



省时·省电·省空间
Save Time • Save Power • Save Space

Integrated Electro Hydraulic System

Company Profile



NINGBO EMAX MOTION CONTROL TECHNOLOGY CO., LTD. is a national high-tech enterprise specializing in the research and development, production and sales of industrial automation, hydraulic servo system and green energy-saving related products. In order to respond to customers quickly and serve customers all over the country, we have established branches in Jiangsu, Guangdong, Fujian, Zhejiang, Hubei, Hunan, Henan, Shandong and other regions.

Since its establishment, the company has been aiming at the integration, high efficiency and easy maintenance of servo systems, and gradually introduced to meet different applications and different functions through continuous technological innovation Rate of required independent innovation products. Products are widely used in injection molding machine, vulcanization machine, air compressor, sanitation machinery, construction machinery and other industries, has gradually developed into an integrated electro-hydraulic Leading product supplier in the field of service systems.

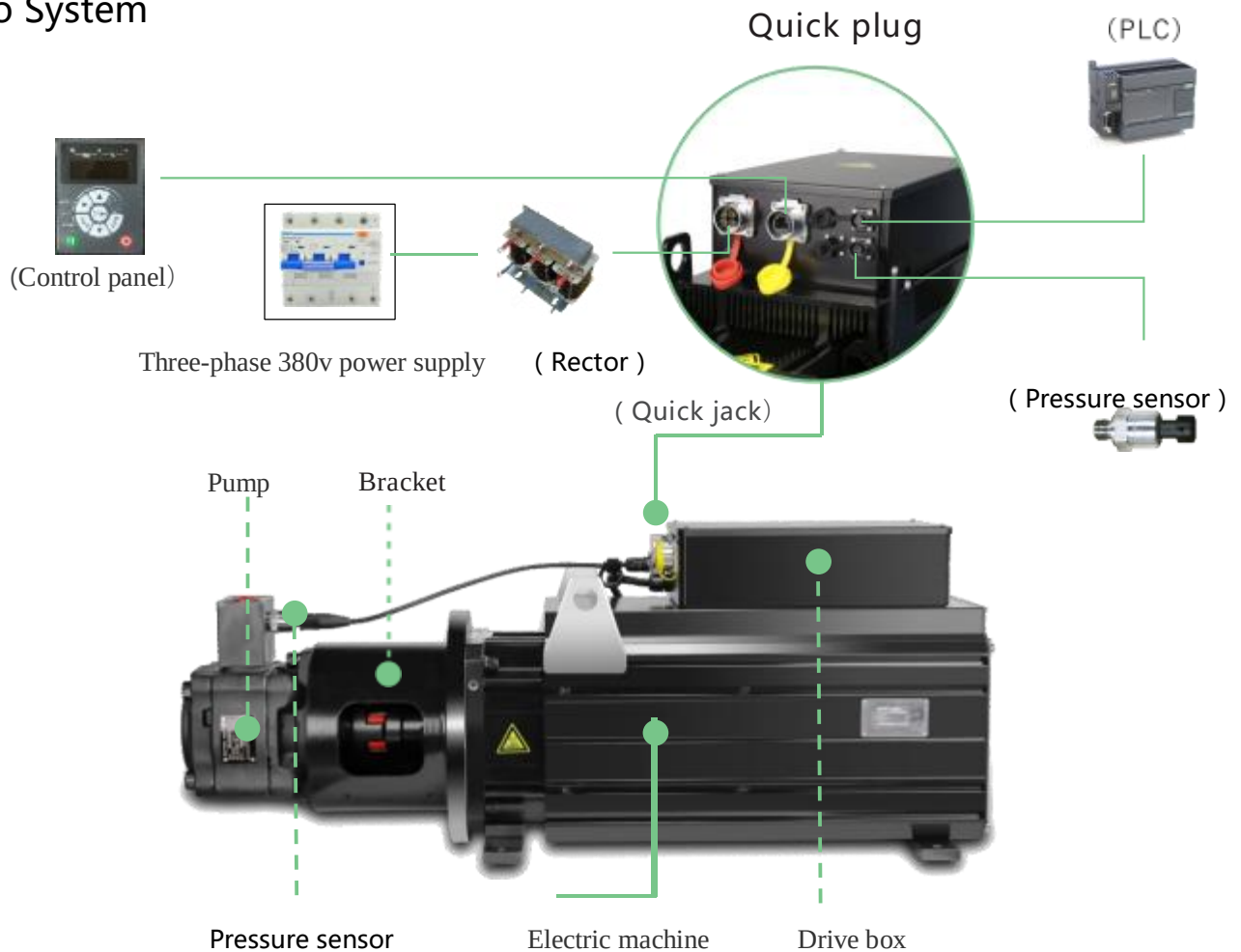
After years of continuous research and development investment, the company has established a technical team with independent research and development capabilities, and has obtained servo system engineering technology center and entrepreneurial star enterprises Up to now, the company has more than ten authorized patents and software Copyrights independently developed.

The company has always adhered to the "Excellence, honesty and trustworthiness". The concept of hope to provide customers in different industry areas "Save time, labor and space" Servo products and professional technical consultation.



EMAX Products

Structure Diagram Of EIS Integrated Hydraulic Servo System



EIS Advantages

Under the condition of ensuring system performance, stability and price-to-performance ratio, the EIS system focuses on simplifying the installation and use requirements of users and reducing the use threshold of the same service system. In addition to the general hydraulic field, especially suitable for applications without electric control cabinet such as energy-saving vulcanization machine, electro-hydraulic bending machine, injection molding machine, press, etc.



Product Features

• Compact Structure

The traditional asynchronous motor is abandoned and replaced by the latest synchronous servo motor, which reduces the volume of the asynchronous motor by 30% compared with the same power. Compared with the conventional synchronous servo system, the system adopts the integrated scheme and the volume is more compact. The user does not need an additional electrical cabinet to install the driver, which effectively saves space, reduces the complexity of wiring, and improves the user experience.

• Excellent Performance

Inheriting the advantages of synchronous servo, it has high-speed dynamic response capability, and its corresponding time is about 50ms, while the frequency conversion scheme of asynchronous motor also needs more than 200ms. The speed can be adjusted in real time according to the process needs to improve production efficiency and reduce energy consumption. Using double closed-loop control mode, through the encoder inside the motor and the pressure sensor on the oil circuit, the current flow output and pressure output of the system are tracked in real time to meet the needs of precision production. The motor adopts a convex pole design, with a wider speed range and stronger explosive force.

• Low Noise And Low Oil Temperature

Traditional asynchronous motors are noisy and continuous, and the noise of this system changes with the speed, which is 8-10dB lower than the previous year. And the cooling fan start and stop can be automatically controlled, in the equipment low load operation state, the fan does not start to further reduce noise. Because the servo solution does not require high pressure overflow, and many occasions with the process requires low speed operation, the oil temperature can be reduced by 5-10°C.

• Low Threshold

Factory parameters are adjusted according to user requirements, and users do not need to carry out complex debugging work. The whole series adopts the navigation plug connection, the user does not need to carry out cumbersome wiring operations, plug and play.

Naming Method

EIS	037	T	-	0013	B	b	1	-	12112
Product series	power	Oil pump orientation		Oil pump displacement	Oil outlet flange	footing	Installation mode		Design code
①	②	③		④	⑤	⑥	⑦		⑧

① series	[EIS series]
② power	[037 /055 /075 /090 /110 1150 185 1220 /300 ¹ /370]x10 kilowatt]
③ Oil pump outlet direction	[T: up /L: left /R: right /D: down]
④ Pump displacement combination	[For example: 0020 single pump 20c /2008 series pump 20cc +8cc]
⑤ Oil outlet flange type	[B: Height 70mm including pressure sensor interface / E: height 30mm/S: Height 50mm including pressure sensor interface]
⑥ footing	[b: Standard foot /B: extended foot /0: no foot]
⑦ Installation mode	[1: Standard installation /2: Bracket & motor floor /3: No installation]
⑧ Design code	[Our technical department according to the specific configuration]

Code example:
EIS037T-0013Bb1-12112

Code Description :EIS series, power 3.7kW, oil pump outlet direction up, single pump 13cc, outlet flange height 70mmAnd includes pressure sensor interface, standard foot, standard installation

System Parameter

型号 EIS		037-0013	055-0016	075-0020	076-0020	095-0025	115-0032	152-0040	185-0050	220-0063
Motor series		130series	130series	130series	180series	180series	180series	180series	200series	200series
Rated power	P_n [kW]	3.7	5.5	7.5	7.6	9.5	11.5	15.2	18.5	22.0
Rated flow	Q [L/min]	22	27	34	34	42	54	68	85	107
Peak flow	Q_{max} [L/min]	32.5	40	50	46	57	73	92	125	157.5
Rated input current	I_n [A]	8	12	15	20	22	27	35	35	42
Input voltage range	Vol [V]	380V								
Input voltage frequency	Fn	50/60Hz								
Number of input voltage phases	Phase	3								
Overload capacity		Overload 150%60s/ overload 180% 3s								
Speed stability accuracy		±0.5%								
Control mode		Oil pressure control mode/speed control mode								
Communication mode		Analog input/Output/digital input/relay output /RS485								
Cooling mode		Forced air cooling								
Class of protection		54								

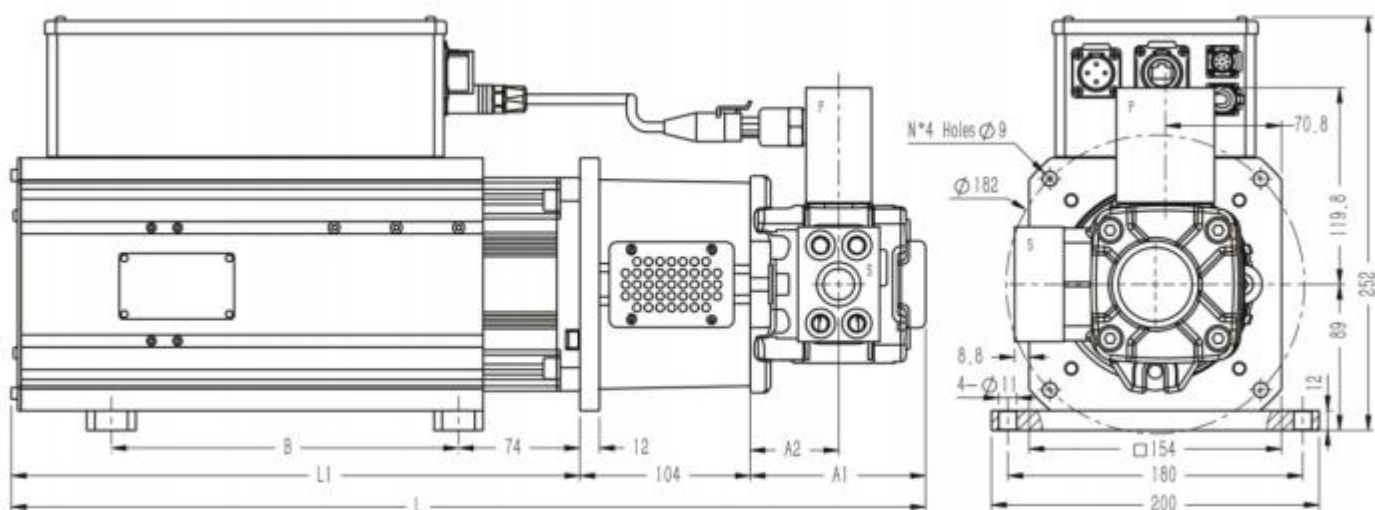
Carrier frequency: 6 kHz

Temperature rise :100K

Ambient temperature :30℃

EIS 130 Pedestal Size

TYPE	B(mm)	L1(mm)	L(mm)
EIS037T-0013Bb1	212	347	568
EIS055T-0016Bb1	262	411	638
EIS075T-0020Bb1	312	443	678
EIS075T-0025Bb1	312	443	686



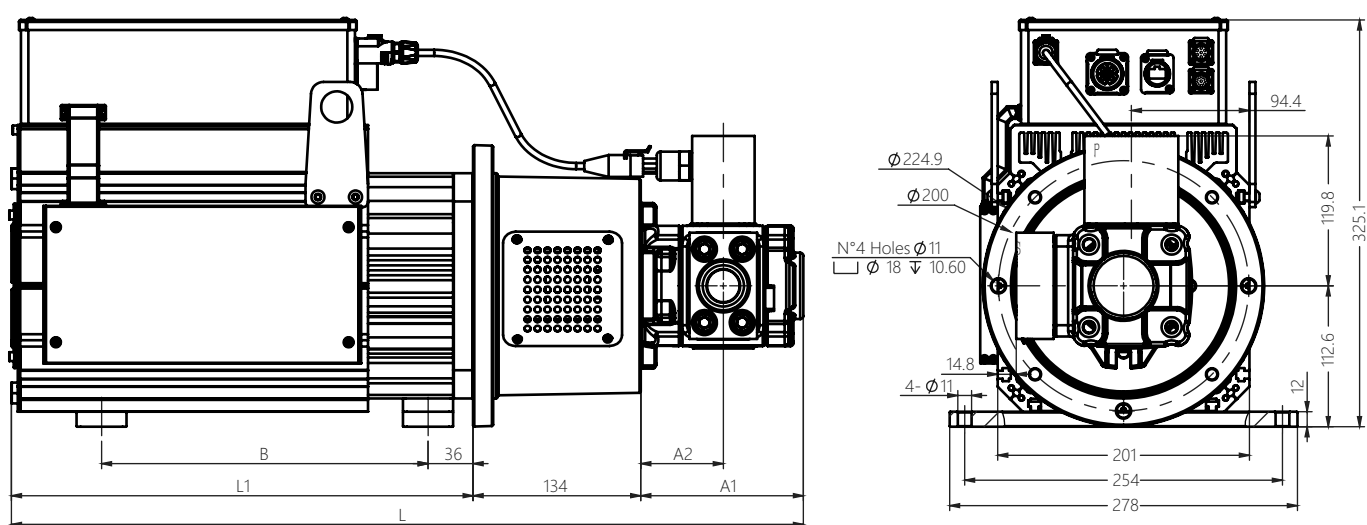
PUMP	A1(mm)	A2(mm)	P-thread	S-thread
SP0-08	107	54	Rc1/2	Rc3/4
SP0-10	111	56	Rc1/2	Rc1
SP0-13	117	59.25	Rc1/2	Rc1
SP0-16	123	62	Rc1/2	Rc1
SP0-20	131	66	Rc3/4	Rc5/4
SP0-25	139	70	Rc3/4	Rc5/4

Tips :

1. Horizontal installation: When the rigidity requirement is high, the front foot can be moved to the bottom of the support, and the foot spacing is B+80mm
2. Vertical installation: recommended opening hole diameter 145, locking bolt 4xM8
3. If you need special installation methods, please contact our sales

EIS 180 Pedestal Size

TYPE	B(mm)	L1(mm)	L(mm)
EIS076T-0020Bb1	261	369	634
EIS095T-0025Bb1	261	369	642
EIS115T-0032Bb1	293	406	686
EIS152T-0040Bb1	293	406	693



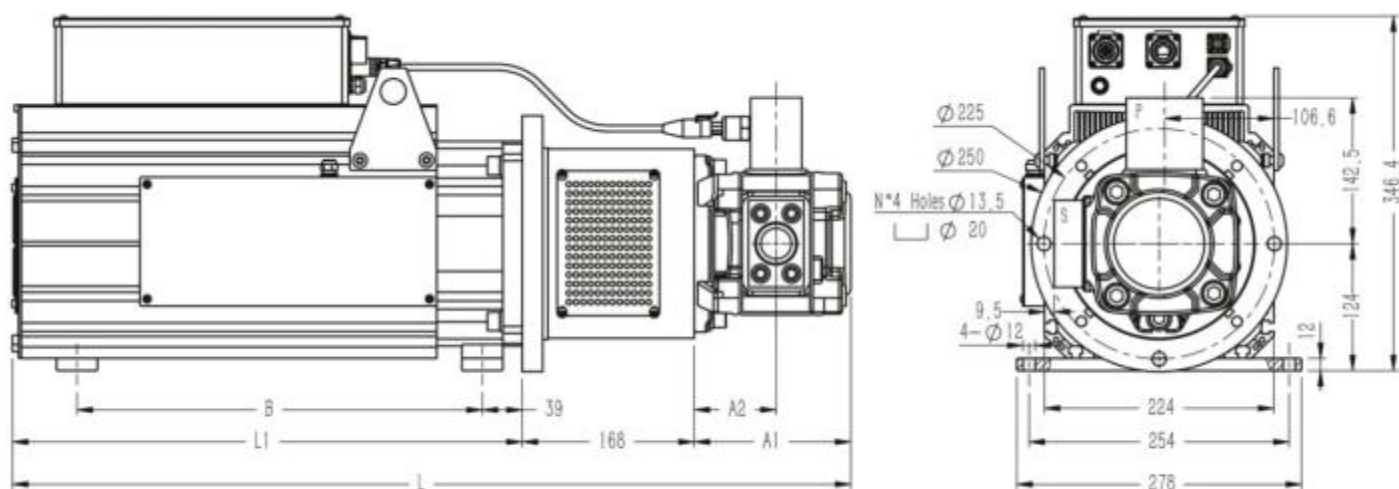
PUMP	A1(mm)	A2(mm)	P-thread	S-thread
SP0-20	131	66	Rc3/4	Rc1-1/4
SP1-25	139	73	Rc3/4	Rc1-1/4
SP1-32	146	76.5	Rc3/4	Rc1-1/4
SP1-40	153	80	Rc1	Rc1-1/4

TIPS:

1. Vertical installation: recommended opening hole diameter $\phi 185$, locking bolt 4×M10
2. If you need special installation methods, please contact our sales

EIS 200 Pedestal Size

TYPE	B(mm)	L1(mm)	L(mm)
EIS185L-0050Bb1	400	546	883
EIS220L-0063Bb1	471	582	933



PUMP	A1(mm)	A2(mm)	P-thread	S-thread
SP1-50	163	85	Rc1	Rc1-1/4
SP1-63	177	92	Rc1	Rc1-1/4

TIPS :

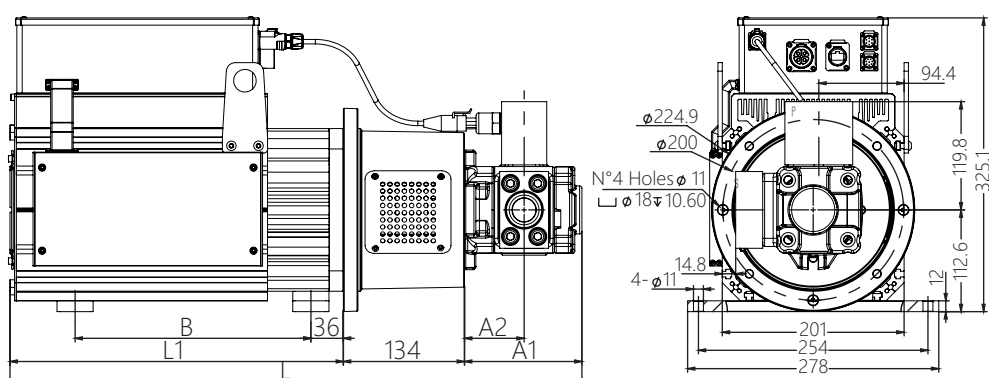
1. Vertical installation: recommended opening diameter $\phi 200$, locking bolt 4×M12
2. If you need special installation methods, please contact our sales

EIS 180 Series 200 Series Comparison Explanation

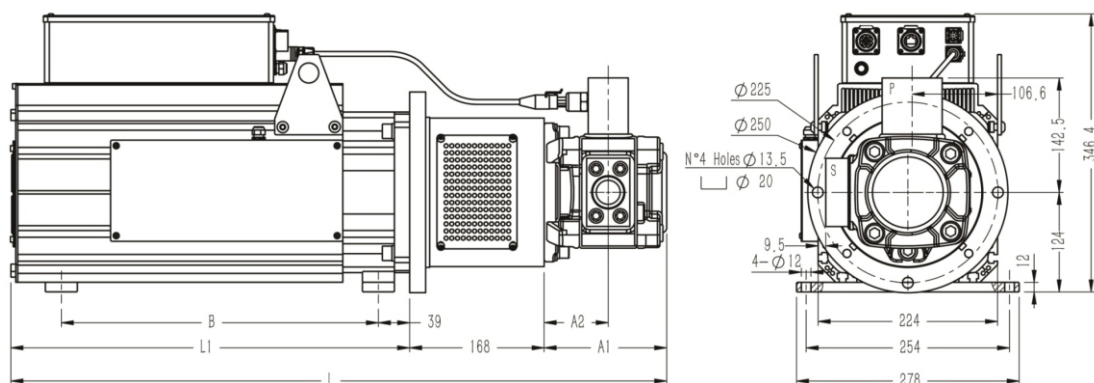
Torque comparison diagram

	180series			200series		
power	9.5KW	11.5KW	15.2KW	9KW	11KW	15KW
Rated torque	56	64	80	43	53	75
Peak torque	80.5	92	115	91	112	158

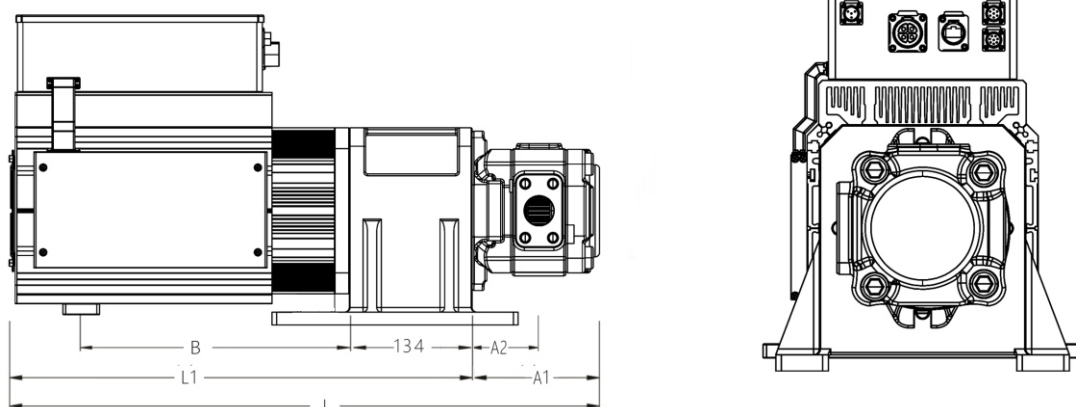
180 series horizontal mounting dimensions



180 series vertical mounting dimensions



180 series bracket floor mounting dimensions



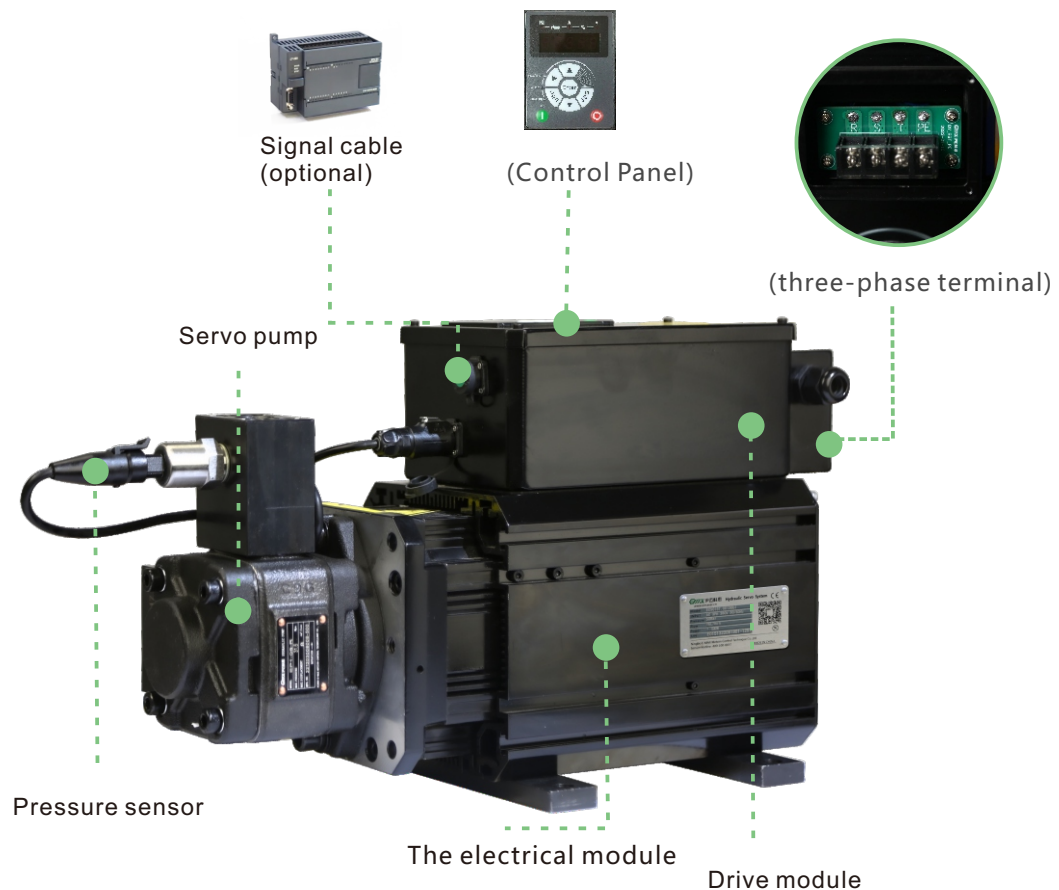
100%

Torque comparison diagram						
	180series			200series		
power	9.5KW	11.5KW	15.2KW	9KW	11KW	15KW
torque	56	64	80	43	53	75

Installation size comparison diagram						
	180series			200series		
Model number	EIS095T-0025Bb1	EIS115T-0032Bb1	EIS152T-0040Bb1	EIS090L-0025Bb1	EIS110L-0032Bb1	EIS150L-0040Bb1
power	9.5KW	11.5KW	15.2KW	9KW	11KW	15KW
B(mm)	261	293	293	312	354	396
ƒ1 (mm)	369	406	406	438	456	492
L(mm)	642	686	693	751	776	819
SP1-25	A1(mm) = 139 , A2(mm) =73					
SP1-32	A1(mm) = 146 , A2(mm) =76.5					
SP1-40	A1(mm) = 153 , A2(mm) =80					



Servo machine structure diagram



ECS hydraulic servo machine features

ECS hydraulic integrated machine (hereinafter referred to as ECS system) developed by ImECS ensures system performance, stability and performance. In the case of price ratio, the system focuses on simplifying the installation of users, small size, low cost, and reducing the use threshold of the same service system. In addition to the general hydraulic field, especially suitable for small space applications such as energy-saving machine tool hydraulic station.

System Parameter

Model number ECS		015-0006	022-0008	037-0010
Motor series		130series	130series	130series
Rated power	P_n [kW]	1.5	2.2	3.7
Rated flow	Q [L/ min]	12	16	20
Peak flow	Q_{max} [L/ min]	15	20	25
Rated input current	I_n [A]	3	4.5	7.5
Input voltage range	Vol [V]	380V		
Input voltage frequency	Fn	50/60Hz		
Number of input voltage phases	Phase	3		
Overload capacity		Overload 150%60s/ overload 180% 3s		
Speed stability accuracy		$\pm 0.5\%$		
Control mode		Oil pressure control mode/speed control mode		
Communication mode		Analog input/Output/digital input/relay output /RS485		
Cooling mode		Forced air cooling		
Class of protection		54		

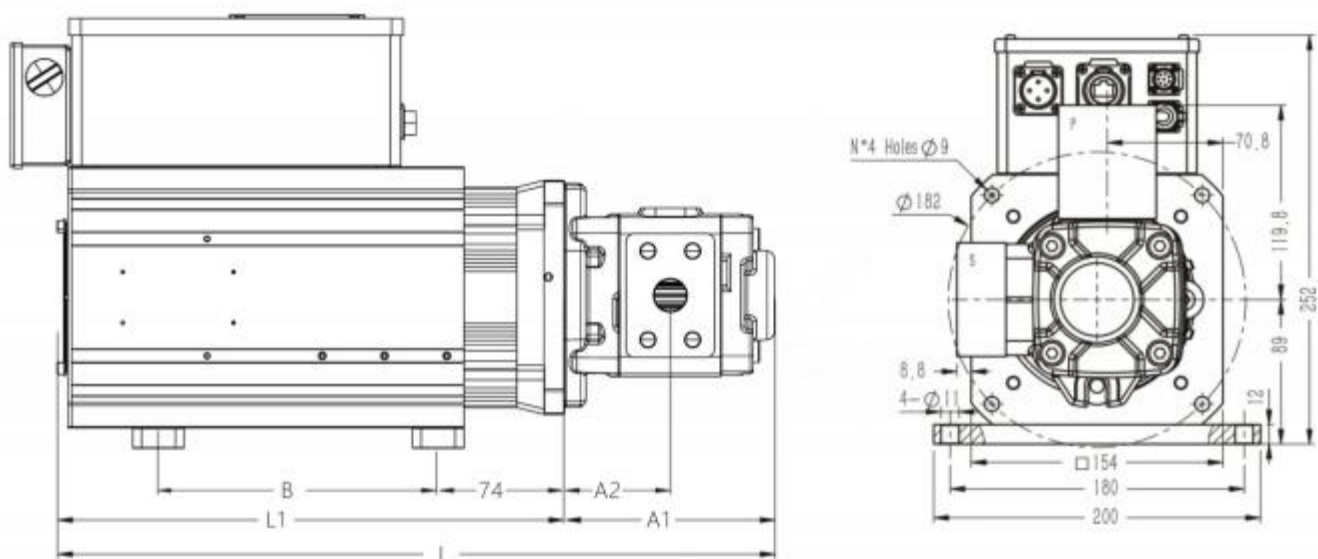
Carrier frequency: 6 kHz

Temperature rise :100K

Ambient temperature :30°C

Installation dimensions of ECS internal gear pump

TYPE	B(mm)	L1(mm)	L(mm)
ECS022T-0008Bb1	164	297	404
ECS037T-0013Bb1	212	347	464.5



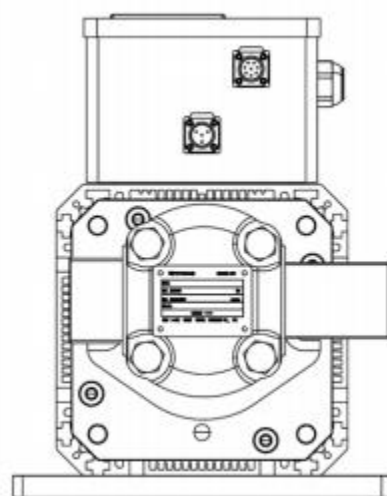
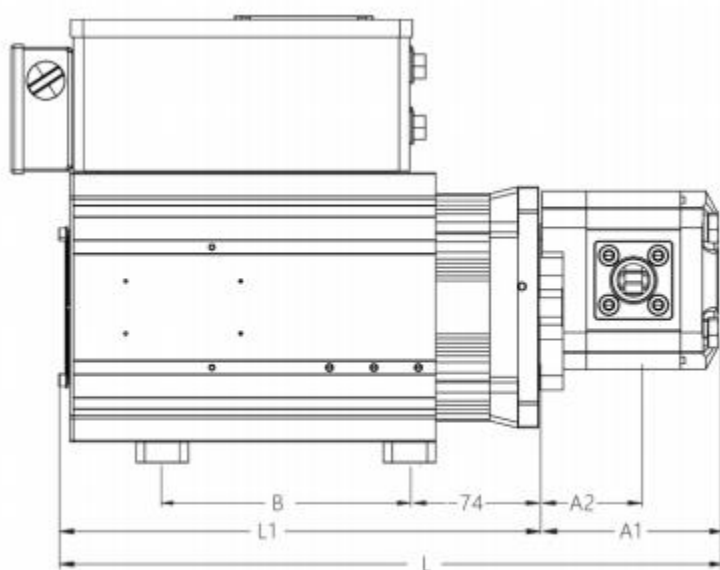
PUMP	A1(mm)	A2(mm)	P-thread	S-thread
P500(Internal tooth)-08	107	54	Rc1/2	Rc3/4
P500(Internal tooth)-10	111	56	Rc1/2	Rc1
P500(Internal tooth)-13	117.5	59.3	Rc1/2	Rc1
P500(Internal tooth)-16	123	62	Rc1/2	Rc1
P500(Internal tooth)-20	131	66	Rc3/4	Rc5/4
P500(Internal tooth)-25	139	70	Rc3/4	Rc5/4

Tips :

1. Horizontal installation: When the rigidity requirement is high, the front foot can be moved to the bottom of the support, and the foot spacing is B+80mm
2. Vertical installation: recommended opening hole diameter 145, locking bolt 4xM8
3. If you need special installation methods, please contact our sales

Installation dimensions of ECS external gear pump

TYPE	B(mm)	L1(mm)	L(mm)
ECS015T-0006Bb1	142	275	377.5
ECS022T-0008Bb1	164	297	402.5
ECS037T-0013Bb1	212	347	460.6



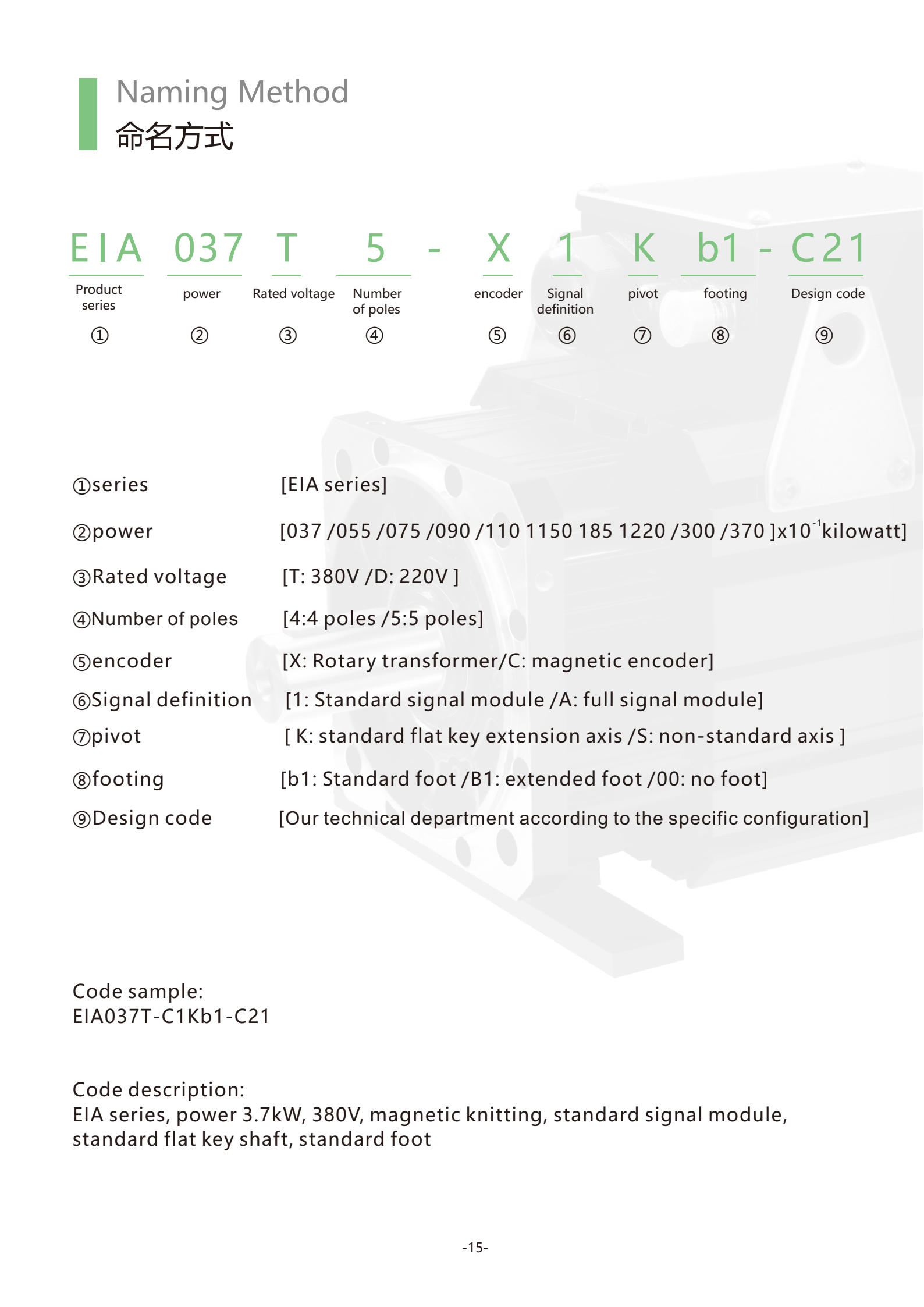
PUMP	A1(mm)	A2(mm)	P-thread	S-thread
P500(External tooth)-06	102.5	54.5	Rc1/2	Rc3/4
P500(External tooth)-08	105.5	56	Rc1/2	Rc3/4
P500(External tooth)-10	108.5	57.5	Rc1/2	Rc1
P500(External tooth)-13	113.6	59.3	Rc1/2	Rc1
P500(External tooth)-16	118.4	62.45	Rc1/2	Rc1
P500(External tooth)-20	125.1	60	Rc3/4	Rc5/4

Tips :

1. Horizontal installation: When the rigidity requirement is high, the front foot can be moved to the bottom of the support, and the foot spacing is $B+80\text{mm}$
2. Vertical installation: recommended opening hole diameter 145, locking bolt 4xM8
3. If you need special installation methods, please contact our sales

Naming Method

命名方式



EIA	037	T	5	-	X	1	K	b1	-	C21
Product series	power	Rated voltage	Number of poles		encoder	Signal definition	pivot	footing		Design code
①	②	③	④		⑤	⑥	⑦	⑧		⑨

①series	[EIA series]
②power	[037 /055 /075 /090 /110 1150 185 1220 /300 /370]x10 ⁻¹ kilowatt]
③Rated voltage	[T: 380V /D: 220V]
④Number of poles	[4:4 poles /5:5 poles]
⑤encoder	[X: Rotary transformer/C: magnetic encoder]
⑥Signal definition	[1: Standard signal module /A: full signal module]
⑦pivot	[K: standard flat key extension axis /S: non-standard axis]
⑧footing	[b1: Standard foot /B1: extended foot /00: no foot]
⑨Design code	[Our technical department according to the specific configuration]

Code sample:
EIA037T-C1Kb1-C21

Code description:
EIA series, power 3.7kW, 380V, magnetic knitting, standard signal module, standard flat key shaft, standard foot

System Parameter

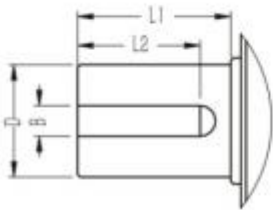
Model numberEIA		037	055	075	076	095	115	152	185	220
Motor series		130series	130series	130series	180series	180series	180series	180series	200series	200series
Rated power	P_n [kW]	3.7	5.5	7.5	7.6	9.5	11.5	15.2	18.5	22.0
Rated torque	T_n [Nm]	20	32	38	48	56	64	80	107	129
Rated speed	N [rpm]	1700	1700	1700	1700	1700	1700	1700	1700	1700
Rated frequency	F_n [Hz]	142	142	142	142	142	142	142	113	113
Peak torque	T_{max} [Nm]	34	66	81	96	112	128	160	226	272
Peak speed	N_{max} [rpm]	2500	2500	2500	2500	2300	2300	2500	2500	2500
Number of poles	P	5	5	5	5	5	5	5	4	4
Torque constant	K_t [Nm/A]	2.91	3.04	3.09	3.18	3.1	3.17	3.07	3.55	3.55
Back electromotive force	EMF [V/krpm]	207	207	204	191	188	192	186	215	215
Moment of inertia	J_m [kgcm ²]	20.9	36.7	44.6	46.7	56	60.5	73.7	100	114
Rated input current	I_n [A]	8	12	15	20	22	27	35	35	42
Input voltage range	Vol [V]	380								
Input voltage frequency	F_n	50/60Hz								
Number of input voltage phases	Phase	3								
Class of protection	IP	54								

Carrier frequency: 6 kHz

Temperature rise :100K

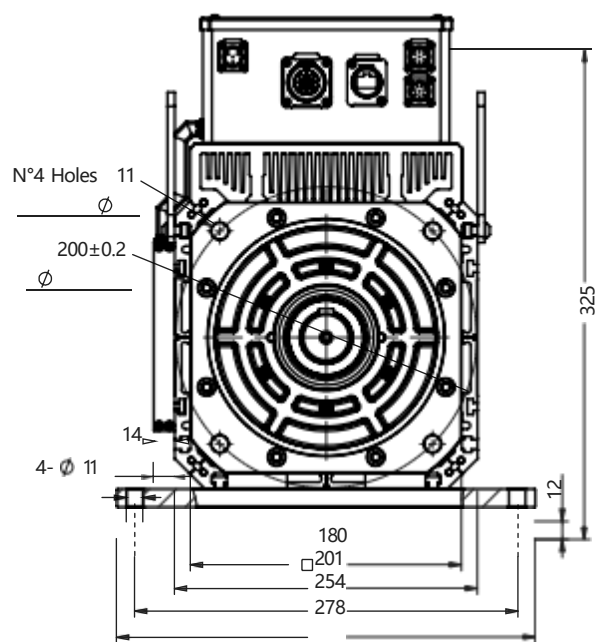
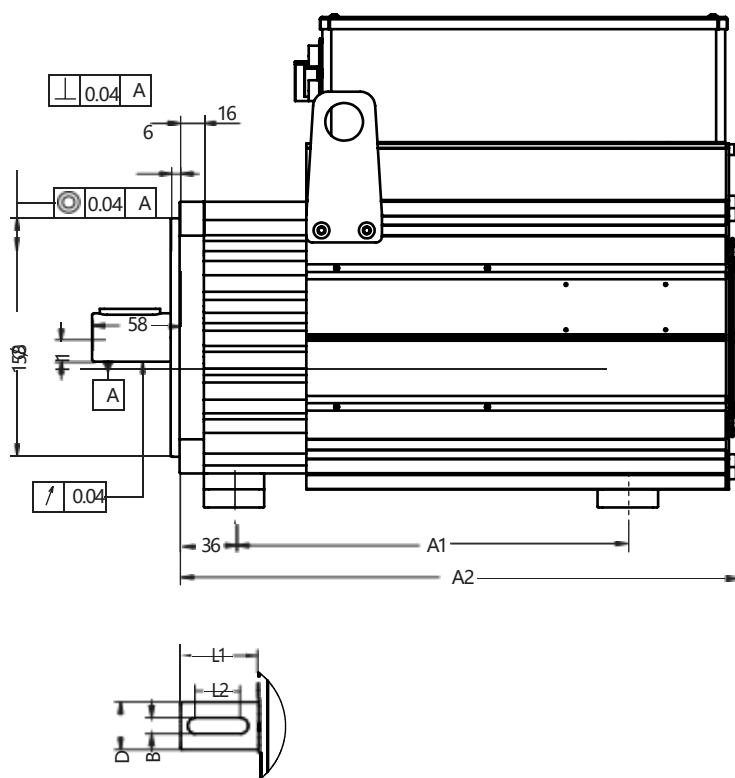
Ambient temperature :30°C

100



Full Key: 6x6x24

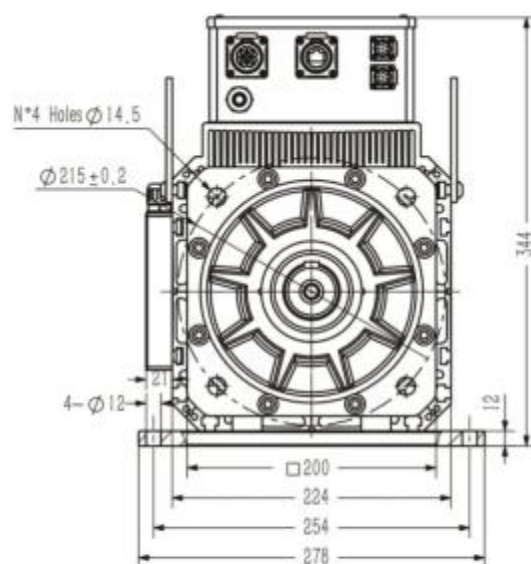
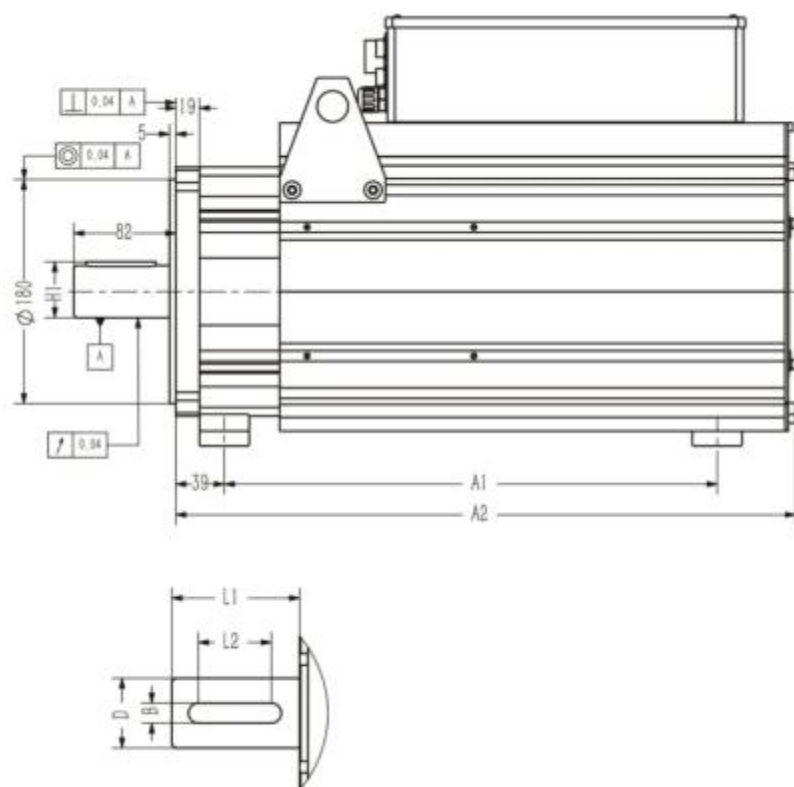
EIA 180 Pedestal Size



Type	A1	A2	L1	L2	D	B	H1
EIA076T5	261	369	52	30	32h6	10	35
EIA095T5	261	369	52	30	32h6	10	35
EIA115T5	293	406	52	30	32h6	10	35
EIA152T5	293	406	52	30	32h6	10	35

Full Key: 10x8x40

EIA 200 Pedestal Size

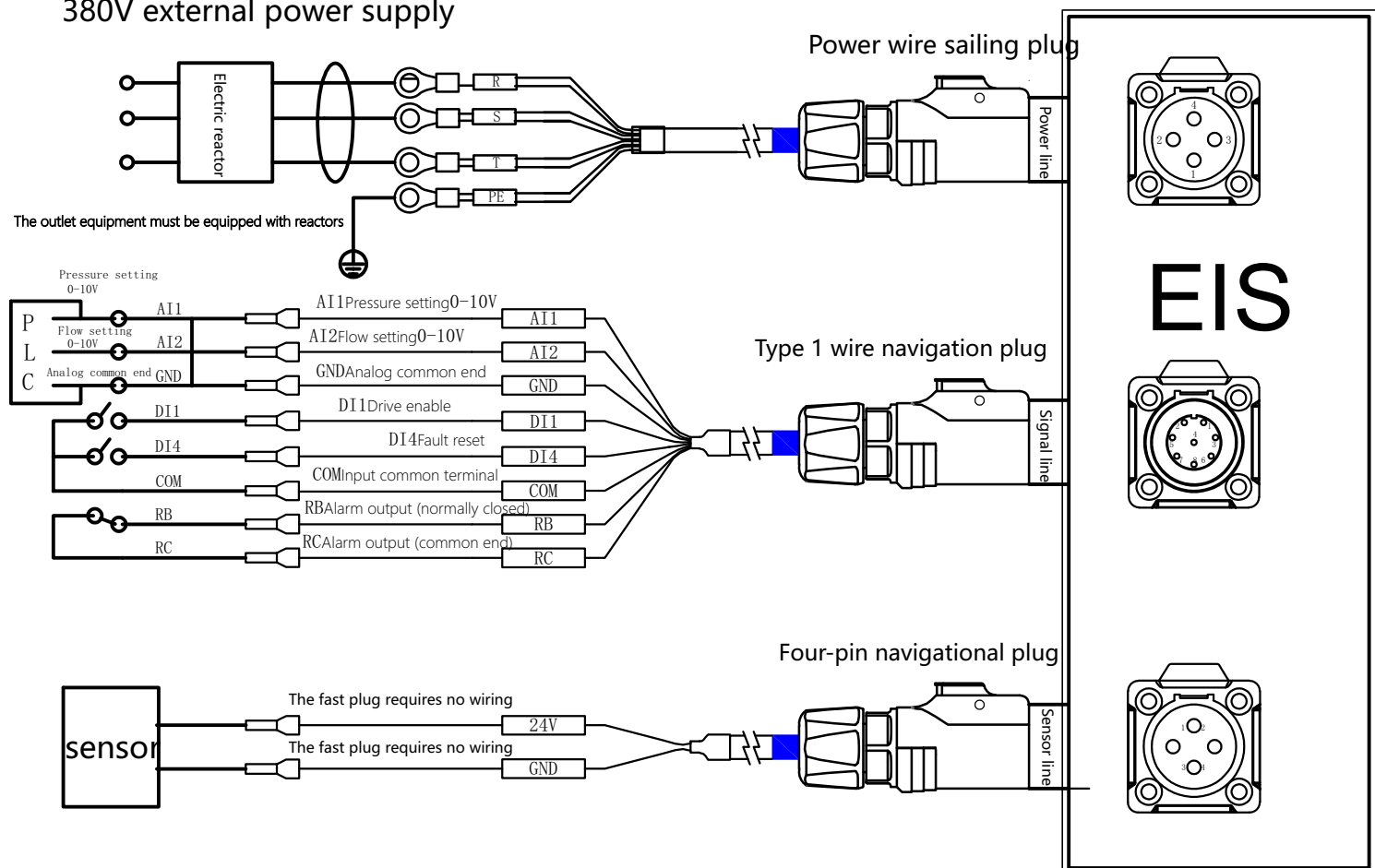


Type	A1	A2	L1	L2	D	B	H1
EIA185T4	400	546	77	44	42j6	12	45
EIA220T4	471	582	77	44	42j6	12	45

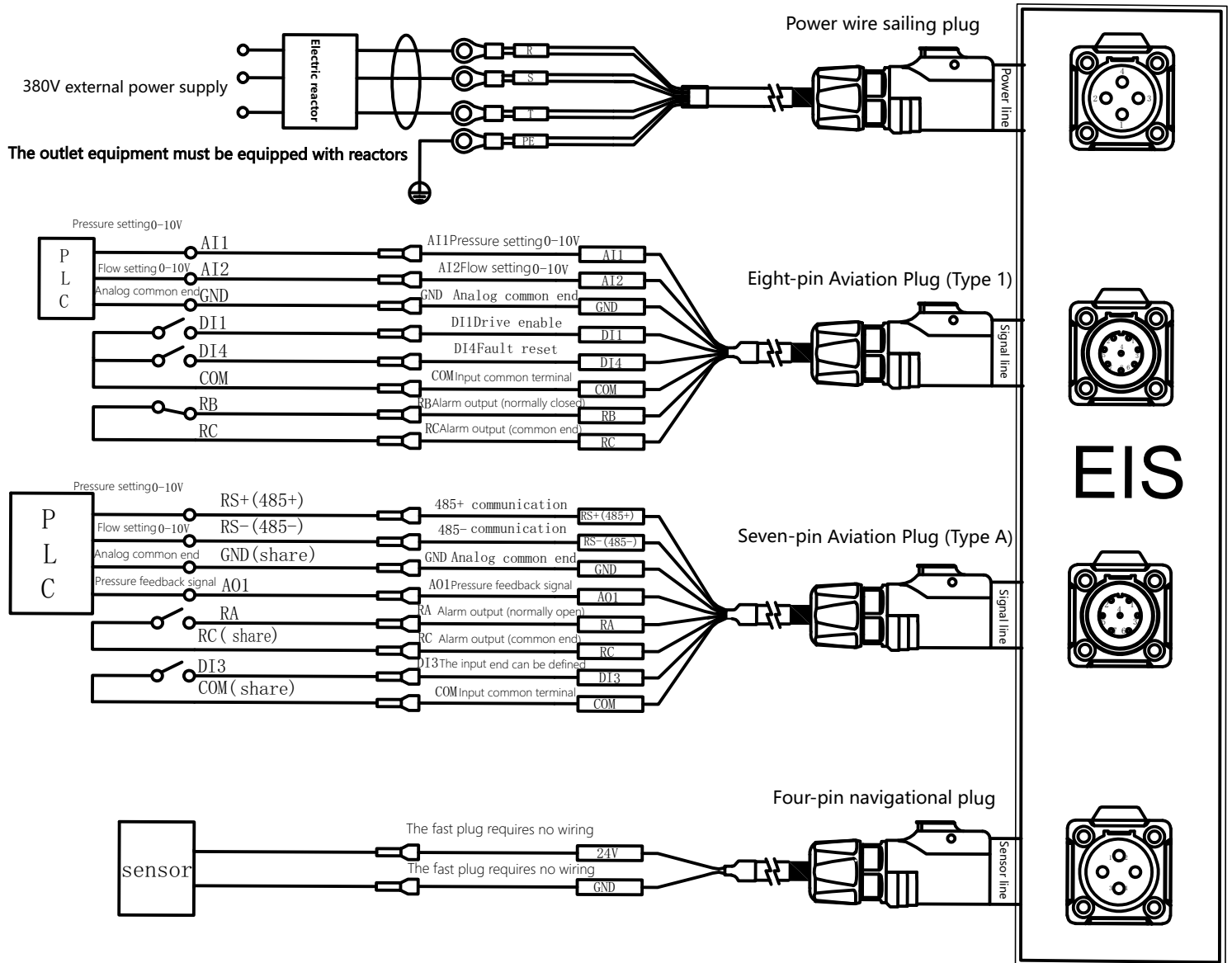
Full Key: 12x8x56

Wiring Instructions

380V external power supply



Wiring Instructions





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