MISTURA



GLOBAL SOLUTIONS FOR YOUR CONTROLLING

▶ VFD / Inverter ▶ Process Control Instruments ▶ Programmable Timers

▶ Programmable Counters ▶ Power & Energy Meters ▶ Din Rail Timer

▶ PIC & HMI ▶ Temperature Controller

ME-100 SERIES

VECTOR FREQUENCY INVERTER / SOLAR INVERTER

<u>Product Introduction:</u>

The ME100 series of vector inverters are single-phase 220VAC and three-phase 220V/380V AC inverters lauched 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:

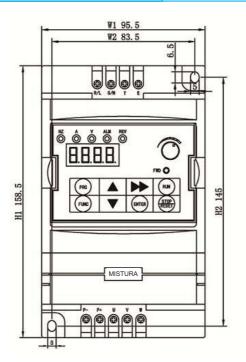
Vector Control
 Solar Inverter MPPT Control
 Stong EMC Anti-Interference Capability

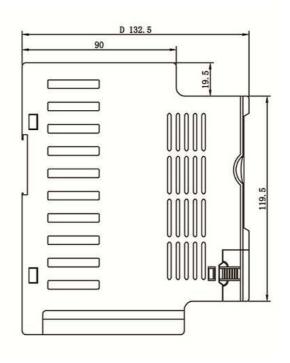
Technical Specification:

	Item		Specification			
1	Rated voltage,frequency	Three phase (4T Series) 380V; 50 / 60Hz three phase (2T Series) 220V: 50 / 60Hz				
Input	Allowable variation range of voltage	Three phase (4T Ser 190V ~ 250V	ies) 320v ~ 460V three phase (2t Series)			
0 1 1	Voltage	4T series; 0 ~ 380V 0~600HZ	2T series; 0 ~ 220V			
Output	frequency Overload Capacity		0% 1 minute 180% 5 seconds			
	control mode Frequency setting resolution	V / F control, simple Analog input Digital setting	0.1% of maximum output frequency			
	Frequency accuracy	Digital input Digital setting	0.1HZ Within 0.2% of maximum output frequency Set the output frequency within 0.01%			
Control characte ristics		V / F curve (voltage frequency characteristic)	The reference frequency can be set arbitrarily from 5 Hz to 600 Hz, the multi point V / F curve can be set arbitrarily, and a variety of fixed curves such as constant torque, low reduced torque 1, low reduced torque 2 and square torque can also be selected			
	V/F control	Torque lifting	Manual setting: 0.0 - 30.0% of rated outputAutomatic lifting: according to the output current and motor parameters, automatically determine the lifting torque			
		Automatic current Limiting and voltage limiting	Whether in the process of acceleration, deceleration or stable operation, the staton current and voltage of the motor are automatically detected, and the unique algorithm is used to suppress the current and voltage within the allowable range, so as to minimize the possibility of system faulttripping			

				Voltage frequency characteristic	The output voltage frequency ratio is automatically adjusted according to the motor parameters and unique algorithm			
	Sensorless	s vec	tor control	Torque characteristics	Starting torque:100% rated torque at 5.0hz (VF control) 150% rated torque at 1.5Hz (simple vector control)			
Control characte ristics				Current and voltage suppression	Fullrange current closed-loop control, completely avoid current impact, with perfect over-current and over-voltage suppression function			
	Under vol	_	suppression	the system can main	Especially for the users with low grid voltage and frequent fluctuation of grid voltage, the system can maintain the longest possible operation time according to the unique algorithm and residual energy allocation strategy even if the voltage is lower than the allowable range			
	Multi spee	ed op	peration	7-segment programme optional.	mable multi-stage speed control, multiple operation modes are			
	PID control Rs485 communication				(preset frequency). Standard configuration of RS485 communi- riety of communication protocols optional, with linkage synchro- tion			
	Frequency setting		Analog input	DC voltage 0 \sim 10V, DC current 0 \sim 20mA (upper and lower limit optional)				
Typical functions				Digital input	Operation panelsetting, RS485 interfacesetting, up / DW terminal control, and various combination settings with analog input			
Tariotions			Digital output	1 channel OC output and 1 channel fault relay output (TA, TB, TC), up to 14 meaning optionsTypical functions				
	output signal			Analog output One analog signal output, the output range is 0 \sim 20 m/s 10V, which can realize the output of physical quantity sucs setting frequency and output frequency				
	Automatic	: stak	ole operation	_	eds, dynamic voltage stabilization, statio voltage stabilization bilization can be selected to obtain the most stable operation			
	Acceleratio time settin		d deceleration	0.1s ~ 999.9min co	ntinuous setting			
	braking	co	ergy nsumption aking	The starting voltage, rate can be adjusted	return differential voltage and energy consumption braking continuously			
		DO	C brake	Starting frequency of DC braking at shutdown: $0.00 \sim [f0.05]$ upper limit frequency Braking time: $0.0 - 30.0S$; braking current: $0.0\% - 50.0\%$ of motor rated voltage				
	Low noise	ope	ration	Carrier frequency 1.0 noise	Okhz - 16.0khz can be adjusted continuously to minimize motor			
	Counter			One internal counter	, convenient for system integration			
	Operation function			limit, slip frequency of	lower frequency, frequency jump operation, reverse operation compensation, RS485 communication, frequency increasing, ault self recovery operation, etc			
	Operation p	anel	running state		otput current, output voltage, motor speed, set frequency, , PID setting, feedback, analog input and output, etc			
display			Alarm content		t frequency, output current, output voltage,DC voltage, module er operating parameters recorded during the last fault trip			

ı	Protection function	Over current, over voltage, under voltage, module failure, electronic thermal relay, overheating, short circuit, internal memory failure, etc
Ambient temperature		- 10 °C \sim + 40 °C (if the ambient temperature is between 40 °Cand 50 °C, please reduce the rating for use)
Environm ental	Ambient humidity	5% - 95% RH, no water condensation
Science	surrounding environment	Indoor (no direct sunlight, corrosion, flammable gas, oil mist, dust, etc.)
	altitude	Derating for more than 1000m, with 10% derating for every 1000m increase
	Protection level	IP 20
structure	Cooling mode	Air cooled with fan control
	Installation mode	Wall mounted, cabinet





Voltage	specificat		Overall dimensions (mm)		Installation dimensions (mm)		Packing size (mm)			The net weight		
grade	ions	(kw)	W1	H1	D	W2	H2	φ	long	wide	height	1 (kg)
220VSingle phase	ME 100-2SR 75G/1.5P	0.75		158.5	132.5		145	4.5	195	132	172	1.23
	ME 100-2S0 1R5G/2.2P	1.5	95.5			83.5						
	ME 100-2S0 2R2G/4P	2.2										
	ME 100-4S0 1R5G/2.2P	1.5										
prisos	ME 100-4T0 2R2G/4P	2.2	95.5	158.5	132.5	83.5	145	5 4.5	195	132	172	1.25
	ME 100-4T0 004G/5.5P	4.0										

MI-150 SERIES

HIGH PERFORMANCE CURRENT VECTOR INVERTER

Type : Single Tube IGBT (0.75-11kW)

Power range : $0.75 \sim 11 \text{KW}$

Voltage level : Three phase 380V







Product Introduction:

MI 150 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 theuser experience.

Application scenarios:

Mainly used in chemical industry, food, textile, plastics, mining, paper, litting metallurgy, crushers, fans, cold heading machines, CNC lathes and other scenes with large inertia. heavy load and regenerative energy feedback, providing equipment with the advantages of high response, high precision, high energy saving. etc.

Chapter Two Product standard specifications

2.1 Technical specification

	Rated voltage, frequency		Three-phase AC 380V.50/60H2 Single-phase AC 220 V,50/60H2				
Input	voltage allowed Range of change	Three-phase AC 3 80 V Single-phase AC220 V					
	Voltage	0 ~ 480V 0 ~ 260V					
Output	Frequency	Vector control: 0∼500H	z V/F control: 0~5000Hz				
	Overload capacity		rated current for 60s: 180% rated current for 3s ated current for 60s: 150% rated current for 3s.				
Contro	ol method	V/F conti	rol, speed sensorless vector control (SVC)				
	Frequency	Along input	Maximum frequency × 0.025%				
	setting resolution	Digital settings	0.01Hz				
Control Character	V/F control	V/F curve	Three methods: linear type; mult-point type: N-th power V/F curve (1.2 power, 1.4 power, 1.6 power. 1.8 power, 2 power)				
		V/F separation	2 ways: full separation, semi-separation				
istics		Torque boost	Manual setting: 0.0~30.0% of rated output Automatic lifting: automatically determine the lifting torque according to the output current and combined with with the motor parameters				
		Automatic current limiting and pressure limiting	Whether during acceleration.deceleration or stable operation, it can automatically detect the motor stator current and voltage, and suppress it within the allowable range based on a unique algorithm to minimize the possibility of system fault tripping.				
		Voltage frequency characteristics	Automatically adjust the output voltage-to-frequency ratio based on motor parameters and unique algorithm				
Control	Inductive vector control	Torque characteristics	Starting torque: 150% rated torque at 3.0Hz. (V/F control) 150% rated torque at 0.5Hz (vector control without speed sensor) Operating specd steady-state accuracy: ≤±0.2% rated synchronous speed Speed fluctuation: ≤±0.5% rated synchronous speed Torque response: ≤20ms (vector control without speed sensor)				
Character istics		Self-determination of motor parameters	Without any restrictions, automatic parameter detection can be completed under both static and dynamic conditions of the motor to obtain the best control effect.				
		Current and voltage suppression	Full current closed-loop control, completely avoiding current impact, with complete overcurrent and overvoltage suppression functions				
	Undervoltage suppression during	the voltage is lower than th	w grid voltage and frequent fluctuations in grid voltage, even if he allowed voltage range, the system can maintain the longest sed on a unique algorithm and residual energy allocation				
	operation						

	Multi-speed and frequency operation	available. Swing frequ	mable multi-segment speed control. multiple operating modes uency operation: preset frequency and center frequency are nory and recovery after power outage			
	PID coutrol RS 485 communicati on	Built-in PID controller communication functi	(frequency can be preset), standard configuration RS485 on			
	F	Analog input	DC voltage $0\sim$ 10V, DC current $0\sim$ 20mA (upper and lower limits optional)			
	Frequency setting	digital input	Operation panel setting. RS485 interface setting, UP/DOWN terminal control, and various combination settings with analog input			
	0	digital output	2 Y terminal open collector outputs and 2 programmable relay outputs (TA. TB, TC), up to 58 meaning options			
Typical function	Output signal	Analog output	2 analog signal outputs, the output range can be flexibly set between 0~20mA or 0~10V. which can realize the output of physical quantities such as set frequency and output frequency			
	Automatic voltage stabilization operation		mic voltage stabilization, static voltage stabilization, or unstabilized your needs to obtain the most stable operating effect.			
	Acceleration and deceleration time setting	0.0s~6500.0s can be	e set continuously, S-shaped and linear modes are optional			
	brake	Energy consumpt ion brake	Energy consumption braking starting voltage, hysteresis voltage and energy consumption braking rate are continuously adjustable			
	brake	DC brake	Stop DC braking starting frequency: 0.00~[F00.10] maximum frequencyBraking time: 0.0~100.0s; Braking current: 0%~100% rated current			
	Low noise operation	The carrier frequency is continuously adjustable from 0.5KHz to 16.0KHz to minimize motor noise.				
	RPM tracking speed restart function	It can realize smooth	restart and instantaneous stop restart function of the running motor.			
	counter	An internal counter to	facilitate system integration			
	run function	limit, slip frequency co	t frequency settings, frequency jump operation, reverse operation ompensation, RS 485 communication, frequency increase and t self-recovery operation, etc.			
Dioploy	Opetration panel	run state	Output frequency, output current, output voltage, motor speed, set frequency, module temperature, PID setting, feedback amount, analog input and output, etc.			
Display	display	Alarm content	There are 8 operating parameter records including output frequency, set frequency, output current, output voltage, DC voltagc, module temperature, power-on time, and running time when three faults trip.			
Protective function			module failure, clectronic thermal relay, overheating. short circuit, notor parameter tuning, internal memory failure, ete.			
	ambient temperature	-10°C ~+40°C (envir	ronment temperature is between 40°C ~ 50°C, please derate for			
Environment	ambient humidity	5% ~95%RH, no wate	er droplets condensation			
	surroundings	Indoor (no direct sunl	ight, no corrosion, flammable gas, oil mist, dust, etc.)			
	surroundings	Derating for use abov	re 1000 meters, derate by 10% for every 1000 meters.			
01 1	Protection level	IP 20				
Structure	cooling method	Air-cooling, with fan a	control			
Installa	tion method	Wall-mounted; cabin	et type			

MI 150 series inverter selection guide

Model A (0.75-2.2kW)



Power	Model	W1 (mm)	H1 (mm)	D (mm)	W2 (mm)	H2 (mm)	Ф
0.75KW	MI 150-4TR75G						
1.5KW	MI 150-4T01R5G	78	170	125	60	161	5
2.2KW	MI 150-4T02R2G						

Model B 4.0-5.5kW



Power	Model	W1 (mm)	H1 (mm)	D (mm)	W2 (mm)	H2 (mm)	Ф
4KW	MI 150-4T0004G	0.5	210	1.45	78	100	5
5.5KW	MI 150-4T05R5G	95	210	145	/8	198	5

MH-550 SERIES

HIGH PERFORMANCE CURRENT VECTOR INVERTER

Type: Advanced Module IGBT

Power range : $0.75\sim2.2$ KW single phase 220V

0.75~630KW single phase 380V







Product Introduction:

MH 550 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 theuser experience.

Application scenarios:

Mainly used in chemical industry, food, textile, plastics, mining, paper, litting metallurgy, crushers, fans, cold heading machines, CNC lathes and other scenes with large inertia. heavy load and regenerative energy feedback, providing equipment with the advantages of high response, high precision, high energy saving. etc.

Chapter Two Product standard specifications

2.1 Technical specification

	Rated voltage, frequency		Three-phase AC 380V.50/60H2 Single-phase AC 220 V,50/60H2				
Input	voltage allowed Range of change	Three-phase AC 3 80 V Single-phase AC220 V					
	Voltage	0 ~ 480V 0 ~ 260V					
Output	Frequency	Vector control: 0∼500H	z V/F control: 0~5000Hz				
	Overload capacity		rated current for 60s: 180% rated current for 3s ated current for 60s: 150% rated current for 3s.				
Contro	ol method	V/F conti	rol, speed sensorless vector control (SVC)				
	Frequency	Along input	Maximum frequency × 0.025%				
	setting resolution	Digital settings	0.01Hz				
Control Character	V/F control	V/F curve	Three methods: linear type; mult-point type: N-th power V/F curve (1.2 power, 1.4 power, 1.6 power. 1.8 power, 2 power)				
		V/F separation	2 ways: full separation, semi-separation				
istics		Torque boost	Manual setting: 0.0~30.0% of rated output Automatic lifting: automatically determine the lifting torque according to the output current and combined with with the motor parameters				
		Automatic current limiting and pressure limiting	Whether during acceleration.deceleration or stable operation, it can automatically detect the motor stator current and voltage, and suppress it within the allowable range based on a unique algorithm to minimize the possibility of system fault tripping.				
		Voltage frequency characteristics	Automatically adjust the output voltage-to-frequency ratio based on motor parameters and unique algorithm				
Control	Inductive vector control	Torque characteristics	Starting torque: 150% rated torque at 3.0Hz. (V/F control) 150% rated torque at 0.5Hz (vector control without speed sensor) Operating specd steady-state accuracy: ≤±0.2% rated synchronous speed Speed fluctuation: ≤±0.5% rated synchronous speed Torque response: ≤20ms (vector control without speed sensor)				
Character istics		Self-determination of motor parameters	Without any restrictions, automatic parameter detection can be completed under both static and dynamic conditions of the motor to obtain the best control effect.				
		Current and voltage suppression	Full current closed-loop control, completely avoiding current impact, with complete overcurrent and overvoltage suppression functions				
	Undervoltage suppression during	the voltage is lower than th	w grid voltage and frequent fluctuations in grid voltage, even if he allowed voltage range, the system can maintain the longest sed on a unique algorithm and residual energy allocation				
	operation						

	Multi-speed and frequency operation	available. Swing frequ	mable multi-segment speed control. multiple operating modes uency operation: preset frequency and center frequency are nory and recovery after power outage			
	PID coutrol RS 485 communicati on	Built-in PID controller communication functi	(frequency can be preset), standard configuration RS485 on			
		Analog input	DC voltage 0~10V, DC current 0~20mA (upper and lower limits optional)			
	Frequency setting	digital input	Operation panel setting. RS485 interface setting, UP/DOWN terminal control, and various combination settings with analog input			
	0	digital output	2 Y terminal open collector outputs and 2 programmable relay outputs (TA. TB, TC), up to 58 meaning options			
	Output signal	Analog output	2 analog signal outputs, the output range can be flexibly set between 0~20mA or 0~10V. which can realize the output of physical quantities such as set frequency and output frequency			
Typical function	Automatic voltage stabilization operation		mic voltage stabilization, static voltage stabilization, or unstabilized your needs to obtain the most stable operating effect.			
	Acceleration and deceleration time setting	0.0s~6500.0s can be	e set continuously, S-shaped and linear modes are optional			
	brake	Energy consumpt ion brake	Energy consumption braking starting voltage, hysteresis voltage and energy consumption braking rate are continuously adjustable			
	brake	DC brake	Stop DC braking starting frequency: 0.00~[F00.10] maximum frequencyBraking time: 0.0~100.0s; Braking current: 0%~100% rated current			
	Low noise operation	The carrier frequency is continuously adjustable from 0.5KHz to 16.0KHz to minimize motor noise.				
	RPM tracking speed restart function	It can realize smooth	restart and instantaneous stop restart function of the running motor.			
	counter	An internal counter to	facilitate system integration			
	run function	limit, slip frequency co	frequency settings, frequency jump operation, reverse operation ompensation, RS 485 communication, frequency increase and t self-recovery operation, etc.			
Display	Opetration panel	run state	Output frequency, output current, output voltage, motor speed, set frequency, module temperature, PID setting, feedback amount, analog input and output, etc.			
ызріау	display	Alarm content	There are 8 operating parameter records including output frequency, set frequency, output current, output voltage, DC voltagc, module temperature, power-on time, and running time when three faults trip.			
Protective function			module failure, clectronic thermal relay, overheating. short circuit, notor parameter tuning, internal memory failure, ete.			
	ambient temperature	-10°C \sim +40°C (environment)	conment temperature is between 40°C ~ 50°C, please derate for			
Environment	ambient humidity	5% ~95%RH, no wate	er droplets condensation			
	surroundings	Indoor (no direct sunl	ight, no corrosion, flammable gas, oil mist, dust, etc.)			
İ	surroundings	Derating for use abov	re 1000 meters, derate by 10% for every 1000 meters.			
	Protection level	IP 20				
Structure	cooling method	Air-cooling, with fan d	control			
Installa	tion method	Wall-mounted; cabine	et type			

MH 550 series inverter selection guide



Power	Model	W (mm)	H (mm)	D (mm)	W1 (mm)	H1 (mm)	H2 (mm)	D1 (mm)	S1 (mm)	S2 (mm)
1.5kW	MH 550-2S01R5G/2.2P									
2.2KW	MH 550-2S02R2G/4P									
1.5KW	MH 550-4T01R5G/2.2P	95	212	149	78	194	194	142	Ø10	Ø5
2.2KW	MH 550-4T02R2G/4P	93	212	11)	70	174	174	172	Ø10	<i>Ø</i> 3
4KW	MH 550-4T0004G/5.5P									
5.5KW	MH 550-4T05R5G/7.5P									



Power	Model	W1 (mm)	H1 (mm)	D (mm)	W2 (mm)	H2 (mm)	Ф
7.5KW	MH550-4T07R5G/11P	140	240	178	130	230	5.5
11KW	MH550-4T0011G/15P	140	240	170	130	230	3.3
15KW	MH550-4T0015G/18.5P						
18.5KW	MH550-4T18R5G/22P	205	320	195	188	305	7
22KW	MH550-4T0022G/30P	200	020	190	195 100	303	,
30KW	MH550-4T0030G/37P						



Power	Model	W (mm)	H (mm)	D (mm)	A (mm)	B (mm)	Φ
37KW	MH 550-4T0037G/45P	225	370	205	150	357	8



Power	Model	W (mm)	H (mm)	D (mm)	A (mm)	B (mm)	Φ
45KW	MH 550-4T0045G/55P	295	460	206	78	194	194
55KW	MH 550-4T0055G	300	460	260	78	194	194
75KW	MH 550-4T0075G/93P	320	565	281.5	78	194	194
93KW	MH 550-4T0093GH/110P	200	(70	201.5	70	104	104
110KW	MH 550-4T0110GH/132P	380	670	281.5	78	194	194



Power	Model	W (mm)	H (mm)	D (mm)	A (mm)	B (mm)	Φ
132KW	MH 550-4T0132GH/160P	500					
160KW	MH 550-4T0160GH/185P		780	290	360 745	745	Hanging Φ11
185KW	MH 550-4T0185GH/200P						
220KW	MH 550-4T0220GH/250P	550	835	320	360	800	
250KW	MH 550-4T0250GH/280P						



Power	Model	W (mm)	H (mm)	D (mm)	A (mm)	B (mm)	Ф	
280KW	MH 550-4T0280GH/315P	700						
315KW	MH 550-4T0315GH/350P							Hanging
355KW	MH 550-4T0355G/400P		1080	420	460	1030	Ф12	
400KW	MH 550-4T0400G/450P							

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