

Servo Catalog

Devotes in Better Product Experience and Support Customers Success.

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



WECON[®]
Wecon Technology Co.,Ltd.

Email: sales@we-con.com.cn

Website: 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

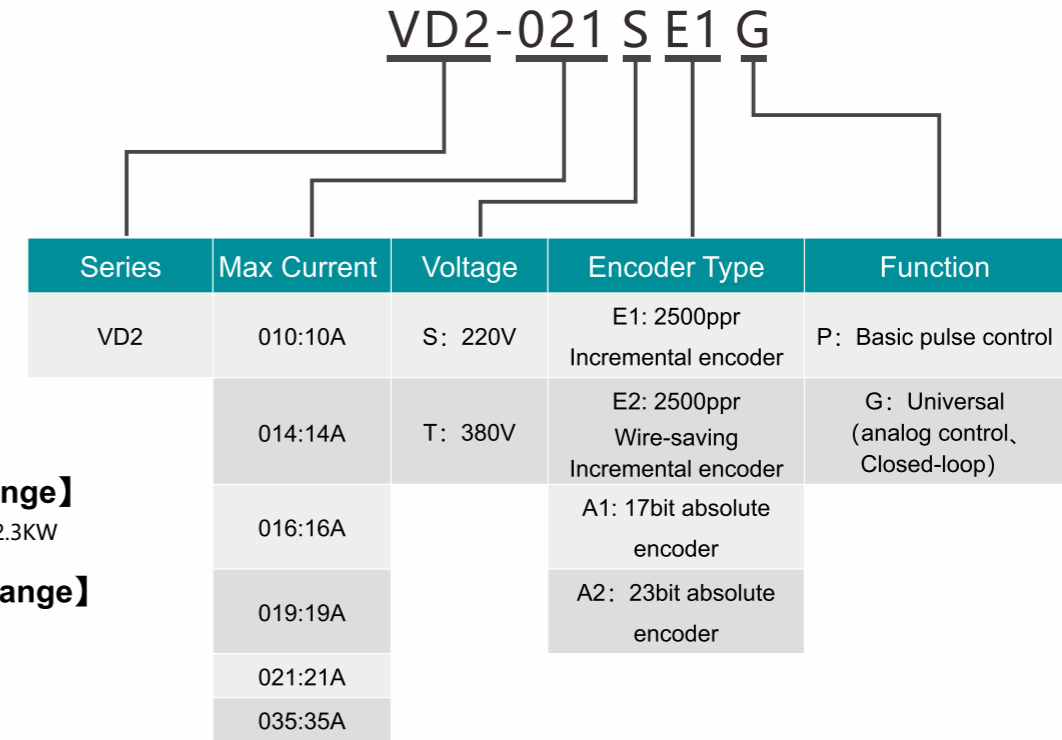
Voltage Class	Servo Drive			Motor				Remarks
	Power (KW)	Model	Drive Type	Frame Size	Model	Rated Speed (rpm)	Rated Torque (N.m)	
220V	0.4	VD1-040SE1G	Type A	60	WD60M-04030S-E1B	3000	1.27	Brake not supported in VD1 Servo
		VD1-040SE1G5		80	WD80M-04030S-E1B	3000	1.27	
		VD1-075SE1G		60	WD60M-04030S-E1F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

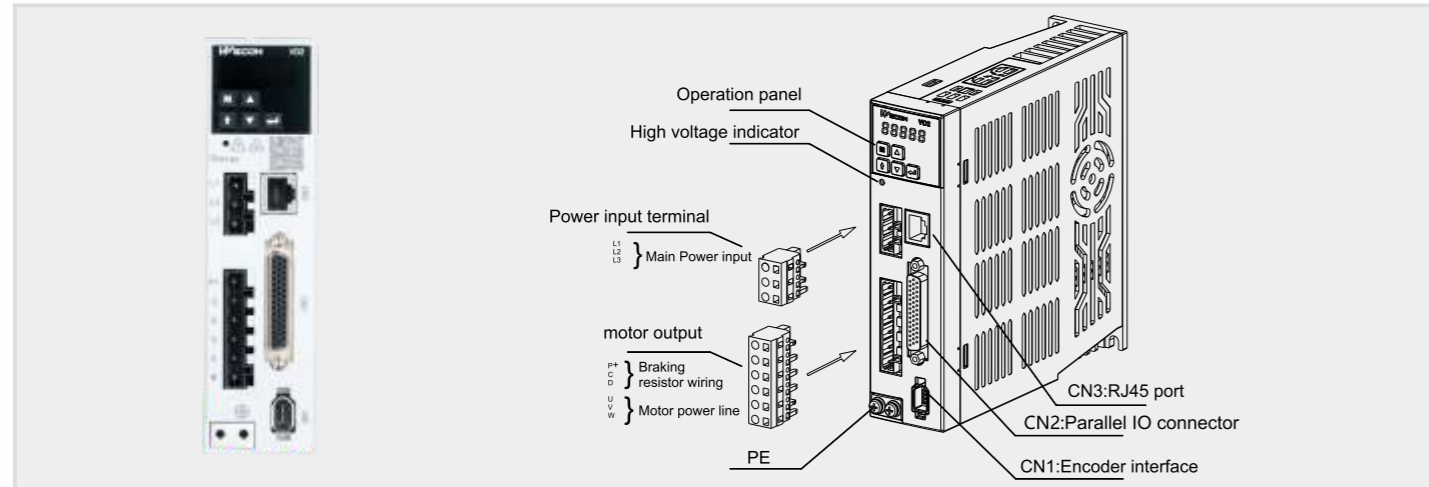
Servo Motor and Cable Matching Table

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			

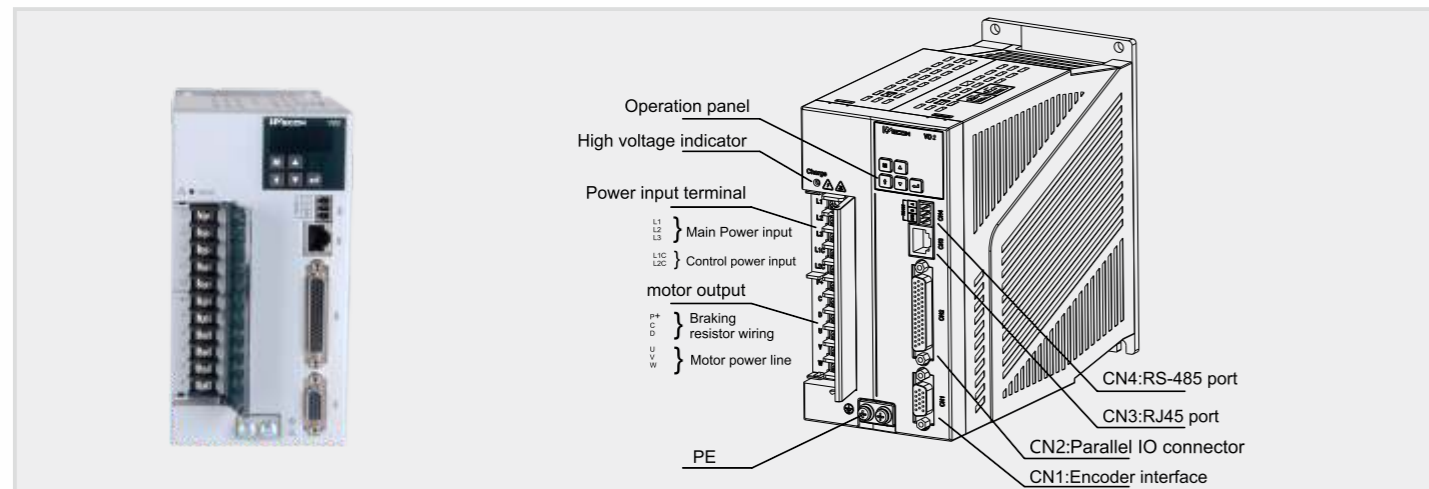
Servo Drive Interface

Unit: mm

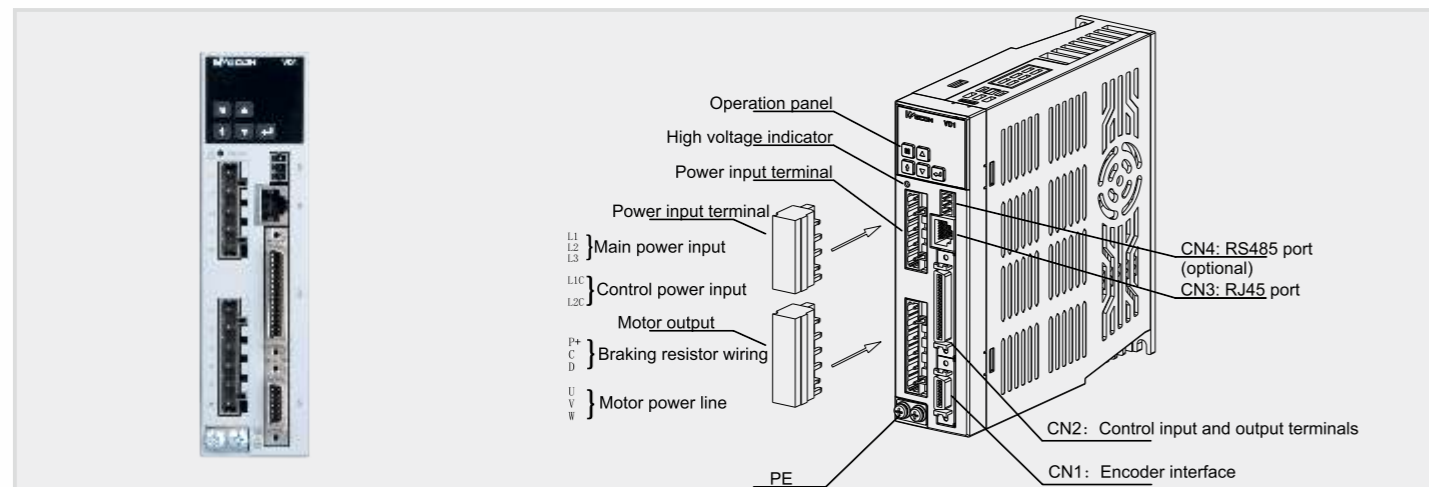
■ VD2 Type A Servo Drive Interface



■ VD2 Type B Servo Drive Interface



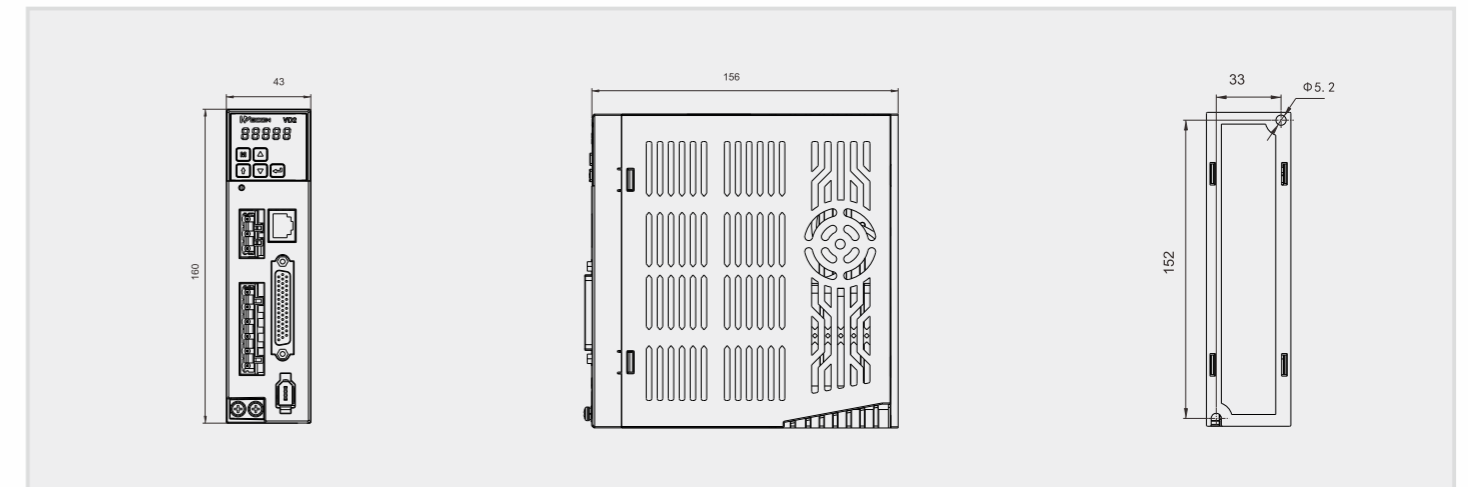
■ VD1 Servo Drive Interface



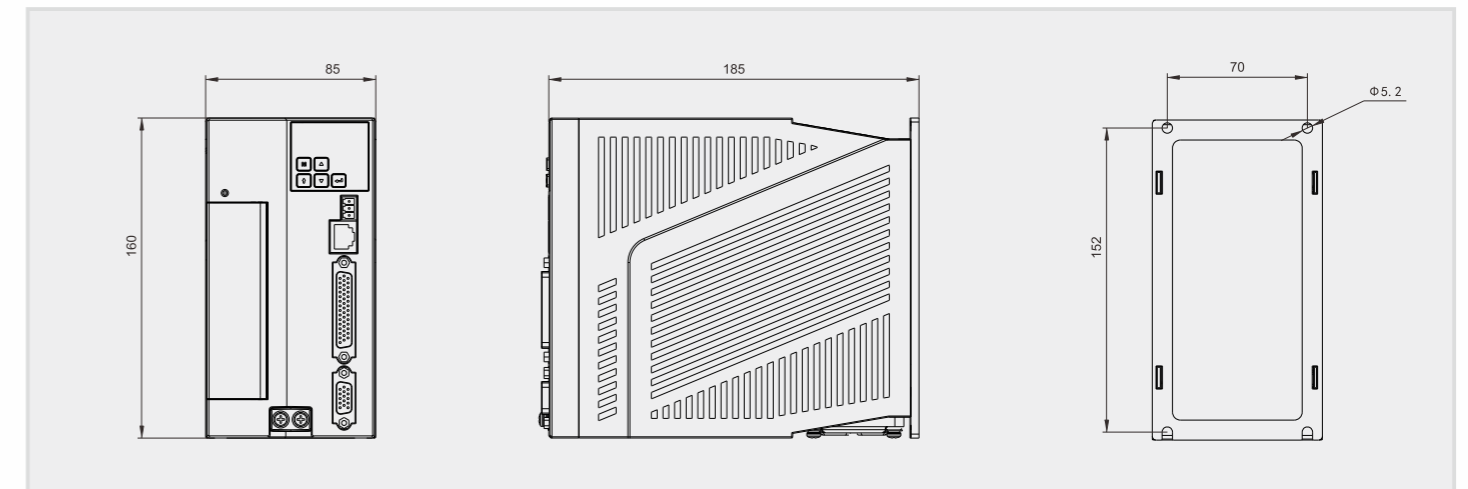
Servo Drive Dimension

Unit: mm

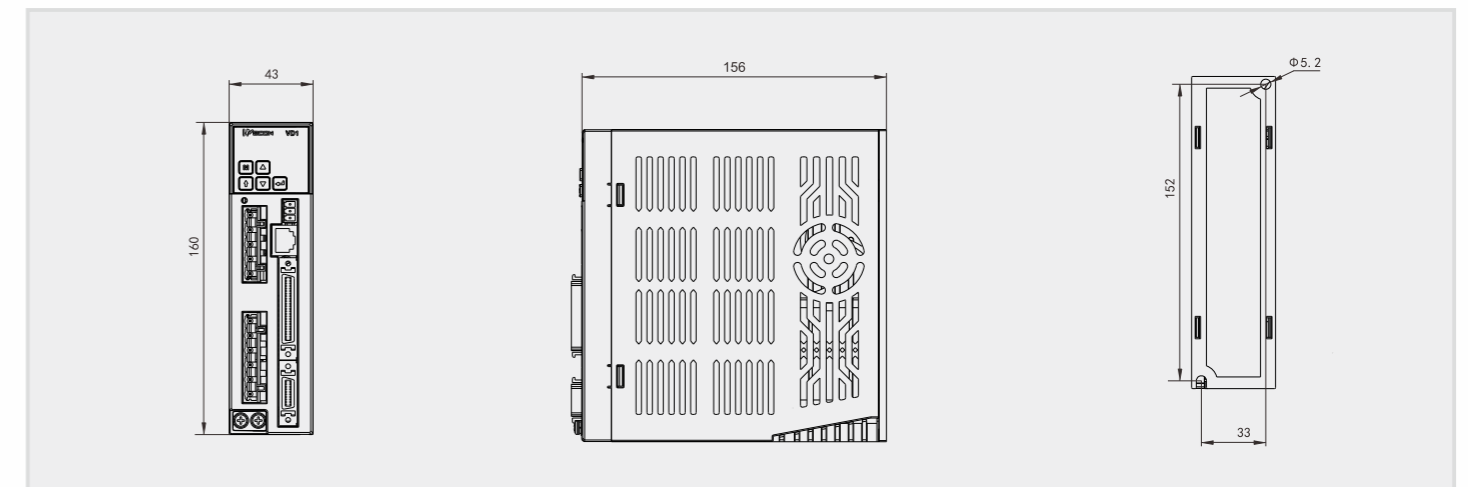
■ VD2 Type A Dimension



■ VD2 Type B Dimension



■ VD1 Dimension

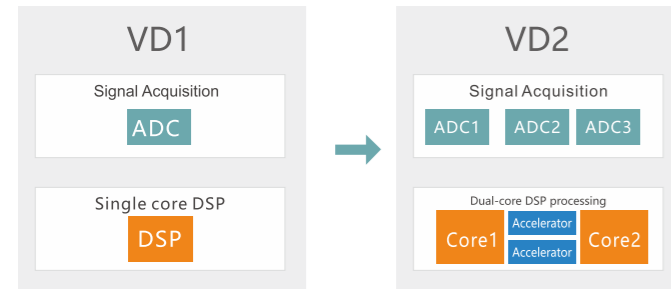


VD2 Servo Drive

Features

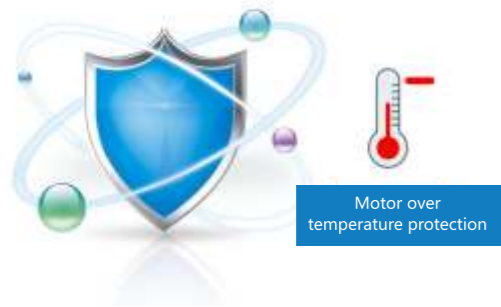
High Response

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

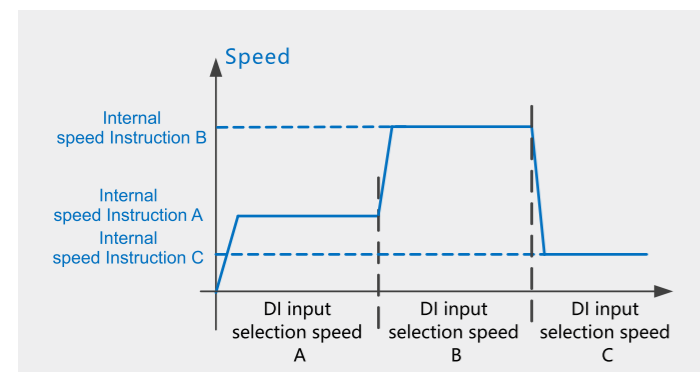


Strong Protection

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



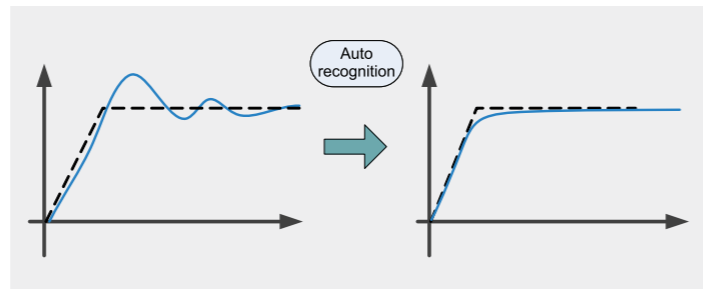
Support internal multi-speed instruction



- Support instantaneous load rate and average load rate monitoring
- Convenient on-site debugging-playback of fault record panel
- Support brake output control

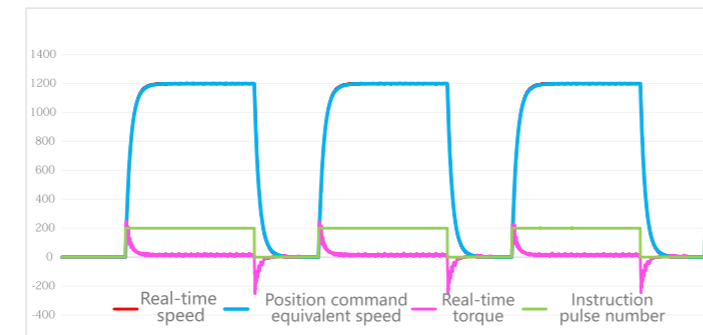
Easy to Debug

Automatic load parameter tuning function

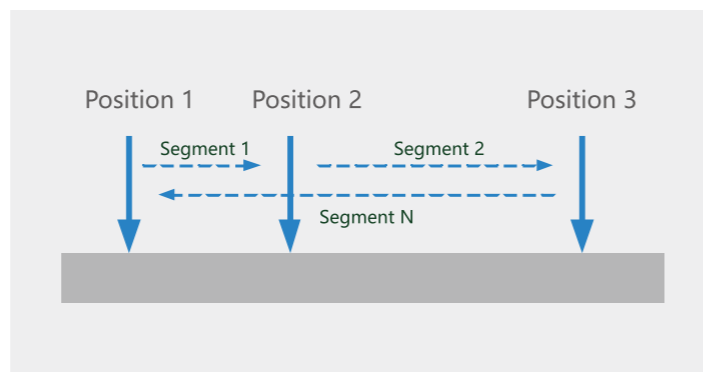


Personalise

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



Support internal multi-segment position instruction



- Support real-time automatic load inertia recognition
- Support pulse frequency monitoring

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)	
	Command Input	Analog Input -10V~+10V analog input	
Speed Limit	Internal Command	Set torque through internal parameter	
	Speed Limit	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)	
	Position mode	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
	Speed mode	Pulse output	Differential orthogonal coding A, B, Z output, PPR is settable	
			Torque limit	Forward / reverse operation torque limit is settable
		Control input	Speed limit	Forward / reverse operation speed limit is settable
			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	
	Torque mode	Command output	Zero clamp	Motor speed can be clamped to zero via the setting of zero clamp function
			Torque limit	set the torque limit
Control output		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 ²)	Without Brake Dimension (L/mm)
WD60M-04030S-E1F	0.4	2.1	1.27	4.46	3000	0.61×10 ⁻⁴	115
WD60M-04030S-E1B	0.4	2.6	1.27	3.81	3000	0.407×10 ⁻⁴	133
WD80M-04030S-E1B	0.4	2	1.27	3.8	3000	1.05×10 ⁻⁴	124
WD80M-07530S-E1F	0.75	4	2.39	8.36	3000	1.71×10 ⁻⁴	132
WD80M-07530S-E1B	0.75	3	2.39	7.1	3000	1.82×10 ⁻⁴	151
WD80M-07520S-E1B	0.75	3	3.5	10.5	2000	2.63×10 ⁻⁴	179

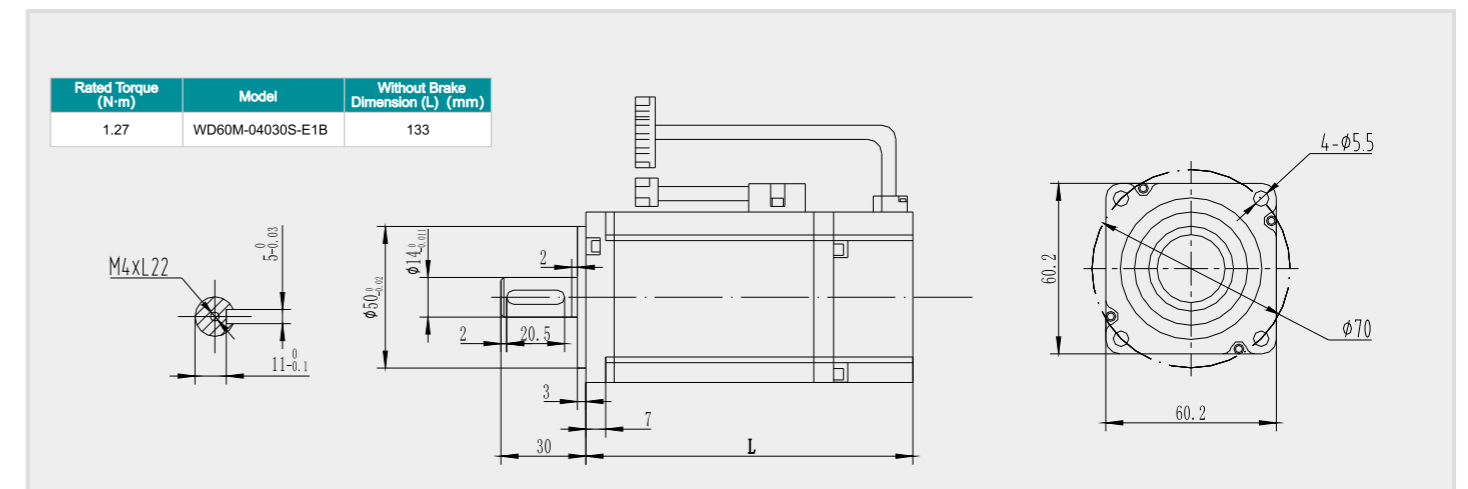
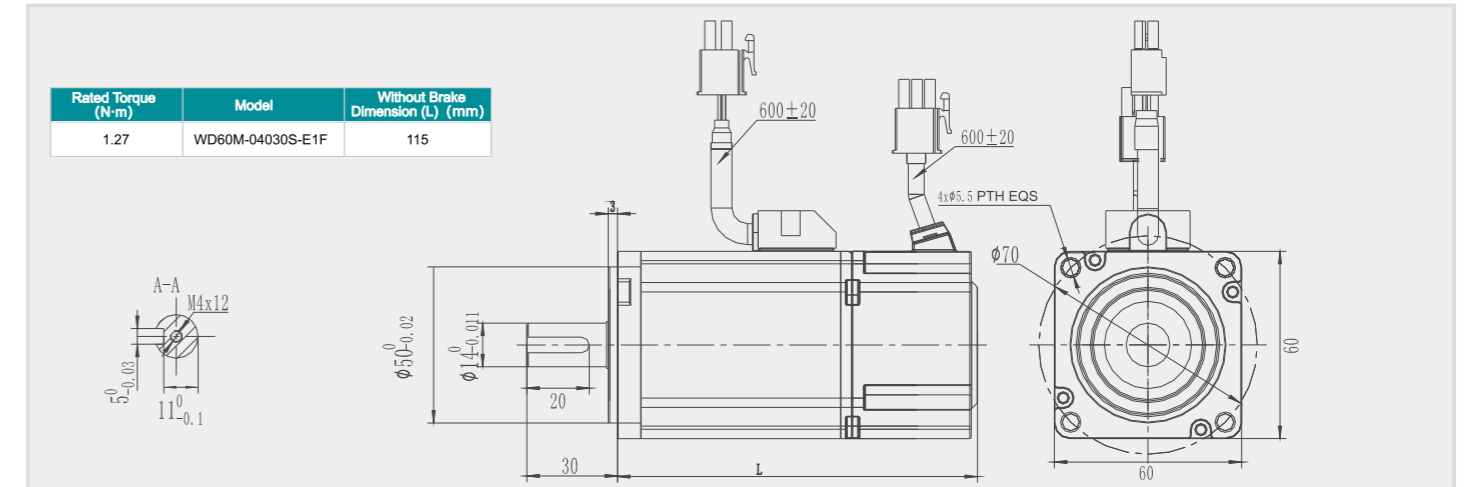
VD2 Motor Parameters

Model	Rated Power (kW)	Rated Current (A)	Rated Torque (N·m)	Max. Torque (N·m)	Rated Speed (r/min)	Rotor Inertia (Kg·m ²)	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 ⁻⁴	92	-	
WD60M-04030S-A1G		2.5	1.27	3.81	3000	0.62×10 ⁻⁴	-	121.5	
WD80M-07530S-A1F	0.75	4.4	2.39	7.17	3000	1.48×10 ⁻⁴	98.5	-	
WD80M-07530S-A1G		4.4	2.39	7.17	3000	1.78×10 ⁻⁴	-	132.5	
WD80M-10025S-E1B	1.0	4.4	4	12	2500	2.97×10 ⁻⁴	191	-	
WD80M-10025S-E1C		4.4	4	12	2500	2.97×10 ⁻⁴	-	231	
WD130M-10025S-E1B		4	4	12	2500	8.5×10 ⁻⁴	166	-	
WD130M-10025S-E1C	1.5	4	4	12	2500	8.5×10 ⁻⁴	-	223	
WD80M-11030S-E1B		1.1	4.5	3.5	10.5	3000	2.63×10 ⁻⁴	179	-
WD80M-11030S-E1C			4.5	3.5	10.5	3000	2.63×10 ⁻⁴	-	221
WD130M-15025S-E1B	1.5	6	6	18	2500	12.6×10 ⁻⁴	179	-	
WD130M-15025S-E1C		6	6	18	2500	12.6×10 ⁻⁴	-	236	
WD130M-15015S-E1B		6	10	25	1500	19.4×10 ⁻⁴	213	-	
WD130M-15015S-E1C	1.8	6	10	25	1500	19.4×10 ⁻⁴	-	294	
WD110M-18030S-E1B		1.8	6.0	6	18	3000	7.6×10 ⁻⁴	219	-
WD110M-18030S-E1C			6.0	6	18	3000	7.6×10 ⁻⁴	-	293
WD130M-20025S-E1B	2.0	7.5	7.7	22	2500	15.3×10 ⁻⁴	192	-	
WD130M-23015S-E1B	2.3	9.5	15	30	1500	27.7×10 ⁻⁴	241	-	

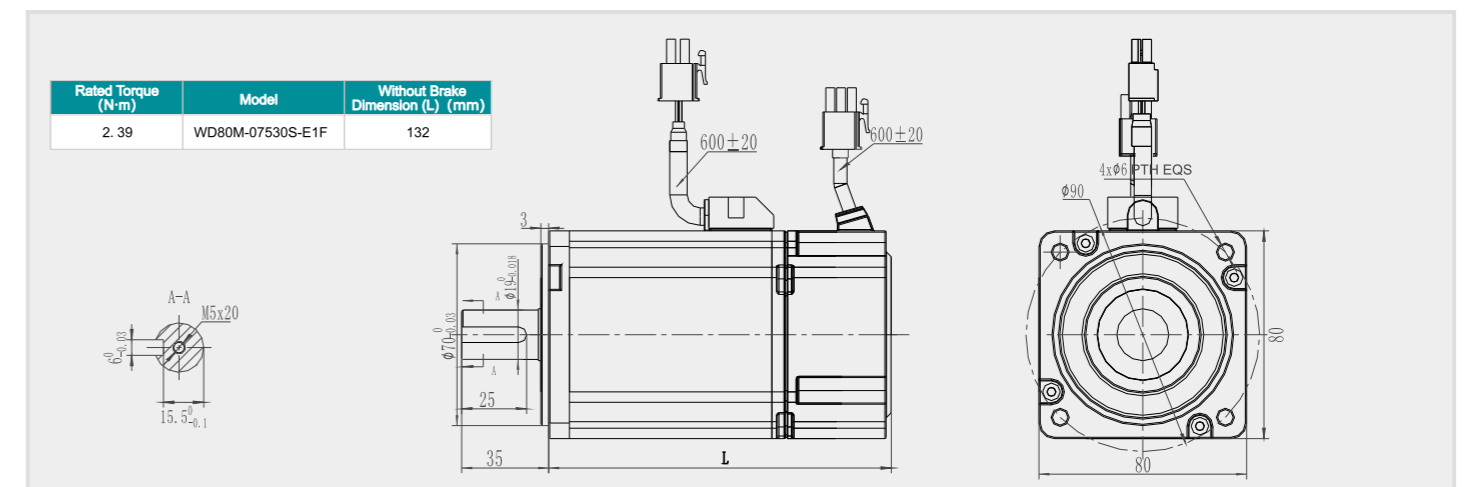
VD1 Motor Dimension

Unit: mm

60 Series Motor Dimension

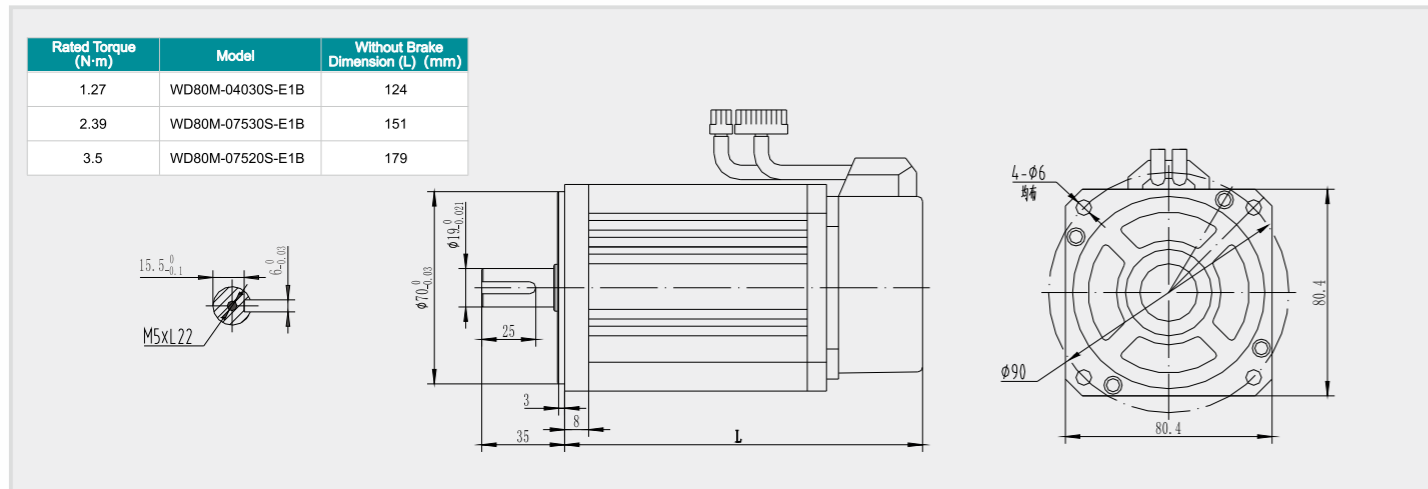


80 Series Motor Dimension



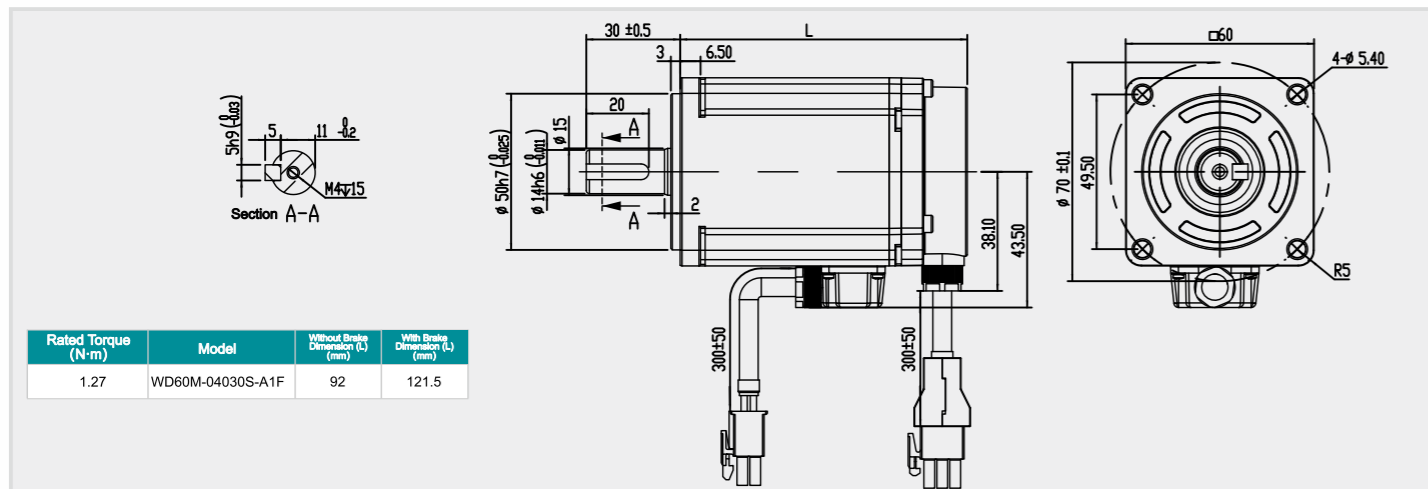
Unit: mm

Unit: mm

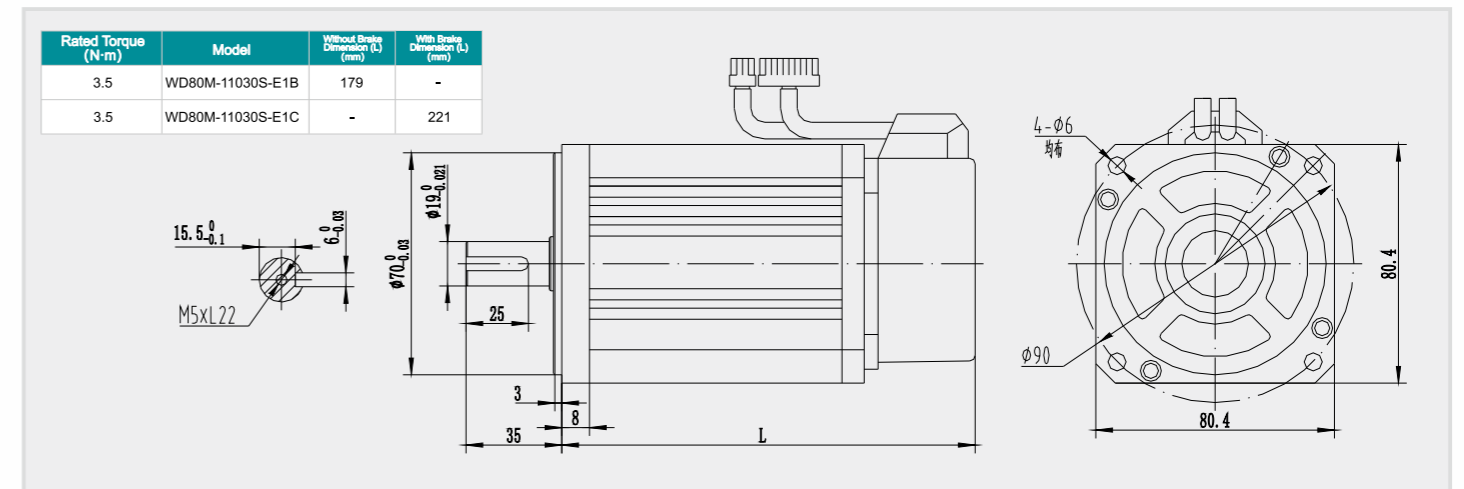
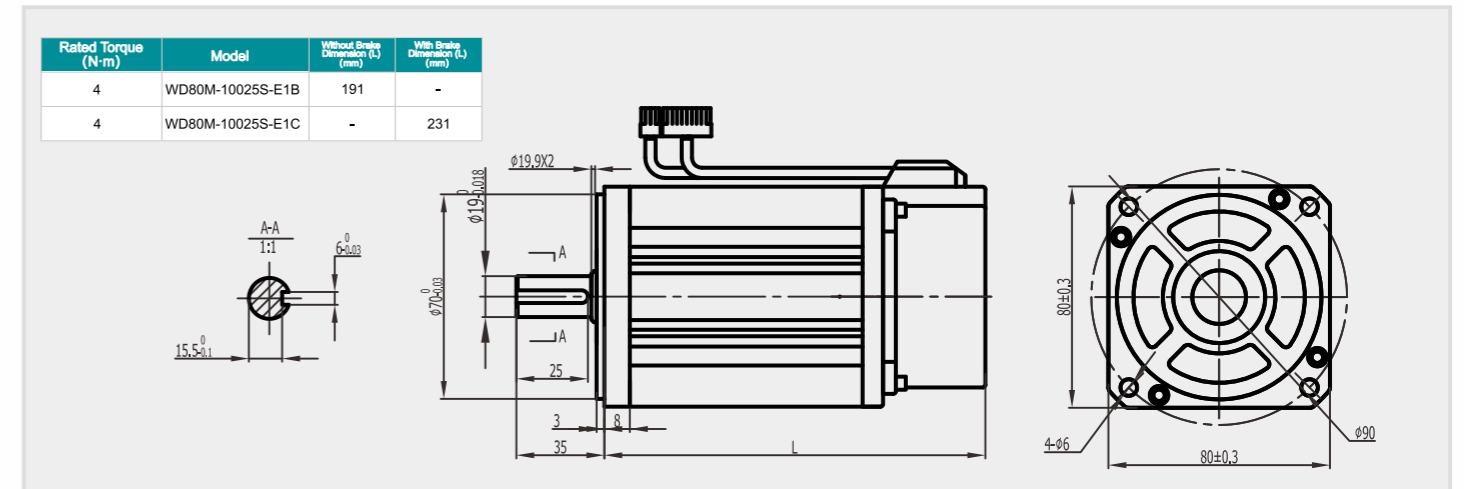
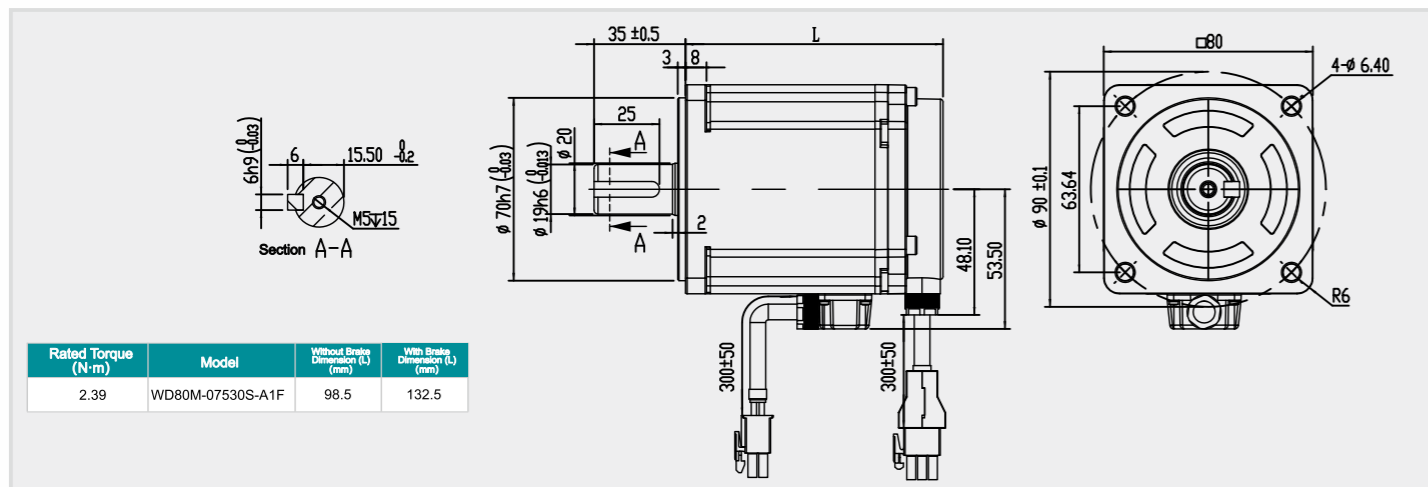


VD2 Motor Dimension

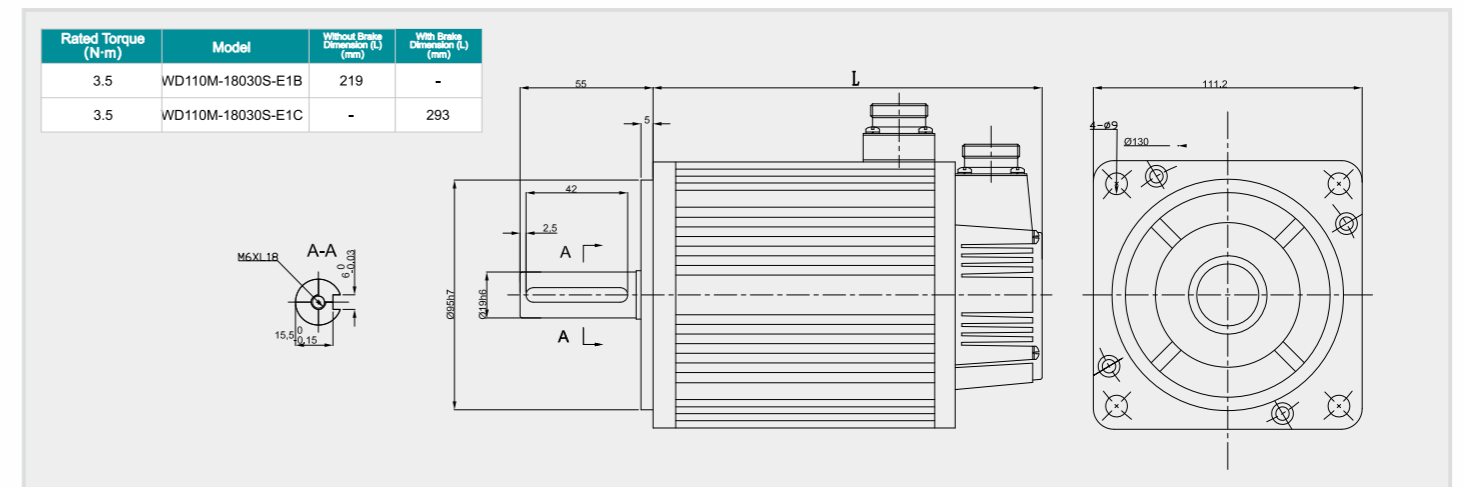
60 Series Motor Dimension



80 Series Motor Dimension



110 Series Motor Dimension



Unit: mm

Unit: mm

130 Series Motor Dimension

