### SIZE09 HBTYPE 0.72° STEP

# 24mm 5PHASE STEP MOTOR

#### **COMPACT SIZE HIGH TORQUE!**

#### Features

- •The smallest 5-phase 0.72-degree step motor of 24mm square type.
- •High torque and high-speed response.
- •Minute angle, high accuracy.



#### Outline



### SPECIFICATIONS

•Hit-pot -

| Model No.                                  |              | Rated Voltage        | Rated Current | Resistance    | Holding Torque | Motor Length                                  | Rotor Inertia | mass |
|--|--------------|----------------------|---------------|---------------|----------------|---|---------------|------|
| Single Shaft                               | Double Shaft | V/Phase              | A/Phase       | Ω/Phase       | N⋅m (kgf⋅cm)   | L mm  | g⋅cm²         | g    |
| TS3664N1E1                                 | TS3664N11E1  | 1.58                 | 0.35          | 4.5           | 0.017 (0.17)   | 30.5  | 4.2           | 70   |
| TS3664N1E2                                 | TS3664N11E2  | 0.83                 | 0.75          | 1.1           | 0.017 (0.17)   | 30.5  | 4.2           | 70   |
| TS3664N2E3                                 | TS3664N12E3  | 2.35                 | 0.35          | 6.7           | 0.028 (0.28)   | 46.5  | 8.2           | 120  |
| TS3664N2E4                                 | TS3664N12E4  | 1.28                 | 0.75          | 1.7           | 0.028 (0.28)   | 46.5  | 8.2           | 120  |
| •Operating temperature range ——— –20~+50°C |              |                      |               | •End Play ——— |                | — 0.075mm Max (with 9.8N Load) (1 kgf Load)   |               |      |
| Insulation resistance 1                    |              | 00MΩ Min (at DC500V) |               | •Radial play  |                | - 0.025mm Max (with 4.7N Load) (0.5 kgf Load) |               |      |

•Allowable Temperature rise — 80 deg Max (Resistance method)

- AC500V (1min) NOTE : Do not allow the surface temperature of the motor case to rise above 90°C during operation.



## TAMAGAWA SEIKI CO., LTD.

#### WIRING DIAGRAM











### *Lamagawa*,

#### TAMAGAWA TRADING CO.,LTD A COMPANY OF TAMAGAWA SEIKI CO.,LTD

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### ISO 14001 Certificate on Head office

#### WARRANTY

Tamagawa Seiki warrants that this product is free from defects in material of workmanship under normal use and service for a period of one year from the date of shipment for its factory. This warranty, however, exculudes incidental and consequental damages caused by careless use of the product by the user. Even after the warranty period, Tamagawa Seiki offers repair service, with charge, in order to maintain the quality of the product. The MTBF (mean time between failures) of our product is quite long; yet, the predictable failure rate is not zero. The user is advised, therefore, that multiple safety means be incorporated in your system or product so as to prevent any consequental troubles resulting from the failure of your product.

All specifications are subject to change without notice.