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## 1.Foreword

Thank you for choosing POWTRAN Frequency Inverter, This product (hereinafter referred to as PS cabinet) is based on Powtran Technology PI9000 series high-performance vector inverter, based on the modular design to the frequency inverter and configure corresponding peripheral integrated control cabinet control circuit and display control. The user can choose to order our standard configuration function, also can choose according to the requirements of field use peripheral control devices and the panel control, customized according to customer's requirements. After customers buy PS cabinet, as long as the correct plugged into a power supply and motor output line can be normal use, to avoid the secondary wiring for the inconvenience.PS inverter cabinet integrated, not only appearance is concise and beautiful, also improves the safety and reliability of the secondary distribution, simple manipulation, and reduce the cost of user input.





The input and output terminal is located in the bottom of cabinet, left in and right out. If equipped with in and out of the reactor, the terminal extends to the reactor in and out of the terminal; " $\doteq$ " earthing terminal is located in the cabinet at the bottom right. Note that " $\doteq$ " terminal must connect with the earth, never mix zero line, the inverter and motor earthing respectively, the actual terminal arrangement will be subject to physical terminal label tag please.

## 4.PS9500 series specification and dimension

PS model	Power (kW)	Voltage (V)	Current (A)	Seat No.	Size (W*L*H) mm	Wire diameter mm	N.W. kG
PS9500 037G3	37	380V	75	3N4	600*600*2200	16	
PS9500 045G3	45		90			25	
PS9500 055G3	55		110			35	
PS9500 075G3	75		150			50	
PS9500 093G3	93		170			50	

#### PS9500 series vector control inverter operating manual

PS9500 110G3	110		210			70	
PS9500 132G3	132		250	3N5	800*600*2200	70	
PS9500 160G3	160		300			95	
PS9500 187G3	187		340			120	
PS9500 200G3	200		380			120	
PS9500 220G3	220		415			150	
PS9500 250G3	250		470	3N6	800*600*2200	150	
PS9500 280G3	280		520	1		95*2	
PS9500 315G3	315		600	3N7	1000*600*2200	120*2	
PS9500 355G3	355		660			120*2	
PS9500 400G3	400	380V	750			150*2	
PS9500 450G3	450		840			150*2	
PS9500 500G3	500		930	3N8	1200*600*2200	150*2	
PS9500 560G3	560		1040			185*2	
PS9500 630G3	630		1170			150*3	
PS9500 710G3	710		1300			150*3	

#### 5. Selection Guide

1). According to the type of load dragged by the motor, start and stop frequency and load inertia overload conditions, we can select the appropriate PS cabinet models. Firstly we need to get the following information: motor nameplate data (rated voltage, rated power, rated current, rated frequency, rated speed) in order to select the appropriate level of PS cabinet. According to the type of load, overload situation to choose the right margin. For light load such as general fan and pump, we can consider by 1.1 times the rated current of the motor to select PS cabinet capacity. For constant torque and the inertia load, we can consider by 1.1 to 1.2 times to select. For the impact load and the more volatile occasion, we can consider to select maximum current.

2). The general protection rating of PS cabinet is IP20. If users need special protection class, please inform us in advance.

3). Cabinet form structure includes GGD, rittal, welding cabinet set.c. We generally use the welding cabinet as our standard production for users.

4). The standard color is RAL7035 (or PANTONE425C). If users need special requests, please inform us to provide and confirm the special color in advance.

5).We produce PS cabinet with user-friendly design to meet the requirements based on the end-user to avoid secondary processing site and wiring, so we need confirm site-specific requirements, use of the environment, on-site installation conditions, EMC requirements design elements, including special packaging requirements. Please check the enclosed PS cabinet customer order inquiry form in detailed.

6). PS cabinet are usually equipped with circuit breakers, panel voltmeter, universal switch (toggle the display of three-phase voltage), ammeter, power / run / fault indicator, run / stop / fault reset button and frequency adjustment potentiometer. Both parties agreed in writing to the contract shall prevail.

### 6. Precautions

Visual inspection to confirm whether product during transport caused loosening, deformation, bump after unpacking. For example whether panel, lights, buttons, keyboard on the instrument damage. After opening the door to see visually whether the cable, copper, terminal screws fasten and to see whether the apparent overall structural deformation or not. After confirmation, connect the power and electrical cable and connect to the ground before the cabinet secure transmission. Energizing test should be done under the manufacturer's instructions after the examination, if user need secondary wiring, please pay attention to the line of control requires the use of shielded wire and separated from the main cable wiring.

## Appendix PS cabinet customer order questionnaire

1. The information needed from user: Motor nameplate parameters: rated power\_\_\_\_; rated current\_\_\_\_; rated voltage\_\_\_\_; rated frequency\_\_\_\_; rated rotate speed\_\_\_\_ The load description :\_\_\_\_\_

## If start frequently: Yes 🛛 No 🗍

2. Ps cabinet spare parts drawing:



3. Ps cabinet spare parts list:

No.	Part name	Symbol	QTY	Advice brand	Customer use brand	Note
1	Power input terminal		1			
2	Breaker	MCCB\ELCB	1	Chint/Tianshui		
3	Input reactor	ACL	1	Eagtop/Sudun		
4	Input EMI filter	EMI	1	Eagtop/Sudun		
5	AC contactor	MC	1	Chint/Tianshui		
6	Ampere meter	PA	3	Chint/Tianshui		
7	Voltmeter	PV	1	Chint/Tianshui		
8	DC reactor	DCL	1	Eagtop/Sudun		
9	Brake unit		1	Powtran		
10	Output filter		1	Eagtop/Sudun		
11	Output reactor	OCL	1	Eagtop/Sudun		
12	Output terminal		1			
13						
14						
15						
16						

- 4. Control loop requirements:
- 1) With power frequency switch circuit, change to origin starting circuit
- 2) With power frequency switch circuit, and have matched soft starter or star triangle start-up circuit.
- 3) Control button, indicator light designed according to standard circuit
- 4) Customer special Requirements:

PS cabinet protection degree requirements:

Ps cabinet packing requirements:

Order quantity: