



## ZVF300 SERIES INVERTER Product Catalogue

SINO-FRENCH JOINT VENTURE  
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WENZHOU ZIRI ELECTRICAL TECHNOLOGY CO.,LTD.**





## ABOUT US

ZIRI Electrical Technology Co., Ltd. is a professional inverter manufacturer engaged R&D, manufacture, distribution and service. It is a Hi-tech enterprise conveniently located the golden area Liushi, Wenzhou, Which is the capital city of electrical appliance in China.

Now the company have designed one new series inverter ZVF300 which has characteristic of advanced technology, complete function, stable running, simple operation, fine energy saving and excellent performance and so on. The inverters are widely applied to the various industries, metallurgy, plastic, textile, food, papermaking, drugs manufacture, printing, construction material, cement, oil, chemical industry, mining, belt conveyor ect.

At present, ZIRI Electrical has become one of leading professional manufacturer that devotes to researching, developing, producing and marketing frequency inverter and soft starters in China. Thanks to the good quality, we respectively obtained ISO9001, CE, CCC and other certificates. ZIRI Electrical set up branch offices in more than 30 cities and established a perfect, professional and efficient sale-and-service system. At the same time, ZIRI Electrical also working up international sales net. Our products have been exported in large quantity to Europe, South America, Southeast Asia, Middle East, Africa and so on. Which earn good reputation and high praise in the market.

We adhere to the remarkable tradition of technical innovation, continue to design new generation products to meet market demands. make great strides forward gradually to high-end application domain, and strive to shoulder heavy responsibilities to create a full of hope for the future.

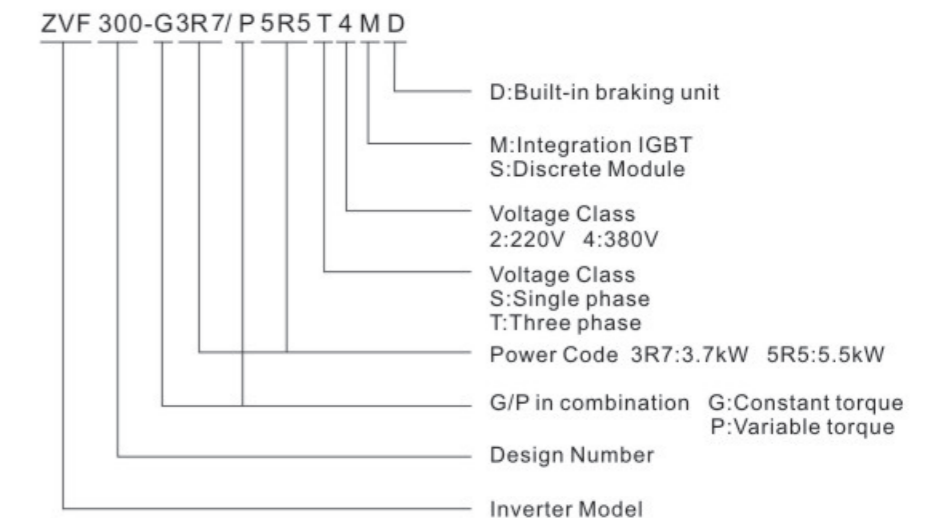


## Main Features

ZVF300 Series inverters are high performance open loop vector inverters for controlling asynchronous AC induction motors and permanent synchronous motors.

- ◆ 1. Output frequency :0-600Hz.
- ◆ 2. Multiple password protection mode.
- ◆ 3. Remote control operation keypad, convenient for remote control.
- ◆ 4. V/F curve & multi-inflection point setting, flexible configuration.
- ◆ 5. Keyboard parameter copy function. easy to set the parameters for multi-inverters.
- ◆ 6. Wide industry application. to expand special function according to different industries.
- ◆ 7. Multiple hardware and software protection and optimized hardware for anti-interference technology.
- ◆ 8. Multi-step speed and wobble frequency running (external terminal 15 steps speed control).
- ◆ 9. Unique adaptive control technology. Auto current limiting and voltage limiting and under-voltage restrain.
- ◆ 10. Optimized external installation and internal structure and independent air flue design, fully enclosed electrical space design.
- ◆ 11. Output automatic voltage regulation function (AVR). automatically adjust the output pulse width. to eliminate the influence of the grid change on load.
- ◆ 12. Built-in PID regulation function to facilitate the realization of closed loop control of the temperature, pressure and flow. and reduce the cost of the control system.
- ◆ 13. Standard MODBUS communication protocol. easy to achieve the communication between PLC, IPC and other industrial equipments.

## Demonstration of the Model



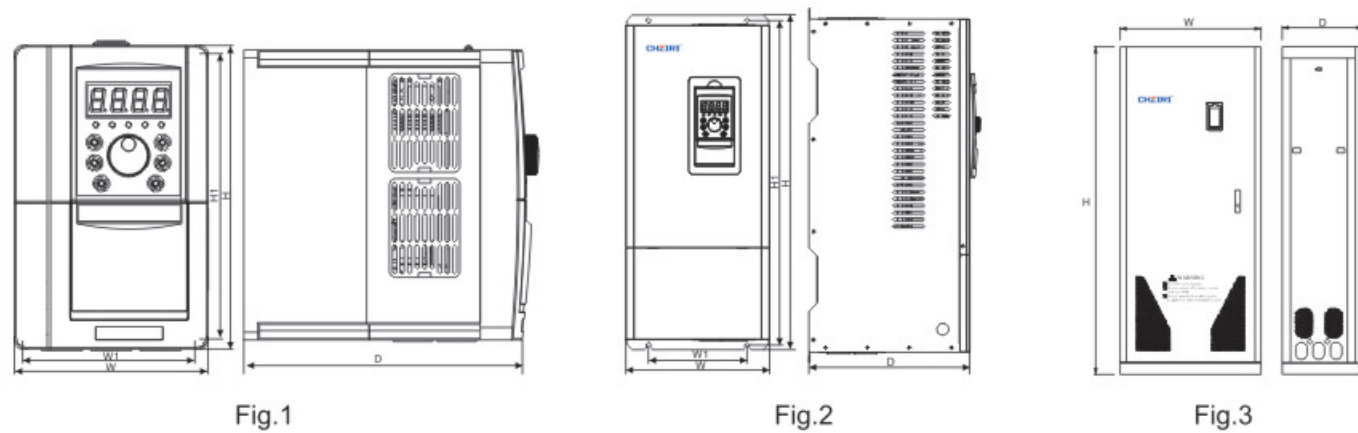


### ZVF300 Series high performance frequency inverter

Input Voltage(V)	Output Voltage (V)	Power Range ( kW )
Three phase 220V ± 20%	Three phase 0~input voltage	0.4kW~110kW

Overload Capacity : 150% 1 minute ;180% 1 second ;200% transient protection .

### Inverter Outline&Mounting Dimension(Unit:mm)



Inverter Model	Power (KW)	Current (A)	Dimension (mm)						Figure
			H	H1	W	W1	D	d	
ZVF300-G0R4T2MD	0.4	2.4	185	175	118	108	155	Φ4	Fig.1
ZVF300-G0R7T2MD	0.75	5.0							
ZVF300-G1R5T2MD	1.5	7.5							
ZVF300-G2R2T2MD	2.2	10							
ZVF300-G3R7T2MD	3.7	16	215	205	145	135	178	Φ4	Fig.1
ZVF300-G5R5T2MD	5.5	25	265	253	185	174	200	Φ5.5	
ZVF300-G7R5T2MD	7.5	33	380	360	220	140	210	Φ6	
ZVF300-G011T2M	11	42	460	443	260	177	248	Φ6	
ZVF300-G015T2M	15	55							
ZVF300-G018T2M	18.5	70	620	603	265	182	280	Φ8	Fig.2
ZVF300-G022T2M	22	80							
ZVF300-G030T2M	30	110							
ZVF300-G037T2M	37	130							
ZVF300-G045T2M	45	160	720	702	365	240	340	Φ9	Fig.3
ZVF300-G055T2M	55	200							
ZVF300-G075T2M	75	270	1270		574		380		
ZVF300-G090T2M	90	320							
ZVF300-G110T2M	110	380	1700		710		410		

Input Voltage (V)	Output Voltage(V)	Power Range (kW)
Single phase 220V ± 20%	Three phase 0~input voltage	0.4kW~2.2kW
Three phase 380V ± 20%	Three phase 0~input voltage	0.75kW~630kW

G type Overload capacity :150% 1 minute; 180% 1 second;200% transient protection.  
P type Overload capacity :120% 1 minute; 150% 1 second;180% transient protection.

### Model Selection Guide

Inverter Model	Power(kW) G/P	Current (A)	Dimension (mm)						Figure
			H	H1	W	W1	D	d	
ZVF300-G0R4S2MD	0.4	2.4	185	175	118	108	155	Φ4	Fig.1
ZVF300-G0R7S2MD	0.75	4.5							
ZVF300-G1R5S2MD	1.5	7.0							
ZVF300-G2R2S2MD	2.2	10	185	175	118	108	155	Φ4	Fig.1
ZVF300-G0R7T4MD	0.75	2.5							
ZVF300-G1R5T4MD	1.5	3.7							
ZVF300-G2R2T4MD	2.2	5.0	215	205	145	135	178	Φ4	Fig.1
ZVF300-G3R7/P5R5T4MD	3.7/5.5	9.0/13							
ZVF300-G5R5/P7R5T4MD	5.5/7.5	13/17							
ZVF300-G7R5/P011T4MD	7.5/11	17/25	265	253	185	174	200	Φ5.5	Fig.1
ZVF300-G011/P015T4MD	11/15	25/33							
ZVF300-G015/P018T4MD	15/18.5	33/37	380	360	220	140	210	Φ6	Fig.2
ZVF300-G018/P022T4MD	18.5/22	37/45							
ZVF300-G022/P030T4M	22/30	45/60	460	443	260	177	248	Φ6	
ZVF300-G030/P037T4M	30/37	60/75							
ZVF300-G037/P045T4M	37/45	75/90	620	603	265	182	280	Φ8	
ZVF300-G045/P055T4M	45/55	90/110							
ZVF300-G055/P075T4M	55/75	110/150	720	702	365	240	340	Φ9	
ZVF300-G075/P090T4M	75/90	150/176							
ZVF300-G090/P110T4M	90/110	176/210	1270		574		380	Fig.3	
ZVF300-G110/P132T4M	110/132	210/253							
ZVF300-G132/P160T4M	132/160	253/300	1700		710		410		
ZVF300-G160/P185T4M	160/185	300/340							
ZVF300-G185/P200T4M	185/200	340/380							
ZVF300-G200/P220T4M	200/220	380/420							
ZVF300-G220/P250T4M	220/250	420/470							



ZVF300-G250/P280T4M	250/280	470/520	1700	710	410	Fig.3
ZVF300-G280/P315T4M	280/315	520/600				
ZVF300-G315/P350T4M	315/350	600/640	1900	800	410	
ZVF300-G350/P400T4M	350/400	640/690				
ZVF300-G400/P500T4M	400/500	690/860				
ZVF300-G500/P560T4M	500/560	860/950				
ZVF300-G560/P630T4M	560/630	950/1100				
ZVF300-G630T4M	630	1100				

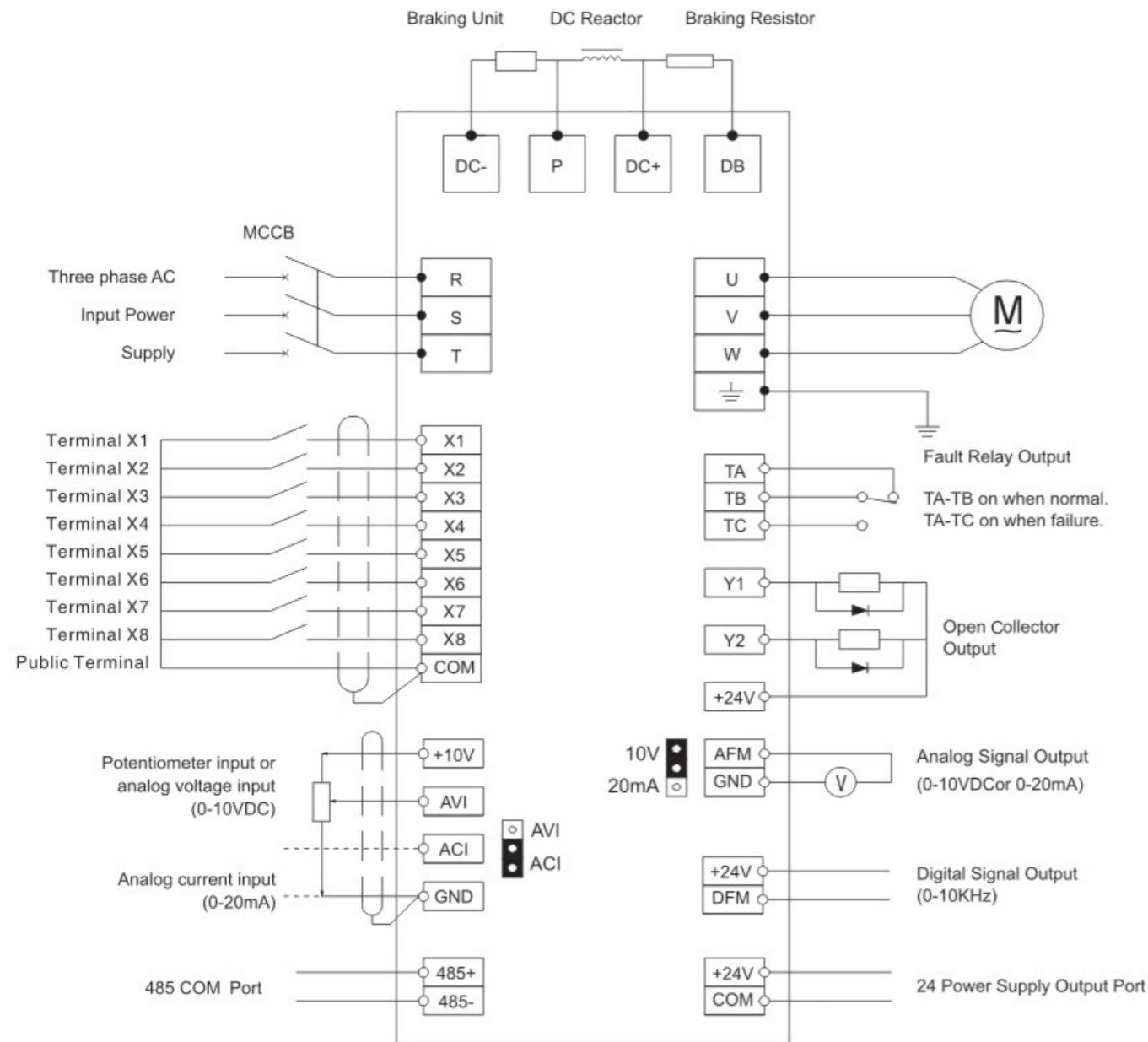
**Specification and Technical Indications**

Item		Item Description
Input	Rated voltage& Frequency	Single /Three phase 220VAC . Three phase 380V.50Hz/60Hz
	Allowable Voltage range	Voltage fluctuate range:-20%~+20% Voltage unbalance rate :<3%; Frequency fluctuation:≤5%
Output	Rated voltage	three phase 0~input AC voltage
	Frequency	0.00~600.00Hz
Overload capacity		Type G:150% 1minute, 180% 1 second,200% transient protection. Type P:120% 1minute, 150% 1 second, 180% transient protection.
Control Function	Modulation mode	Optimal space voltage vector PWM modulation
	Control mode	Sensorless vector control (SVC), V/F control. Torque control
	Frequency accuracy	Digital setting: Max. Frequencyx±0.01% Analog setting: Max. Frequencyx±0.2%
	Frequency resolution	Digital setting :0.01HZ; Analog setting:Max. Frequency x0.1%.
	Starting frequency	0.00~10.00Hz
	Torque lift	Automatic torque lift:To lift the torque automatically according to the output current. Manual torque lift, Range: 0.1-30. 0%
	Slip compensation	Setting range: 0~150%. The inverter output frequency can be auto-regulated within this range according to the motor load,so as to reduce the speed variation of the motor due to load fluctuation.
	Acceleration/deceleration time	Minutes/Seconds can be selected as time unit .0.1~3600 can be set in sequence.
	Carrier frequency	1.0~15.0KHz
	V/F curve	Jog frequency range: 0.01~600.00Hz, Jog acceleration /deceleration time 0.1~3600.0 can be set. 1: linear curve; 2: quadratic; 3: user defined V/F curve

Item		Item Description
Control Function	Automatic energy-saving operation	Auto optimize V/F curve according to the load changes to realize the energy saving operation.
	Auto voltage regulation (AVR)	When the network voltage changes, it can regulate PWM output automatically to maintain constant voltage.
	Built-in PID	This can form a convenient closed-loop control system (CLCS)and is applicable to pressure control, flow control and other process control.
Operation Function	Operating command	Operation panel control ,external terminal control and COM control
	Frequency setting	Keypad potentiometer setting, operation panel ▲▼ setting,external terminal UP/DOWN setting, analog voltage signal or external potentiometer setting,analog current signal setting .terminal combination setting ,485 COM setting and so on.
	Input Signal	Forward/Reverse signal、 multi-speed signal 、 fault signal 、 reset signal etc.
	Output signal	Programmable relay、 open collector output 、 Fault signal output.
	Multi-function analog and digital output terminal	This can realize the output of frequency and current and other physical quantity by output 0-10V or 0-20mA DC signal and 0-10KHz digital signal output.
Braking function	Dynamic braking	With an external braking resistor, the maximum braking torque may reach 100%.
	DC Braking	This can be selected when the motor starts or stops with the action frequency of 0-20Hz,action current level of 0-100% and actuation time of 0-30sec., which can be set in sequence
Other Function		Skip frequency、 Jog function、 Counter、 Rotation speed tracking、 Momentary power loss restart、 Frequency upper/lower limiting、 Acceleration/ Deceleration mode can be adjusted、 Frequency meter and Voltmeter output、 Multi-speed/ program running、 Two wire mode/ three wire mode control、 Wobble frequency control、 Multi-function terminal selection、 Fault auto reset、 RS485 serial communication.
Protection Function		Input phase loss protection、 Over current protection、 Overload protection、 Over voltage protection、 Under voltage protection、 Over heat protection ect.
LED display		Can display the real time running status of the inverter,monitor parameter, function parameter and fault code and other information of the inverter.
Matching parts		Braking assembly, remote keypads and wire connection,communication panel .
Ambient	Place to be used	Indoor location free from direct exposure to sun light,high humidity or dew condensation, high levels of dust,corrosive gas, explosive gas, inflammable gas, oil mist,salt and etc
	Altitude	Below 1000 M
	Ambient Temperature	-10°C to +45°C (Bare Machine: -10 °C to+50°C)
	Humidity	20%-90% RH without dew condensation
	Vibration	<0.5G
	Storage temperature	-20°C~+60°C
Structure	Protection class	IP20
	Cooling mode	Forced air cooling
	Installation mode	Wall mounted or floor-type actuator

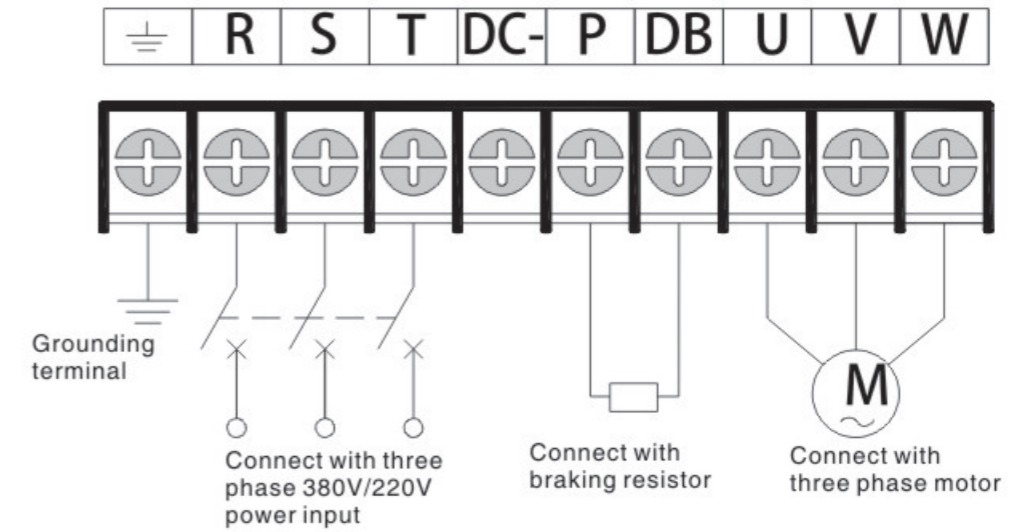


### Basic System Description on Inverter Wiring

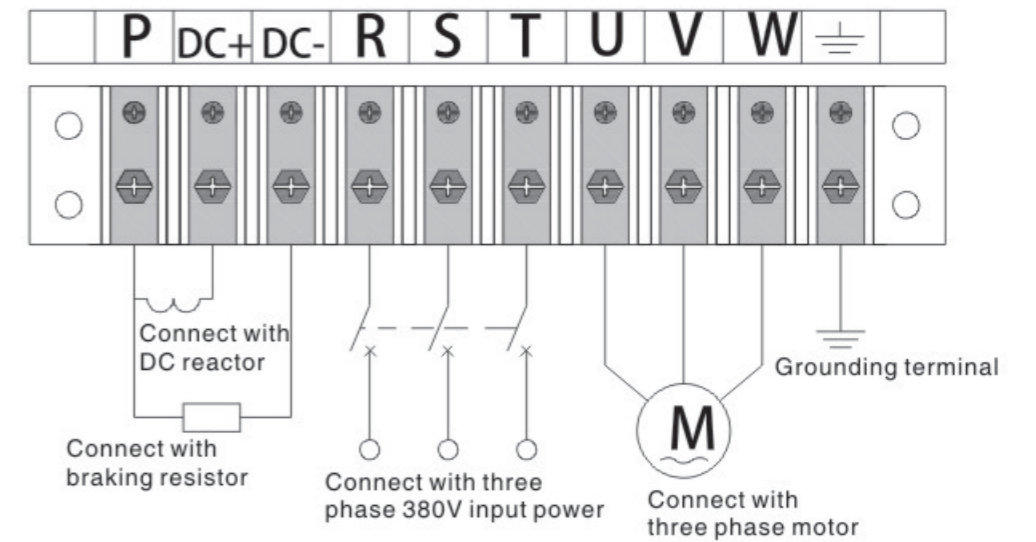


### Instruction on Main Circuit Terminal

The main circuit terminals are shown as follows:



Model: ZVF300-G0R4T2~G7R5T2  
ZVF300-G0R7T4~P022T4



Model: ZVF300-G011T2~G110T2  
ZVF300-G030T4~P375T4



Optional spare parts

Keypad



Remote Control Cable



Braking Unit



Braking Resistor



Reactor



Filter



Application



Music fountain



Textiles



CNC machine



Belt Conveyor



Screw air compressor



Grinding machine