

*To become the Innovation Engine of Motion Control*

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To become the Innovation Engine of Motion Control

## MOTION CONTROL PRODUCTS CATALOGUE

Servo system | PLC | IO | HMI |



MOTION CONTROL PRODUCTS CATALOGUE

Shenzhen Rtelligent Technology Co.,Ltd



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# | Motion Control System Solutions Map









# R6H Series

The R6H series of the 6th generation of Rtelligent's general-purpose AC servo drives have a power range of 1000W to 7500W, suitable for various automation scenarios such as precision processing and production line assembly. It supports multi-unit networking collaboration, is equipped with multiple control modes, has fast positioning and high precision, has excellent adaptability and compatibility, and provides a highly reliable and flexible drive solution for industrial automation.



EtherCAT  
Pulse command  
RS485

- 01

High performance
- 02

Easy Tuning
- 03

Quick positioning
- 04

Strong compatibility
- 05

Multiple control modes
- 06

Match motor power up to 7.5KW

## R6H Servo Drive Specifications

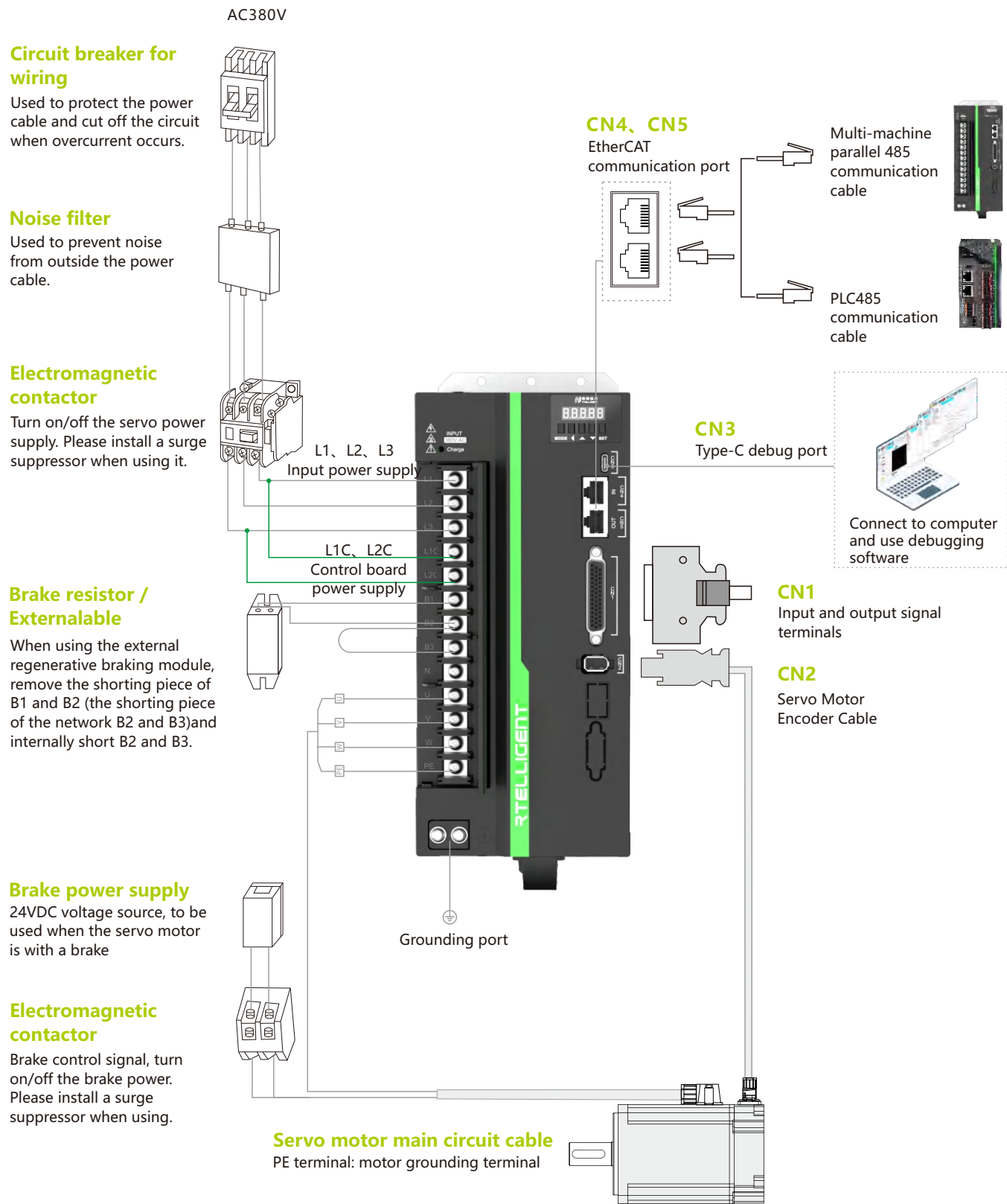
### Basic Specifications

| Item                    | R6H054M                         | R6H054E  | R6H120M                       | R6H120E  | R6H260M                        | R6H260E  |
|-------------------------|---------------------------------|----------|-------------------------------|----------|--------------------------------|----------|
| Communication function  | RS485                           | EtherCAT | RS485                         | EtherCAT | RS485                          | EtherCAT |
| Applicable power (W)    | 1KW~1.5KW                       |          | 1.5KW-3.0KW                   |          | 4.0KW-7.5KW                    |          |
| Rated current (A)       | 5.4                             |          | 12.0                          |          | 26.0                           |          |
| Maximum current (A)     | 14.0                            |          | 30.0                          |          | 65.0                           |          |
| Input power             | three-phase 380VAC±10%, 50/60Hz |          |                               |          |                                |          |
| Size code               | Type C                          |          | Type C                        |          | Type D                         |          |
| Dimensions (mm)         | 196*176*72                      |          | 196*176*72                    |          | 250*115.4*237                  |          |
| Brake resistor function | With brake resistor (80W、100Ω)  |          | With brake resistor (80W、50Ω) |          | With brake resistor (150W、30Ω) |          |

### Technical Specifications

| Item                  | Description                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Control mode          | IPM PWM control, SVPWM drive mode                                                                                                              |
| Encoder feedback      | Absolute encoder                                                                                                                               |
| Isolation function    | Power supply/communication isolation; encoder input isolation; digital input/output isolation                                                  |
| Protection function   | Overvoltage, undervoltage, overcurrent, overload, overheating, overspeed, communication abnormality, register abnormality, encoder error, etc. |
| Display and operation | 5-digit LED display, 5-digit key operation<br>DC bus indicator                                                                                 |

■ R6H Series Pulse Type (Including RS485) Drive Wiring Diagram



■ R6H Series Pulse Type (Including RS485) Drive Port Definition

RS485 modbus communication interface definition

| Signal name | Pin number | Function                 |
|-------------|------------|--------------------------|
| RS485+      | 1          | RS485 communication port |
| RS485-      | 2          |                          |
| -           | 3          |                          |
| -           | 4          |                          |
| -           | 5          |                          |
| -           | 6          |                          |
| DGND        | 7          | GND signal               |
| -           | 8          | -                        |

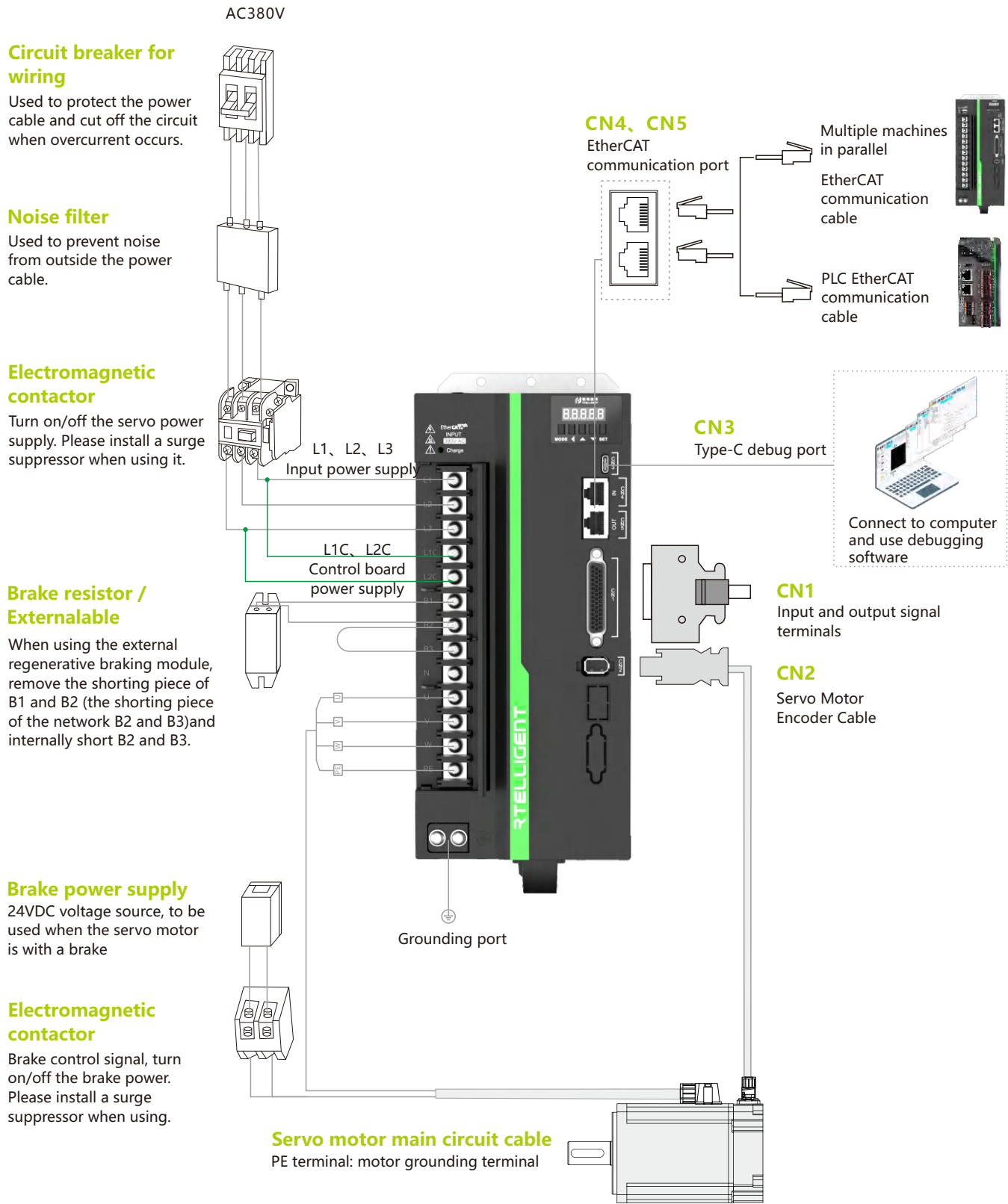
Encoder terminal definition

| Signal name | Function                            |
|-------------|-------------------------------------|
| 1           | Power output positive terminal: +5V |
| 2           | Power output negative terminal: 0V  |
| 3           | Encoder battery: BAT+               |
| 4           | Encoder battery: BAT-               |
| 5           | Encoder bus signal: SD+             |
| 6           | Encoder bus signal: SD              |
| Housing     | RE wiring (shielding layer)         |

Main circuit interface definition

| Terminal marking | Terminal name                            | Function                                                                                                   |
|------------------|------------------------------------------|------------------------------------------------------------------------------------------------------------|
| L1, L2, L3       | Main circuit interface definition        | Servo motor connection terminalsPower supply input terminals: three-phase 380VAC                           |
| L1C, L2C         | Main power input (for drive power stage) | Control power input (L1C, L2C): the power requirements for L1C and L2C are the same as for L1, L2, and L3. |

■ R6H Series EtherCAT Communication Drive Wiring Diagram



■ R6H Series EtherCAT Communication Drive Port Definition

Communication interface definition

| Pin number | Signal name | Function      |
|------------|-------------|---------------|
| 1          | TX +        | Data send +   |
| 2          | TX -        | Data send-    |
| 3          | RX +        | Data receive+ |
| 4          | NULL        | -             |
| 5          | NULL        | -             |
| 6          | RX -        | Data receive- |
| 7          | NULL        | -             |
| 8          | NULL        | -             |

Encoder terminal definition

| Signal name | Function                            |
|-------------|-------------------------------------|
| 1           | Power output positive terminal: +5V |
| 2           | Power output negative terminal: 0V  |
| 3           | Encoder battery: BAT+               |
| 4           | Encoder battery: BAT-               |
| 5           | Encoder bus signal: SD+             |
| 6           | Encoder bus signal: SD              |
| Housing     | RE wiring (shielding layer)         |

Main circuit interface definition

| Terminal marking | Terminal name                             | Function                                                                                                                                                                                                                                       |
|------------------|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L1, L2, L3       | Main circuit interface definition         | Servo motor connection terminalsPower supply input terminals: three-phase 380VAC                                                                                                                                                               |
| L1C, L2C         | Main power input (for drive power stage)  | Control power input (L1C, L2C): the power requirements for L1C and L2C are the same as for L1, L2, and L3.                                                                                                                                     |
| B1, B2, B3       | Control power input (for control circuit) | Braking resistor connection terminals: connect an external regenerative braking resistor between B1 and B2. Note: when using an external resistor, remove the shorting jumper between B2 and B3. For internal braking, keep B2 and B3 shorted. |

























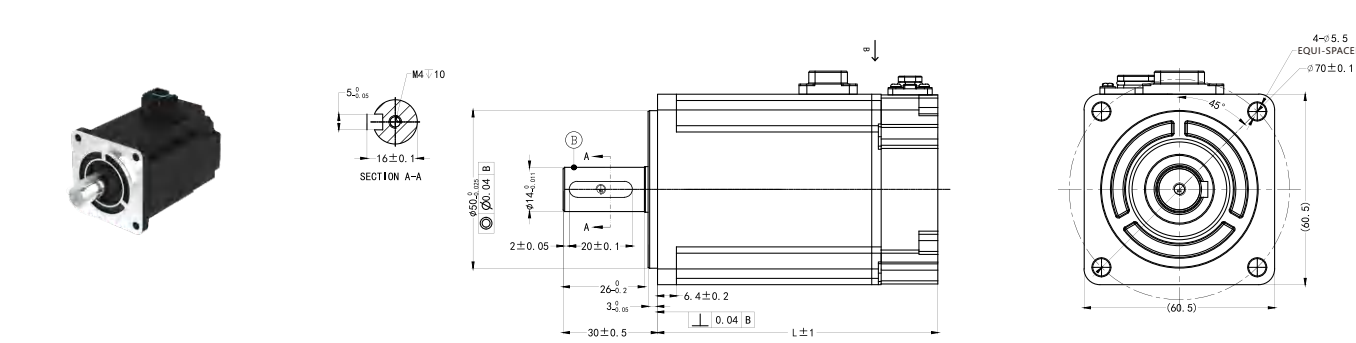
# RSDA-C Series Servo Motor

## Motor Specifications

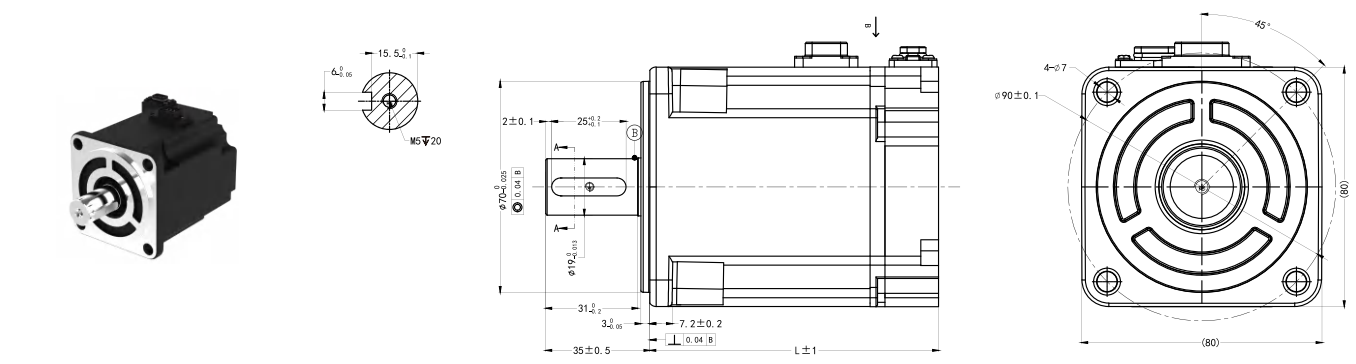
| Motor                                                    | RSDA-H06J0630C V3.1 | RSDA-H06J1330C V3.1 | RSDA-H08J2430C V3.1 | RSDA-H08J3230C V3.1 |
|----------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|
| Rated power (W)                                          | 200                 | 400                 | 750                 | 1000                |
| Rated voltage (V)                                        | 220                 | 220                 | 220                 | 220                 |
| Rated current (A)                                        | 1.9                 | 2.5                 | 4.9                 | 4.9                 |
| Rated torque (N·m)                                       | 0.64                | 1.27                | 2.39                | 3.2                 |
| Maximum torque (N·m)                                     | 1.28                | 2.54                | 4.78                | 4.8                 |
| Rated speed (rpm)                                        | 3000                | 3000                | 3000                | 3000                |
| Maximum speed (rpm)                                      | 4000                | 5000                | 5000                | 5000                |
| Back EMF (V/Krpm)                                        | 23.1                | 38.7                | 33.7                | 45                  |
| Torque constant (N·m/A)                                  | 0.33                | 0.5                 | 0.49                | 0.65                |
| Wire resistance (Ω,20°C)                                 | 6.8                 | 5.5                 | 1.4                 | 1.5                 |
| Wire inductance (mH,20°C)                                | 9.6                 | 9.7                 | 4.52                | 5.5                 |
| Rotational inertia(X10 <sup>-4</sup> kg.m <sup>2</sup> ) | 0.2                 | 0.5                 | 1.5                 | 1.9                 |
|                                                          | Brake 0.25          | Brake 0.55          | Brake 1.7           | Brake 2.1           |
| Length L (mm)                                            | 70.5                | 89                  | 97                  | 109                 |
|                                                          | Brake 100.5         | Brake 119           | Brake 135           | Brake 147           |

\*The encoder comes standard with 17bit magnetic encoding, 23bit optical encoding is optional, and multi-turn absolute value specifications are available.

## Frame 60 Dimension(mm)

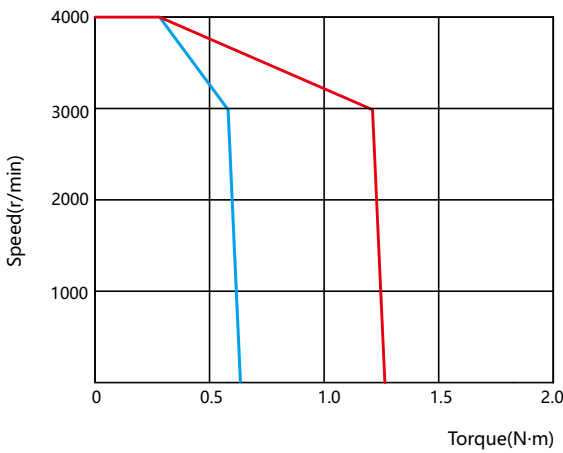


## Frame 80 Dimension(mm)



## Torque-speed Characteristic Curve

— A Continuous operating region — B Short-time operating region



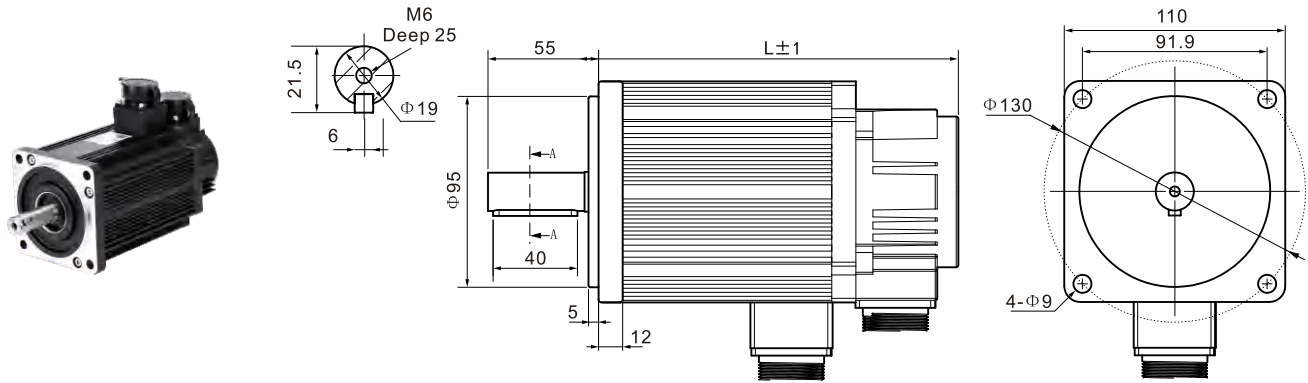
# RSM-A Series Servo Motor

## Motor Specifications

| Motor                                                    | RSM- M11G4030A | RSM-M11G5030A    | RSM-M11G6030A    |
|----------------------------------------------------------|----------------|------------------|------------------|
| Rated power(kW)                                          | 1.2            | 1.5              | 1.8              |
| Rated voltage(V)                                         | 220            | 220              | 220              |
| Rated current(A)                                         | 5.0            | 6.0              | 7.0              |
| Rated torque(N·m)                                        | 4.0            | 5.0              | 6.0              |
| Maximum torque(N·m)                                      | 12             | 15               | 18               |
| Motor pole pair                                          | 4              | 4                | 4                |
| Encoder specification                                    | 17bit          | 17bit            | 17bit            |
| Rated speed(rpm)                                         | 3000           | 3000             | 3000             |
| Maximum speed(rpm)                                       | 3500           | 3500             | 3500             |
| Reverse potential(V/Krpm)                                | 56.5           | 58               | 56.5             |
| Line resistance(Ω,20°C)                                  | 1.5            | 1.0              | 0.8              |
| Line inductance(mH,20C)                                  | 6.9            | 5.0              | 3.9              |
| Rotational inertia(X10 <sup>-4</sup> kg.m <sup>2</sup> ) | 7.8            | 9.2              | 10.8             |
| Weight(kg)                                               | 5.2            | 6.0<br>Brake 7.3 | 6.7<br>Brake 8.0 |
| Length L(mm)                                             | 189            | 204<br>Brake 279 | 219<br>Brake 294 |

\*17 bit magnetic encoder and 23 bit optical enoder for option

## Frame 110 Dimension(mm)



## Torque-speed Characteristic Curve

— A Continuous operating region — B Short-time operating region

