R&D
Leading R&D capability

Quality
Superior quality assurance capability

Manufacture
Advanced manufacturing capability

Service
Fast service capability

WANSHSIN®

Wanshsin Drives
Product Catalogue

Wanshsin Seikou（Hunan）Co.,Ltd

Website: www.wanshsindrive.com
Add.: WANSHSIN Industrial Park, Ningxiang Hi-tech Zone,Changsha City,Hunan Province, China
Email: sales@wanshsin.com
Tel: +86 731 84221213
Contact: Ms. Angel Yu
Skype/What' sapp: +86 18932458072

Wanshsin Website

Facebook

Company Layout

WANSHSIN Seikou(Hunan)Co., Ltd.

Wanshsin was founded in Dongguan, Guangdong in 2009, and moved its headquarters to Changsha, Hunan in 2014. At present,Wanshsin has two manufacturing bases in Dongguan and Hunan, as well as three R&D centers in Japan, Shenzhen and Hunan headquarters to promote high-quality development of the industry through innovation.

Wanshsin is one of the few manufacturers in the field of industrial automation with the most complete product lines, including Drives, motors and reducers. Wanshsin products are widely used in automation Production lines, robots, automobile manufacturing, engineering machinery, warehousing and logistics, metallurgy and chemical industry, Ceramics, animal husbandry and other industries. Wanshsin ranks number one in the industry in Hunan Province and among the top ten in China, our products are trusted by many Fortune 500 companies.

3	5	40+	700+	80000
R&D Center	Production Base	Countries	Global Staff	Annual Quantities

CONTENTS

CORE COMPETITIVENESS

1、Leading R&D Capability

Three R&D Centers: Wanshsin has Hunan enterprise technology center and Changsha technology innovation center, and established three R&D centers in Japan, Shenzhen and Hunan headquarters to lead the high-quality development of the industry with innovation.

Scientific Research Team: Wanshsin takes more than 4% of its operating revenue as R&D investment every year, and has established R&D team of 84 people. It is one of the few companies in the industry that can provide electromechanical control three in one systematic solution.

Core Technology: Wanshsin has 94 patents, including 12 invention patents, has undertaken more than 10 national, provincial and municipal R&D projects.

School Enterprise Cooperation: Wanshsin hired several key technical experts from Japan, and established stable industry research cooperation relations with well-known universities such as Central South University and Hunan University.

2、Superior Quality Assurance Capability

① Frist adopted using the advanced enterprises in the automotive industry"advanced product quality planning" and the five tools APQP, PPAP, FMEA, MSA and SPC, so as to achieve the prior quality planning in the product R&D stage.

② In the manufacturing process, a large number of testing / inspection equipment imported from the United States, Japan and Germany are equipped to fully verify the product performance and function in the R&D stage, so as to ensure the quality assurance before production.

3、Advanced Manufacturing Capability

The total value of the equipment exceed RMB160 million yuan, with more than 200 sets of advanced processing equipment from home and abroad, and the manufacturing capacity is in a leading position in China.

4、Fast Service Capability

The service distribution network has reached 950 + in China ; over 60 distributors in global market.

Warehouse Inventory: self-built warehouse system and there are over RMB200 million yuan spare parts in warehouse to meet the rapid delivery of various types of products;

Lead Time: 3-5 days for standard products, around 15days for customized products;

Logistics: Working with many domestic top logistics service providers fast delivery;

After Sales-service:1 year quality warranty;

ENTERPRISE HONORS

- In 2019 National High-tech Enterprise
- In 2020 "Specialization& Innovation" Key Small-Giant Enterprises issued by Ministry of industry and information technology
- In 2020 Hunan Enterprise Technology Center
- In 2021 Changsha High Precision Reducer Technology Innovation Center
- In 2021 "Green factory" in Hunan Province
- The company has obtained 94 authorized patents, including 12 invention patents
  The products have successively passed the certification of 3C, CE, special equipment, quality, environment, occupational health, implementation of intellectual property rights, integration etc.

Product Series

WS600 High Performance Vector Control Drive

WS600 series Drive is a general-purpose vector inverter with reliable and stable performance, compact structure and easy to use,
it can be used to drive asynchronous motor, synchronous motor and torque electric motor, widely used in CNC machine tools, cables, papermaking, hoisting, hoisting,fans, pumps,petrochemical industry, air compressor, textile machinery, plastic machinery, woodworking machinery, ceramic machinery, stone machinery and other industries.

CE Construction Lift Drive

CE Construction Lift Drive is a special model developed for the electronic control of SC100 / SC200 Construction Elevator. The system integrates the functions of frequency converter, braking unit, logic control unit, braking control unit and lifting weight limiter. It can be installed in three methods: wall mounted, semi embedded and full embedded. It has the advantages of comprehensive function, stable performance, exquisite appearance, convenient installation and maintenance, and provides customers with a set of high-performance Complete solution.

WS Servo Motor & Servo Drive

WS Servo Motor & Servo Drive uses a high-precision online inertia identification algorithm, and the inertiaidentification accuracy can be up to + 5%. At the same time, it can automatically set the position loop gain, speed loop gain, speed loop integral and torque low-pass filter time constant according to the rigid value set by the user, so as to realize the automatic adjustment of servo gain. At the same time,the advanced current observer and current prediction algorithm are adopted, and the high-performance servo motor independently designed by our company makes the whole servosystem reach a high speed loop bandwidth.

CM Engineering Machinery Drive

CM Engineering Machinery Drive support the latest technology of magnetic encoder, traditional A / b encoder and resolver. It not only increases the stability and smoothness of vehicle operation, but also improves the reliability and application range of motor system, especially in occasions requiring high application accuracy, such as AGV, large forward movement, stacking vehicle and so on.

CF300 Industrial Fan Drive

CF300 Industrial Fan Drive is mainly composed of variable frequency driver, power on knob switch, speed regulating positioner and LCD. It has the advantages of multiple functions, stable start, ultra quiet, compact size, easy operation, energy saving and so on. Automatically identify the motor position, operate stably within the full speed range, and output the rated torque at 5Hz low frequency. Compatible with asynchronous and synchronous motor control. It also supports a variety of expansion accessories.

General Purpose Drives

WS600 High Performance Vector Control Drive

WS600 series drive is a general-purpose vector frequency converter with excellent performance, reliability and stability, compact structure and strong ease of use. It can be used to drive asynchronous motor, synchronous motor and torque motor.

Features

● 0.5 Hz 180% starting torque (open loop), 0 Hz 150% starting torque (closed loop).
● Optional multiple control modes: VF control, open-loop flux vector, PG vector control mode;
● 1K ~ 16K carrier frequency can be automatically adjusted according to load characteristics;
● Simple PLC completes up to 16 segments of frequency logic for automatic control, and four kinds of acceleration and deceleration time for selection;
● "Excavator" feature, automatic torque control during operation;
● It is very convenient for users to extend the keyboard by using the standard network cable;
● Ten kinds of auxiliary frequency sources can flexibly realize auxiliary frequency fine-tuning frequency synthesis;
● The maximum frequency of field weakening control algorithm can exceed twice the fundamental frequency of the motor;
● The droop control feature enables the load to be evenly distributed when multiple frequency converters drive the same load;
● Precise speed control accuracy; Open loop control ⩽ ± 0.5% (rated synchronous speed)
Closed loop control ⩽ ± 0.2% (rated synchronous speed);
● Built-in international standard MODBUS protocol, convenient for customers to use remote communication operation, can provide isolation 485 communication interface expansion;
● Rich single-board interface resources, 7 ordinary DI inputs, 1 high-speed DI input, 2 relay outputs, 1 open collector output, 2 analog inputs, 1 high-speed pulse output, a variety of IO expansion interfaces are optional , can meet the needs of most customers such as output interface;
● Communication can be used to realize the function of digital frequency divider, realize the cascade transmission of operating frequencies of multiple frequency converters, and improve stability and accuracy;
● The analog linearity is optimized, the detection accuracy of analog input is up to 0.1%;
● Add through-the-wall installation mode;
● The whole series adopts DC fans and sealed DC contactors, with higher reliability and stability, and can be directly used in EPS, DC inverter and other industries;

Applications

It is widely used in CNC Machine Tools, Cables, Papermaking, Hoisting, Lifting, Fans and Pumps, Petrochemicals, Air Compressors, Textile Machinery, Plastic Machinery, Woodworking Machinery, Ceramic Machinery, Stone Machinery and other industries.

Type designation

WS600 S - A 4T 4R0 G B 5R5 P B

Product series:

Empty: Asynchronous motor
S: Synchronous motor

Empty: Design revision A
B: Design revision B
C: Design revision C

Voltage:
2S: 1-phase 110V
3S: 1-phase 220V
3T: 3-phase 220V
4T: 3-phase 380V
7T: 3-phase 690V

Applicable models:
G: Universal type
P: Fan pump type

Brake unit:
B: With brake unit， built-in
(B): Doesn't come with brake unit, built-in or external
Empty: Doesn't come with brake unit, external

Applicable motor power identification:
R75 1R5
....011 015 ....
Motor Power:
0.75 1.5
....11 15 ....

Technical data

WS600 Types And Ratings

VFD model	Input voltage (V)	Input current (A)	Output current (A)	Power of Adaptable Motor (kW)
WS600-3SR40GB	1-phase 220V Range: - 15% ~ 20%	5.4	2.3	0.4
WS600-3SR75GB		8.2	4.0	0.75
WS600-3S1R5GB		14.0	7.0	1.5
WS600-3S2R2GB		23.0	9.6	2.2
WS600-3S4R0GB		40.0	17	4.0
WS600-3S5R5GB		60.0	25	5.5
WS600-3TR40GB	3-phase 220V Range: -15%~ 20%	2.7	2.3	0.4
WS600-3TR75GB		4.2	4.0	0.75
WS600-3T1R5GB		7.7	7.0	1.5
WS600-3T2R2GB		12.0	9.6	2.2
WS600-3T4R0GB		19.0	17.0	4.0
WS600-3T5R5GB		28.0	25.0	5.5
WS600-3T7R5GB		35.0	32.0	7.5
WS600-3T011GB		47.0	45.0	11.0
WS600-3T015G		65.0	60.0	15.0
WS600-3T018G		80.0	75.0	18.0
WS600-3T022G		97.0	90.0	22.0
WS600-3T030G		115.0	110.0	30.0
WS600-3T037G		166.0	152.0	37.0
WS600-3T045G		190.0	176.0	45.0
WS600-3T055G		214.0	210.0	55.0
WS600-3T075G		256.0	253.0	75.0
WS600-3T093G		389.0	380.0	93.0
WS600-3T110G		435.0	426.0	110.0
WS600-3T132G		539.0	530.0	132.0
WS600-3T160G		608.0	600.0	160.0
WS600-3T200G		680.0	660.0	200.0
WS600-3T220G		740.0	720.0	220.0

VFD model	Input voltage (V)	Input current (A)	Output current (A)	Power of Adaptable Motor (kW)
WS600-4TR75GB/1R5PB	3-phase 380V Range: -15%~ 20%	3.4	2.1	0.75
WS600-4T1R5GB/2R2PB		5.0/5.8	3.8/5.1	1.5/2.2
WS600-4T2R2GB/4R0PB		5.8/10.5	5.1/9.0	2.2/4.0
WS600-4T4R0GB/5R5PB		10.5/14.6	9.0/13.0	4.0/5.5
WS600-4T5R5GB/7R5PB		14.6/20.5	13.0/17.0	5.5/7.5
WS600-4T7R5GB/9R0PB		20.5/22.0	17.0/20.0	7.5/9.0
WS600-4T9R0GB/011PB		22.0/26.0	20.0/25.0	9.0/11.0
WS600-4T011GB/015PB		26.0/35.0	25.0/32.0	11.0/15.0
WS600-4T015GB/018PB		35.0/38.5	32.0/37.0	15.0/18.5
WS600-4T018GB/022PB		38.5/46.5	37.0/45.0	18.5/22.0
WS600-4T022GB/030PB		46.5/62.0	45.0/60.0	22.0/30.0
WS600-4T030G(B)/037P(B)		62.0/76.0	60.0/75.0	30.0/37.0
WS600-4T037G(B)/045P(B)		76.0/92.0	75.0/90.0	37.0/45.0
WS600-4T045G(B)/055P(B)		92.0/113.0	90.0/110.0	45.0/55.0
WS600-4T055G(B)/075P(B)		113.0/157.0	110.0/152.0	55.0/75.0
WS600-4T075G(B)/093P(B)		157.0/180.0	152.0/176.0	75.0/93.0
WS600-4T093G(B)/110P(B)		180.0/214.0	176.0/210.0	93.0/110.0
WS600-4T110G/132P		214.0/256.0	210.0/253.0	110.0/132.0
WS600-4T132G/160P		256.0/307.0	253.0/304.0	132.0/160.0
WS600-4T160G/185P		307.0/345.0	304.0/340.0	160.0/185.0
WS600-4T185G/200P		345.0/385.0	340.0/380.0	185.0/200.0
WS600-4T200G/220P		385.0/430.0	380.0/426.0	200.0/220.0
WS600-4T220G/250P		430.0/468.0	426.0/465.0	220.0/250.0
WS600-4T250G/280P		468.0/525.0	465.0/520.0	250.0/280.0
WS600-4T280G/315P		525.0/590.0	520.0/585.0	280.0/315.0
WS600-4T315G/355P		590.0/665.0	585.0/650.0	315.0/355.0
WS600-4T355G/400P		665.0/785.0	650.0/725.0	355.0/400.0
WS600-4T400G/450P		785.0/883.0	725.0/820.0	400.0/450.0
WS600-4T450G/500P		883.0/920.0	820.0/900.0	450.0/500.0
WS600-4T500G/550P		920.0/1020.0	900.0/1000.0	500.0/550.0
WS600-4T550G/630P		1020.0/1120.0	1000.0/1100.0	550.0/630.0
WS600-4T630G		1120.0	1100.0	630.0
WS600-4T710G		1315.0	1250	710.0
WS600-4T800G		1525.0	1450	800.0

Technical data

Inverter model	Input voltage (V)	Input current (A)	Output current (A)	Suitable motor (kW)
WS600-7T011GB	3-phase 660-690V	15.6	15.0	11
WS600-7T015GB		21.0	20.0	15
WS600-7T018GB		26.0	24.0	18
WS600-7T022GB		32.0	28.0	22
WS600-7T030G(B)		42.0	38.0	30
WS600-7T037G(B)		49.5	47.0	37
WS600-7T045G(B)		58	55.0	45
WS600-7T055G(B)		70.0	65.0	55
WS600-7T075G(B)		90.0	86.0	75
WS600-7T093G(B)		105.0	100.0	93
WS600-7T110G		130.0	120.0	110
WS600-7T132G		170.0	150.0	132
WS600-7T160G		200.0	175.0	160
WS600-7T185G		208.0	198.0	185
WS600-7T200G		235.0	215.0	200
WS600-7T220G		247.0	245.0	220
WS600-7T250G		265.0	260.0	250
WS600-7T280G		305.0	299.0	280
WS600-7T315G		350.0	330.0	315
WS600-7T355G		382.0	374.0	355
WS600-7T400G		435.0	410.0	400
WS600-7T450G		490.0	465.0	450
WS600-7T500G		595.0	550.0	500
WS600-7T550G		605.0	600.0	550
WS600-7T630G		684.0	650.0	630
WS600-7T710G		768.5	730.0	710
WS600-7T800G		860.0	825.0	800
WS600-7T900G		955.0	920.0	900
WS600-7T1000G		1060.0	1025.0	1000

Technical data

WS600S Types And Ratings

Inverter model	Input voltage (V)	Input current (A)	Output current (A)	Suitable motor (kW)
WS600S-3SR40GB	1-phase 220V Range: - 15% ~ 20%	5.4	2.3	0.4
WS600S-3SR75GB		8.2	4.0	0.75
WS600S-3S1R5GB		14.0	7.0	1.5
WS600S-3S2R2GB		23.0	9.6	2.2
WS600S-3S4R0GB		40.0	17	4.0
WS600S-3S5R5GB		60.0	25	5.5
WS600S-3TR40GB	3-phase 220V Range: -15%~ 20%	2.7	2.3	0.4
WS600S-3TR75GB		4.2	4.0	0.75
WS600S-3T1R5GB		7.7	7.0	1.5
WS600S-3T2R2GB		12.0	9.6	2.2
WS600S-3T4R0GB		19.0	17.0	4.0
WS600S-3T5R5GB		28.0	25.0	5.5
WS600S-3T7R5GB		35.0	32.0	7.5
WS600S-3T011GB		47.0	45.0	11.0
WS600S-3T015G		65.0	60.0	15.0
WS600S-3T018G		80.0	75.0	18.0
WS600S-3T022G		97.0	90.0	22.0
WS600S-3T030G		115.0	110.0	30.0
WS600S-3T037G		166.0	152.0	37.0
WS600S-3T045G		190.0	176.0	45.0
WS600S-3T055G		214.0	210.0	55.0
WS600S-3T075G		256.0	253.0	75.0
WS600S-3T093G		389.0	380.0	93.0
WS600S-3T110G		435.0	426.0	110.0
WS600S-3T132G		539.0	530.0	132.0
WS600S-3T160G		608.0	600.0	160.0
WS600S-3T200G		680.0	660.0	200.0
WS600S-3T220G		740.0	720.0	220.0

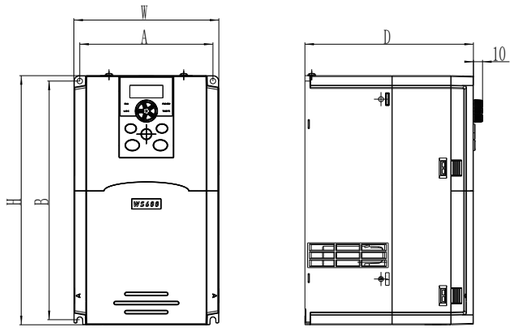
Technical data

Inverter model	Input voltage (V)	Input current (A)	Output current (A)	Suitable motor (kW)
WS600S-4TR75GB/1R5PB	3-phase 380V Range: -15%~ 20%	3.4	2.1	0.75
WS600S-4T1R5GB/2R2PB		5.0/5.8	3.8/5.1	1.5/2.2
WS600S-4T2R2GB/4R0PB		5.8/10.5	5.1/9.0	2.2/4.0
WS600S-4T4R0GB/5R5PB		10.5/14.6	9.0/13.0	4.0/5.5
WS600S-4T5R5GB/7R5PB		14.6/20.5	13.0/17.0	5.5/7.5
WS600S-4T7R5GB/9R0PB		20.5/22.0	17.0/20.0	7.5/9.0
WS600S-4T9R0GB/011PB		22.0/26.0	20.0/25.0	9.0/11.0
WS600S-4T011GB/015PB		26.0/35.0	25.0/32.0	11.0/15.0
WS600S-4T015GB/018PB		35.0/38.5	32.0/37.0	15.0/18.5
WS600S-4T018GB/022PB		38.5/46.5	37.0/45.0	18.5/22.0
WS600S-4T022GB/030PB		46.5/62.0	45.0/60.0	22.0/30.0
WS600S-4T030G(B)/037P(B)		62.0/76.0	60.0/75.0	30.0/37.0
WS600S-4T037G(B)/045P(B)		76.0/92.0	75.0/90.0	37.0/45.0
WS600S-4T045G(B)/055P(B)		92.0/113.0	90.0/110.0	45.0/55.0
WS600S-4T055G(B)/075P(B)		113.0/157.0	110.0/152.0	55.0/75.0
WS600S-4T075G(B)/093P(B)		157.0/180.0	152.0/176.0	75.0/93.0
WS600S-4T093G(B)/110P(B)		180.0/214.0	176.0/210.0	93.0/110.0
WS600S-4T110G/132P		214.0/256.0	210.0/253.0	110.0/132.0
WS600S-4T132G/160P		256.0/307.0	253.0/304.0	132.0/160.0
WS600S-4T160G/185P		307.0/345.0	304.0/340.0	160.0/185.0
WS600S-4T185G/200P		345.0/385.0	340.0/380.0	185.0/200.0
WS600S-4T200G/220P		385.0/430.0	380.0/426.0	200.0/220.0
WS600S-4T220G/250P		430.0/468.0	426.0/465.0	220.0/250.0
WS600S-4T250G/280P		468.0/525.0	465.0/520.0	250.0/280.0
WS600S-4T280G/315P		525.0/590.0	520.0/585.0	280.0/315.0
WS600S-4T315G/355P		590.0/665.0	585.0/650.0	315.0/355.0
WS600S-4T355G/400P		665.0/785.0	650.0/725.0	355.0/400.0
WS600S-4T400G/450P		785.0/883.0	725.0/820.0	400.0/450.0
WS600S-4T450G/500P		883.0/920.0	820.0/900.0	450.0/500.0
WS600S-4T500G/550P		920.0/1020.0	900.0/1000.0	500.0/550.0
WS600S-4T550G/630P		1020.0/1120.0	1000.0/1100.0	550.0/630.0
WS600S-4T630G		1120.0	1100.0	630.0
WS600S-4T710G		1315.0	1250	710.0
WS600S-4T800G		1525.0	1450	800.0

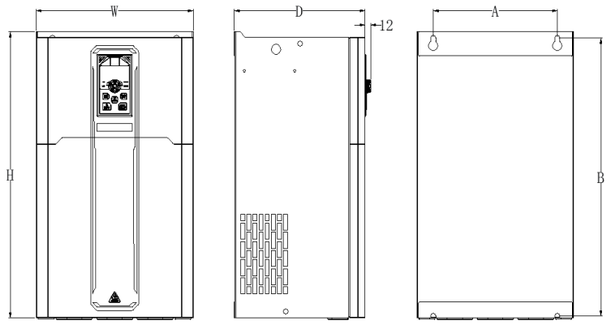
Technical data

Inverter model	Input voltage (V)	Input current (A)	Output current (A)	Suitable motor (kW)
WS600S-7T011GB	3-phase 660-690V	15.6	15.0	11
WS600S-7T015GB		21.0	20.0	15
WS600S-7T018GB		26.0	24.0	18
WS600S-7T022GB		32.0	28.0	22
WS600S-7T030G(B)		42.0	38.0	30
WS600S-7T037G(B)		49.5	47.0	37
WS600S-7T045G(B)		58	55.0	45
WS600S-7T055G(B)		70.0	65.0	55
WS600S-7T075G(B)		90.0	86.0	75
WS600S-7T093G(B)		105.0	100.0	93
WS600S-7T110G		130.0	120.0	110
WS600S-7T132G		170.0	150.0	132
WS600S-7T160G		200.0	175.0	160
WS600S-7T185G		208.0	198.0	185
WS600S-7T200G		235.0	215.0	200
WS600S-7T220G		247.0	245.0	220
WS600S-7T250G		265.0	260.0	250
WS600S-7T280G		305.0	299.0	280
WS600S-7T315G		350.0	330.0	315
WS600S-7T355G		382.0	374.0	355
WS600S-7T400G		435.0	410.0	400
WS600S-7T450G		490.0	465.0	450
WS600S-7T500G		595.0	550.0	500
WS600S-7T550G		605.0	600.0	550
WS600S-7T630G		684.0	650.0	630
WS600S-7T710G		768.5	730.0	710
WS600S-7T800G		860.0	825.0	800
WS600S-7T900G		955.0	920.0	900
WS600S-7T1000G		1060.0	1025.0	1000

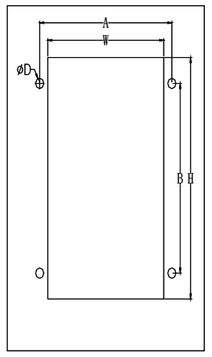
Outline & Mounting Dimensions



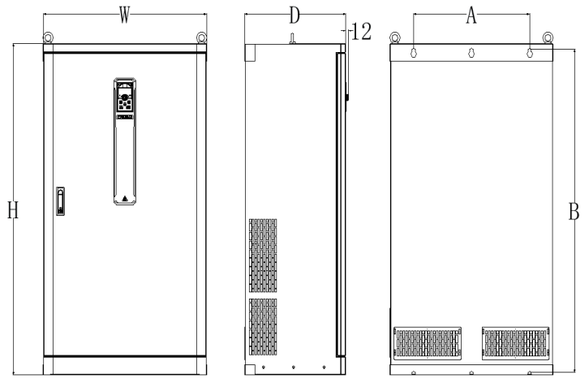
22kW and below



30 to 132kW



Wall-mounted dimensions of 22kW and below



160kW and above

Outline & Mounting Dimensions

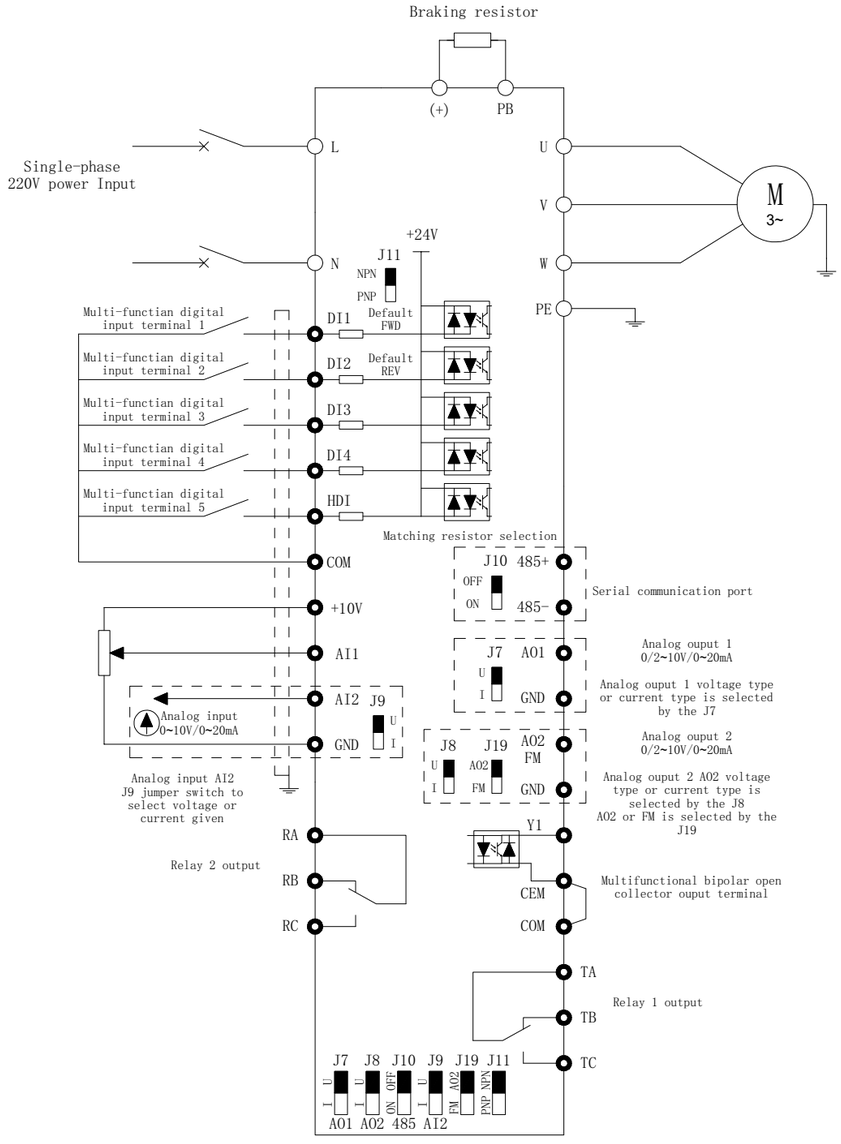
Inverter model	Installation hole		Overall dimension			Mounting aperture (mm)
	A (mm)	B (mm)	H (mm)	W(mm)	D (mm)	
WS600-3SR40GB	64	138	148	74	130	ϕ4.5
WS600-3SR75GB						
WS600-3S1R5GB	76	156	165	86	140	ϕ5
WS600-3S2R2GB						
WS600-3S4R0GB	111	223	234	123	176	ϕ6
WS600-3S5R5GB	147	264	275	160	186	ϕ6
WS600-3TR40GB	76	156	165	86	140	ϕ5
WS600-3TR75GB						
WS600-3T1R5GB	98	182	192	110	165	ϕ5
WS600-3T2R2GB						
WS600-3T4R0GB	111	223	234	123	176	ϕ6
WS600-3T5R5GB	147	264	275	160	186	ϕ6
WS600-3T7R5GB						
WS600-3T011GB	174	319	330	189	186	ϕ6
WS600-3T015G	200	410	425	255	206	ϕ7
WS600-3T018G						
WS600-3T022G	245	518	534	310	258	ϕ10
WS600-3T030G						
WS600-3T037G	290	544	560	350	268	ϕ10
WS600-3T045G						
WS600-3T055G	320	678	695	410	295	ϕ10
WS600-3T075G						
WS600-3T093G	380	1025	1050	480	330	ϕ10
WS600-3T110G	500	1170	1200	590	365	ϕ14
WS600-3T132G						
WS600-3T160G	500	1255	1290	700	400	ϕ14
WS600-3T200G						
WS600-3T220G						

Inverter model	Installation hole		Overall dimension			Mounting aperture (mm)
	A (mm)	B (mm)	H (mm)	W(mm)	D (mm)	
WS600-4TR75GB/1R5PB	76	1156	165	86	140	ϕ5
WS600-4T1R5GB2R2PB						
WS600-4T2R2GB/4R0PB						
WS600-4T4R0GB/5R5PB	98	182	192	110	165	ϕ5
WS600-4T5R5GB/7R5PB						
WS600-4T7R5GB/9R0PB	111	223	234	123	176	ϕ6
WS600-4T9R0GB/011PB						
WS600-4T011GB/015PB	147	264	275	160	186	ϕ6
WS600-4T015GB/018PB						
WS600-4T018GB/022PB	174	319	330	189	186	ϕ6
WS600-4T022GB/030PB						
WS600-4T030G(B) /037P(B)	200	410	425	255	206	ϕ7
WS600-4T037G(B)/045P (B)						
WS600-4T045G(B)/055P(B)	245	518	534	310	258	ϕ10
WS600-4T055G(B) /075P(B)						
WS600-4T075G(B)/093P(B)	290	544	560	350	268	ϕ10
WS600-4T093G/110P						
WS600-4T110G/132P	320	678	695	410	295	ϕ10
WS600-4T132G/160P						
WS600-4T160G/185P	380	1025	1050	480	330	ϕ10
WS600-4T185G/200P						
WS600-4T200G/220P						
WS600-4T220G/250P	500	1170	1200	590	365	ϕ14
WS600-4T250G/280P						
WS600-4T280G/315P						
WS600-4T315G/355F	500	1255	1290	700	400	ϕ14
WS600-4T355G/400P						
WS600-4T400G/450P						
WS600-4T450G/500P						
WS600-4T500G/550P	/	/	1800	1000	50	Vertical Type
WS600-4T550G/630P						
WS600-4T630G						
WS600-4T710G	/	/	2200	1200	600	Vertical Type
WS600-4T800G						
WS600-7T030G(B)	245	554	570	310	264	ϕ10
WS600-7T037G(B)						
WS600-7T045G(B)						
WS600-7T055G(B)						

Inverter model	Installation hole		Overall dimension			Mounting aperture (mm)
	A (mm)	B (mm)	H (mm)	W(mm)	D (mm)	
WS600-7T075G	220	705	725	350	275	ϕ10
WS600-7T093G						
WS600-7T110G						
WS600-7T132G	320	815	835	440	295	ϕ10
WS600-7T160G						
WS600-7T185G						
WS600-7T200G						
WS600-7T220G						
WS600-7T250G	380	1115	1140	550	330	ϕ12
WS600-7T280G						
WS600-7T315G						
WS600-7T355G						
WS600-7T400G	500	1348	1380	700	400	ϕ14
WS600-7T450G						
WS600-7T500G						
WS600-7T550G	/	/	2200	800	600	Vertical Type
WS600-7T630G						
WS600-7T710G						
WS600-7T800G	/	/	2200	1050	600	Vertical Type
WS600-7T900G						
WS600-7T1000G						

*WS600 & WS600S have the same outline and mounting dimensions.

Wiring Diagram

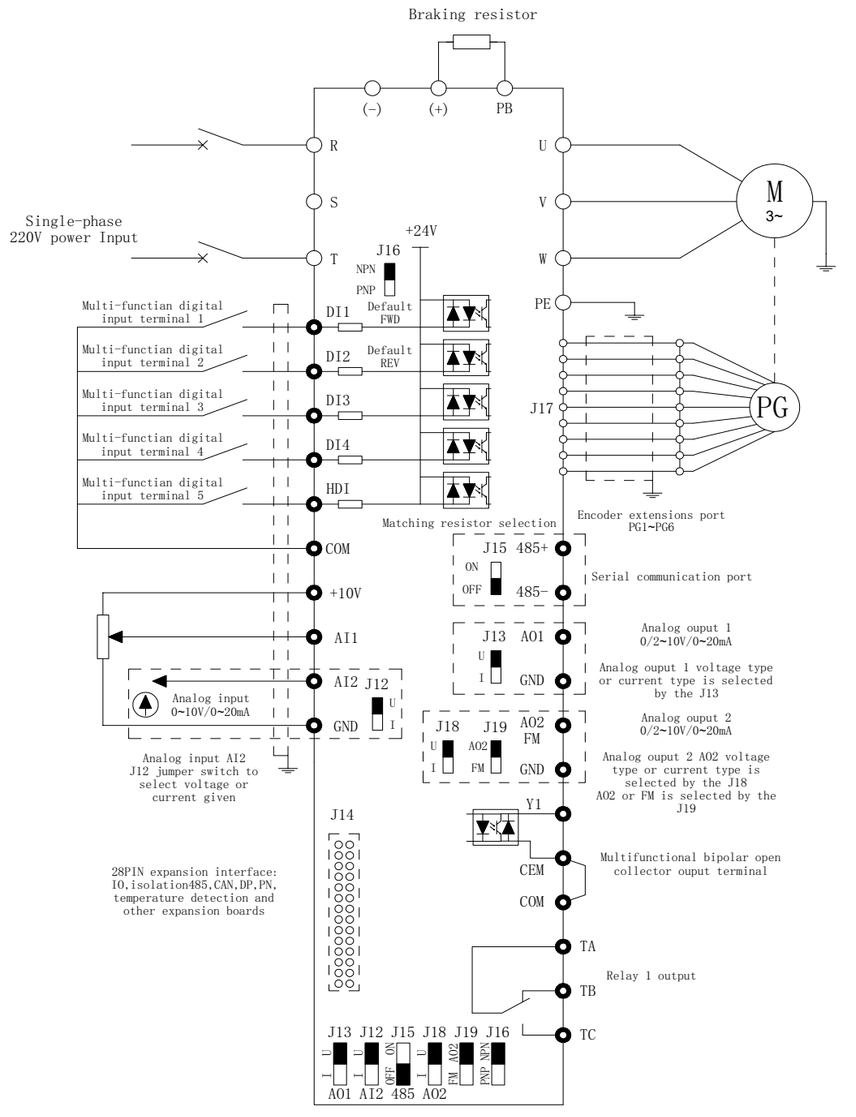


1-phase 2.2kW and below

GND	A01	485-	DI1	DI2	DI3	DI4	HDI5	+24V	RA	RB	RC
+10V	AI1	AI2	485+	CME	COM	Y1	A02/FM	COM	TA	TB	TC

Control Terminal Diagram(1-phase 220V 2.2kW and below)

Wiring Diagram

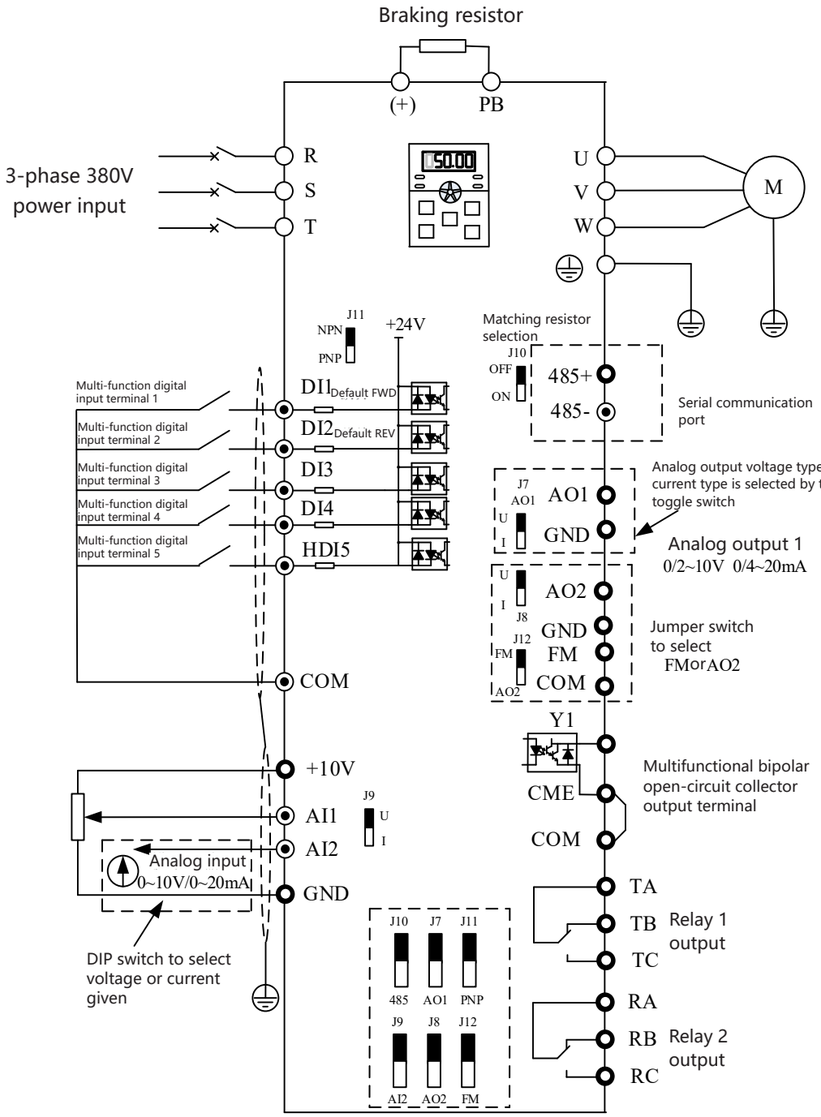


1-phase 4.0kW and above

+10V	AI1	AI2	DI1	DI2	DI3	DI4	HDI	T/A	T/B	T/C
GND	GND	A01	485+	485-	CME	COM	Y1	A02/FM	COM	+24V

Control Terminal Diagram(1-phase 220V 4.0kW and above)

Wiring Diagram

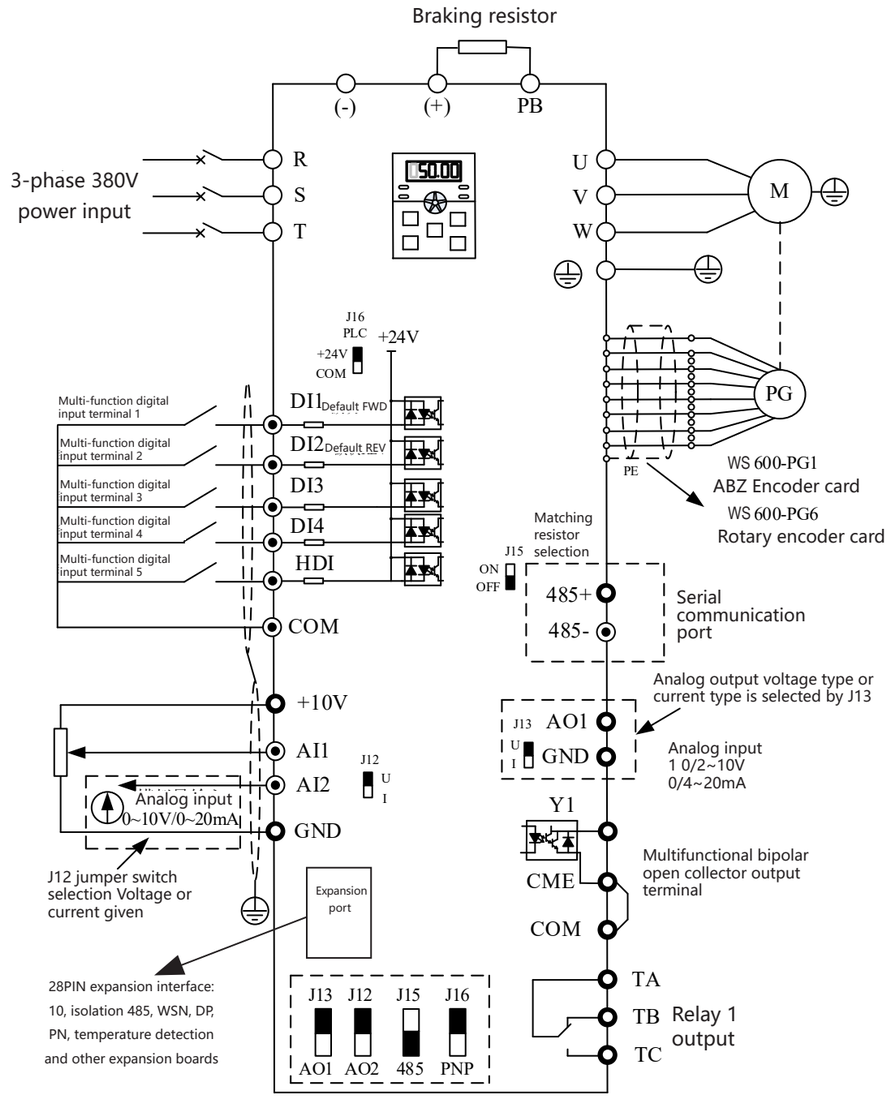


3-phase 2.2kW and below

GND	A01	485-	DI1	DI2	DI3	DI4	HDI5	+24V	RA	RB	RC
+10V	AI1	AI2	485+	CME	COM	Y1	AO2 FM	COM	TA	TB	TC

Control Terminal Diagram(3-phase 220V/380V 2.2kW and below)

Wiring Diagram

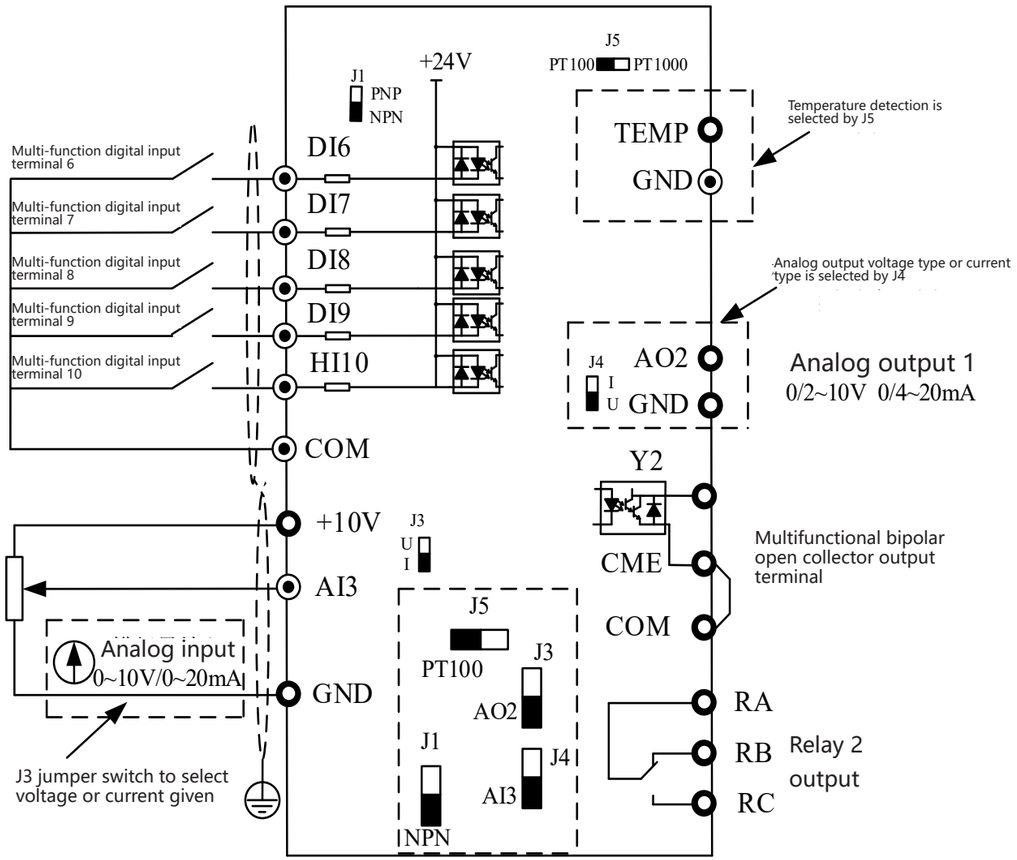


(4T/7T)3-phase 4.0kW and above

+10V	AI1	AI2	DI1	DI2	DI3	DI4	HDI	T/A	T/B	T/C
GND	GND	A01	485+	485-	CME	COM	Y1	FM	COM	+24V

Control Terminal Diagram(3-phase 220V/380V/660V 4.0kW and above)

Wiring Diagram



WS600-IO1 Expansion Card

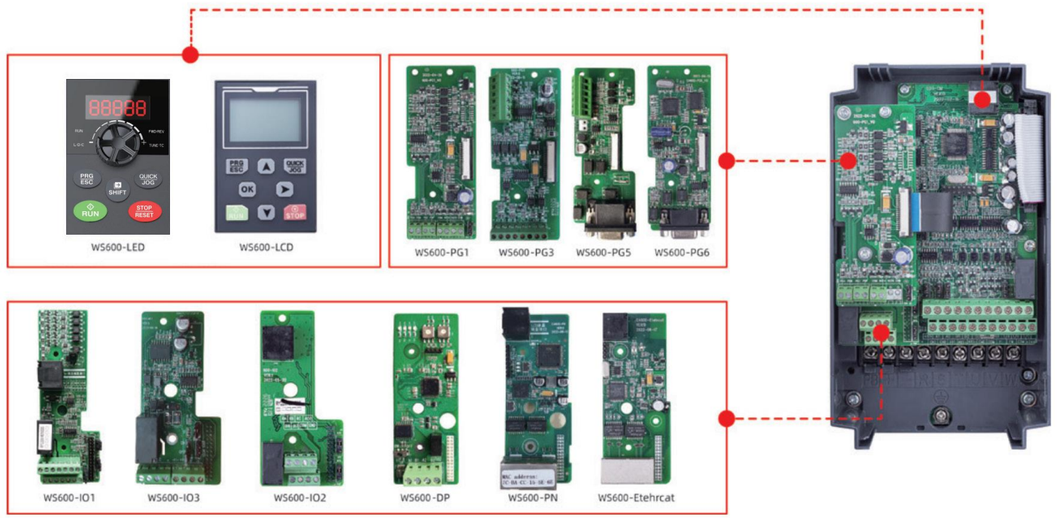
RA	RB	RC	COM	DI6	DI7	DI8
GND	TEMP	AI3	A02	DI9	DI10	Y2

Control Terminal Diagram

Terminal Definition

Item	Code	Name	Specifications
Analog	10V	Reference power	+10V, Max. allowable output current 100mA
	AI1	Analog input 1	Input voltage range: 0 ~ 10V (input impedance: 30kΩ) Input current range: 0 ~ 20mA (input impedance: 500Ω
	AI2	Analog input 2	Input voltage range: 0 ~ 10V (input impedance: 30kΩ) Input current range: 0 ~ 20mA (input impedance: 500Ω)
	AO1	Analog output 1	Output voltage/current signal: 0 ~ 10V/0 ~ 20mA
	AO2	Analog Output 2 - Extended	Output voltage/current signal: 0 ~ 10V/0 ~ 20mA
	GND	Analog reference power ground	
Digital Input Output Terminal	P24	+24V Power supply	+24V Power supply for digital input, the max. allowable output current is 200mA
	COM	Digital reference ground	Isolated from GND
	CME	External digital ground reference or power interface	The digital output ground CME and the digital input ground COM are internally isolated, but CME and COM have been externally shorted before leaving the factory
	DI1-DI4	Digital input	1. Internal impedance: 3.3kΩ 2. Accept 12~30V voltage input 3.This terminal is a bidirectional input terminal and supports both NPN and PNP connections 4. Max. input frequency: 1kHz 5. All are programmable digital input terminals, the user can set the terminal function through the function code
	DI6-DI10	Digital input expansion	
	HDI	High-speed pulse input	50kHz HDI high frequency pulse input channel Max. input frequency: 50kHz
	YI	Digital output	Optocoupler isolation, bipolar open collector output Output voltage range: 0-24V Output current range: 0-50mA Note: The default Y1 is +24V drive, cannot be driven by an external power supply
	FM (Optional Y2)	High-speed pulse output	Programmable output, contact capacity: 250VAC/3A or 30VDC/1A TA-TB: Normally closed, TA-TC: Normally open
Relay Output Terminal	TA/TB/TC	Relay contact output	Programmable output, contact capacity: 250VAC/3A or 30VDC/1A TA-TB: Normally closed, TA-TC: Normally open
	RA/RB/RC	Relay output expansion	Programmable output, contact capacity: 250VAC/3A or 30VDC/1A RA-RB: Normally closed, RA-RC: Normally open
Communication terminal	485+/485-	Communication Interface	RS485 communication/MODBUS
Temperature	TEMP/GND	Temperature detection extension	PTC, KTY temperature probe and other motor temperature detection

Expansion Card List



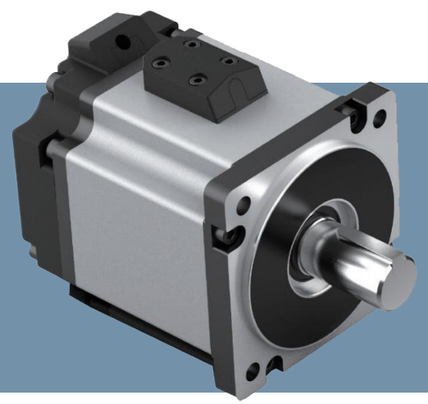
Functions And Configuration Of Expansion Cards

Item	Model	Function	Note
Ethercat	WS600-Ether-cat	Ethercat communication card	4.0KW and above models, use the motherboard 28P expansion socket J14
Open collector ABZ encoder card	WS600-PG1	Open collector PG card (PG card 1 can only be For asynchronous machines; compatible with com-plementary output, encoding The card output DC power supply is optional +12V or +5V (Jumper selection))	4.0KW and above models, use the motherboard 18P expansion socket J17
Differential input ABZ encoder card	WS600-PG3	ABZ differential signal input PG card	4.0KW and above models, use the motherboard 18P expansion socket J17
SinCos encoder interface card	WS600-PG5	Sine and cosine encoder with frequency division output. Encoder card.	4.0KW and above models, use the motherboard 18P expansion socket J17
Resolver interface card	WS600-PG6	Suitable for resolvers, DB9 interface, can Optional matching shielded encoder cable.	4.0KW and above models, use the motherboard 18P expansion socket J17
LED external keyboard	WS600-LED	485 digital tube keyboard	Mainboard RJ45 keyboard interface CN9
LCD external keyboard	WS600-LCD	LCD	Mainboard RJ45 keyboard interface CN9

Functions And Configuration Of Expansion Cards

Item	Model	Function	Note
I/O 1	WS600-IO1	5 digital inputs, 1 relay output, One analog AO2 output, one digital output Y2 output, one way temperature detection (PT100/ PT1000/PTC/KTY).	4.0KW and above models, use the motherboard 28P expansion socket J14
I/O 2	WS600-IO2	Two digital inputs, one relay output, One analog AO2 output	4.0KW and above models, use the motherboard 28P expansion socket J14
I/O 3	WS600-IO3	One relay output, one isolation MODBUS Communication, all the way motor temperature detection (PT100/ PT1000/PTC/KTY)	4.0KW and above models, use the motherboard 28P expansion socket J14
RS-485	WS600-ISO485	One way isolation MODBUS communication card	4.0KW and above models, use the motherboard 28P expansion socket J14
CAN	WS600-CAN	CAN communication card	4.0KW and above models, use the motherboard 28P expansion socket J14
CANOPEN	WS600-CANOPEN	CANOPEN communication card	4.0KW and above models, use the motherboard 28P expansion socket J14
ProFinet	WS600-PN	ProFinet communication card	4.0KW and above models, use the motherboard 28P expansion socket J14
Profbus-DP	WS600-DP	Profbus-DP communication card	4.0KW and above models, use the motherboard 28P expansion socket J14

Industry Automation



WS Servo Motor

Servo motors are designed for use in extremely harsh environments, adapt to harsh operations in the production process of various industries. It can also operate reliably under extreme temperature conditions

WS Servo Drive

Wanshsin servo driver provide superior solutions to customer needs and achieve faster delivery times and competitive price, customized solution is also warmly welcome.

WSPM - 2 -6 -40 -M -30 -C6 -1

Product name:
WSPM series permanent magnet synchronous motor

Voltage level:
2Voltage class 220V

Flange
4/6/8/11/13
40/60/80/110/130

Motor power

Motor inertia
S inertia
M inertia
H inertia
E inertia

Encoder type
C2 17 bit single loop optical encoder
C4 23 bit encoder
C6 17 bit single loop encoder

Rated speed
10 1000rpm
15 1500rpm
20 2000rpm
30 3000rpm

Structure
1 keyway oil seal w/o brake
2 keyway oil seal w/ brake

WSSD - B -2 -100

Product name：
WSSD series

Box shape:
Class B drive
Class C drive
Class D drive

Voltage class
2 1-phase/ 3-phase 220V
4 3-phase 380V

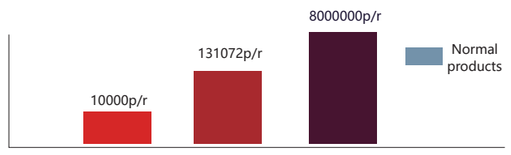
Max output current
075 max output current 7.5A
100 max output current 10A
200 max output current 20A
300 max output current 30A
500 max output current 50A

Function & Performance Characteristics

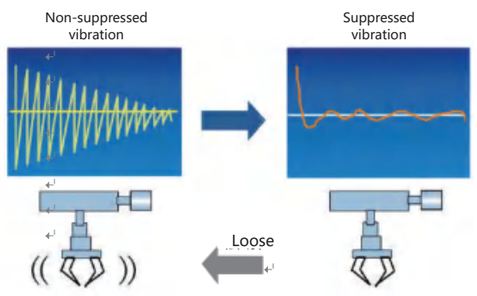
The R&D center is located in Shenzhen city, after years of research and development accumulation through Wanshsin R&D team, we developed a high-performance servo driver with high precision control and response speed. This driver adopt the high precision on-line inertia identification algorithm, the inertia identification accuracy up to + / - 5%, at the same time can be set according to user's rigid numerical automatic position loop, speed loop gain, speed loop gain integral, low-pass filter time constant torque set, so as to realize automatic adjustment of servo gain. Also, the advanced current observer and current prediction algorithm, coupled with the high performance servo motor designed by our company, which makes the whole servo system to achieve a high speed loop bandwidth.

Easier to debug the parameters, there is no need to set the gain parameters of position loop and speed loop. Only the rigid setting of real-time automatic gain is required by parameter Pr003.

Workable for 23 bit single/multi-turn encoders, position accuracy up to 0.15 arc seconds.



The unique real-time automatic vibration suppression function can automatically suppress vibration without the input of vibration frequency.



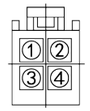
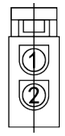
Driver General Specifications

Basic Specification	Input volatge 220V	Main circuit power	1-phase 220V (-15%~+10V) 50/60Hz
			3-phase 220V(-15%~+10V) 50/60Hz
		Controlled circuit power	1-phase 220V (-15%~+10V) 50/60Hz
	Environmental conditions	Temperature	Ambient temperature :0℃ ~55℃ (no condensation) Storage temperature :-20℃ ~65℃ (max. Guaranteed temperature :80℃ 72 hours)
		Humidity	It should be under 90%RH when used or stored (no condensation)
		Altitude	The altitude is below 1000m
		Vibration	Below 5.88m/s², 10~60Hz(cannot be used continuously at resonance frequency)
	Control mode		IG BT PWM mold Sinusoidal drive
	Encoder		17Bit (131072 distinguishability) Single loop absolute encoder traverser 17Bit (131072 distinguishability) Multi-country absolute encoder 20 bit incremental encoder
	Control signal	Input	Universal 7 input The general input function is selected according to the parameters
		Output	Universal 5 input The general input function is selected according to the parameters
	Analog signal	Input	Universal input: 12BitA/D input (3 signals) Analog special type input: 1、16BitA/D input(1signal) 2、12BitA/D input(2 signals)
		Output	3 Output: 1、Analog monitor output(2 signals) 2、Digital monitoring output(1signal)
	Pulse signal	Input	Input: Optical coupler input
		Output	4 Output: 1、Linear actuator output(3 pairs) 2、Open collector output(1signal)
	Communication function	RS485	1: N communication up to 31 axes
	Front panel		1、5 keys 2、 6 digitals LEDs
	Regenerative discharge resistance		Type B box: No built-in regenerative resistance (external only) Regenerative discharge resistance Type C-E box: Built-in regenerative resistance (externally avaiable)
	Control mode		You can switch to the following six modes based on the parameters 1、Position control; 2、Speed control ; 3、Torque control; 4、Position/speed control ; 5、position/torque control ; 6、speed/torque control。

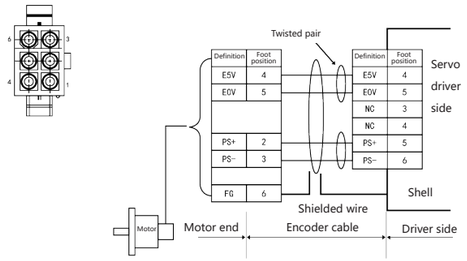
Standard Wiring Diagram

6-cores plastic head motor wiring

1.Motor wiring

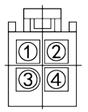
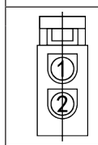
Terminal Diagram	Project	Description			
	Label	1	2	3	4
	Usage	U phase	V phase	W phase	FG
	Label	1	2		
	Usage	Brake	Brake		

2.Encoder cable connection diagram

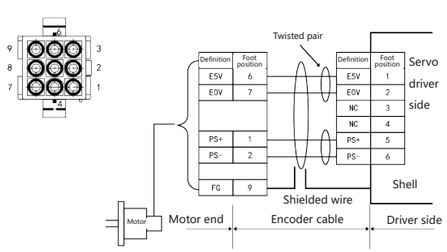


9-cores plastic head motor wiring

1.Motor wiring

Terminal Diagram	Project	Description			
	Label	1	2	3	4
	Usage	U phase	W phase	V phase	FG
	Label	1	2		
	Usage	Brake	Brake		

2.Encoder cable connection diagram

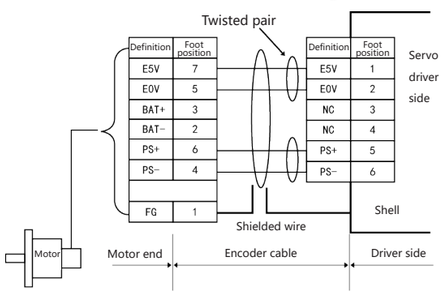


Digital sequencing aviation plug motor wiring

1.Motor wiring

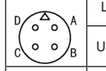
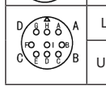
Terminal Diagram	Project	Description					
	Labe	1	2	3	4	5	6
	Usage	FG	U phase	W phase	V phase		

2.Encoder cable connection diagram

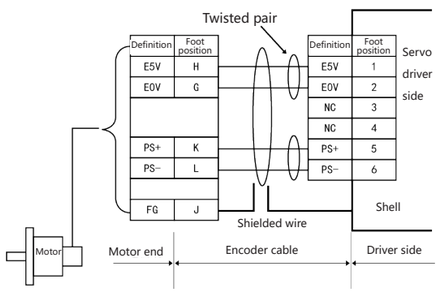


Alphabetical aviation plug motor wiring

1.Motor power line wiring

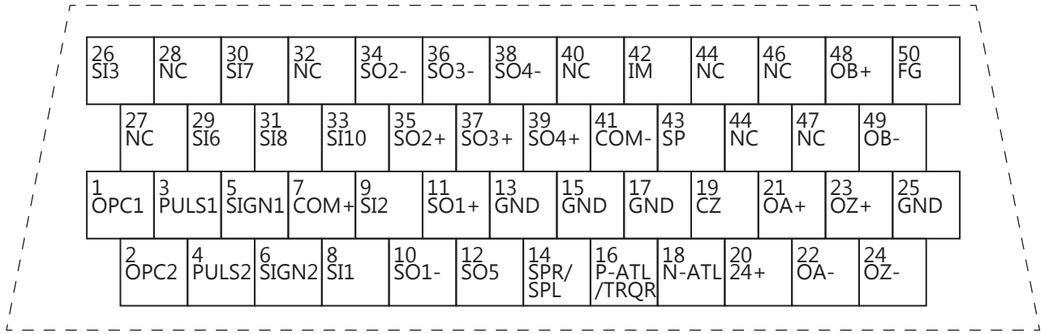
Terminal Diagram	Project	Description					
	Labe	A	B	C	D		
	Usage	U phase	V phase	W phase	Ground		
	Labe	F	I	B	D/E	H	G
	Usage	U phase	V phase	W phase	Ground	Brake	Brake

2.Encoder cable connection diagram



Standard Wiring Diagram

Definition of control interface X4 (viewed from the solder side of the plug)



Note:

1. When connecting the host computer, be sure to confirm the pin function and usage definition, and the pin serial number. If the wrong line is connected, it may cause damage to the driver and motor, and may also cause damage to the servo.
2. Please do not wire the marked NC terminal.

I/O Connection example

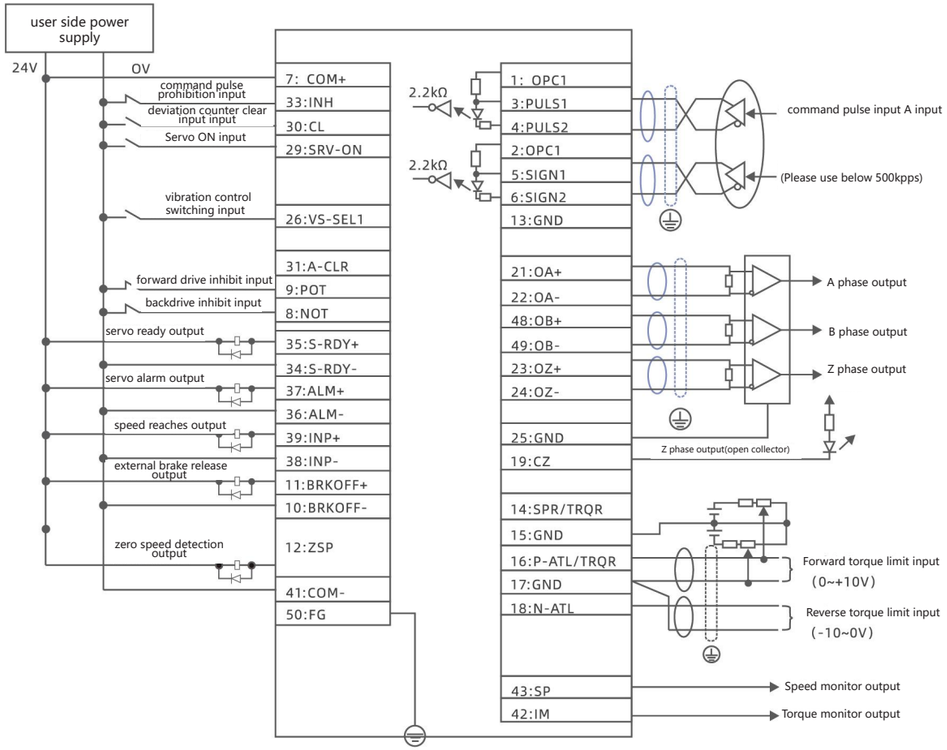
Pin Number	Message Name	Classification	Control Mode	Content
1	OPC1	input	position	command input common terminal 1
2	OPC2	input	position	command input common terminal 2
3	PULS1	input	position	command pulse input terminal 1
4	PULS2	input	position	command pulse input terminal 2
5	SIGN1	input	position	command direction input terminal 1
6	SIGN2	input	position	command direction input terminal 1
7	COM+	power	all	control power +24V
8	NOT	input	all	reverse drive inhibit input
9	POT	input	all	forward drive prohibition input
10	BRKOFF-	input	all	external brake release negative
11	BRKOFF+	input	all	external brake release positive
12	ZSP	input	all	zero speed detection output
13	GND	power	all	signal Ground
14	SPR	input	torque	speed command
	TRQR		torque	torque command
	SPL		torque	speed Limit
15	GND	power	all	signal Ground
16	P-ATL/TRQR	input	all	forward torque limit
17	GND	power	all	signal Ground
18	N-ATL	input	all	reverse torque limit
19	CZ	output	all	collector Z-phase output
20	24V+	input	all	internal Control Power
21	OA+	output	all	feedback A-phase positive
22	OA-	output	all	feedback Phase A Negative
23	OZ+	output	all	feedback Z-phase positive
24	OZ-	output	all	feedback Z-phase negative
25	GND	power	all	signal ground
26	VS-SEL1/ ZEROSPD	input	position	vibration control switching
			speed/torque	zero gear position

I/O Connector Pin Configuration

Pin Number	Message Name	Classification	Control Mode	Content
27	NC			
28	NC			
29	SRV-ON	input	all	servo ON
30	CL	input	position	deviation counter clear
	INTSPD2		speed	internal command speed 2
31	A-CLR	input	all	alarm Clear
32	NC			
33	INH	input	position	command pulse prohibition
	INTSPD1		speed	internal command speed 1
34	S-RDY-	output	all	servo ready negative
35	S-RDY+	output	all	servo ready positive
36	ALM-	output	all	servo alarm negative
37	ALM+	output	all	servo alarm positive
38	INP-	output	position	positioning completed
	AT-SPEED-		speed	speed reached
39	INP+	output	position	positioning completed
	AT-SPEED+		speed	speed reached
40	NC			
41	COM-	power	all	negative terminal of control power
42	IM	output	all	torque monitor output
43	SP	output	all	speed monitor output
44	NC			
45	NC			
46	NC			
47	NC			
48	OB+	output	all	feedback B-phase positive
49	OB-	output	all	feedback phase B is negative
50	FG	power	all	signal Ground

Standard Wiring Diagram

I/O connection example position mode

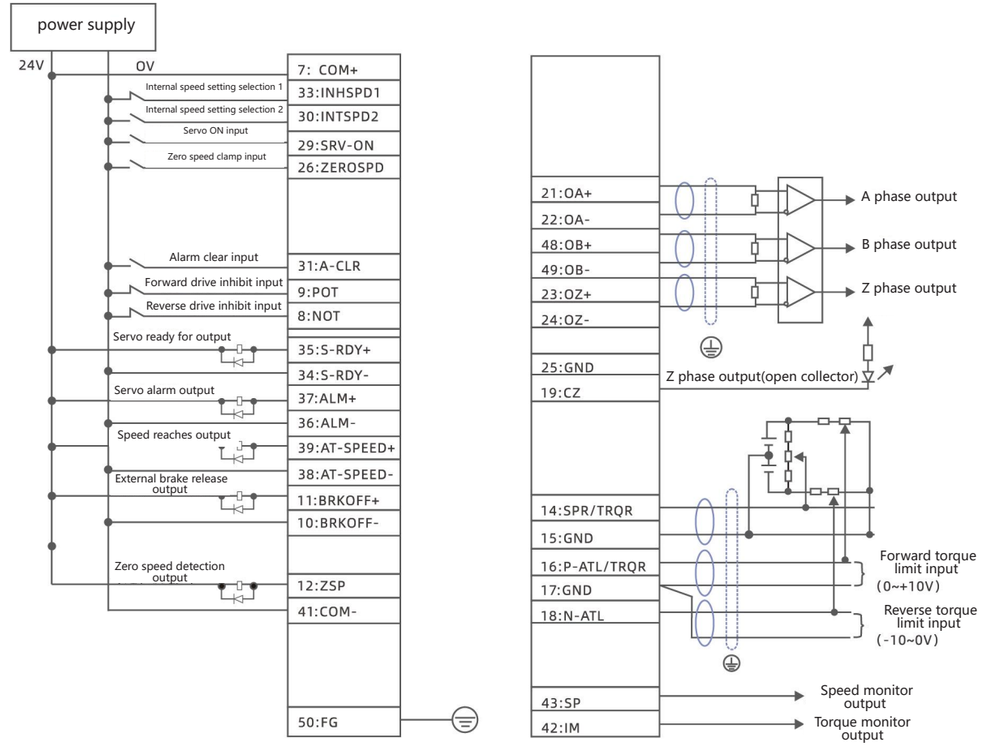


Main parameter Settings in position control mode

Parameter No.	Name	Setting range	Appearance parameters	Whether power off and restart
Pr_001	Control mode selection	0: position control	0	Yes
Pr_005	Instruction pulse input selection	0: Optocoupler input 1:undefined	0	Yes
Pr_006	Instruction pulse direction selection	0-1	0	Yes
Pr_007	Instruction pulse form selection	0/2:orthogonal pulse; 1:dipulse ; 3: pulse + direction	1	Yes
Pr_008	Number of command pulses per revolution	1~1048576(pulse)	10000	Yes
Pr_009	1st instruction divide and multiply numerator	0~2^30	0	No
Pr_010	Instruction division multiplier denominator	0~2^30	10000	No
Pr_011	Number of output pulses per revolution	0~2^30	2500	Yes
Pr_503	Pulse output division multiplier denominator	0~262144	0	Yes
Pr_002	Real-time automatic gain adjustment	0~6(0:Turn off auto gain)	1	No
Pr_003	Automatic gain rigidity selection	0~31	13	No
Pr_004	Inertia ratio	0~10000(%)	250	No
Pr_100	1st position loop gain	0~30000(0.1s)	480	No
Pr_101	1st speed loop gain	1~32767(0.1Hz)	270	Yes
Pr_102	1st speed loop integral time constant	1~10000(0.1ms)	210	No

Standard Wiring Diagram

I/O Connection Example Speed Mode

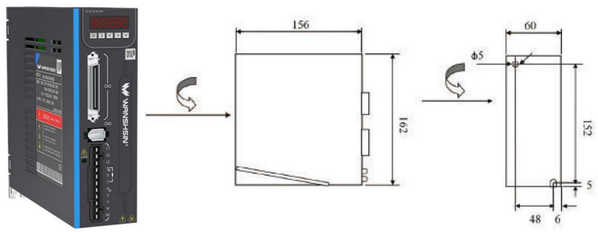


Main parameter Settings in speed control mode

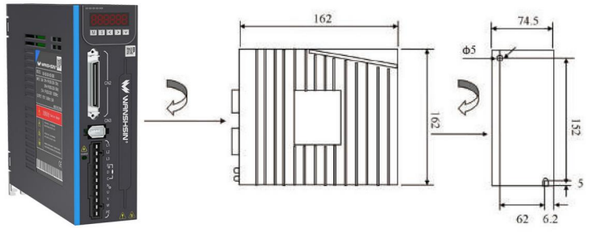
Parameter No.	Name	Setting range	Appearance parameters	Whether power off and restart
Pr_001	control mode selection	0: speed control	0	Yes
Pr_300	speed setting switch inside and outside	0~3(0: simulation command)	0	No
Pr_301	speed command direction designation selection	0~1	0	No
Pr_302	speed command input gain	10~2000(rpm/1V)	500	No
Pr_303	speed command input reverse	0~1	1	No
Pr_304	speed setting 1st speed	-2000~2000(rpm)	0	No
Pr_311	speed setting 8th speed	-2000~2000(rpm)	0	Yes
Pr_312	acceleration time setting	0~10000(ms/1000rpm)	0	No
Pr_313	deceleration time setting	0~10000(ms/1000rpm)	0	No
Pr_315	zero-speed box function selection	0~3	0	No
Pr_316	zero-speed box level	10~2000(rpm)	10	No
Pr_002	real-time automatic gain adjustment	0~610:Turn off auto gain)	1	No
Pr_003	automatic gain rigidity selection	0~31	13	No
Pr_004	inertia ratio	0~10000	250	No
Pr_001	1st speed loop gain	1~32767(0.1Hz)	270	No
Pr_002	1st speed loop integral time constant	1~10000(0.1ms)	210	No

Driver Overall Dimension

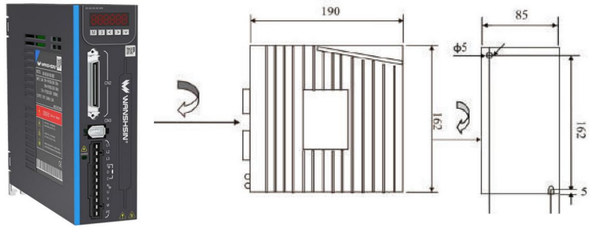
Installation dimensions of type B box



Installation dimensions of type C box



Installation dimensions of type D box



Motor Parameters & Compatible Driver Model

100W, 200W, 400W, 750W Servo Motor

Motor Model		Unit	WSPM24-10S30A*	WSPM26-20M30A*	WSPM26-40M30A*	WSPM28-75M30A*
Adaptive Drive		-	WSSDB2-075	WSSDB2-075	WSSDB2-100	WSSDC2-200
Rated Voltage			AC220	AC220	AC220	AC220
Rated Output		W	100	200	400	750
Rated Torque		N.m	0.32	0.64	1.27	2.4
Instantaneous Max. Torque		N.m	0.96	1.92	3.82	7.17
Rated Current		A	1.2	1.3	2.65	4
Rated Speed		rpm	3000	3000	3000	3000
Max. Speed		rpm	5000	5000	5000	4500
Motor Rotor Inertia	W/O brake	X10Kg*m2	0.031	0.2	0.31	0.82
	W/ brake		0.035	0.23	0.34	0.85
Encoder type		-	17 bit single turn absolute value / 17 bit multi turn absolute value / 20 bit incremental encoder			

1.2KW、1.8KW、1.0KW、1.5KW、2.0KW Medium Inertia Servo Motor

Motor Model		Unit	WSPM211-120M30A*	WSPM211-180M30A*	WSPM213-100M204*	WSPM213-150M204*	WSPM213-200M20A*
Adaptive Drive		-	WSSDB2-200	WSSDB2-300	WSSDB2-300	WSSDC2-500	WSSDC2-500
Rated Voltage			AC220	AC220	AC220	AC220	AC220
Rated Output		W	1200	1800	1000	1500	2000
Rated Torque		N.m	4	6	4.78	7.17	9.55
Instantaneous Max. Torque		N.m	12	18	14.3	21.5	28.7
Rated Current		A	4.0	6.7	5.6	7.2	10.2
Rated Speed		rpm	3000	3000	2000	2000	2000
Max. Speed		rpm	3500	3500	3000	3000	3000
Motor Rotor Inertia	W/O brake	X10K-g*m2	5.4	6.3	6.1	7.2	10.2
	W/ brake		5.7	6.6	6.4	7.9	10.7
Encoder type		-	17 bit single turn absolute value / 17 bit multi turn absolute value / 20 bit incremental encoder				

1.0KW、1.5KW、3KW、4.5KW、5.5KW、7.5KW Servo Motor (380V)

Motor Model		Unit	WSPM213-100M25A*	WSPM213-150M25A*	WSPM418-300M154*	WSPM418-450M15A*	WSPM418-550M15A*	WSPM418-750M15A*
Adaptive Drive		-	WSSDD2-200	WSSDD2-300	WSSDE4-370	WSSDE4-550	WSSDE4-550	WSSDE4-900
Rated Voltage			AC220	AC220	AC380	AC380	AC380	AC380
Rated Output		W	1000	1500	3000	4500	5500	7500
Rated Torque		N.m	4	6	4.78	7.16	5.39	8.34
Instantaneous Max. Torque		N.m	12	18	14.3	21.5	13.8	23.3
Rated Current		A	4	6	75	10	12	20
Rated Speed		rpm	2500	2500	1500	1500	1500	1500
Max. Speed		rpm	3000	3000	2000	2000	2000	2000
Motor Rotor Inertia	W/O brake	X10K-g*m2	10.6	12.6	70.0	96.4	122.5	167.2
	W/ brake		11.1	13,1	75.1	101.4	127.5	182.2
Encoder type		-	17 bit single turn absolute value / 17 bit multi turn absolute value / 20 bit incremental encoder					

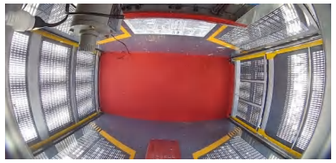
Lift Drive

CE100 Construction Lift Drive

CE100 Construction Lift Drive is a special model developed for the electronic control of cargo construction elevator. The system integrates the functions of frequency inverter, wireless video monitoring, wireless voice intercom, wireless remote control, logic control unit, brake control unit and lifting weight limiter. It can be installed in three methods: wall hanging, semi embedded and full embedded. It has the advantages of comprehensive function, stable performance, exquisite appearance and convenient installation and maintenance, It provides customers with a set of high-performance and complete solutions.

Function and Performance Characteristics

● Wireless Video Monitoring: the fisheye camera is used for the first time in the industry, and there is no any dead angle in the elevator cage;



● Wireless Voice Intercom: video monitoring has its own voice intercom function, so that the operator can understand the operation in the cage in real time, so as to facilitate timely communication with on-site workers and improve the transportation efficiency of the elevator;

● Automatic Leveling Function: automatically run in position after input the floor to reduce the working intensity of the operator. Leveling position is accurate (≤ 5mm) ;

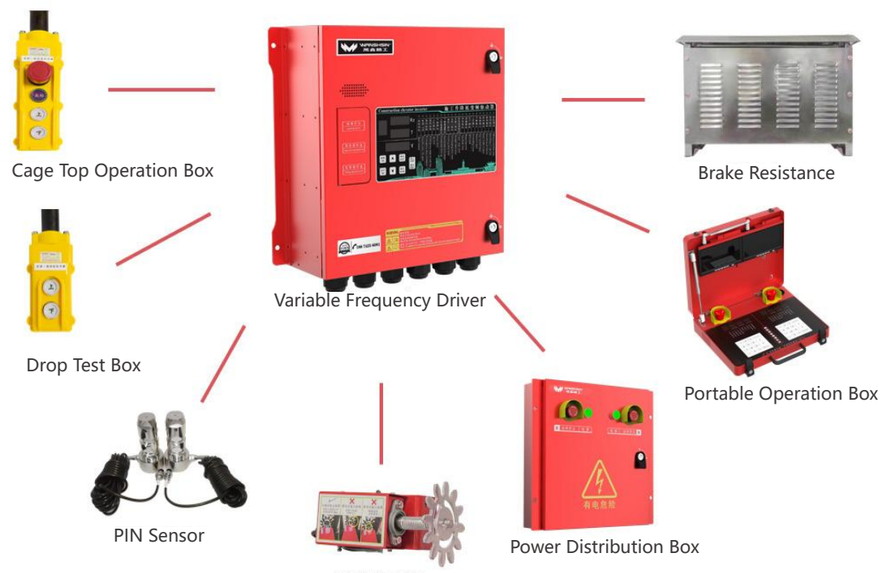
● Floor Pager Control Function: after meeting the operating conditions of the lift, press the floor caller of the corresponding floor, then the lift will automatically move to the floor. Close the discharge door after the worker carrying things, and press the floor caller on your floor, then the lift will automatically operate to the 1st floor.

Driver

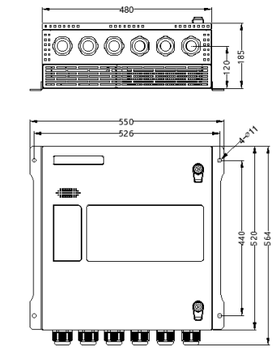
Electric Box

Portable Operation Box

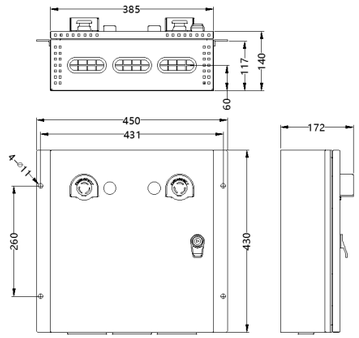
Complete System Composition



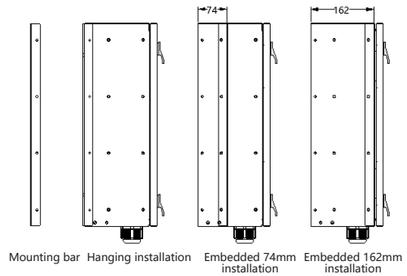
Product Parameters



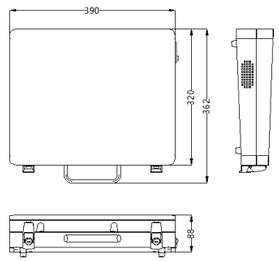
Drive Size



Power Distribution Box Size



Drive Size



Portable Operation Boxes Size

Lift Drive

CE200 Construction Lift Drive

CE200 Construction Lift Drive is a special machine developed for the electric control of construction lifts. The system integrates the functions of frequency inverter, brake unit, logic control unit, brake control unit and lifting weight limiter. There are three installation methods including wall hanging, semi-embedded and fully embedded. It provides customers with a set of high-performance complete solution, with comprehensive function, stable performance, beautiful appearance, easy installation and maintenance, etc. advantages.

Features

● Door Panel Display: the running frequency and load information are displayed on door panel in real time, all position limits, handle input and brake output will be indicated by separate indicator lights;

● Voice Function: rich voice broadcast content, with separate voice prompt for common faults, together with the door display information, it greatly improves the fault diagnosis efficiency;

● Short Circuit Protection of Brake Resistance: the built-in brake unit has the function of brake resistance short circuit protection;

● Brake Coil Short Circuit Protection Function: real-time monitoring brake coil current value, input will be cut off immediately under abnormal situation to protect brake coil and internal devices;

● Various Installation Methods: wall hanging, semi-embedding and full-embedding can be adopted;

● Pre-Authorization Function: the system has built-in perpetual calendar clock and can set 3 periods of equipment authorization time with independent password, which is convenient for users to manage the installment collection of equipment;

● Special Holding Brake Control Logic: the special holding brake control logic is realized through the current, frequency and delay time of the brake release, which ensures the safe and reliable operation of the lift ;

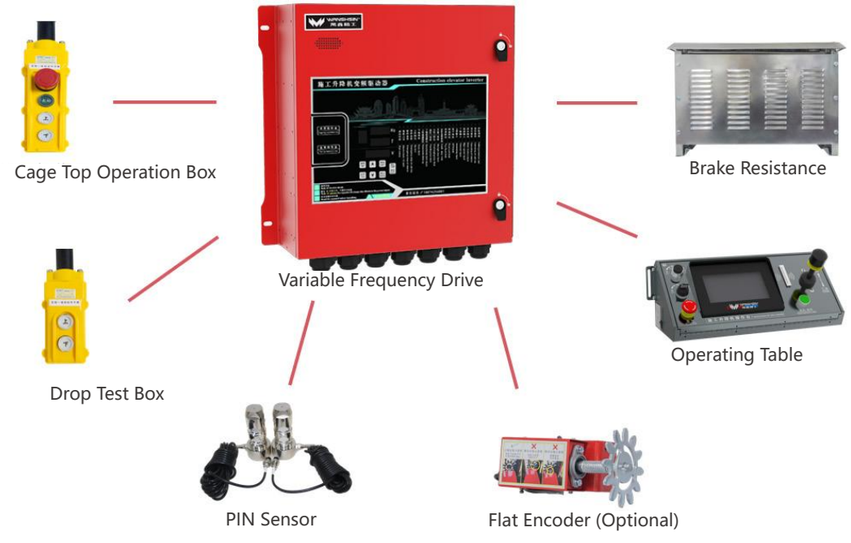
● Human-machine Interface: the interface display is optimized and upgraded/ Pictures are used instead of text description, and fault record function is added;

● Automatic Leveling Function: automatically run in position after input the floor to reduce the working intensity of the operator, leveling position is accurate (≤ 5mm) .

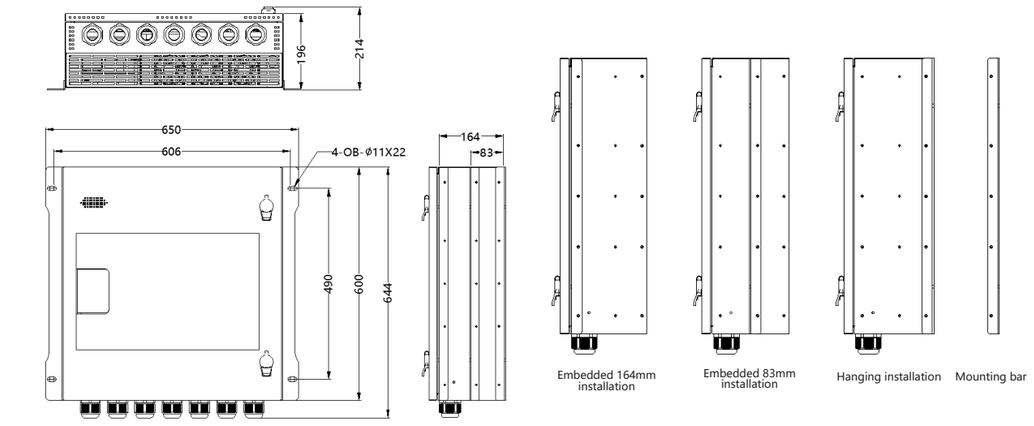
Door Panel Interface Display

Human-machine Interface

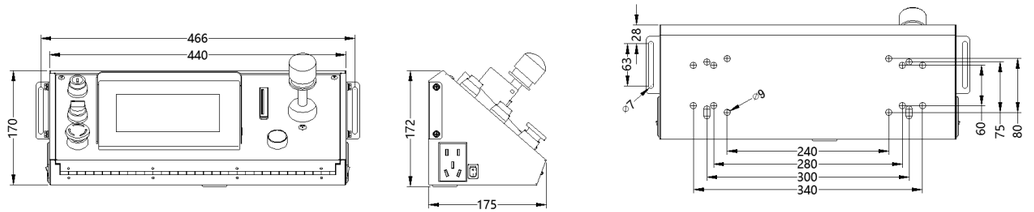
Complete System Composition



Product Parameter



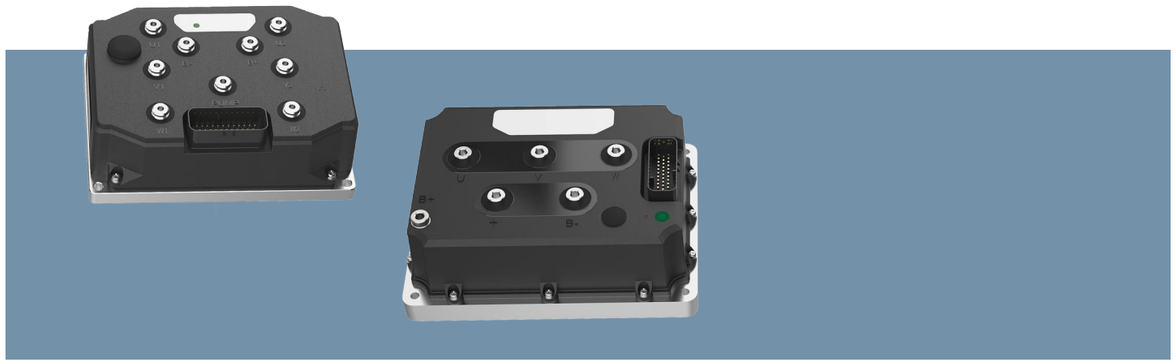
Driver Size



Operating Table Size

Engineering Machinery Drive

CM Low Voltage Engineering Machinery Drive



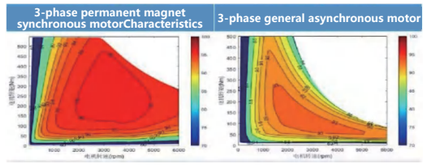
Functional Advantages & Performance Characteristics

Functional Advantages

Support to drive three-phase AC permanent magnet synchronous motor and 3-phase AC asynchronous motor

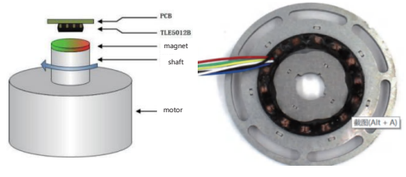
The low voltage series driver are integrated with 3-phase AC permanent magnet synchronous motor control and 3-phase AC asynchronous motor control.

Compared with 3-phase AC asynchronous motor, the energy saving is more than 18% when using 3-phase permanent magnet synchronous motor.



Position sensors such as magnetic encoders, A/B encoders and rotary transformers are supported

Low voltage series drivers support the latest technology magnetic encoders, traditional A/B encoders and rotary transformers. It increases the stability and smoothness of the vehicle operation, and also improves the reliability and application range of the motor system, especially for AGV, large forward, stacker and other occasions requiring high application accuracy.



Wide range of environment use

The ambient temperature of low-voltage series driver is -30 ° C ~50 ° C, moderate 5%~95%(no condensation of water droplets). Suitable for the occasion of harsh temperature and humidity (food cold storage, etc.), all kinds of environment in north and south.

Full range of products

Low voltage series drivers range from 24V to 144V and current from 150A to 750A. It can be used for balanced forklifts, tractors, sanitation trucks, etc.

Flexible all-line control mode

Low voltage series drivers with one CAN and one serial communication interface, can meet customers' needs for bus control and later vehicle management system access. At the same time the company can also provide personalized all-line technology development.

Complete solution is available

driver, permanent magnet synchronous motor, reducer, instrument, wire harness and other complete control system solutions.

Functional Advantages & Performance Characteristics

Performance Characteristics

Diagram -1

Advanced Design & Performance

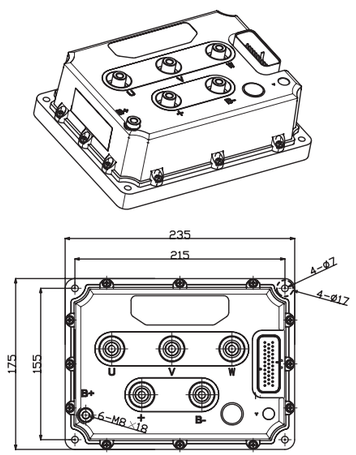
* Advanced flux vector control calculation
* High efficiency MTPA optimal torque control calculation
* The MTPV optimal voltage control calculation with high reliability (weak magnetic control) is shown in diagram -1
* Up to 16K carrier frequency, low noise operation in the frequency range of 0-400hz
* Brake or reverse energy feedback control, improve vehicle service time, to meet different customer needs.
* Ramp anti-slip function, ensure the safety of vehicle ramp driving.

High Security & Reliability

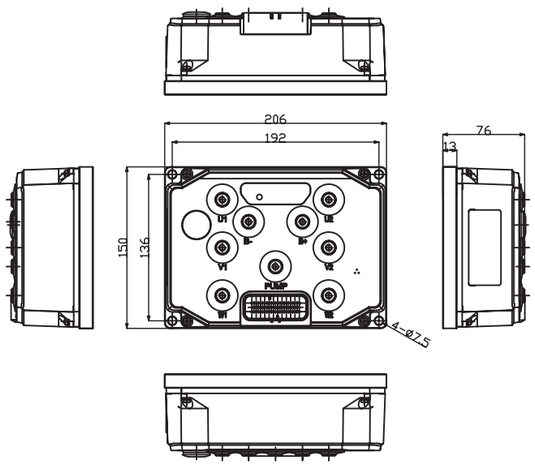
* The power part adopts aluminum substrate with excellent heat dissipation and insulation performance to improve the reliability of the controller
* Safety failure power device protection design
* Battery positive and negative polarity reverse connection protection
* Drive output short circuit protection
* Over voltage, under voltage, over current, over temperature, overload and other protections;
* Drive output short circuit protection
* IP65 protection grade, meet the requirements of harsh environment

Excellent Drive Control

* Wide working area of output torque and speed, perfect regeneration performance;
* Internal closed-loop control of speed and torque modes ensures optimum performance;
* Through the parameter setting, adjust the driving and braking performance to achieve the best results;
* Speed control mode provides unique performance to ensure smooth and comfortable speed control, and can be actively responded to any operating conditions;
* Built in safety functions such as steep slope descent, throttle gear interlock, turning speed limit etc.;
* Rich external interface, multi-channel digital input, analog input, high current PWM output, etc.;
* With motor working timing, seat timing, vehicle mileage count, historical alarm records and other functions;



S17 Installation dimensions



T14 Mounting dimensions

Technical requirements:

1. The controller is installed on the metal surface with fast heat conduction with 4 screws;
2. Do not knock the controller shell with external forces.

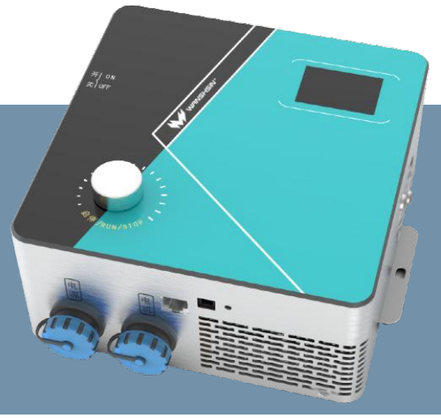
Type designation

CM S 16-24 37-X

- Product series: Construction machinery
- Driving motor quantity: S - single control, D - dual control, T - three in one
- Model specifications (heat dissipation base width):14/16/17/18/23
- Product voltage specification: 24V/48V/80V/96V/144V
- 2Min effective current : 20: 200A, 27: 275A, 35: 350A, 37: 370A, 45: 450A, 55: 550A, 60: 600A, 75: 750A
- Software version :00-FF, factory standard default

Model	Voltage Level	Operating Voltage Range	Output Current		IP Level	Cooling Mode	Mounting Dimension No.
			1hour	2minutes			
CM-S16-2437-X	24V	18V-30V	185A	375A	IP65	natural cooling	S16
CM-S16-4827-X	48V	33V-60V	145A	275A	IP65	natural cooling	
CM-S16-4835-X	48V	33V-60V	175A	350A	IP65	natural cooling	
CM-S17-4845-X	48V	33V-60V	225A	450A	IP65	natural cooling	S17
CM-S17-8035-X	80V	56V-96V	175A	350A	IP65	natural cooling	
CM-S17-9620-X	96V	72V-120V	100A	200A	IP65	natural cooling	
CM-S18-4860-X	48V	33V-60V	300A	600A	IP65	natural cooling	S18
CM-S18-8045-X	80V	56V-96V	225A	450A	IP65	natural cooling	
CM-S18-9635-X	96V	72V-120V	175A	350A	IP65	natural cooling	
CM-S18-1420-X	144V	105V-175V	100A	200A	IP65	natural cooling	
CM-S23-4875-X	48V	36V-48V	375A	750A	IP65	natural cooling	S23
CM-S23-8055-X	80V	56V-96V	275A	550A	IP65	natural cooling	
CM-S23-9645-X	96V	72V-120V	225A	450A	IP65	natural cooling	
CM-S23-1435-X	144V	105V-175V	175A	350A	IP65	natural cooling	
CH-T14-2420-X	24V	18V-30V	100A	200A	IP65	natural cooling	T14
meter	24V-144V	18V-175V			IP65		
host computer							

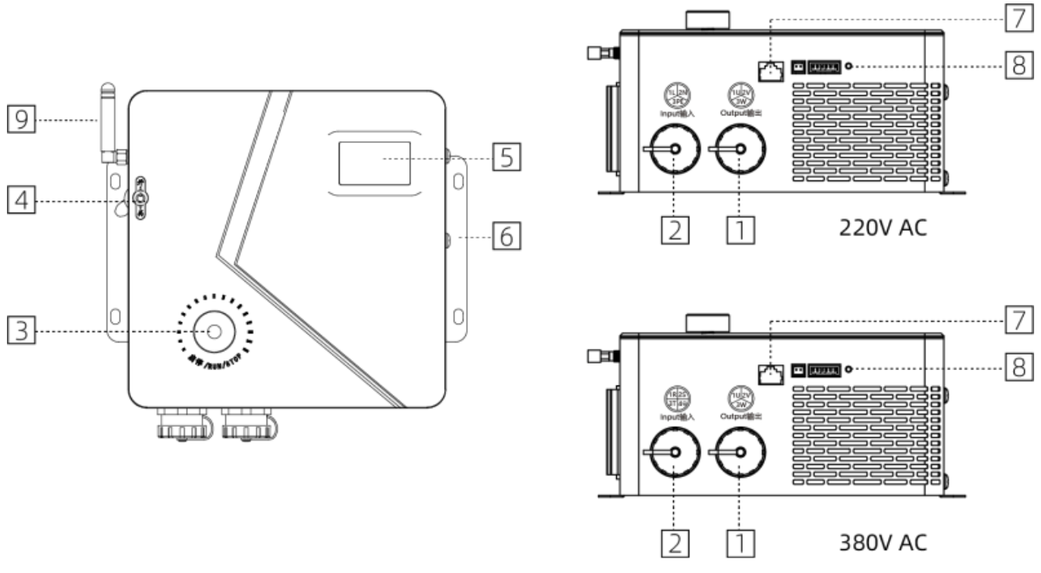
Industrial Fan Drive



CF300 Industrial Fan Drive

CF300 Industrial Fan Drive is mainly composed of frequency conversion driver, power on knob switch, speed control locator, LCD screen. Set a variety of functions, smooth start ultra quiet, small size, easy operation, energy saving and other advantages. Automatic identification of motor position, stable operation within the full speed range, rated torque output at 5HZ low frequency. Compatible with asynchronous and synchronous motor control, and support a variety of expansion accessories.

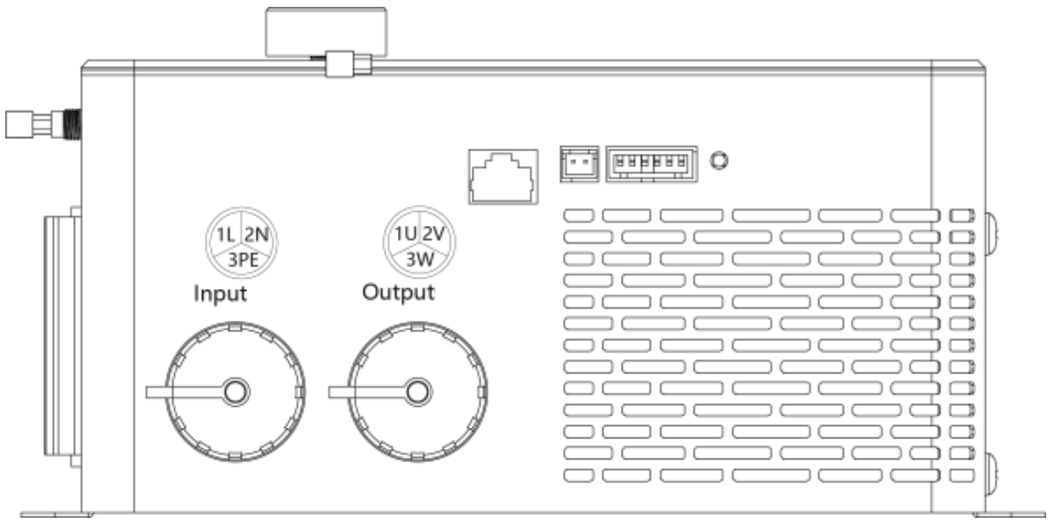
Appearance and function description



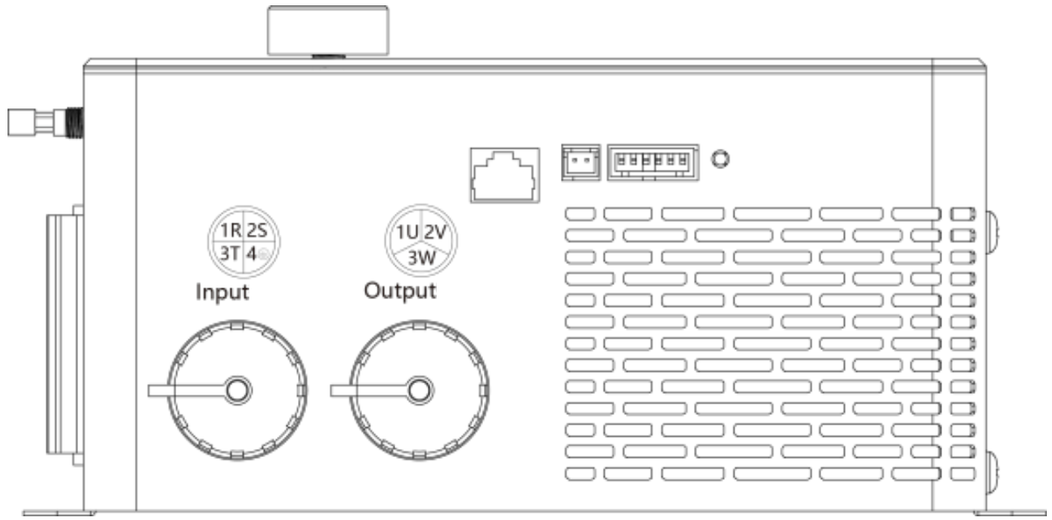
No.	Part Name	Description
1	Motor wire aviation plug	Connect the motor input cable
2	Power input line aviation plug	Power input connector

No.	Part Name	Description
3	operating knob	Start, stop and speed adjustment functions are integrated, clockwise rotation, speed changes from 0 to rated speed
4	Main power control area	Controller power main switch, ON means open; OFF means close; factory setting is OFF
5	LCD display area	Display the actual motor speed and alarm parameters
6	Install the seat	Installation screw holes, guide rail installation method is optional
7	Parameter debugging interface	Standard network cable interface, used when debugging product parameters
8	Hide buttons	One-click self-learning button, used for factory debugging
9	Wireless module antenna	wireless communication antenna

Input/output terminal blocks and instructions



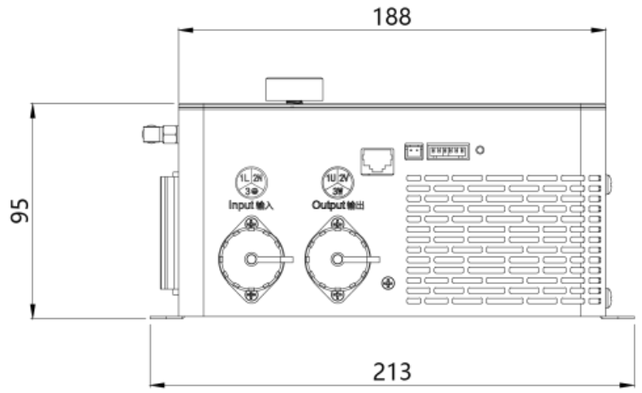
Single-phase 220V main circuit wiring

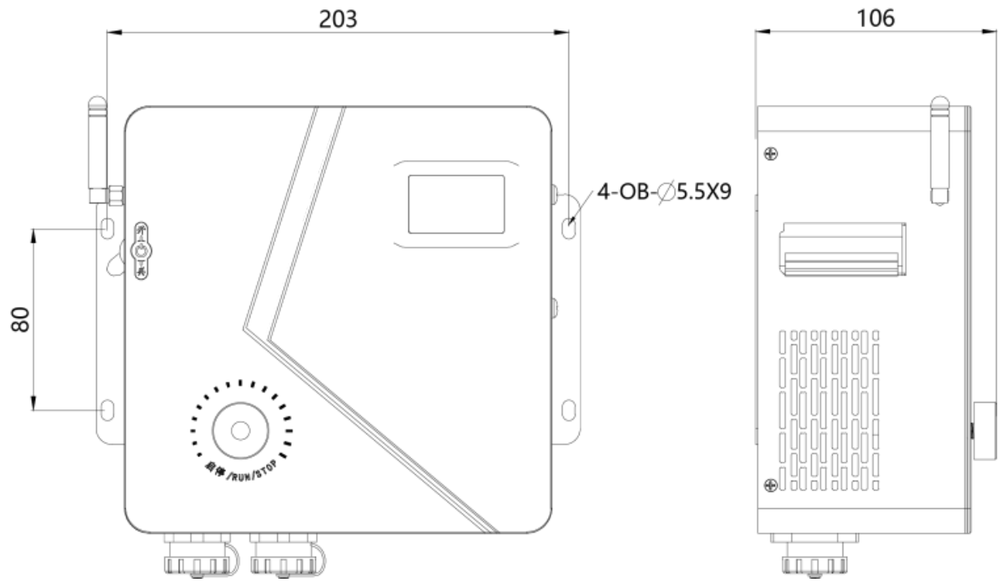


Three-phase 380V main circuit wiring

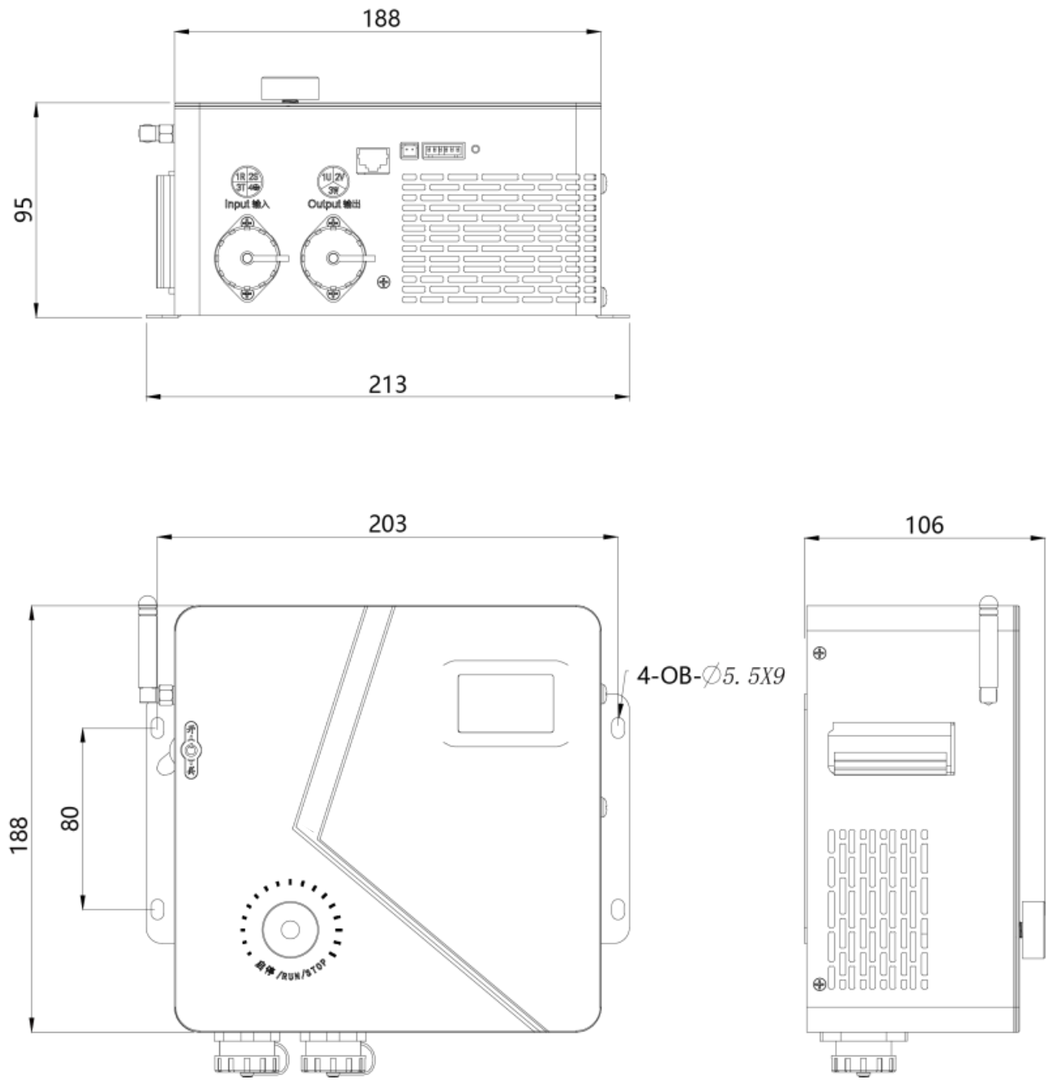
Terminal Symbol		Terminal Name	Functional Description
Input	L1(L)	Three-phase (single-phase) main circuit power input	Three-phase (single-phase) AC power input terminal, connected to the power supply
	L2(N)		
	L3		
	PE(PE)		
Output	U	Industrial ceiling fan output terminal	Three-phase output terminal, connected to the motor
	V		
	W		

Installation dimensions





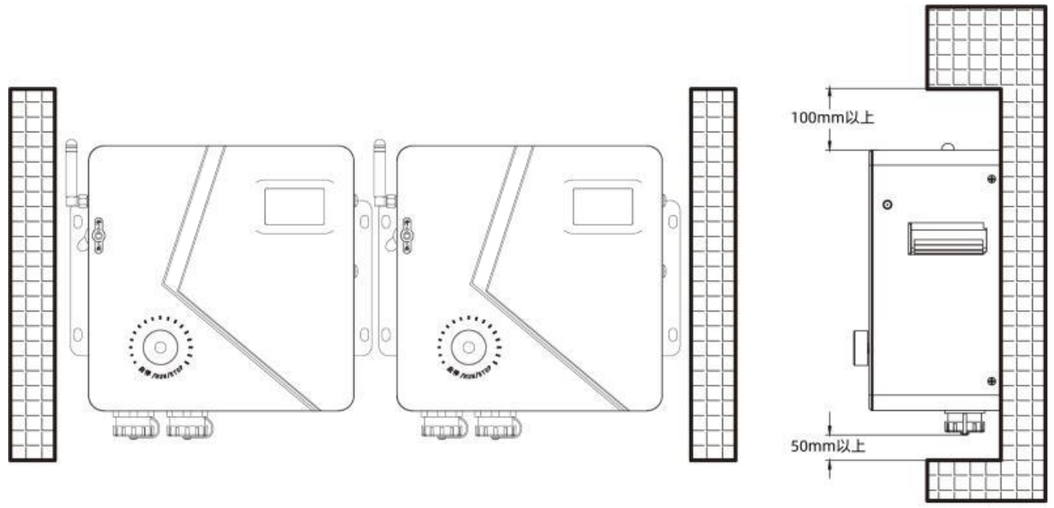
Single phase 220V dimension drawing



Three-phase 380V dimension drawing

Installation Space & Direction

The industrial ceiling fan controller is wall-mounted. The installation distance requirements of a single industrial ceiling fan controller are as shown in the figure:



Installation Spacing

Type designation

CF300 - 1R5A

① ②

①: Product Model: CF300

②: Power:

1R5A 1.5kW
R means decimal point
A means kilowatt