




| Motor parameters                 |       |
|----------------------------------|-------|
| No. of poles                     | 16    |
| DC Link Voltage(V)               | 48    |
| Rated Power(W)                   | 100   |
| Rated Torque(N·m)                | 0.32  |
| Rated Speed(rpm)                 | 3000  |
| Rated Current(A)                 | 2.55  |
| Maximum torque(N·m)              | 0.96  |
| Maximum Current(A)               | 7.8   |
| Standstill torque(N·m)           | 0.36  |
| Standstill current(A)            | 2.87  |
| Resistance line-line( $\Omega$ ) | 1.99  |
| Close circuit inductance(mH)     | 1.88  |
| Voltage constant(V/krpm)         | 8.0   |
| Torque constant(Nm/A)            | 0.132 |

|  |                                    |   |           |                       |             |   |  |          |                   |
|--|------------------------------------|---|-----------|-----------------------|-------------|---|--|----------|-------------------|
| Harmonic gear-ratio  |                                    | 14-50   |           | 14-80                 |             | 14-100  |  | 14-120   |                   |
| Peak torque for start and stop ( Nm )  |                                    | 23  |           | 30                    |             | 36  |  | 36       |                   |
| Permissible max.value of ave.load torque(Nm)   |                                    | 9   |           | 14                    |             | 14  |  | 14       |                   |
| Rated torque(Nm)   |                                    | 7   |           | 10                    |             | 10  |  | 10       |                   |
| Permissible max. momentary torque(Nm)  |                                    | 46  |           | 61                    |             | 70  |  | 70       |                   |
| Max. output rotational speed(RPM)  |                                    | 60  |           | 37.5                  |             | 30  |  | 25       |                   |
| Without<br>brakes  | Rotor inertia(g·mm <sup>2</sup> )  |   | 47767     |                       |             |   |  |          |                   |
|  | OD*Length(mm)                      |   | Ø 70*75.3 |                       |             |   |  |          |                   |
|  | Weight(kg)                         |   | 0.87      |                       |             |   |  |          |                   |
| With brakes  | Rotor inertia (g·mm <sup>2</sup> ) |   | 50996     |                       |             |   |  |          |                   |
|  | OD*Length(mm)                      |   | Ø 70*75.3 |                       |             |   |  |          |                   |
|  | Weight(kg)                         |   | 0.93      |                       |             |   |  |          |                   |
| Common parameters  |                                    | Supply voltage: 48V(±10%)<br>Inner diameter: 18mm<br>IP54 & Friction brake  |           |                       |             |   |  |          |                   |
| Optional device  |                                    | Communication type: EtherCAT/CANopen/Modbus<br>Output encoder resolution: 19/20 Bit<br>RP/AP: ±7/±15 arc sec or ±10/±25 arc sec |           |                       |             |   |  |          |                   |
| UNLESS OTHERWISE SPECIFIED:<br>DIMENSIONS APPLY BEFORE COATINGS<br>REMOVE ALL SHARP BURRS<br>AND BREAK ALL SHARP EDGES |                                    | MODEL   |           | DRAWG NO.             |             | QTY.  | SCALE  | MATERIAL | SURFACE TREATMENT |
|  |                                    | eRob 70I  |           | eRob70H××I-XX-18CX_V4 |             |   |  |          |                   |
| UNSPECIFIED DIMENSIONAL TOLERANCE  |                                    |   |           |                       |             |   |  |          |                   |
| > 0.5-3  | ±0.1                               |   | NAME      | DATE                  | SIZE        | VERSION   |  | 1:1      |                   |
| > 3-6  | ±0.1                               | DRAWG   |           |                       | A3          | MC2B.BX.XX  | MATERIAL CODE  |          |                   |
| > 6-30   | ±0.2                               |   |           |                       |             |   |  |          |                   |
| > 30-120   | ±0.3                               | CHECK   |           |                       | PERSPECTIVE |   |  <b>ZeroErr Control Co., Ltd</b><br> |          |                   |
| > 120-400  | ±0.5                               | APPROV  |           |                       | THIRD ANGLE |  |  |          |                   |
| ANGULAR TOLERANCE: ±1°   |                                    |   |           |                       |             |   |  |          |                   |

**MILLIMETERS**