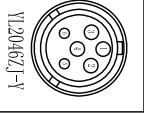



| Pin Function | COLOR        |
|--------------|--------------|
| 1 U          | YELLOW       |
| 2 V          | RED          |
| 3 W          | BLACK        |
| 4 PE         | YELLOW/GREEN |
| 5 NC         |              |
| 6 NC         |              |

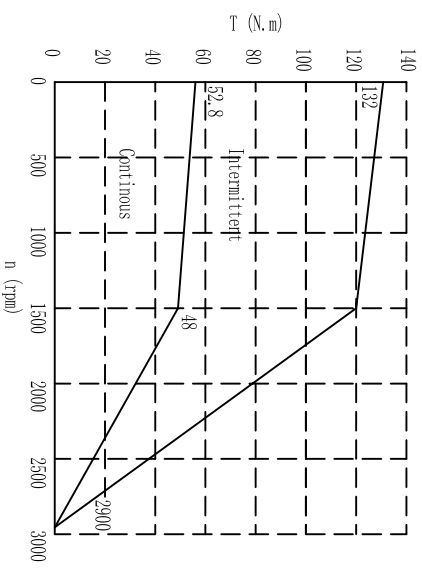
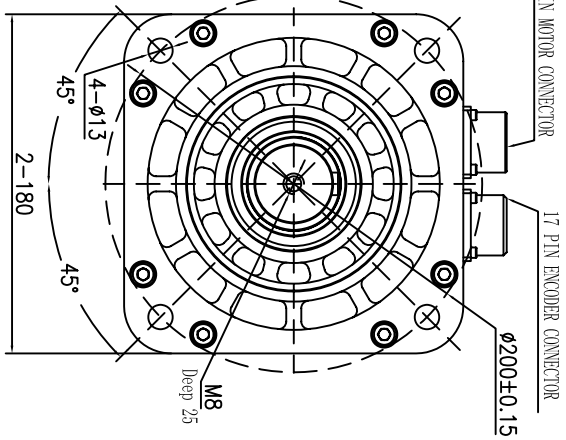
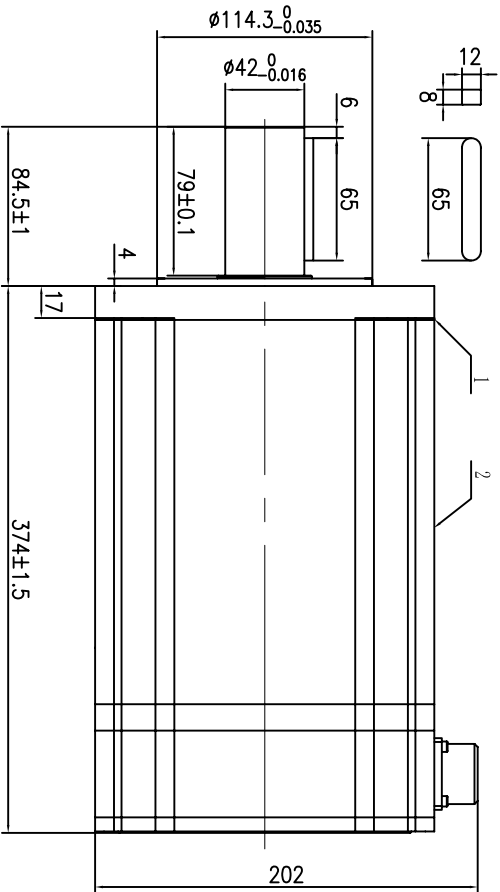


YL2046Z1-Y  
6 PIN

| Pin Function | COLOR       | Pin Function | COLOR        |
|--------------|-------------|--------------|--------------|
| 1 DC+5V      | RED         | 10 /V        | BROWN        |
| 2 GND        | BLACK       | 11 V         | WHITE/BLACK  |
| 3 A          | BULE/BLACK  | 12 /V        | WHITE        |
| 4 /A         | BULE        | 13 NC        |              |
| 5 B          | GREEN       | 14 Z         | YELLOW       |
| 6 /B         | GREEN/BLACK | 15 /Z        | YELLOW/BLACK |
| 7 NC         |             | 16 W         | GRAY/BLACK   |
| 8 NC         |             | 17 /W        | GRAY         |
| 9 U          | BROWN/BLACK |              |              |



YL221Z1  
17 PIN




LABELS  
①

②

**Kinavo** AC SERVO MOTOR  
SMH180-7501538ENM

|     |      |           |     |
|-----|------|-----------|-----|
| W   | 7500 | V         | 380 |
| A   | 23.4 | Nm        | 48  |
| REV | 1500 | Ins. F.L. | 156 |

Kinavo Electric (Changzhou) Ltd.  
MADE IN CHINA  
S/N: K44NCK00Y/DDNNNN



Technical Data

|  |  |
|--|--|
| No. of poles   | 8  |
| DC Link Voltage (DC Link)                                    | 560  |
| Rated Power P <sub>N</sub> (W)                               | 7500   |
| Rated Torque T <sub>N</sub> (N.m)                            | 48   |
| Rated Speed n <sub>N</sub> (rpm)                             | 1500   |
| Rated Current I <sub>N</sub> (A)                             | 23.4   |
| Maximum torque T <sub>m</sub> (N.m)                          | 120  |
| Maximum Current I <sub>m</sub> (A)                           | 58.5   |
| Standstill torque T <sub>s</sub> (N.m)                       | 52.8   |
| Standstill current I <sub>s</sub> (A)                        | 25.74  |
| Resistance line-line R <sub>L</sub> (Ω)                      | 0.29   |
| Inductance line-line L <sub>L</sub> (mH)                     | 4.4 (avg)  |
| Electrical time constant T <sub>e</sub> (ms)                 | 15.17  |
| Mechanical time constant T <sub>m</sub> (ms)                 | 2.06   |
| Voltage constant K <sub>e</sub> (V/krpm)                     | 130  |
| Torque constant K <sub>t</sub> (Nm/A)                        | 2.15   |
| Rotor moment of inertia J <sub>m</sub> (Kg.cm <sup>2</sup> ) | 190  |
| Max. voltage rising dt/dt (kV/μs)                            | 8  |
| Insulation class   | F  |
| Max. radial force Fr (N)                                     | 1600   |
| Max. axial force Fa (N)                                      | 800  |
| Weight (Kg)  | 40   |
| Feed back device   | 2500p/rev incremental encoder  |
| Cooling method   | 01H48-TS52JAN8566  |
| protection level   | Totally enclosed non-ventilated  |
| Temperature level  | IP65, shaft sealing IP54   |
| Temperature  | -20°C~40°C   |
| Humidity   | Below 90%RH (No dewing)  |
| Environment  | Far away active gas, combustible gas, oil drop, ash                                |
| Installation altitude  | IP 70 100m(ventrated power), above 1000m:1.5% power decreasing per 100m, max.4000m |
| Mounting   | Aluminum flange 45°X45°X12.7mm   |
| Rating conditions  | Temperature 60% housing temperature ring at 40°C ambient                           |

| REV                        | ECH NO. | DRN      | APPD   | DATE  | DESIGN | DATE              | P.N.            |
|----------------------------|---------|----------|--------|-------|--------|-------------------|-----------------|
|                            |         |          |        |       |        |                   | K3.162.4003SS   |
| UNLESS OTHERWISE SPECIFIED |         |          |        |       |        |                   | TITLE           |
| TOLERANCES                 |         |          |        |       |        |                   | Outside Diagram |
| DECIMALS:                  | ±0.5    | ANGULAR: | ±0°30' | CHECK |        | USED ON           |                 |
| .X                         | ±0.25   |          |        | APPD  |        | SMH180-7501538ENM |                 |
| .XX                        | ±0.1    |          |        |       |        | DWG NO.           |                 |
| .XXX                       | ±0.1    |          |        |       |        | REV               |                 |
| UNIT: mm                   |         |          |        |       |        | C                 |                 |
| DO NOT SCALE DRAWING       |         |          |        |       |        |                   |                 |
| FIRST ANGLE PROJECTION     |         |          |        |       |        |                   |                 |
| SCALE                      |         |          |        |       |        |                   |                 |
| SHEET                      |         |          |        |       |        |                   |                 |
| OF                         |         |          |        |       |        |                   |                 |
| <b>KINAVO MOTOR</b>        |         |          |        |       |        |                   |                 |