

# Powtran PI7800 Big Machine



## Features

From 187KW-630KW. Novel structure design; Complete upgrade of the software; Optimized production technique; Mature test equipment?

## Applications

mechanics, electronics, metallurgy, mining, petrochemical, transportation, building materials, municipal, metal processing, textile, printing and dyeing, paper making, Injection machine, central air conditioning, numerical control machine tool, air-compressor, fan and pump, blower, air conditioner for large buildings; wastewater treatment system; water supply system for large buildings; public water supply system and other industries and fields.

## Powtran Technology PI7800 Family Inverter

### Brief Introduction:

New PI7800 Family inverter supplies the more comprehensive motor control solution to you. It employs the advanced technology of PWM control and vector control, high performance power module and DSP control. It is with internal current loop to realize high precision of close loop control and reach the stability and precision of current and frequency. Completely new manufacture technique and test equipment ensures the better stability and reliability of the product.

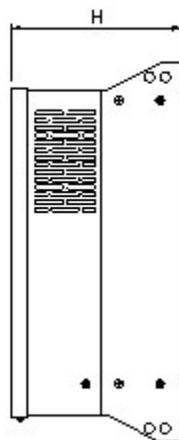
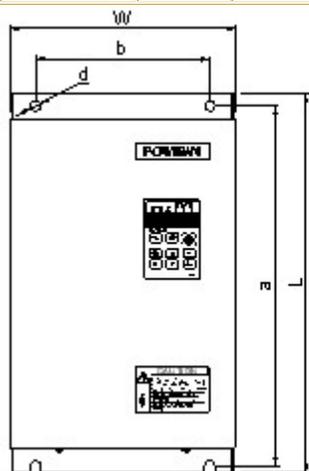
### Stable /Compact/ Goodly

#### Characteristic:

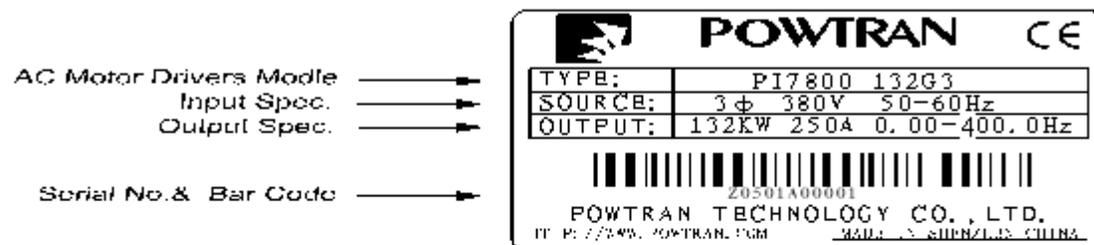
- ✓ Novel structure design;
- ✓ Complete upgrade of the software;
- ✓ Optimized production technique;
- ✓ Mature test equipment?

Shape:

(KW)	Shape(mm)			Installation Dimension(mm)			(kg)
	L	W	H	a	b	d	
7.5~15	360	235	207	340	150	10	11
18.5~22	410	264	242	390	165	10	15.5
30~37	560	300	243	540	200	10	23.5
45~75	660	365	293	640	250	10	48
93~110	710	455	293	690	350	10	68
132~160	910	480	342	890	350	10	86
187~220	1540	515	443	465	367	13	190
250~355	1700	850	492	640	260	13	350

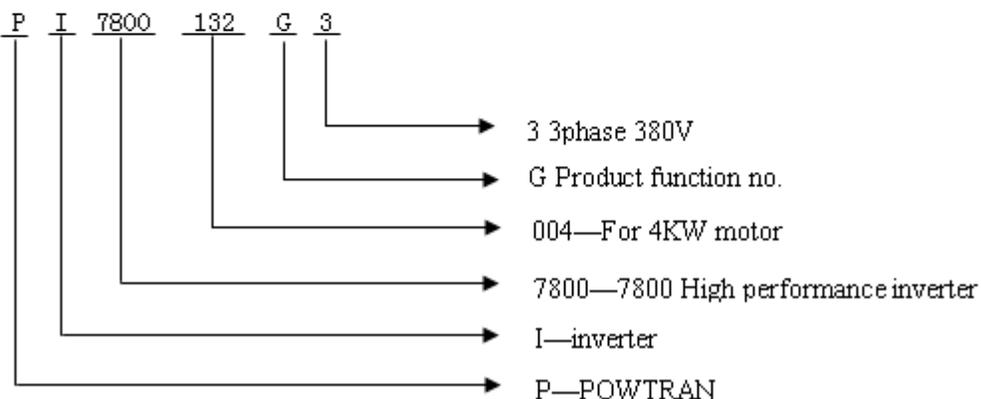


**Name plate:**



 <b>POWTRAN</b> 	
TYPE:	PI7800 132G3
SOURCE:	3 $\phi$ 380V 50-60Hz
OUTPUT:	132KW 250A 0.00-400.0Hz
 20501A00001	
POWTRAN TECHNOLOGY CO., LTD. IT P: 77000, POWTRAN, FGM      MADE IN SHENZHEN, CHINA	

● **Model designation:**



**Standard Specification:**

items		specifications
power	Voltage and frequency	Single-phase 200~240V,50/60Hz    Three-phase 200~240V,50/60Hz Three-phase 380~415V,50/60Hz    Three-phase 440~460V,50/60Hz Three-phase 575V,50/60Hz    Three-phase 660V,50/60Hz Three-phase 1140V,50/60Hz
	Allowable Fluctuation range	voltage: $\pm 15\%$ frequency: $\pm 5\%$
control	Control system	high performance vector control inverter based on DSP

	Output frequency	G/F/Z/S/T/M:0.00~400.0Hz,the maximum frequency range is 10.00~320.0Hz	
	control method	V/F control, V/F+ PG control, vector + PG control	
	waveform produce methods	asynchronous space vector PWM, step less and subsection synchronous space vector PWM,2 phase optimized vector PWM	
	Auto torque boost function	Realize low frequency (1Hz) and large output torque control under the v/f control mode.	
	Accelerate /decelerate control	Acceleration/Deceleration S curve subsection set mode. The maximum running time is 26 hours.	
	Program running control	7 step speed program running, the maximum running time is 88 hours.	
	frequency setting accuracy	Digital references:0.01Hz(300 Hz and below),0.1 Hz(above 300 Hz) Analog references:0.05Hz/60Hz	
	frequency accuracy	Speed control tolerance 0.01%(25? $\pm$ 10?)	
	V/F curve mode	Linear,square,8 V/F curve set by user	
	Over load capability	G/S:150% for one minute, 200% for 0.1 second F:120% for one minute, 150% for 0.1 second Z/M/T:180% for one minute, 250% for 0.1 second H:250% for one minute, 300% for 0.1 second	
	slip compensation	0~10% automatic slip compensation	
running	Input signal	running method	Keypad/Terminal/Communication mode
		frequency setting	There are 11 frequency setting modes, including DC 0~10V, DC 0~20mA, DC 4~20mA, potentiometer on the keyboard.
		start signal	forward, reverse
		Multi-segment speed	can set 7 steps speed at most(using multi-function or program running)
		Multi-segment acceleration	At most 8 steps acceleration can be set (using multi function terminals or program running.)
		instant stop	Interrupt controller's output.
		traverse running	Program control running

		jog	running in low speed
		fault reset	When the protection function is effective, system can reset fault state automatically.
		PID feedback signal	DC 0~10V, DC 1~5V, DC 0~20mA, DC 4~20mA
running	Output signal	running state	motor state display, stop, accelerate/decelerate, seven-speed, program running state
		fault output	relay fault output: AC 250V 5A, DC 30V 5A
		analog output	2 analog output, 8 signals could be selected: frequency, current, voltage, temperature, etc, the output signal range is 0~10V/0~20Ma.
		output signal	6 output signals, each one with 32 signals for option.
	running function	Limit frequency, skip frequency, torque difference compensate, reverse protection, automatic adjustment, PID control	
	DC brake	On base of non-OC, internal PID can regulate braking current to ensure enough braking torque.	
Protection function	inverter protection	Over voltage, under voltage, over current, over load, overheat, over current stall, over voltage stall, phase loss (options), external fault, communication fault, PID feedback abnormality, PG fault.	
	IGBT temperature display	Display of current IGBT temperature	
	inverter fan control	Temperature of starting the fan can be set. (options)	
	restart after momentary power loss	less than 15ms:continue running More than 15ms:automatic inspection of motor's speed, restart after transient power down.	
	speed starting pursue mode	inverter pursue motor speed automatically before starting	
	parameter protection function	protect inverter's parameter by setting password and decode	
display	LCD English Display + LED keyboard	running message	Totally 66 running monitor objects: set frequency, actual frequency, actual current, actual current percentage, DC bus voltage, actual output voltage, actual motor's speed, total running time, IGBT temperature, PID set value, PID feedback value, motor output power percentage, excitation heft set value, excitation heft actual value, torque heft set value, torque heft actual value. Display of 3parameters simultaneity at most: set frequency + actual frequency+ the monitored running message. Select by F00, F65?F66.

	fault message	Store 5 fault messages at most, and can inquire about fault style, voltage, current, frequency and the work state at the same time
communication	RS485	Completely isolated RS485 communication module (options),realizes the communication with the host computer.
	CAN BUS	CAN BUS module(options)
environment	environment temperature	-10 ?~ 40 ?
	storage temperature	-20 ?~65 ?
	environment humidity	Less than 90 % RH
	Height / libration	less than 1,000 m, less than 5.9m/s <sup>2</sup> (=0.6g)
	application place	where there is no rust gas, no flammability gas, no grease and dust
cooling methods		Forced air cooling and natural cooling