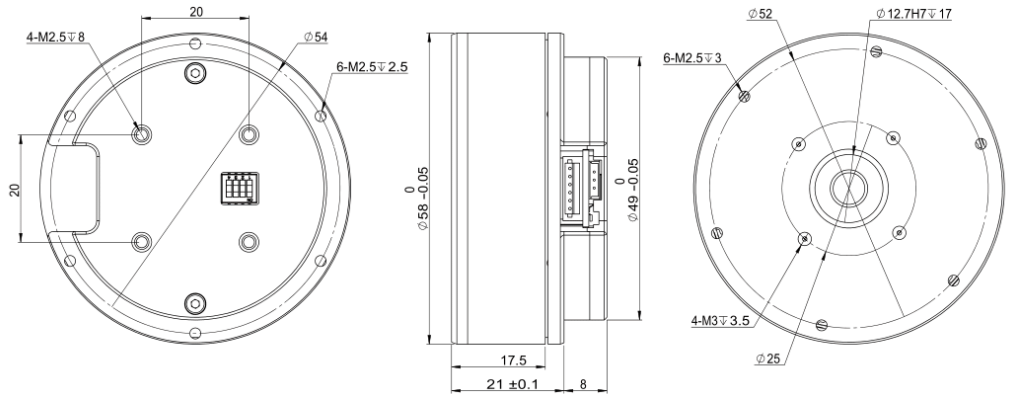


## MS6010 v3

### DIMENSIONS [mm]



Weight : 185g approx.



### MOTOR DATA

### Outer Rotor Brushless DC Motor

|    |                             |                  |         |
|----|-----------------------------|------------------|---------|
| 1  | Nominal Voltage             | VDC              | 24      |
| 2  | Nominal Torque              | Nm               | 0.58    |
| 3  | Nominal Speed               | rpm              | 200     |
| 4  | Nominal Current             | A                | 1.4     |
| 5  | Max Speed                   | rpm              | 530     |
| 6  | Max Torque                  | Nm               | 1.0     |
| 7  | Max Current                 | A                | 2.5     |
| 8  | Max Output Power            | W                | 12.6    |
| 9  | Speed Constant              | rpm/V            | 23.4    |
| 10 | Torque Constant             | Nm/A             | 0.42    |
| 11 | Winding Type                |                  | Y       |
| 12 | Number of Winding Turns     |                  | 60      |
| 13 | Resistance (phase to phase) | Ω                | 13.9    |
| 14 | Inductance (phase to phase) | mH               | 6.04    |
| 15 | Number of Poles             |                  | 28      |
| 16 | Rotor Inertia               | gcm <sup>2</sup> | 394     |
| 17 | Working Temperature         | °C               | -20~+80 |
| 18 | Bearing Nominal Load        | N                | 280     |

### DRIVER DATA

### 32-bit MCU / SVPWM Control / Trapezoidal Acceleration

|    |                         |     |  |
|----|-------------------------|-----|--|
| 19 | Input Voltage           | VDC | 7.4~24   |
| 20 | Output Current          | A   | Nominal 1.8 / Max 2.5  |
| 21 | Encoder                 |     | 15-bit or 18-bit Absolute Angle-sensing Magnetic Encoder           |
| 22 | Communication           |     | RS485 or CAN   |
| 23 | Communication Frequency | Hz  | RS485 : 500 / CAN : 2000 (based on default baud rate)              |
| 24 | RS485 Baud Rate         | bps | 9.6K, 19.2K, 38.4K, 57.6K, 115.2K(default), 230.4K, 460.8K, 1M, 2M |
| 25 | CAN Baud Rate           | bps | 125K, 250K, 500K, 1M(default)                                      |
| 26 | Control Cycle           |     | Open Loop 24KHz / Speed Loop 8KHz / Position Loop 8KHz             |

### DRIVER INTERFACE PIN ASSIGNMENT

|               |                         |
|---------------|-------------------------|
| Pin --- B / L | RS485 - B / CAN - L     |
| Pin --- A / H | RS485 - A / CAN - H     |
| Pin --- V-    | Power Supply - Negative |
| Pin --- V-    | Power Supply - Negative |
| Pin --- V+    | Power Supply - Positive |
| Pin --- V+    | Power Supply - Positive |
| Pin --- T     | UART Transmitter        |
| Pin --- R     | UART Receiver           |
| Pin --- G     | Signal GND              |

## MS6010 v3

CHARACTERISTIC CURVE    — Input Current    — Efficiency    — Output Power    — Output Torque

