

**Catalogo servo motor
AC driver Policomp
Componentes**



PRADO

AUTOMAÇÃO INDUSTRIAL



Drive Model Significance

SD D 08 N K8 D - X
1 2 3 4 5 6 7

1 - AC servo drive

2 - Series Code

B:Universal 1

C:universal 2

3:absolute type

3 - Output power

08:0.8 KW

13:1.3 KW

20:2.0 KW

4 - Input Voltage

N: 220V

H: 380V

5 - Shape Cod: K7,K8,K9,K10,K11,K12

6 - Version identification code:A , B

7 - Affiliated features

Motor Model Significance

130SM-M 04 25 M A L - Z
1 2 3 4 5 6 7 8 9

L Motor mounting flange: 40, 60, 80, 110, 130, 180 2,
AC servo motor

3, Photoelectric encoder

4, Torque: 04:4N.M

5, Speed: 30-3000Turn25-2500Turn

6, Manufacturer code: M, N, G, Z

7, encoder

A: 2500 line incremental

D: 2500 Line line-saving

E: 17Bit absolute

8, Voltage: L : 220V

H: 380V

9, Attributes: Z : Brake

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

D Series AC Servo

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
SDD13NK9D	110SM-M0430NAL	1.2	3000	4.0
	110SM-M0530NAL	1.5	3000	5.0
SDD20NK9D	110SM-M0630NAL	1.8	3000	6.0
SDD13NK9D	130SM-M0425NAL	1.0	2500	4.0
	130SM-M0525NAL	1.3	2500	5.0
SDD20NK9D	130SM-M0625NAL	1.5	2500	6.0
	130SM-M0825NAL	2.0	2500	7.7
	130SM-M1025NAL	2.6	2500	10.0
SDD50NK10D	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
SDD30HK10D (380V)	130SM-M0825MAH	2.0	2500	7.7
	130SM-M1025MAH	2.6	2500	10.0
	130SM-M1525MAH	3.8	2500	15.0
SDD55HK11 (380V)	180SM-M1915MAH	3.0	1500	19.0
	180SM-M2220MAH	4.5	2000	21.5
	180SM-M2715MAH	4.1	1500	27.0
	180SM-M3515MAH	5.5	1500	35.0
SDB75HK6 (380V)	180SM-M4815MAH	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

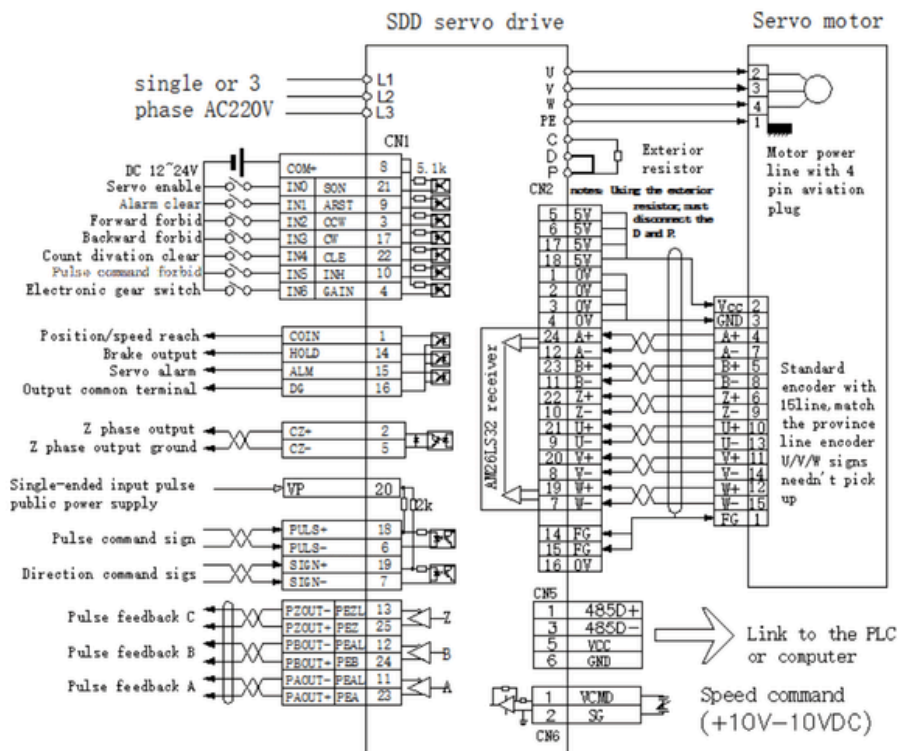
Working principle :The servo control internal design of the relevant register, through 485 communication to the relevant register set, write the start operation command to the relevant register, the entire motion control can be completed. Since the position control uses absolute number programming, it 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 AC Servo

Performance Specifications

External connection	Input power	Single or Three phase AC170~253V Three phase 380V 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) Deviation counter clear/speed select 1 4) Command pulse inhibit/speed select 2 5) Position 0 6) Position 1 7) Position trigger
	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

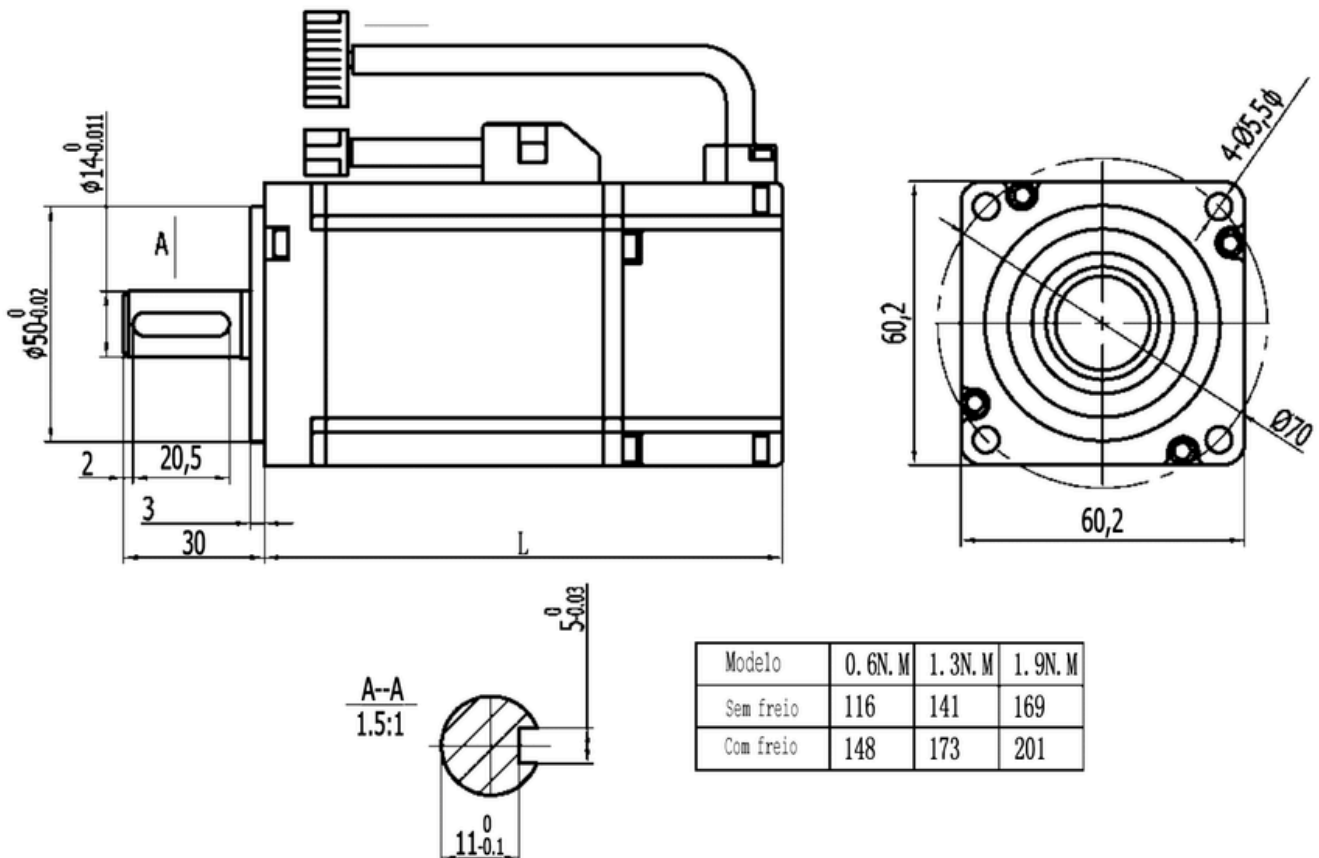


40,60 serie AC servo motor

Especificações do modelo

Modelo Servo Motor	40SM-M00230MAL	40SM-M00330MAL	600SM-M00630MAL	60SM-M0130MAL	60SM-M0230MAL											
Potência Nominal (KW)	0,05	0,1	0,2	0,4	0,6											
Tensão Nominal (V)	220	220	220	220	220											
Corrente nominal (A)	0,7	1,3	1,2	2,8	3,5											
Velocidade Nominal (RPM)	3000	3000	3000	3000	3000											
Torque Nominal (N.M)	0,16	0,32	0,637	1,27	1,91											
Torque Máximo (N.M)	0,48	0,96	1,91	3,9	5,73											
EMF Posterior (V/1000R/MIN)																
Coefficiente de Torque (N.M/A)	0,23	0,25	0,53	0,45	0,55											
Rotor de inércia (KG.M²)																
Resistência de Enrolamento (Ω)	30,8	11,5	6,18	2,35	1,93											
Indutância de Enrolamento (MH)																
Constante de Tempo Elétrica (MS)	0,8	0,95	4,74	6,17	5,5											
Peso (KG)																
Resolução do Encoder (PPR)	2500															
Classe de Isolamento																
Classe de Segurança	IP65															
Ambiente de Aplicação	TEMPERATURA: -20° ~+ 40C°; UMIDADE RELATIVA <90% (SEM CONDENSAÇÃO)															
Terminal de Enrolamento do Motor	Cabo de enrolamento	U (preto)			V (Azul)			W (Marrom)			PE (amarelo e verde)					
	Número do Pino	1			2			3			4					
Pino do Encoder	Pinos de Sinal	5V	0V	B+	Z-	U+	Z+	U-	A+	V+	W+	V-	A-	B-	W-	PE
	Número do Pino	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

Dimensões (mm)

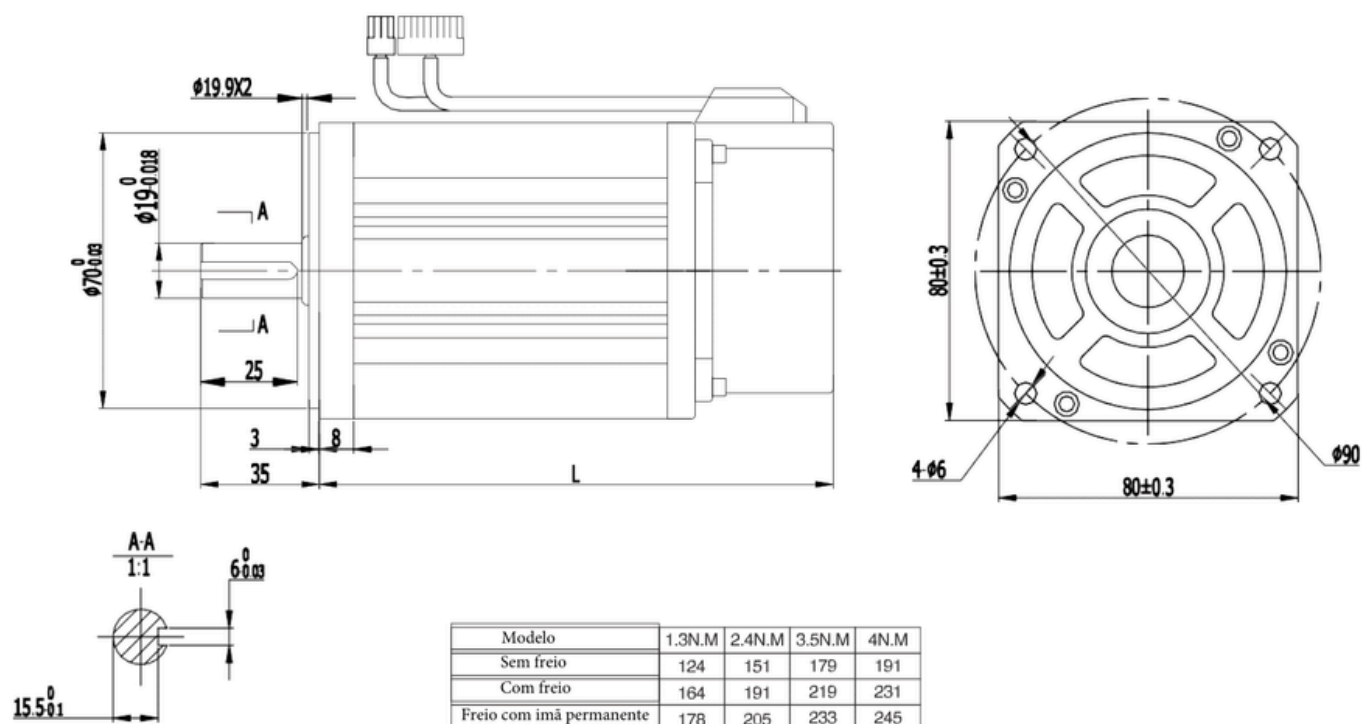


80 serie AC servo motor

Especificações do modelo

Modelo Servo Motor	80SM-M0130MAL	80SM-M0230MAL	80SM-M0320MAL	80SM-M0425MAL													
Potência Nominal (KW)	0.4	0.75	0.73	1.0													
Tensão Nominal (V)	220	220	220	220													
Corrente nominal (A)	2	3	3	4.4													
Velocidade Nominal (RPM)	3000	3000	2000	2500													
Torque Nominal (N.M)	1.27	2.39	3.5	4													
Torque Máximo (N.M)	3.8	7.1	10.5	12													
Corrente Máxima (A)	6	9	9	13.2													
EMF Posterior (V/1000R/MIN)	40	48	71	56													
Coeficiente de Torque (N.M/A)	0.64	0.8	1.17	0.9													
Rotor de Inércia (KG.M ²)	(1.05x10) ⁻⁴	(1.82x10) ⁻⁴	(2.63x10) ⁻⁴	(2.97x10) ⁻⁴													
Resistência de Enrolamento (Ω)	4.44	2.88	3.65	1.83													
Indutância de Enrolamento (MH)	7.93	6.4	8.8	4.72													
Constante de Tempo Elétrica (MS)	1.66	2.22	2.4	2.58													
Peso (KG)	1.78	2.86	3.7	3.8													
Resolução do Encoder (PPR)	2500																
Classe de Isolamento	Classe F (130°C)																
Classe de Segurança	IP65																
Ambiente de Aplicação	Temperatura: -20°C ~ +40°C; Umidade: Umidade Relativa <90% (Sem Condensação)																
Terminal de Enrolamento do Motor	Pino do Enrolamento	U (Preto)				V (Azul)				W (Marrom)				PE (Amarelo e Verde)			
	Número do Pino	1				2				3				4			
Pino do Encoder	Pinos de Sinal	5V	0V	B +	Z -	U +	Z +	U -	A +	V +	W +	V -	A -	B -	W -	PE	
	Número do Pino	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1	

Dimensões (mm)

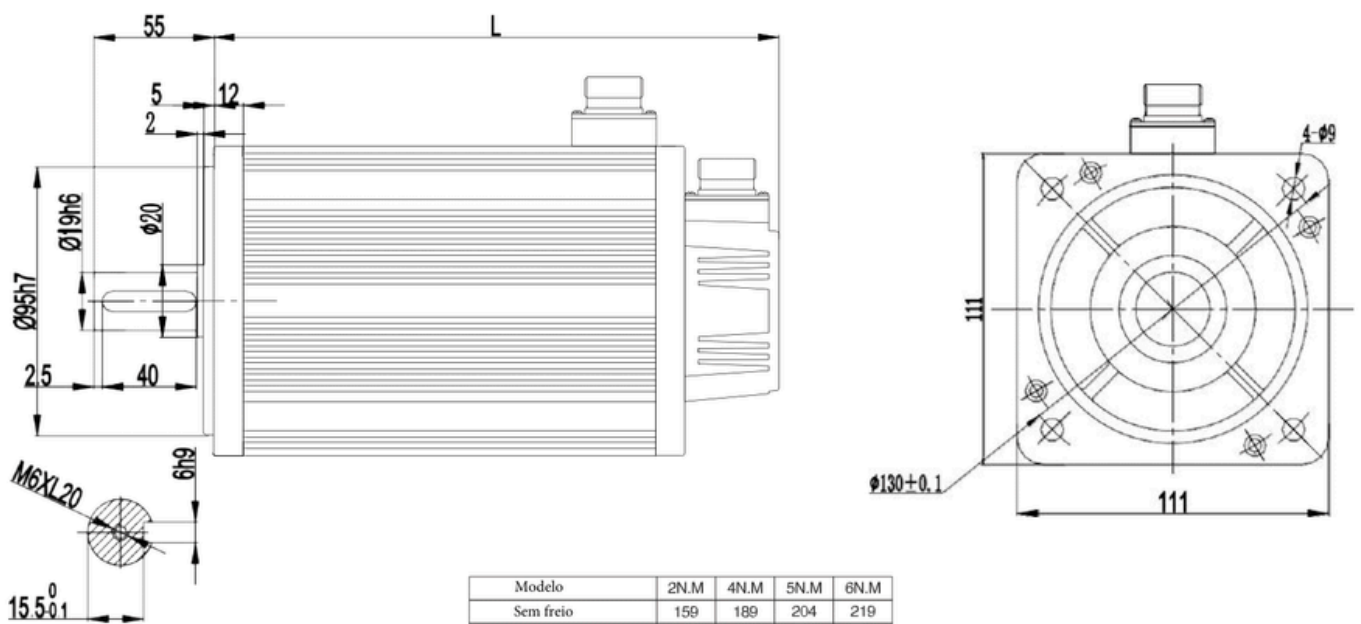


110 serie AC servo motor

Especificações do modelo

Modelo Servo Motor	110SM-M230MAL	110SM-M040MAL	110SM-M0430MAL	110SM-M0530MAL	110SM-M0620MAL	110SM-M0630MAL										
Potência Nominal (KW)	0.6	0.8	1.2	1.5	1.2	1.8										
Tensão Nominal (V)	220	220	220	220	220	220										
Corrente nominal (A)	2.5	3.5	5.0	6	4.5	6.0										
Velocidade Nominal (RPM)	3000	2000	3000	3000	2000	3000										
Torque Nominal (N.M)	2	4	4	5	6	6										
Torque Máximo (N.M)	6	12	12	15	12	18										
Corrente Máxima (A)	7.5	10.5	15	18	13.5	18										
EMF Posterior (V/1000R/MIN)	56	79	54	62	83	60										
Coefficiente de Torque (N.M/A)	0.8	1.14	0.8	0.83	1.3	1.0										
Rotor de inércia (KG.M ²)	(0.31X10) ⁻³	(0.54X10) ⁻³	(0.54X10) ⁻³	(0.63X10) ⁻³	(0.76X10) ⁻³	(0.76X10) ⁻³										
Resistência de Enrolamento (Ω)	3.6	2.41	1.09	1.03	1.46	0.81										
Indutância de Enrolamento (MH)	8.32	7.3	3.3	3.43	4.7	2.59										
Constante de Tempo Elétrica (MS)	2.3	3	3.0	3.3	3.2	3.2										
Peso (KG)	4.5	5.5	5.5	6.1	6.7	6.7										
Resolução do Encoder (PPR)	2500															
Classe de Isolamento	Classe F(130°C)															
Classe de Segurança	IP65															
Ambiente de Aplicação	Temperatura: -20°C ~ +40°C; Umidade: Umidade Relativa <90% (Sem Condensação)															
Terminal de Enrolamento do Motor	Pino do Enrolamento	U (Preto)						V (Azul)			W (Marrom)			PE (Amarelo e Verde)		
	Número do Pino	2						3			4			1		
Pino do Encoder	Pinos de Sinal	5V	0V	A+	B+	Z+	A-	B-	Z-	U+	V+	W+	U-	V-	W-	PE
	Número do Pino	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

Dimensões (mm)

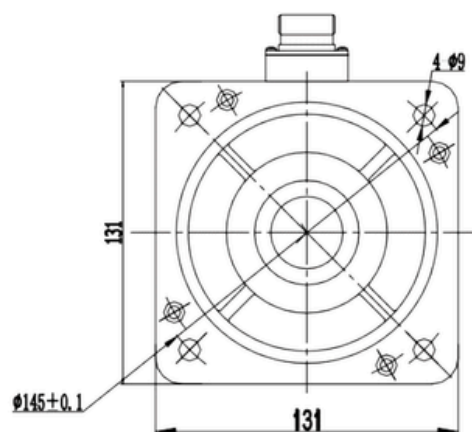
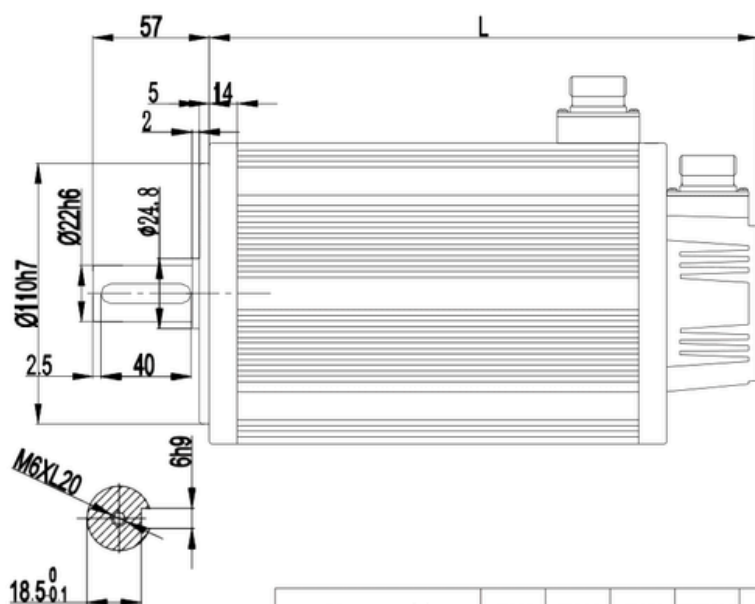


130 serie AC servo motor

Especificações do modelo

Modelo Servo Motor	130SM-M0425MAL	130SM-M0525MAL	130SM-M0625MAL	130SM-M0825MAL	130SM-M1010MAL	130SM-M1015MAL	130SM-M1025MAL	130SM-M1525MAL								
Potência Nominal (KW)	1.0	1.3	1.5	2.0	1.0	1.5	2.6	3.8								
Tensão Nominal (V)	220	220	220	220	220	220	220	220								
Corrente nominal (A)	4.0	5.0	6.0	7.5	4.5	6.0	10	13.5								
Velocidade Nominal (RPM)	2500	2500	2500	2500	1000	1500	2500	2500								
Torque Nominal (N.M)	4	5	6	7.7	10	10	10	15								
Torque Máximo (N.M)	12	15	18	22	20	25	25	30								
Corrente Máxima (A)	12	15	18	22.5	13.5	18	28	27								
EMF Posterior (V/1000R/MIN)	72	68	65	68	140	103	70	67								
Coefficiente de Torque (N.M/A)	1.0	1.0	1.0	1.03	2.2	1.67	1.0	1.11								
Rotor de Inércia (KG.M²)	$(0.85 \times 10)^{-3}$	$(1.06 \times 10)^{-3}$	$(1.06 \times 10)^{-3}$	$(1.53 \times 10)^{-3}$	$(1.94 \times 10)^{-3}$	$(1.94 \times 10)^{-3}$	$(1.94 \times 10)^{-3}$	$(2.77 \times 10)^{-3}$								
Resistência de Enrolamento (Ω)	2.76	1.84	1.21	1.01	2.7	1.29	0.73	0.49								
Indutância de Enrolamento (MH)	6.42	4.9	3.87	2.94	8.8	5.07	2.45	1.68								
Constante de Tempo Elétrica (MS)	2.32	2.66	3.26	3.8	3.26	3.93	3.36	3.43								
Peso (KG)	7.7	8.2	8.9	10	11.5	11.5	11.5	11.7								
Resolução do Encoder (PPR)	2500															
Classe de Isolamento	Classe F (130°C)															
Classe de Segurança	IP65															
Ambiente de Aplicação	Temperatura: -20°C ~ +40°C; Umidade: Umidade Relativa <90% (Sem Condensação)															
Terminal de Enrolamento do Motor	Pino do Enrolamento	U (Preto)				V (Azul)				W (Marrom)				PE (Amarelo e Verde)		
	Número do Pino	2				3				4				1		
Pino do Encoder	Pinos de Sinal	5V	0V	B +	Z -	U +	Z +	U -	A +	V +	W +	V -	A -	B -	W -	PE
	Número do Pino	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

Dimensões (mm)



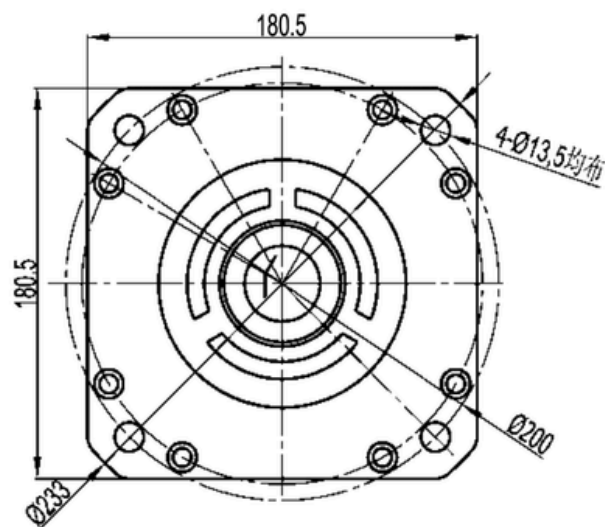
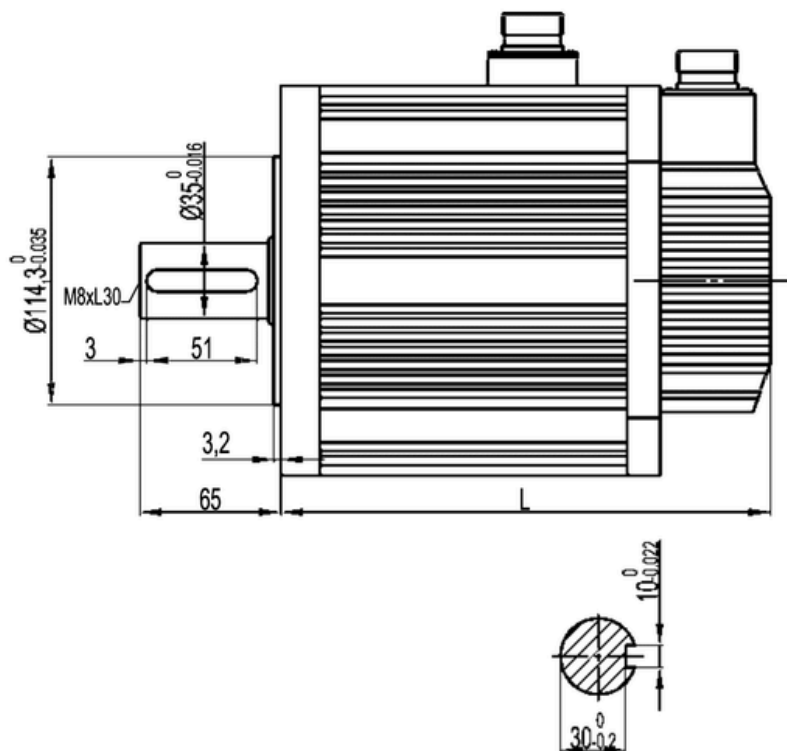
Motor model	4N.M	5N.M	6N.M	7.7N.M	10N.M		15N.M	
					1500rpm	2500rpm	1500rpm	2500rpm
Without Brake L(mm)	166	171	179	192	213	209	241	231
With electromagnetic brake L(mm)	223	228	236	249	294	290	322	312
Permanent magnet brake L	236	241	249	262	283	279	311	301

180 serie AC servo motor

Especificações do modelo

Modelo Servo Motor	180SM-M1915MAL	180SM-M2220MAL	180SM-M2715MAL	180SM-M3515MAL											
Potência Nominal (KW)	3.0	4.5	4.3	5.5											
Tensão Nominal (V)	220	220	220	220											
Corrente nominal (A)	12	16	16	24											
Velocidade Nominal (RPM)	1500	2000	1500	1500											
Torque Nominal (N.M)	19	21.5	27	35											
Torque Máximo (N.M)	47	53	67	70											
EMF Posterior (V/1000R/MIN)	97	84	103	90											
Coefficiente de Torque (N.M/A)	1.58	1.34	1.69	1.45											
Rotor de inércia (KG.M ²)	(3.8X10) ⁻³	(4.7X10) ⁻³	(6.1X10) ⁻³	(8.6X10) ⁻³											
Resistência de Enrolamento (Ω)	0.4	0.24	0.28	0.14											
Indutância de Enrolamento (MH)	2.42	1.45	1.74	1.0											
Constante de Tempo Elétrica (MS)	6	6	6.2	7.14											
Peso (KG)	20.5	22.2	25.5	30.5											
Resolução do Encoder (PPR)	2500														
Classe de Isolamento	Classe F (155°C)														
Classe de Segurança	IP65														
Ambiente de Aplicação	Temperatura: -20°C ~ +40°C; Umidade: Umidade Relativa <90% (Sem Condensação)														
Terminal de Enrolamento do Motor	Pino do Enrolamento	U (Preto)				V (Blue)				W (Marrom)				PE (Amarelo e Verde)	
	Número do Pino	2				3				4				1	
Pino do Encoder	Pinos de Sinal	5V	0V	B +	Z -	U +	Z +	U -	A +	V +	V -	A -	B -	W -	PE
	Número do Pino	2	3	4	5	6	7	8	9	#	12	13	14	15	1

Dimensões (mm)



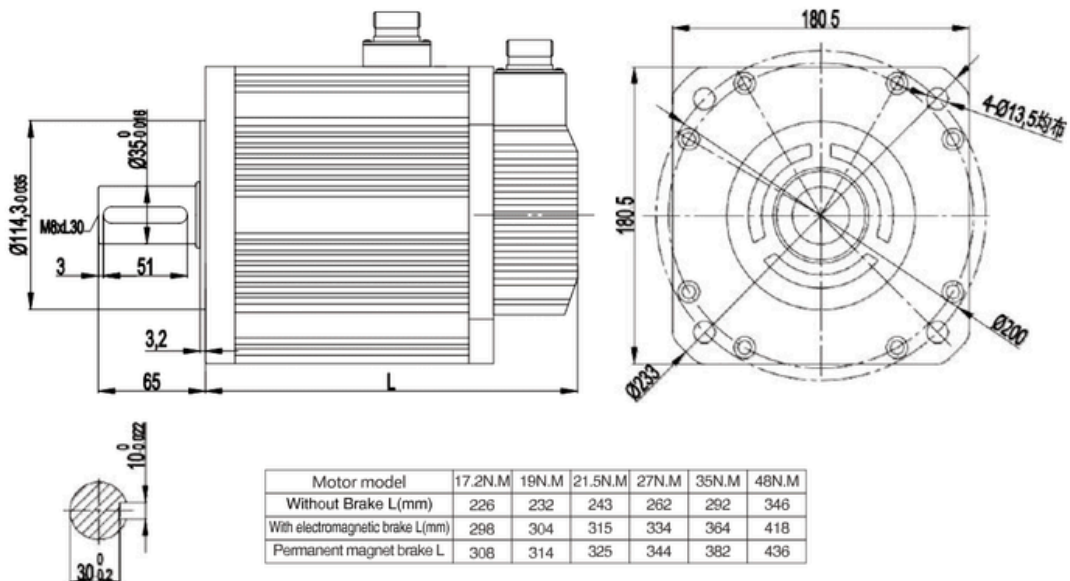
Modelo	17. 2N. M	19N. M	21. 5N. M	27N. M	35N. M	48N. M
Sem freio	226	232	243	262	292	346
Com freio	298	304	315	334	364	418

380 serie AC servo motor

Especificações do modelo

motor model	180SM-M1915MAH	180SM-M2220MAH	180SM-M2715MAH	180SM-M3515MAH	180SM-M4815MAH											
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°C)															
Safety class	IP65															
Use environment	Temperature : -20°C~+40°C;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

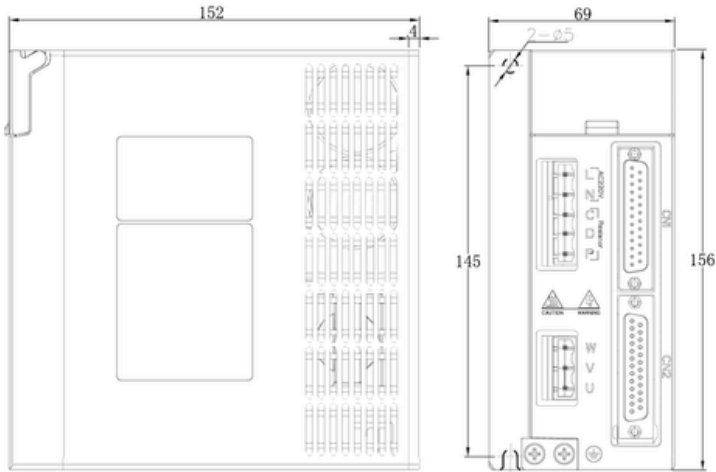
Dimensões (mm)



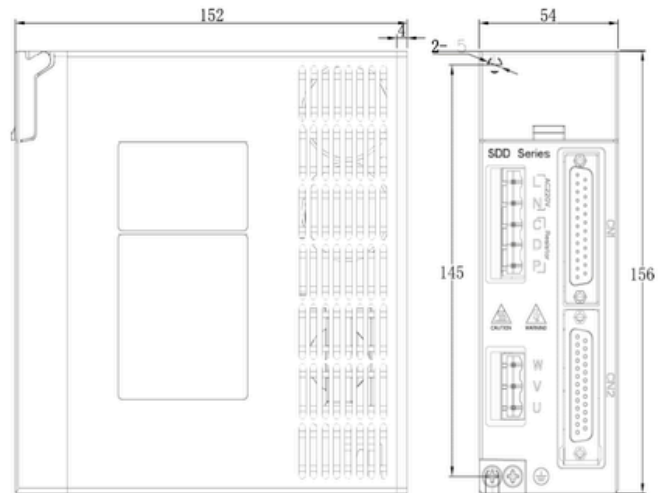
Appendix A: Servo Drive Installation Dimension drawing

Installation dimension drawing

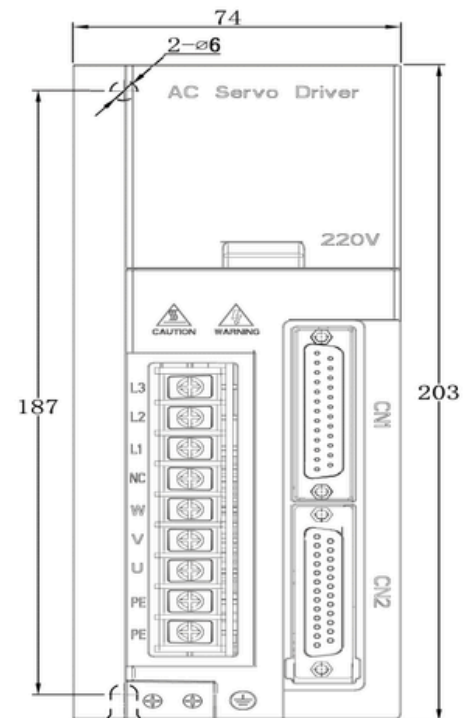
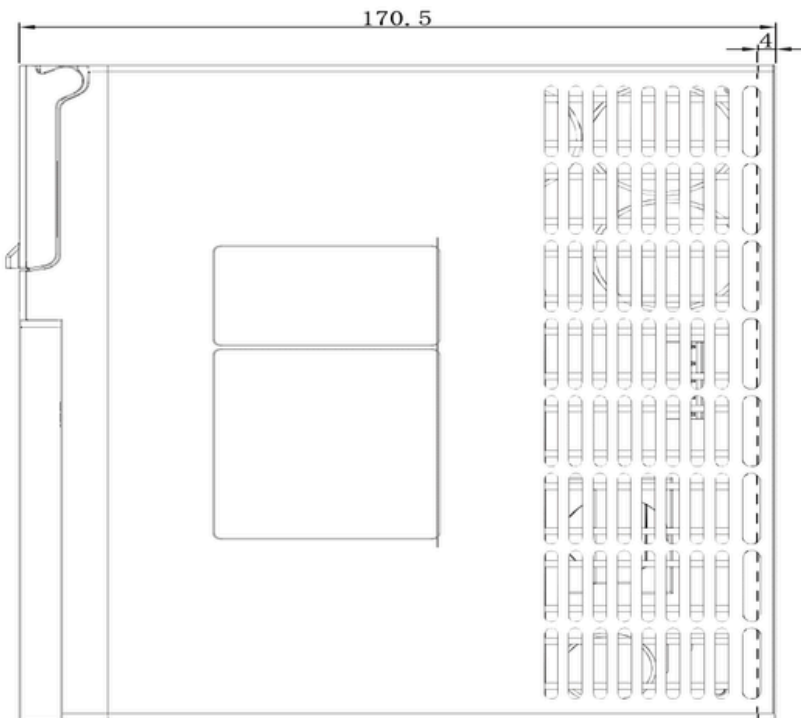
SDD08NK



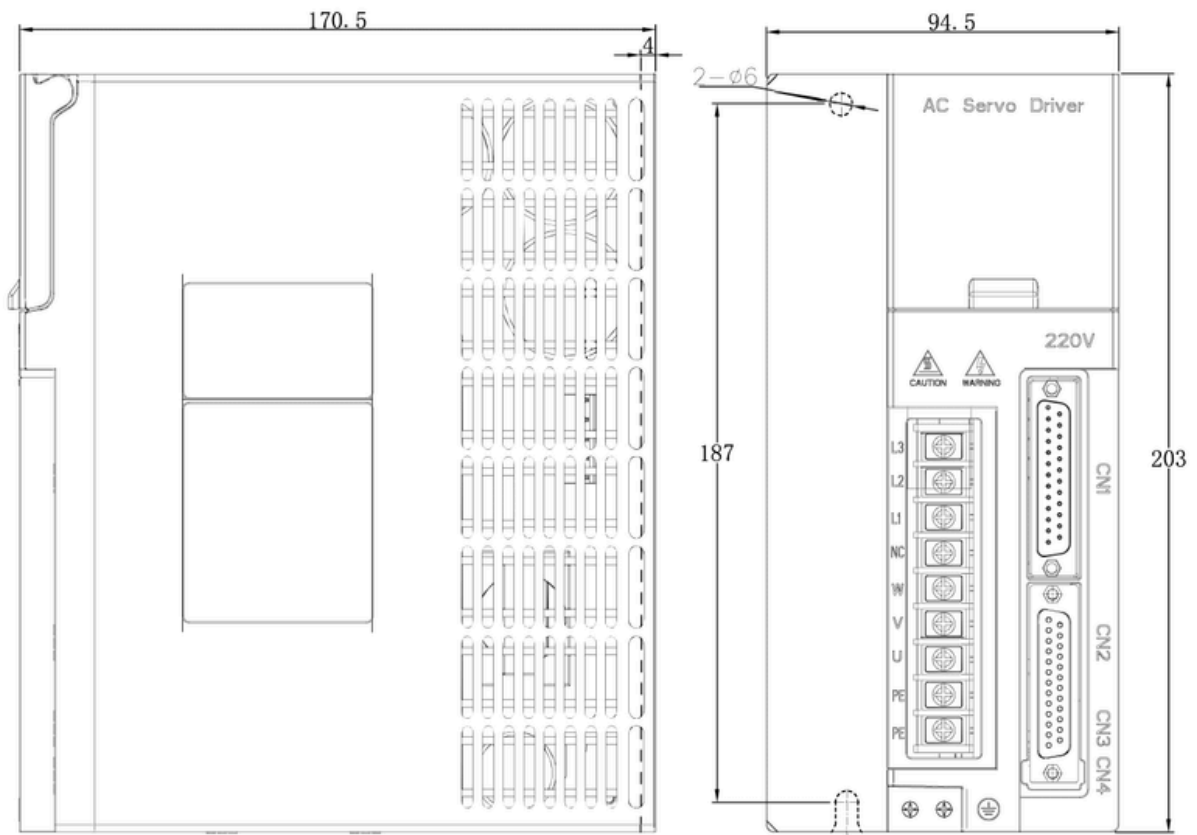
SDD04NK7



SDD13NK9 - SDD20NK9



SDD50NK10



SDD50NK11

