



GLOBAL SOLUTIONS FOR YOUR CONTROLLING

- ▶ VFD / Inverter ▶ Process Control Instruments ▶ Programmable Timers
- ▶ Programmable Counters ▶ Power & Energy Meters ▶ Din Rail Timer
- ▶ PIC & HMI ▶ Temperature Controller

ZQ280(A) SERIES

VECTOR FREQUENCY INVERTER / SOLAR INVERTER

Product Introduction :

The ZQ280(A) series of vector inverters are single-phase 220VAC and three-phase 220V/380V AC inverters launched by MISTURA based on the market demand of small power, small size and low cost.



Industrial Application :

Machine tools, Packaging, Chemical Industry, Transmission, Fans and Pumps, Ceramic Industry, Woodworking Machine...

Superior Performance :

- Vector Control
- Solar Inverter MPPT Control
- Strong EMC Anti-Interference Capability

Technical Specification :

	Item	Specification
Main Input	Input : Voltage & Frequency	Voltage : Single Phase 220V; Three Phase 220V; Three Phase 380V Frequency : 50Hz / 60 Hz
	Main Output	Output Voltage
Basic Function	Output Frequency	0.0 Hz to 400 Hz
	Overload Capacity	150% of rated output current for 60s
	Control Mode	V/F Control Vector Control
	DC Braking	Start frequency of DC braking at stop : 0.00 - upper limit frequency Braking Time : 0.0-100.0s Braking Current : 0.0-100.0% of rated current
	Jog Control	Jog frequency range : 0.0Hz-50.0Hz Jog ACC and DEC time : 0.1-3600.0s
	Multi-Speed	7-Speed
	Automatic detection of motor parameters	Detecting motor parameters automatically during static state
	Over-Voltage, Over-Current & Stall Control	Automatic voltage & current limit during running prevent over-current Over-voltage & tripping
	Communication	Rs485 ZQ280A ONLY
	Braking	ZQ280A ONLY
Customized Function	Solar Function	Solar pump and MPPT
	Low Noise Running	Carrier frequency is continuously adjustable from 2 to 12 kHz
	Running Function	Upper & lower frequency setting frequency hopping reversal running limit slip frequency compensation frequency increasing & decreasing control fault recovery operation

NL 1000 SERIES AC VFD

MICRO & ECONOMIC SERIES

Product Features :

- Micro Size, Low Cost
- Terminals Uncovered, Easy For Wiring
- DIN-rail Mounting & Wall Mounting for Installation.
- Supports MODBUS via RS485
- Maintenance-Free
- V/F Control; Built-in PID Control, Frequency Range 0.1 ~ 400 Hz

Power Range :

- 200V / 0.4 ~ 2.2 kw
- 440V / 0.75 ~ 160 kw



Technical Specification :

	Item	Specification
Control Specifications	Output Frequency Range / Accuracy	0.10Hz ~ 400.00Hz / 0.1Hz
	Frequency Setting Resolution	Digital input : 0.1Hz, analog input : 0.1% of max. Output frequency
	V/F Control	Setting V/F curve to satisfy various load requirements.
	Torque Control	Auto increase : Auto raise torque by loading condition; Manual increase; enable to set 0.0 ~ 20.0% of raising torque.
	Multi-Functional Input Terminal	Four multi-function input terminal, realizing functions including fifteen section speed control, program running, four-section acceleration/deceleration speed switch UP/DOWN function & emergency stop & other functions.
	Multi-Functional Output Terminal	1 multi-function output terminals for displaying of running, zero speed, counter, external abnormality, program operation & other information & warning.
	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 to 10V, 4 to 20mA can be selected; Digital input : Input using the setting dial of the operation panel or Rs485 or UP/DOWN. Note : AVI terminals can be used to select an analog voltage input(0-10V) & an analog current input(4-20mA) 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.
Protection/ Warning Function	Counter	Built-in 2 group of counters
	Overload	150%, 60 S (Constant torque)
	Over Voltage / Under Voltage	Over Voltage Protection can be set. / Under voltage protection can be set.
	Other Protections	Output short circuit, over current, an parameter lock and so on.

ZQ300 SERIES

VARIABLE FREQUENCY DRIVE/ HIGH PERFORMANCE VFD

Product Introduction :

ZQ300 is a high-performance VFD with MISTURA that integrates vector frequency conversion technology. With high-performance current vector technology, it can easily drive induction motors. High performance, high quality, high power density design, and significant improvements in ease of use, maintainability, environmental protection, installation space and design standards can further optimize the user experience.



Industry Application :

Widely used in electric power, mining, metallurgy, petroleum, chemical, building materials, lifting, machine tools, textiles, paper, packaging, light-industry and various industrial automation products.

Product Features :

Flame Retardant Plastic :

- Industrial Flame Retardant ABS Plastics
- High Impact Resistance
- High Heat Resistance
- Good Comprehensive Performance
- High Flame Retardant

Intelligent Fan Control :

- Strong Cooling Fan - Improve Machine Stability
- Intelligent Start and Stop Control
- Greatly Reduce The Field Noise
- Improve The Service Life of The Fan

Low Loss High Frequency Transformer :

- Independent Bridge Wall
- Power Supply Scheme
- Power Abnormality Self-Check Function

Operation Panel :

- Human-Machine Interactive Button Panel Design
- Intelligent Control
- Convenient Operation

Intelligent High-End Motherboard :

- Automatic Coating
- Thicken The Three Anti - Paint Coating
- Resistant to Moisture, Corrosion and Salt Spray

Technical Specification :

Main Input	Rated Voltage	3-phase 380V; 50/60HZ, 1-phase 220V; 50/60HZ		
	Allowed Voltage	3-phase 320V ~ 460V, 1-phase 160V ~ 260V		
Main Output	Voltage	3-phase : 0 ~ 460V, 1-phase : 0 ~ 260V		
	Frequency	Low frequency mode : 0 ~ 300HZ; High frequency mode : 0 ~ 3000HZ		
	Overload	G type : 110% for long term, 150% for 1 min, 180% for 5s P type : 105% for long term, 120% for 1 min, 150% for 1s		
Control Mode		V/F control, advanced V/F control, V/F separation control, Electric current vector		
Control Character	Frequency Setting Resolution	Analog input	0.1% of maximum output frequency	
		Digital Setting	0.01 Hz	
	V/F Control	Torque Compensation	Manual setting : 0.0 ~ 30% of rated output Automatic compensations : According to output current and motor	
	Senseless Vector Control	Torque Character	Starting Torque : 3.0 Hz 150% rated torque (VF control) 0.5 Hz 180% rated torque (SVC, FVC) 0.05 Hz 180% rated torque (VC)	
Motor parameter Self-measurement		Being able to detect parameter automatically under static state & dynamic state of motor, thus guarantee an optimum control.		
Typical Function	Multi-Speed and Traverse	16 segments programable multi-speed control, multiple operation mode. Traverse operation : preset frequency and center frequency adjustable; parameter memory & recovery after power cut.		
	PID Control Rs485 Communication	Built-in PID controller (able to preset frequency). Standard configuration Rs485 communication function, multiple communication protocol for choice, synchronizing control function.		
	Frequency Setting	Analog Input	DC voltage : 0 ~ 10V, DC current : 0/4 ~ 20mA (optional up limit and lower limit)	
		Digital Input	Operation panel setting UP/DW terminal control	Rs485 port setting Combined with analog input
	Output Signal	Digital Output	2 ways open collector output (Y1, Y2) 1 one relay output (TA, TB, TC) up to 16 choices	
		Analog output	2 ways analog output (Ao1, Ao2) Output ranging within 0/4 ~ 20mA or 0 ~ 10V with flexible setting Achievable output of physical quantities like set frequency, output frequency	
	Acceleration and Deceleration time	0.1s ~ 3600min continuous setting, S type and linear type mode for choice		
	Brake	Dynamic Braking	Dynamic braking initial voltage, backlash voltage and dynamic braking continuous adjustable	
		DC Braking	Halt DC braking initial frequency: 0.00~[F0.16] upper limit frequency braking Time : 0.0 ~ 100.0s	
		Flux braking	0~100	0 : invalid
Low Noise Running	Carrier frequency 1.0kHz ~ 16.0kHz continuous adjustable, minimize motor noise			
Speed Tracking and Restart	Smooth restart during operation, instantaneous stop and restart			
Counter	A built-in counter, facilitate system integration			
Protective Function		Over current, over voltage, under voltage, module fault, electric thermal relay, overheat, short circuit, default phase of input & output, motor parameter adjustment abnormality, internal memory fault, etc.		
Environment	Temperature	-10°C ~ +40°C (please run the VED in derated capacity when ambient temperature is +40°C)		
	Ambient	5% ~ 95% RH, without condensing drops		
Structure	Protection Level	IP 20		
	Cooling	Air cooling with fan control		
Installation		Wall-hanging type, cabinet type		

AT 20 SERIES AC VFD

GENERAL - PURPOSE VFD

Product Introduction :

Simple PLC, multi-speed control, built-in PID, torque control, multi-point V/F curve, inverter not stop work when face instant power failure etc.

With standard built-in 485 communication interface and various input terminals and various output terminals.

Above 7.5KW (including) has external keyboard interface to better suit the applications.



Excellent Control Performance :

Below 2.2KW (including) can support either V/F control or vector control.

Above 3.7KW (including) is vector control and can add PG card when customer tell they need.

Optimized Structural Design :

Size is reduced, saving the installation space for users; Below 2.2KW (including) support side-by-side rail mounting.

Various Installation Methods :

Below 5.5KW (including) support rail mounting and wall mounting; 7.5KW (including) - 160KW (including) support wall-mounting; Above 185KW (including) support floor mounting and wall mounting.

Easy to Use and Maintain :

The fan can be disassembled and assembled independently for easy maintenance; Optical normal LED external keyboard and LCD keyboard (above 7.5KW (including)) to meet different application needs.

Wide Range of Applications :

Vector control platform products, powerful and excellent performance, can be widely used in small and medium power applications, such as food machinery, plastic machinery, ceramic equipment, petroleum machinery, cable equipment, air compressors, CNC, woodworking machinery, textile machinery, printing and packaging equipment, chemical equipment, environmental protection equipment, conveying equipment etc.

Technical Specification :

	Item	AT 20
Basic Function	Control Mode	V/F control
		Sensorless flux vector control (SVC) (Above 3.7K)
		Close-loop vector control (FVC) (Above 3.75KW)
	Maximum Frequency	0 ~ 600 Hz
	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)
	Maximum Frequency	±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 charges.
	Over Voltages / 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 & 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.
	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	Rs485
Running	Command Source	Operation panel / Control terminals / Serial communication port

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