



T9000 Series

Advanced Inverter

Product Introduction

芜湖众辰自动化设备有限公司

Wuhu ZONCN Automation Equipment Co., LTD

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	T9000
Control Mode	V/F control Sensorless flux vector control (SVC) Close-loop vector control (FVC)(Above 3.7KW)
Maximum frequency	599Hz
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: 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.

Basic function

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	Item	T9000
Basic function	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 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 functions	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 for 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°C ~+ 40°C (de-rated if the ambient temperature is between 40°C ~50°C)
	Humidity	Less than 95%RH, without condensing
	Vibration	Less than 5.9m/s ² (0.6g)
	Storage temperature	-20°C ~+ 60°C

Specification

Model	Input Current (A)	Output Power (KW)	Output Current (A)	Motor (KW)
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Input Voltage(V): 1PH AC220V±15%

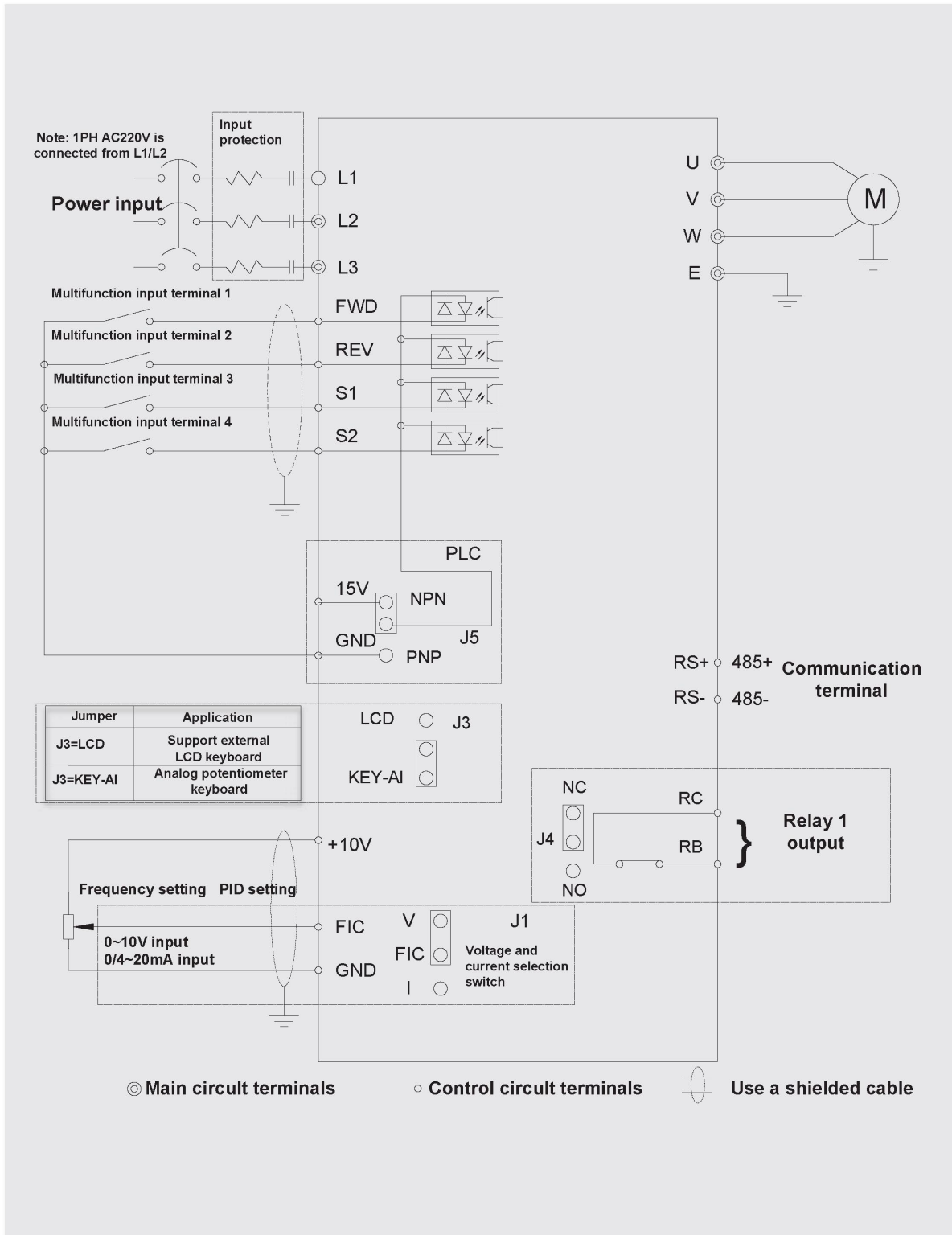
T9200-0R4G	5.4	0.4	2.1	0.4
T9200-0R75G	7.2	0.75	3.8	0.75
T9200-1R5G	10	1.5	7.2	1.5
T9200-2R2G	16	2.2	9	2.2
T9200-3R7G	17	3.7	17	3.7

Input Voltage(V): 3PH AC380V±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

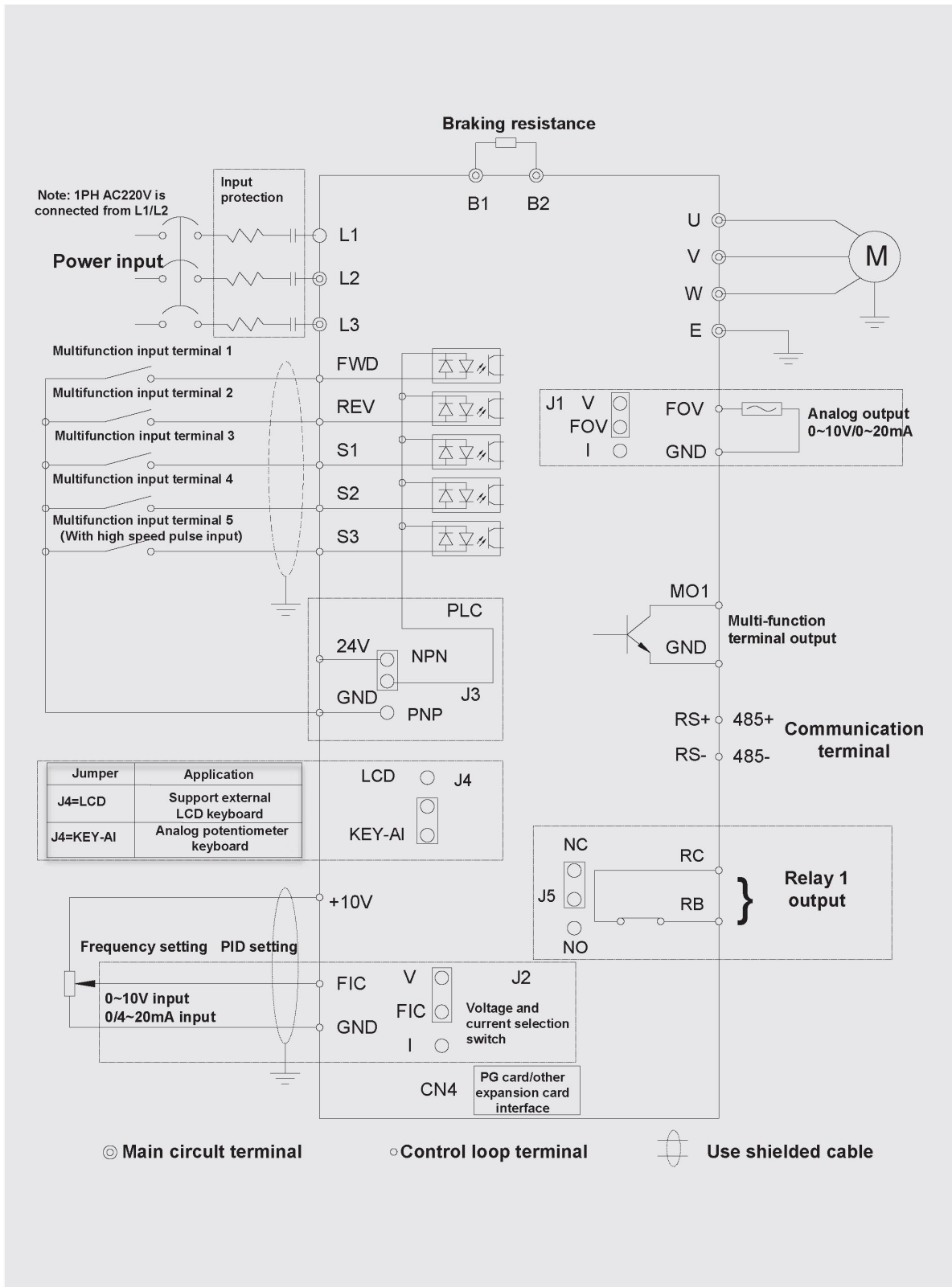
Wiring Diagram

1. 1PH/220V 0.4-2.2kW & 3PH/380V 0.4-2.2kW (VF control)



Note: It is only for V/F control

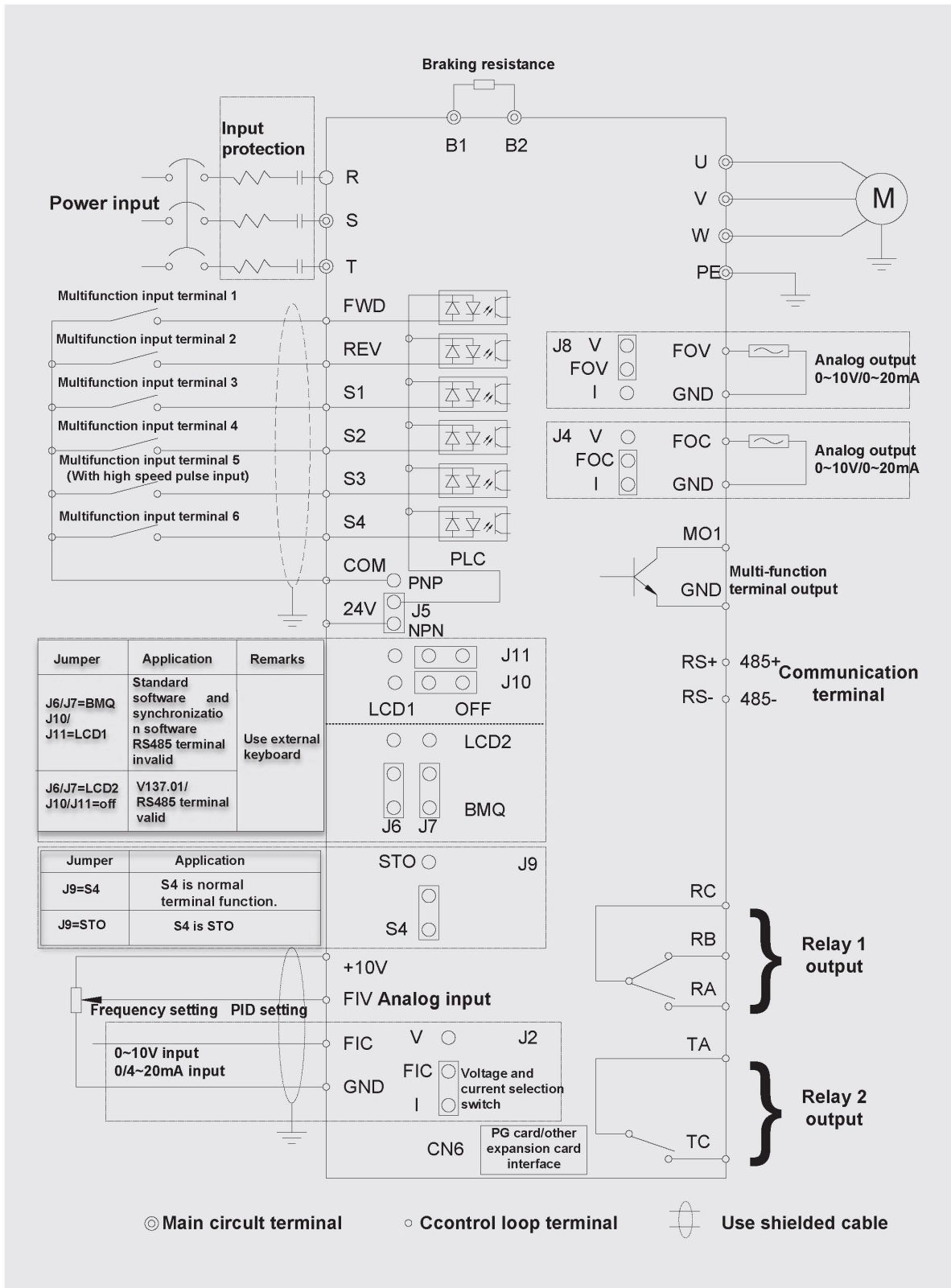
2. 1PH/220V 0.4-3.7kW & 3PH/380V 0.4-5.5kW (vector control)



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

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3. 380V/7.5kW-450kW



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							
	T9200-3R7G							
T9400-3R7G/5R5P	85	180	131	167	72	5.5		
T9400-5R5G								
B	T9400-7R5G/11P	106	240	168	230	96	4.5	
	T9400-11G/15P	151	332	183	318	137	7	
	T9400-15G/18.5P							
	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	400	675	715	310	320	695	11	
	T9400-132G/160P								
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														335	1720	1455	200	545	285	470	14	240	200	1380	14
	T9400-350G/400P																									
	T9400-400G/450P																									
T9400-450G/500P																										



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