



Application



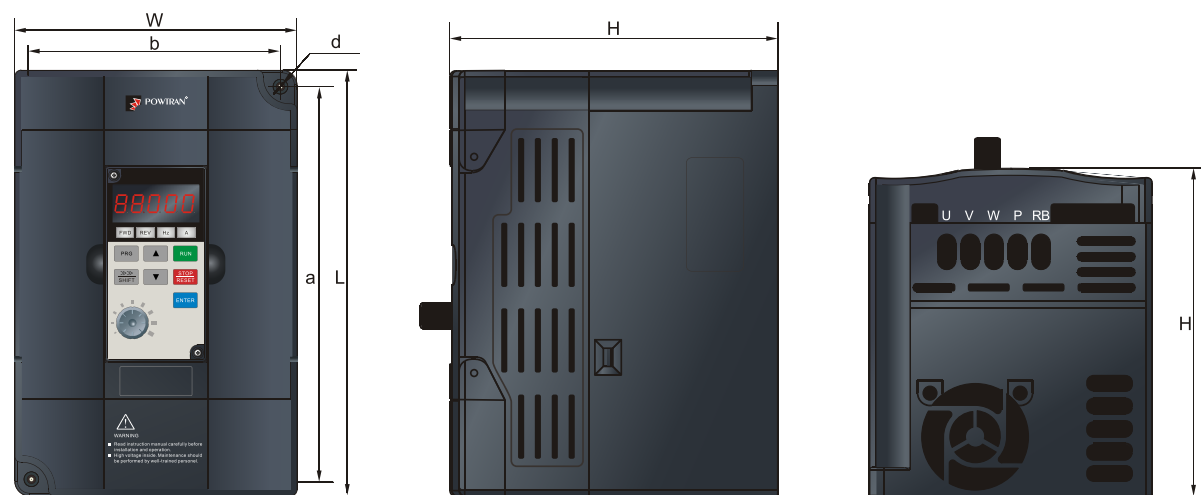
Motor Mob

ASESORANDO INDUSTRIAS

- Motores Eléctricos - Motorreductores
- Bombas Centrífugas y Autocebantes
- Bombas para Presurización y Calefacción
- Bombas para Desagote y Sumergibles
- Válvulas y Accesorios
- Bobinados - Reparaciones
- Sellos Mecánicos - Repuestos
- Ventilación Industrial
- Montajes Industriales

PAGINA WEB: www.electromecanicamm.com.ar
E-MAIL: electromecanicamm@hotmail.com

Specification and size: (1M2-1M3)



Model	Voltage(V)	Power(kW)	Input current	Output current	Dimension (L×W×Hmm)	Installation size (a×b dmm)	Base.
PI130-0R4G1	Single-phase 220V±10%	0.4	5.4	2.5	142×85×112	130×73 Ø5.3	1M2
PI130-0R7G1		0.75	8.2	4.0			
PI130-1R5G1		1.5	14.0	7.0			
PI130-0R4G2	Three-phase 220V±10%	0.4	4.1	2.5	142×85×112	130×73 Ø5.3	1M2
PI130-0R7G2		0.75	5.3	4.0			
PI130-1R5G2		1.5	8.0	7.0			



PI130 series

Economical vector control inverter

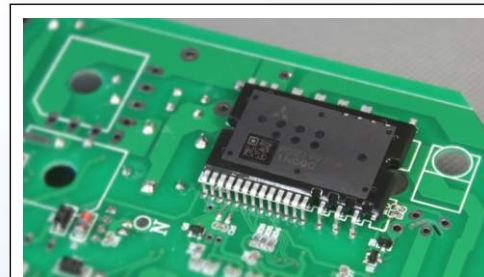
Economical
Smart



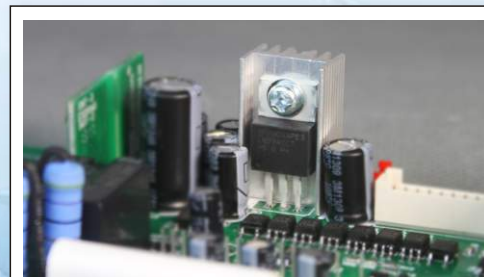
Technical Features



1、Adopting Taiwan DSP to be the core control chip to realize the high speed performance control.



2、Adopting the Mistubishi smart power module IPM, with the inspection function of overvoltage, overcurrent and overheat, stable and reliable.



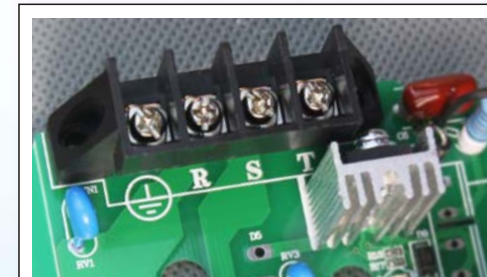
3、Built-in brake resistor, realize frequent acceleration and deceleration freely (optional).

Product orientation

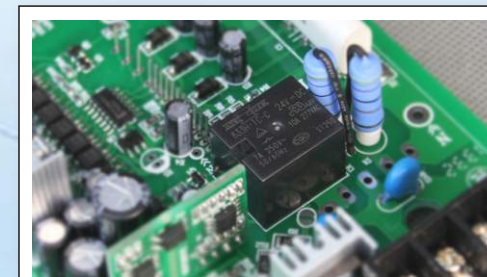
Pi130 series frequency inverter is a type of economical and high performance vector control frequency inverter which is special used to realize frequency control of motor speed for small machines and equipments.

Range of capacity

Power range: 0.4-1.5kW Maximum frequency : 400Hz
Voltage level: single-phase 220V three-phase 220V



4、Single-phase and three-phase 220V input are compatible, to meet variable applications.



5、Adopting Taiwan songchuan relays, stop and start the cooling fans very well.



www.powtran.com



Standard specification

Items			Specification	
Power	Voltage and frequency levels		Single-phase 220V, 50/60Hz Three-phase 220V, 50/60Hz	
	Allowable fluctuation		Voltage: ± 10% Frequency: ± 5%	
Control system	Control system		High performance vector control inverter based on DSP	
	Output frequency		0.00 to 400.0Hz	
	Control method		V/F control Open-loop flux vector control	
	Automatic torque boost function		Realize large output torque at low frequency (1Hz) under V/F control mode.	
	Frequency setting resolution		Digit: 0.01Hz Analog: max. frequency × 0.2%	
	V/F curve mode		Linear,square root/m-th power, user defined V/F curve	
	Over load capability		Rated Current 150% - 60 seconds, Rated Current 200% - 1 seconds,	
	Slip compensation		Slip compensation available	
	Carrier Frequency		1kHz to 15kHz	
	Start torque		0.5Hz/150% (Open-loop flux vector control)	
	Speed range		1:100 (Open-loop flux vector control)	
	Steady-speed precision (Speed control accuracy)		Open-loop flux vector control: ≤ ± 0.5% (rated synchronous speed)	
	Torque response		≤40ms (Open-loop flux vector control)	
	Torque boost		Automatic torque boost; manual torque boost (0.1% to 30.0%)	
	Linear acceleration/deceleration		Linear acceleration and deceleration mode; two kinds of acceleration and deceleration time; time range 0.1s to 3600.0s.	
	DC braking		DC braking frequency: 0.00Hz to max.output frequency; Braking time: 0.0 to 50.0 seconds Braking current value: 0.0% to 150.0%	
	Jogging control		Jog Frequency Range: 0.00Hz to max.output frequency; Jog acceleration/deceleration time: 0.1s to 3600.0s	
	Multi-speed operation		Achieve up to 16-speed operation through the control terminal	
	Built-in PID		Easy to realize closed-loop control system for the process control.	
	Automatic voltage regulation (AVR)		Automatically maintain a constant output voltage when the voltage of electricity grid changes	
Running	Input signal	Running method	Keyboard/terminal/communication	
		Frequency setting	Total 8 frequency stetting modes: digital, analog voltage/current, multi-speed and serial port.	
		Start signal	Forward run Reverse run	
		Multi-speed	At most 16-speed can be set (run by using the multi-function terminals or program)	
		Multi-stage acceleration	At most 2-stage acceleration can be set (run by using the multi-function terminals)	
		Emergency stop	Interrupt controller output	
		Wobblulate run	Process control run	
		Jog running	Slow speed running	
		Fault reset	When the protection function is active, fault condition can be reset automatically or manually.	
		PID feedback signal	Including DC 0 to 10V/0 to 20mA	

Standard specification

Items			Specification
Running	Output signal	Running status	Motor status display, forward, reverse, program running status.
		Fault output	Relay contact capacity AC 250V/7A
		Analog output	1-way analog output, 9 kinds of signals selectable (frequency, current, voltage, etc), output signal range DC 0 to 10V/0 to 20mA.
		Output signal	2-way output, 8 kinds of signals selectable each way
	Running function		Limit frequency, dodge frequency, slip compensation, reversal protection, auto-tuning, PID control
	DC current braking		Built-in PID regulates braking current to ensure sufficient braking torque under no over-current condition.
	Running command channel		Three channels: operation panel, control terminals and serial communication port.
	Frequency source		Total 8 frequency sources: digital,analog voltage,analog current, multi-speed and serial port.They can be switched through a variety of ways.
	Input terminals		5 digital input terminals, compatible with active PNP or NPN inputs.
	Output terminals		One digital output terminal (bipolar output) ; one relay output terminal; 1 analog output terminal, 0 to 20mA/0 to 10V signals selectable, realize output of set frequency, output frequency, speed and other physical parameters.
Protection function	Inverter protection		Over-voltage protection, under-voltage protection, over-current protection, over-load protection, over-heat protection, over-current stall protection, over-voltage stall protection, external fault, communication error, PID feedback signal abnormalities.
	IGBT temperature display		Display current IGBT temperature
	Instantaneous restart when power-fail		Less than 15 milliseconds: continuous operation. More than 15 milliseconds: instantaneous restart after motor speed detection automatically
	Speed start tracking method		Inverter automatically track motor speed after start-up
	Parameter protection function		Protect inverter parameters by setting administrator password and decoding
Display	LED Keyboard	Running message	Monitoring objects: running frequency, set frequency, output current, DC bus voltage, output voltage, actual motor speed, PID setting value, PID feedback value, input terminal status, output terminal status, analog AI1 value, analog AI2 value, current stage of multi-speed, torque set value, etc.
		Error message	Save maximum 3 error messages, able to find the error type, voltage, current, frequency and terminal status when failure occurred.
	LED display		Display parameters
	Key lock and function selection		Realize all key buttons lock-up in order to prevent misuse.
Communication	RS485		Completely isolated RS485 communication module, realize internet communication with the host computer.
Environment	Environment temperature		-10 ℃ to 40 ℃ (temperature at 40 ℃ to 50 ℃ , please derating for use)
	Storage temperature		-20℃ ~ 65℃-20 ℃ to 65 ℃
	Environment humidity		Less than 90% RH, non-condensate
	Height and vibration		Below 1000m and 5.9m/s² (= 0.6g)
	Application sites		Indoor where no sunlight or corrosive, explosive gas and water vapor, dust, flammable gas, oil mist, water vapor, water drop or salt, etc.
	Altitude		Below 1000m
	Pollution degree		2
Product standard	Product safety standards.		IEC61800-5-1:2007
	Product adopts EMC standards.		IEC61800-3:2005
Cooling method	Force-air cooling		