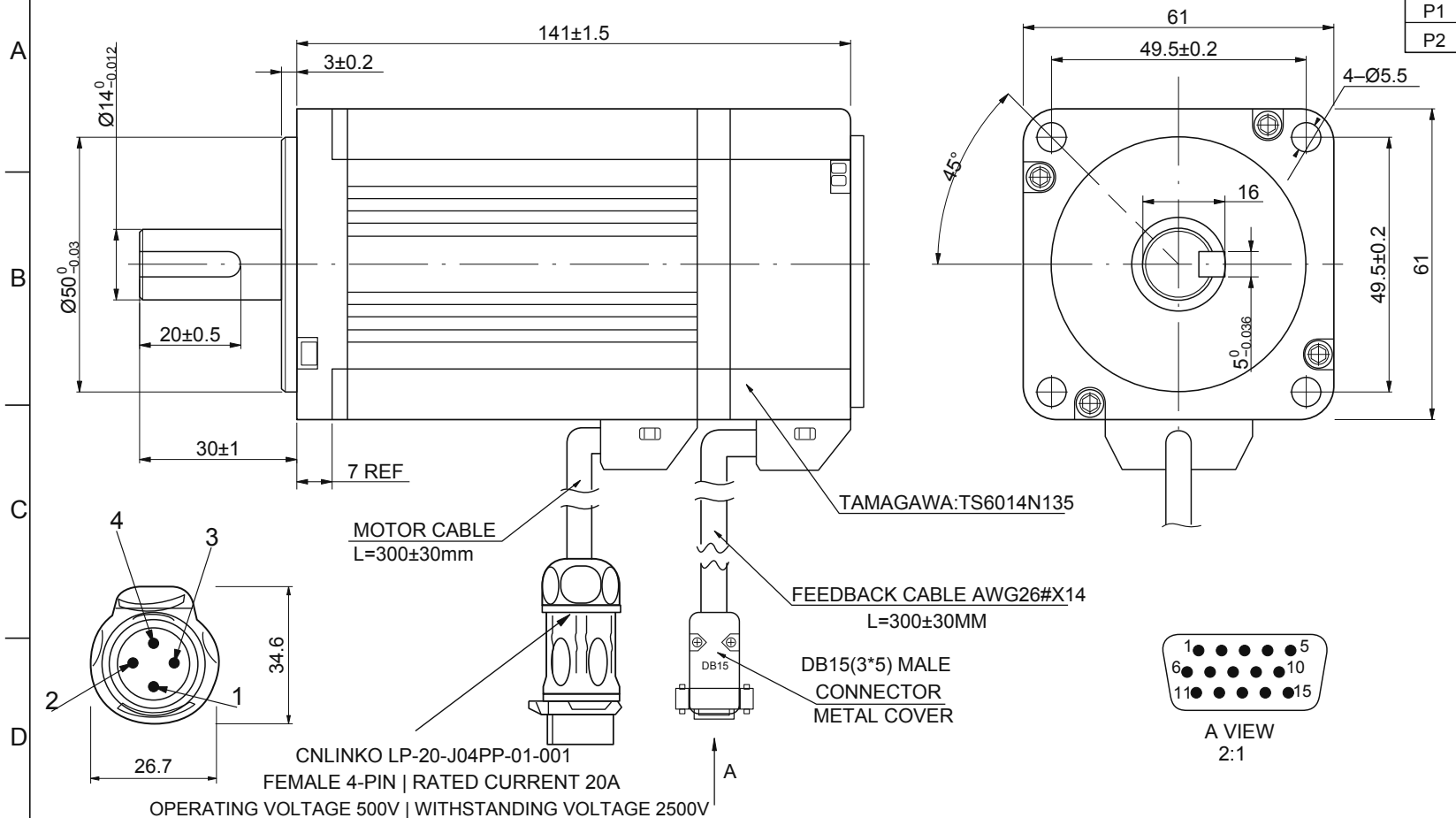
BRUSHLESS SERVO MOTOR

# SV060AS-03

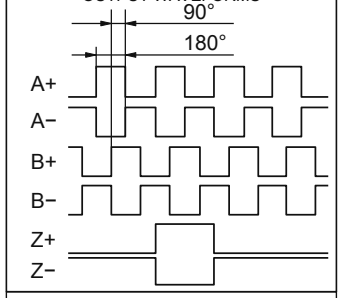
Mach Motion Products

| REV | DESCRIPTION | DATE | APPROVE |
|---|---|---|---|
| P1 | PRELIMINARY | 19/11/25 | QYJ |
| P2 | PRELIMINARY | 19/12/04 | QYJ |




| ENCODER SPECIFICATION | |
|---|---|
| VOLTAGE | 5VDC±5% |
| CURRENT | <60MA |
| FREQUENCY | 0~300khz |
| TEMPERATURE | -30~105°C |
| ENCODER | 2500PPR |

OUTPUT WAVEFORMS

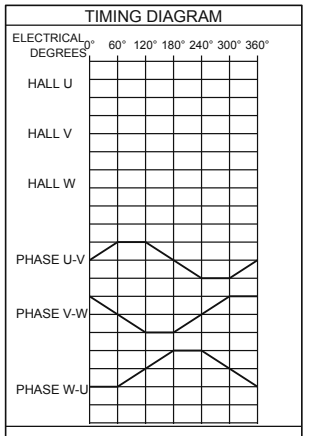



ROTATION: CCW AS VIEWED FROM SHAFT END

| PIN | COLOR | SIGNAL |
|---|---|---|
| 1 | BLU | A+ |
| 2 | GRN | B+ |
| 3 | BLK | GND |
| 4 | GRY | W+ |
| 5 | BRN | U+ |
| 6 | BRN/BLK | U− |
| 7 | YEL | Z+ |
| 8 | YEL/BLK | Z− |
| 9 | WHT | V+ |
| 10 | WHT/BLK | V− |
| 11 | BLU/BLK | A− |
| 12 | GRN/BLK | B− |
| 13 | RED | +5V |
| 14 | GRY/BLK | W− |
| 15 | / | / |

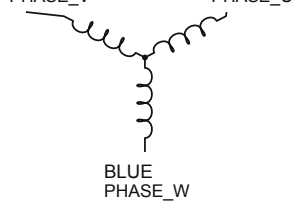
| MOTOR PARAMETERS @25°C | | |
|---|---|---|
| PARAMETER | UNIT | VALUE |
| Supply Voltage | VDC | 48 |
| Rated Continuous Torque | Nm | 1.30 |
| Rated Speed at Cont. Torque | rpm | 3000 |
| Rated Continuous Stall Current | A | 8.41 |
| Rated Continuous Output Power | W | 410 |
| Motor Constant | Nm/w | 0.1408 |
| Torque Constant | Nm/A | 0.0745 |
| Voltage Constant | Vrms/krpm | 5.8 |
| Terminal Resistance | ohms | 0.18 |
| Inductance | mH | 0.2 |
| Rated Peak Current | A | 56.89 |
| Rated Peak Torque | Nm | 4.05 |
| Coulomb Friction Torque | Nm | 0.025 |
| Insulation Class | | F |
| Rotor Inertia | Kg.m² | 2.9E-05 |
| Motor Weight | Kg | 1.54 |
| Feedback Device: 2500p/rev Incremental Encoder | | |

TIMING DIAGRAM




NOTE: CCW viewed from front shaft end

MOTOR WINDING CONFIGURATION




| MOTOR CONNECTIONS | | |
|---|---|---|
| PIN | COLOR | SIGNAL |
| 1 | YEL | U |
| 2 | BLUE | W |
| 3 | GRN | V |
| 4 | YEL/GRN | GND |

| Dept. | Technical reference | Created by | Approved by |
|---|---|---|---|
| | | Document type | Document Status |
| | | Title: SV060AS-03 | BRUSHLESS SERVO MOTOR |
| | | Rev. 1 | Date of issue 5-14-2020 / Sheet |