

JPS AC Drives

PDA, PDH Series 0.75~30KWatt

PDE Series 0.75~1.5KWatt

Output Frequency up to 3,000Hz

Sensor Less Vector Control

Communicating Speed up to 19,200bps

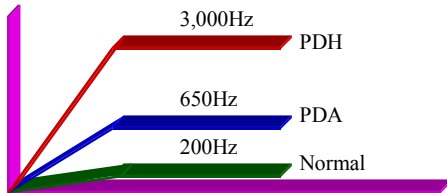


JPS



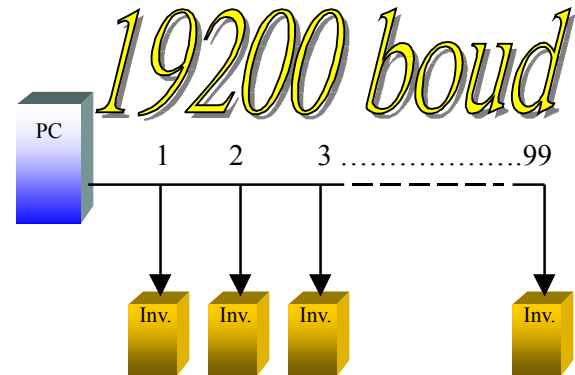
Characteristics

HIGH SPEED
PDA 650Hz
PDH 3000Hz



HIGH FREQUENCY OUTPUT

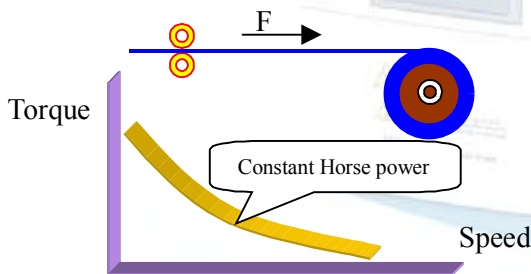
PDH series is designed for 3,000 Hz output frequency.
PDA series is designed for 650 Hz output frequency.
These inverter series are most suitable for high speed grinding and drilling applications.



SERIAL COMMUNICATION ^{Option}

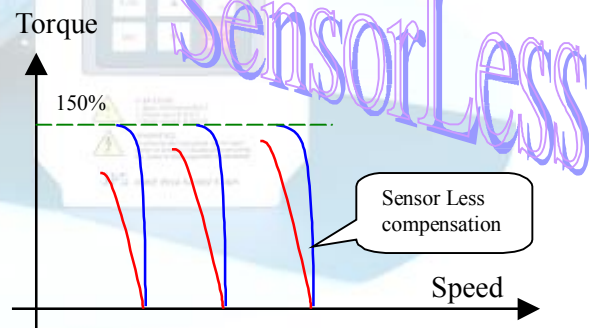
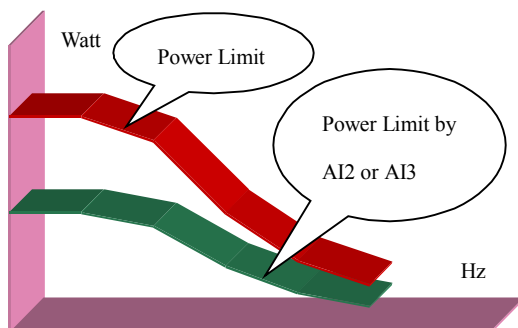
Through communication interface board, all inverters can be controlled by PC/PLC directly.
Up to 99 inverters can be addressed by a single communication port.
Baud rate is selectable up to 19,200bps.

Power / Torque Control



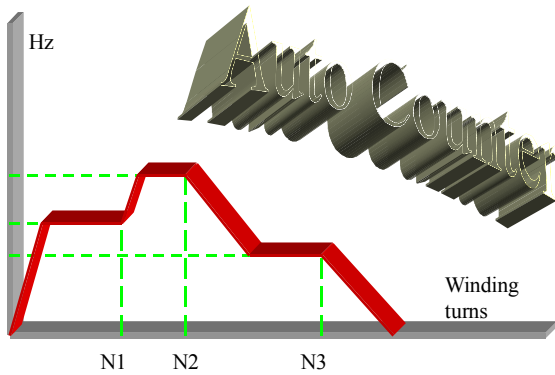
POWER/TORQUE CONTROL

PDA series provides a special mode for control the output power or torque. Through parameter setting, the inverter can set up a power limit curve vs. frequency. If the output power exceed the predefined limit curve, the output frequency will decrease automatically.



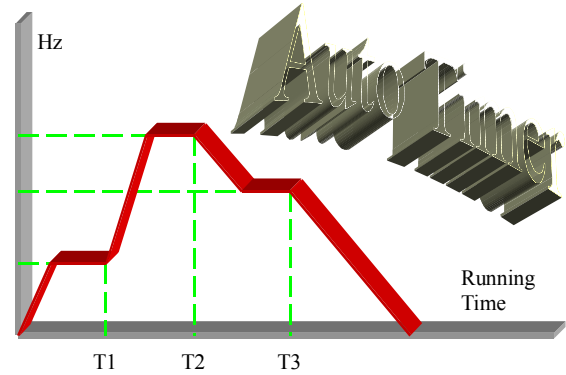
SENSOR-LESS MODE

PDA series can operate under sensor-less mode. Through the high performance DC current transducer, the inverter measures the current, voltage, and phase angle, etc.
According to these measured information, calculating the load and output speed condition, then make suitable compensation in order to keep the motor always running at the fixed speed.



AUTO COUNTER

The embedded counter can count input pulses, then change to next predefined speed automatically. As shown in the above drawing for coil winding application, the inverter starts running at low speed firstly. Then changes to another speed when N1 turns reached. After another N2 turns, the inverter changes to another speed. Finally, it will stop when another N3 turns completed.

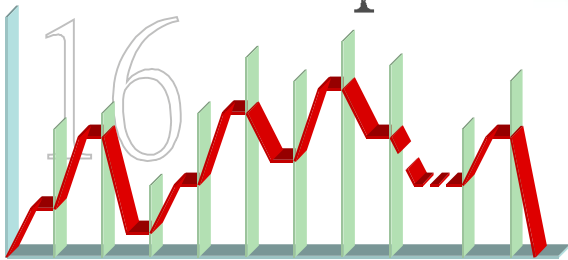


AUTO TIMER

The embedded timer can count time intervals, then change to next predefined speed automatically. As shown in the above drawing for washing machine for example, the inverter starts running at low speed firstly. Then changes to another speed when T1 time elapsed. After another T2 time period, the inverter changes to another speed. Finally, it will stop when T3 time period ends.

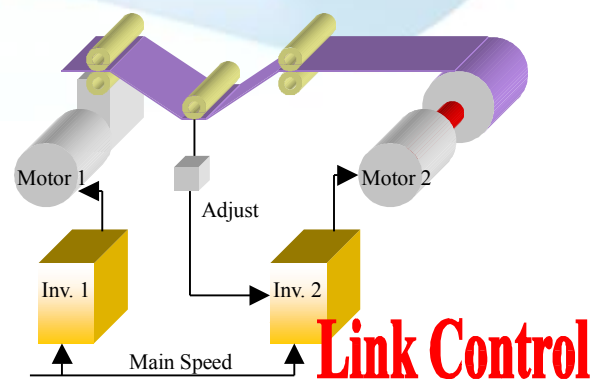
Wide Applications

Multi Speed



16-STEP MULTI-SPEED

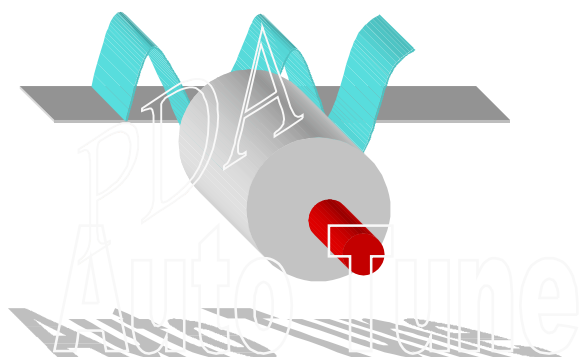
Four Digital inputs combined together, it is very easy to construct the 16-step multi-speed drive system.



HARMONIZE LINK CONTROL

Only simple connection, and suitable parameter setting, it can be used in multi-drive harmonized link control applications.





AUTO TUNING

PDA series provides embedded Dynamic and Static tuning programs. Motor parameters can be identified through Auto-tuning program, in order to compensate motor running speed while load is changed.

SPECIFICATIONS of EACH SERIES

Series		PDA	PDE	PDH
Input power	PDx-2xxx	220Vac, 50/60Hz		
	PDx-4xxx	380Vac, 50/60Hz		
Rated output	PDx-2xxx	0.75~30KWatt	0.75~1.5KWatt	0.75~30KWatt
	PDx-4xxx	0.75~30KWatt	*2	0.75~30KWatt
Output characteristics	PWM modulation	Sine PWM	Sine PWM	Synchronous Symmetric Sine PWM
	Output voltage	0 to line voltage		
	Output frequency	650Hz	650Hz	3,000Hz
	Frequency resolution	Digital	0.01Hz	0.1Hz
		Analog	0.1%	0.1%
	Carrier Frequency	0.5~16KHz	0.5~16KHz	2~18KHz
Control characteristic	Power/Torque control	Yes	No	No
	Sensor-Less control	Yes	No	No
	Auto-Tune	Dynamic & Static tuning	No	No
	Current limit	150% - 60 seconds		
	Frequency set method	1. keypad 4. communication 7. other combinations	2. internal memory 5. electronic rheostat	3. three external analog inputs 6. digital input 16-step speed
	Acc / Deceleration	5 selections		
	Multi-function I/O	1. Digital output × 3(Open Collector × 2, Dry N.O. contact × 1) 2. Digital input × 6 3. Analog input × 3 4. Analog output × 1		
	Fan control	Detect heat sink temperature to start or stop cooling fan		
Trip protection		1. Over current 2. Over voltage 3. Under voltage 4. Over temperature 5. Over load		
Communication		1. RS232/485 card (option) 2. Baud rate can select 4800, 9600, 19200bps 3. maximum 99 stations		
Case		IP20		
Cooling regulations		Temperature controlled forced cooling		
regulations		Under application	JPS CE	Under application
Notes		1. 5.5KWatt and higher models are under development.		
		2. PDE series only provides two models 220Vac / 0.75KWatt, 1.5KWatt.		

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