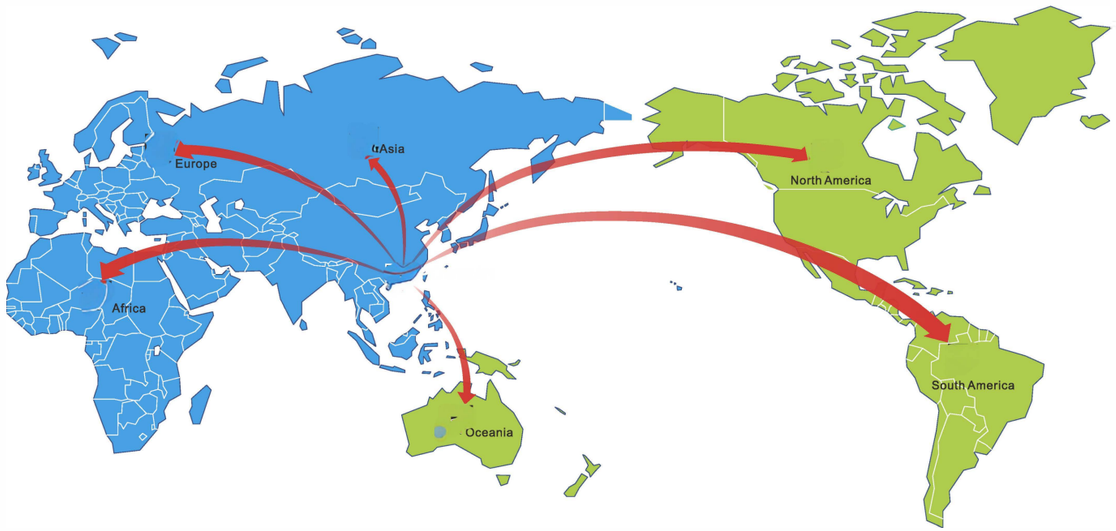
Service Network:



Manor-Tech
A leading distributor of motor control intelligent products and devices based on motor design.

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MANOR TECHNOLOGY INC

PXe-PII50

series

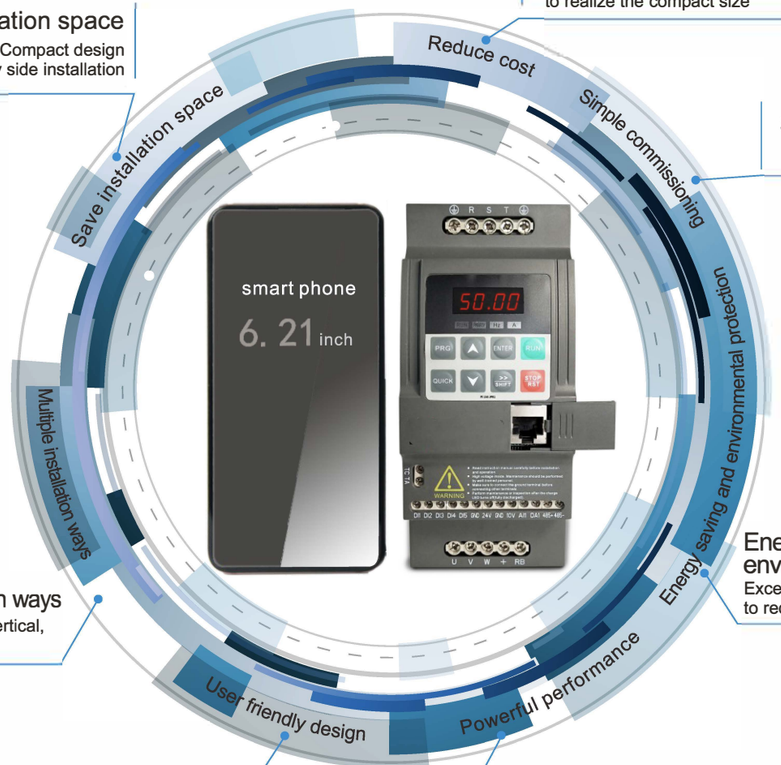
Smart Frequency Inverter

Product Orientation

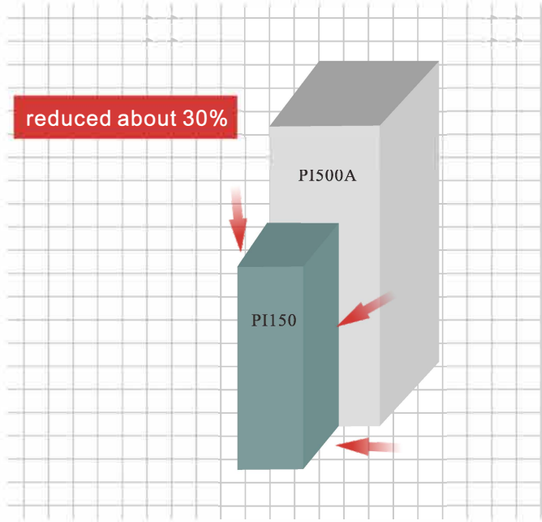
PXe- PI150 series smart frequency inverter is based on the market , with brand new design concept, a new generation of low-power inverters has been developed, which makes debugging easier, more efficient, and more reliable.

As a compact size frequency inverter,the PXe-PI150 has obvious advantages such as easy installation, small size, low temperature rise, powerful software performance.

Performance Feature

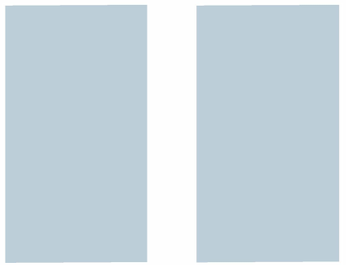


★ PI150 inverter 5.5kW and the same power machine volume comparison chart



★ Multiple installation methods

(Multiple inverters can be installed side by side, no need to reserve intervals, greatly reducing the control cabinet of the machine)



Ordinary inverter

PI150

Installed side by side, no need to reserve intervals

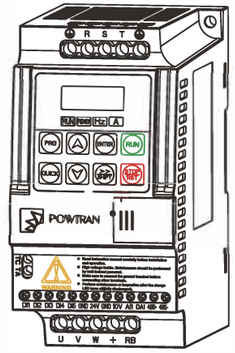
Screw installation,flexible

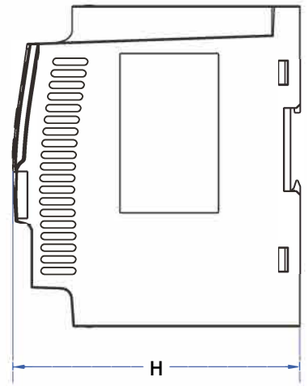
DIN-Rail mounting , quick and convenient

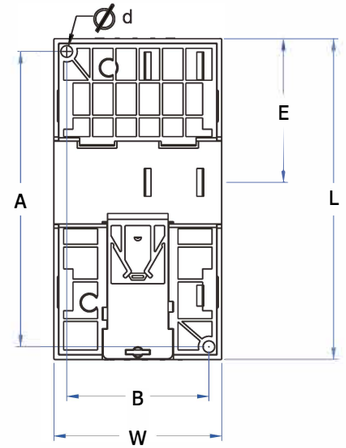
Technical Features

Item	Function	Specification	
Power	Rated voltage	AC 1PH 220V(-15%)~240V(+10%) AC 3PH 220V(-15%)~240V(+10%) AC 3PH 380V(-15%)~440V(+10%)	
	Input frequency	50Hz/60Hz	
	Allowing fluctuations	Voltage continued volatility: ±10%	Less than 3% of voltage unbalance rate 3%
		Input frequency fluctuation: ±5%	Distortion satisfy IEC61800-2 standard
Control	Control system	High performance vector control inverter based on DSP	
	Control method	V/F control, vector control W/O PG	
	Automatic torque boost function	Realize low frequency (1Hz) and large output torque control under the V/F control mode	
	Acceleration/deceleration control	Straight or S-curve mode. Four times available and time range is 0.0 to 6500.0s	
	V/F curve mode	Linear, square root/m-th power, custom V/F curve	
	Over load capability	G type:rated current 150% - 1 minute, rated current 180% - 2 seconds	
	Maximum frequency	1、Vector control:0 to 300Hz； 2、V/F control:0 to 3200Hz	
	Carrier Frequency	0.5 to 16kHz; automatically adjust carrier frequency according to the load characteristics	
	Input frequency resolution	Digital setting: 0.01Hz Analog setting: maximum frequency*0.025%	
	Start torque	G type: 0.5Hz/150% (vector control W/O PG)	
	Speed range	1:100 (vector control W/O PG)	
	Steady-speed precision	Vector control W/O PG: ≤ ± 0.5% (rated synchronous speed)	
	Torque response	≤ 40ms (vector control W/O PG)	
	Torque boost	Automatic torque boost; manual torque boost(0.1% to 30.0%)	
	DC braking	DC braking frequency: 0.0Hz to max. frequency, braking time: 0.0 to 100.0 seconds, braking current value: 0.0% to 100.0%	
	Jogging control	Jog Frequency Range: 0.00Hz to max. frequency; Jog Ac/deceleration time: 0.0s to 6500.0s	
	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	
	Torque limit and control	Automatically track current motor torque when the inverter starts	
Personalization Function	Self-inspection of peripherals after power-on	After powering on, peripheral equipment will perform safety testing, such as ground, short circuit, etc.	
	Quick current limiting	The current limiting algorithm is used to reduce the inverter over current probability, and improve whole unit anti-interference capability	
	Timing control	Timing control function: time setting range(0m to 6500m)	
Running	Input signal: DI input terminal	5 digital input terminals	
	Input signal: AI1 analog input	1 analog input terminals respectively for optional range (0 to 20mA or 0 to 10V)	
	Input signal: Multi-speed	At most 16-speed can be set(run by using the multi-functionterminals or program)	
	Input signal: Emergency stop	Interrupt controller output	
	Input signal: Fault reset	When the protection function is active, you can automatically or manually reset the fault condition	
	Input signal: PID feedback signal	Including DC(0 to 10V), DC(0 to 20mA)	
	Output Signal: Output signal	One way relay output； One way AD1 analog output	
	Output Signal: Relay output	There are 40 signals each way. Contact capacity : normallyopen contact5A/AC 250V,1A/DC 30V	
	Output Signal: DA1 analog output	One way analog output, can select frequency, current ,voltage etc 16 signals Output signals can be sent 0～10V/0～20mA	
	Running command channel	Three channels: operation panel, control terminals and serial communication port. They can be switched through a variety of ways	
	Frequency source	Total 7 frequency sources: digital, analog voltage, analog current, multi-speed and serial port. They can be switched through a variety of ways	
	Run function	Limit frequency, jump frequency, frequency compensation, auto- tuning, PID control	
Protection function	Inverter protection	Overvoltage protection, undervoltage protection, overcurrent protection, overload protection, overheat protection, overcurrent stall protection, overvoltage stall protection, losting-phase protection (optional), communication error, PID feedback signal abnormalities, PG failure and short circuit to ground protection	
Display	LED display keyboard: Running information	Monitoring objects including: running frequency, set frequency, bus voltage, output voltage, output current, output power, output torque, input terminal status, output terminal status, analog AI1 value,, motor Actual running speed, PID set value percentage, PID feedback value percentage	
	LED display keyboard: Error message	At most save three error message, and the time, type, voltage, current, frequency and work status can be queried when the failure is occurred	
	Key lock and function selection	Lock part or all of keys, define the function scope of some keys to prevent misuse	
	IGBT temperature	Show the inverter inner IGBT temperature	
Communication	RS485	Built in 485	
Environment	Environment temperature	-10℃to 40℃ (temperature at 40 ℃to 50℃, please derating for use)	
	Storage temperature	-20 ℃ to 65 ℃	
	Environment humidity	Less than 90% R.H, no condensation	
	Vibration	Below 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, drip or salt, etc.	
	Altitude	No need degrade use under 1000m,degrade 1% for altitude rise 100m when above 1000m, do not use it above 3000m	
	Protection level	IP20	
Product standard	Product adopts safety standards	IEC61800-5-1:2007	
	Product adopts EMC standards	IEC61800-3:2005	
Other	Cooling method	Forced air cooling	
	Install method	DIN-Rail mounting , wall mounting , Installed side by side	

Shape structure





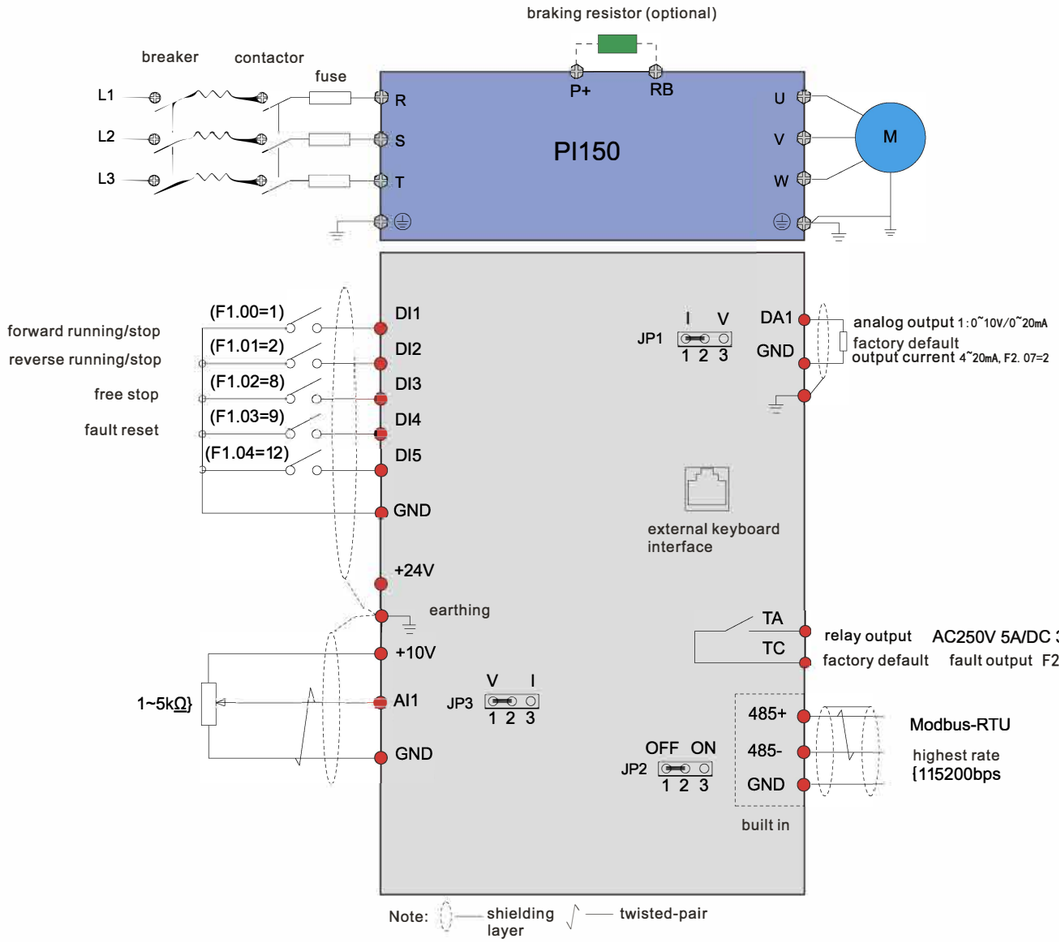


Specification and size

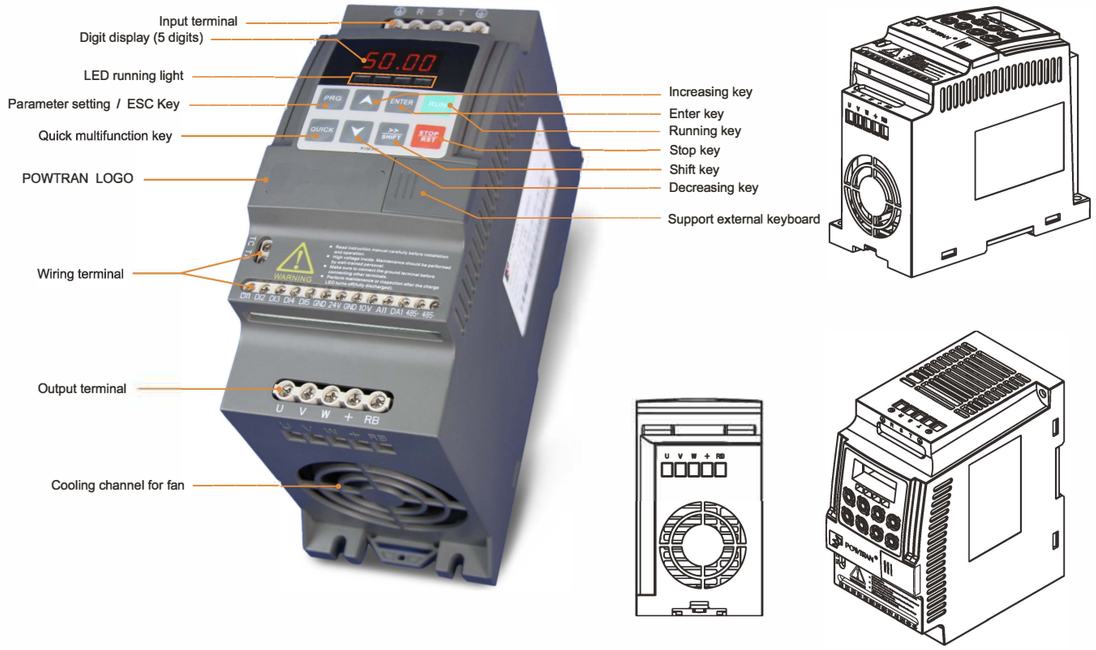
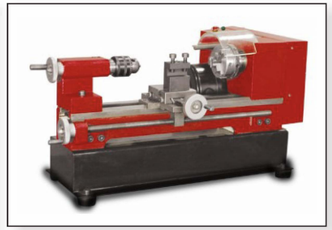
Inverter model	Input voltage (V)	Output power (kW)	Input current (A)	Output current (A)	Dimensions(mm) L	W	H	Installation dimensions(mm) a	b	d	DIN-R ail mounting (mm)	N.w. (kg)
PI150 0R4G1(Z)	1PH 220	0.4	5.4	2.5	138	72	123.5	127	61	Ø5	62	1.1
PI150 0R4G2(Z)	3PH 220		4.1	2.5								
PI150 0R7G1(Z)	1PH 220	0.75	8.2	4.0								
PI150 0R7G2(Z)	3PH 220		5.3	4.0								
PI150 0R7G3(Z)	3PH 380		4.3	2.5								
PI150 1R5G1(Z)	1PH 220	1.5	14.0	7.0								
PI150 1R5G2(Z)	3PH 220		8.0	7.0								
PI150 1R5G3(Z)	3PH 380		5.0	3.8								
PI150 2R2G3(Z)		2.2	5.8	5.1								
PI150 2R2G1(Z)	1PH 220	2.2	23	10	185	72	134	175	45	Ø5	82	1.3
PI150 2R2G2(Z)	3PH 220		11.8	10								
PI150 004G3(Z)	3PH 380	4	10.5	9								
PI150 5R5G3(Z)		5.5	14.6	13								

* The Model(Z) with brake unit is Optional

Wiring diagram



Configuration



Application