

# PC10

## Mini Vector AC Drive

- Two control methods
  - Open loop (sensorless) vector
  - Volts / Hertz
- Motor auto tuning for optimum performance
  - Full dynamic tuning (spinning motor)
  - Static tuning (loaded motor, not spinning)
  - On-line tuning (continuous tuning while running)
- User-friendly LED keypad
  - ease of remote mounting
  - operation and maintenance status monitor
- Uniform programming parameters with GP10 and VG10
- Heavy duty rated
  - 200% starting torque
  - 150% OL / 1 minute (HD)
- Soft-Switching Technology to eliminate output filters
- -10°C - 50°C (+14°F - 122°F)
- Serial communications (Profibus-S, DeviceNet, Modbus Plus, Interbus-S and CAN Open)
- +/-10Vdc or 4-20mA reference inputs
- Built-in dynamic braking
- Frequency adjustable to 400Hz
- Built-in PID control
- IP20 protected chassis, Nema 1 Kit available
- Saflink compatible



Virtual Monitor Panel with PID Control

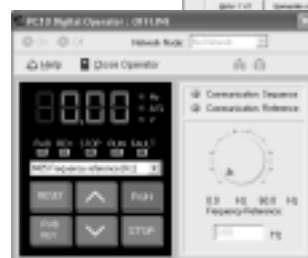


Visual Programming



SAFLINK is an innovative tool designed for easier programming and trouble-shooting of Saflink drives.

Please visit our Web site at [www.saftronics.com](http://www.saftronics.com) and try out a demo version.



Digital Operator Panel

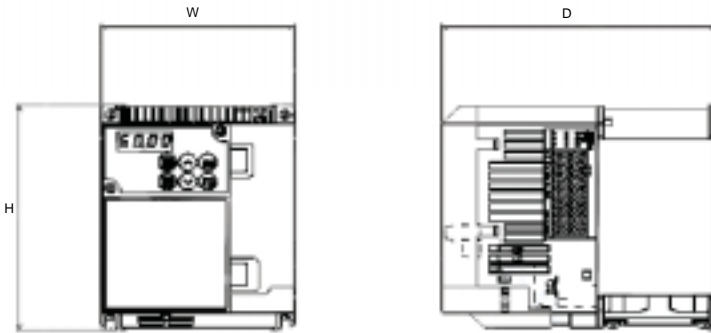


# PC10: The Next Generation "Power Cube"

## RATINGS / DIMENSIONS

VOLT	HP	AMPS	PART NUMBER PC-10-	DIMENSIONS (in inches)			WEIGHT (lbs)	VOLT	HP	AMPS	PART NUMBER PC-10-	DIMENSIONS (in inches)			WEIGHT (lbs)
				W	H	D						W	H	D	
230V 3 Phase	0.125	0.7	2F12-9	2.76	5.12	3.78	1.3	460 V	0.5	1.4	4F50-9	4.18	5.12	4.96	2.4
	0.25	1.4	2F25-9	2.76	5.12	3.98	1.3		1	2.1	4001-9	4.18	5.12	5.91	2.6
	0.50	2.5	2F50-9	2.76	5.12	4.65	1.5		2	3.7	4002-9	4.18	5.12	6.7	2.9
	1	4.0	2001-9	2.76	5.12	5.67	1.8		3	5.3	4003-9	4.18	5.12	6.7	3.1
	2	7.0	2002-9	4.18	5.12	5.91	2.9		5	8.7	4005-9	6.69	5.12	6.22	4.2
	3	10.0	2003-9	4.18	5.12	5.91	2.9		7.5	12	4007-9	7.09	8.66	6.22	9.9
	5	16.5	2005-9	6.69	5.312	6.22	4.4		10	16	4010-9	7.09	8.66	6.22	9.9
	7.5	23.5	2007-9	7.09	8.66	6.22	9.9								
	10	31.0	2010-9	7.09	8.66	6.22	9.9								

• Consult Factory for 208V information



The Safronics PC10 offers the latest in microprocessor and IGBT technology. Performance, connectivity, size, cost of ownership all factor into a buying decision. We believe the PC10 offers the best combination of the above. World class quality in design and manufacture, competitive pricing and uncompromising performance make the PC10 the low HP drive of the future.

The PC10 can be operated in either sensorless vector or V/Hz mode to allow you to match the application requirements. The Dynamic Torque Vector control with On-Line Auto Tuning allows for unmatched motor drive performance and ensures you operate the motor at its peak efficiency, regardless of the load condition. The latest IGBT output section includes Soft-Switching technology that reduces RFI and EMI emissions and provides a 50% reduction in dv/dt. This allows longer motor leads and eliminates an output dv/dt filter. Our sensorless vector control affords superior torque and speed regulation characteristics. For pure simplicity or for multi-motor applications, you can always program the PC10 for V/Hz.

The PC10 serial communications provides simple connectivity to DeviceNet, Profibus, Modbus Plus and CAN Open as options.

The PC10 offers many sophisticated functions not normally available in other micro-inverters. For example, the Energy Saving Mode can be enabled for Fan and Pump applications, Droop Control for multi-motor load sharing applications and Speed Search for starting into a spinning load. The cooling fan can be set to run only during inverter operation to maximize MTBF. These are but a few examples that differentiate the PC10.

Why take a chance on the cheapest micro-inverter when you can go with a trusted name like Safronics! You can rest assured our 24/7 staff will always be there to give you the highest quality support in the business.

## SPECIFICATIONS

ITEM	RATINGS
Control Method	Sinusoidal PWM Control (V/F or Dynamic Torque Vector)
Input Voltage Rating	200-240 VAC, 50/60 Hz, 1 Phase (1/8 - 3 HP) 200-230 VAC, 50/60 Hz, 3 Phase (1/8 - 10 HP) 380-480 VAC, 50/60 Hz, 3 Phase (1/2 - 10 HP)
Input Voltage Tolerance	-15% to +10%
Frequency Control Range	0.1 to 400 Hz
Frequency Accuracy	Digital $\pm 0.01\%$ (-10°C to +50°C) Analog $\pm 0.2\%$ (at 25°C $\pm 10^\circ\text{C}$ )
Overload Capacity	150% for 1 Minute (Heavy Duty)
Braking	DC Injection or Dynamic Braking
Protective Functions	Motor Overload, Overcurrent, Overvoltage, Input Phase Loss, Overtemperature
Programmable I/O	7 Digital Inputs, 3 Digital Outputs, Analog/Pulse Output
Serial Communication	RS485 Modbus, Modbus Plus, Profibus-DP, DeviceNet, CAN Open
Enclosure	Open Chassis (IP 20), Nema 1 Kit

## TERMINAL LAYOUT

