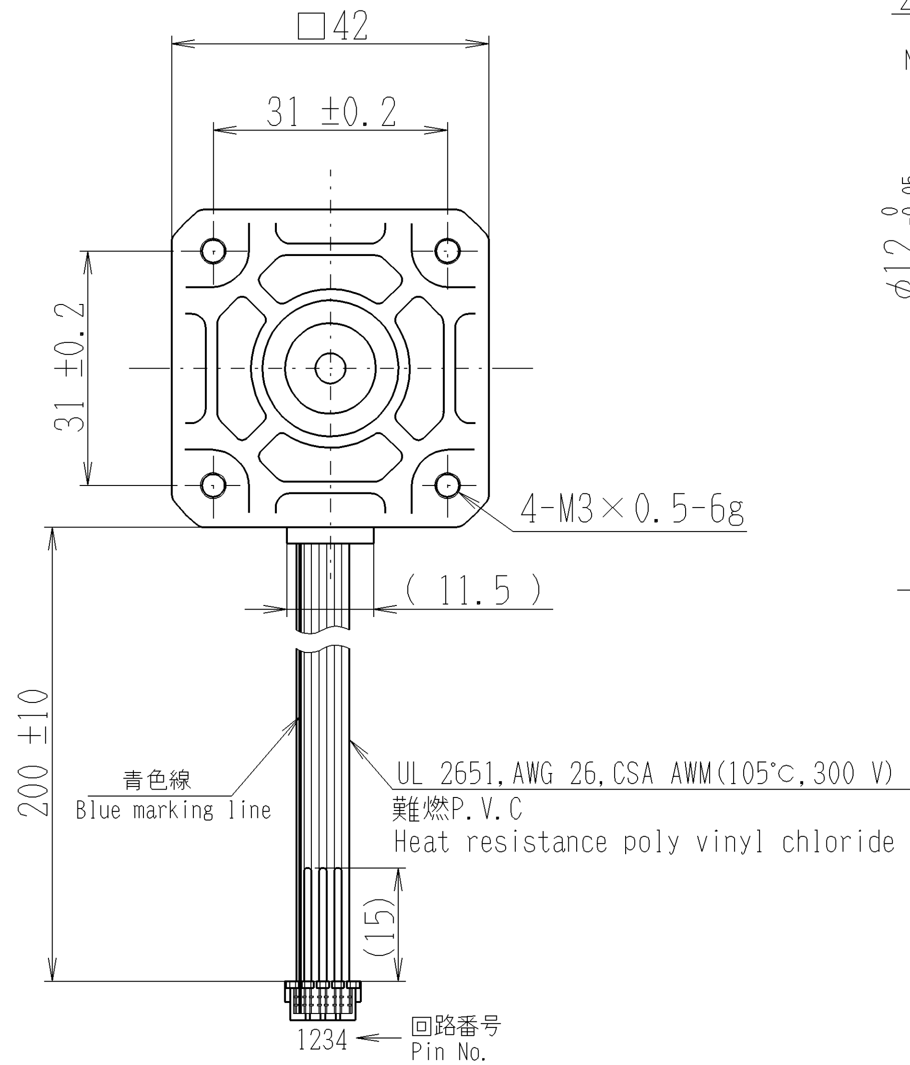
表 1. 取付面側より見た回転方向
Table 1. Rotation viewed at mounting side

CW ↓ CCW ↑

| 相 PHASE | A | B | $\overline{A}$ | $\overline{B}$ |
|---|---|---|---|---|
| ステップ 1 STEP | + | + | − | − |
| 2 | − | + | + | − |
| 3 | − | − | + | + |
| 4 | + | − | − | + |
| 5 | + | + | − | − |

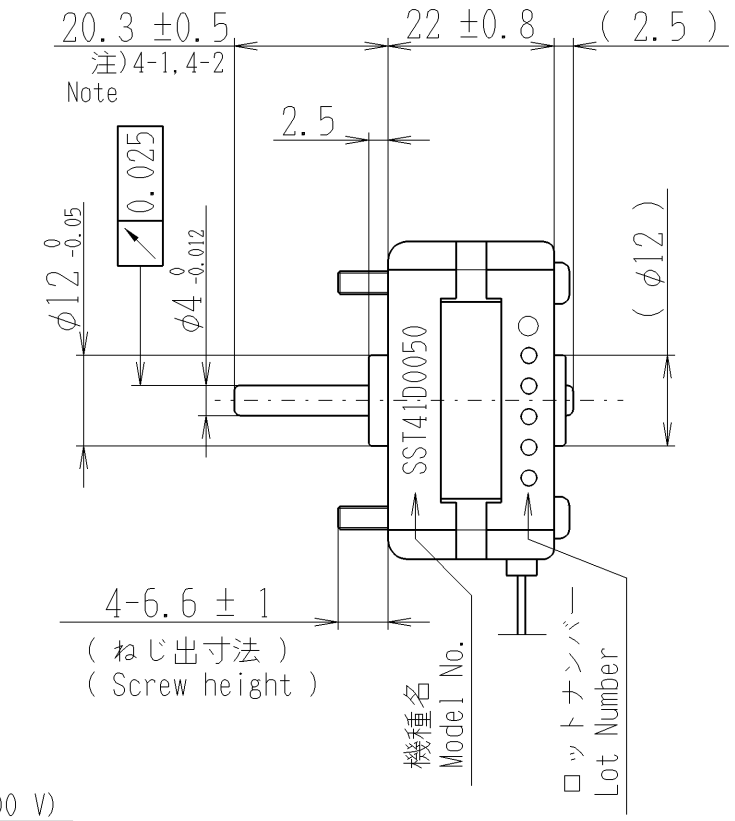



結 線 図
Wiring diagram

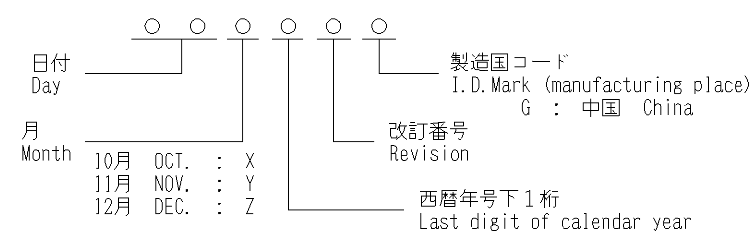



コネクタ : 日本圧着端子製造（株）
Connector : JAPAN SOLDERLESS TERMINAL MFG. CO., LTD.

| | | |
|---|---|---|
| ハウジング Housing | 04KR−6S | (色：ナチュラル(白)) (Color：Natural (White)) |




製品表示 (上図参照)
Product stamp (Refer the drawing above)
ロットナンバー構成
Lot No. construction




4. モータ外観寸法注記
4-1 出力軸のスラストガタは 0.65mm以下のこと
4-2 軸出寸法は 軸を出力側に引張った状態にて定める
4-3 モータ取付時 ナットの締め付けトルクは 0.49N·m ( 5kgf·cm ) 以下で使用のこと

4. Note of motor drawing
4-1 Rotor shaft axial play must be 0.65 mm max.
4-2 Shaft length is defined when the shaft is pulled to left side.
4-3 To protect motor screws from getting loose, tightening torque of nut on the thread shall be controlled with 0.49 N·m ( 5 kgf·cm ) MAX.

| | | | | | | |
|---|---|---|---|---|---|---|
| 一般公差 TOLERANCES (EXCEPT AS NOTES) | ± 0.3 | | | | | SST41D0050 |
| 材質 MATERIAL | ———— | — | ´01-10-09 | ——— | 00 初版 | 中込 |
| | | 改訂 SYM | 年 月 日 DATE | 変更票番号 REVISION NO. | 変更事項 REVISIONS | 担当者 BY |
| 仕上処理 FINISH | ———— | 変更来歴 REVISION RECORD | | | 成版日 FIRST ISSUE | ’01−10−09 |

備考 NOTE

| 製図 DRAWN | 設計 DESIGNED | 検図 CHECKED | 検印 CHECKED | 尺度 SCALE | 1：1 | 品名 TITLE | SST41D0050 電動機仕様書 MOTOR SPECIFICATION | 三角法 THIRD ANGLE PROJECTION |
|---|---|---|---|---|---|---|---|---|
| 精電事 ´01-10-09 中村(美) | 精電事 ´01-10-09 中込 | 精電事 2001-10-11 中村(良) | 精電事 2001-10-12 丸山(高) | | | 図番 DWG. NO. | 113−2440−00 | |

シナノケンシ（株）精密電機事業部 SHINANO KENSHI CO., LTD. シート SHEET 2 ／ 2

SKY