

| Parameter                                        | Unit   | Value                                                 |
|--------------------------------------------------|--------|-------------------------------------------------------|
| Basic Parameters                                 |        |                                                       |
| Motor type                                       |        | Brushless torque servo motor                          |
| Voltage range                                    | V      | 10~40                                                 |
| Peak torque                                      | N.m    | 1.26                                                  |
| Rated torque                                     | N.m    | 0.65                                                  |
| Peak current                                     | A      | 3.2                                                   |
| Nominal current                                  | A      | 1.6                                                   |
| Nominal voltage                                  | V      | 24                                                    |
| Nominal power (source rating)                    | W      | 38.4                                                  |
| Outer diameter                                   | mm     | 60 +/-0.1                                             |
| Nominal speed                                    | rpm    | 264                                                   |
| Body height                                      | mm     | 34 +/-0.1                                             |
| Motor weight                                     | g      | 251                                                   |
| Motor Parameters                                 |        |                                                       |
| Number of pole pairs                             | Pair   | 14                                                    |
| Phase resistance                                 | Ohm    | 5.77                                                  |
| Phase inductance (source unit: Mh)               | Mh     | 3.82                                                  |
| Torque constant                                  | N.m/A  | 0.43                                                  |
| Speed constant                                   | rpm/V  | 23.3                                                  |
| Control Parameters                               |        |                                                       |
| No-load maximum speed                            | rpm    | 558                                                   |
| Encoder type                                     |        | Single-turn absolute                                  |
| Control resolution                               | bit    | 14                                                    |
| Dynamic and Operating Parameters                 |        |                                                       |
| Rotor inertia                                    | g*cm^2 | 504                                                   |
| Working temperature range                        | deg C  | -20~80                                                |
| Interface Parameters                             |        |                                                       |
| Communication interface                          |        | RS485 & CAN                                           |
| Configuration interface                          |        | RS485                                                 |
| Supported modes (may vary with firmware version) |        |                                                       |
| Absolute position mode                           |        | Absolute target position control                      |
| Speed mode                                       |        | Target speed and acceleration control                 |
| Current (torque) mode                            |        | Q-axis current control; torque estimated from current |
| Relative position mode                           |        | Relative displacement control                         |
| Status feedback                                  |        | Position, speed, current and operating status         |