

# Servo Catalog

Devotes in Better Product Experience and Support Customers Success.

**Better Team,  
Better Products,  
Contribute to Intelligent Manufacturing.**



**WECON**<sup>®</sup>  
Wecon Technology Co.,Ltd.

Email: [sales@we-con.com.cn](mailto:sales@we-con.com.cn)

Website: [www.we-con.com.cn/en](http://www.we-con.com.cn/en)

Tel: +86-591-87868869 ext 894 Fax: +86-591-87843899

Addr1: 10th Building, E Area, Software Park, Fuzhou, Fujian, China (Manufacturing Center)

Addr2: 6th Building, F Area, Software Park, Fuzhou, Fujian, China (R & D Center)



2021 Edition

WECON TECHNOLOGY Co.,LTD.All Rights Reserved.

## Servo Drive

### VD1 Servo and Motor Product Line-up

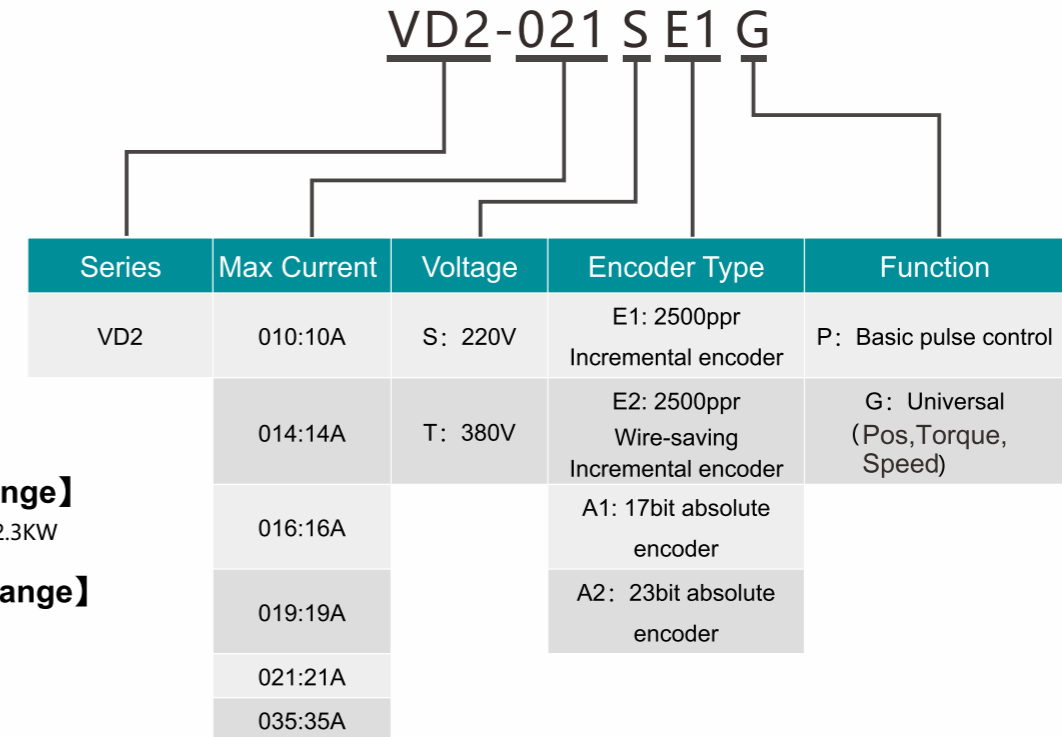
| Voltage Class | Servo Drive |                 |            | Motor      |                  |                   |                    | Remarks                          |
|---------------|-------------|-----------------|------------|------------|------------------|-------------------|--------------------|----------------------------------|
|               | Power (KW)  | Model           | Drive Type | Frame Size | Model            | Rated Speed (rpm) | Rated Torque (N.m) |                                  |
| 220V          | 0.4         | VD1-040SE1G     | Type A     | 60         | WD60M-04030S-E1B | 3000              | 1.27               | Brake not supported in VD1 Servo |
|               |             | VD1-040SE1G5    |            | 80         | WD80M-04030S-E1B | 3000              | 1.27               |                                  |
|               |             | VD1-075SE1G     |            | 60         | WD60M-04030S-E1F | 3000              | 1.27               |                                  |
|               | 0.75        | VD1-075SE1G     | Type A     | 80         | WD80M-07530S-E1B | 3000              | 2.39               |                                  |
|               |             | VD1-075SE1G5    |            | 80         | WD80M-07530S-E1F | 3000              | 2.39               |                                  |
|               |             | VD1-075SE1G-20S |            | 80         | WD80M-07520S-E1B | 2000              | 3.5                |                                  |

### Vd2 Servo and Motor Product Line-up

| Voltage Class | Servo Drive |                  |            | Motor      |                   |                   |                    |       |
|---------------|-------------|------------------|------------|------------|-------------------|-------------------|--------------------|-------|
|               | Power (KW)  | Model            | Drive Type | Frame Size | Model             | Rated Speed (rpm) | Rated Torque (N.m) | Brake |
| 220V          | 0.4         | VD2-010SA1G      | Type A     | 60         | WD60M-04030S-A1F  | 3000              | 1.27               | -     |
|               |             |                  |            | 60         | WD60M-04030S-A1G  | 3000              | 1.27               | Brake |
|               | 0.75        | VD2-014SA1G      | Type A     | 80         | WD80M-07530S-A1F  | 3000              | 2.39               | -     |
|               |             |                  |            | 80         | WD80M-07530S-A1G  | 3000              | 2.39               | Brake |
|               | 1.0         | VD2-016SE1G-E083 | Type B     | 80         | WD80M-10025S-E1B  | 2500              | 4                  | -     |
|               |             |                  |            | 80         | WD80M-10025S-E1C  | 2500              | 4                  | Brake |
|               |             | VD2-016SE1G-E092 | Type B     | 130        | WD130M-10025S-E1B | 2500              | 4                  | -     |
|               |             |                  |            | 130        | WD130M-10025S-E1C | 2500              | 4                  | Brake |
|               | 1.1         | VD2-016SE1G-E101 | Type B     | 80         | WD80M-11030S-E1B  | 3000              | 3.5                | -     |
|               |             |                  |            | 80         | WD80M-11030S-E1C  | 3000              | 3.5                | Brake |
|               | 1.5         | VD2-019SE1G-E113 | Type B     | 130        | WD130M-15025S-E1B | 2500              | 6                  | -     |
|               |             |                  |            | 130        | WD130M-15025S-E1C | 2500              | 6                  | Brake |
|               |             | VD2-016SE1G-E122 | Type B     | 130        | WD130M-15015S-E1B | 1500              | 10                 | -     |
|               |             |                  |            | 130        | WD130M-15015S-E1C | 1500              | 10                 | Brake |
|               | 1.8         | VD2-019SE1G-E132 | Type B     | 110        | WD110M-18030S-E1B | 3000              | 6                  | -     |
|               |             |                  |            | 110        | WD110M-18030S-E1C | 3000              | 6                  | Brake |
|               | 2.0         | VD2-021SE1G-E151 | Type B     | 130        | WD130M-20025S-E1B | 2500              | 7.7                | -     |
|               | 2.3         | VD2-019SE1G-E161 | Type B     | 130        | WD130M-23015S-E1B | 1500              | 15                 | -     |

Remarks: The above models are equipped with power cables and encoder cables as standard. The default cable length is 3 meters, and optional lengths: 5 meters and 10 meters.

### Naming Rules



**【Power range】**

220V 0.2KW-2.3KW

**【Current range】**

10A-35A

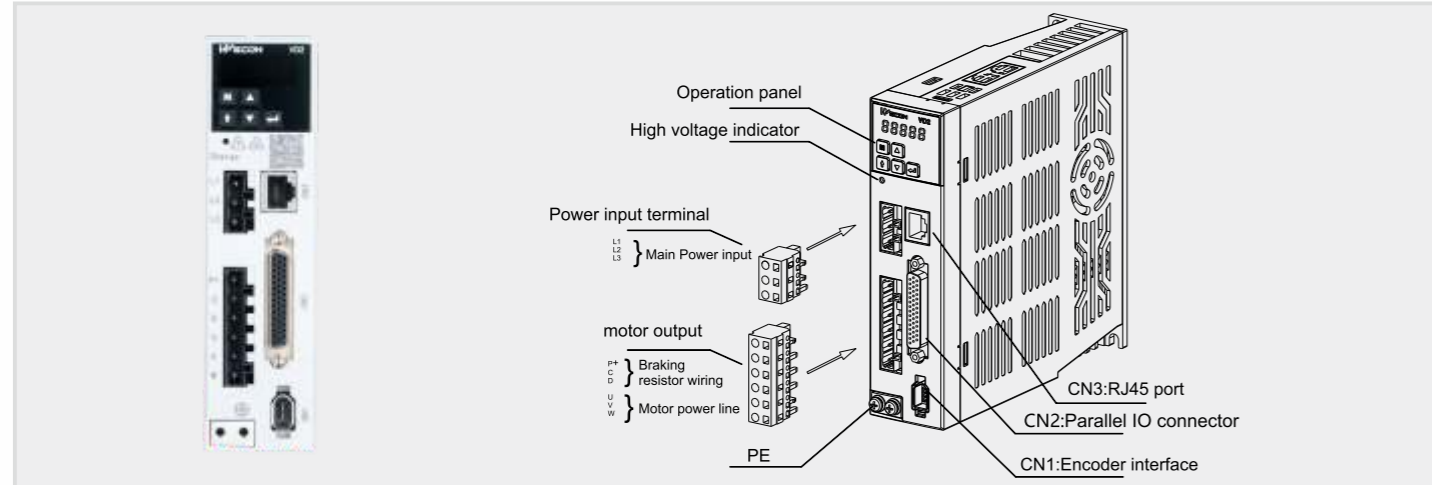
### Servo Motor and Cable Matching Table

| Series            | Motor Model       | Cable Type    | Cable Model         |
|-------------------|-------------------|---------------|---------------------|
| VD1 Series        | WD60M-04030S-Exx  | Power Cable   | P-L4G-R4M-x-xx      |
|                   | WD80M-07530S-Exx  | Encoder Cable | E-M20G-R15M-x-xx    |
|                   | WD80M-07520S-Exx  |               |                     |
| VD2 Series Type A | WD60M-04030S-Axx  | Power Cable   | P-Z3O1-R4M-x-xx     |
|                   | WD80M-07530S-Axx  | Encoder Cable | E-J1394-R9M-x-xx    |
| VD2 Series Type B | WD80M-11030S-Exx  | Power Cable   | P-U3O1-R4M-x-xx     |
|                   | WD80M-10025S-Exx  | Encoder Cable | E-D15G-R15M-x-xx    |
|                   | WD110M-18030S-Exx | Power Cable   | P-U3O1-H28J4M-x-xx  |
|                   | WD130M-10025S-Exx |               |                     |
|                   | WD130M-15015S-Exx |               |                     |
|                   | WD130M-20025S-Exx | Encoder Cable | E-D15G-H28J15M-x-xx |
| WD130M-23015S-Exx |                   |               |                     |

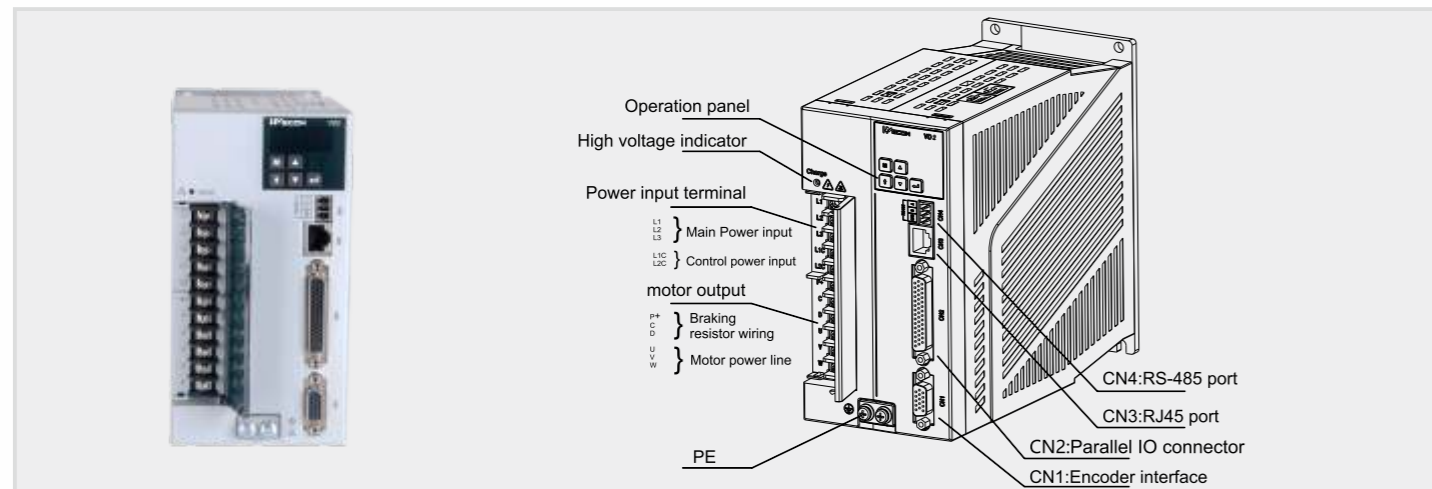
## Servo Drive Interface

Unit: mm

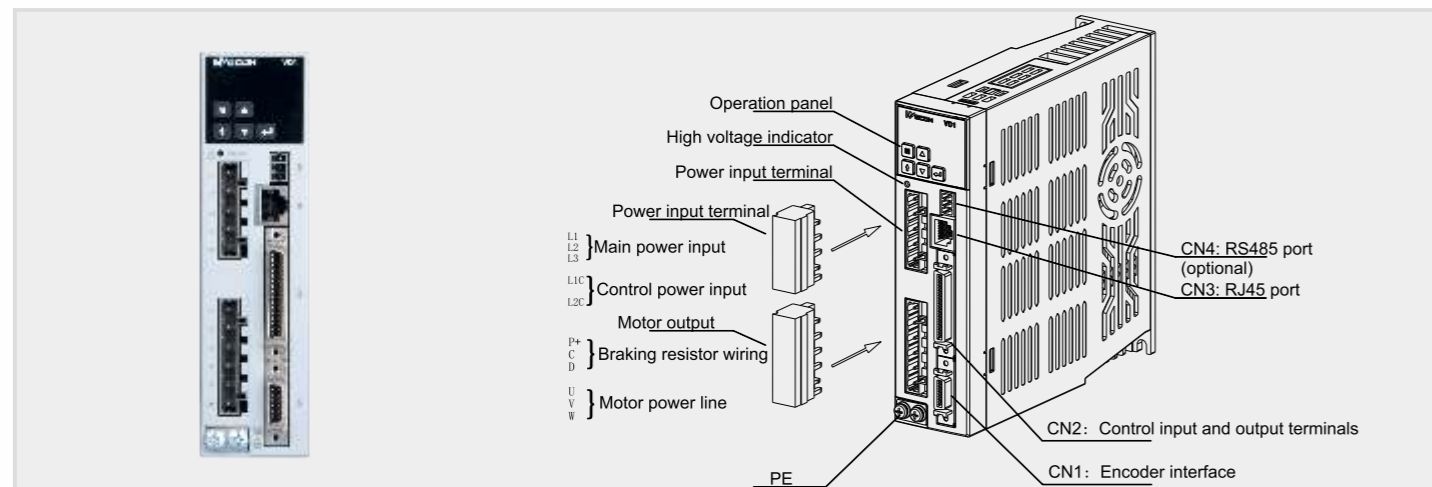
### ■ VD2 Type A Servo Drive Interface



### ■ VD2 Type B Servo Drive Interface



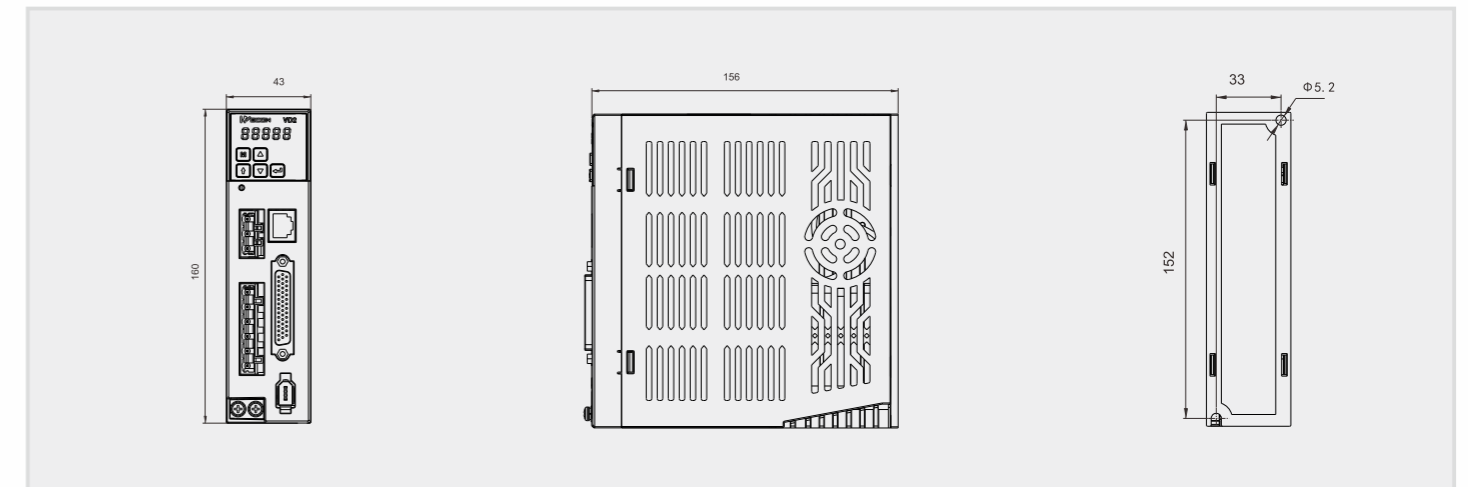
### ■ VD1 Servo Drive Interface



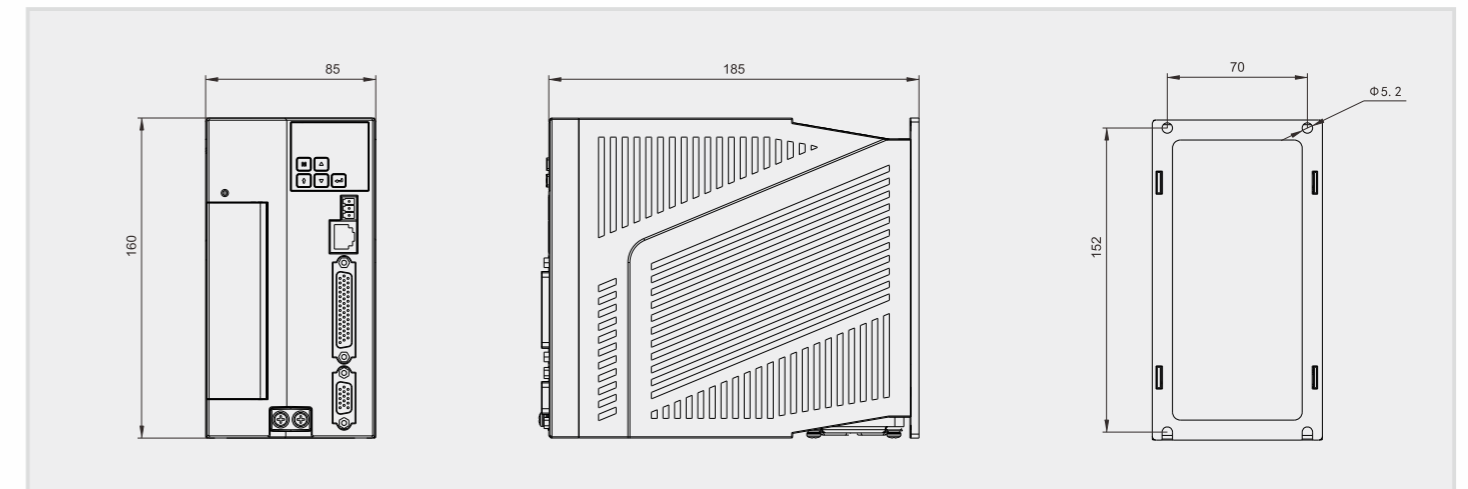
## Servo Drive Dimension

Unit: mm

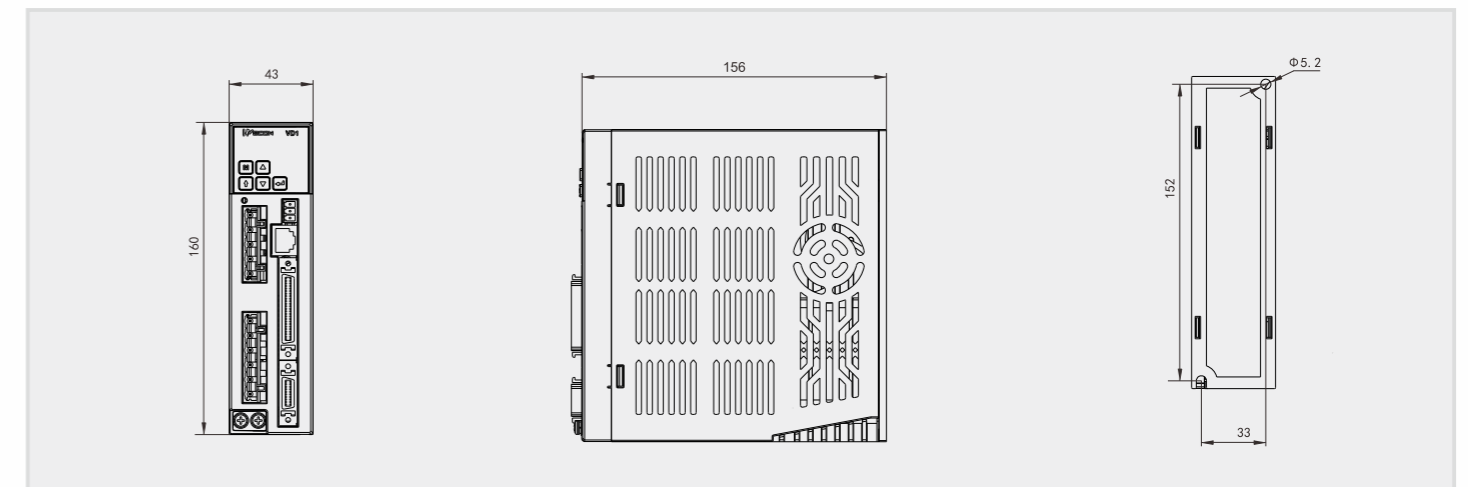
### ■ VD2 Type A Dimension



### ■ VD2 Type B Dimension



### ■ VD1 Dimension

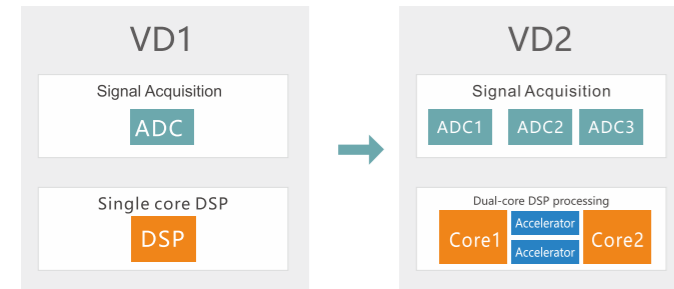


## VD2 Servo Drive

### Features

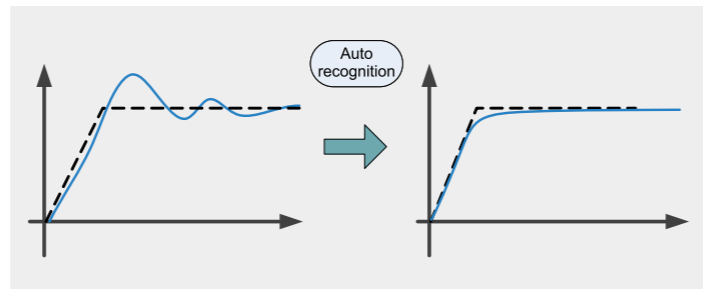
#### High Response

Using dual-core DSP+FPGA processing, the response speed is 4 times higher than that of the VD1 series.



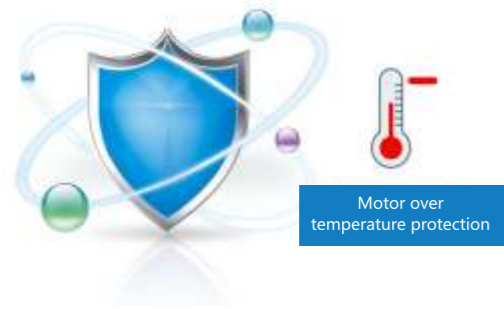
#### Easy to Debug

Automatic load parameter tuning function



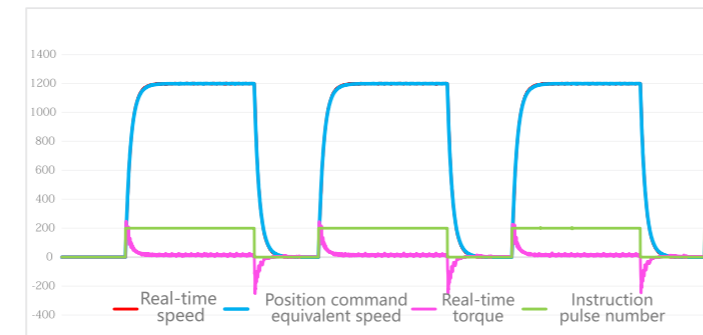
#### Strong Protection

Coating protection, anti-corrosion damage. Rich protection function, more stable.

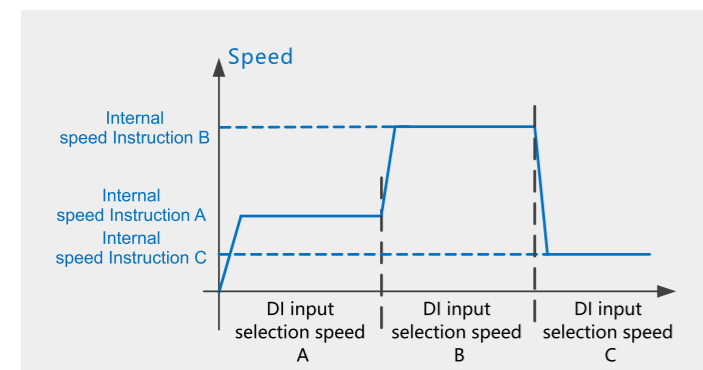


#### Personalise

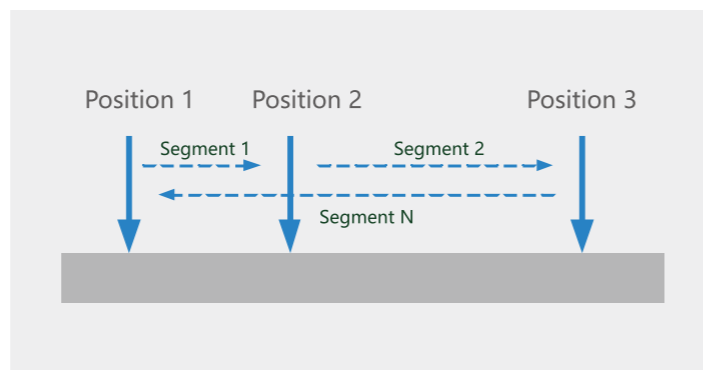
Virtual DI/DO function, four-channel real-time oscilloscope.



#### Support internal multi-speed instruction



#### Support internal multi-segment position instruction



- Support instantaneous load rate and average load rate monitoring
- Support real-time automatic load inertia recognition
- Convenient on-site debugging-playback of fault record panel
- Support pulse frequency monitoring
- Support brake output control

## VD2 Servo Drive Parameter

| Item                 |   | Content   |   |
|----------------------|---|---|---|
| Basic Specifications | Control Method  | IGBT PWM controlled sine wave current drive   |   |
|                      | Encoder   | 2500ppr incremental encoder, 17 bit absolute encoder  |   |
|                      | Input Signal  | 8*DI, Select input function according to function code configuration  |   |
|                      | Output Signal   | 4*DO, Select output function according to function code configuration   |   |
|                      | Analog Signal Input   | 2 channel AI input, range(-10v~10v)   |   |
|                      | Pulse Signal Input  | Open collector or differential input  |   |
|                      | Pulse Feedback Output   | A,B,Z differential output   |   |
|                      | Internal Instructions   | Support 8 internal speed commands and multiple internal position commands   |   |
|                      | Communication   | Modbus Communication  | channel 1   |
|                      |   | PC  | RS422 port, Parameter setting, monitoring status, waveform viewing, parameter auto-tuning, via computer |
| Braking Resistor     | Built-in braking resistor, supporting external braking resistor |   |   |
| General Function     | Automatic Parameter Tuning                                      | It can cooperate with the host computer for automatic load inertia identification and automatic rigidity level, and the parameters self-tuning.   |   |
|                      | Waveform Viewing  | View position, speed, torque and other curves on PC in real time  |   |
|                      | Waveform Storage  | The waveform sampling frequency is 1KHz, and the original waveform data can be stored for up to 10s   |   |
|                      | Parameter Import/export   | Support batch parameter import and export; support PLC automatic configuration of servo parameters (supported by some models)   |   |
|                      | Vibration Suppression   | Suppress mechanical vibration by setting vibration suppression parameters   |   |
|                      | Protective Function   | Overvoltage, undervoltage, overcurrent, overspeed, overload, overheating, encoder failure, excessive position deviation, torque limit, speed limit, etc.  |   |
|                      | Brake   | Support brake output control  |   |
|                      | Universal Control DI  | Servo enable (SON), fault and warning clear (A-CLR), forward drive prohibition (POT), reverse drive prohibition (NOT), command reverse (C-SIGN), emergency stop (E-STOP), Gain switching (GAIN-SEL), Multi-stage internal speed command selection(INSPD1, INSPD2, INSPD3) |   |
|                      | Universal Control DO  | Servo ready (RDY), fault signal (ALM), warning signal (WARN), rotation detection (TGON), zero speed signal (ZSP), torque limit (T-LIMIT), speed limit (V-LIMIT), servo on state output (SRV-ST), servo brake output (BRK-OFF)   |   |
|                      | Function Setting  | Position Mode   | Input Control   |
| Output Control       |   |   | Positioning complete (P-COIN), positioning approach (P-NEAR)  |
| Pulse input          |   | Pulse Frequency   | max. 500khz   |
|                      |   | Pulse Type  | Pulse + Direction, CCW/CW pulse, Orthogonal coding  |
|                      |   | Electronic Gear Ratio   | Range: 0.01 ~ 100   |
| Pulse Output         |   | Pulse Filtering   | Low-pass filter or smooth filter  |
|                      |   | Pulse Output  | Differential orthogonal coding A, B, Z output, PPR is settable, can be set to integer or fraction.      |
|                      |   | Torque Limit  | Forward /reverse operation torque limit is settable   |
|                      |   | Speed Limit   | Forward /reverse operation speed limit is settable  |
| Speed Mode           |   | Control Input   | Zero clamp (ZCLAMP), command inversion (C-SIGN), Speed limit analog input                               |
|                      | Control Output  | Velocity consistent (V-COIN), Speed approach (V-NEAR)   |   |
|                      | Command input   | Analog Input: -10V~+10V analog input  |   |
|                      | Internal Command  | Set the speed via internal function code  |   |
|                      | Soft Start  | acc. and dec. time are settable   |   |
|                      | Zero Clamp  | Motor speed can be clamped to zero via the setting of zero clamp function   |   |
| Torque Mode          | Torque Limit  | Set the torque limit  |   |
|                      | Command Output  | Command inversion (C-SIGN), Speed limit analog input  |   |
|                      | Control Output  | Torque reached (T-COIN), speed limit (V-LIMIT)  |   |
|                      | Speed Limit   | Command input: -10V~+10V analog input<br>Internal Command: Set torque through internal parameter<br>Limits maximum speed in torque mode   |   |

## VD1 Servo Drive Parameter

| Item                 | Content  |   |   |
|----------------------|--|---|---|
| Basic specifications | control method                                       | IGBT PWM controlled sine wave current drive   |   |
|                      | encoder  | 2500ppr incremental encoder   |   |
|                      | Input signal   | 8*DI, Select input function according to function code configuration  |   |
|                      | Output signal  | 4*DO, Select output function according to function code configuration   |   |
|                      | Analog signal input                                  | 2 channel AI input, range(-10v~10v)   |   |
|                      | Pulse signal input                                   | Open collector or differential input  |   |
|                      | Pulse feedback output                                | A,B,Z differential output   |   |
|                      | communication  | Modbus comm   | channel 1   |
|                      |  | pc  | RS422 port, Parameter setting, monitoring status, waveform viewing, parameter auto-tuning, via computer |
|                      | Braking resistor                                     | Built-in braking resistor, supporting external braking resistor   |   |
| General function     | Automatic parameter tuning                           | It can cooperate with the host computer for automatic load inertia identification and automatic rigidity level, and the parameters self-tuning.   |   |
|                      | Waveform viewing                                     | View position, speed, torque and other curves on PC in real time  |   |
|                      | Vibration suppression                                | Suppress mechanical vibration by setting vibration suppression parameters   |   |
|                      | Protective function                                  | Overvoltage, undervoltage, overcurrent, overspeed, overload, overheating, encoder failure, excessive position deviation, torque limit, speed limit, etc.  |   |
|                      | Universal control DI                                 | Servo enable (SON), fault and warning clear (A-CLR), forward drive prohibition (POT), reverse drive prohibition (NOT), command reverse (C-SIGN), emergency stop (E-STOP), Gain switching (GAIN-SEL) |   |
|                      | Universal control DO                                 | Servo ready (RDY), fault signal (ALM), warning signal (WARN), rotation detection (TGON), zero speed signal (ZSP), torque limit (T-LIMIT), speed limit (V-LIMIT), servo on state output (SRV-ST)     |   |
| Function setting     | Input control  | Deviation counter clear (CL), electronic gear switching 1 (GEAR-SEL), pulse input inhibit (INH), command inversion (C-SIGN)   |   |
|                      |  | Output control  | Positioning complete (P-COIN), positioning approach (P-NEAR)  |
|                      | Pulse input  | Pulse frequency   | max. 500khz   |
|                      |  | Pulse type  | Pulse + Direction, CCW/CW pulse, Orthogonal coding  |
|                      |  | Electronic gear ratio   | Range: 0.01 ~ 100   |
|                      |  | Pulse filtering   | low-pass filter or smooth filter  |
|                      | Pulse output   | Differential orthogonal coding A, B, Z output, PPR is settable  |   |
|                      | Torque limit   | Forward / reverse operation torque limit is settable  |   |
|                      | Speed limit  | Forward / reverse operation speed limit is settable   |   |
|                      | Control input  | Zero clamp (ZCLAMP), command inversion (C-SIGN), Speed limit analog input   |   |
|                      |  | Control output  | Velocity consistent (V-COIN), Speed approach (V-NEAR)   |
|                      | Command input  | Analog input  | -10V~+10V analog input  |
|                      |  | Internal command  | set the speed via internal function code  |
|                      |  | Soft start  | acc. and dec. time are settable   |
|                      |  | Zero clamp  | Motor speed can be clamped to zero via the setting of zero clamp function                               |
|                      | Torque limit   | set the torque limit  |   |
| Command output       | Command inversion (C-SIGN), Speed limit analog input |   |   |
|                      | Control output                                       | Torque reached (T-COIN), speed limit (V-LIMIT)  |   |
| Command input        | Analog input   | -10V~+10V analog input  |   |
|                      | Internal command                                     | Set torque through internal parameter   |   |
|                      | Speed limit  | Limits maximum speed in torque mode   |   |

## Servo Motor

### Naming Rules



WD 80 M - 075 30 S - E1 B

| WECON Name | Flange Size | Motor Inertia     | Rated Power | Rated Speed | Voltage Class | Encoder Type  | Motor Structure                         |
|------------|-------------|-------------------|-------------|-------------|---------------|---|---|
| WD         | 40          | L: Low inertia    | 010:100W    | 15:1500rpm  | S:220V        | E1:2500ppr Incremental encoder                              | A: None                                 |
|            | 60          | M: Medium inertia | 020:200W    | 20:2000rpm  | T:380V        | E2: 2500ppr Wire-saving Incremental encoder 9-pin interface | B: 4-pole with oil sealing              |
|            | 80          | H: High inertia   | 040:400W    | 25:2500rpm  |               | A1: 17bit absolute encoder                                  | C: 4-pole with electromagnetic brake    |
|            | 90          |                   | 075:750W    | 30:3000rpm  |               | A2: 23bit absolute encoder                                  | D: 4-pole with permanent magnetic brake |
|            | 100         |                   | 100:1.0KW   |             |               |   | E: None                                 |
|            | 110         |                   | 150:1.5KW   |             |               |   | F: 5-pole with oil sealing              |
|            | 130         |                   | 180:1.8KW   |             |               |   | G: 5-pole with electromagnetic brake    |
|            |             |                   | 200:2.0KW   |             |               |   | H: 5-pole with permanent magnetic brake |
|            |             |                   | 230:2.3KW   |             |               |   |   |

### Definition of Wiring

| Motor socket               | Motor phase | U      |     | V  |    | W  |    | PE |    |    |    |    |    |    |    |    |
|----------------------------|-------------|--------|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|                            |             | Number | 1   | 2  | 3  | 4  |    |    |    |    |    |    |    |    |    |    |
| Incremental encoder wiring | Signal      | 5V     | GND | A+ | Z- | U+ | Z+ | U- | B+ | V+ | W+ | V- | B- | A- | W- | PE |
|                            | Number      | 2      | 3   | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 1  |

## VD1 Motor Parameters

| Model            | Rated Power (kW) | Rated Current (A) | Rated Torque (N·m) | Max. Torque (N·m) | Rated Speed (r/min) | Rotor Inertia (Kg·m <sup>2</sup> ) | Without Brake Dimension (L/mm) |
|------------------|------------------|-------------------|--------------------|-------------------|---------------------|------------------------------------|--------------------------------|
| WD60M-04030S-E1F | 0.4              | 2.1               | 1.27               | 4.46              | 3000                | 0.61×10 <sup>-4</sup>              | 115                            |
| WD60M-04030S-E1B | 0.4              | 2.6               | 1.27               | 3.81              | 3000                | 0.407×10 <sup>-4</sup>             | 133                            |
| WD80M-04030S-E1B | 0.4              | 2                 | 1.27               | 3.8               | 3000                | 1.05×10 <sup>-4</sup>              | 124                            |
| WD80M-07530S-E1F | 0.75             | 4                 | 2.39               | 8.36              | 3000                | 1.71×10 <sup>-4</sup>              | 132                            |
| WD80M-07530S-E1B | 0.75             | 3                 | 2.39               | 7.1               | 3000                | 1.82×10 <sup>-4</sup>              | 151                            |
| WD80M-07520S-E1B | 0.75             | 3                 | 3.5                | 10.5              | 2000                | 2.63×10 <sup>-4</sup>              | 179                            |

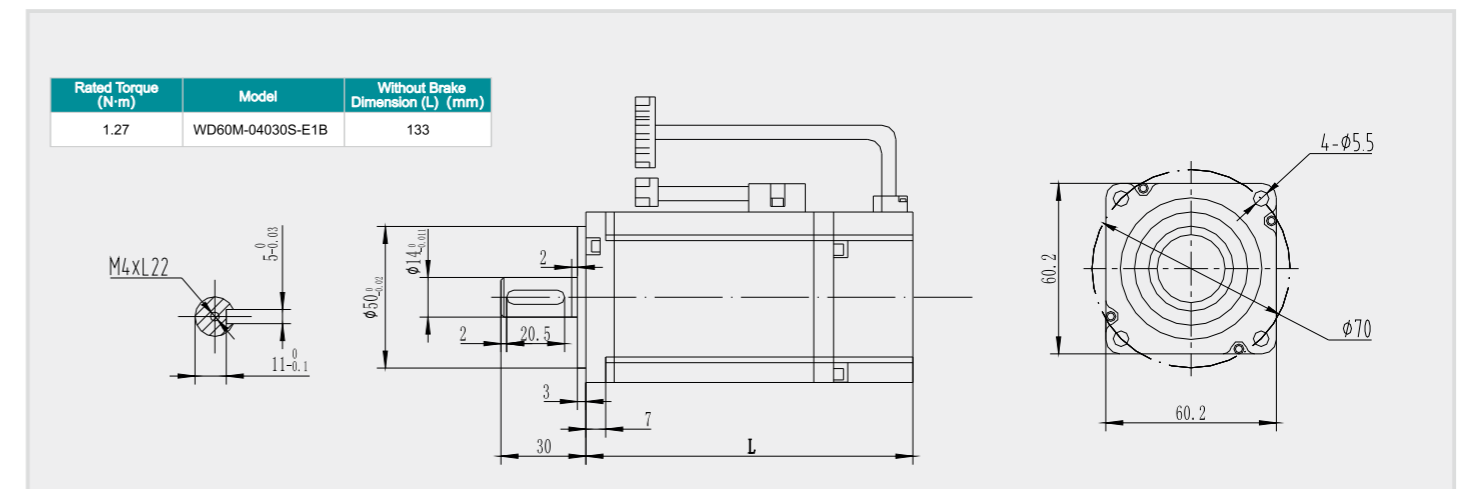
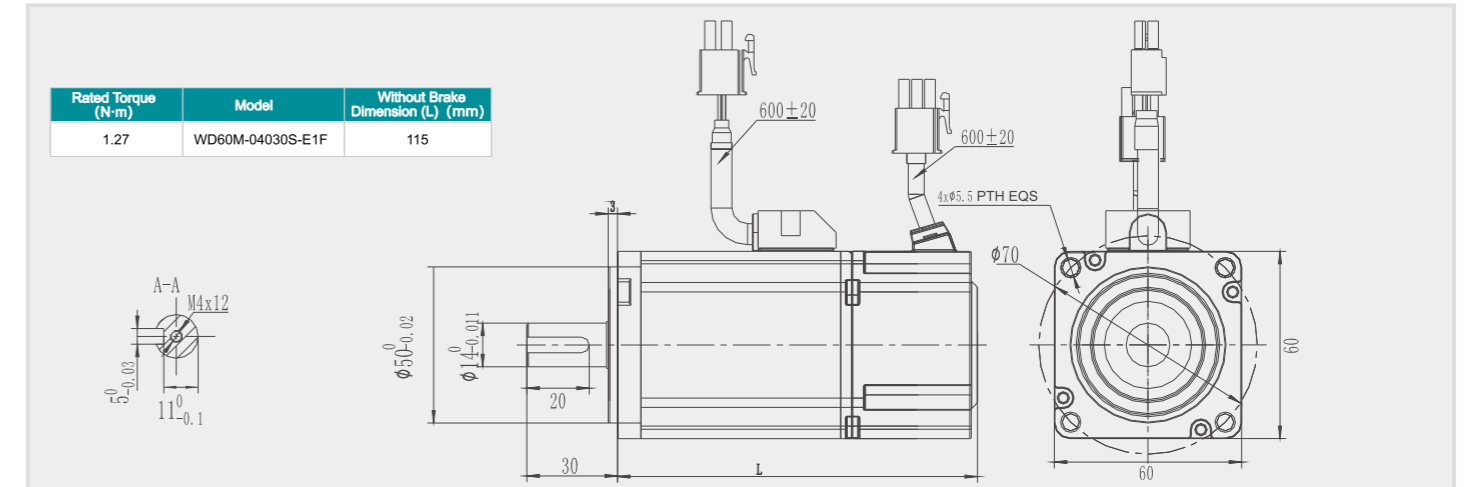
## VD2 Motor Parameters

| Model             | Rated Power (kW) | Rated Current (A) | Rated Torque (N·m) | Max. Torque (N·m) | Rated Speed (r/min) | Rotor Inertia (Kg·m <sup>2</sup> ) | Without Brake Dimension (L/mm) | With Brake Dimension (L/mm) |     |
|-------------------|------------------|-------------------|--------------------|-------------------|---------------------|------------------------------------|--------------------------------|-----------------------------|-----|
| WD60M-04030S-A1F  | 0.4              | 2.5               | 1.27               | 3.81              | 3000                | 0.52×10 <sup>-4</sup>              | 92                             | -                           |     |
| WD60M-04030S-A1G  |                  | 2.5               | 1.27               | 3.81              | 3000                | 0.62×10 <sup>-4</sup>              | -                              | 121.5                       |     |
| WD80M-07530S-A1F  | 0.75             | 4.4               | 2.39               | 7.17              | 3000                | 1.48×10 <sup>-4</sup>              | 98.5                           | -                           |     |
| WD80M-07530S-A1G  |                  | 4.4               | 2.39               | 7.17              | 3000                | 1.78×10 <sup>-4</sup>              | -                              | 132.5                       |     |
| WD80M-10025S-E1B  | 1.0              | 4.4               | 4                  | 12                | 2500                | 2.97×10 <sup>-4</sup>              | 191                            | -                           |     |
| WD80M-10025S-E1C  |                  | 4.4               | 4                  | 12                | 2500                | 2.97×10 <sup>-4</sup>              | -                              | 231                         |     |
| WD130M-10025S-E1B |                  | 4                 | 4                  | 12                | 2500                | 8.5×10 <sup>-4</sup>               | 166                            | -                           |     |
| WD130M-10025S-E1C | 1.5              | 4                 | 4                  | 12                | 2500                | 8.5×10 <sup>-4</sup>               | -                              | 223                         |     |
| WD80M-11030S-E1B  |                  | 1.1               | 4.5                | 3.5               | 10.5                | 3000                               | 2.63×10 <sup>-4</sup>          | 179                         | -   |
| WD80M-11030S-E1C  |                  |                   | 4.5                | 3.5               | 10.5                | 3000                               | 2.63×10 <sup>-4</sup>          | -                           | 221 |
| WD130M-15025S-E1B | 1.5              | 6                 | 6                  | 18                | 2500                | 12.6×10 <sup>-4</sup>              | 179                            | -                           |     |
| WD130M-15025S-E1C |                  | 6                 | 6                  | 18                | 2500                | 12.6×10 <sup>-4</sup>              | -                              | 236                         |     |
| WD130M-15015S-E1B |                  | 6                 | 10                 | 25                | 1500                | 19.4×10 <sup>-4</sup>              | 213                            | -                           |     |
| WD130M-15015S-E1C | 1.8              | 6                 | 10                 | 25                | 1500                | 19.4×10 <sup>-4</sup>              | -                              | 294                         |     |
| WD110M-18030S-E1B |                  | 6.0               | 6.0                | 6                 | 18                  | 3000                               | 7.6×10 <sup>-4</sup>           | 219                         | -   |
| WD110M-18030S-E1C |                  |                   | 6.0                | 6                 | 18                  | 3000                               | 7.6×10 <sup>-4</sup>           | -                           | 293 |
| WD130M-20025S-E1B | 2.0              | 7.5               | 7.7                | 22                | 2500                | 15.3×10 <sup>-4</sup>              | 192                            | -                           |     |
| WD130M-23015S-E1B | 2.3              | 9.5               | 15                 | 30                | 1500                | 27.7×10 <sup>-4</sup>              | 241                            | -                           |     |

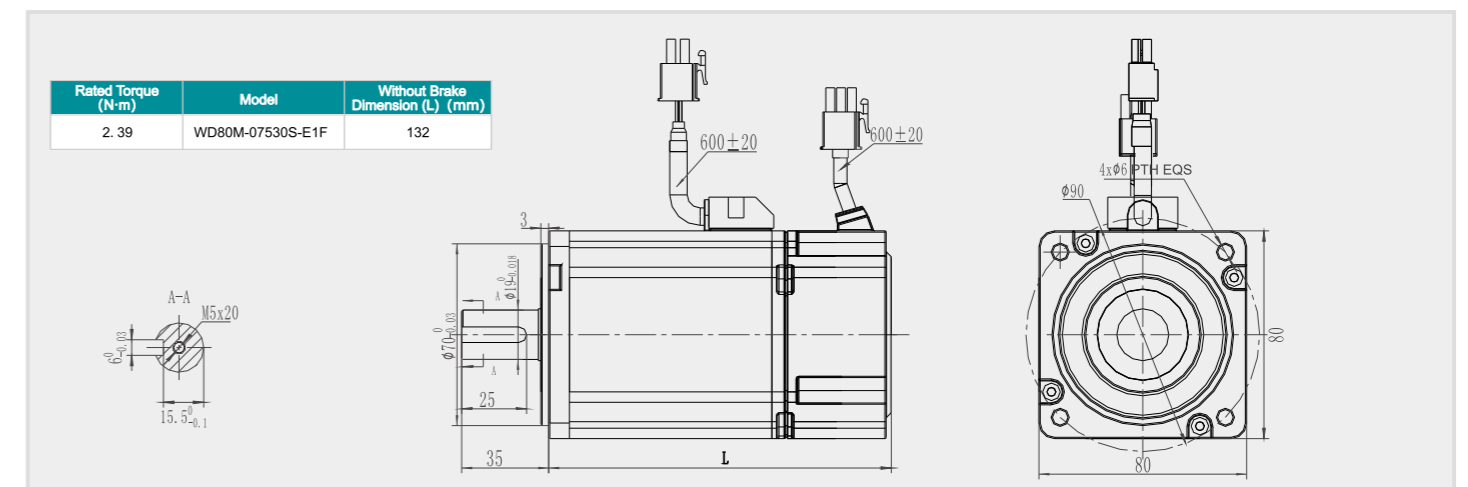
## VD1 Motor Dimension

Unit: mm

### 60 Series Motor Dimension

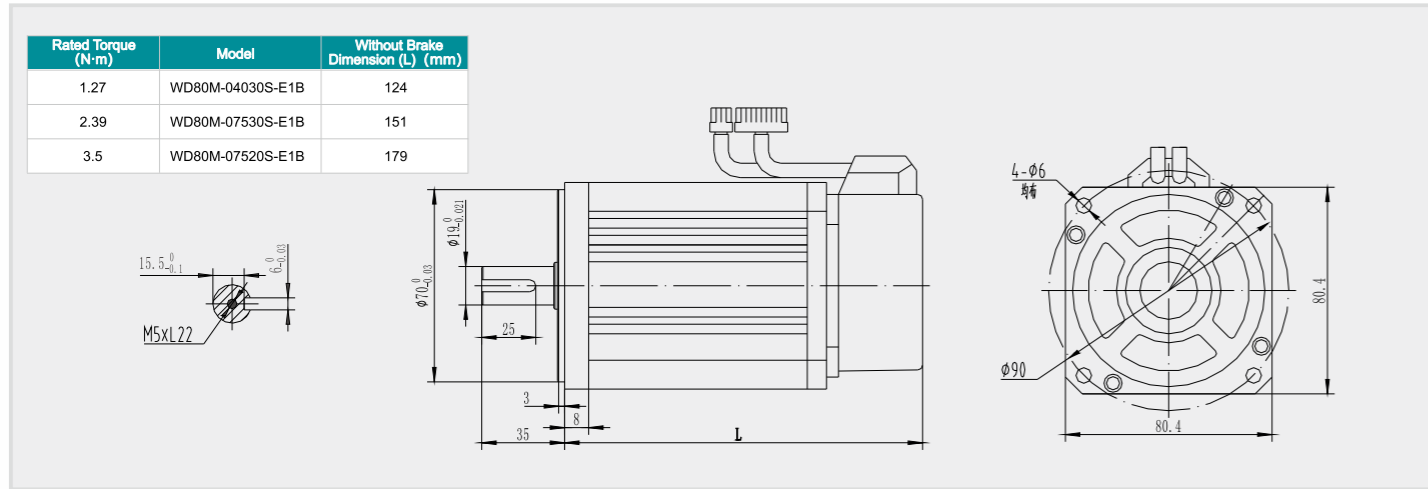


### 80 Series Motor Dimension



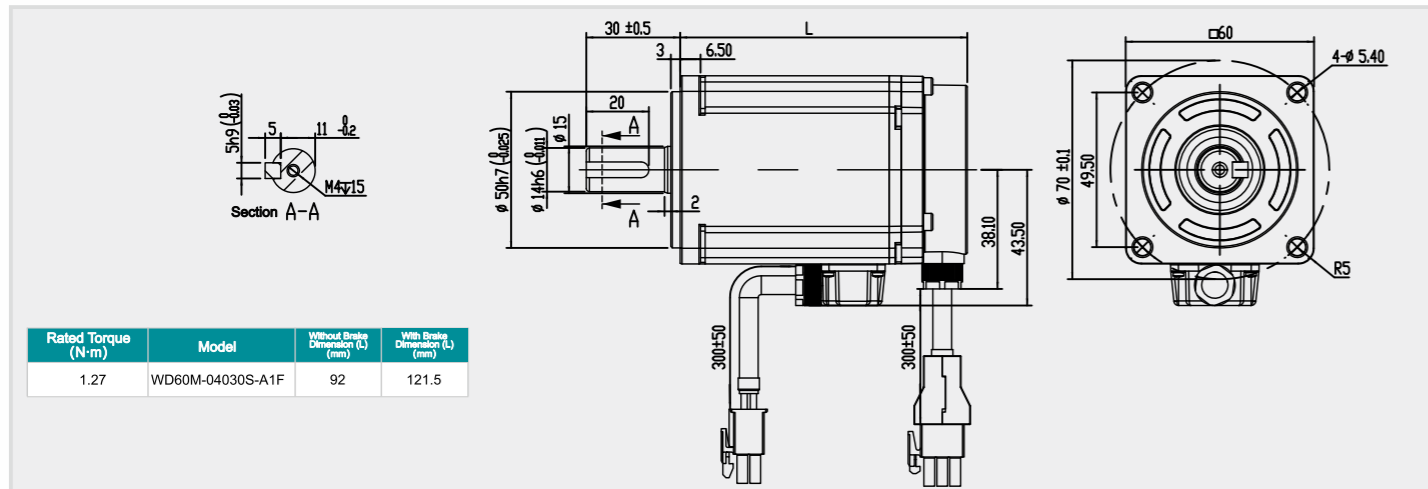
Unit: mm

Unit: mm

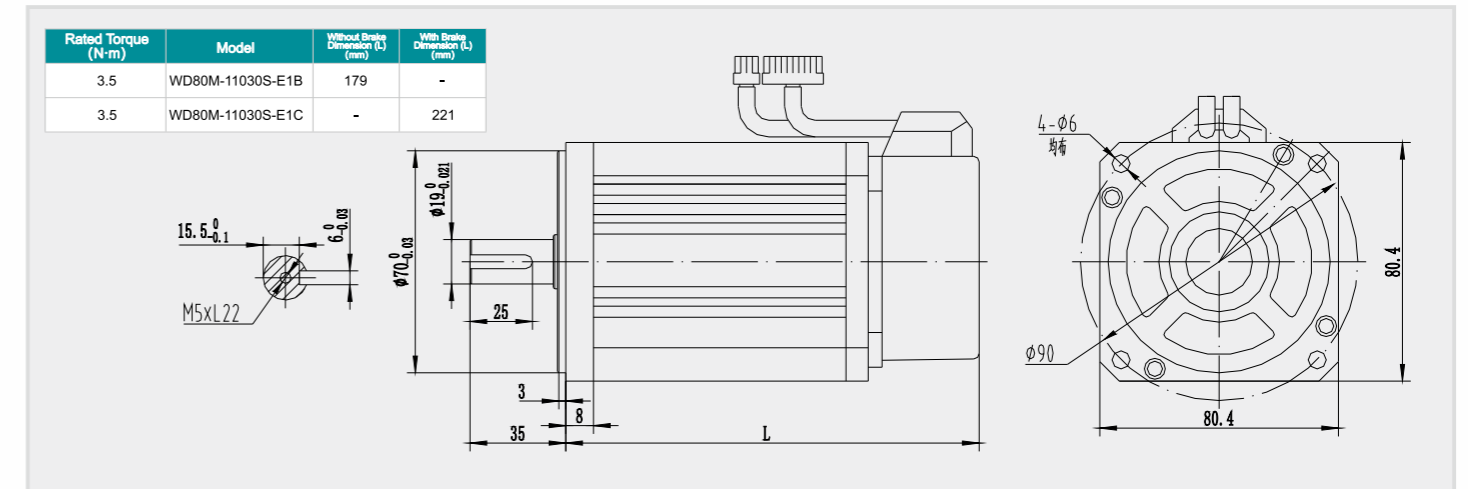
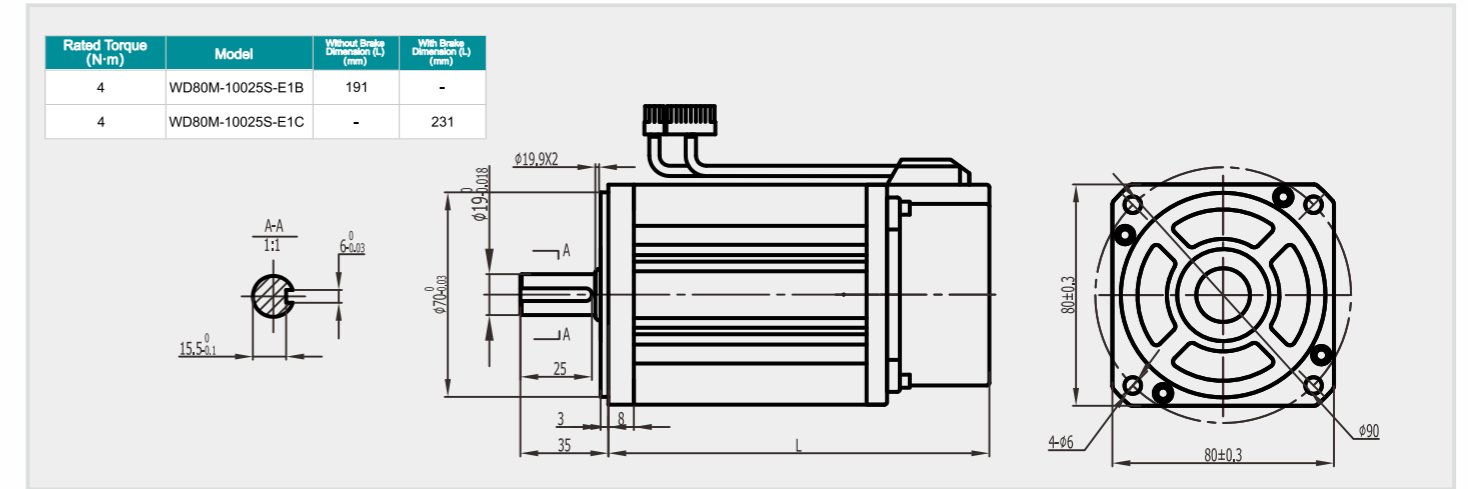
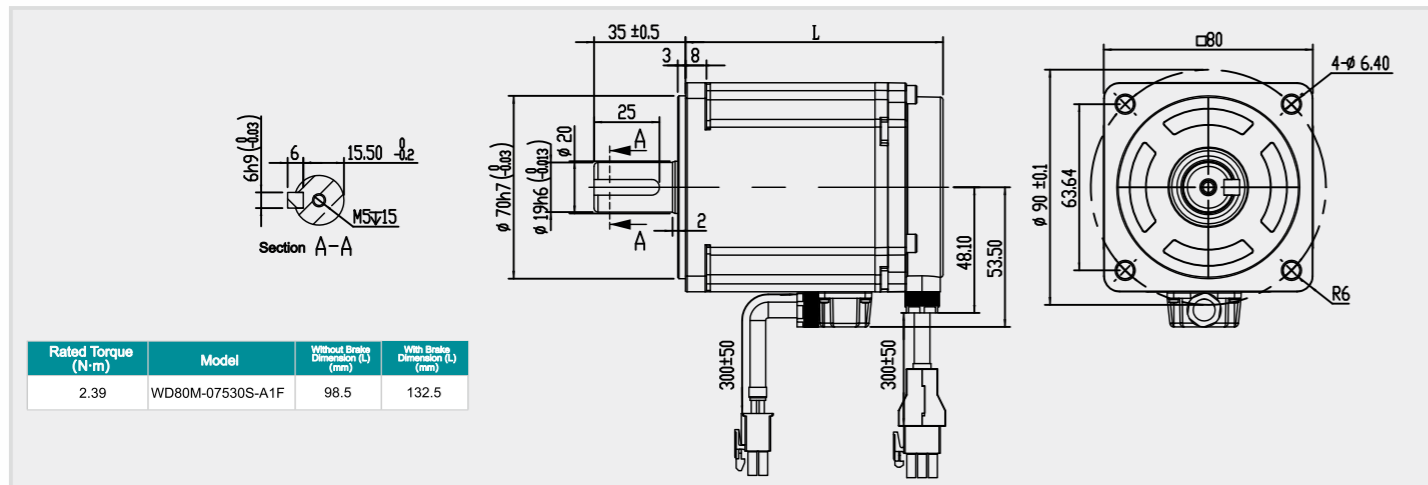


## VD2 Motor Dimension

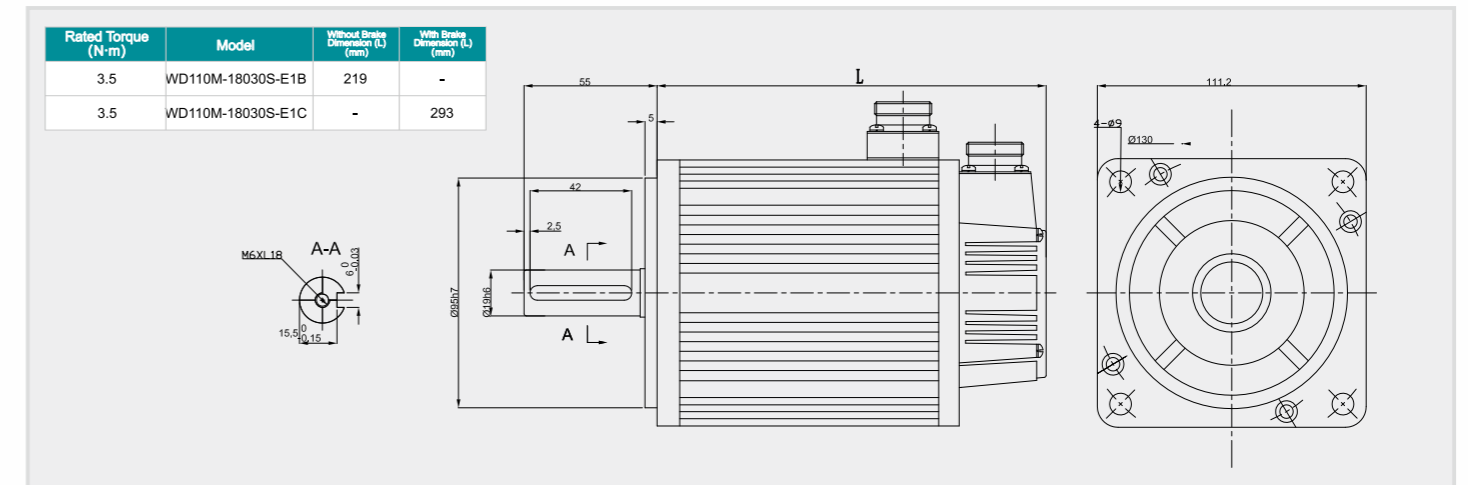
### 60 Series Motor Dimension



### 80 Series Motor Dimension



### 110 Series Motor Dimension



Unit: mm

Unit: mm

## 130 Series Motor Dimension

