

YWTECH



YW2000 SERIES PRODUCTS A02 >>>>

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YWTECH, it is a national high-tech enterprise integrating R&D, production, sales and service in industrial automation products. Based on the high-end industrial automation technologies to produce the high performance products and excellent services to the Customers, achieving joint values between enterprises and customers. Depend on the top R&D team in China to producing the high performance low voltage AC drive, with the high level manufacturer, high quality control, and excellent technical team to service, it makes YWTECH into the high-end brand in industrial automation field.

Corporate Culture

YIYANG YWTECH ELECTRIC CO., LTD. is a high-tech enterprise integrating the R & D, production and sales of industrial automation products.



Vision

Develop ourself to becoming globally leading brand of Industrial automation field



Spirit

Unity and cooperation, hardworking and devoted



Core Values

Innovation constantly



Mission

With own mission of YWTECH to delicate manufacture and transmit values constantly



Management

Depend the market central, combined with innovative industrial and business models to achieve a joint value between enterprises and customers





YW2000 Series

PRODUCT INTRODUCTION >>>

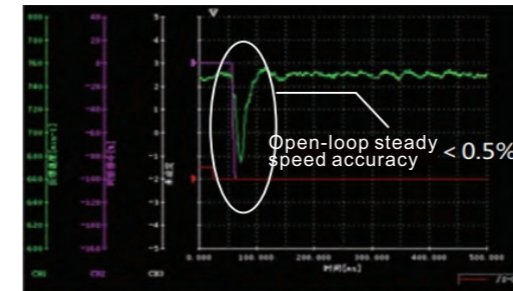
Based on many years of research and development technology achievements and market feedback, YW2000 series AC Drive have been fully upgraded in terms of structure, hardware and software on the basis of the excellent previous work.



Unique Advantage

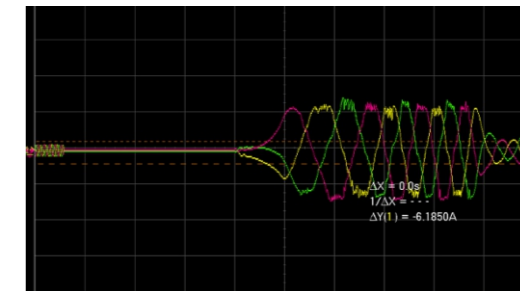
 <p>High Power Density</p> <p>The structure design layout is more compact;</p>	 <p>High Quality</p> <p>The hardware design and components selection are more optimized and reasonable;</p>	 <p>High Performance</p> <p>The software upgrade more compatible with the end user, flexible, accurate industrial control, high performance working;</p>	 <p>Optimize Products User Experience</p> <p>Easy operation, maintainability, environmental protection, scalability and convenience of Internet of Things access;</p>
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Excellent Performance



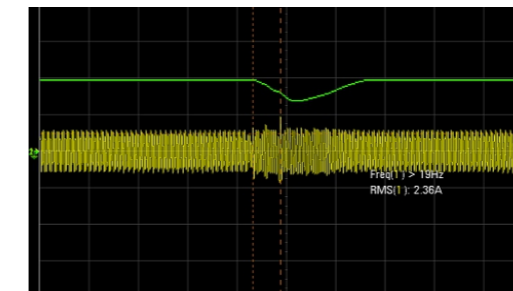
1. High Speed Stability and Precision

±0.5%(SVC), ±0.02%(FVC)
VC dynamic speed stability accuracy (speed anti-load disturbance): 0.103%



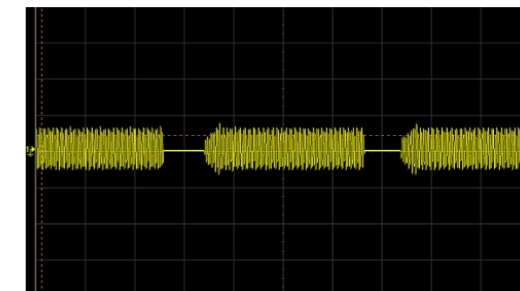
2. Fast Current Limit

The Drive has a combination of software and hardware fast current limiting functions. When it detects that the current of each phase is more than the limit value, it quickly completes the wave-by-wave current limiting control to avoid over-current faults.



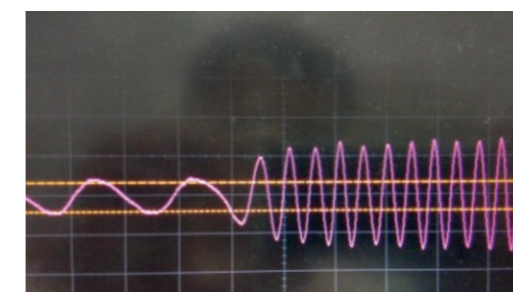
3. Instant Power Failure Without Stopping

When the power failure instantly, the Drive realizes generation feedback by reducing the operating frequency and maintains the stability of the bus voltage. When the grid input is normal, it returns to normal operation.



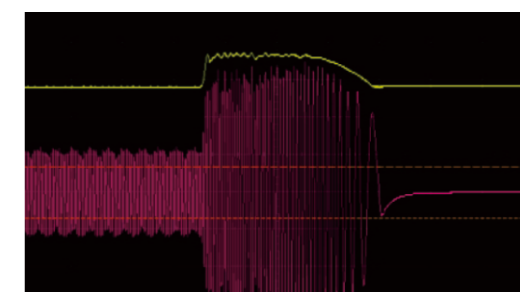
4. Fast Rotary Speed Tracking

The Drive completes the speed tracking of the shaft of the high-speed rotating motor within 300ms, realizing fast and smooth start.



5. Excellent Low Frequency Torque Control

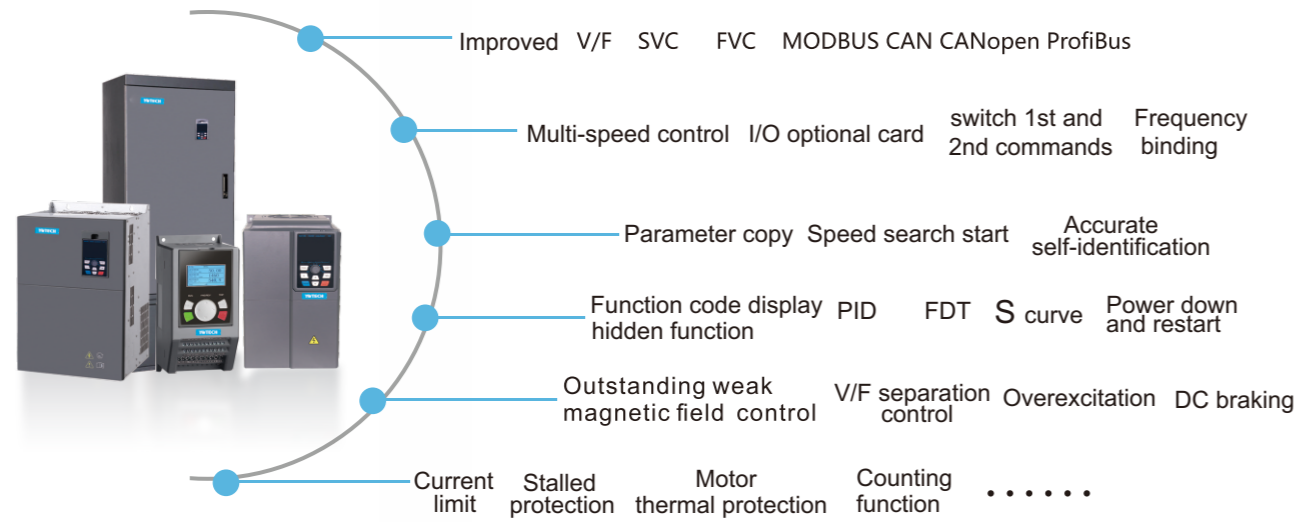
0.5HZ applied load during smooth operation



6. Overexcitation Function

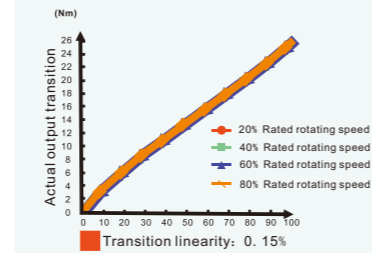
There is no need to add external braking resistors and other components to achieve rapid braking effect, which can effectively suppress the rise of bus voltage during deceleration, avoid frequent overvoltage faults, and cooperate with the software's overvoltage suppression algorithm to meet rapid shutdown.

Multiple Applications



Low Speed High Torque Low Torque Ripple

In closed-loop vector mode, the linearity deviation of the torque straight line is within 3%. The torque output is stable, the low-frequency torque is large, and it can realize the stable load operation at an ultra-low speed of 0.01Hz. The torque mode and the speed mode can be easily switched.



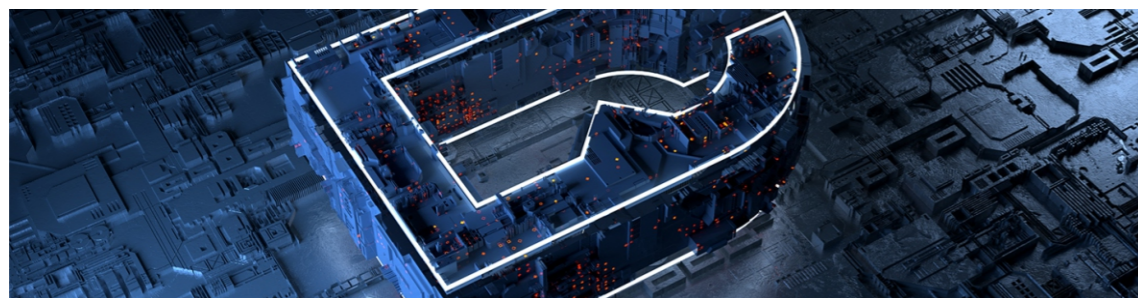
Good voltage and Current Control

In the deceleration process, by adjusting the output frequency, avoid excessive deceleration that causes the motor to generate too much power, which may cause overvoltage on the main branch bus of the Drive.

Over-voltage Stalled

During the acceleration process, by adjusting the output frequency, avoid excessive acceleration caused by excessive load, which may cause a large overcurrent of the inverter.

Over-current Stalled



Product Function

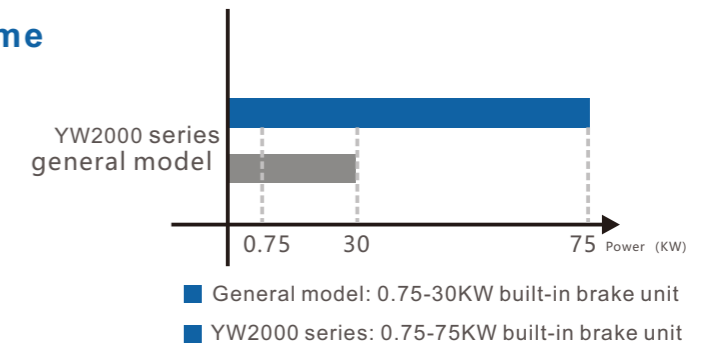
Quality Assurance

Long lifespan component selection and refined design ensured the good quality of the products. stabilize the automatic spraying process of the three-proof paint, increase the environmental resistance of the veneer, and comprehensively improve the protection of the veneer.



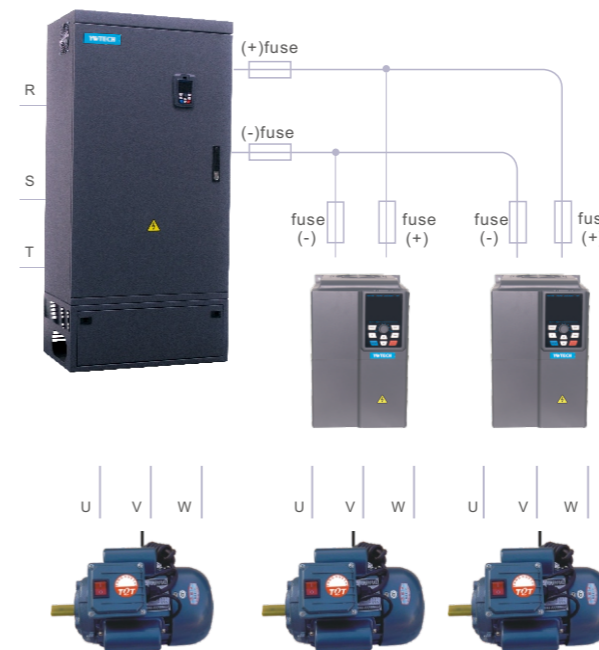
Perfect DC Braking Circuit Scheme

0.75kW~75kW built-in brake unit
Strong braking ability: The short-term braking ability can reach 1.1~1.4 times the rated power of the Drive, and the braking protection is more comprehensive and intelligent.



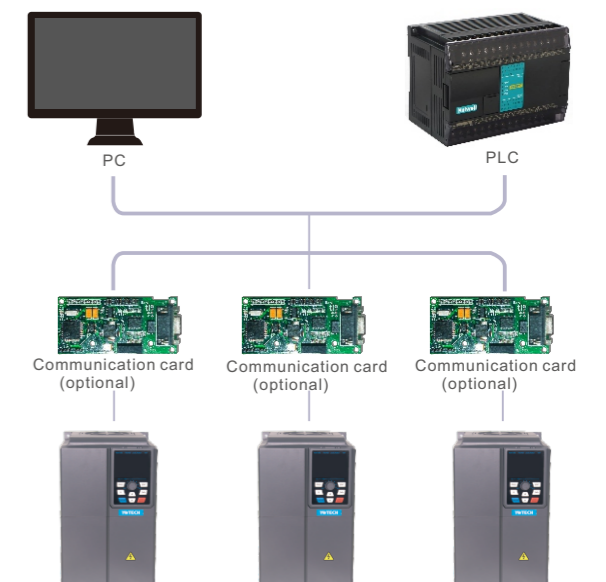
Perfect DC Braking Circuit Scheme

All models with standard DC power supply terminals



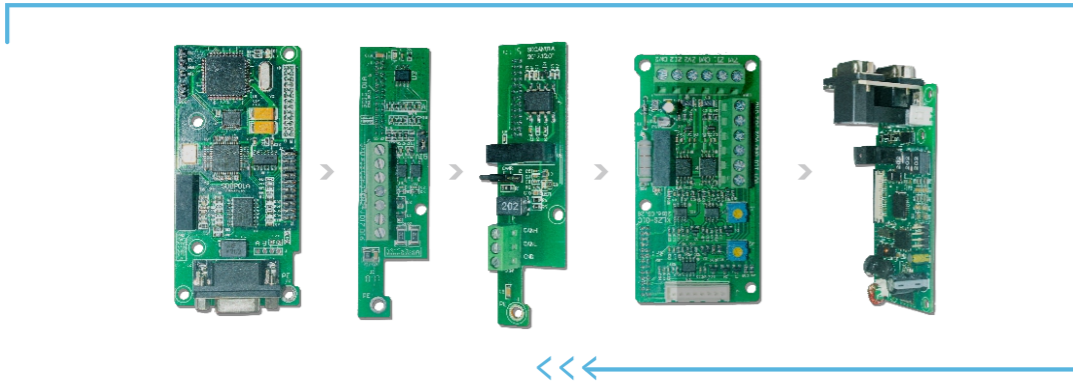
Multiple Communications

Standard MODBUS communication, optional PROFIBUS and CANOPEN communication card. It can connect the IOT via communication mode.



Rich Scalability

Various function expansion cards, IO cards, relay output cards, and various PG cards can be selected according to requirements to match various encoders, communication expansion cards, etc. Can be customized according to demand.



High-Performance Keypad

High-performance Keypad(standard)

Double-row LED display, convenient for parameter monitoring; With parameter copy and upload functions



LCD Keypad (optional)

Full display of each parameter description, Support multilingual; With parameter copy and upload functions



Structural Design

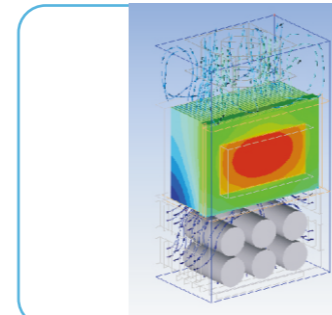
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Independent duct design

It prevent pollutants from entering the electronic component, effectively improve the protective level of Drive, so as to adapt to the various complex and harsh application environment. It improve the reliability of the product and extend the inverter lifespan; The independent air duct effectively solves the large heat dissipation problem in the control cabinet, which is convenient for customers' electrical cabinet heat dissipation design.



Advanced Thermal Simulation Technology



In structural design, with the introduction of thermal simulation technology has improved, the overall power density of the drive ensures the heat dissipation of the whole machine

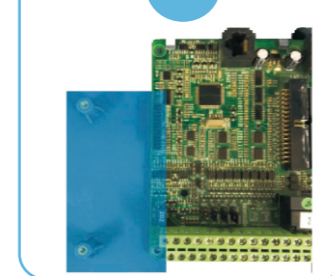
Easy Installation

Protruding treatment of mounting holes, It provides convenience for customers' installation.



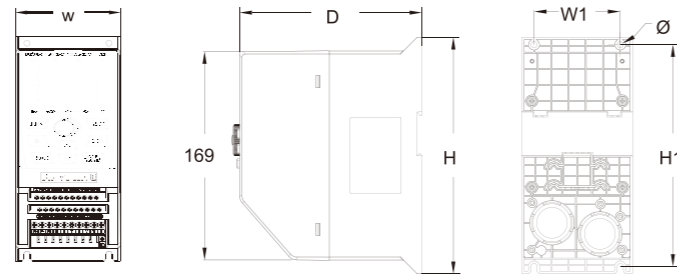
Expansion Card Easy Installation

Customers can choose expansion cards according to their demand. it can be quickly installed to reserved position of the drive, compatible with variety of cards.

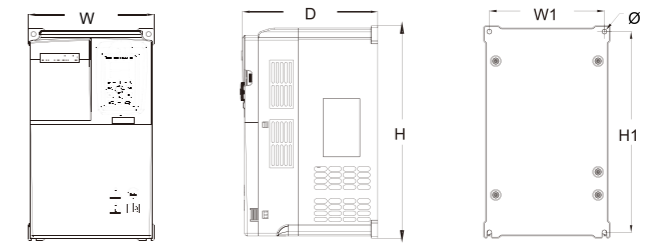


Dimension Parameter

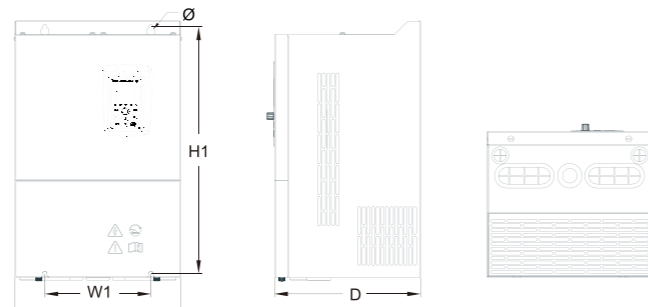
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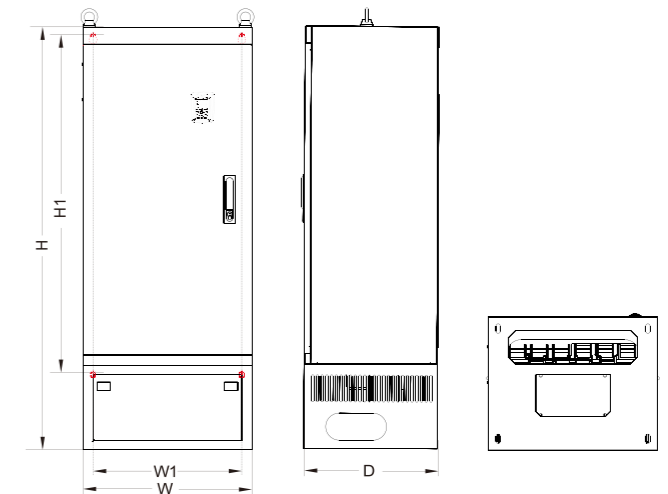
Outline Dimension			Installing Dimension		
H(mm)	W(mm)	D(mm)	H(mm)	W(mm)	D(mm)
0.7KW~4.0KW					
192	90	148	180	70	Ø5



Outline Dimension			Installing Dimension		
H(mm)	W(mm)	D(mm)	H(mm)	W(mm)	D(mm)
5.5KW					
190	110	150	178	98	Ø5
7.5KW					
210	130	160	198	118	Ø5
11KW					
250	155	176	236	141	Ø5
15KW~18.5KW					
295	176	188	279	160	Ø7
22KW~30KW					
337	245	188	320	228	Ø7

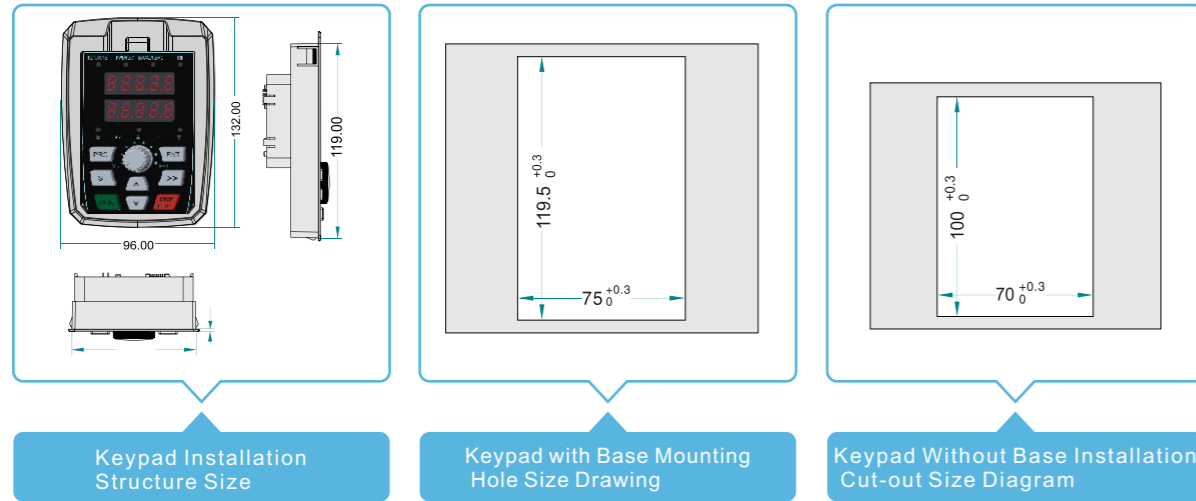


Outline Dimension			Installing Dimension		
H(mm)	W(mm)	D(mm)	H(mm)	W(mm)	D(mm)
37KW					
387	250	220	372	150	Ø7
45KW~55KW					
440	270	256	426	180	Ø7
75KW					
469	307	263	450	200	Ø10
90KW~110KW					
590	340	305	565	200	Ø10
132KW~185KW					
740	450	329	715	360	Ø12
200KW~250KW					
940	500	369	914	400	Ø12
280KW~350KW					
1045	725	390	1012	600	Ø13



Outline Dimension			Installing Dimension		
H(mm)	W(mm)	D(mm)	H(mm)	W(mm)	D(mm)
400KW~500KW					
1810	850	405	1410	513	Ø13

Installation Dimension of External Keypad



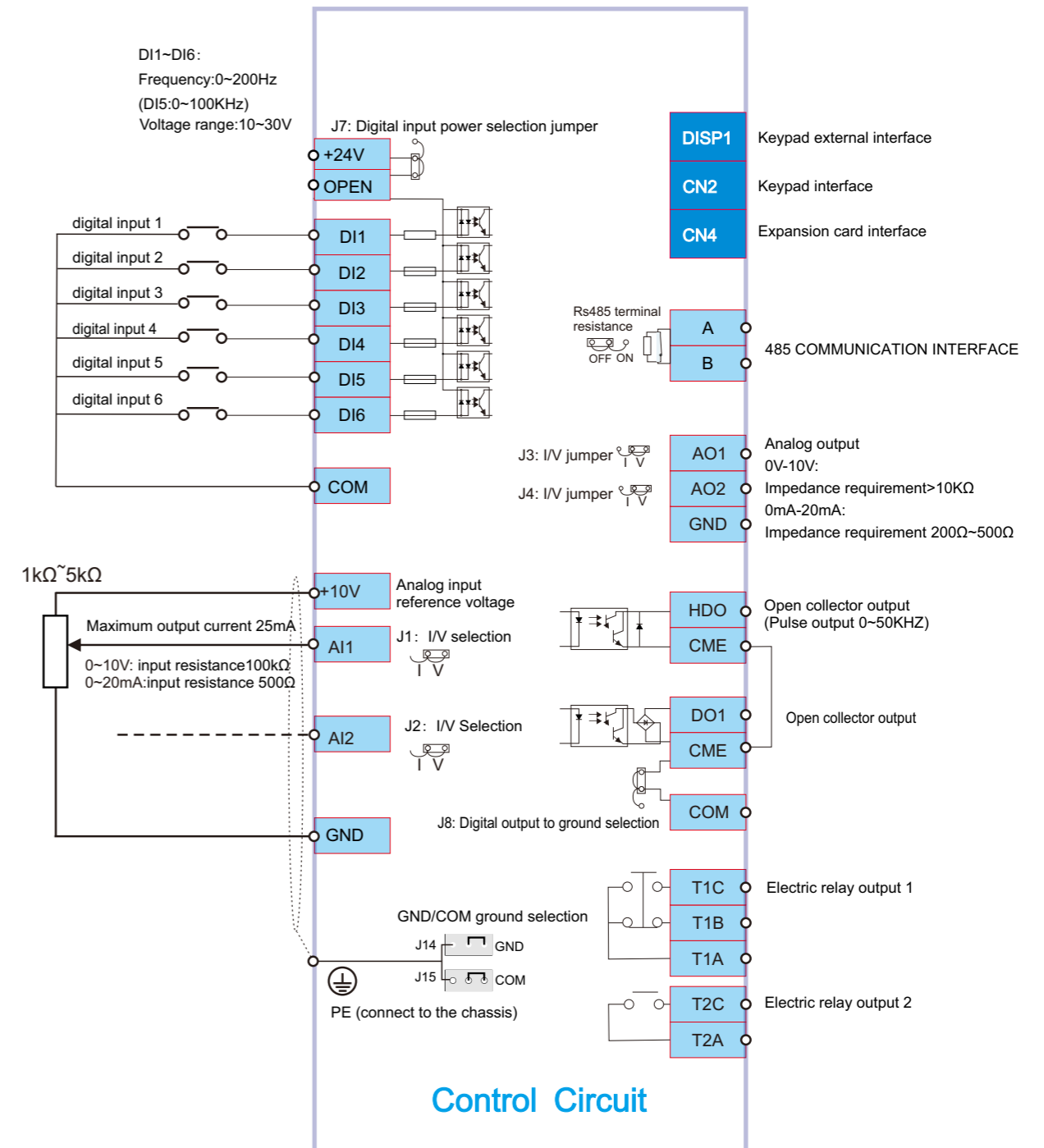
High-Performance Keypad

Model	Power Capacity (KVA)	Input Current (A)	Output Current (A)	Adaptable Motor (KW)
YW2000-2S:0.7KW-2.2KW 220V 50/60Hz				
YW2000-2S-0.7G	1.5	8.2	4.7	0.75
YW2000-2S-1.5G	3.0	14.0	7.5	1.5
YW2000-2S-2.2G	4.0	23.0	10.0	2.2
YW2000-2T:0.7KW-2.2KW 220V 50/60Hz				
YW2000-2T-0.7G	1.5	5.5	4.7	0.75
YW2000-2T-1.5G	3.0	7.7	7.5	1.5
YW2000-2T-2.2G	4.0	12.0	10.0	2.2
YW2000-4T:0.7KW-500KW 380V 50/60Hz				
YW2000-4T-0.7G	1.5	3.4	2.3	0.75
YW2000-4T-1.5G	3.0	5.0	3.7	1.5
YW2000-4T-2.2G	4.0	5.8	5.1	2.2
YW2000-4T-4.0G	5.9	10.5	8.5	4.0
YW2000-4T-5.5G	8.9	14.6	13	5.5
YW2000-4T-7.5G	11	20.5	17	7.5
YW2000-4T-11G	17	26	25	11
YW2000-4T-15G	21	35	32	15
YW2000-4T-18.5G	24	38.5	37	18.5
YW2000-4T-22G	30	46.5	45	22

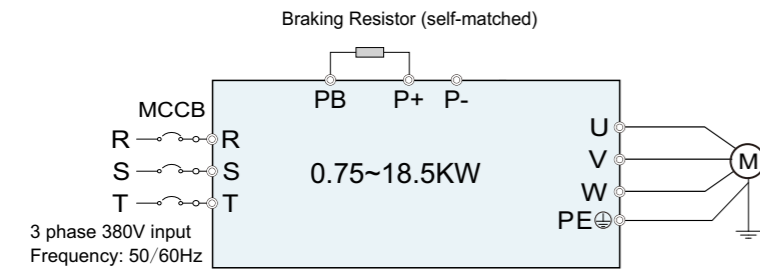
Model	Power Capacity (KVA)	Input Current (A)	Output Current (A)	Adaptable Motor (KW)
YW2000-4T:0.7KW-500KW 380V 50/60Hz				
YW2000-4T-30G	40	62.5	60	30
YW2000-4T-37G	57	76	75	37
YW2000-4T-45G	69	92	91	45
YW2000-4T-55G	85	113	112	55
YW2000-4T-75G	114	157	150	75
YW2000-4T-90G	134	180	176	90
YW2000-4T-110G	160	214	210	110
YW2000-4T-132G	192	256	253	132
YW2000-4T-160G	231	307	304	160
YW2000-4T-185G	255	333	330	185
YW2000-4T-200G	287	380	377	200
YW2000-4T-220G	311	429	426	220
YW2000-4T-250G	355	470	465	250
YW2000-4T-280G	396	525	520	280
YW2000-4T-315G	439	605	600	315
YW2000-4T-350G	479	665	660	355
YW2000-4T-400G	530	730	725	400
YW2000-4T-450G	600	825	820	450
YW2000-4T-500G	600	910	900	500

Application Wiring

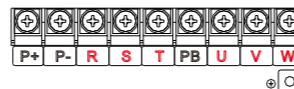
Control Terminal Wiring Diagram



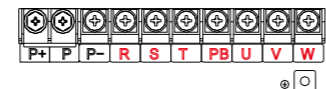
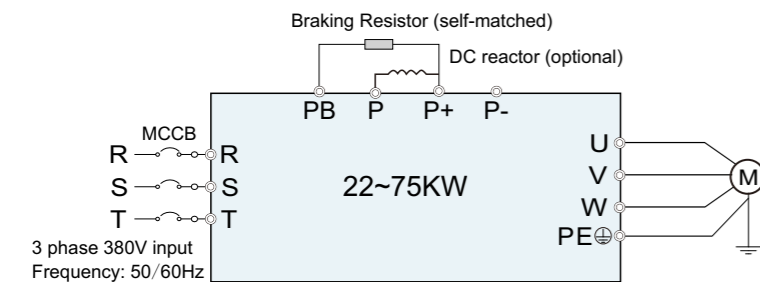
• Control Terminal Wiring Diagram



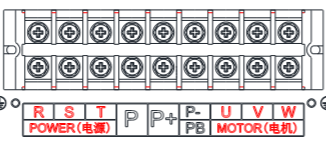
0.7~11kw main circuit and loop terminal schematic diagram



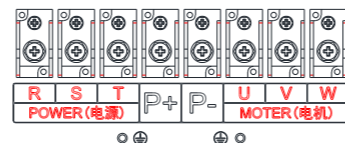
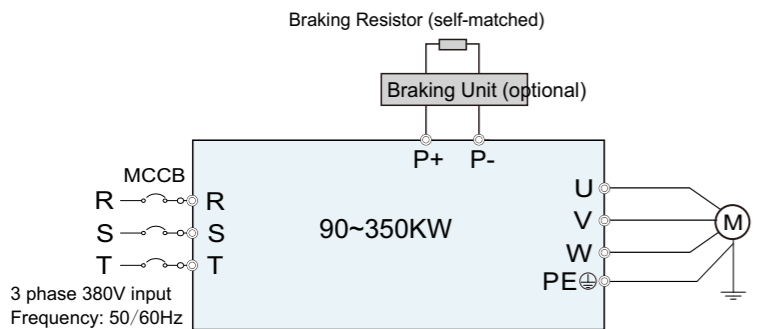
15~18.5kw main circuit and loop terminal schematic diagram



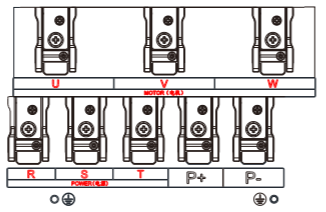
22~37kw main circuit and loop terminal schematic diagram



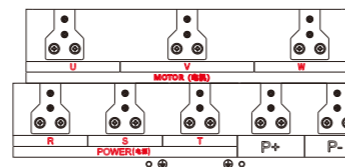
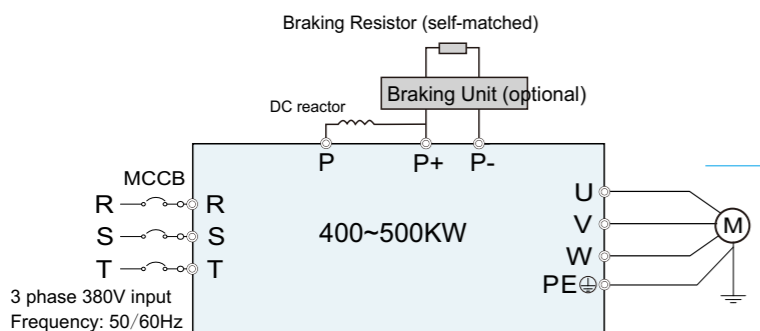
45~75kw main circuit and loop terminal schematic diagram



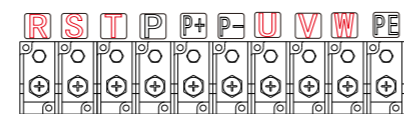
90~110kw main circuit and loop terminal schematic diagram



132~250kw main circuit and loop terminal schematic diagram



280~350kw main circuit and loop terminal schematic diagram



400~500kw main circuit and loop terminal schematic diagram

Technical Parameter

	Items	Specification	
Functions	Maximum Frequency	Vector control: 0.00~500.00Hz; V/F control: 0.00~500.00Hz	
	Carrier frequency	0.5kHz~16kHz; the carrier frequency is automatically adjusted based on the load features.	
	Input frequency resolution	Digital setting: 0.01Hz; Analog setting: Max frequency×0.025%	
	Control Mode	V/F control; Open loop vector control (SVC) Closed loop vector control (FVC)	
	Start Torque	0.25Hz/150% (SVC); 0Hz/180% (FVC)	
	Speed range	1~200 (SVC); 1: 1000 (FVC)	
	Stable speed accuracy	±0.5% (SVC); ±0.02% (FVC)	
	Torque control accuracy	±5% (SVC)(5Hz Over); ±3% (FVC)	
	Overload capacity	G type: 150% rated current for 60s	
	Torque boost	Auto torque boost; Manual torque boost: 0.1%~30.0%	
	V/F control	4 ways: Line, multi-point, Square V/F curve, V/F separation	
	Accelerate/Decelerate curve	Line or S-curve Acc/Dec mode, four kinds of Acc/Dce time,; Ranges of Acc/Dec time is 0.0s~6500.0s	
	DC braking	DC braking frequency: 0.00Hz~ Maximum frequency Braking current: 0.0%~100.0%(rated current) Braking time: 0.0s~1000.0s	
	Jog control	Jog frequency range:0.00Hz~ Maximum frequency; Jog Accelerate time: 0.0s~6500.0s	
	Features	Simple PLC, Multi-speed	Realize up to 16-speed operation through built-in PLC or control terminal
Inbuilt PID		It is convenient to realize the process control closed-loop control system	
Auto voltage regulation (AVR)		When the grid voltage changes, it can automatically keep the output voltage constant	
Overvoltage/over-currentstall control		Automatically limit current and voltage during operation to prevent frequent over-current and over-voltage trips	
Torque limit and control		The torque is automatically limited during operation to prevent frequent over-current trips; closed-loop vector mode can realize torque control	
Non stop function		In case of instantaneous power failure, the load feedback energy is used to compensate for the voltage drop to keep the inverter running for a short time	
Speed tracking start		Speed identification of the motor under high-speed rotation to achieve smooth start without impact	
Rapid current limit		Fast software and hardware current limiting technology to avoid frequent over-current faults of the inverter	
Virtual IO		Five virtual DO, five virtual DI, can realize simple logic control	
Timing Control		Timing control function: setting time ranges: 0.0Min~6500.0Min	
Multi-motor switch		Two groups of independent motor parameters can realize switching control of two motors	
Bus support		One independent MODBUS communication, one CAN communication, one Profibus-DP	
Multi-encoder support		Support differential, open-collector photoelectric encoder, resolver and other position sensors	
Running		Command Source	Operation panel setting, control terminal setting, serial communication port setting. Can be switched in many ways
		Frequency source	10 kinds of frequency sources: no binding, digital setting, analog current setting (AI1/AI2), pulse setting (DI5),Multi-speed, simple PLC, PID, communication setting; Can be switched in many ways
	Auxiliary Frequency source	10 kinds of auxiliary frequency sources. Flexible realization of auxiliary frequency fine-tuning and frequency synthesis	
	Input terminal	Standard configuration: 6 digital input terminals, one of which supports high-speed pulse input; 2 analog input terminals.Expansion capacity: 4 digital input terminals; 1 analog input terminal.	
	Output terminal	Standard configuration: 1 high-speed pulse output terminal; 1 digital output terminal; 2 relay output terminals; 2 analog output terminals.Expansion capacity: 1 relay output terminal; 1 analog output terminal.	
Display and Keypad Operation	LED display	Double LED display keyboard, more convenient to monitor parameters	
	LCD display	Optional, Chinese/English/Russian display function parameters and status information	
	Specification Copy	The parameters can be quickly copied through the standard operation panel and optional LCD	
Protection Function	The key lock and function selection	Realize partial or full lock of keys, define the scope of action of some keys, to prevent misoperation operation panel options	
	Protection function	Motor to ground short circuit detection, input and output phase loss protection, overcurrent protection, overvoltage protection, undervoltage protection, overheating protection, Overload protection, etc.	
Accessories	Accessories	Brake components, simple IO expansion card, multi-function IO expansion card, CAN communication expansion card, differential input PG card, Resolver PG card	