BERGERDA

Bergerda AC servo system catalogue V2.61

- AC servo
- Stepping drive motor
- Induction asynchronous servo
- Linear motor drive
- Industry-specific servo
- Control product integration customization

HangZhou bergerda Automation Technology Co.,Ltd

Serving customers and adding value to customers

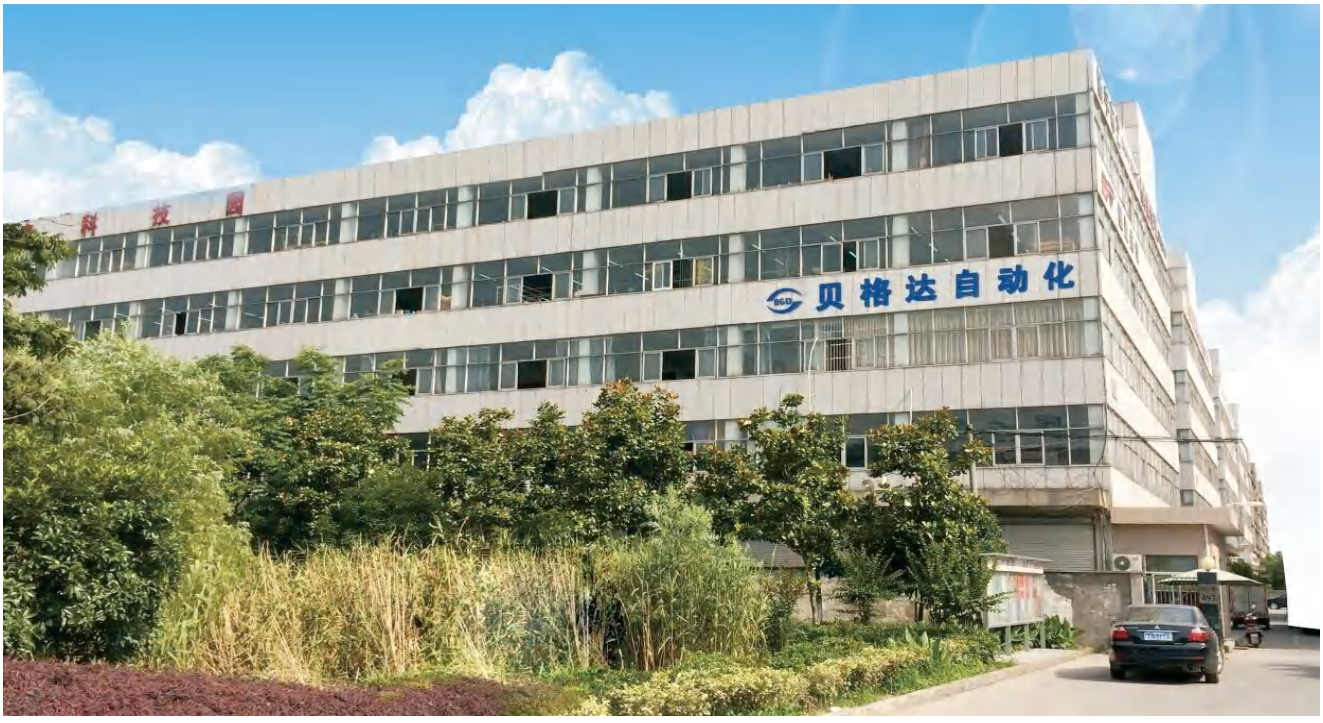
Company Profile

Hangzhou Bergerda Automation Technology Co., Ltd. is located in a beautiful paradise on earth - Hangzhou, China. It is a high-tech enterprise that provides global customers with servo, stepping, frequency conversion, brushless motor drive control products, and industrial drive control solutions. Excellence in product development, efficient and high-quality production, enthusiastic and caring service. Always take the customer's needs as its responsibility.

Bergerda's motor control products include AC servo drives and servo motors, stepping drives and stepping motors, inductive asynchronous servo drives and motors, Brushless motor and drive, and custom control solutions for all types of industries. Widely used in textile packaging, CNC machine tools, printing, embroidery, sculpture, advertising, laser, electronics and other automated machinery. At present, there are twelve types of stepping systems, including B D E F four series, nearly 30 kinds of specifications servo systems, NS digital series and LS closed loop series. S series induction asynchronous servo, Brushless motor and drive (B L D C), T-series CNC turret-dedicated servos and P-series plastic machinery-specific servos and so on which include control and control integrated industrial solutions. We have become a professional company with a complete product line in Chinese motion control industry. Perfect pre-sale, sales, after-sales service, from customer design machine selection, equipment debugging, post-maintenance, always with patience, enthusiasm, professional service to return customers.

The company fully implements the concept of "professional, quality, and service". With high-tech products, excellent quality, and high-quality services, customers can be assured of their ease of use, adding value to customers and realizing the long-term development of the company.

Based in the domestic market, Bergerda has established sales and service networks in Zhejiang, Jiangsu, Guangdong, Fujian, Shandong, Hunan and Guangxi. In foreign markets, products are exported to the United States, Brazil, Colombia, Russia and other countries and regions.





Contents




Drive Model

SD	D	08	N	K8	X
1	2	3	4	5	6

1、AC servo driver
2、Series code
C:EtherCAT Bus Type
D:Universal AC servo
F:absolute encoder AC servo
3、Output power
08:0.8 KW
13:1.3KW
20:2KW
30:3KW
50:5KW
4、In put voltage
N : 220v
H : 380V
5、Shape code : KW、K7、K8、K9、K5 、K12
6、Version identification code : D、X

Motor Model

80	F	—B	02	30	G	C	L	(A)–	Z
1	2	3	4	5	6	7	8	9	10

1、Motor mounting flange : 40、60、80、110、 130、 180
2、Series Code
3、Socket type: A: Plastic amp 9PIN socket
B: Plug-in coded power line
C: Seven-hole small aviation plug XS16...7ZP
D: Seven-hole aviation plug YD28
4、Torque : 02-2.39NM 03-3.18NM
5、Speed : 30-3000RPM25-2500RPM
6、Version number : G W、
7、encoder : B: 17-bit multi-turn magnetic code
C: 17-bit single-turn magnetic code
D: 17-bit single-turn optical code
E: 17-bit multi-turn optical code
M: 23-bit multi-turn optical code
8、Voltage : L : 220V
H : 380V
9、Special properties
10、Additional functions: Z-brake

D Series universal AC servo

Series features

- ◇ International leading control platform and algorithm
- ◇ Matches a variety of incremental, line-saving encoders
- ◇ Equipped with RS485 communication interface for multiple serial control
- ◇ A variety of intelligent monitoring functions and operation panel for customer debugging and diagnosis
- ◇ Can be matched with 0.1KW-7.5KW full range of servo motor, international motor standard
- ◇ Input/output ports can be freely defined and have strong applicability Full series CE certification

Specification sheet for order

Servo model	motor model	Power(KW)	Rated speed(r/min)	Rated torque(Nm)
SDD04NK7D	40SM-M00230NAL	0. 05	3000	0. 16
	40SM-M00330NAL	0. 1	3000	0. 32
	60SM-M00630NAL	0. 2	3000	0. 64
	60SM-M0130NAL	0. 4	3000	1. 27
SDD08NK8D	60SM-M0230NAL	0. 6	3000	1. 91
	80SM-M0230NAL	0. 75	3000	2. 4
	80SM-M0425NAL	1. 0	2500	4. 0
SDD13NK5D	110SM-M0430NAL	1. 2	3000	4. 0
	110SM-M0530NAL	1. 5	3000	5. 0
SDD20NK5D	110SM-M0630NAL	1. 8	3000	6. 0
SDD13NK5D	130SM-M0425NAL	1. 0	2500	4. 0
	130SM-M0525NAL	1. 3	2500	5. 0
SDD20NK5D	130SM-M0625NAL	1. 5	2500	6. 0
	130SM-M0825NAL	2. 0	2500	7. 7
	130SM-M1025NAL	2.6	2500	10. 0
SDD50NK5D	130SM-M1525NAL	3. 8	2500	15. 0
	180SM-M1915NAL	3. 0	1500	19. 0
	180SM-M2220NAL	4. 5	2000	22. 0
	180SM-M2715NAL	4. 3	1500	27. 0
SDD30HK5D (380V)	130SM-M0825NAH	2. 0	2500	7. 7
	130SM-M1025NAH	2. 5	2500	10. 0
	130SM-M1525NAH	3. 8	2500	15. 0
SDD55HK12D (380V)	180SM-M1915NAH	3. 0	1500	19. 0
	180SM-M2220NAH	4. 5	2000	21. 5
	180SM-M2715NAH	4. 1	1500	27. 0
	180SM-M3515NAH	5. 5	1500	35. 0
SDD75HK12D (380V)	180SM-M4815NAH	7. 5	1500	48. 0

Applications

Suitable for the following occasions

Repeated positioning control occasions; occasions with multiple input and output requirements; Network Communication Applications

Mature application industry

- ◆ Industrial robots
- ◆ semiconductor equipment
- ◆ engraving equipment
- ◆ measuring instrument equipment
- ◆ medical equipment
- ◆ robots.

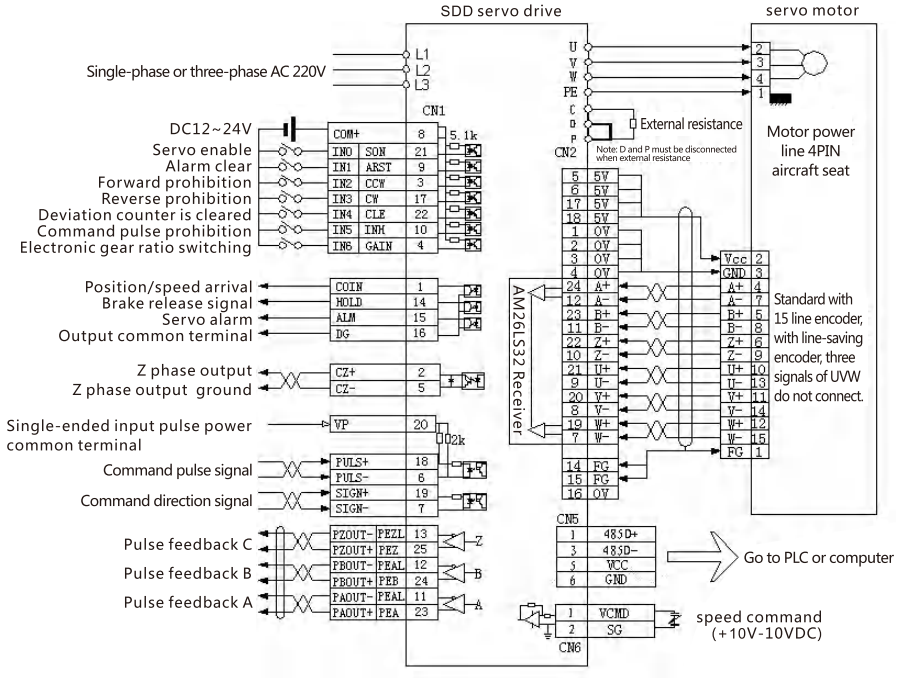
Note: MODBUS-RTU position control version standard model suffix D becomes R, such as:SDD08NK8R
Application direction: 4-16 axis servo point control application
Working principle :The servo control internal design of the relevant register, through 485 communication to the relevant register set, write the start operation command to the relevant register, the entire motion control can be completed. Since the position control uses absolute number programming, it has simple control, accurate positioning, strong anti-interference ability, and no external wiring. Only one communication line is needed. For instructions, please refer to "SDD Series Servo Modbus-RTU Motion Control Function Detailed Explanation V1210 Edition"

D Series universal AC servo

Performance Specifications

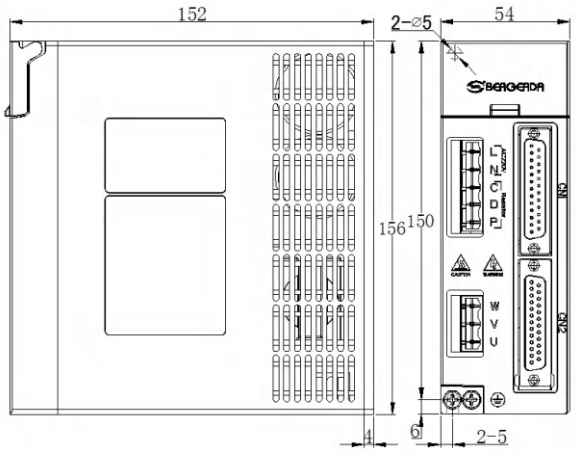
External connection	Input power		Single or Three phase AC170~253V Three phase 342V-418V
			50/60Hz
	control type		SVPWM control
	encoder		2500 line or 2500 saving-line
Internal function	Display and operation		Six bits seven-segment display LED: Four function keys
	Control mode		Position control/speed test run/jog run/internal positioning PLC function/RS485 communication
	Braking function		built-in ,External optional
	Protection function		Undervoltage, overvoltage, overload, overcurrent, encoder abnormality,brake abnormal, position excess error, etc.
Position control mode	Command control method		External pulse
	External command pulse input	Form	pulse + direction ;CW/CCW pulse ;A/B quadrature
		Maximum frequency	Differential: 1MHZ open collector: 200KHZ
	Electronic gear ratio		1~32767/1~32767
Speed control mode	Internal speed control		I/Oterminal control
Input/output signal	Position signal output	Output type	ABZ phase drive output / Z phase collector open circuit output
		Frequency division ratio	1/255/~1
	input signal	7points photoelectric isolation input	1) Servo enable 2) Alarm clear 3) Forward drive prohibited 4) Reverse drive prohibited 5)Position deviation counter reset 6) Input pulse prohibited 7) No definition
	output signal	4points open collector	1) Servo ready output 2) Servo alarm output 3) Z signal output 4) Brake output
Use environment	temperature		Working: 0°C~55°C Storage: -20°C~80°C
	humidity		Less than 90% (without condensation)

Typical application wiring diagram

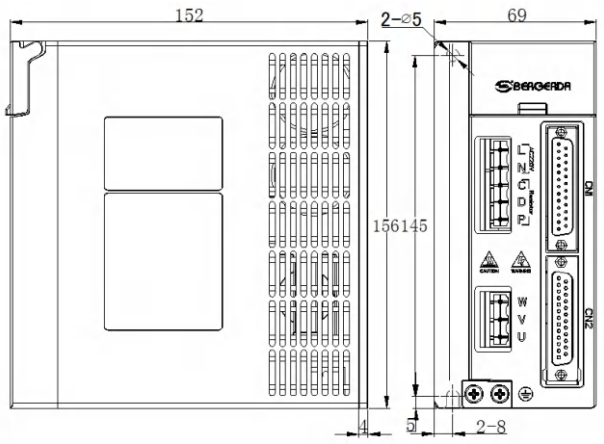


D Series universal AC servo

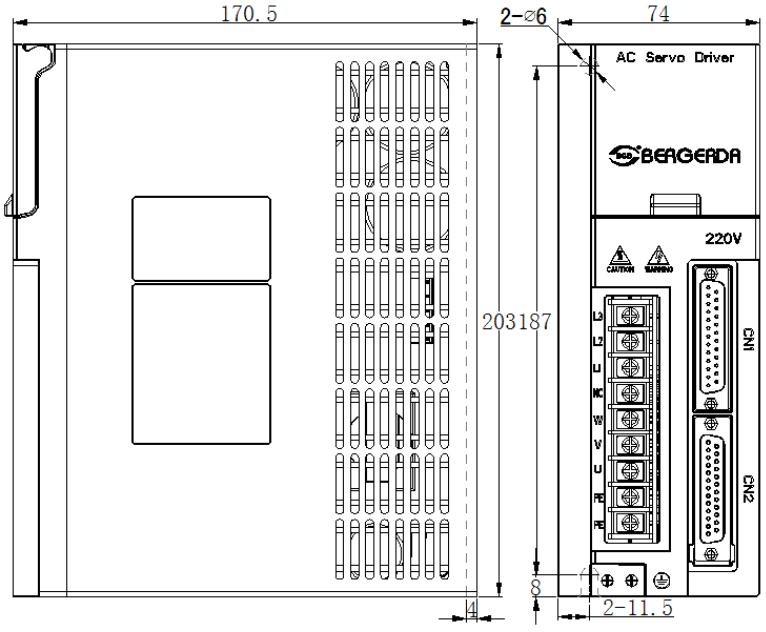
install dimensions



K7 install dimensions
Driver weight: 1.0kg



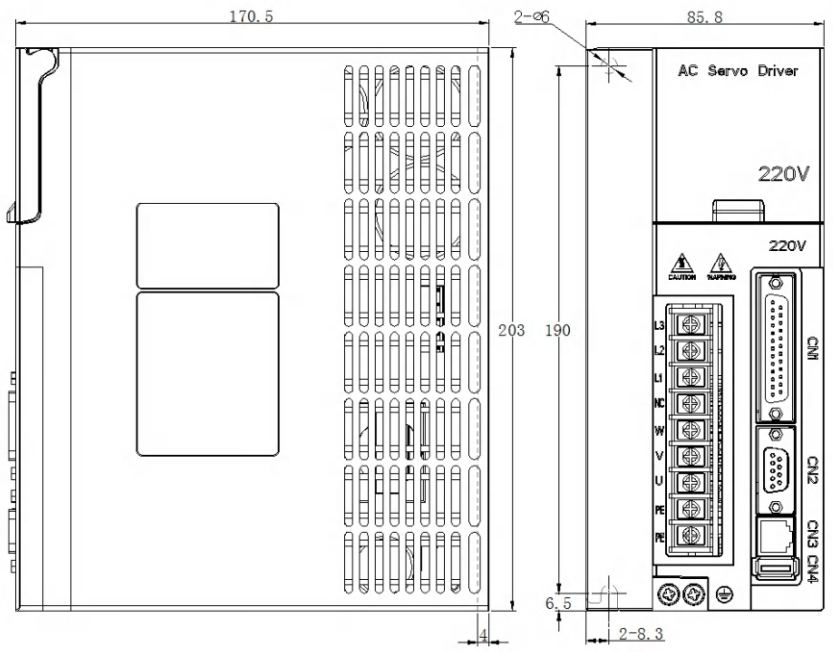
K8 install dimensions
Driver weight: 1.15kg



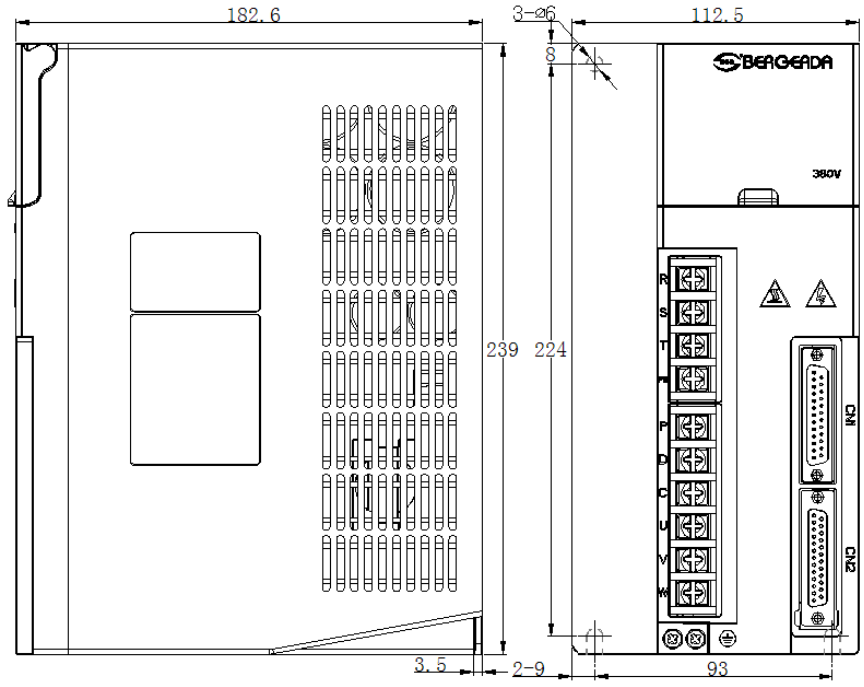
K9 install dimensions
Driver weight: 1.8kg

D Series universal AC servo

install dimensions



K5 install dimensions
Driver weight: 2.15kg



K12 install dimensions
Driver weight: 3.1kg

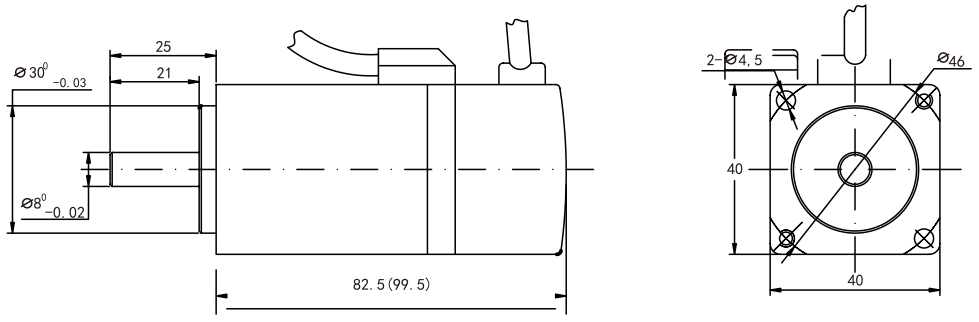
40,60 series AC servo motor

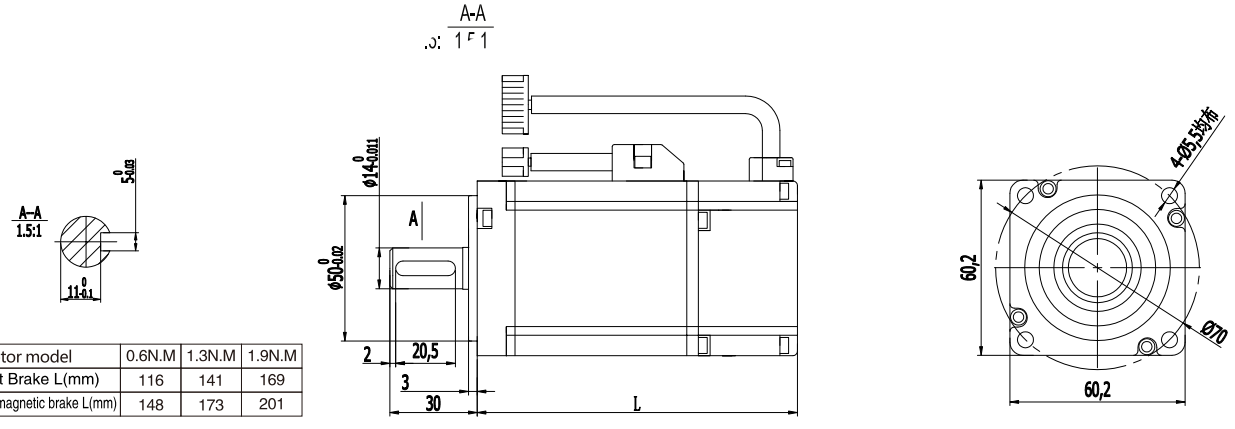
Specification model

motor model		40SM-M00230NAL	40SM-M00330NAL	60SM-M00630NAL	60SM-M0130NAL	60SM-M0230NAL
rated power	(KW)	0.05	0.1	0.2	0.4	0.6
Rated voltage	(V)	220	220	220	220	220
Rated current	(A)	0.7	1.3	1.2	2.8	3.5
Rated Speed	(RPM)	3000	3000	3000	3000	3000
Rated torque	(N.M)	0.16	0.32	0.637	1.27	1.91
Peak torque	(N.M)	0.48	0.96	1.91	3.9	5.73
Back EMF	(V/1000r/min)	10	15	30.9	29.6	34
Torque coefficient	(N.M/A)	0.23	0.25	0.53	0.45	0.55
Rotor inertia	($KG.M^2$)	$0.025x10^{-4}$	$0.046x10^{-4}$	$0.17x10^{-4}$	$0.29x10^{-4}$	$0.39x10^{-4}$
winding resistance	(Ω)	30.8	11.5	6.18	2.35	1.93
Winding inductance	(MH)	24.5	10.9	29.3	14.5	10.7
Electrical time constant	(MS)	0.8	0.95	4.74	6.17	5.5
weight	(KG)	0.46	0.59	1.16	1.63	2.07
Number of encoder lines(PPR)		2500				
insulation class		Class B(130℃)				
Safety class		IP65				
Use environment		Temperature：-20℃~+40℃;humidity：relative humidity＜90%（No dewing）				

Motor winding socket															
	Winding lead	U（black）			V（blue）			W（Brown）			PE(Yellow green)				
	Socket number	1			2			3			4				
Encoder socket	Signal leads	5V	0V	B+	Z-	U+	Z+	U-	A+	V+	W+	V-	A-	B-	W-	PE
	Socket number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

Installation dimension drawing





Motor model	0.6N.M	1.3N.M	1.9N.M
Without Brake L(mm)	116	141	169
With electromagnetic brake L(mm)	148	173	201

80 series AC servo motor

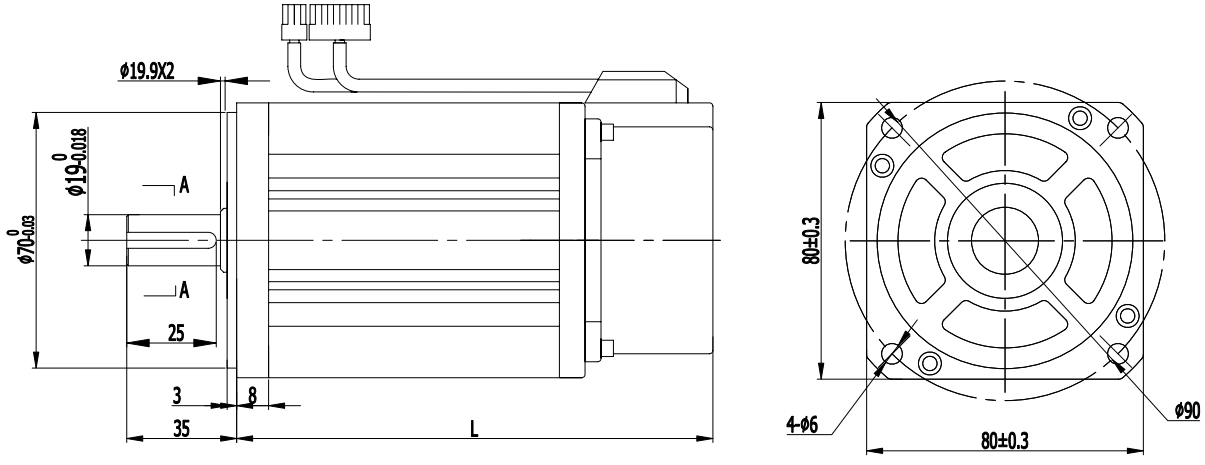
Specification model

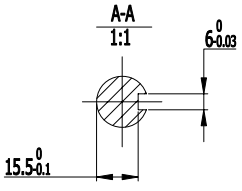
motor model		80SM-M0130NAL	80SM-M0230NAL	80SM-M0320NAL	80SM-M0425NAL
rated power	(KW)	0.4	0.75	0.73	1.0
Rated voltage	(V)	220	220	220	220
Rated current	(A)	2	3	3	4.4
Rated Speed	(RPM)	3000	3000	2000	2500
Rated torque	(N.M)	1.27	2.39	3.5	4
Peak torque	(N.M)	3.8	7.1	10.5	12
Peak current	(A)	6	9	9	13.2
Back EMF	(V/1000r/min)	40	48	71	56
Torque coefficient	(N.M/A)	0.64	0.8	1.17	0.9
Rotor inertia	($KG.M^2$)	$1.05x10^{-4}$	$1.82x10^{-4}$	$2.63x10^{-4}$	$2.97x10^{-4}$
winding resistance	(Ω)	4.44	2.88	3.65	1.83
Winding inductance	(MH)	7.93	6.4	8.8	4.72
Electrical time constant	(MS)	1.66	2.22	2.4	2.58
weight	(KG)	1.78	2.86	3.7	3.8
Number of encoder lines(PPR)		2500			
insulation class		Class F(130℃)			
Safety class		IP65			
Use environment		Temperature：-20℃~+40℃;humidity：relative humidity＜90%（No dewing）			

Motor winding socket														
Winding lead	U（black）		V（blue）		W（Brown）		PE(Yellow green)							
Socket number	1		2		3		4							

Encoder socket															
Signal leads	5V	0V	B+	Z-	U+	Z+	U-	A+	V+	W+	V-	A-	B-	W-	PE
Socket number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

Installation dimension drawing





Motor model	1.3N.M	2.4N.M	3.5N.M	4N.M
Without Brake L(mm)	124	151	179	191
With electromagnetic brake L(mm)	164	191	219	231

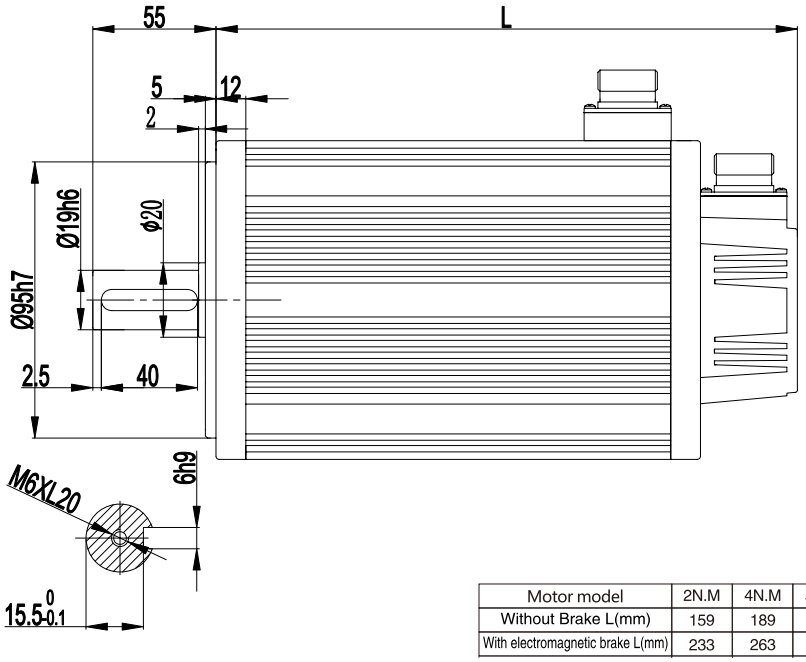
110 series AC servo motor

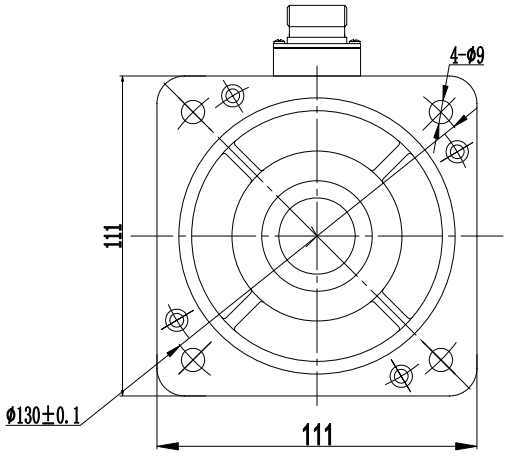
Specification model

motor model		110SM–M0230NAL	110SM–M0420NAL	110SM–M0430NAL	110SM–M0530NAL	110SM–M0620NAL	110SM–M0630NAL
rated power	(KW)	0.6	0.8	1.2	1.5	1.2	1.8
Rated voltage	(V)	220	220	220	220	220	220
Rated current	(A)	2.5	3.5	5.0	6	4.5	6.0
Rated Speed	(RPM)	3000	2000	3000	3000	2000	3000
Rated torque	(N.M)	2	4	4	5	6	6
Peak torque	(N.M)	6	12	12	15	12	18
Peak current	(A)	7.5	10.5	15	18	13.5	18
Back EMF	(V/1000r/min)	56	79	54	62	83	60
Torque coefficient	(N.M/A)	0.8	1.14	0.8	0.83	1.3	1.0
Rotor inertia	($KG.M^2$)	$0.31x10^{-3}$	$0.54x10^{-3}$	$0.54x10^{-3}$	$0.63x10^{-3}$	$0.76x10^{-3}$	$0.76x10^{-3}$
winding resistance	(Ω)	3.6	2.41	1.09	1.03	1.46	0.81
Winding inductance	(MH)	8.32	7.3	3.3	3.43	4.7	2.59
Electrical time constant	(MS)	2.3	3	3.0	3.3	3.2	3.2
weight	(KG)	4.5	5.5	5.5	6.1	6.7	6.7
Number of encoder lines(PPR)		2500					
insulation class		Class F(130℃)					
Safety class		IP65					
Use environment		Temperature：-20℃~+40℃;humidity：relative humidity＜90%（No dewing）					

Motor winding socket															
	Winding lead	U（black）			V（blue）			W（Brown）			PE(Yellow green)				
	Socket number	2			3			4			1				
Encoder socket	Signal leads	5V	0V	A+	B+	Z+	A-	B-	Z-	U+	V+	W+	U-	V-	W-	PE
	Socket number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

Installation dimension drawing





Motor model	2N.M	4N.M	5N.M	6N.M
Without Brake L(mm)	159	189	204	219
With electromagnetic brake L(mm)	233	263	278	293

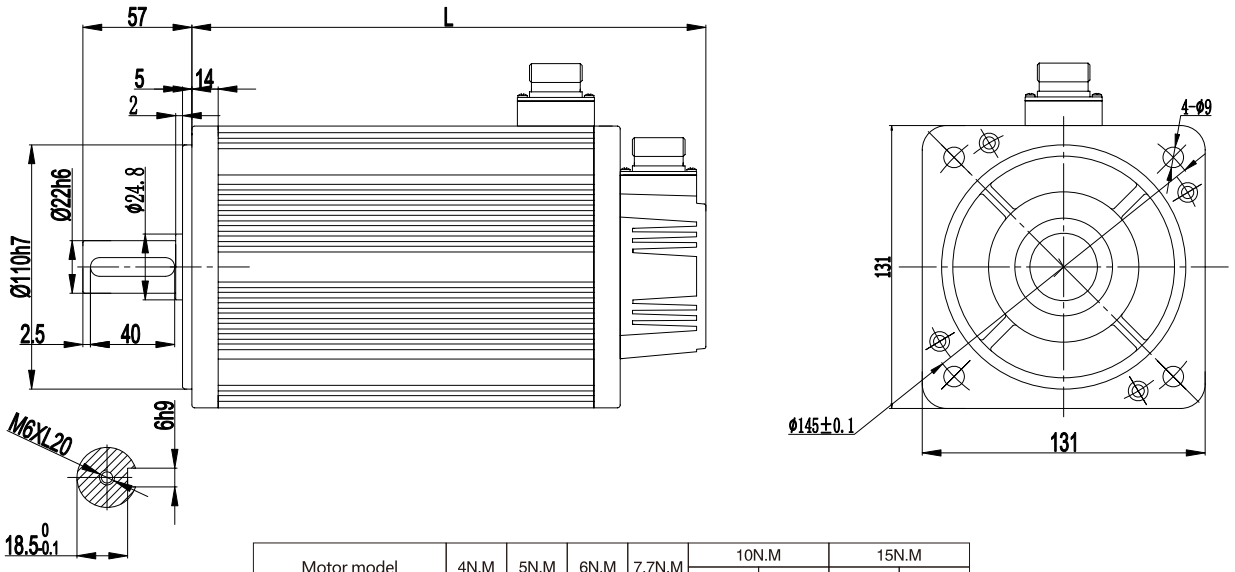
130 series AC servo motor

Specification model

motor model	130SM–M0425NAL	130SM–M0525NAL	130SM–M0625NAL	130SM–M0825NAL	130SM–M1010NAL	130SM–M1015NAL	130SM–M1025NAL	130SM–M1525NAL
rated power (KW)	1.0	1.3	1.5	2.0	1.0	1.5	2.6	3.8
Rated voltage (V)	220	220	220	220	220	220	220	220
Rated current (A)	4.0	5.0	6.0	7.5	4.5	6.0	10	13.5
Rated Speed (RPM)	2500	2500	2500	2500	1000	1500	2500	2500
Rated torque (N.M)	4	5	6	7.7	10	10	10	15
Peak torque (N.M)	12	15	18	22	20	25	25	30
Peak current (A)	12	15	18	22.5	13.5	18	28	27
Back EMF (V/1000r/min)	72	68	65	68	140	103	70	67
Torque coefficient(N.M/A)	1.0	1.0	1.0	1.03	2.2	1.67	1.0	1.11
Rotor inertia (KG.M²)	$0.85x10^{-3}$	$1.06x10^{-3}$	$1.26x10^{-3}$	$1.53x10^{-3}$	$1.94x10^{-3}$	$1.94x10^{-3}$	$1.94x10^{-3}$	$2.77x10^{-3}$
winding resistance (Ω)	2.76	1.84	1.21	1.01	2.7	1.29	0.73	0.49
Winding inductance (MH)	6.42	4.9	3.87	2.94	8.8	5.07	2.45	1.68
Electrical time constant (MS)	2.32	2.66	3.26	3.8	3.26	3.93	3.36	3.43
weight (KG)	7.7	8.2	8.9	10	11.5	11.5	11.5	11.7
Number of encoder lines(PPR)	2500							
insulation class	Class F(130℃)							
Safety class	IP65							
Use environment	Temperature：-20℃~+40℃;humidity：relative humidity＜90%（No dewing）							

Motor winding socket															
	Winding lead	U（black）		V（blue）		W（Brown）		PE(Yellow green)							
	Socket number	2		3		4		1							
Encoder socket	Signal leads	5V	0V	A+	B+	Z+	A-	B-	Z-	U+	V+	W+	U-	V-	W-	PE
	Socket number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

Installation dimension drawing



Motor model	4N.M	5N.M	6N.M	7.7N.M	10N.M		15N.M	
					1500rpm	2500rpm	1500rpm	2500rpm
Without Brake L(mm)	166	171	179	192	213	209	241	231
With electromagnetic brake L(mm)	223	228	236	249	294	290	322	312

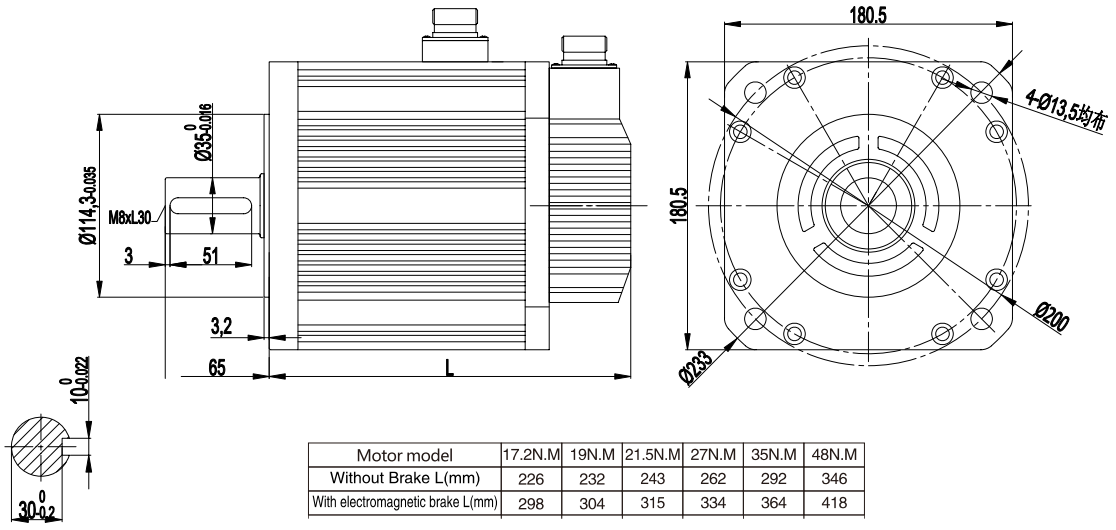
180 series AC servo motor

Specification model

motor model		180SM-M1915NAL	180SM-M2220NAL	180SM-M2715NAL	180SM-M3515NAL
rated power	(KW)	3.0	4.5	4.3	5.5
Rated voltage	(V)	220	220	220	220
Rated current	(A)	12	16	16	24
Rated Speed	(RPM)	1500	2000	1500	1500
Rated torque	(N.M)	19	21.5	27	35
Peak torque	(N.M)	47	53	67	70
Back EMF	(V/1000r/min)	97	84	103	90
Torque coefficient	(N.M/A)	1.58	1.34	1.69	1.45
Rotor inertia	($KG.M^2$)	3.8×10^{-3}	4.7×10^{-3}	6.1×10^{-3}	8.6×10^{-3}
winding resistance	(Ω)	0.4	0.24	0.28	0.14
Winding inductance	(MH)	2.42	1.45	1.74	1.0
Electrical time constant	(MS)	6	6	6.2	7.14
weight	(KG)	20.5	22.2	25.5	30.5
Number of encoder lines(PPR)		2500			
insulation class		Class F(155℃)			
Safety class		IP65			
Use environment		Temperature：-20℃~+40℃;humidity：relative humidity＜90%（No dewing）			

Motor winding socket																
	Winding lead	U（black）			V（blue）				W（Brown）			PE(Yellow green)				
	Socket number	2			3				4			1				
Encoder socket	Signal leads	5V	0V	A+	B+	Z+	A-	B-	Z-	U+	V+	W+	U-	V-	W-	PE
	Socket number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

Installation dimension drawing



Motor model	17.2N.M	19N.M	21.5N.M	27N.M	35N.M	48N.M
Without Brake L(mm)	226	232	243	262	292	346
With electromagnetic brake L(mm)	298	304	315	334	364	418

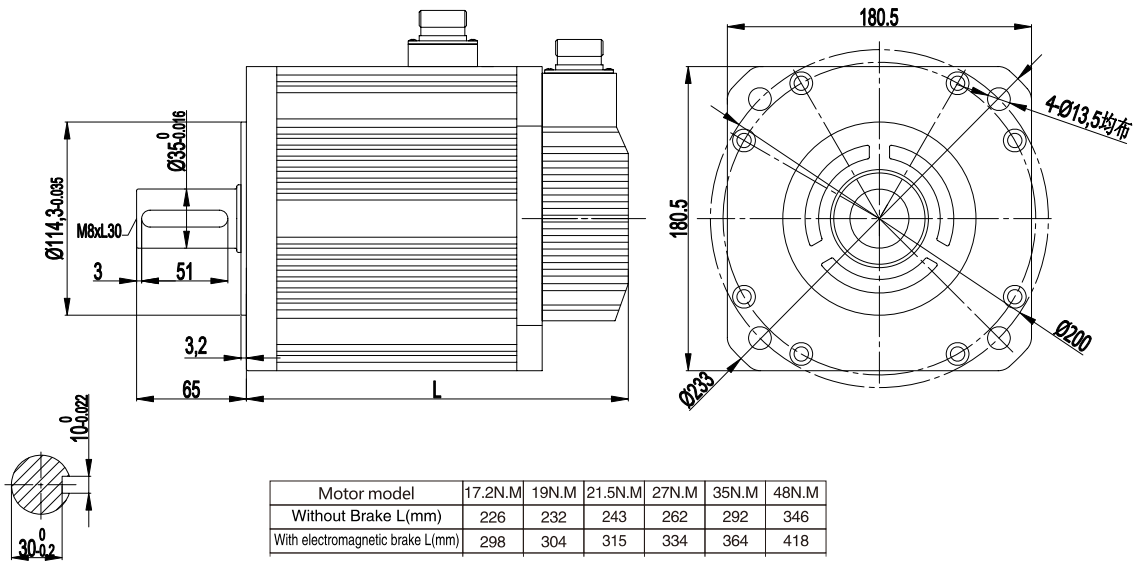
380 V series servo motor

Specification model

motor model		180SM-M1915NAH	180SM-M2220NAH	180SM-M2715NAH	180SM-M3515NAH	180SM-M4815NAH
rated power	(KW)	3.0	4.5	4.3	5.5	7.5
Rated voltage	(V)	380	380	380	380	380
Rated current	(A)	7.5	9.5	10	12	20
Rated Speed	(RPM)	1500	2000	1500	1500	1500
Rated torque	(N.M)	19	21.5	27	35	48
Peak torque	(N.M)	47	53	67	70	96
Back EMF	(V/1000r/min)	158	140	172	181	156
Torque coefficient	(N.M/A)	2.5	2.26	2.7	2.9	2.4
Rotor inertia	($KG.M^2$)	$3.8X10^{-3}$	$4.7X10^{-3}$	$6.1X10^{-3}$	$8.6X10^{-3}$	$9.5X10^{-3}$
winding resistance	(Ω)	1.15	0.71	0.79	0.62	0.27
Winding inductance	(MH)	6.4	4.0	4.83	4.0	2.14
Electrical time constant	(MS)	5.57	5.6	6	6.45	7.8
weight	(KG)	20.5	22.2	25.5	30.5	40
Number of encoder lines(PPR)		2500				
insulation class		Class F(155℃)				
Safety class		IP65				
Use environment		Temperature：-20℃~+40℃;humidity：relative humidity＜90%（No dewing）				

Motor winding socket															
	Winding lead	U（black）			V（blue）			W（Brown）			PE(Yellow green)				
	Socket number	2			3			4			1				
Encoder socket	Signal leads	5V	0V	A+	B+	Z+	A-	B-	Z-	U+	V+	W+	U-	V-	W-	PE
	Socket number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

Installation dimension drawing



Motor model	17.2N.M	19N.M	21.5N.M	27N.M	35N.M	48N.M
Without Brake L(mm)	226	232	243	262	292	346
With electromagnetic brake L(mm)	298	304	315	334	364	418

F series absolute encoder AC servo

Series features

- ◇ Suitable for C-type and M-type encoders, fewer cores than SDD series encoder cables, more reliable connection
- ◇ 5 pairs of magnetic circuit design, low speed is more stable, the body is 1/3 shorter than the NAL series motor, easy to install
- ◇ Dust-proof, oil-proof, anti-vibration, strong ability to carry interference, suitable for long-term output
- ◇ Standard RS485 communication function, realize upload and download network control
- ◇ Position control, speed control, torque control Modbus communication can be converted to each other to meet general applications
- ◇ Full range of CE certification

Applications

This product can be adapted to C-type and M-type encoders to meet multiple performance and environmental requirements. The powerful internal position mode can plan multi-path continuous operation for rich motion control functions.

Suitable for the following occasions

High precision
High response
Installation space is limited
Bad work environment

Mature application industry

Industrial robot
Semiconductor equipment
Engraving equipment
Measuring equipment
Medical equipment
robot

F series absolute encoder AC servo

SDF-X with C-type motor (17-bit single-turn magnetic encoder)
Specification sheet for order

Servo model	motor model	Power (KW)	Rated /Maximum speed (RPM)	Rated torque (Nm)	Motor type	Supporting cable
SDF04NK7X	40F-A00330GCL(A)	0.1	3000/6000	0.32	Large inertia	W3B-***-F
	60F-B00630GCL(A)	0.2	3000/6000	0.64		
	60F-B0130GCL(A)	0.4	3000/6000	1.27		
	60F-B0230GCL(A)	0.6	3000/6000	1.91		
SDF08NK8X	80F-B0230GCL(A)	0.75	3000/6000	2.39		
	80F-B0330GCL(A)	1.0	3000/6000	3. 18		
SDF20NK5X	110F-D0630WCL(A)	1.8	3000/4000	5.4		W2D-***-X
	130F-D0520WCL(A)	1.0	2000/3000	4. 77	Small and medium inertia	
	130F-D0820WCL(A)	1.5	2000/3000	7.16		
	130F-D1020WCL(A)	2.0	2000/3000	9.55		
SDF50NK5X	130F-D1520WCL(A)	3.0	2000/3000	14. 3		
SDF20NK5X	130F-D0515WCL(A)	0.85	1500/2000	5.39	Medium inertia Low speed and high torque	
	130F-D0815WCL(A)	1.3	1500/2000	8.34		
	130F-D1115WCL(A)	1.8	1500/2000	11.5		
	130F-D1515WCL(A)	2.2	1500/2000	14.3		
SDF30HK5X	130F-D0520WCH(A)	1.0	2000/3000	4. 77	Small and medium inertia	
	130F-D0820WCH(A)	1.5	2000/3000	7.16		
	130F-D1020WCH(A)	2.0	2000/3000	9.55		
	130F-D1520WCH(A)	3.0	2000/3000	14. 3		
	130F-D0515WCH(A)	0.85	1500/2000	5.39	Medium inertia Low speed and high torque	
	130F-D0815WCH(A)	1.3	1500/2000	8.34		
	130F-D1115WCH(A)	1.8	1500/2000	11.5		
	130F-D1515WCH(A)	2.2	1500/2000	14.3		

Note: 1. Multi-turn encoders must be customized
2. The suffix of the brake motor is "-Z", for example: 130F-D0520WCL(A)-Z

F series absolute encoder AC servo

SDF-X with M-type motor (23-bit multi-turn optical encoder)
Specification sheet for order

Servo model	motor model	Power (KW)	Rated /Maximum speed (RPM)	Rated torque (Nm)	Motor type	Supporting cable
SDF04NK7X	40F-A00330WML	0.1	3000/6000	0.32	Large inertia	Single turn without battery W3B-***-F Multiple turns with battery W3B-***-F-EC
	60F-B00630WML	0.2	3000/6000	0.64		
	60F-B0130WML	0.4	3000/6000	1.27		
	60F-B0230WML	0.6	3000/6000	1.91		
SDF08NK8X	80F-B0230WML	0.75	3000/6000	2.39		
	80F-B0330WML	1.0	3000/6000	3. 18		
SDF20NK5X	110F-D0630WML	1.8	3000/4000	5.4		Single turn without battery W2D-***-X Multiple turns with battery W2D-***-X-EC
	130F-D0520WML	1.0	2000/3000	4. 77	Small and medium inertia	
	130F-D0820WML	1.5	2000/3000	7.16		
	130F-D1020WML	2.0	2000/3000	9.55		
SDF50NK5X	130F-D1520WML	3.0	2000/3000	14. 3		
SDF20NK5X	130F-D0515WML	0.85	1500/2000	5.39	Medium inertia Low speed and high torque	
	130F-D0815WML	1.3	1500/2000	8.34		
	130F-D1115WML	1.8	1500/2000	11.5		
	130F-D1515WML	2.2	1500/2000	14.3		
SDF30HK5X	130F-D0520WMH	1.0	2000/3000	4. 77	Small and medium inertia	
	130F-D0820WMH	1.5	2000/3000	7.16		
	130F-D1020WMH	2.0	2000/3000	9.55		
	130F-D1520WMH	3.0	2000/3000	14. 3		
	130F-D0515WMH	0.85	1500/2000	5.39	Medium inertia Low speed and high torque	
	130F-D0815WMH	1.3	1500/2000	8.34		
	130F-D1115WMH	1.8	1500/2000	11.5		
	130F-D1515WMH	2.2	1500/2000	14.3		
SDF55HK12X	180F-D1915WMH	2.9	1500/2000	18.6	Large inertia	Single turn without battery W4D-***-X Multiple turns with battery W4D-***-X-EC
	180F-D2815WMH	4.4	1500/2000	28.4		
	180F-D3515WMH	5.5	1500/2000	35.0		
SDF75HK12X	180F-D4815WMH	7.5	1500/2000	48.0		

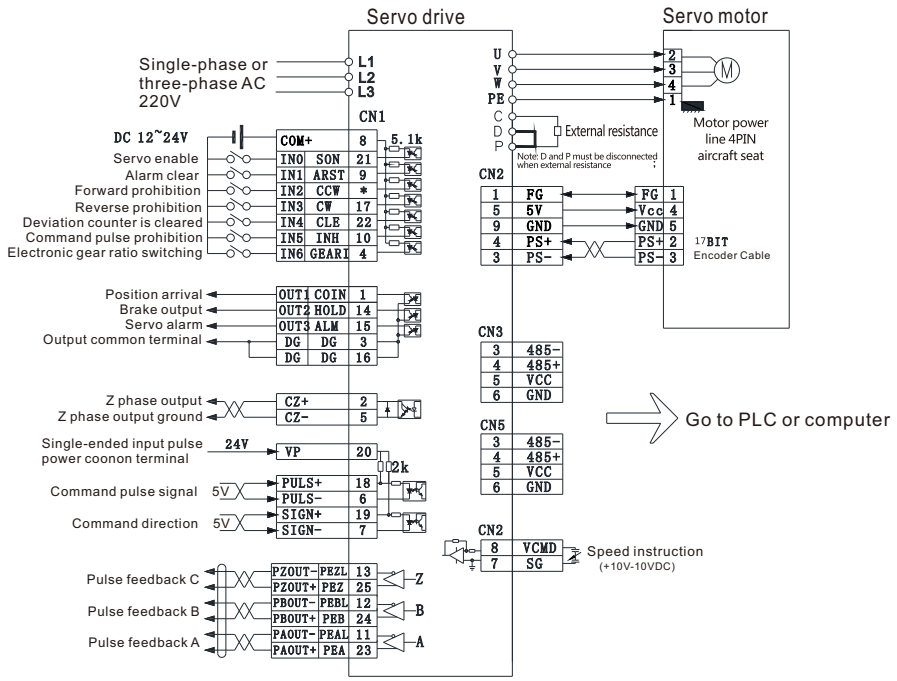
Note: The suffix of the brake motor is "-Z", for example: 130F-D0520WML-Z

F series absolute encoder AC servo

Performance Specifications

External connection	Input power		Single or Three phase AC170~253V Three phase 360V-440V
			50/60Hz
	control type		SVPWM control
	encoder		17-bit optical encoder, magnetic encoder, absolute encoder
Internal function	Display and operation		Six bits seven-segment display LED: Four function keys
	Control mode		Position control/speed test run/jog run/internal positioningPLC function/RS485 communication
	Braking function		built-in,External optional
	Protection function		Undervoltage, overvoltage, overload, overcurrent, encoder abnormality,brake abnormal, position excess error, etc.
Position control mode	Command control method		External pulse
	External command pulse input	Form	pulse + direction ;CW/CCW pulse ;A/B quadrature
		Maximum frequency	Differential: 2MHZ open collector: 200KHZ
	Electronic gear ratio		1~32767/1~32767
Speed control mode	Internal speed control		I/Oterminal control
Input/output signal	Position signal output	Output type	ABZ phase drive output / Z phase collector open circuit output
		Output pulse	**1-65535**
	input signal	7points photoelectric isolation input	1) Servo enable 2) Alarm clear 3) Forward drive prohibited 4) Reverse drive prohibited 5)Position deviation counter reset 6) Input pulse prohibited 7) No definition
	output signal	4points open collector	1) Servo ready output 2) Servo alarm output 3) Z signal output 4) Brake output
Use environment	temperature		Working: 0°C~55°C Storage: -20°C~80°C
	humidity		Less than 90% (without condensation)

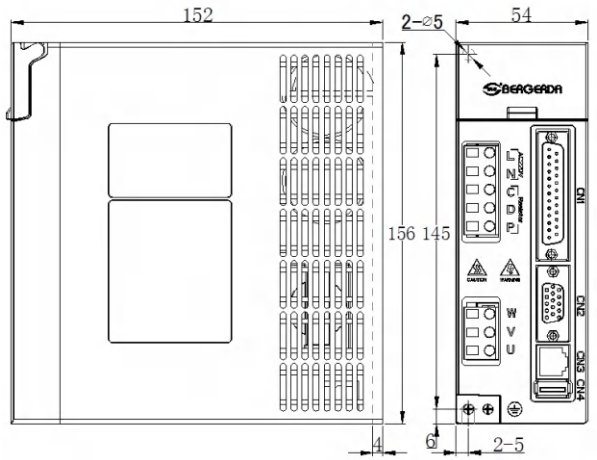
Typical application wiring diagram



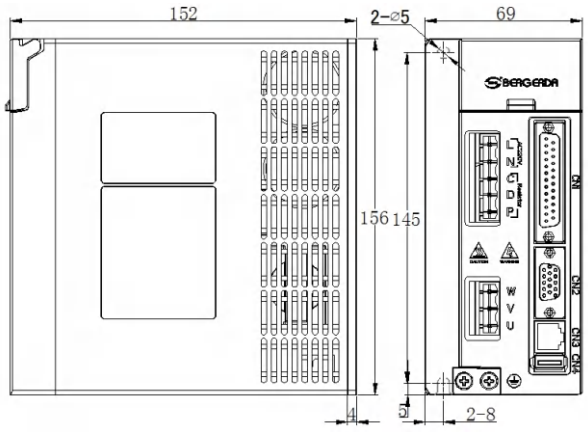
SDF20NK9X

F series absolute encoder AC servo

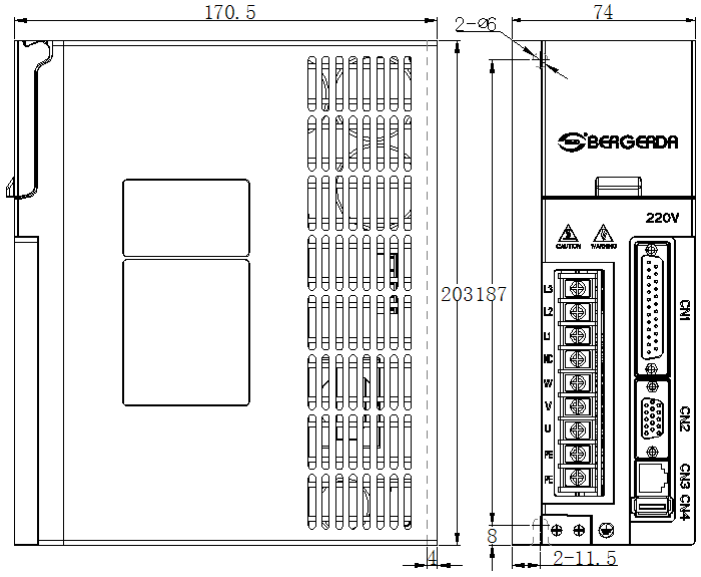
install dimensions



K7 install dimensions
Driver weight: 1.0kg



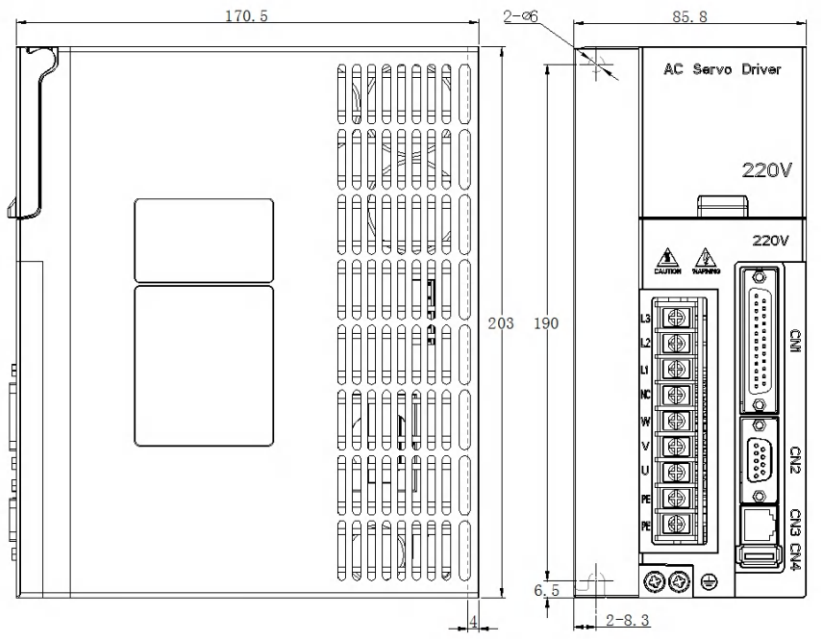
K8 install dimensions
Driver weight: 1.15kg



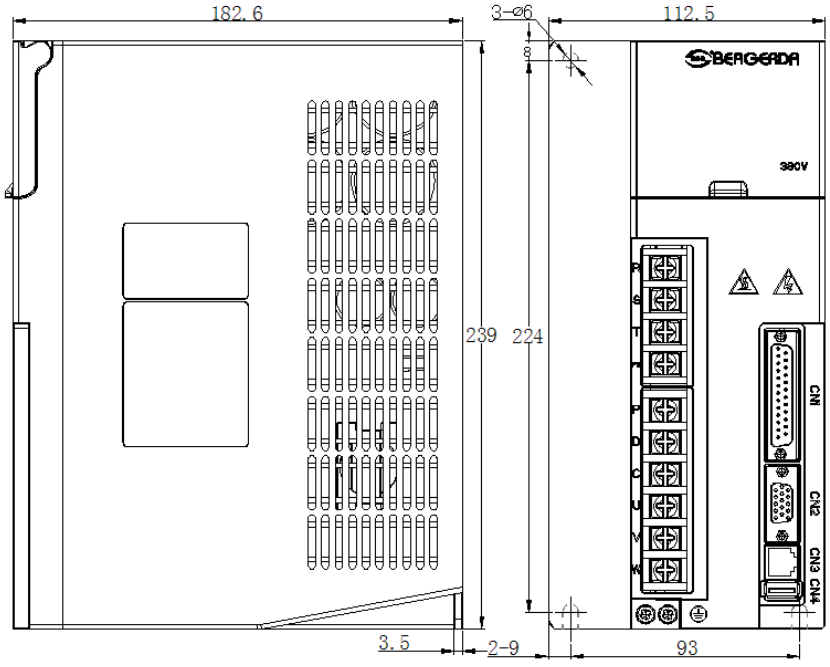
K9 install dimensions
Driver weight: 1.8kg

F series absolute encoder AC servo

install dimensions



K5 install dimensions
Driver weight: 2.15kg



K12 install dimensions
Driver weight: 3.1kg

F series 60,80 servo motor

Specification model

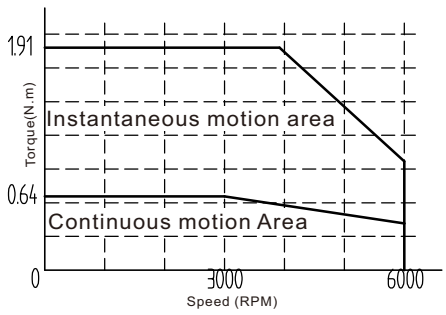
motor model	40F-A00330GCL(A)	60F-B00630GCL(A)	60F-B0130GCL(A)	80F-B0230GCL(A)	80F-B0330GCL(A)
rated power (KW)	0.1	0.2	0.4	0.75	1.0
Rated voltage (V)	220	220	220	220	220
Rated current (A)	1.0	1.7	2.5	4.4	5.8
Rated Speed (RPM)	3000	3000	3000	3000	3000
Rated torque (N.M)	0.32	0.64	1.27	2.39	3.3
Peak torque (N.M)	0.95	1.91	3.81	7.17	9.9
Peak current (A)	3.0	5.1	7.5	14.1	17.4
Back EMF (V/1000r/min)	22	23	32	34	34
Torque coefficient (N.M/A)	0.32	0.38	0.51	0.51	0.56
Rotor inertia (KG.M²)	$0.066X10^{-4}$	$0.28X10^{-4}$	$0.52X10^{-4}$	$1.48X10^{-4}$	$2.27X10^{-4}$
winding resistance (Ω)	18.8	4.55	3.8	1.08	0.73
Winding inductance(MH)	10.3	3.7	7.2	2.7	3.4
Electrical time constant (MS)	1.1	1.62	1.79	3.89	3.7
weight (KG)	0.5	0.8	1.1	2.0	3.5
Encoder bit	17 bit,5 pairs poles				
insulation class	Class F(130°C)				
Safety class	IP65				
Use environment	Temperature：-20℃~+40℃;humidity：relative humidity＜90%（No dewing）				

Motor winding socket							
Winding lead	U（black）	V（blue）	W（Brown）	PE(Yellow green)			
Socket number	1	3	2	4			

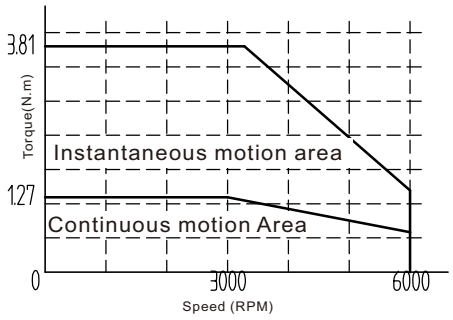
Encoder socket							
Signal leads	FG	VCC	GND	SD+	SD-	VB+	VB-
Socket number	9	7	8	1	4	5	6

Torque Characteristics

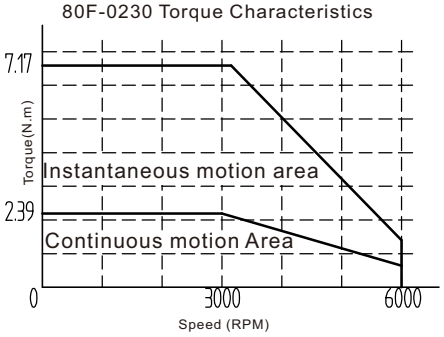
60F-00630 Torque Characteristics



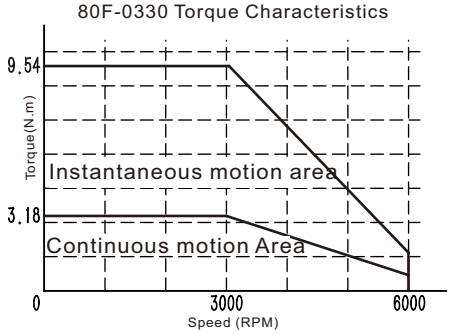
60F-0130 Torque Characteristics



80F-0230 Torque Characteristics



80F-0330 Torque Characteristics



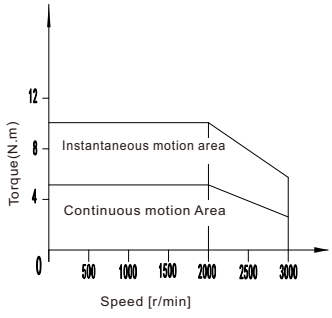
F series110,130 servo motor

Specification model

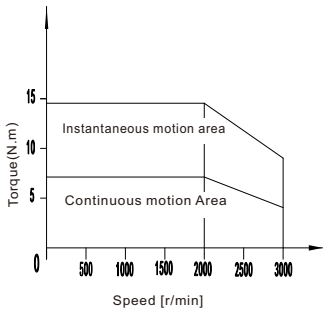
motor model	110F-D0630WCL(A)	130F-D0520WCL(A)	130F-D0820WCL(A)	130F-D1020WCL(A)	130F-D1520WCL(A)	130F-D0515WCL(A)	130F-D0815WCL(A)	130F-D1115WCL(A)	130F-D1515WCL(A)
rated power (KW)	1.8	1.0	1.5	2.0	3.0	0.85	1.3	1.8	2.2
Rated voltage (V)	220	220/380	220/380	220/380	220/380	220/380	220/380	220/380	220/380
Rated current (A)	8.2	5.8	8.0	10.2	16.5	4	6	8.5	10.5
Rated Speed (RPM)	3000	2000	2000	2000	2000	1500	1500	1500	1500
Rated torque (N.M)	5.4	4.77	7.16	9.55	14.3	5.39	8.34	11.5	14.3
Peak torque (N.M)	16.2	9.54	14.32	19.1	28.6	16.17	25.02	32.2	40
Peak current (A)	24.6	11.6	16	20.4	33	12	18	25.5	40.6
Back EMF (V/1000r/min)	43	53	58	60	55	85	92	92	92
Torque coefficient(N.M/A)	0.66	0.82	0.9	0.93	0.87	1.35	1.39	1.35	1.36
Rotor inertia (KG.M²)	$0.718X10^{-3}$	$0.618X10^{-3}$	$0.916X10^{-3}$	$1.21X10^{-3}$	$1.86X10^{-3}$	$1.09X10^{-3}$	$1.69X10^{-3}$	$2.14X10^{-3}$	$2.71X10^{-3}$
winding resistance (Ω)	0.44	0.85	0.65	0.58	0.3	2.6	1.54	1.2	0.85
Winding inductance (MH)	2.8	12.5	9.5	7.5	3.17	16.2	10.5	8.3	5.6
Electrical time constant (MS)	6.4	14.7	14.6	12.9	10.56	6.2	6.8	6.9	5
weight (KG)	5.1	5.4	6.9	8.3	10.5	5.4	7.2	9.3	10.7
Encoder bit	17/23								
insulation class	Class F(130℃)								
Safety class	IP65								
Use environment	Temperature：-20℃~+40℃;humidity：relative humidity＜90 %（No dewing）								

Motor winding socket	Winding lead	U（black）		V（blue）		W（Brown）	PE(Yellow green)	
	Socket number	2		3		4	1	
Encoder socket	Signal leads	FG	VCC	GND	VB+	VB-	SD+	SD-
	Socket number	1	4	5	6	7	2	3

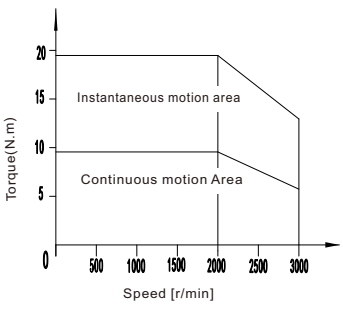
Torque Characteristics



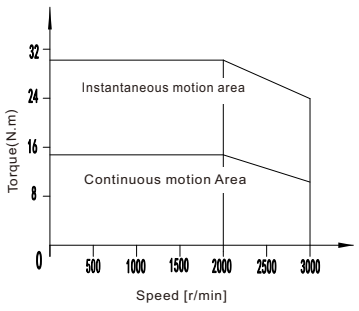
130F-0520Torque Characteristics



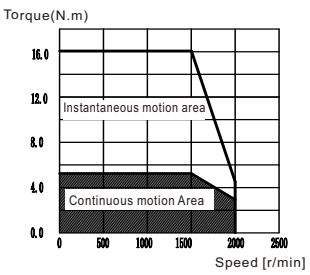
130F-0820Torque Characteristics



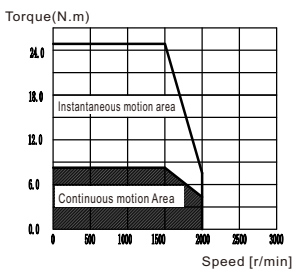
130F-1020Torque Characteristics



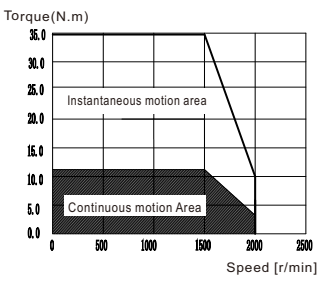
130F-1520Torque Characteristics



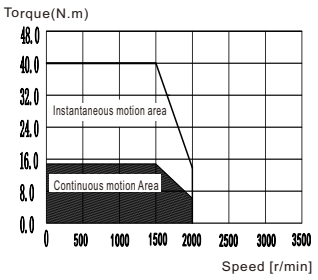
130F-0515Torque Characteristics



130F-0815Torque Characteristics

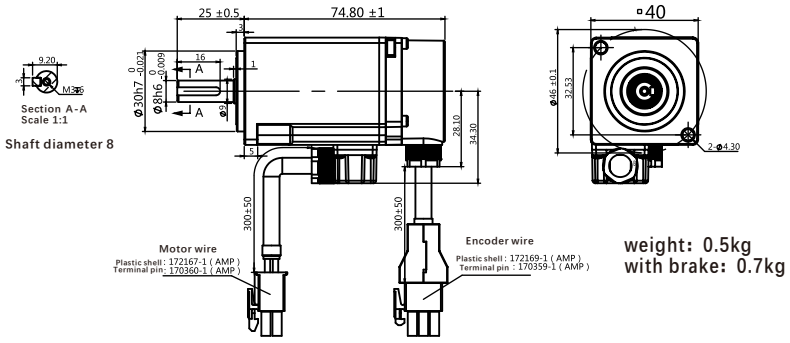


130F-1115Torque Characteristics

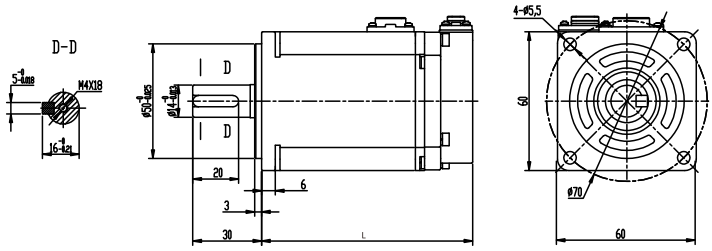


130F-1515Torque Characteristics

F series 40,60,80 servo motor

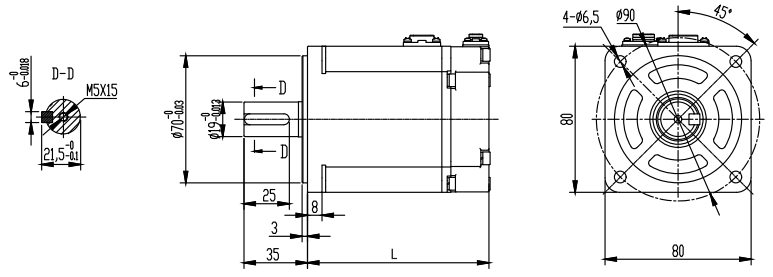


GCL series 40 flange 5-pair amp plug servo motor installation outline and dimension drawing



GCL series 60 flange 5-pair plug-in plug servo motor installation outline and dimension drawing

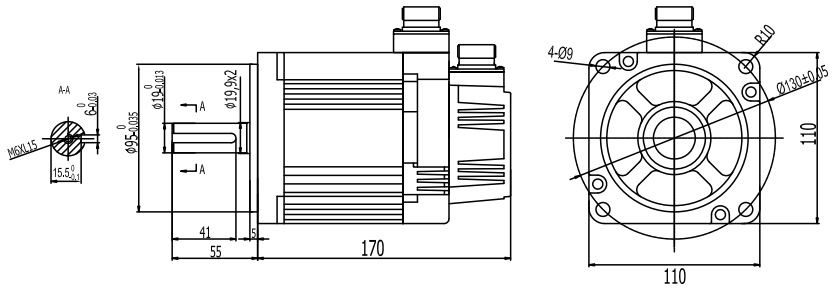
motor model	60F-B00630GCL(A)		60F-B0130GCL(A)		60F-B0230GCL(A)	
L(mm)	without brake	with brake	without brake	with brake	without brake	with brake
	75	105	92	122	109	139



GCL series 80 flange 5-pair plug-in plug servo motor installation outline and dimension drawing

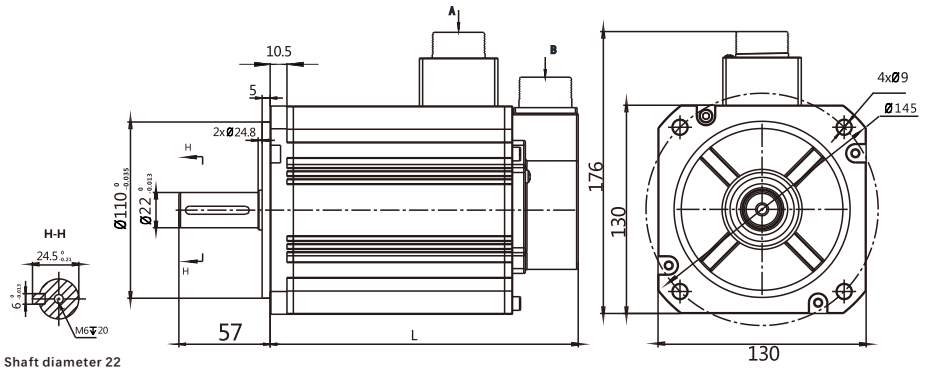
motor model	80F-B0230GCL(A)		80F-B0330GCL(A)	
L(mm)	without brake	with brake	without brake	with brake
	100	134	113	147

F series110,130 servo motor



WCL series 110 flange servo motor
installation outline and dimension drawing

motor model	110F-D0630WCL(A)	
L(mm)	without brake	with brake
	170	196



WCL series 130 flange servo motor
installation outline and dimension drawing

motor model	130F-D0520WCL(A)		130F-D0820WCL(A)		130F-D1020WCL(A)		130F-D1520WCL(A)		130F-D0515WCL(A)		130F-D0815WCL(A)		130F-D1115WCL(A)		130F-D1515WCL(A)	
L(mm)	without brake	with brake	without brake	with brake	without brake	with brake	without brake	with brake	without brake	with brake	without brake	with brake	without brake	with brake	without brake	with brake
	135	185	152.5	202.5	170	220	200	250	135	185	152.5	202.5	170	220	200	250

F series 60,80 servo motor

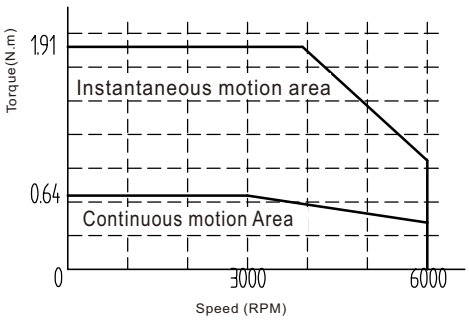
Specification model

motor model	40F-A00330WML	60F-B00630WML	60F-B0130WML	80F-B0230WML	80F-B0330WML
rated power (KW)	0.1	0.2	0.4	0.75	1.0
Rated voltage (V)	220	220	220	220	220
Rated current (A)	1.0	1.7	2.5	4.4	5.5
Rated Speed (RPM)	3000	3000	3000	3000	3000
Rated torque (N.M)	0.32	0.64	1.27	2.39	3.2
Peak torque (N.M)	0.95	1.91	3.81	7.17	9.6
Peak current (A)	3.0	5.7	8.4	13.8	16.5
Back EMF(V/1000r/min)	22	23	31	34	38.5
Torque coefficient (N.M/A)	0.32	0.38	0.51	0.54	0.6
Rotor inertia (KG.M²)	$0.066X10^{-4}$	$0.28X10^{-4}$	$0.52X10^{-4}$	$1.48X10^{-4}$	$2.1X10^{-4}$
winding resistance (Ω)	18.8	4.57	3.24	1.08	1.1
Winding inductance(MH)	10.3	3.7	2.9	2.1	4.8
Electrical time constant (MS)	1.1	1.62	1.79	3.89	4.4
weight (KG)	0.5	0.8	1.1	2.0	3.5
Encoder bit	23 bit,5 pairs poles				
insulation class	Class F(130℃)				
Safety class	IP65				
Use environment	Temperature：-20℃~+40℃;humidity：relative humidity＜90				

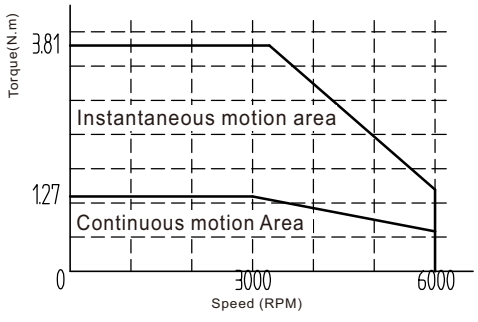
Motor winding socket	Winding lead	U (black)		V (blue)		W (Brown)		PE(Yellow green)
	Socket number	1		3		2		4
Encoder socket	Signal leads	FG	VCC	GND	SD+	SD-	VB+	VB-
	Socket number	9	7	8	1	4	5	6

Torque Characteristics

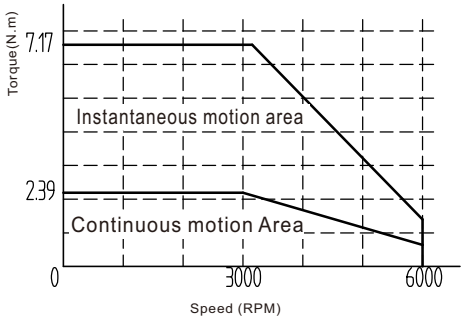
60F-00630 Torque Characteristics



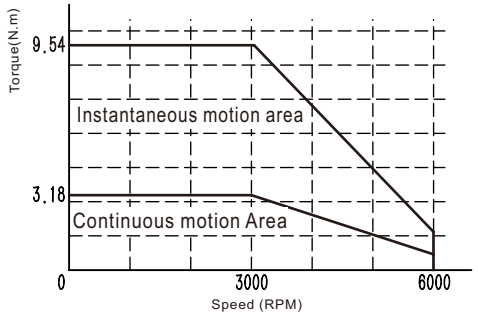
60F-0130 Torque Characteristics



80F-0230 Torque Characteristics



80F-0330 Torque Characteristics



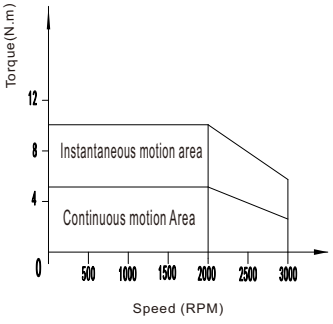
F series110,130 servo motor

Specification model

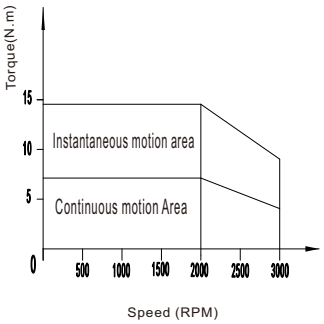
motor model	110F-D0630WML	130F-D0520WML	130F-D0820WML	130F-D1020WML	130F-D1520WML	130F-D0515WML	130F-D0815WML	130F-D1115WML	130F-D1515WML
rated power (KW)	1.8	1.0	1.5	2.0	3.0	0.85	1.3	1.8	2.2
Rated voltage (V)	220	220/380	220/380	220/380	220/380	220/380	220/380	220/380	220/380
Rated current (A)	8.2	5.8	8.0	10.2	16.5	4	6	8.5	10.5
Rated Speed (RPM)	3000	2000	2000	2000	2000	1500	1500	1500	1500
Rated torque (N.M)	5.4	4.77	7.16	9.55	14.3	5.39	8.34	11.5	14.3
Peak torque (N.M)	16.2	9.54	14.32	19.1	28.6	16.17	25.02	32.2	40
Peak current (A)	24.6	11.6	16	20.4	33	12	18	25.5	40.6
Back EMF (V/1000r/min)	43	53	58	60	55	85	92	92	92
Torque coefficient (N.M/A)	0.66	0.82	0.9	0.93	0.87	1.35	1.39	1.35	1.36
Rotor inertia (KG.M²)	$0.916X10^{-3}$	$0.618X10^{-3}$	$0.916X10^{-3}$	$1.21X10^{-3}$	$1.86X10^{-3}$	$1.09X10^{-3}$	$1.69X10^{-3}$	$2.14X10^{-3}$	$3.71X10^{-3}$
winding resistance (Ω)	0.44	0.85	0.65	0.58	0.3	2.6	1.54	1.2	0.85
Winding inductance(MH)	2.8	12.5	9.5	7.5	3.17	16.2	10.5	8.3	5.6
Electrical time constant (MS)	6.4	14.7	14.6	12.9	10.56	6.2	6.8	6.9	5
weight (KG)	5.6	5.4	7.1	8.3	10.7	5.4	7.2	8.7	10.5
Encoder bit	23 bit,5 pairs poles								
insulation class	Class F(130℃)								
Safety class	IP65								
Use environment	Temperature：-20℃~+40℃;humidity：relative humidity＜90								

Motor winding socket	Winding lead	U (black)	V (blue)	W (Brown)	PE(Yellow green)			
	Socket number	2	3	4	1			
Encoder socket	Signal leads	FG	VCC	GND	VB+	VB-	SD+	SD-
	Socket number	1	4	5	6	7	2	3

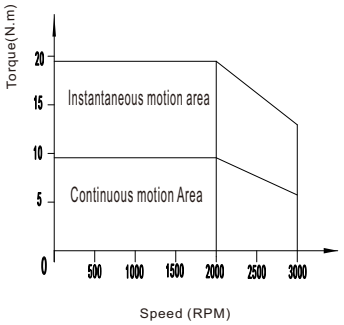
Torque Characteristics



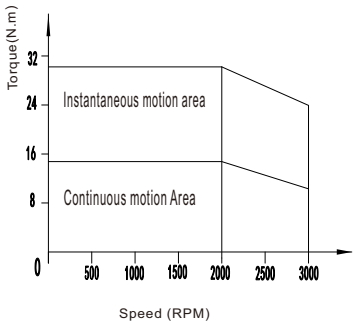
130F-0520 Torque Characteristics



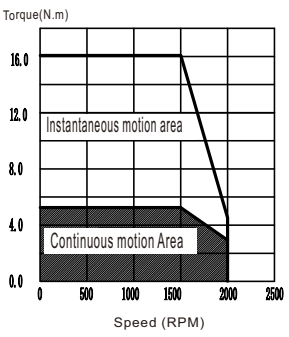
130F-0820 Torque Characteristics



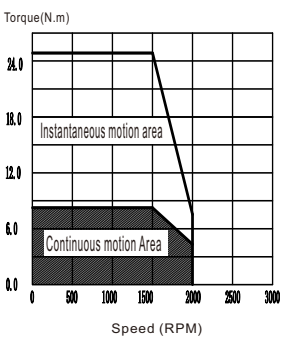
130F-1020 Torque Characteristics



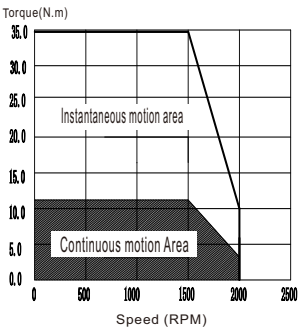
130F-0520 Torque Characteristics



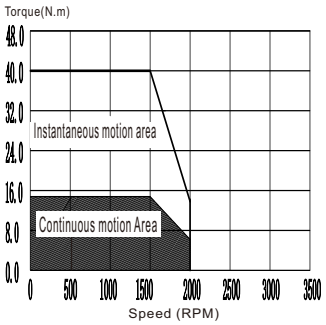
130F-0515 Torque Characteristics



130F-0815 Torque Characteristics



130F-1115 Torque Characteristics



130F-0520 Torque Characteristics

F series180 servo motor

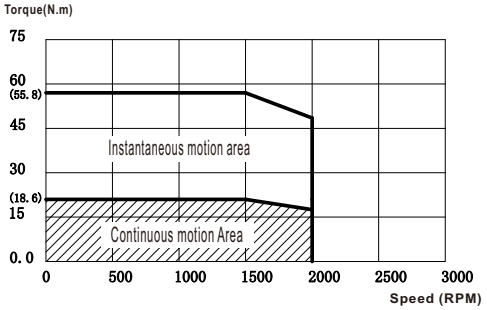
Specification model

motor model		180F-D1915WMH	180F-D2815WMH	180F-D3515WMH	180F-D4815WMH
rated power	(KW)	2.9	4.4	5.5	7.5
Rated voltage	(V)	380	380	380	380
Rated current	(A)	7.5	10.5	13	18
Rated Speed	(RPM)	1500	1500	1500	1500
Rated torque	(N.M)	18.6	28.4	35	48
Peak torque	(N.M)	55.8	85.2	105	120
Peak current	(A)	22.5	31.5	39	43.8
Back EMF	(V/1000r/min)	160	160	160	100
Torque coefficient	(N.M/A)	2.48	2.7	2.7	2.67
Rotor inertia	($KG.M^2$)	66.8	88.5	114.4	136.6
winding resistance	(Ω)	0.9	0.73	0.64	0.43
Winding inductance	(MH)	11.1	8.73	7.6	5.2
Electrical time constant	(MS)	12.3	12	11.9	12.1
weight	(KG)	16.7	21.1	25.6	30.8
Encoder bit		23 bit,5 pairs poles			
insulation class		Class F(130℃)			
Safety class		IP65			
Use environment		Temperature：-20℃~+40℃;humidity：relative humidity＜90			

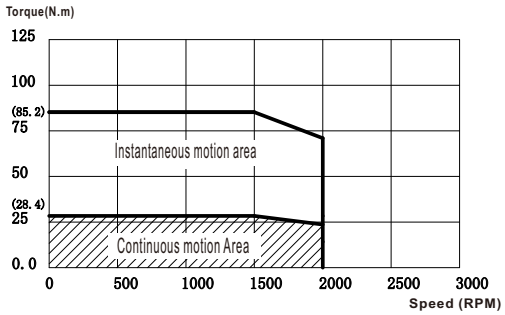
Motor winding socket								
	Winding lead	U (black)		V (blue)		W (Brown)		PE(Yellow green)
	Socket number	2		3		4		1

Encoder socket								
	Signal leads	FG	VCC	GND	SD+	SD-	VB+	VB-
	Socket number	1	4	5	2	3	6	7

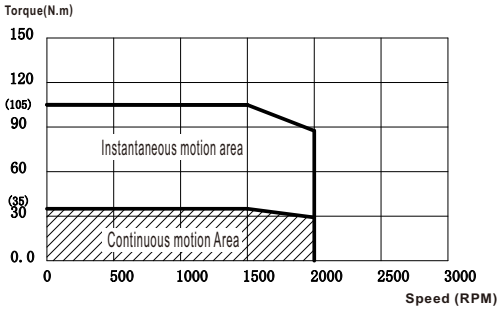
Torque Characteristics



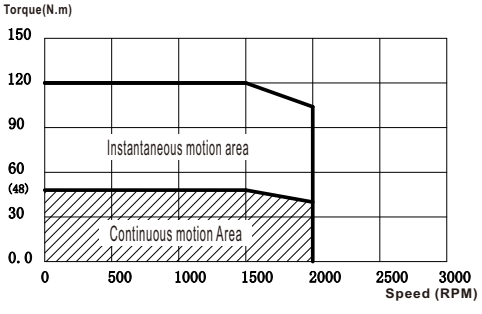
180F- 1915 Torque Characteristics



180F- 2815 Torque Characteristics

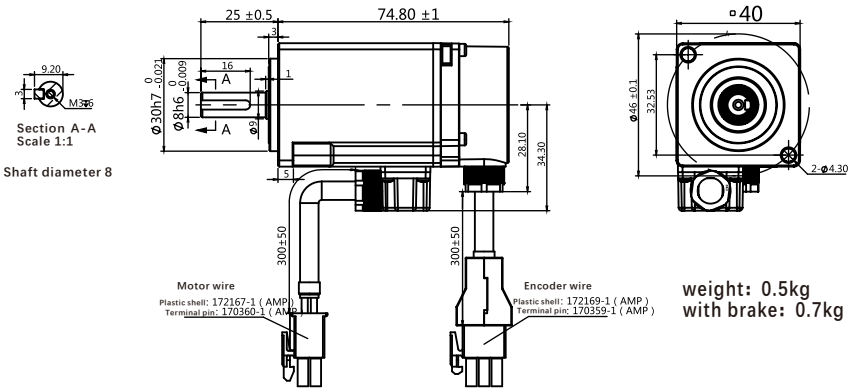


180F- 3515 Torque Characteristics

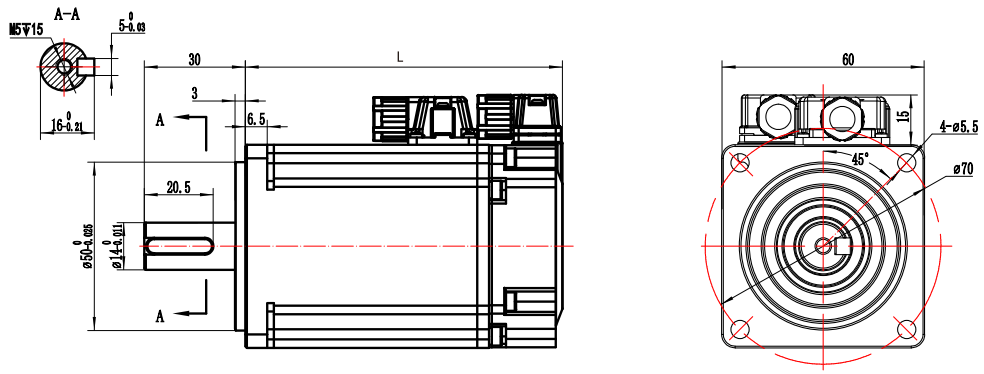


180F- 4815 Torque Characteristics

F series40,60 servo motor



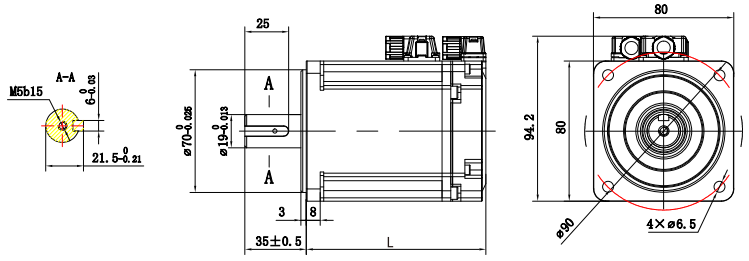
WML series 40 flange servo motor installation outline and dimension drawing



WML series 60 flange servo motor installation outline and dimension drawing

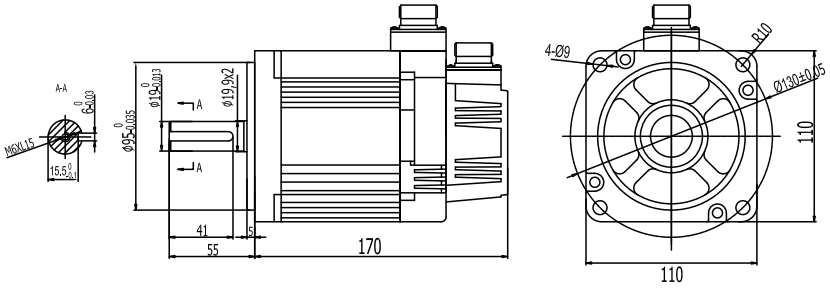
motor model	60F-B00630WML		60F-B0130WML		60F-B0230WML	
L(mm)	without brake	with brake	without brake	with brake	without brake	with brake
	77.2	109.2	93.7	125.7	113.2	145.2

F series 80,110 servo motor



WML series 80 flange servo motor installation outline and dimension drawing

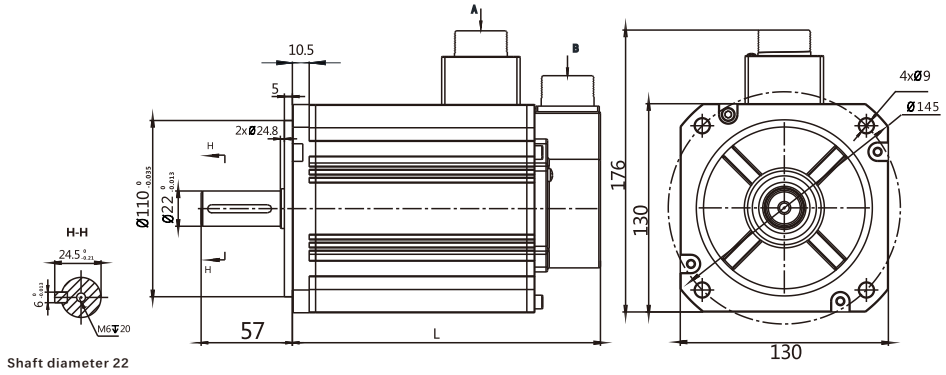
motor model	80F-B0230WML		80F-B0330WML	
L(mm)	without brake	with brake	without brake	with brake
	102.5	139.5	116.5	153.5



WML series 110 flange servo motor installation outline and dimension drawing

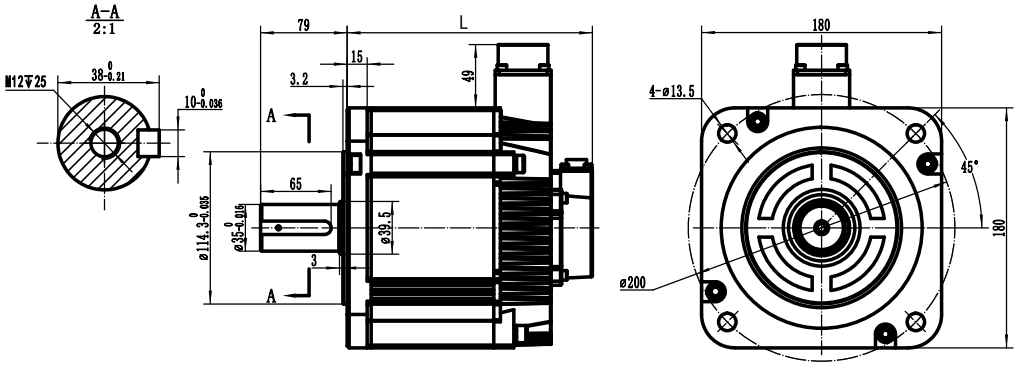
motor model	110F-D0630WML	
L(mm)	without brake	with brake
	170	196

F series130,180 servo motor



WML series 130 flange servo motor installation outline and dimension drawing

motor model	130F-D0520WML		130F-D0820WML		130F-D1020WML		130F-D1520WML		130F-D0515WML		130F-D0815WML		130F-D1115WML		130F-D1515WML	
L(mm)	without brake	with brake	without brake	with brake	without brake	with brake	without brake	with brake	without brake	with brake	without brake	with brake	without brake	with brake	without brake	with brake
	135	185	152.5	202.5	170	220	200	250	135	185	152.5	202.5	170	220	200	250



WML series 180 flange servo motor installation outline and dimension drawing

motor model	180F-D1915WMH		180F-D2815WMH		180F-D3515WMH		180F-D4815WMH	
L(mm)	without brake	with brake	without brake	with brake	without brake	with brake	without brake	with brake
	205	252	232	279	260	307	284	331

F-W series economical AC servo

Series Features

- ◇ Small size, new concept of appearance design, save space in electric cabinet
- ◇ Matching 5 pairs of 17bit optical/magnetic encoders, good high-speed performance and high cost performance
- ◇ With a variety of protection and alarm functions
- ◇ Standard Rs485 communication function, realize upload and download network control
- ◇ Position control, speed control, torque control Modbus communication can be converted to each other to meet general applications
- ◇ Full range of CE certification

Applications

This product is positioned in the field of automation equipment and instruments in various motion control fields of medium and small power.Adopt advanced control algorithm to realize high-precisioncontrol of servo motor,It is the first choice for users expecting space saving, superior high-speed performance and strong price-performance competition.

Suitable for the following occasions

◆ High precision ◆ Low power ◆ High response ◆ Installation space is limited

Mature application industry

◆ Industrial robot ◆ Semiconductor equipment ◆ Engraving equipment
◆ Measuring equipment ◆ Medical equipment ◆ Robot

Specification sheet for order

Servo model	motor model	Power (KW)	Rated speed (r/min)	Max speed (r/min)	Rated torque (Nm)	Matching cable
SDF04NKW(A)	40F-A00330GCL(A)	0.1	3000	6000	0.32	W3-***-W
	60F-B00630GCL(A)	0.2	3000	6000	0.64	Single turn without battery W3B-***-W Multiple turns with battery W3B-***-W-EC
	60F-B0130GCL(A)	0.4	3000	6000	1.27	
SDF10NKW(A)	80F-B0230GCL(A)	0.75	3000	6000	2.39	
	80F-B0330GCL(A)	1.0	3000	6000	3.18	
SDF04NKW(A)	40F-A00330WML	0.1	3000	6000	0.32	
	60F-B00630WML	0.2	3000	6000	0.64	
	60F-B0130WML	0.4	3000	6000	1.27	
SDF10NKW(A)	80F-B0230WML	0.75	3000	6000	2.39	
	80F-B0330WML	1.0	3000	6000	3.18	

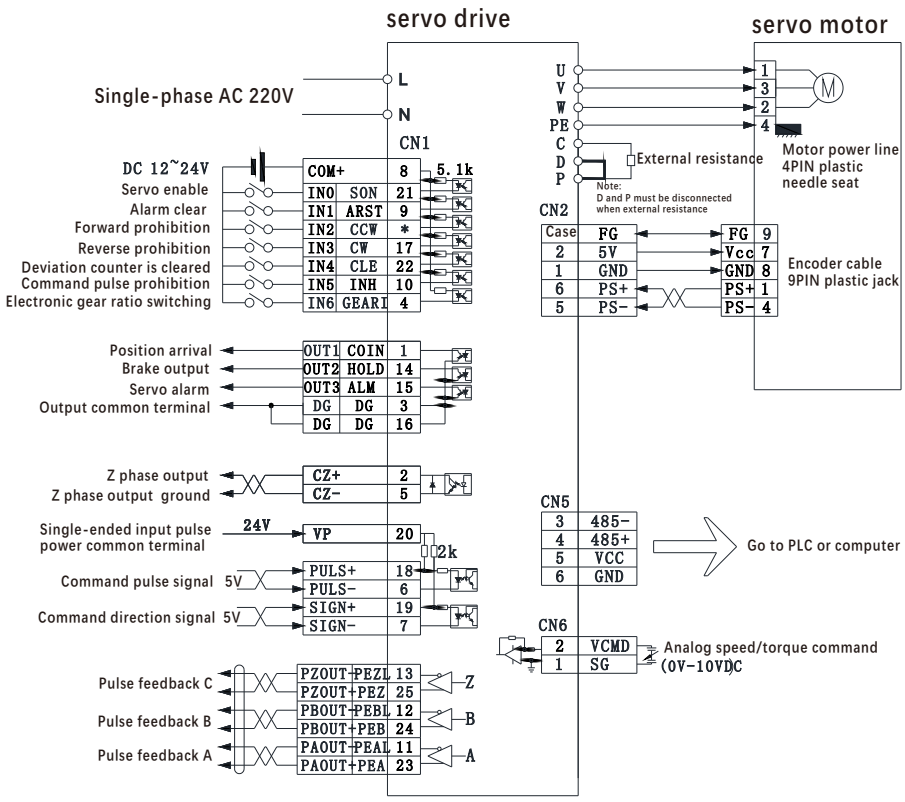
Note: The suffix of the brake motor is "-Z", for example: 80F-0230GCL-Z

F-W series economical AC servo

Performance Specifications

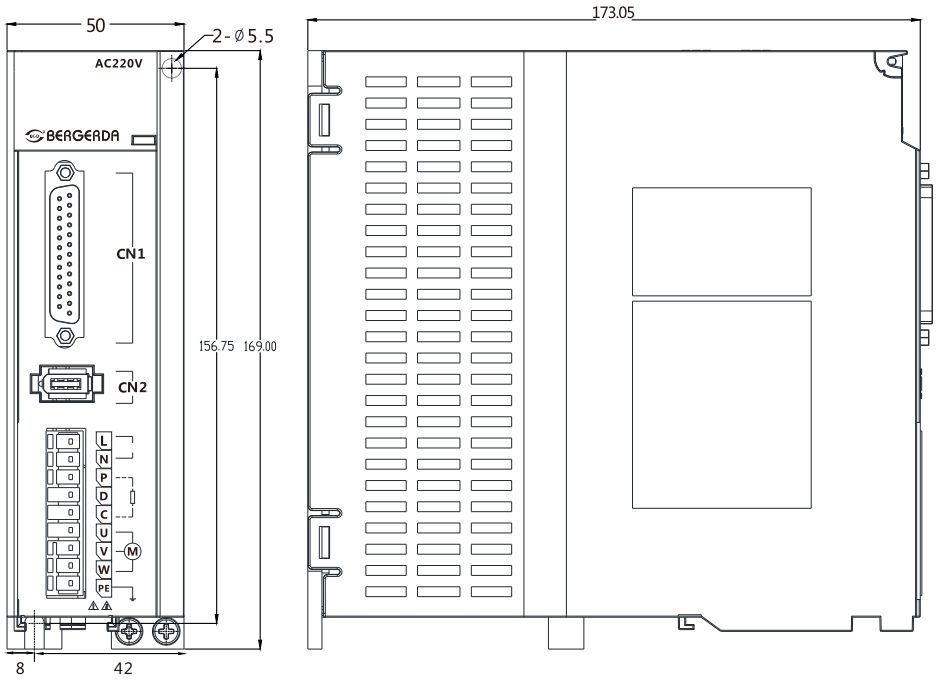
External connection	Input power		Single or Three phase AC170~253V
			50/60Hz
	control type		SVPWM control
	encoder		17bit magnetoelectric/photoelectric encoder
Internal function	Display and operation		Six bits seven-segment display LED: Four function keys
	Control mode		Position control/speed test run/jog run/internal positioningPLC function/RS485 communication
	Braking function		built-in,External optional
	Protection function		Undervoltage, overvoltage, overload, overcurrent, encoder abnormality,brake abnormal, position excess error, etc.
Position control mode	Command control method		External pulse
	External command pulse input	Form	pulse + direction ;CW/CCW pulse ;A/B quadrature
		Maximum frequency	Differential: 2MHZ open collector: 200KHZ
	Electronic gear ratio		1~32767/1~32767
Speed control mode	Internal speed control		I/Oterminal control
Input/output signal	Position signal output	Output type	ABZ phase drive output / Z phase collector open circuit output
		Frequency division ratio	1/255/~1
	input signal	7points photoelectric isolation input	1) Servo enable 2) Alarm clear 3) Forward drive prohibited 4) Reverse drive prohibited 5)Position deviation counter reset 6) Input pulse prohibited 7) No definition
	output signal	4points open collector	1) Servo ready output 2) Servo alarm output 3) Z signal output 4) Brake output
Use environment	temperature		Working: 0°C~55°C Storage: -20°C~80°C
	humidity		Less than 90% (without condensation)

Typical application wiring diagram



F-W series economical AC servo

Driver installation dimension drawing



SDF04NKW/SDF10NKW(A)
Weight：0.8kg

Motor installation dimension drawing

Motor dimension drawing reference P18

C series Ethercat servo

Series Features

◇ Standard high-speed EtherCAT supports COE (CIA402 protocol)

◇ Operating voltage range single/three-phase AC180-240V

◇ Support control modes such as CSP PP PV HM

◇ Compatible with mainstream EtherCAT masters on the market, the EtherCAT transfer rate can reach 100MB/S

Applications

The EtherCAT type servo driver adds the EtherCAT communication function on the basis of the digital servo driver. Compared with ordinary pulse servo drives, EtherCAT-type servo drives can truly achieve isochronous synchronization, because the speed of EtherCAT communication is faster, and the speed or position setting value can be sent directly. The EtherCAT-type driver can also save wiring costs, reduce wiring time, and reduce the probability of errors. One EtherCAT communication port of the host computer can be connected to multiple servos, and a simpleRJ45 port can be used to plug in between the servos, shortening the construction period.

SDC series magnetic motor ordering specification table

Servo model	motor model	Power (KW)	Rated /Maximum speed (RPM)	Rated torque (Nm)	Motor type	Supporting cables
SDC04NK7	40F-A00330GCL(A)	0.1	3000/6000	0.32	Medium inertia	W3B-***-F
	60F-B00630GCL(A)	0.2	3000/6000	0.64		
	60F-B0130GCL(A)	0.4	3000/6000	1.27		
	60F-B0230GCL(A)	0.6	3000/6000	1.91		
SDC08NK8	80F-B0230GCL(A)	0.75	3000/6000	2.39		
	80F-B0330GCL(A)	1.0	3000/6000	3. 18		
SDC20NK5	110F-D0630WCL(A)	1.8	3000/4000	5.4	Small and medium inertia	W2D-***-X
	130F-D0520WCL(A)	1.0	2000/3000	4. 77		
	130F-D0820WCL(A)	1.5	2000/3000	7.16		
	130F-D1020WCL(A)	2.0	2000/3000	9.55		
SDC50NK5	130F-D1520WCL(A)	3.0	2000/3000	14. 3		
SDC20NK5	130F-D0515WCL(A)	0.85	1500/2000	5.39	Medium inertia Low speed, high torque	
	130F-D0815WCL(A)	1.3	1500/2000	8.34		
	130F-D1115WCL(A)	1.8	1500/2000	11.5		
	130F-D1515WCL(A)	2.2	1500/2000	14.3		
SDC30HK5	130F-D0520WCH(A)	1.0	2000/3000	4. 77	Small and medium inertia	
	130F-D0820WCH(A)	1.5	2000/3000	7.16		
	130F-D1020WCH(A)	2.0	2000/3000	9.55		
	130F-D1520WCH(A)	3.0	2000/3000	14. 3		
	130F-D0515WCH(A)	0.85	1500/2000	5.39	Medium inertia Low speed, high torque	
	130F-D0815WCH(A)	1.3	1500/2000	8.34		
	130F-D1115WCH(A)	1.8	1500/2000	11.5		
	130F-D1515WCH(A)	2.2	1500/2000	14.3		

Note: 1. Multi-turn encoders must be customized
2. The suffix of the brake motor is "-Z", for example: 130F-D0520WCL(A)-Z

Suitable for the following occasions

High precision
High response
EtherCAT communication
Strong magnetic interferencer

Mature application industry

Industrial manipulator
Semiconductor equipment
Engraving equipment
Measuring equipment
Medical equipment
robot

C series Ethercat servo

SDC series with optical encoder motor ordering specification table

Servo model	motor model	Power (KW)	Rated /maximum speed (RPM)	Rated torque (Nm)	Motor type	Supporting cables
SDC04NK7	40F-A00330WML	0.1	3000/6000	0.32	Large inertia	Single turn without battery W3B-***-F Multiple turns with battery W3B-***-F-EC
	60F-B00630WML	0.2	3000/6000	0.64		
	60F-B0130WML	0.4	3000/6000	1.27		
	60F-B0230WML	0.6	3000/6000	1.91		
SDC08NK8	80F-B0230WML	0.75	3000/6000	2.39		
	80F-B0330WML	1.0	3000/6000	3. 18		
SDC20NK5	110F-D0630WML	1.8	3000/4000	5.4	Small and medium inertia	Single turn without battery W2D-***-X Multiple turns with battery W2D-***-X-EC
	130F-D0520WML	1.0	2000/3000	4. 77		
	130F-D0820WML	1.5	2000/3000	7.16		
	130F-D1020WML	2.0	2000/3000	9.55		
SDC50NK5	130F-D1520WML	3.0	2000/3000	14. 3		
SDC20NK5	130F-D0515WML	0.85	1500/2000	5.39	Medium inertia Low speed, high torque	
	130F-D0815WML	1.3	1500/2000	8.34		
	130F-D1115WML	1.8	1500/2000	11.5		
	130F-D1515WML	2.2	1500/2000	14.3		
SDC30HK5	130F-D0520WMH	1.0	2000/3000	4. 77	Small and medium inertia	
	130F-D0820WMH	1.5	2000/3000	7.16		
	130F-D1020WMH	2.0	2000/3000	9.55		
	130F-D1520WMH	3.0	2000/3000	14. 3		
	130F-D0515WMH	0.85	1500/2000	5.39	Medium inertia Low speed, high torque	
	130F-D0815WMH	1.3	1500/2000	8.34		
	130F-D1115WMH	1.8	1500/2000	11.5		
	130F-D1515WMH	2.2	1500/2000	14.3		
SDC55HK12	180F-D1915WMH	2.9	1500/2000	18.6	Large inertia	Single turn without battery W4D-***-X Multiple turns with battery W4D-***-X-EC
	180F-D2815WMH	4.4	1500/2000	28.4		
	180F-D3515WMH	5.5	1500/2000	35.0		
SDC75HK12	180F-D4815WMH	7.5	1500/2000	48.0		

Note: The suffix of the brake motor is "-Z", for example: 130F-D0520WML-Z

Motor installation dimension drawing

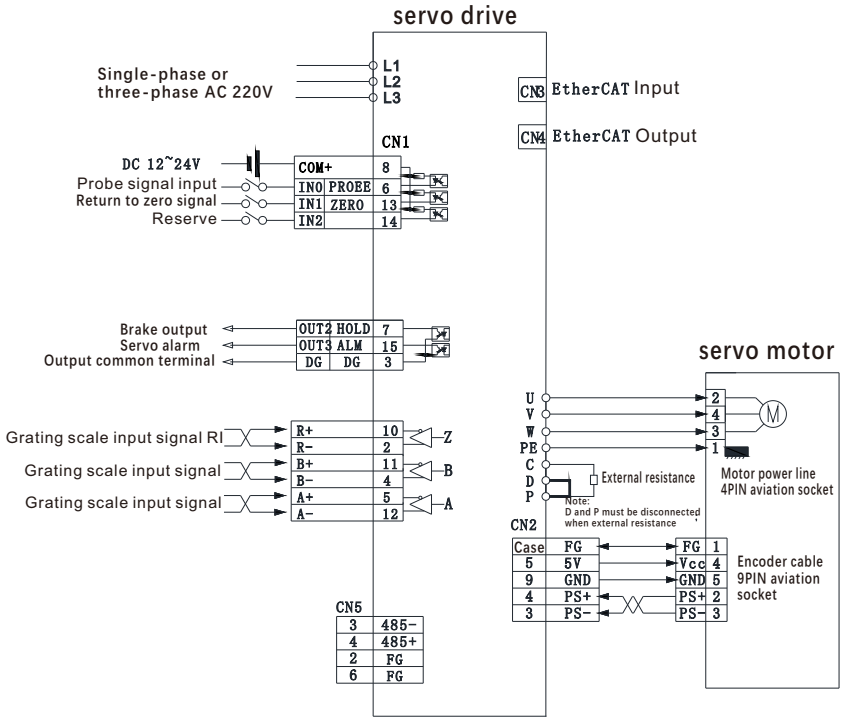
motor specifications and dimensions, please refer to F series motor P18-P27.
Please consult separately for matching cables.

C series Ethercat servo

Performance Specification Sheet

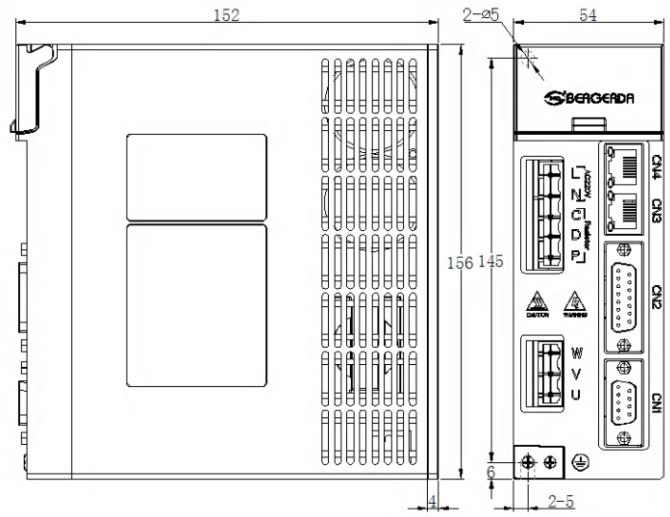
External connection	input power	single/three phase180V/-240V Three phase 360V-440V
		50/60Hz
	control way	PWM sine wave vector control
	encoder	17BIT Optical/Magnetic
Internal function	display and operation	Six-digit seven-segment display LED: four function operation keys
	control mode	Position/speed/torque/homing
	Brake function	Built-in or external optional
	protection function	Overspeed/overvoltage/overcurrent/overload/brake abnormality/ encoder abnormality/position out of tolerance, etc.
Protection class		Ip20
Fieldbus		EtherCAT csp,pp,pv,csv,cs modes
control input		Three point inputs: configured for probing, zeroing, etc.
control output		brake, alarm and other functions
Position	Command ac /deceleration	parameter settings
	command source	Internal position command,bus command
Speed	Command ac /deceleration	parameter settings
	command source	Internal speed command,bus command
Torque	speed limit	parameter settings
	command source	Internal torque command,bus command
Special functions		return to origin, Gain switching, Mechanical Resonant Notch Filters
Monitoring functions		Speed, current position, position deviation, motor torque, motor current, etc.

Typical application wiring diagram

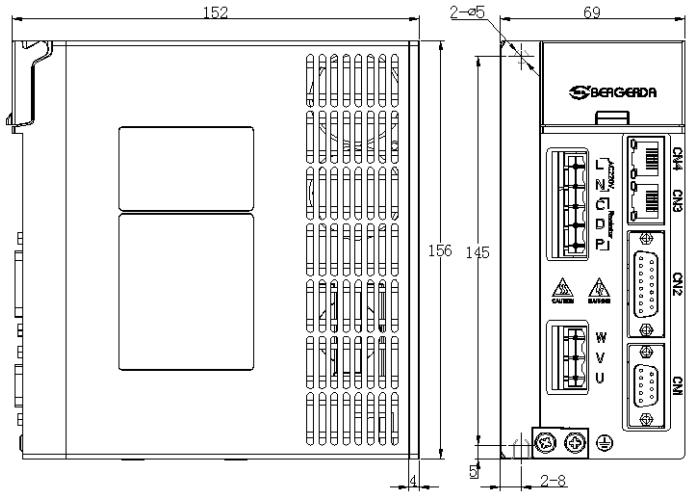


C series Ethercat servo

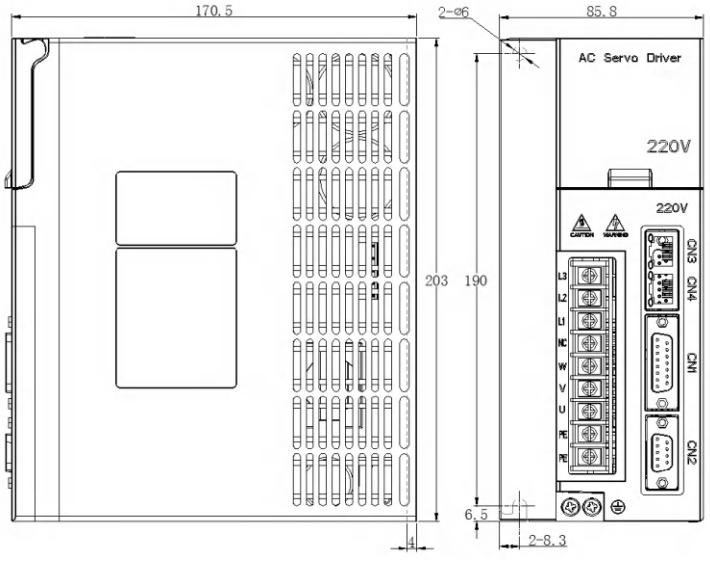
Install dimensions



SDC04NK7
Weight 1.0kg

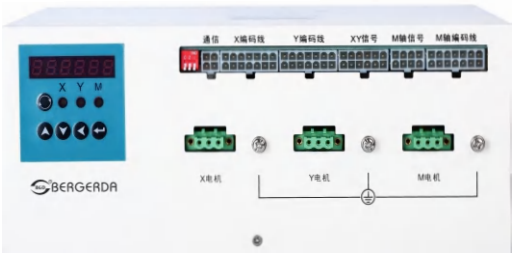


SDC08NK8
Weight 1.15kg



SDC20NK5
Weight 1.8kg

V series Embroidery machine servo



Series features

- ◇ Advanced control algorithm for high-precision positioning
- ◇ Can be adapted to Dahao, Shanlong, Tianhong, Jialichuang and other kinds of embroidery electronic control
- ◇ Fast parking response and stable speed
- ◇ Stable performance and simple operation
- ◇ Complete product line, spindle servo, XY frame servo, towel embroidery servo
- ◇ Supply whole set of servo motor and drive

Specification sheet for order

Servo model	Servo model		motor model	Power(KW)	Rated speed(RPM)	Rated torque(Nm)
Quilting machine configuration	SDV-303	Spindle	130SM-M1520NAL	3.0	2000	15.0
		X-axis	130SM-M1015NAL	1.5	1500	10.0
		Y-axis	130SM-M1015NAL	1.5	1500	10.0
Spindle servo	SDD10NK5D		130SM–M0425NAL	1.0	2500	4.0
	SDD13NK5D		130SM–M0525NAL	1.3	2500	5.0
	SDD20NK5D		130SM–M0825NALF	2.0	2500	7.7
	SDD26NK5D		130SM–M1025NALF	2.6	2500	10.0
	SDD30NK5D		130SM–M1520NALF	3.0	2000	15.0
High-voltage spindle servo	SDD30HK5D		130SM–M1520NAHF	3.0	2000	15
	SDD55HK12D		130SM–M1820NAHF	3.6	2000	18
	SDD55HK12D		180SM–M2220NAHF	4.5	2000	22
XY frame servo	SDD20NK5D		110SM–M1020NAL	2.0	2000	10

Application product

V series two-axis synchronous servo

Series features

- ◇ One drive to drive two motors
- ◇ Load changes, power outages, keep synchronization
- ◇ Two-axis deviation, arbitrary setting and alarm prompt
- ◇ Two axes in one, space saving, high power, total 4KW
- ◇ Electrical wiring is super simple, supports RS485 communication, two-axis
- ◇ data can be exchanged at any time

Help you solve

◇ One pulse controls two motors, load changes, two-axis synchronization deteriorates Master-sl
◇ ave following, complicated wiring, inherent lag
◇ Unexpected power outage, two axes one fast and one slow
◇ Gantry structure synchronization problem
◇ Replace mechanical synchronization occasions and simplify mechanical design

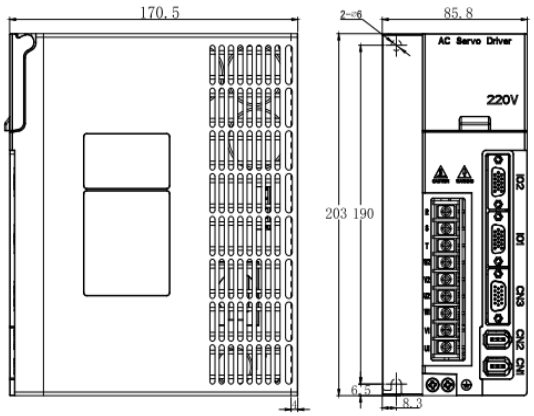
Specification sheet for order

Servo model	Function	motor model
SDV102NK5	Gantry synchronous type	Total power of two axes <2KW (60, 80, 110, 130 series GCL, WCL motor)
SDV202NK5	Gantry synchronous type	Total power of two axes <4KW (60, 80, 110, 130 series GCL, WCL motor)
SDV102NK5-XY	Two-axis independent pulse type	Total power of two axes <2KW (60, 80, 110, 130 series GCL, WCL motor)
SDV202NK5-XY	Two-axis independent pulse type	Total power of two axes <4KW (60, 80, 110, 130 series GCL, WCL motor)
SDV102NK5-EC	EtherCAT type	Total power of two axes <2KW (60, 80, 110, 130 series GCL, WCL motor)
SDV202NK5-EC	EtherCAT type	Total power of two axes <4KW (60, 80, 110, 130 series GCL, WCL motor)
SDV102NK5-HF	Industry-specific machine	

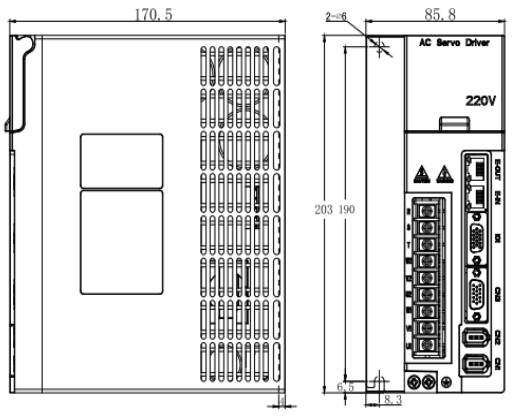
Motor installation dimension drawing

motor specifications and dimensions, please refer to F series motor P18-P27. Please consultseparately for matching cables.

Installation dimension drawing



SDV**2NK5/SDV**2NK5-XY
Weight: 2.0kg



SDV**2NK5-EC

COMMITTED TO MACHINE INTELLIGENCE,FOCUS MOTOR CONTROL

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