ZONCN

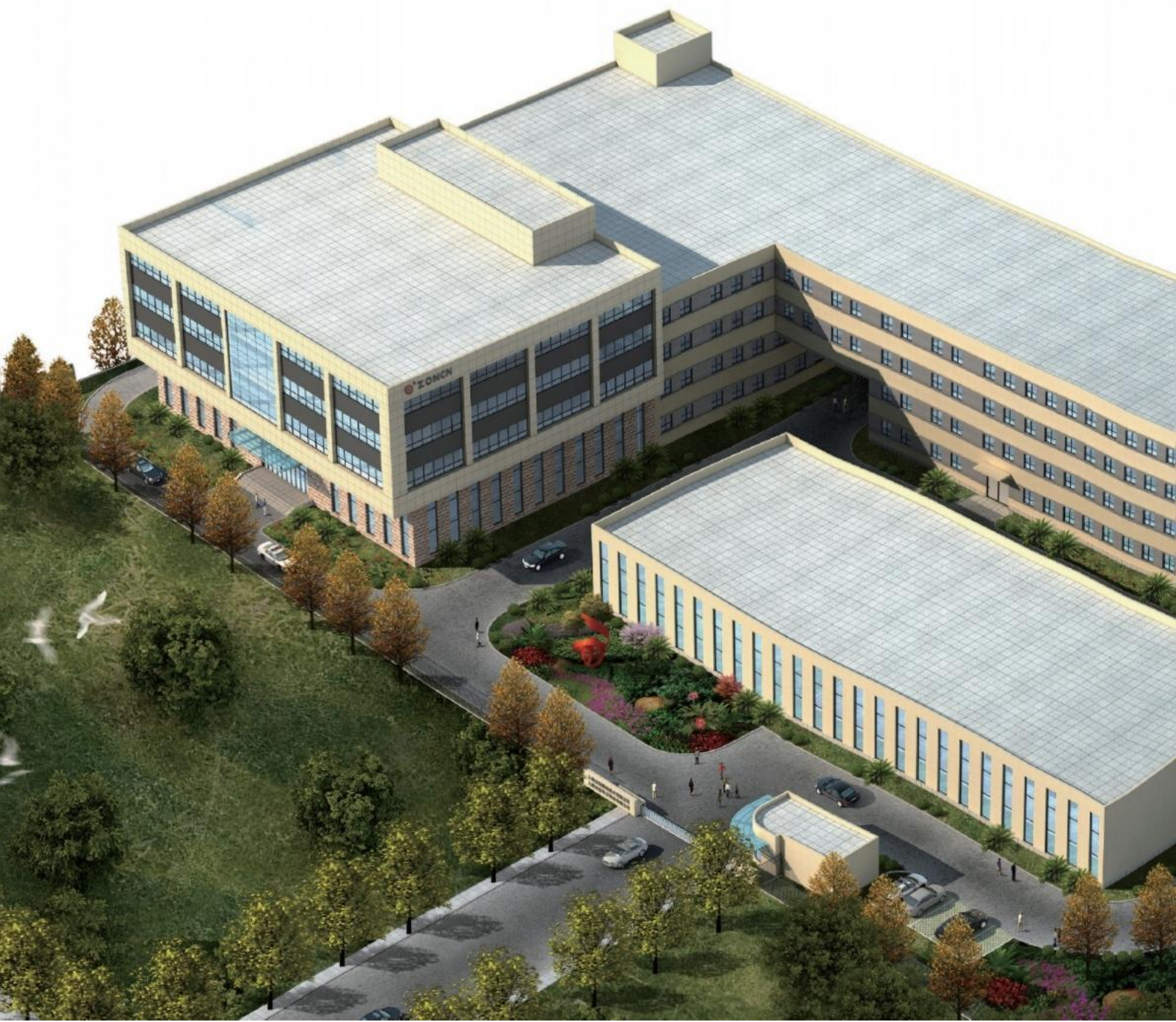
INVERTER

Changes for Better Life

SHANGHAI ZHONGCHEN ELECTRONIC TECHNOLOGY CO.,LTD.

Company Profile

Shanghai Zhongchen Electronic Technology Co.,Ltd.was established in 2006 and is located in Shanghai.Listed on the Shanghai Stock Exchange in August 2023 (stock code:603275).Our company is a high-tech enterprise specializing in the research,production,sales,and service of VFD and other industrial automation products.Our factory floor area is about 170,000m².More than 800 employees include more than 150 professional technical engineers.We have passed ISO9001 quality control system and all the products have CE certification.



Our main products include inverter and servo system.Our company has a wide range of products,with medium and low voltage inverters divided into two categories: general-purpose products and industry-specific products,covering voltage levels from AC220V to 1140V,power range from 0.4kW-1,200kW,and widely used in industries such as air compressors,plastic machinery,construction machinery,water supply equipment,metallurgical equipment, textile machinery,machine tools,chemical machinery,mining machinery,printing and packaging,etc.The servo system is divided into two categories:synchronous servo driver and asynchronous servo driver, covers voltage range from AC220V to 480V,power range from 0.4 kW to 132 kW, suitable for various occasions requiring high-performance precision control.

ZONCN has more than 80 dealers in china and abroad.Now our products are exported to more than 50 countries in Asia, Europe, Africa and America. ZONCN will always dedicate in the field of electrical drive and warmly welcome you to be our partner.

CONTENT

NZ100 Series

Micro &Economic

· Compact size and low cost design
· Terminals uncovered,easy for wiring
· DIN-rail mounting(below 5.5kW)
· Supports MODBUS via RS485
· Maintenance-free
· V/F control;Built-in PID control,
· Power range: 220V 0.4kW~2.2kW 380V 0.4kW~450kW

Technical Specification

Items		NZ100
Power Supply	Rated voltage, Frequency	One-phase/Three-phase AC 220V/380V 50/60Hz
	Voltage Range	220V: 170~240V 380V: 330V~440V
Output	Voltage Range	220V: 0~220V 380V: 0~380V
	Frequency Range	0.10~400.00Hz
Control method		VF control Only ★
Indication		Operating status/Alarm definition/interactive guidance: frequency setting, the output frequency/ current, DC bus voltage and so on.
Control Speculations	Output Frequency Range	0.10Hz~400.00Hz
	Frequency Setting Resolution	Digital input: 0.10Hz, analog input: 0.1% of maximum output frequency
	Output Frequency Accuracy	0.01Hz
	V/F control	Setting V/F curve to satisfy various load requirements.
	Torque Boost	Auto increase: auto raise torque by loading Condition; Manual increase: enable to set 0.0~20.0% of raising torque.
	Multifunctional Input Terminal	Four multi-function input terminals, realizing functions including eight section speed control, Program running, four-section acceleration/deceleration speed switch, UP/DOWN function and emergency stop and other functions
	Multifunctional Output Terminal	1 multi-function output terminals for displaying of run, zero speed, external abnormality, program operation and other information and warnings.
	Acceleration/ Deceleration Time Setting	0~999.9s acceleration/deceleration time can be set individually.
Other functions	PID Control	Built-in PID control
	RS485	Standard RS485 communication function(MODBUS)
	Frequency Setting	Analog input: 0 ~ 10 V, 4~20mA
		Digital input: Operation panel or RS485 or UP/DOWN.
		Note: AVI terminals can be used to select an analog voltage input (AV) and analog current input (AI) through the switch J2.
	Multi-speed	Four multifunction input terminals, 15-section speed can be set
	Automatic Voltage Regulation	Automatic voltage regulation function can be selected
	Counter	Built-in 2 group of counters
Protection/ Warning	Overload	150%, 60 second(Constant torque)
	Over Voltage	Over voltage protection can be set.

Function	Under Voltage	Under voltage protection can be set
	Other Protections	Output short circuit, over current, and parameter lock and so on.
Environment	Ambient Temperature	-10℃ to 40℃(non-freezing)
	Ambient Humidity	Max. 95% (non-condensing)
	Altitude	Lower than 1000m
	Vibration	Max.0.5G
Structure	Cooling Mode	Forced air cooling
	Protective Structure	IP20
Installation		Wall-mounted or standard 35mm rail mounting (≤5.5kW)

Items		NZ100
Protection/ warning function	Under voltage protection	Under voltage can be set
	Other protections	Output short circuit,over current,and parameter lock.....
Environment	Ambient temperature	-10℃ to 40°℃ (non-freezing)
	Ambient humidity	Max.95% (non-condensing)
	Altitude	Lower than 1000m
	Vibration	Max.0.5G
Structure	Cooling mode	Forced air cooling
	Protective structure	IP20
Installation		Wall-mounting or standard 35mm rail mounting (≤5.5KW)

Specification

Model	Input	Output	Output	Motor
	Current(A)	Power (kW)	Current(A)	(kW)
Input Voltage(V):1PHAC220V±15%				
NZ100-0R4G-2	5.4	0.4	2.5	0.4
NZ100-0R75G-2	8.2	0.75	5	0.75
NZ100-1R5G-2	14	1.5	7	1.5
NZ100-2R2G-2	23	2.2	11	2.2
Input Voltage(V):3PHAC380V±15%				
NZ100-0R4G-4	3.4	0.4	2	0.4
NZ100-0R75G-4	3.8	0.75	2.7	0.75
NZ100-1R5G-4	5	1.5	4	1.5
NZ100-2R2G-4	5.8	2.2	5	2.2
NZ100-3R7G/5R5P-4	10.7	3.7	8.6	3.7
NZ100-5R5G-4	14.6	5.5	12.5	5.5
NZ100-7R5G/11P-4	20	7.5	17.5	7.5
NZ100-11G/15P-4	26	11	24	11
NZ100-15G/18P-4	35	15	33	15
NZ100-18G/22P-4	45	18.5	40	18.5
NZ100-22G/30P-4	50	22	47	22
NZ100-30G/37P-4	68	30	65	30
NZ100-37G/45P-4	86	37	80	37
NZ100-45G/55P-4	96	45	90	45
NZ100-55G-4	115	55	110	55
NZ100-75P-4	165	75	152	75

NZ100-75G/90P-4	165	75	152	75
NZ100-90G/110P-4	180	90	176	90
NZ100-110G/132P-4	215	110	210	110
NZ100-132G/160P-4	265	132	255	132
NZ100-160G/185P-4	315	160	305	160
NZ100-185G/200P-4	355	185	340	185
NZ100-200G/220P-4	385	200	380	200
NZ100-220G/250P-4	430	220	425	220
NZ100-250G/280P-4	468	250	480	250
NZ100-280G/315P-4	535	280	530	280
NZ100-315G/350P-4	610	315	600	315
NZ100-350G/400P-4	655	350	650	350
NZ100-400G/450P-4	725	400	720	400
NZ100-450G/500P-4	795	450	790	450

NZ200 Series

Mini Simple Vector Control Inverter

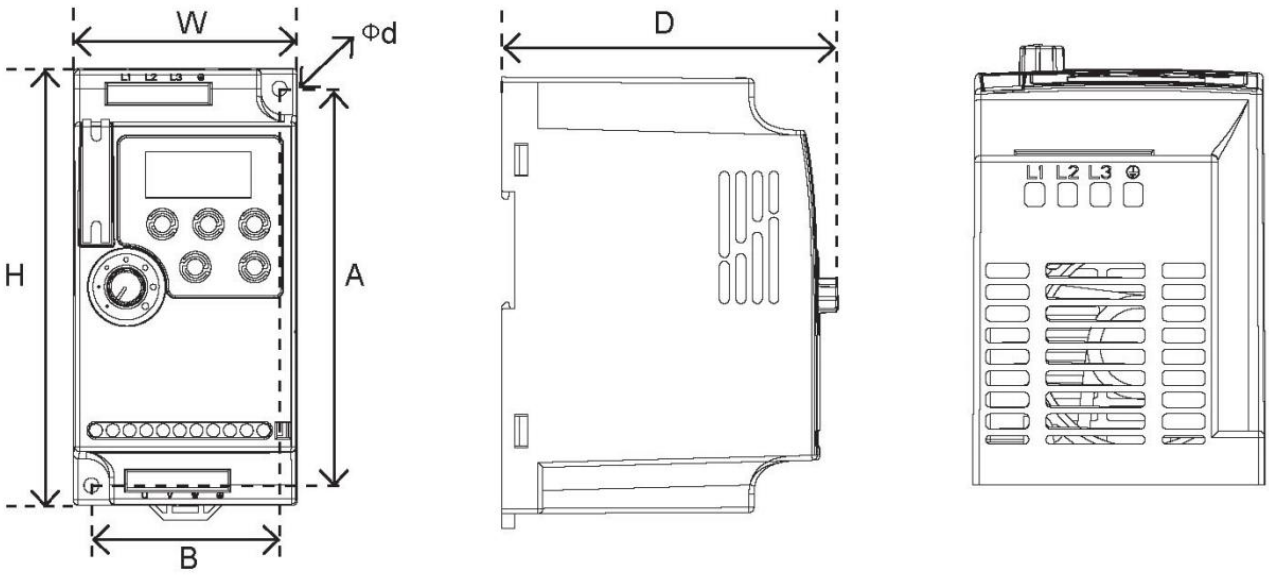
· Open loop vector control, V/F control
· High performance; environmental adaptation
· Simple structure; Compact size; Easy install
· Economic vector control inverter, high torque output, motor runs smoothly when heavy loading.
· Protection function: Output phase loss protection, Over-current protection, Over-voltage protection, Overload protection, Over-heat protection etc.
· Support PM motor (NZ200T series)
· Power range:220V 0.4~3.7kW 380V 0.4~630kW

Specification

Model	Input Current(A)	Output Power (kW)	Output Current (A)	Motor (kW)
Input Voltage(V):1PHAC220V±15%				
NZ200-0R4G-2	5.4	0.4	2.5	0.4
NZ200-0R75G-2	7.2	0.75	5	0.75
NZ200-1R5G-2	10	1.5	7	1.5
NZ200-2R2G-2	16	2.2	11	2.2
NZ200-3R7G-2	17	3.7	16.5	3.7
Input Voltage(V):3PHAC380V±15%				
NZ200-0R4G-4	3.4	0.4	1.2	0.4
NZ200-0R75G-4	3.8	0.75	2.5	0.75
NZ200-1R5G-4	5	1.5	3.7	1.5
NZ200-2R2G-4	5.8	2.2	5	2.2
NZ200-3R7G/5R5P-4	10.7	3.7	9	3.7
NZ200-5R5G-4	14.6	5.5	13	5.5
NZ200-7R5G/11P-4	20	7.5	17	7.5
NZ200-11G/15P-4	26	11	25	11
NZ200-15G/18P-4	35	15	32	15
NZ200-18G/22P-4	38	18.5	37	18.5
NZ200-22G/30P-4	46	22	45	22
NZ200-30G/37P-4	62	30	60	30
NZ200-37G/45P-4	76	37	75	37
NZ200-45G/55P-4	92	45	90	45
NZ200-55G-4	113	55	110	55
NZ200-75P-4	157	75	150	75
NZ200-75G/90P-4	157	75	150	75
NZ200-90G/110P-4	180	90	176	90
NZ200-110G/132P-4	214	110	210	110
NZ200-132G/160P-4	256	132	253	132
NZ200-160G/185P-4	307	160	300	160

NZ200-185G/200P-4	355	185	340	185
NZ200-200G/220P-4	385	200	380	200
NZ200-220G/250P-4	430	220	420	220
NZ200-250G/280P-4	475	250	470	250
NZ200-280G/315P-4	525	280	520	280
NZ200-315G/350P-4	610	315	600	315
NZ200-350G/400P-4	650	350	640	350
NZ200-400G/450P-4	696	400	690	400
NZ200-450G/500P-4	795	450	790	450
NZ200-500G/560P-4	865	500	860	500
NZ200-560G/630P-4	960	560	950	560
NZ200-630G-4	1112	630	1100	630

Dimension Unit: mm



Model	W	H	D	A	B	①d
Input Voltage(V):1PHAC220V±15%						
NZ200-0R4G-2	72	142	112.2	130	61	4.5
NZ200-0R75G-2						
NZ200-1R5G-2						
NZ200-2R2G-2	85	180	116	167	72	5.5
NZ200-3R7G-2						
Input Voltage(V):3PH AC380V±15%						
NZ200-0R4G-4	72	142	112.2	130	61	4.5
NZ200-0R75G-4						
NZ200-1R5G-4						
NZ200-2R2G-4						
NZ200-3R7G/5R5P-4	85	180	116	167	72	5.5
NZ200-5R5G-4						
NZ200-7R5G/11P-4	106	240	153	230	96	4.5

NZ200-11G/15P-4						
NZ200-15G/18P-4	151	332	165.5	318	137	7
NZ200-18G/22P-4						
NZ200-22G/30P-4						
NZ200-30G/37P-4	217	400	201	385	202	7
NZ200-37G/45P-4						
NZ200-45G/55P-4	300	470	240	455	200	9
NZ200-55G-4						
NZ200-75P-4						
NZ200-75G/90P-4	275	630	310	612	200	9
NZ200-90G/110P-4						
NZ200-110G/132P-4						
NZ200-132G/160P-4	400	715	310	695	320	11
NZ200-160G/185P-4						
NZ200-185G/200P-4	400	830	320	810	160+160	11
NZ200-200G/220P-4						
NZ200-220G/250P-4						
NZ200-250G/280P-4	530	970	350	950	215+215	11
NZ200-280G/315P-4						
NZ200-315G/350P-4						
NZ200-350G/400P-4	550	1180	400	1150	230+230	13
NZ200-400G/450P-4						
NZ200-450G/500P-4						
NZ200-500G/560P-4						
NZ200-560G/630P-4	760	1400	450	1370	325+325	13
NZ200-630G-4						

T200 Series

Multi-function and High-performance Vector Frequency Converter

· Economically affordable; Micro compact design
· Easy to use and install: DIN rail installation(below 3.7KW), keyboard cable with RJ45,STO function (support 380V below15kW), built-in EMC filter, 24VDC power supply, PID adjustment.
· V/F control, open-loop vector control, closed-loop vector control mode
· Power range 220V 0.4~2.2kW 380V 0.4~55kW
· Frequency range 0~599Hz
· Supporting multiple expansion cards: EtherCAT, Profibus-DP, ProfiNet, ModbusTCP, CAN open, Digital I/O, PG card
· External keyboard parameter copying function.

Technical Specification

ITEM		T200
Basic function	Maximum frequency	0 ~ 600.00Hz
	Carrier frequency	0.5kHz ~ 16kHz
		The carrier frequency can be automatically adjusted based on the load features.
	Input frequency resolution	Digital setting: 0.01Hz
		Analog setting: maximum frequency×0.025%
	Control mode	Voltage/Frequency control (V/F)
		Sensorless flux vector control (No PG)
		Closed loop vector control (Have PG)
	Startup torque	G Type: 0.5Hz/150% (No PG) ;
		P Type: 0.5Hz/100%
	Speed range	1: 100 (No PG)
	Speed stability accuracy	±0.5% (No PG)
	Torque control accuracy	±5% (Have PG)
	Overload capacity	G type: 60s for 150% of the rated current, 3s for 180% of the rated current.
		P type: 60s for 120% of the rated current, 3s for 150% of the rated current
	Torque boost	Fixed boost
		Customized boost 0.1%–30.0%
	V/F curve	Straight-line V/F curve
		Multi-point V/F curve
		N-power V/F curve (1.2-power, 1.4-power, 1.6-power,1.8-power, square)
	V/F separation	Two types: complete separation; half separation
	Ramp mode	Straight-line ramp
		S-curve ramp
		Four groups of acceleration/deceleration time with the range of 0.0–6500.0s
	DC braking	DC braking frequency: 0.00 Hz to maximum frequency
		Braking time: 0.0-100.0s
		Braking action current value: 0.0%–100.0%
	JOG control	Jog frequency range: 0.00Hz~50.00Hz. JOG acceleration/deceleration time0.0s~6500.0s。

	Onboard Multiple preset speeds	It implements up to 16 speeds via the simple PLC function or by input terminal states
	Onboard PID	It realizes process-controlled closed loop control system easily.
	Auto voltage regulation (AVR)	It can keep constant output voltage automatically when the mains voltage changes.
	Over-voltage/ Over-current stall control	The current and voltage are limited automatically during the running process so as to avoid frequent tripping due to over-voltage/over-current.
	Rapid current limit	It helps to avoid frequent over-current faults of the inverter.
	Torque limit and torque control	It can limit the torque automatically and prevent frequent over-current tripping during the running process.
Individualized function	High performance	Control of asynchronous motor is implemented through the high-performance current vector control technology.
	Instantaneous stop doesn't stop	The load feedback energy compensates the voltage reduction so that the AC drive can continue to run for a short time.
	Timing control	Timing range 0.0Min ~ 6500.0Min
	Communication methods	RS-485
Operation	Running command channel	Given by the panel, control terminals, serial communication port, can be switched by many ways
	Frequency source	10 kinds of frequency source, given by digital analog voltage, analog current, Pulse, serial port. can be switched by many ways
	Auxiliary frequency source	There are ten auxiliary frequency sources. It can implement fine tuning of auxiliary frequency and frequency synthesis
	Input terminals	5 digital input terminals, one of which supports up to 100 kHz high-speed pulse input;
		1 analog input terminal, supports 0-10V voltage input or 4–20 mA current input.
	Output terminal	1 digital output terminal
		1 relay output terminal
		1 analog output terminal :that supports 0–20 mA current output or 0–10 V voltage output
Display and operation panel	LED display	It displays the parameters.
	Key locking and function selection	It can lock the keys partially or completely and define the function range of some keys so as to prevent mis-function.
	Protection mode	Motor short-circuit detection at power-on, input output phase loss protection, over-current protection, over-voltage protection, under voltage protection, overheat protection and overload protection.
Environment	Installation location	Indoor, avoid direct sunlight, dust, corrosive gas, combustible gas, oil fog, steam, drip or salt.
	Altitude	Lower than 1000 m(Lower the grades when using higher then 1000m)
	Ambient temperature	-10°C ~ 40°C (Lower the grades if the ambient temperature is between 40°C and 50°C)
	Humidity	Less than 95%RH, without condensing
	Vibration	Less than 5.9m/s2 (0.6g)
	Storage temperature	- 20℃~ + 60℃

Item		T200
Running	Command source	Operation panel given,control terminal given,serial communication port given.It can be switched in various ways
	Frequency source	10 frequency sources:digital given,analog voltage given,analog current given,pulse given,serial port given.It can be switched in various ways
	Auxiliary frequency source	Of the 10 auxiliary frequency sources.It can flexibly assist frequency fine-tuning and frequency synthesis
	Input terminal	5 digital input terminals,one of which supports a high-speed pulse input of upto 100kHz; One analog input terminal supports O to 10V,voltage input or 4 to 20mA current input
	Output terminal	1 collector output terminal
		1 relay output terminal
		1 analog output terminal to support 0~20mA current output or 0~10V voltage output
Display and operation panel	LED show	Display parameters
	Key lock and function selection	Implement part or all of the keys lock, define the scope of part of the keys to prevent misoperation
	Protective function	Short-circuit detection,output phase deficiency protection, overcurrent protection, overvoltage protection, undervoltage protection, overheating protection,overload protection,etc
Environment	Installation location	Indoor,free from direct sunlight,dust,corrosive gas,combustible gas,oil smoke,vapor, drip or salt.
	Altitude	Lower than 1000m
	Ambient temperature	-10℃~+40℃(de-rated if the ambient temperature is between 40℃~50℃)
	Humidity	Less than 95%RH,without condensing
	Vibration	Less than 5.9m/s^2(0.6g)
	Storage temperature	-20℃~+60℃

Specification

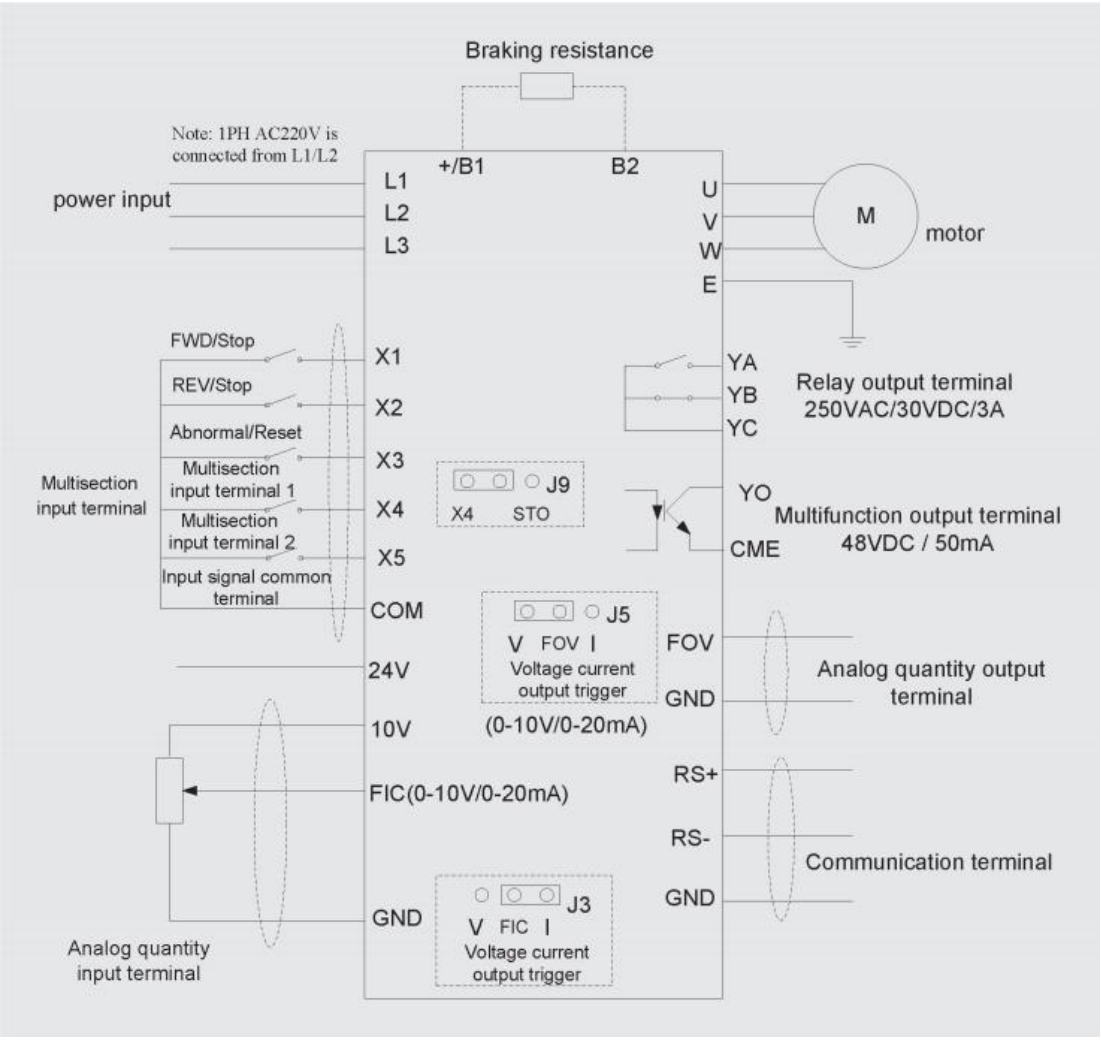
Model	Input Current (A)	Output Power(kW)	Output Current (A)	Motor (kW)
Input voltage:1PHAC220V±15%				
T200-0R4G-2	5.4	0.4	2.1	0.4
T200-0R75G-2	7.2	0.75	3.8	0.75
T200-1R5G-2	10	1.5	7.2	1.5
T200-2R2G-2	16	2.2	9	2.2
T200-3R7G-2	23	3.7	13	3.7
Input voltage:3PHAC380V±15%				
T200-0R4G-4	3.4	0.4	1.5	0.4
T200-0R75G-4	3.8	0.75	2.1	0.75
T200-1R5G-4	5.0	1.5	3.87	1.5
T200-2R2G-4	5.8	2.2	5.1	2.2
T200-3R7G/5R5P-4	10/15.0	3.7/5.5	9.0/13	3.7/5.5
T200-5R5G/7R5P-4	15	5.5	13	5.5
T200-7R5G/11P-4	20/26	7,5/11	17/25	7,5/11
T200-11G/15P-4	26/35	11/15.0	25/32	11/15.0
T200-15G/18.5P-4	35/38	15/18.5	32/37	15/18.5
T200-18.5G/22P-4	38/46	18.5/22	37/45	18.5/22
T200-22G/30P-4	46/62	22/30	45/60	22/30

T200-30G/37P-4	62/76	30/37	60/75	30/37
T200-37G/45P-4	76/90	37/45	75/91	37/45
T200-45G/55P-4	92/113	45/55	91/112	45/55
T200-55G-4	113	55	112	55

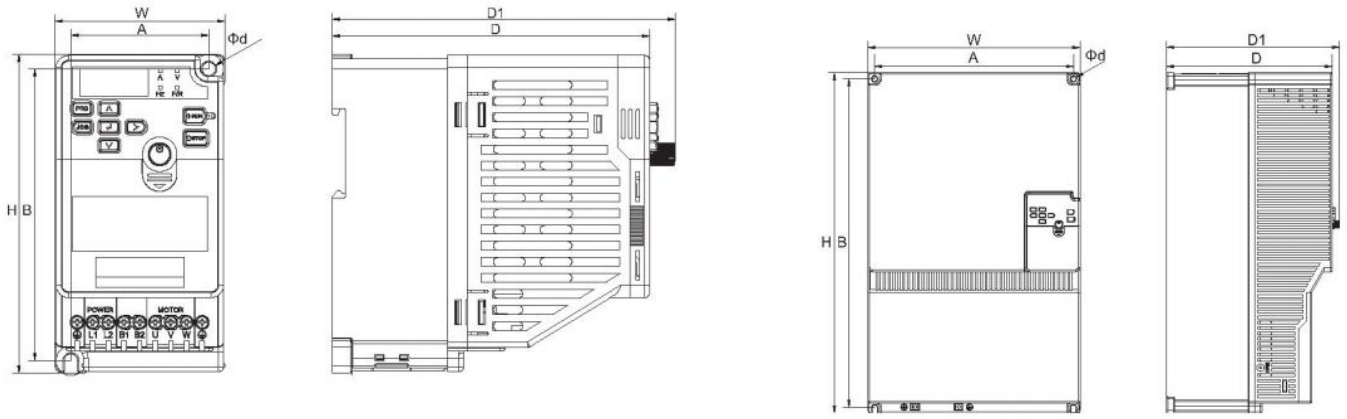
Expansion card

Number	Expansion card external model	Function Description	Applicable Models
1	PG-T11-01	ABZ-Differential Input PG Card-5V	T2000.4-55KW
2	PG-T11-02	ABZ-OC&Push Pull Input PG Card-24V	
3	ET-T11-01	1 normally open/normally closed relay 2 DI,1 FIV,1 FOC	
4	ET-T11-02	1 high-speed pulse output 2 DI,1 FIV.1 FOC	
5	CM-T11-01	Profibus DP communication card	
6	CM-T11-02	EtherCAT communication card	
7	CM-T11-03	CANopen	
8	CM-T11-04	Modbus TCP communication card	
9	CM-T11-05	Profinet communication card	
Note:T200 support only 1 expansions cards.			

Basic wiring diagram



Dimension Unit: mm



SIZE	Model	External dimensions			Installation dimensions				Installation method
		W	H	D	D1	A	B	①d	
A	T200-0R4G-2	69	129	129	139.5	56	118	5.5	Wall mounting
	T200-0R75G-2								
	T200-1R5G-2								
	T200-0R4G-4-D								
	T200-0R75G-4-D								
	T200-1R5G-4-D								
	T200-2R2G-4-D								
B	T200-0R4G-4	109	129	133	142	96	118	5.5	
	T200-0R75G-4								
	T200-1R5G-4								
	T200-2R2G-4								
	T200-3R7G/5R5P-4								
	T200-2R2G-2								
C	T200-5R5G/7R5P-4	125	185	165	174	113	175	5.5	
	T200-7R5G/11P-4								
D	T200-11G/15P-4	138	260	165	174	126	250	5.5	
	T200-15G/18.5P-4								
E	T200-18.5G/22P-4	168	282	165	174	152	268	7	
	T200-22G/30P-4								
F	T200-30G/37P-4	205	364	197	206	189	350	7	
	T200-37G/45P-4								
G	T200-45G/55P-4	262	420	205.5	214.5	246	405	7	
	T200-55G-4								

T9000 Series

Advanced Vector Control Inverter

·Open loop/closed loop vector control, V/F control (built-in PID) of synchronous and asynchronous motors
·Large torque output, which can ensure smooth starting of motor under heavy load
·Powerful function and outstanding performance, suitable for most general occasions
· Support multiple types of PG cards
· Support instant stop and instant start
· Compact structure, easy to install
· Power range: 220V:0.4-3.7kW 380V:0.4-450kW

Technical Specification

Item		Description
Basic function	Control Mode	VF control
		Sensorless flux vector control(SVC)
		Close-loop vector control(FVC)(Above 3.7kW)
	Maximum frequency	0~600Hz
	Carrier frequency	0.5kHZ——8kHz
		The carrier frequency is automatically adjusted based on the load features
	Input frequency resolution	Digital setting：0.01Hz
		Analog setting: Maximum frequency x 0.025%
	Start torque	G Type：0.5Hz/150%（SVC）
		P Type：0.5Hz/100%
	Speed range	1：100 （SVC）
	Speed stability accuracy	±0.5%（SVC）
	Overload capacity	G Type：60s for 150% of the rated current, 3s for 180% of the rated current. P Type：60s for 120% of the rated current, 3s for 150% of the rated current.
	Torque boost	Auto-boost ;
		Customized boost: 0.1%~30.0%
	V/F Curve	Straight-line V/F curve
		Multi-point V/F curve
		N-power V/F curve (1.2-power, 1.4-power, 1.6-power, 1.8-power, square)
	V/F separation	2 types: complete separation; half separation
	Ramp Mode	Straight-line ramp.
		Four groups of acceleration/deceleration time with the range of 0.00`6500.0s
	DC braking	DC braking frequency：0.00Hz~Maximum frequency
		Braking time：0.0s~36.0s
		Braking action current value：0.0%~100.0%
	JOG control	JOG frequency range：0.00Hz~50.00Hz
		JOG acceleration/deceleration time: 0.0s~6500.0s。
	Simple PLC、Multiple preset speeds	It implements up to 16 speeds via the simple PLC function or combination of terminal states
	Onboard PID	It realizes process-controlled closed loop control system easily
	Auto voltage regulation（AVR）	It can keep constant output voltage automatically when the mains voltage
	Overvoltage/overcurrent stall	The current and voltage are limited automatically during the running process so as to avoid

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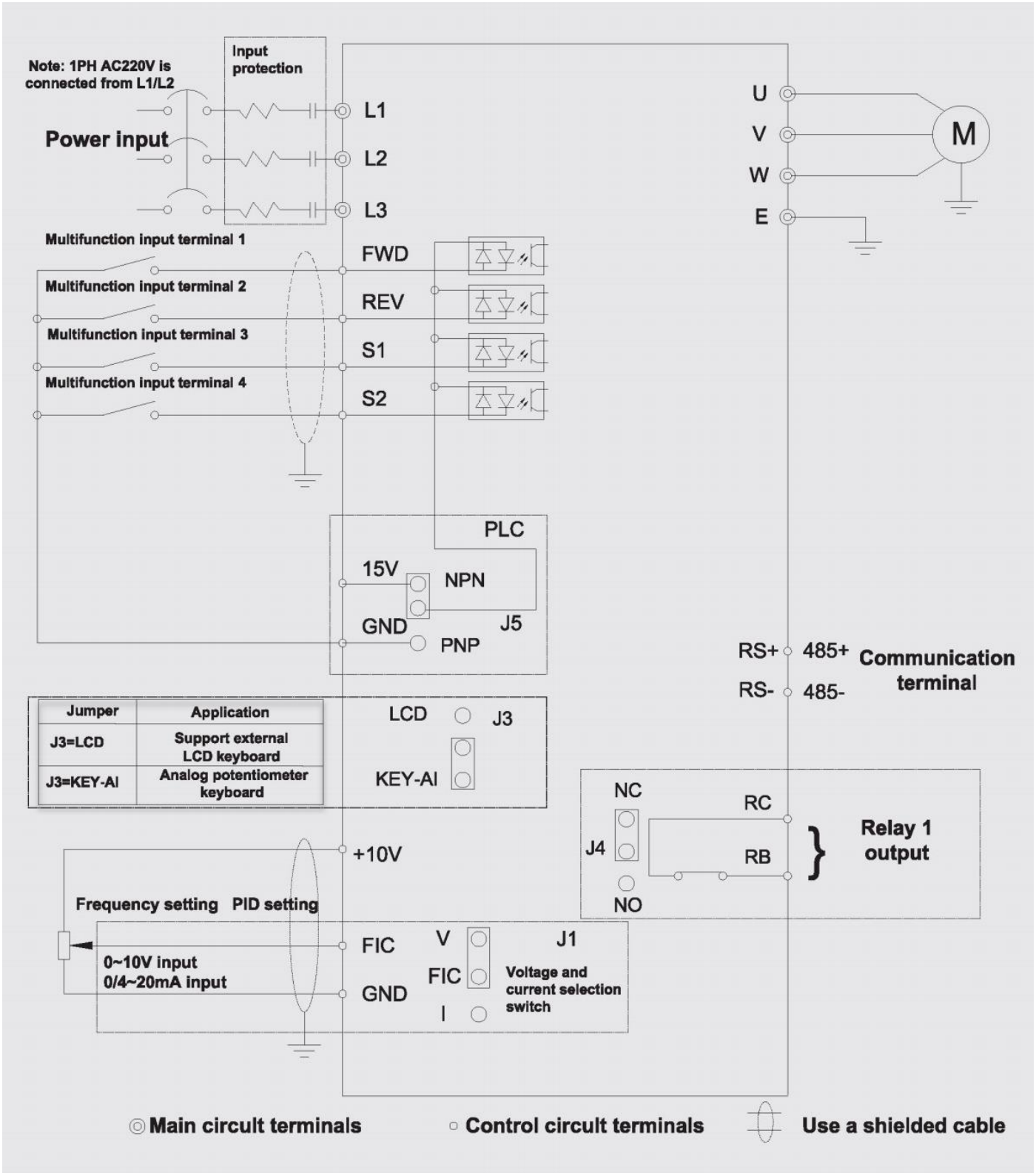
	control	frequent tripping due to over voltage/over current
	Rapid current limit	It helps to avoid frequent over current faults of the AC drive.
	Torque limit and control	It can limit the torque automatically and prevent frequent over current tripping during the running process. Torque control can be
		implemented in the FVC mode.
	Support for multiple PG card	Support for differential input PG card, resolver PG card ,rotating transformer PG card
Basic function	Simple PLC,Multiple preset	It implements up to 16 speeds via the simple PLC function or combination of terminal speeds states
	Onboard PID	It realizes process-controlled closed loop control system easily
	Auto voltage regulation(AVR)	It can keep constant output voltage automatically when the mains voltage changes
	Overvoltage/overcurrent stall control	The current and voltage are limited automatically during the running process so as to avoid frequent tripping due to over voltage/over current
	Rapid current limit	It helps to avoid frequent over current faults of the AC drive.
	Torque limit and control	It can limit the torque automatically and prevent frequent over current tripping during the running process.Torque control can be implemented in the FVC mode.
Individualized function	High performance	Control of asynchronous motor are implemented through the high-performance current vector control technology
	Rapid dip ride through	The load feedback energy compensates the voltage reduction so that the AC drive can continue to run for a short time
	Support multiple PG card	Support for differential input PG card,resolver PG card,rotating transformer PG card...
	Rapid current limit	It helps to avoid frequent over current faults of the AC drive.
	Timing control	Timing range:0.0Min~6500.0Min
	Communication methods	RS-485
Running	Command source	Operation panel/Control terminals/Serial communication port. You can perform switchover between these sources in various ways.
	Frequency source	There are ten frequency sources. Digital setting,analog voltage setting,analog current setting,pulse setting,serial port setting. You can perform switchover in various ways.
	Auxiliary frequency source	There are ten auxiliary frequency sources.It can implement fine tuning of auxiliary frequency and frequency synthesis.
	Input terminal	Standard:4 digital input terminals(Below 5.5KW)/6 digital input terminals(Above 7.5KW); 1 analog input terminal(Below 5.5KW)/2 analog input terminals(Above 7.5KW); 1 voltage input(only support for 0~10V,above 7.5KW),1 voltage input(0~10V)or current input(4~20mA)
	Output terminal	1 High-speed pulse output terminal(Open-collector)(Above 3.7KW)
		1 replay output terminal(Below 5.5KW/2 replay output terminals(Above 7.5KW)
		1 analog output terminal(3.7KW~5.5KW)/2 analog output terminal(Above 7.5KW), Support for 4~20mA current output or 0~10V voltage output
Display and operation panel	LED display	It displays the parameters
	Key locking and function selection	It can lock the keys partially or completely and define the function range of some keys so as to prevent mal-function.
	Protection mode	Motor short-circuit detection at power-on,input/output phase loss protection,over current protection,over voltage protection,under voltage protection,overheat protection and overload protection
Environment	Installation location	Indoor,free from direct sunlight,dust,corrosive gas,combustible gas,oil smoke,vapor, drip or salt.
	Altitude	Lower than 1000m
	Ambient temperature	-10℃~+40℃(de-rated if the ambient temperature is between 40℃~50°℃)
	Humidity	Less than 95%RH,without condensing
	Vibration	Less than 5.9m/s2(0.6g)
	Storage temperature	-20℃~+60℃

Specification

Model	Input Current (A)	Output Power (KW)	Output Current (A)	Motor (KW)
Input Voltage(V):1PHAC220V±15%				
T9200-0R4G	5.4	0.4	2.1	0.4
T9200-0R75G	7.2	0.75	3.8	0.75
T9200-1R5G	10	1.5	7.2	1.5
T9200-2R2G	16	2.2	9	2.2
T9200-3R7G	17	3.7	17	3.7
Input Voltage(V):3PHAC380V±15%				
T9400-0R4G	3.4	0.4	2	0.4
T9400-0R75G	3.8	0.75	2.5	0.75
T9400-1R5G	5	1.5	3.7	1.5
T9400-2R2G	5.8	2.2	5	2.2
T9400-3R7G/5R5P	10/15.0	3.7/5.5	9.0/13	3.7/5.5
T9400-5R5G	15	5.5	13	5.5
T9400-7R5G/11P	20/26	7.5/11	17/25	7,5/11
T9400-11G/15P	26/35	11/15.0	25/32	11/15.0
T9400-15G/18.5P	35/38	15/18.5	32/37	15/18.5
T9400-18.5G/22P	38/46	18.5/22	37/45	18.5/22
T9400-22G/30P	46/62	22/30	45/60	22/30
T9400-30G/37P	62/76	30/37	60/75	30/37
T9400-37G/45P	76/90	37/45	75/91	37/45
T9400-45G/55P	92/113	45/55	91/112	45/55
T9400-55G	113	55	112	55
T9400-75P	157	75	150	75
T9400-75G/90P	157/180	75/90	150/176	75/90
T9400-90G/110P	180/214	90/110	176/210	90/110
T9400-110G/132P	214/256	110/132	210/253	110/132
T9400-132G/160P	256/307	132/160	253/304	132/160
T9400-160G/185P	307/355	160/185	304/340	160/185
T9400-185G/200P	355/385	185/200	340/377	185/200
T9400-200G/220P	385/430	200/220	377/426	200/220
T9400-220G/250P	430/475	220/250	426/465	220/250
T9400-250G/280P	475/525	250/280	465/520	250/280
T9400-280G/315P	525/610	280/315	520/585	280/315
T9400-315G/350P	610/665	315/350	585/650	315/350
T9400-350G/400P	665/730	350/400	650/725	350/400
T9400-400G/450P	730/830	400/450	725/820	400/450
T9400-450G/500P	830/885	450/500	820/880	450/500

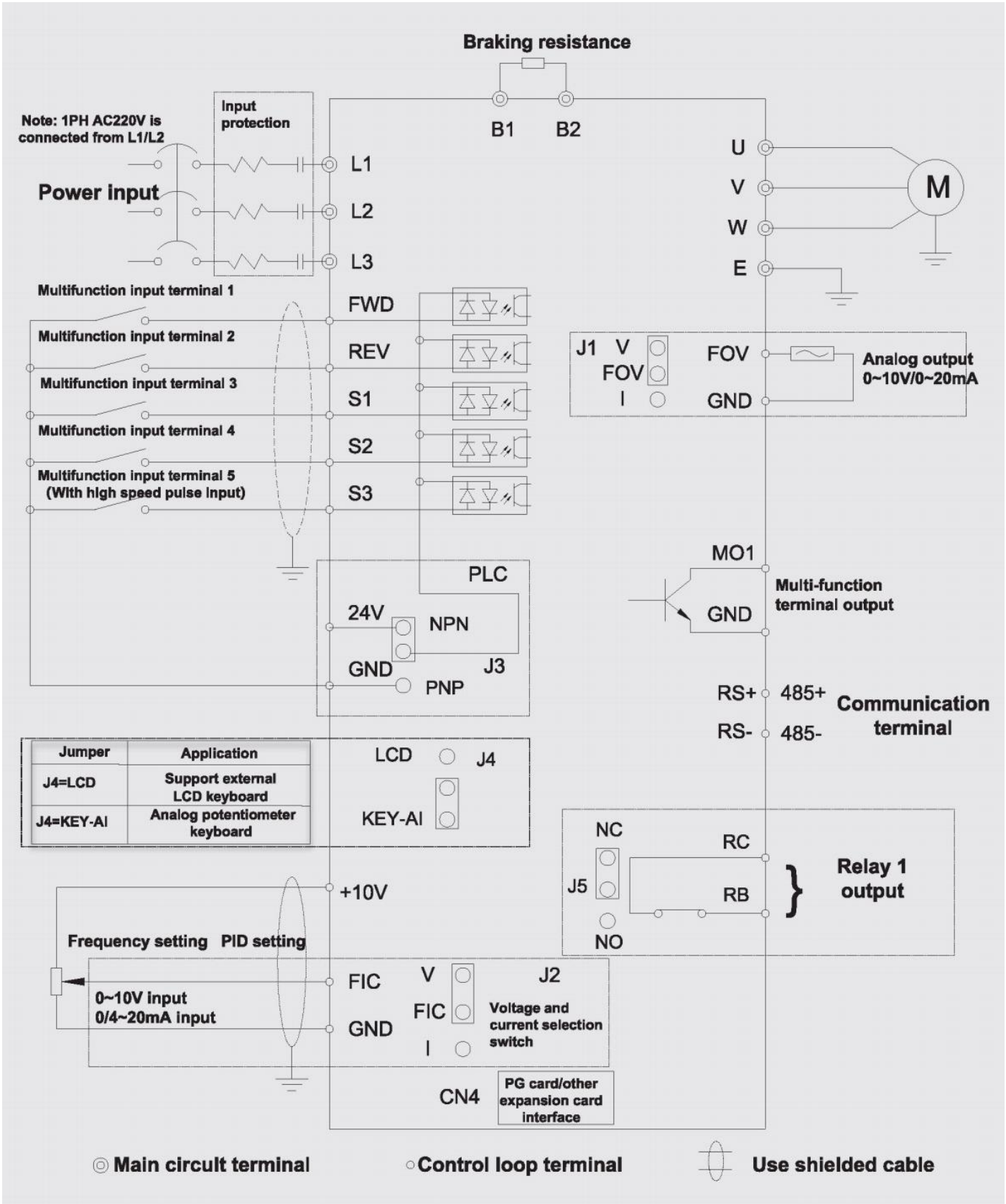
Wiring Diagram

1.1PH/220V 0.4-2.2KW &3PH/380V 0.4-2.2kW(VF control)



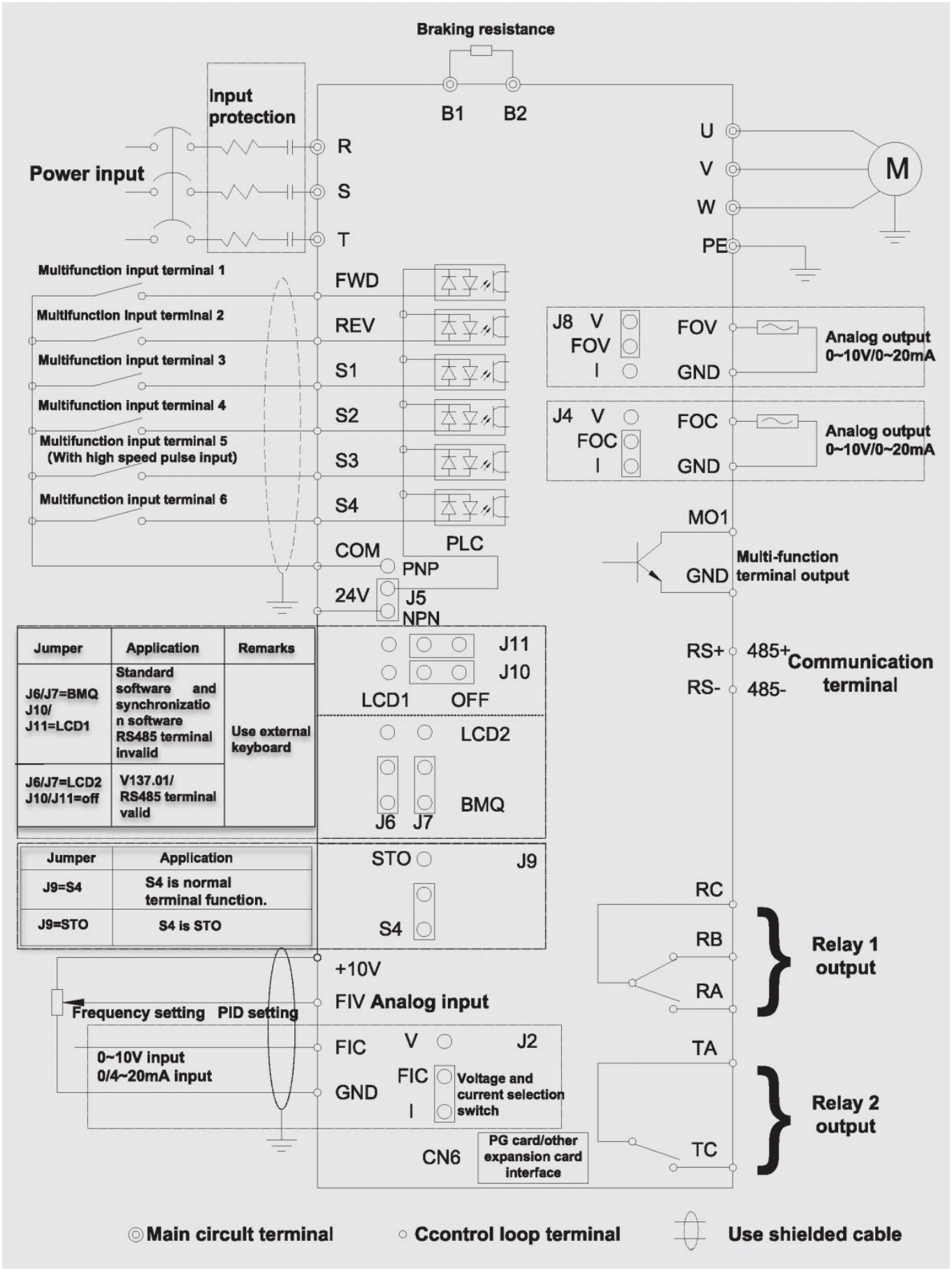
Note: It is only for V/F control

2.1PH/220V 0.4-3.7KW&3PH/380V 0.4-5.5KW(vector control)



Note: Terminals B1 and B2 are only avallable for products above 220V/2.2kW & 380V/3.7kW.

3.380V 7.5KW-450kW

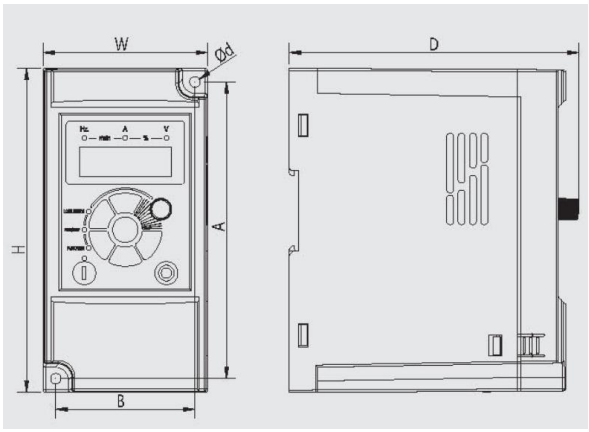
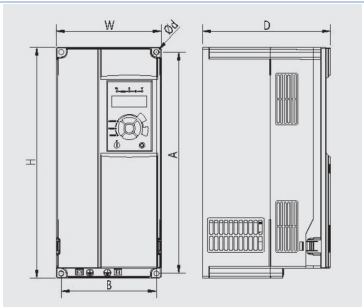


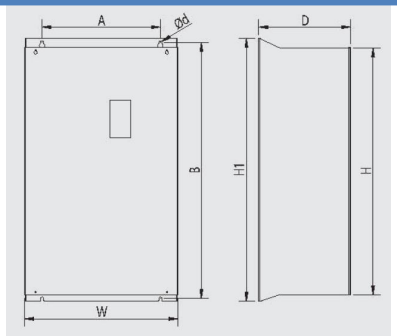
Jumper	Application	Remarks
J6/J7=BMQ J10/ J11=LCD1	Standard software and synchronizatio n software RS485 terminal invalid	Use external keyboard
J6/J7=LCD2 J10/J11=off	V137.01/ RS485 terminal valid	

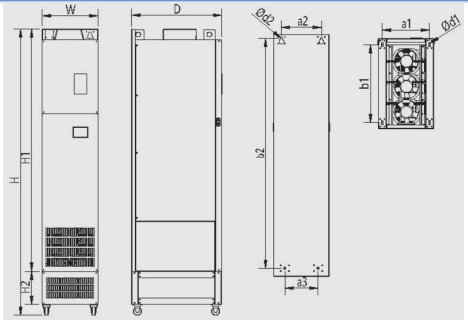
Jumper	Application
J9=S4	S4 is normal terminal function.
J9=STO	S4 is STO

Note:It is built-in braking unit for 3.7-37kW,the braking unit is optional for 45-450kW

Dimension Unit: mm

SIZE	Model	W	H	D	A	B	Φd	Installation
A	T9200-0R4G	72	142	127	130	61	4.5	
	T9200-0R75G							
	T9200-1R5G							
	T9200-2R2G-VF							
	T9400-0R4G							
	T9400-0R75G							
	T9400-1R5G							
	T9400-2R2G							
	T9200-2R2G	85	180	131	167	72	5.5	
	T9200-3R7G							
	T9400-3R7G/5R5P							
	T9400-5R5G							
B	T9400-7R5G/11P	106	240	168	230	96	4.5	
	T9400-11G/15P							
	T9400-15G/18.5P	151	332	183	318	137	7	
	T9400-18.5G/22P							
	T9400-22G/30P							
	T9400-30G/37P	217	400	216	385	202	7	
	T9400-37G/45P							

SIZE	Model	W	H	H1	D	A	B	Φd	Installation
C	T9400-45G/55P	300	440	470	240	200	455	9	
	T9400-55G								
	T9400-75P								
	T9400-75G/90P	275	590	630	310	200	612	9	
	T9400-90G/110P								
	T9400-110G/132P								
	T9400-132G/160P	400	675	715	310	320	695	11	
	T9400-160G/185P								

SIZE	Model	Outline dimension (mm)					Installation Size(mm)			Wall-mounting Size(mm)				Installation
		W	H	H1	H2	D	a1	b1	d1	a2	a3	b2	d2	
D	T9400-185G/200P	300	1445	1180	200	500	250	430	14	220	150	1135	13	
	T9400-200G/220P													
	T9400-220G/250P													
	T9400-250G/280P	330	1595	1330	200	545	280	475	14	220	185	1275	13	
	T9400-280G/315P	325	1495	1230	200	545	275	470	14	225	185	1175	14	
	T9400-315G/350P													
	T9400-350G/400P	335	1720	1455	200	545	285	470	14	240	200	1380	14	
	T9400-400G/450P													
	T9400-450G/500P													

Z2000 Series

Compact Vector Control

· Senseless flux vector control(SVC)
V/F(Voltage/Frequency)Control
·Overload capacity is 60s for 150% of the rated current,
3s for 180% of the rated current.
·There are ten auxiliary frequency sources
·It can implement fine tuning of auxiliary frequency and frequency synthesis
· Support PM motor (Z2000T series)
· Power range:220V 0.4~7.5kW 380V 0.4~450kW

Technical Specification

Item		Z2000
Standard Function	Control mode	Senseless flux vector control(SFVC) ; Voltage/Frequency (V/F) control
	Maximum frequency	Vector control: 0-320Hz ; V/F control: 0-3200Hz
	Carrier frequency	1-16kHz ; The carrier frequency is automatically adjusted based on the load features
	Input frequency solution	Digital setting: 0.01Hz ; Analog setting: maximum frequency x 0.025%
	Startup torque	G type: 0.5Hz/150%(SFVC) ; P type: 0.5Hz/100%
	Speed range	1:100
	Speed stability accuracy	±0.5%
	Overload capacity	G type: 60s for 150% of the rated current, 3s for 180% of the rated current. P type: 60s for 120% of the rated current, 3s for 150% of the rated current。
	Torque boost	Auto boost ; Customized boost 0.1%-30.0%
	V/F curve	Line V/F curve; Multi-point V/F curve; N-power V/F curve
	V/F separation	Two types: complete separation; half separation
	Ramp mode	Straight-line ramp ; S-curve ramp ; Four groups of acceleration/deceleration time with the range of 0.0-6500.0s
	DC braking	DC braking frequency : 0.0Hz to maximum frequency Braking time: 0.0~100.0s Braking action current value: 0.0%~100.0%
	JOG control	JOG frequency range: 0.00~50.00Hz JOG acceleration/deceleration time: 0.0~6500.0s
	Onboard multiple preset speeds	It implements up to 16 speeds via the simple PLC function or combination of X terminal states.
	Onboard PID	It realizes process-controlled closed loop control system easily
	Auto voltage regulation (AVR)	It can keep constant output voltage automatically when the mains voltage changes.
	Auto voltage/ Over current stall control	The current and voltage are limited automatically during the running process so as to avoid frequent tripping due to overvoltage/over current
	Rapid current limit	It helps to avoid frequent over current faults of the AC drive
	Torque limit and control	It can keep constant output voltage automatically when the mains voltage changes

Specification

Model	Input Current (A)	Output Power (KW)	Output Current (A)	Motor (kW)
Input Voltage(V):1PHAC220V±15%				
Z2000-0R4G	5.4	0.4	2.5	0.4
Z2000-0R75G	7.2	0.75	5	0.75
Z2000-1R5G	10	1.5	7	1.5
Z2000-2R2G	16	2.2	11	2.2
Z2000-3R7G	23	3.7	16.5	3.7
Z2000-5R5G	27	5.5	25	5.5
Z2000-7R5G	31	7.5	32	7.5
Input Voltage(V):3PHAC380V±15%				
Z2400-0R4G	3.4	0.4	2	0.4
Z2400-0R75G	3.8	0.75	2.5	0.75
Z2400-1R5G	5	1.5	3.7	1.5
Z2400-2R2G	5.8	2.2	5	2.2
Z2400-3R7G/5R5P	10/15.0	3.7/5.5	9.0/13	3.7/5.5
Z2400-5R5G	15	5.5	13	5.5
Z2400-7R5P	20	7.5	17	7.5
Z2400-7R5G/11P	20/26	7,5/11	17/25	7,5/11
Z2400-11G/15P	26/35	11/15.0	25/32	11/15.0
Z2400-15G/18.5P	35/38	15/18.5	32/37	15/18.5
Z2400-18.5G/22P	38/46	18.5/22	37145	18.5/22
Z2400-22G/30P	46/62	22/30	45/60	22/30
Z2400-30G/37P	62/76	30/37	60/75	30/37
Z2400-37G/45P	76/90	37/45	75/90	37/45
Z2400-45G/55P	92/113	45/55	90/110	45/55
Z2400-55G	113	55	110	55
Z2400-75P	157	75	150	75
Z2400-75G/90P	157/180	75/90	150/176	75/90
Z2400-90G/110P	180/214	90/110	176/210	90/110
Z2400-110G/132P	214/256	110/132	210/253	110/132
Z2400-132G/160P	256/307	132/160	253/300	132/160
Z2400-160G/185P	307/355	160/185	300/340	160/185
Z2400-185G/200P	355/385	185/200	340/380	185/200
Z2400-200G/220P	385/430	200/220	380/420	200/220
Z2400-220G/250P	430/475	220/250	420/470	220/250
Z2400-250G/280P	475/525	250/280	470/520	250/280
Z2400-280G/315P	525/610	280/315	520/600	280/315
Z2400-315G	610	315	600	315
Z2400-350G/400P	665/700	350/400	640/690	350/400
Z2400-400G/450P	700/800	400/450	690/790	400/450
Z2400-450G/500P	800/865	450/500	790/860	450/500

Z8000 Series

High Performance Close loop Vector Control

·The carrier frequency is automatically adjusted based on the load features
·Wide Frequency range,adapt to most applications
·V/F control,On board PID control;
Modbus communication (Optional parts).
·Support for various PG card;Special for kinds of industries, with tension control,spindle servo,support for PM motor ect.
· Power range:
220V 0.4kW~3.7kW
380V 0.75kW~1000kW 690V 11~1400kW

Technical Specification

Item		Z8000
Basic Function	Control mode	Senseless flux vector control (SFVC); Closed-loop vector control(CLVC); V/F(Voltage/Frequency)control
	Maximum frequency	Vector control:0-320 Hz V/F control:0-599Hz
	Carrier frequency	1.0-16.0 kHz The carrier frequency is automatically adjusted based on the load features.
	Input frequency resolution	Digital setting:0.01 Hz;Analog setting:0.025%of maximum frequency
	Startup torque	G type:0.5 Hz/150%(SFVC);O Hz/180%(CLVC); P type:0.5 Hz/100%
	Speed range	1:100 (SFVC);1:1000(CLVC)
	Speed stability accuracy	±0.2%(SFVC);±0.02%(CLVC)
	Torque control accuracy	±5%(CLVC)
	Overload capacity	G type:60s for 150%of the rated current,3s for 180%of the rated current. P type:60s for 120%of the rated current,3s for 150%of the rated current.
	Torque boost	Auto boost Customized boost 0.1%-30.0%
	V/F curve	Line V/F curve; Multi-point V/F curve; N-power V/F curve(1.2-power,1.4-power,1.6-power,1.8-power,square)
	V/F separation	two types:complete separation;half separation
	Ramp mode	Straight-line ramp;S-curve ramp;Four groups of acceleration/deceleration time with the range of 0.0-6500.0s
	DC braking	DC braking frequency:0.00 Hz to maximum frequency:Braking time:0.0~100.0s Braking action current value:0.0%~100.0%
	JOG control	JOG frequency range:0.00-50.00 Hz JOG acceleration/deceleration time:0.0~6500.0s
	Onboard multiple preset speeds	It implements up to 16 speeds via the simple PLC function or combination of terminal states
	Onboard PID	It realizes process-controlled closed loop control system easily.
	Auto voltage regulation(AVR)	It can keep constant output voltage automatically when the mains voltage changes.
	Over voltage/ Over current stall control	The current and voltage are limited automatically during the running process so as to avoid frequent tripping due to over voltage/over current.
	Rapid current limit	It helps to avoid frequent over current faults of the AC drive.
	Torque limit and control	It can limit the torque automatically and prevent frequent over current tripping during the running process.Torque control can be implemented in the CLVC mode.

PG card

Model	Description	Suitable inverter
PG-B1	ERN1387_SIN&COS input PG card_DB15	Z8400-5.5kW and above
PG-B2	ABZ_different input PG card_terminal connector	Z8400-3.7KW and above
PG-B3	Rotating PG card_terminal connector	Z8400-3.7 KW and above
PG-B4	ABZ_OC input PG card_terminal connector	Z8400-3.7 kW and above
PG-B5	ABZUVW_different input PG card_DB15	Z8400-5.5KW and above
PG-B8	CARD0_with PT100_fan output_485 transformer connect	Z8400-3.7 kW and above
PG-B9	Profibus card	Z8400-5.5 kW and above
PG-B10	ABZ different input PG card_DB9	Z8400-5.5 kW and above
PG-B11	Rotating PG card_DB9	Z8400-5.5 kW and above
PG-B12	1A input connector_Plastic Injection Application	Z8400-3.7 kW and above
PG-B13	GPRS expansion card_with connector_485 or 232 connector are optional	30kW and below need to external
PG-D1	Double ABZ OC input PG card terminal connector	Z8400D-3.7 KW and above
PG-D2	Double ABZ different input PG card terminal connector	Z8400D-3.7 KW and above

Specification

1.Voltage:1PH AC 220V±15%3PH AC 380V±15%

Model	Rated Output Power(KW)	Rated Input Current(A)	Rated Output Current(A)	Motor(kW)
Input Voltage(V):1PHAC220V±15%				
Z8200-0R4G	0.4	5.4	2.5	0.4
Z8200-0R75G	0.75	7.2	5	0.75
Z8200-1R5G	1.5	10	7	1.5
Z8200-2R2G	2.2	16	11	2.2
Z8200-3R7G	3.7	23	16.5	3.7
Input Voltage(V):3PH AC380V±15%				
Z8400-0R75G	0.75	3.8	2.5	0.75
Z8400-1R5G	1.5	5	3.7	1.5
Z8400-2R2G	2.2	5.8	5	2.2
Z8400-3R7G/5R5P	3.7/5.5	10/15.0	9.0/13	3.7/5.5
Z8400-5R5G/7R5P	5.5/7.5	15/20	13/17	5.5/7.5
Z8400-7R5G/11P	7.5/11	20/26	17/25	7.5/11
Z8400-11G/15P	11/15	26/35	25/32	11/15.0
Z8400-15G/18.5P	15/18.5	35/38	32/37	15/18.5
Z8400-18.5G/22P	18.5/22	38/46	37/45	18.5/22
Z8400-22G/30P	22/30	46/62	45/60	22/30
Z8400-30G/37P	30/37	62/76	60/75	30/37
Z8400-37G/45P	37/45	76/90	75/90	37/45
Z8400-45G/55P	45/55	92/113	90/110	45/55
Z8400-55G	55	113	110	55
Z8400-75P	75	157	150	75
Z8400-75G/90P	75/90	157/180	150/176	75/90
Z8400-90G/110P	90/110	180/214	176/210	90/110
Z8400-110G/132P	110/132	214/256	210/253	110/132

Z8400-132G/160P	132/160	256/307	253/300	132/160
Z8400-160G/185P	160/185	307/355	300/340	160/185
Z8400-185G/200P	185/200	355/385	340/380	185/200
Z8400-200G/220P	200/220	385/430	380/420	200/220
Z8400-220G/250P	220/250	430/475	420/470	220/250
Z8400-250G/280P	250/280	475/525	470/520	250/280
Z8400-280G/315P	280/315	525/610	520/600	280/315
Z8400-315G/350P	315/350	610/665	600/640	315/350
Z8400-350G/400P	350/400	665/700	640/690	350/400
Z8400-400G/450P	400/450	700/800	690/790	400/450
Z8400-450G/500P	450/500	800/865	790/860	450/500
Z8400-500G/560P	500/560	865/960	860/950	500/560
Z8400-560G/630P	560/630	960/1112	950/1100	560/630
Z8400-630G/710P	630/710	1112/1290	1100/1280	630/710
Z8400-710G/800P	710/800	1290/1472	1280/1380	710/800
Z8400-800G/900P	800/900	1472/1680	1380/1640	800/900
Z8400-900G/1000P	900/1000	1680/1800	1640/1720	900/1000
Z8400-1000G	1000	1800	1720	1000

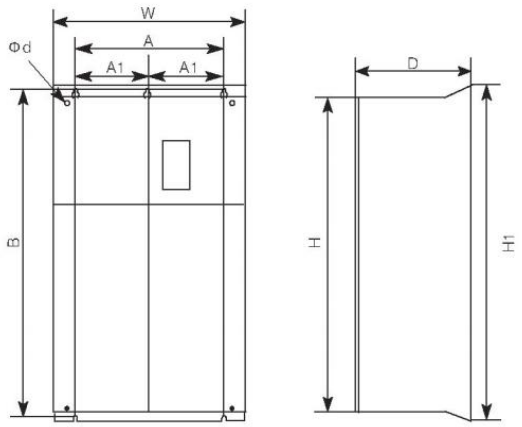
2.Input Voltage(V):3PH AC(660V-690V)±15%

Model	Rated Output Power(KW)	Rated Input Current(A)	H	W	D	Dimension(mm)	Remark
Input Voltage(V):3PHAC(660V~690V)±15%							
Z8600-11G/15P	11	12	410	277	189	390*262*φ6.5	Wall mounting
Z8600-15G/18D5P	15	16					
Z8600-18GD5/22P	18.5	20					
Z8600-22G/30P	22	24					
Z8600-30G/37P	30	33					
Z8600-37G/45P	37	41					
Z8600-45G/55P	45	50					
Z8600-55G/75P	55	62	595	300	236	573*200*φ9	
Z8600-75G/90P	75	85					
Z8600-90G/110P	90	102					
Z8600-110G/132P	110	125	620	380	290	595*250*φ9	
Z8600-132G/160P	132	150					
Z8600-160G/185P	160	175	880	380	358	840*250*φ13	
Z8600-185G/200P	185	198					
Z8600-200G/220P	200	215					
Z8600-220G/250P	220	245					
Z8600-250G/280P	250	260					
Z8600-280G/315P	280	299	995	630	350	971*500*φ11	
Z8600-315G/350P	315	330					

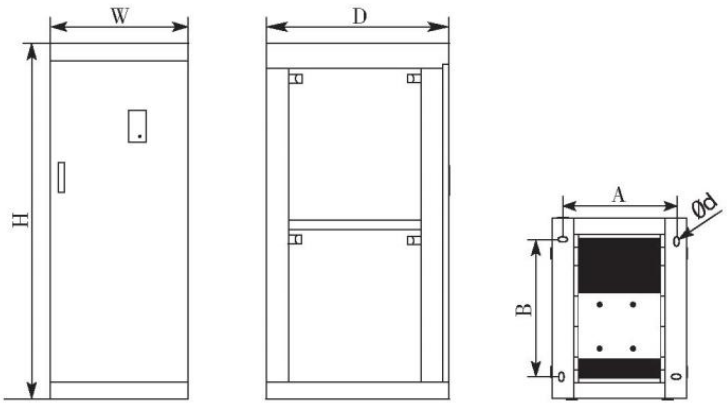
Z8600-350G/400P	350	374					
Z8600-400G/450P	400	410	1040	680	400	1016*520*011	
Z8600-450G/500P	450	465					
Z8600-500G/560P	500	510					
Z8600-560G/630P	560	540	1150	680	400	1126*520*011	
Z8600-630G/710P	630	570					
Z8600-710G/800P	710	646	1800	650	920	610*620*017	Cabinet
Z8600-800G/900P	800	728					
Z8600-900G/1000P	900	819	1800	750	920	710*620*017	
Z8600-1000G/1100P	1000	910					
Z8600-1100G/1250P	1100	1000	1800	900	920	860*620*017	
Z8600-1250G/1400P	1250	1137					
Z8600-1400G	1400	1273	2000	1050	930	1010*630*017	

Dimension

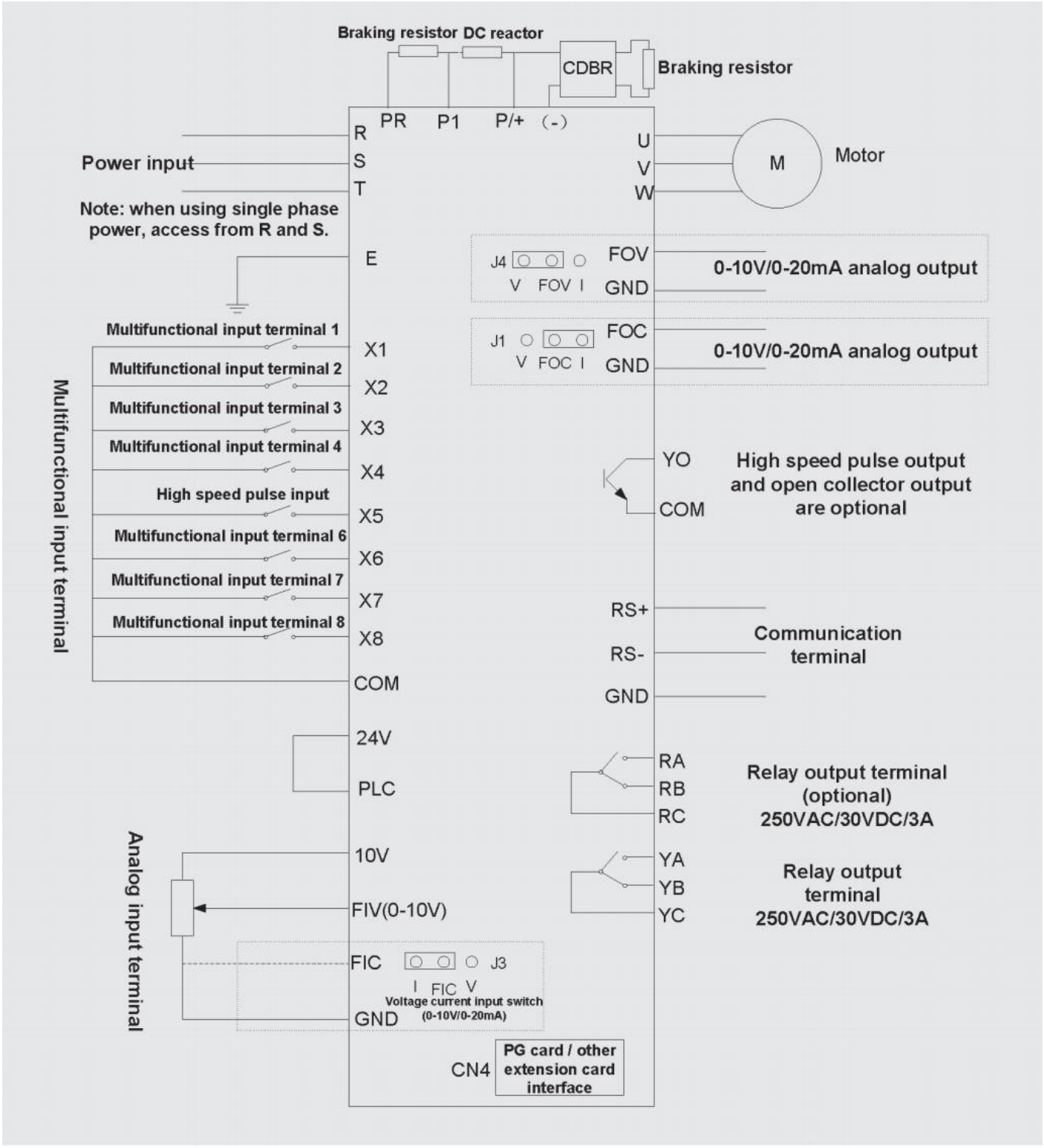
1.Wall Mounting Install



2.Cabinet Install



Typical Wiring diagram



Model	Outline Dimension(mm)				Install Dimension (mm)A*B*φd	Install Method	Remark
	W	H	H1	D			
Z8200-0R4G	125	170	—	140	117*160*φ5	Wall mounting	Plastic
Z8200-0R75G							
Z8200-1R5G							
Z8200-2R2G							
Z8200-3R7G	120	225	—	143	105*208*φ5		Semi-plastic
Z8400-0R4G	125	170	—	140	117*160*φ5		Semi-plastic
Z8400-0R75G							
Z8400-1R5G							
Z8400-2R2G							
Z8400-3R7G/5R5P	120	225	—	143	105*208*φ5		Semi-plastic
Z8400-5R5G/7R5P	185	260	—	170	168*248*φ6.5		Plastic
Z8400-7R5G/11P							
Z8400-11G/15P	210	330	—	190	195*310*φ6.5		Semi-plastic
Z8400-15G/18.5P							
Z8400-18.5G/22P	277	410	—	189	262*390*φ6.5		
Z8400-22G/30P							
Z8400-30G/37P							
Z8400-37G-NN							
Z8400-37G/45P	300	430	455	212	200*433*φ9		Metal
Z8400-45G/55P	300	535	560	236	200*538*φ9		
Z8400-55G							
Z8400-75P							
Z8400-75G/90P	338	546	576	256.5	270*560*φ9		Metal (NEW)
Z8400-90G/110P	338	550	580	300	270*564*φ9		
Z8400-110G/132P							
Z8400-132G/160P	420	Wall:730 Cabinet:1130	Wall:790 Cabinet:1165	330	Wall:300*765*φ11 Cabinet:250*350*φ12	Wall mounting /Cabinet Install	Metal
Z8400-160G/185P							
Z8400-185G/200P	530	Wall:800 Cabinet:1300	Wall:860 Cabinet:1335	335	Wall:400*835*φ11 Cabinet:250*450*φ12		
Z8400-200G/220P							
Z8400-220G/250P							
Z8400-250G/280P	700	Wall:880 Cabinet:1380	Wall:940 Cabinet:1415	350	Wall:600*915*φ11 Cabinet:250*620*φ12		Metal
Z8400-280G/315P							
Z8400-315G/350P							
Z8400-350G/400P	600	1600	—	800	550*700*Φ13	Cabinet Install	
Z8400-400G/450P							
Z8400-450G/500P							
Z8400-500G/560P	650	1600	—	800	600*700*φ13		
Z8400-560G/630P							
Z8400-630G/710P							
Z8400-710G/800P	700	2200	—	1000	650*900*φ13		
Z8400-800G/900P							
Z8400-900G/1000P							
Z8400-1000G							

Z5000-BF Series

IP65 Waterproof Inverter

· Mounted directly on the motor or to the wall
· Allow for heavy load equipment
· Vector Control mode(Z5000 Series)
· Function: no water stop, timing, antifreeze, change pump when fault, water supply alarm, ect.; IP65, allows to use in kinds of bad environment.
· Power range 220V:0.75~2.2kW 380V:0.75~132kW

Technical Specification

ITEM		Z5000-BF
Standard functions	Control mode	Sensorless flux vector control (SFVC); Voltage/Frequency (V/F) control
	Maximum frequency	Vector control: 0–320 Hz; V/F control: 0–3200Hz
	Carrier frequency	1 kHz–16 kHz The carrier frequency can be automatically adjusted based on the load features.
	Input frequency resolution	Digital setting: 0.01 Hz; Analog setting: maximum frequency x 0.025%
	Startup torque	G type: 0.5 Hz/150% (SFVC); P type: 0.5 Hz/100%
	Speed range	1:100 (SFVC)
	Speed stability accuracy	± 0.5% (SFVC)
	Overload capacity	G type: 60s for 150% of the rated current, 3s for 180% of the rated current. P type: 60s for 120% of the rated current, 3s for 150% of the rated current
	Torque boost	Fixed boost; Customized boost 0.1%–30.0%
	V/F curve	Straight-line V/F curve; Multi-point V/F curve; N-power V/F curve (1.2-power, 1.4-power, 1.6-power, 1.8-power, square)
	V/F separation	Two types: complete separation; half separation
	Ramp mode	Straight-line ramp
		S-curve ramp
		Four groups of acceleration/deceleration time with the range of 0.0–6500.0s
	DC braking	DC braking frequency: 0.00 Hz to maximum frequency; Braking time: 0.0-36.0s; Braking action current value: 0.0%–100.0%
	JOG control	JOG frequency range: 0.00–50.00 Hz JOG acceleration/deceleration time: 0.0–6500.0s
	Onboard Multiple preset speeds	It implements up to 16 speeds via the simple PLC function or by input(X) terminal states
	Onboard PID	It realizes process-controlled closed loop control system easily.
	Auto voltage regulation (AVR)	It can keep constant output voltage automatically when the mains voltage changes.
	Over-voltage/Over-current stall control	The current and voltage are limited automatically during the running process so as to avoid frequent tripping due to over-voltage/over-current.
	Torque limit and torque control	It can limit the torque automatically and prevent frequent over-current tripping during the running process.
	Instantaneous stop doesn't stop	The load feedback energy compensates the voltage reduction so that the AC drive can continue to run for a short time.
	Rapid current limit	It helps to avoid frequent over-current faults of the AC drive.

	High performance	Control of asynchronous motor is implemented through the high-performance current vector control technology.
	Timing control	Time range: 0.0–6500.0 minutes
	Communication methods	RS485
	Running command channel	Given by the panel, control terminals,
		Serial communication port, can be switched by many ways
	Frequency source	10 kinds of frequency source, given by Digital analog voltage, analog current, Pulse, serial port. can be switched by many ways
	Auxiliary frequency source	10 kinds of Frequency source, given by Digital analog voltage, analog current, pulse, serial port. Can be switched by many ways.
Input and output	Input terminals	6 digital input terminals, one of which supports up to 100 kHz high-speed pulse input.(S3) 2 analog input terminal,one of which only supports 0-10V voltage input and the other supports 0–10 V voltage input and 4–20 mA current input.
	Output terminal	1 digital output terminal 1 relay output terminal (RA.RB.RC) 1 analog output terminal :that supports 0–20 mA current output or 0–10 V voltage output
	Frequency source	Digital setting, analog voltage setting, analog current setting, pulse setting and serial communication port setting.
	LED display	It displays the parameters.
	Key locking and function selection	It can lock the keys partially or completely and define the function range of some keys so as to prevent malfunction.
	Protection mode	Motor short-circuit detection at power-on, output phase loss protection, over-current protection, over-voltage protection, under voltage protection, overheat protection and overload protection.

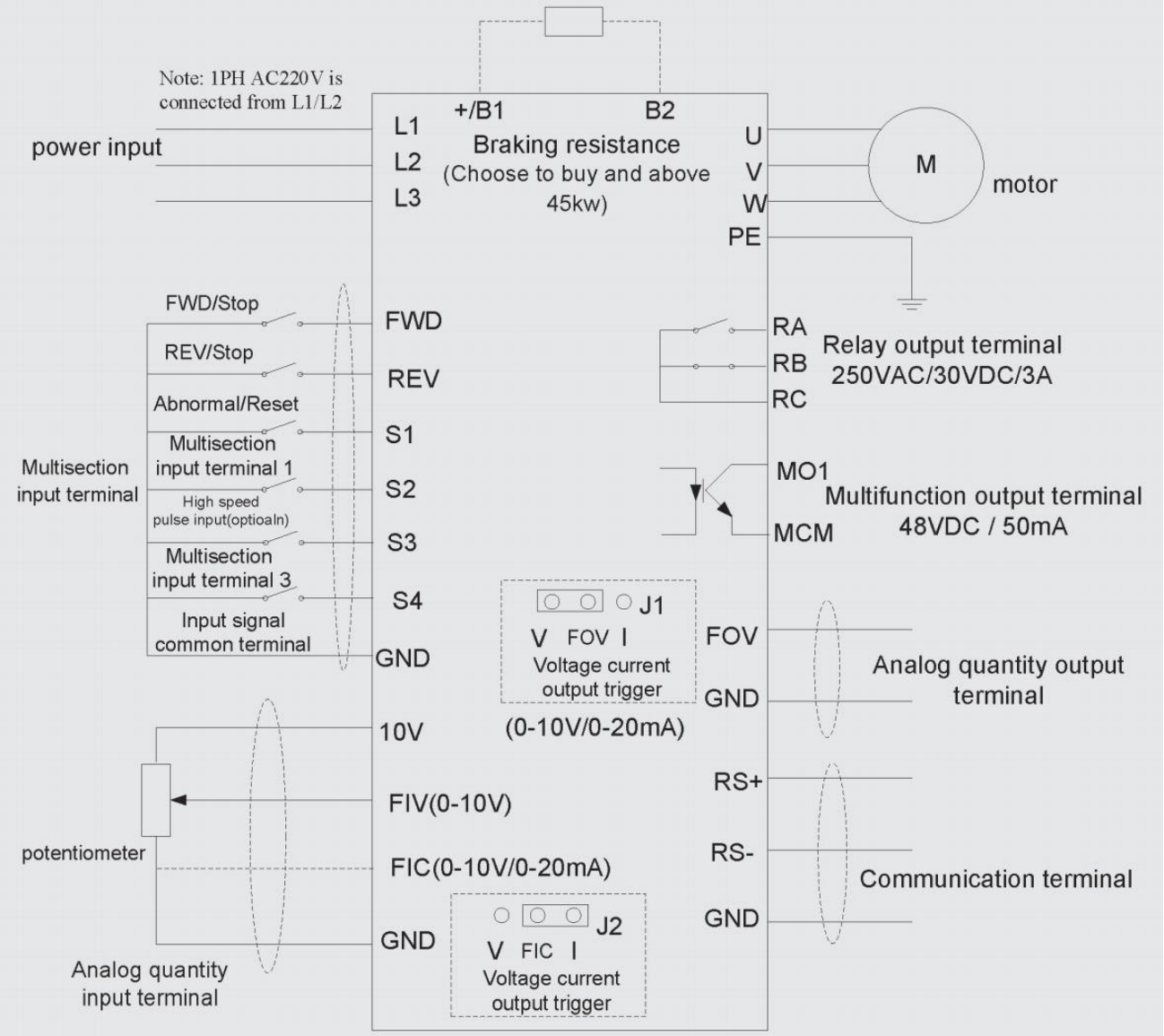
Project name		Sspecifications
Running	Command source	Operation panel given,control terminal given,serial communication port given.It can be switched in various ways
	Frequency source	10 frequency sources:digital given,analog voltage given,analog current given,pulse given,serial port given.It can be switched in various ways
	Auxiliary frequency	Of the 10 auxiliary frequency sources.It can flexibly assist frequency fine-tuning and source frequency synthesis
	Enter the terminal line	standard: 6 digital input terminals,where S3 supports high speed pulse input upto 100kHz (o ptional) Two analog input terminals,one supports only 0-10 Vvoltage input,and one supports 0-10V,voltage input or 4 to 20 mA current input
	Leading-out terminal	1 high-speed pulse output(optional) and 1 collector output terminal 1 relay output terminal 1 analog output terminal, supporting 4 to 20 mA current output or 0 to 10 V voltage output
	Communication support	RS-485
Environment	Ambient temperature	-10℃~+40℃(ambient temperature is 40℃~50℃,please decrease for use)
	Humidity	Less than 95%RH,and the anhydrous beads were condensed

	Storage temperature	-20℃~+60℃
	Vibration	Less than 5.9m/s²(0.6g)
	Levels of protection	IP54 of IP65,3.7KW and above below 3.7KW
	Altitude	Below 1000m

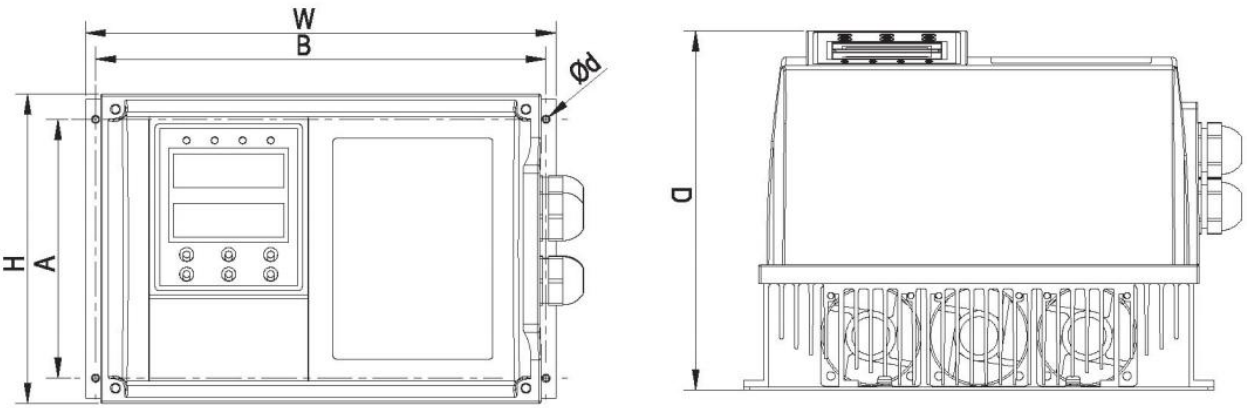
Specification

Model	Input Current (A)	Output Power(KW)	Output Current (A)	Motor (kW)
Input Voltage(V):1PHAC 220V±15%				
Z5200AOD75-BF	7.2	0.75	5	0.75
Z5200A1D5-BF	10	1.5	7	1.5
Z5200A2D2-BF	16	2.2	11	2.2
Input Voltage(V):3PH AC 380V±15%				
Z5400AOD75-BF-V	3.8	0.75	2.5	0.75
Z5400A1D5-BF-V	5	1.5	3.7	1.5
Z5400A2D2-BF-V	5.8	2.2	5	2.2
Z5400A3D7-BF-V2	10.0	3.7	9	3.7
Z5400A5D5-BF-V2	15.0	5.5	13	5.5
Z5400A7D5-BF-V2	20.0	7.5	17	7.5
Z5400A0011K-BF-V	26.0	11	25	11
Z5400A0015K-BF	35.0	15	32	15
Z5400A0018K-BF	38.0	18.5	37	18.5
Z5400A0022K-BF	46.0	22	45	22
Z5400A0030K-BF	62.0	30	60	30
Z5400A0037K-BF	76.0	37	75	37
Z5400A0045K-BF	92.0	45	90	45
Z5400A0055K-BF	113.0	55	110	55
Z5400A0075K-BF	157.0	75	150	75
Z5400A0090K-BF	180.0	90	176	90
Z5400A00110K-BF	214.0	110	210	110
Z5400A00132K-BF	256.0	132	253	132

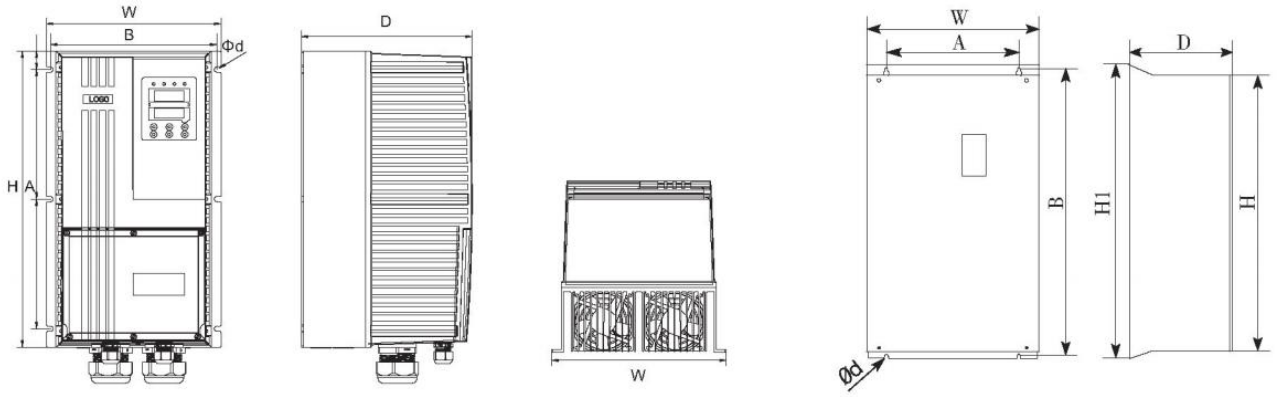
Typical Wiring diagram



Dimension Unit:mm



Vertical Installation Outline Drawing



Model	Power (KW)	Output Current (A)	Outline Dimension(mm) W	H	H1	D	Install Dimension(mm) A*B*Qd
Input Voltage(V):1PHAC220V±15%							
Z5200AOD75-BF	0.75	5	188	122	-	134	178*105*4
Z5200A1D5-BF	1.5	7					
Z5200A2D2-BF	2.2	11					
Input Voltage(V):3PHAC380V±15%							
Z5400AOD75-BF	0.75	2.5	188	122	-	134	178*105*04
Z5400A1D5-BF	1.5	3.7					
Z5400A2D2-BF	2.2	5					
Z5400A3D7-BF	3.7	9	235	154	-	179	225*129*04
Z5400A5D5-BF	5.5	13					
Z5400A7D5-BF	7.5	17					
Z5400A0011K-BF	11	25					
Z5400A0D75-BF-V	0.75	2.5	140	190	-	138	130*160*04.5
Z5400A1D5-BF-V	1.5	3.7					
Z5400A2D2-BF-V	2.2	5					
Z5400A3D7-BF-V2	3.7	9	140	225	-	139	130*160*4.5
Z5400A5D5-BF-V2	5.5	13					
Z5400A7D5-BF-V2	7.5	17					
Z5400A0011K-BF-V	11	25	192	280	-	178	180*200*Q5.5
Z5400A0015K-BF	15	32					
Z5400A0018K-BF	18.5	37	236	300	-	204	225*250*07
Z5400A0022K-BF	22	45					
Z5400A0030K-BF	30	60	236	400	-	231	225*(175+175)*07
Z5400A0037K-BF	37	75					
Z5400A0045K-BF	45	90	300	450	482	278	210*465*09
Z5400A0055K-BF	55	110					
Z5400A0075K-BF	75	150	400	520	560	275	300*535*09
Z5400A0090K-BF	90	176					
Z5400A00110K-BF	110	210					
Z5400A00132K-BF	132	253	400	760	800	321.5	330*780*011
Z5400A00160K-BF	160	300					

Note:380V/0.75-11kW lateral installation and vertical installation exist at the same time,-V is vertical installation;15 or more is vertical installation.

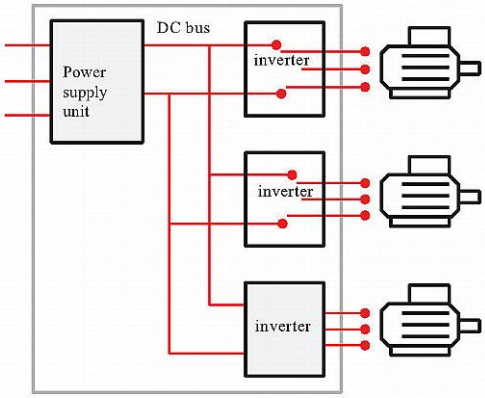
ZCS880

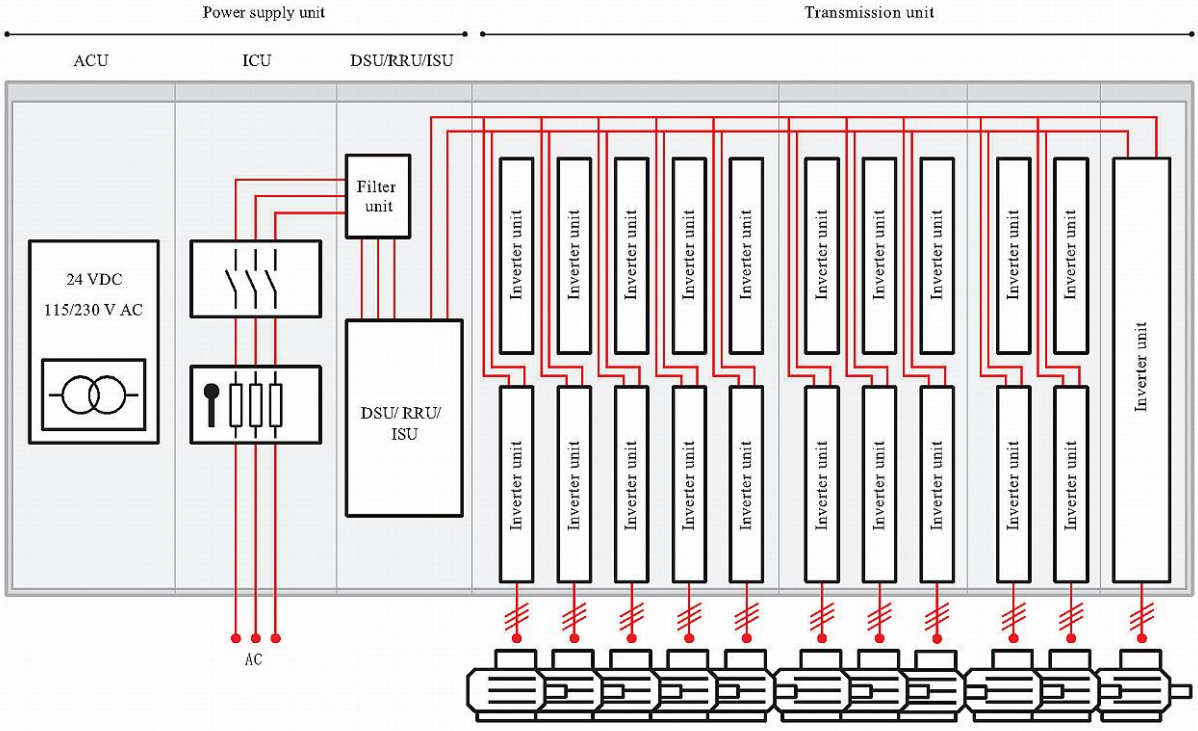
Multidrive System

01 Multidrive configuration with power supply unit, DC bus and multiple inverters

02The multidrive is to control multiple motors. The more important units are: the drive unit (inverter unit (INU)) and the power supply unit (DSU/ RRU/ISU)

The multidrive principle is based on a common DC bus layout, which enables a single power input and a common braking resource for multiple drives. There are several options for power supply, from simple diode-supply units to highly complex active IGBT-supply units.





ZCS880 Multidrive system

- Rated Power:
  -Inverter unit(INU):1.5~5600 kW
  -Diode-supply units(DSU):50~5500 kVA
  -IGBT-supply unit (ISU):300~6100 kVA
- Regenerative rectifier unit(RRU):
  -416~6100 kVA
- DC-DC Converter(DDC):
  -305~1146 kW
- Voltage range:
  -380~690 V
- Protection rating:
  -IP22(Standard):IP42 and IP54

Multi-drive systems come with a wide range of built-in features and optional selections.

Highlights

- Compact design for easy cabinet assembly and maintenance
- High assembly density,16 inverters up to A2i can be installed in a one-meter wide cabinet.
- High power density and reliable diode rectifier bridge.
- Quick-connect motor cable connectors at the bottom of the cabinet for easy installation.
- Protection ratings of IP22,IP42,and IP54 suitable for various environments
- Optional equipment control panel with switches and indicators
- Optional cabinet lighting and heater
- Efficient heat management as each inverter's dissipated heat is directed to the rear of the cabinet,with all cabinets being individual compartments.
- Long-life capacitors and high-efficiency cooling fans with speed or switch control

Standard interfaces and expansion interfaces

Control Unit ZCU Example of a typical multi-drive input/ output connection diagram. Subject to change For detailed information, please refer to the ZCS880 user manual.

The ZCS880 multi-drive offers a variety of standard interfaces. Additionally,the drive control units (ZCU/BCU)provide three optional slots for expansion,including fieldbus adapter modules,input/output expansion modules,feedback modules,and safety function modules.

The control unit ZCU for inverters(A1i to A7i)and diode-supply units (D6D to D8D)are equipped with three optional slots for expansion modules.

The control unit BCU is used for inverters(NXA8i),IGBT-supply units, regenerative rectifier units,and diode -supply units(DXT series).The BCU equipped an integrated branch unit,three optional slots,and an additional slot for DDCS communication options

ZCH Series

Medium Voltage Variable Frequency Drive

Product Structure

Power cell

Each phase is composed of 3~9 power cells, forming a 4N+1 ladder PWM wave, three-phase Y connection, direct output 3~11kV.

Control system

Intelligent controller based on high-speed ARM, DSP, and FPGA;
Flux closed-loop vector control technology, optimized stacked wave PWM Control technology to achieve high-quality sinusoidal voltage and current output.

Air cooling

Adopt centrifugal fans from internationally renowned brands in the industry.Large air volume, sufficient margin, long life, and high stability.This ensures the heat dissipation needs of the high-voltage inverter itself.Improved product stability.

HMI

Using a well-known brand touch screen with a novel interface,Rich interfaces facilitate on-site expansion and user system and system connection.

Bypass cabinet Cable connecting cabinet

Transformer cabinets and power cell cabinets are arranged in front and back program, through advanced thermal design, ensures on the basis of satisfying heat dissipation, it reduces the safety of the site. installation space to reduce infrastructure costs for customers.

Transformer cabinet

Transformer cabinets and power cell cabinets are arranged in front and back program, through advanced thermal design, ensures on the basis of satisfying heat dissipation, it reduces the safety of the site. installation space to reduce infrastructure costs for customers.

Power cell

Brand new power cell design, the product is more lightweight andaesthetic; The innovative semi-sealed structural design makes it environmentally friendly Stronger adaptability and higher reliability. No life limit Self-healing film capacitors, even if overvoltage breakdown short circuit.

Modular design

The power cell adopts modular design and can be interchanged at will. The power cell is easy to disassemble and assemble.

Multi-pulse Rectification Method

The input side uses a phase-shifting transformer to form a multi-pulse rectification method, which greatly improves the current waveform on the grid side, increases the input power factor, and reduces the harmonic interference of the equipment on the grid.

Improve short circuit protection technology

Phase-shifting transformer secondary short-circuit protection technology to avoid fires and In the event of accidents such as equipment damage, reduce customer losses and prevent the failure from expanding.

Timely: The short circuit information can be detected in time within the transformer's endurance time, and protective measures can be taken to ensure the safety of the equipment;

All-round: The number of short-circuit phases and short-circuit locations are considered in all directions, and can be effectively protected under various working conditions;

Flexible: No need to add additional equipment, more flexible and reliable.

Model Definition

ZCH100 - T - 10-1000kW-9-AP

① ② ③ ④ ⑤

①ZCH100: Zhongchen MV inverter series	④Rated power: (standard load)
②Default:None T:Synchronous motor	⑤Options:None by default (Multiple options can be expanded) 9:Level 9 Unit; F:Four quadrant feedback; AP:Automatic bypass cabinet; MP:Manual bypass cabinet; L:water cooling; DB:dynamic braking; C:Internal circulation is afraid of water cooling; KF:Mining fans;SS:Soft start; Please inquire for more options.....
③Voltage level: 10:10kV; 06:6kV; 07:6.9kV; 1006:10kV input 6kV output; 1007:10kV input 6.9kV output;	

Installation Specification Sheet

VFD Model	Motor power (kW)	VFD Capacity (kVA)	Weight (kg)	Cabinet type	Cabinet Dimension (W×D×H)
ZCH100-06-185kW	185	230	2650	Cabinet A1	2150×1400×2400
ZCH100-06-220kW	220	275			
ZCH100-06-250kW	250	320			
ZCH100-06-280kW	280	350	2760		
ZCH100-06-315KW	315	400			
ZCH100-06-355kW	355	450	2930		
ZCH100-06-400kW	400	500			
ZCH100-06-450kW	450	560	3160		
ZCH100-06-500kW	500	630	3360		
ZCH100-06-560kW	560	700	3985	Cabinet B1	3450×1600×2250
ZCH100-06-630kW	630	800	4042		
ZCH100-06-710kW	710	900	4160		
ZCH100-06-800kW	800	1000	4382		
ZCH100-06-900kW	900	1150	4590		
ZCH100-06-1000kN	1000	1250	4792		
ZCH100-06-1120kW	1120	1400	4985		
ZCH100-06-1250kN	1250	1600	5285		
ZCH100-06-1400kW	1400	1800	6120	Cabinet C1	4150×1600×2250
ZCH100-06-1600kW	1600	2000	6390		
ZCH100-06-1800kW	1800	2250	6745		
ZCH100-06-2000kN	2000	2500	7090		
ZCH100-06-2250kW	2250	2800	9220	Cabinet D1	5400×1400×2400
ZCH100-06-2500kN	2500	3200	9570		
ZCH100-06-2800kW	2800	3500	10070		
ZCH100-06-3200kW	3200	4000	10670		
ZCH100-06-3600kW	3600	4500	11240		
ZCH100-06-4000kW	4000	5000	12500	Cabinet F1	6850×1400×2400
ZCH100-06-4500kW	4500	5650	13000		
ZCH100-06-5000kW	5000	6300	14000		
ZCH100-06-5600KW	5600	7000	17755	Cabinet G1	8200×1600×2400/2600
ZCH100-06-6300kW	6300	8000	18795		
ZCH100-06-6600kW	7100	9000	19450		

VFD Model	Motor power (kW)	VFD Capacity (kVA)	Weight (kg)	Cabinet type	Cabinet Dimension (W×D×H)
ZCH100-10-185kW	185	230	2220	Cabinet A	2000×1500×2000
ZCH100-10-220kW	220	275	2240		
ZCH100-10-250kW	250	320	2260		
ZCH100-10-280kW	280	350	2286		
ZCH100-10-315kW	315	400	2316		
ZCH100-10-355kW	355	450	2346		
ZCH100-10-400kW	400	500	2383		
ZCH100-10-450kW	450	560	2433		
ZCH100-10-500kW	500	630	2483		
ZCH100-10-560kW	560	700	2593		
ZCH100-10-630kW	630	800	2719		
ZCH100-10-710kW	710	900	2875		
ZCH100-10-800kW	800	1000	3062		
ZCH100-10-900kW	900	1150	3192	Cabinet B	2500×1650×2200
ZCH100-10-1000kW	1000	1250	3258		
ZCH100-10-1120kN	1120	1400	3409		
ZCH100-10-1250kW	1250	1600	4390		
ZCH100-10-1400kW	1400	1800	4648		
ZCH100-10-1600kW	1600	2000	4948		
ZCH100-10-1800kW	1800	2250	5270		
ZCH100-10-2000kW	2000	2500	5604	Cabinet C	4000×1500×2200
ZCH100-10-2250kW	2250	2800	5916		
ZCH100-10-2500kW	2500	3150	7990		
ZCH100-10-2800kW	2800	3500	8150		
ZCH100-10-3200kW	3200	4000	8700		
ZCH100-10-3600kW	3550	4500	8820	Cabinet D	6925×1500×2455
ZCH100-10-4000kW	4000	5000	11990		
ZCH100-10-4500kW	4500	5600	12500		
ZCH100-10-5000kW	5000	6300	13300		
ZCH100-10-5500kW	5600	7000	13800		
ZCH100-10-6300KW	6300	8000	18410	Cabinet E	9100×1650×2455
ZCH100-10-7100kW	7100	9000	19700		
ZCH100-10-8000kW	8000	10000	20400	Cabinet F	9200×1700×2800
ZCH100-10-9000kW	9000	11250	22500		
ZCH100-10-10000kW	10000	12500	27120	Cabinet G	12200×1600×2455
ZCH100-10-11000kW	11000	13750	28860		

Remarks

■ The above dimensions and weight are for reference only,the specific dimensions and weight are subject to the technical agreement;

■ The input voltage and output voltage of the standard series are the same;

■ The height of the overall size does not include the height of the fan,which requires an additional 300mm to 600mm;

■ The above overall machine size and weight refer to the sum of the control cabinet,unit cabinet,and transformer cabinet,excluding the power frequency bypass cabinet;

■ The distance between the front of the device and the wall s no less than 1500mm,the distance between the back and the wall is no less than 1000mm,the distance between the sides and the wall is no less than 8O0mm, and the distance between the top and the roof is no less than 1000mm.

■ Standard overload capacity is 120%/1 minute,overload is allowed for 1 minute every 10 minutes;overload capacity of 125%,150%,and 200%can be selected to meet the needs of different applications;

■ The applicable motor power may change due to differences in the form and structure of the motorand is for reference only.

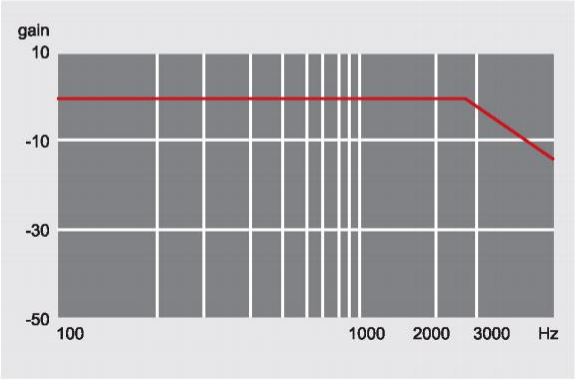
US880/US810 Series

AC Servo System

- Multi-function Control
- Position/Velocity/Torque Control
- Electronic Gear Function
- Speed/Torque Limit Function
- Home Search Function
- Zero-Speed Lock Function
- Smooth Speed Command Ramp Function
- Dynamic Brake and Energy Consumption Brake
- Multiple Fault Protection Functions
- Soft Reset Function
- Support EtherCAT Bus Communication Protocol
- Support Yaskawa M3 Bus Communication Protocol

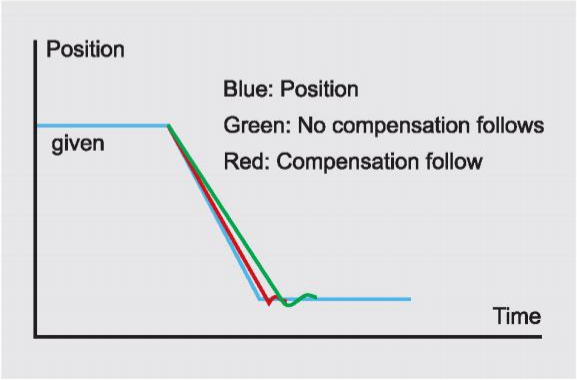
High Responsiveness

Utilizing unique high-frequency adjustment technology, the current loop response frequency of up to 3 kHz and current sampling rate of 64 kHz, the system can quickly track load variations, achieving high dynamic performance.



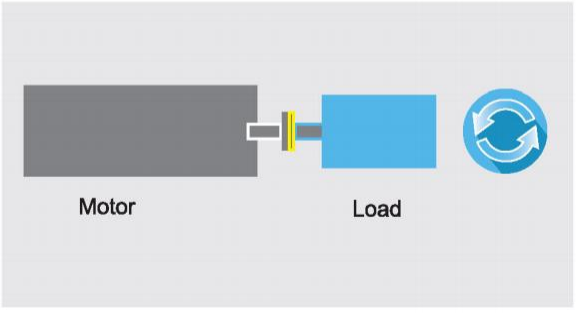
Composite Compensation Function

Using composite compensation, the speed and position loop bandwidth can be effectively improved, enabling fast adjustment of both loops to meet the requirements of rapid mechanical operation.



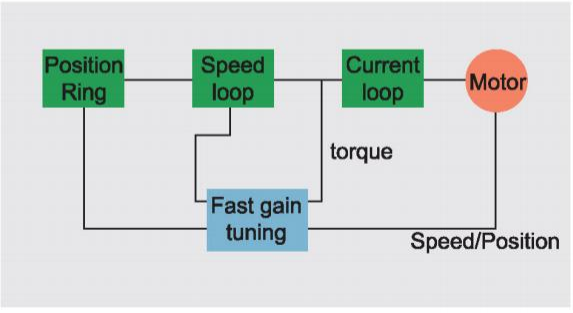
Quick Inertia Identification

Easy operate the driver's keypad or a computer interface, the inertia ratio can be identified within 100 ms.



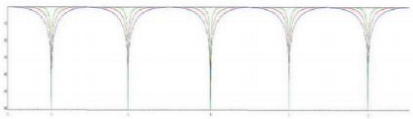
Fast Gain Tuning

Operate the driver's keypad or a computer interface, the control gain and integral time constant can be tuned within 0.5-2 minutes, meeting the optimization requirements for various rigid and inertia devices.



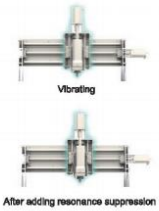
Multiple Sets of Notch Filters

Setting multiple sets of notch filters,can filter out multiple high-frequency resonance points in the machinery, eliminating resonance.



Mid-Low Frequency Oscillation Suppression

Calculate vibration suppression algorithms for mid and low frequencies, can suppress low-frequency mechanical vibrations, promote stable equipment operation.



Support EtherCAT Bus

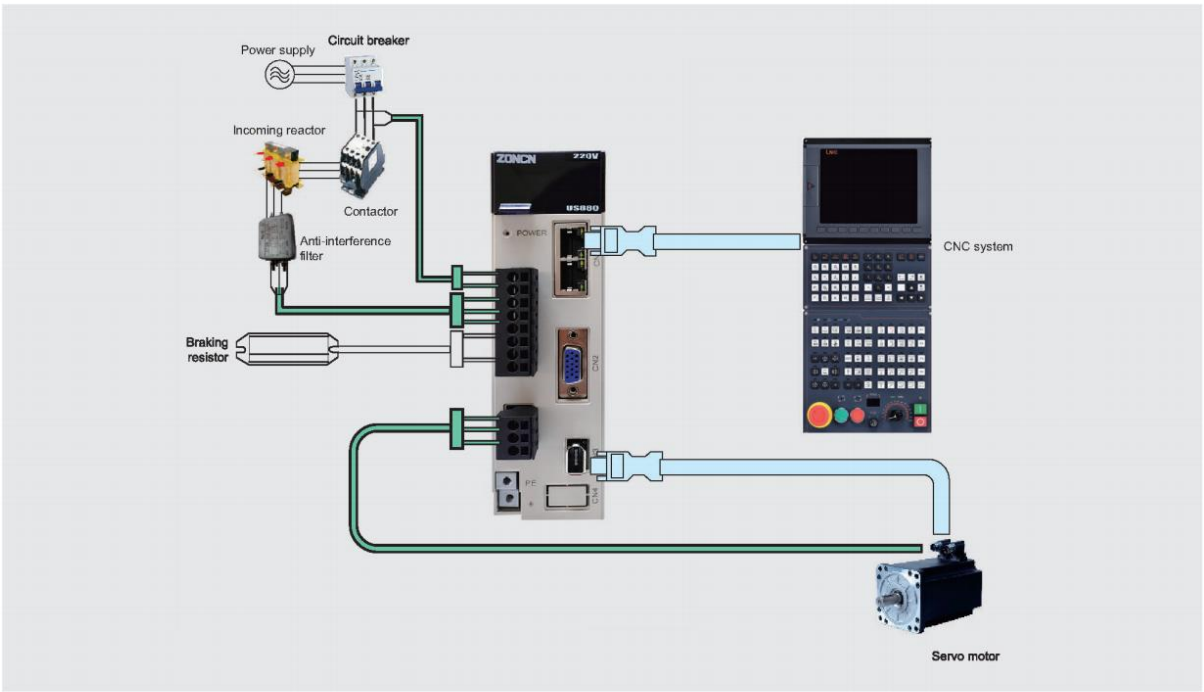
Support EtherCAT Bus□Yaskawa M3 Bus

EtherCAT® Anchuan M3 bus

Typical Applications:

CNC lathes: Excellent product quality, high precision, fast speed, smooth surface, smooth and precise contouring of 3D surfaces, right angles and straight lines, chip cutting functionality.
Precision engraving machines: High resolution, precise positioning, matching of rotational inertia, high overload capacity.
Engraving and milling machines: Good speed stability, high precision, fast response frequency, wide speed range, low-speed high torque.
Engraving machines: Fast speed response, good product smoothness, minimal patterns, smooth curve cutting.
Drilling and tapping machines: High-speed and low-speed machining with high precision, wide adjustment range, adaptable to different product requirements.
Machining centers: Rich parameter settings, combined with debugging frequency division coefficients, inertia friction compensation, gain filter, and other parameters to accomplish various complex machining tasks.

Peripheral device structure



Drive Model Description

US - 880 - OR4 - C 02

① ② ③ ④ ⑤

①ZONCN Servo	④Product Type:
AC Servo System	A:Absolute+485 communication; C:Absolute+EtherCAT; D:Absolute+MechatrolinkⅢ; G:Incremental(ABZ)
②Product series 880:880 Series;810:810 Series	⑤Voltage: 02:3PH 220V; 04:3PH 380V
③Rated power 0R2:0.2KW; 0R 4:0.4KW; 0R7:0.75KW; 1R0 :1.0KW; 1R5:1.5KW; 2R 5:2.5KW; 3R0:3.0KW; 4R 0:4.0KW; 5R0:5.0KW; 7R 5:7.5KW; 11:11KW; 15 15KW	

Motor Model Description

ZCM1 - 060 - K L 013 30 - 5 E P

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

①Series	⑥Rated torque
ZC:High performance motor; US:Economic motor	003: 0.32N.m; 006:0.64N.m; 013 :1.27N.m; 024: 2.39N.m; 032:3.2N.m; 042:4.2N.m; 054:5.4N.m; 060:6N.m; 077:7.7N.m; 083:8.3N.m; 115:11.5N.m; 146:14.6N.m; 186:18.6N.m; 284:28.4N.m; 350:35N.m; 480:48N.m; 830:83N.m; 955:95.5N.m
②Encoder type M1 :Photoelectric encoder; M2: Magnetoelectric encoder	⑦Rated speed 15:1500rpm; 20:2000rpm; 25:2500rpm; 30:3000rpm
③Flange 040:40; 060:60; 080:80; 110:110; 130:130; 180:180; 220:220	⑧Polar logarithm 4:4 pole; 5:5 pole
④Encoder type N:Absolute 24-bit Multi-turn K:Absolute 23-bit Multi-turn K1:Absolute 23-bit Multi-turn Split Type C:Absolute 17-bit single turn C1:Absolute 17-bit Multi-turn	⑨Brake E:No brake; B:Brake
⑤Phase/Voltage L:3 phase 220V; S:3 phase 380V	⑩Waterproof/Oil seal Y:With oil seal; W:Without oil seal; P:Waterproof and oil seal

Technical Specification

<table>
<tr><th colspan="3">Item</th><th colspan="2">US880/US810</th></tr>
<tr><td rowspan="20">Basic Function</td><td rowspan="3">Input power</td><td>Control Circuit Power</td><td colspan="2">1PHAC200V ~ AC240V 50/60Hz</td></tr>
<tr><td rowspan="2">Main Circuit Power</td><td>US880</td><td>US810</td></tr>
<tr><td>3PH220V:0.2KW~5.5KW
3PH380V:1.5KW~11KW</td><td>1PH220V:0.2KW~1.0KW
3PH220V:1.5KW~2.0KW
3PH380V:2.0KW ~ 15KW</td></tr>
<tr><td rowspan="4">Environment Condition</td><td>Temperature</td><td colspan="2">Environment temperature 0℃~55℃(without condensing)
Storage temperature-20℃~65℃(Maximum temperature 87℃72 hours)</td></tr>
<tr><td>Humidity</td><td colspan="2">Both using and storage need to keep below 90%RH(without condensing)</td></tr>
<tr><td>Altitude</td><td colspan="2">Lower than 1000m</td></tr>
<tr><td>Vibration</td><td colspan="2">Less than 5.88m/S²,10-60Hz(Can not continuous use under resonance frequency)</td></tr>
<tr><td colspan="2">Control mode</td><td colspan="2">IGBT PWM type sine wave drive</td></tr>
<tr><td colspan="2">Encoder feedback</td><td colspan="2">24Bit(16777216)Absolute encoder 23Bit(8388608)Absolute encoder
17Bit(131072)Absolute encoder</td></tr>
<tr><td>Communication</td><td>EtherCAT、M3</td><td colspan="2">Industrial Ethernet bus(COE)</td></tr>
<tr><td colspan="2">Operation panel</td><td colspan="2">1.4 keys
2.LED light 5 bits
3.CPU workable light
4.Vector signal monitor output</td></tr>
<tr><td colspan="2">Brake resistor</td><td colspan="2">Built-in regenerative resistor (Can be external)</td></tr>
<tr><td colspan="2">Dynamic brake</td><td colspan="2">Built in</td></tr>
<tr><td rowspan="12">Function</td><td rowspan="2">Position control</td><td rowspan="2">Signal input</td><td colspan="2">US880 series support EtherCAT.M3</td></tr>
<tr><td colspan="2">US810 series support EtherCAT.Pulse signal input</td></tr>
<tr><td>Resistance to vibration</td><td colspan="2">Support</td></tr>
<tr><td rowspan="4">Speed control</td><td rowspan="2">Signal input</td><td colspan="2">US880 series support EtherCAT.M3</td></tr>
<tr><td colspan="2">US810 series support EtherCAT.External speed input</td></tr>
<tr><td>Zero speed dead zone</td><td colspan="2">According to zero speed dead zone input</td></tr>
<tr><td>Instantaneous velocity observer</td><td colspan="2">Support</td></tr>
<tr><td>Speed command filter</td><td colspan="2">Support</td></tr>
<tr><td rowspan="2">Torque control</td><td rowspan="2">Signal input</td><td colspan="2">US880 series support EtherCAT.M3</td></tr>
<tr><td colspan="2">US810 series support EtherCAT.External torque input</td></tr>
<tr><td rowspan="3">Common use</td><td rowspan="2">Protection</td><td>Hardware error</td><td colspan="2">Over voltage,under voltage,over speed,overload,over heat,over current,encoder fault</td></tr>
<tr><td>Software error</td><td colspan="2">Position deviation too large,command pulse frequency division,EEROM fault</td></tr>
<tr><td colspan="2">Alarm data track</td><td colspan="2">Refer to alarm data list</td></tr>
</table>

T8000D Series

Multi-function High-performance Spindle Servo Drive

Technical Specification

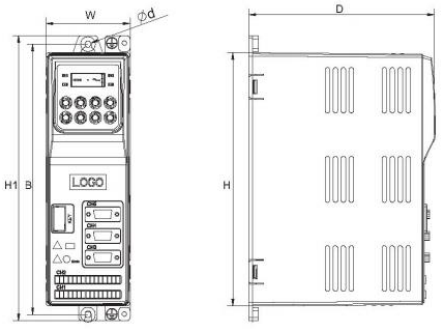
Item	T8000D
Maximum frequency	Vector control:0~1000 V/F control:0~1500
Carrier frequency	0.8kHz~16kHz The carrier frequency is automatically adjusted based on the load features.
Input frequency resolution	Digital setting:0.01Hz Analog setting:Maximum frequencyx0.025%
Control Mode	Sensorless flux vector control(SVC) Close-loop vector control (FVC)
Start torque	G type:0.5Hz/150%(SVC); 0Hz/180%(FVC)
Speed range	1:100(SVC) 1:1000(FVC)
Speed stability accuracy	±0.5%(SVC) ±0.02%(FVC)
Torque control accuracy	±5%(FVC)
Overload capacity	G type:60s for 150%of the rated current,3s for 180%of the rated current.
Torque boost	Auto-boost; Customized boost:0.1%~30.0%
V/F curve	Straight-line V/F curve Multi-point V/F curve N-power V/F curve(1.2-power,1.4-power,1.6-power,1.8-power,square)
Ramp mode	Straight-line ramp. Four groups of acceleration/deceleration time with the range of 0.00'6500.0s
DC braking	DC braking frequency:0.00Hz~Maximum frequency Braking time:0.0s~36.0s Braking action current value:0.0%~100.0%
Auto voltage regulation(AVR)	It can keep constant output voltage automatically when the mains voltage changes
Rapid current limit	It helps to avoid frequent over current faults of the AC drive.
Support for kinds of PG cards	Differential input PG card;Rotating transformer PG card,Open-collector.
Power dip ride through	The load feedback energy compensates the voltage reduction so that the AC drive can continue to run for a short time
Overvoltage/overcurrent stall control	The current and voltage are limited automatically during the running process so as to avoid frequent tripping due to over voltage/over current
Torque limit and control	It can limit the torque automatically and prevent frequent over current tripping during the running process.Torque control can be implemented in the FVC mode.
Onboard multiple preset speeds	It implements up to 16 speeds via the simple PLC function or combination of X terminal states
Support motor type	Asynchronous motor,spindle asynchronous motor,Permanent Magnet Synchronous Motor, Spindle Synchronous Motor

Model	Rated output power (kW)	Rated input current (A)	Rated output current (A)	Motor Power (kW)
Input Voltage(V):3PHAC380V±15%				
T8400D-0R75G	0.75	3.8	2.5	0.75
T8400D-1R5G	1.5	5	3.7	1.5
T8400D-2R2G	2.2	5.8	5	2.2
T8400D-3R7G	3.7	10	9	3.7
T8400D-5R5G	5.5	15	13	5.5
T8400D-7R5G	7.5	20	17	7.5
T8400D-11G	11	26	25	11
T8400D-15G	15	35	32	15
T8400D-18.5G	18.5	38	37	18.5
T8400D-22G	22	46	45	22
T8400D-30G	30	62	60	30
T8400D-37G	37	76	75	37
T8400D-45G	45	92	90	45
T8400D-55G	55	113	110	55
T8400D-75G	75	157	150	75
T8400D-90G	90	180	176	90
T8400D-110G	110	214	210	110
T8400D-132G	132	256	253	132
T8400D-160G	160	307	300	160

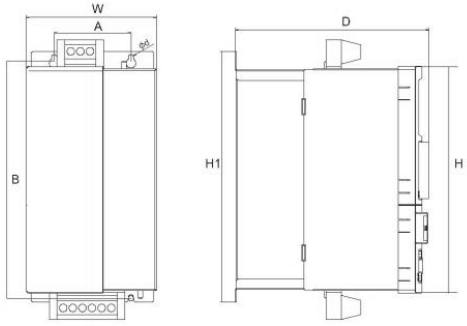
Dimension

Unit:mm

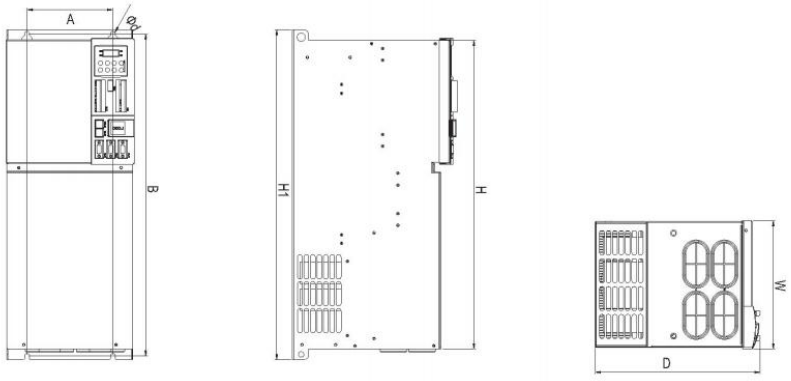
① 0.75-3.7kW



② 5.5-22kW

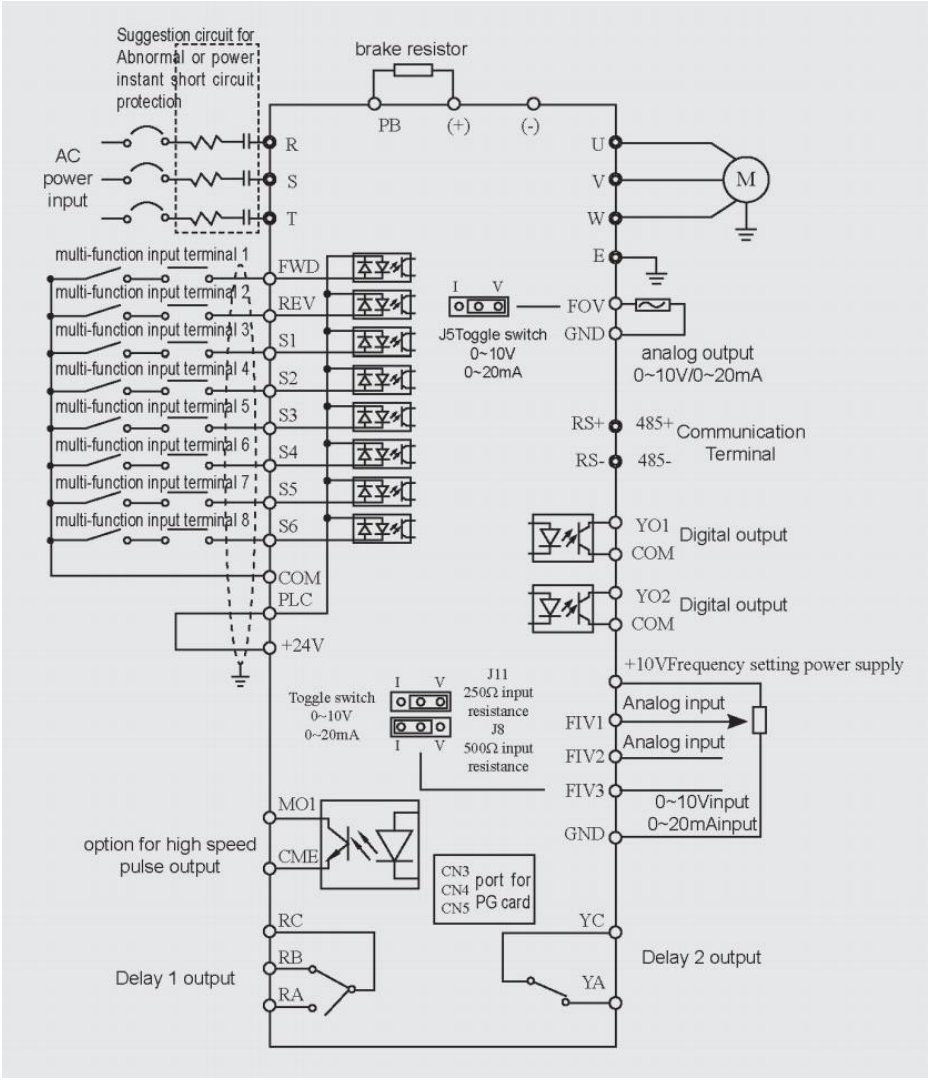


③ 30-160kW



Model	Outline Dimension(mm)				Assembly Dimension(mm)			Install Method
	W	H	H1	D	A	B	Φd	
T8400D-0R75G	74	222	250	163	-	237	5.5	Wall mounting
T8400D-1R5G								
T8400D-2R2G								
T8400D-3R7G-D								
T8400D-3R7G	89	235	260	200	-	250	5.5	
T8400D-5R5G								
T8400D-7R5G								
T8400D-11G	136	235	260	202	80	250	5.5	
T8400D-15G								
T8400D-18.5G	193	235	260	222	132	250	5.5	
T8400D-22G								
T8400D-30G	177	439	475	256	120	460	7	
T8400D-37G								
T8400D-45G	235	575	615	308	160	600	9	
T8400D-55G								
T8400D-75G	275	595	630	340	200	612	9	
T8400D-90G								
T8400D-110G								
T8400D-132G	304	844	880	451	200	838	11	
T8400D-160G								

Typical Wiring diagram



SP600 Series

Air Compressor Integrator

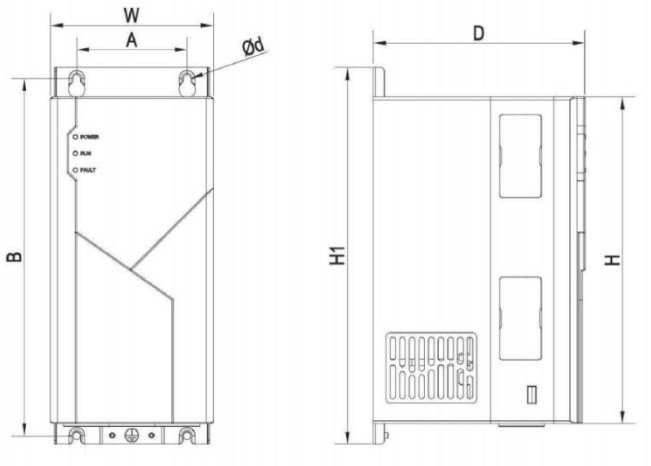
Technical Specification

Item		SP600
Basic control functions	Control mode	Open loop vector control; V/F control
	Maximum frequency	Open loop vector control:0~600Hz; V/F control:0~3200Hz
	Carrier frequency	0.5kHz~15kHz,The carrier frequency is automatically adjusted based on the load features.
	Input frequency resolution	Digital setting:0.01Hz; Analog setting:maximum frequency×0.025%
	Startup torque	0.5 Hz/150%
	Speed range	1:100
	Speed stability accuracy	±0.2%
	Torque control accuracy	±10%
	Overload capacity	60s for 150%of the rated current, 3s for 180%of the rated current.
	Torque boost	Fixed boost; Customized boost 0.1%-30.0%
	V/F curve	Straight-line V/F curve; Multi-point V/F curve; N-power V/F curve(1.2-power,1.4-power,1.6-power, 1.8-power,square)
	V/F separation	Two types: complete separation; half separation
	Ramp mode	Straight-line ramp S-curve ramp Four groups of acceleration/deceleration time with the range of 0.0-6500.0s
	Communication methods	RS485
	JOG control	JOG frequency range:0.00-50.00 Hz JOG acceleration/deceleration time:0.0-6500.0s
	Built-in PID	It realizes process-controlled closed loop control system easily.
	Auto voltage regulation(AVR)	It can keep constant output voltage automatically when the mains voltage changes.
	Frequency source	Digital setting
Input and Output interfaces	Analog Input	1 pressure sensor:4~20mA input; 2 temperature sensor:PT100
	Digital input	2 digital input 1 PTC circuit protection(compatible with normal digital inputs)
	Digital Output	1 normally open relay output (built in 220VAC voltage)
	LED diode display	Standard 3 LED display
Protections	Motor overheating protection(PTC),the power-to-ground short-circuit protection,inverter over-current,overload,over voltage,under voltage,over temperature,output phase,communication fault,fault current detection,EEPROM write failure and so on.	
Environment	Installation location	Indoor,free from direct sunlight,dust,corrosive gas,combustible gas,oil smoke,vapor, drip or salt.
	Altitude	Lower than 1000 m
	Ambient temperature	-10℃~40℃(Downshift if the ambient temperature is between 40℃ and 50℃)
	Humidity	Less than 95%RH,without condensing
	Vibration	Less than 5.9m/s2(0.6 g)
	Storage temperature	-20℃~60℃

Specification

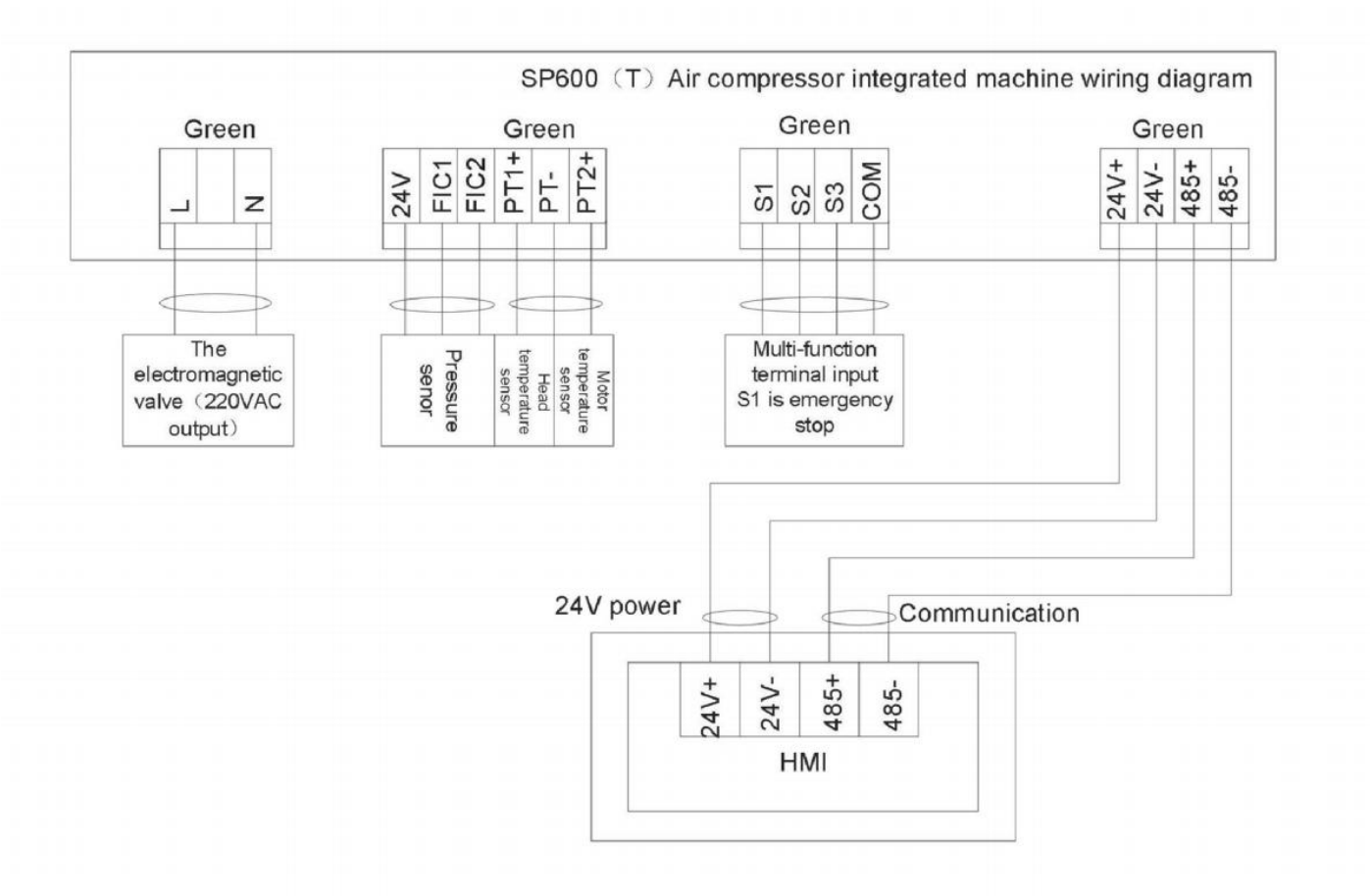
Model	Rate input current(A)	Main motor rate output current(A)	Fan motor rate output current(A)
SP600T-5R5KY-4	15.9	13	3
SP600T-7R5KY-4	20	17	3
SP600T-011KY-4	26	25	3
SP600T-015KY-4	35	32	3
SP600T-018KY-4	38	37	3
SP600T-022KY-4	46	45	3
SP600T-030KY-4	62	60	3
SP600T-037KY-4	76	75	3
SP600T-045KY-4	92	90	15
SP600T-055KY-4	113	110	15
SP600T-075KY-4	157	150	15
SP600T-090KY-4	180	176	15
SP600T-110KY-4	214	210	15
SP600T-132KY-4	256	253	15
SP600T-160KY-4	307	300	15

Dimension Unit: mm



Model	W	H	H1	D	A	B	Φd
SP600T-5R5KY-4	118	238	274	154	80	260	5.5
SP600T-7R5KY-4							
SP600T-011KY-4	145	293	335	172	100	320	7
SP600T-015KY-4							
SP600T-018KY-4	168	338	380	172	100	365	7
SP600T-022KY-4							
SP600T-030KY-4	217	400	--	216	202	385	7
SP600T-037KY-4							
SP600T-045KY-4	300	440	470	275	210	455	9
SP600T-055KY-4							
SP600T-075KY-4	338	455	485	240	270	470	9
SP600T-090KY-4	275	590	630	310	200	612	9
SP600T-110KY-4							
SP600T-132KY-4	300	640	650	310	200	633	9
SP600T-160KY-4	400	675	715	310	320	695	11

Typical Wiring diagram



Note:
1)PT2+,PT2-are motor PT100 terminals,please shorted missed,otherwise it will report motor overheating fault.
2)S3 is the Motor PTC terminals,please COM shorted missed,otherwise it will be reported to the motor overheating fault.

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