

# CV10

## Compact Vector AC Drive

### DRIVES FOR EVERY INDUSTRY

#### EXPANDED FEATURES

- ▶ PLC Smart Relay Built-In  
Timers / Counters / Comparators
- ▶ Two Control Modes  
Open Sensorless Vector Control  
Volts/Hertz (V/Hz)
- ▶ Motor Auto Tuning for Optimum performance
- ▶ PID Function  
Sleep Function  
Feedback Loss Detection
- ▶ User Friendly LED keypad with Speed Pot  
Options:  
LCD keypad (supports 5 languages)  
Parameter Copy Module
- ▶ Din Rail Mounting
- ▶ Built-in Modbus RTU and ASCII  
Options: Profibus, DeviceNet, and Ethernet

**TWO YEAR  
WARRANTY**



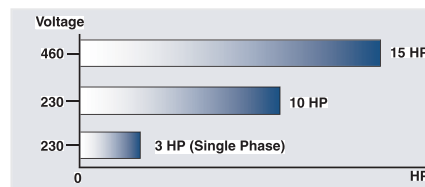
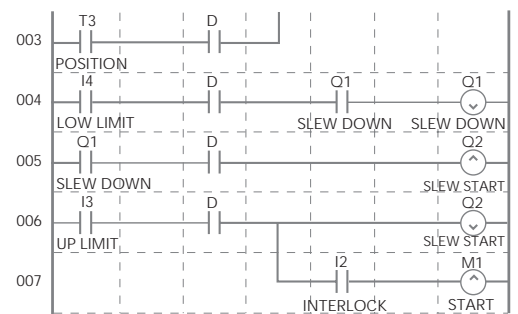
#### STANDARD FEATURES

- ▶ 650Hz Maximum Output Frequency
- ▶ Heavy Duty Rated  
(150% O/L for 1 min)
- ▶ 2 to 16Khz Carrier Frequency
- ▶ Built-in Dynamic Braking Transistor
- ▶ Sink or Source Digital Inputs
- ▶ 0-10Vdc or 0 to 20mA analog input
- ▶ -10°C to 50°C (+14°F to 122°F)
- ▶ DC Injection Braking
- ▶ 2 or 3 Wire Control
- ▶ 18 Pre-defined V/Hz Patterns  
1 Custom
- ▶ Speed Search
- ▶ Auto Torque Boost
- ▶ Stall Prevention
- ▶ Power Loss Ride through
- ▶ Energy Savings
- ▶ Fault History (up to 3)
- ▶ Local/Remote
- ▶ IP20 and Nema 1 enclosures



SAFLINK™ is an innovative tool designed for easier programming and trouble-shooting of Safronics drives. Please visit our Web site at [www.saftronics.com](http://www.saftronics.com) and try out a demo version.

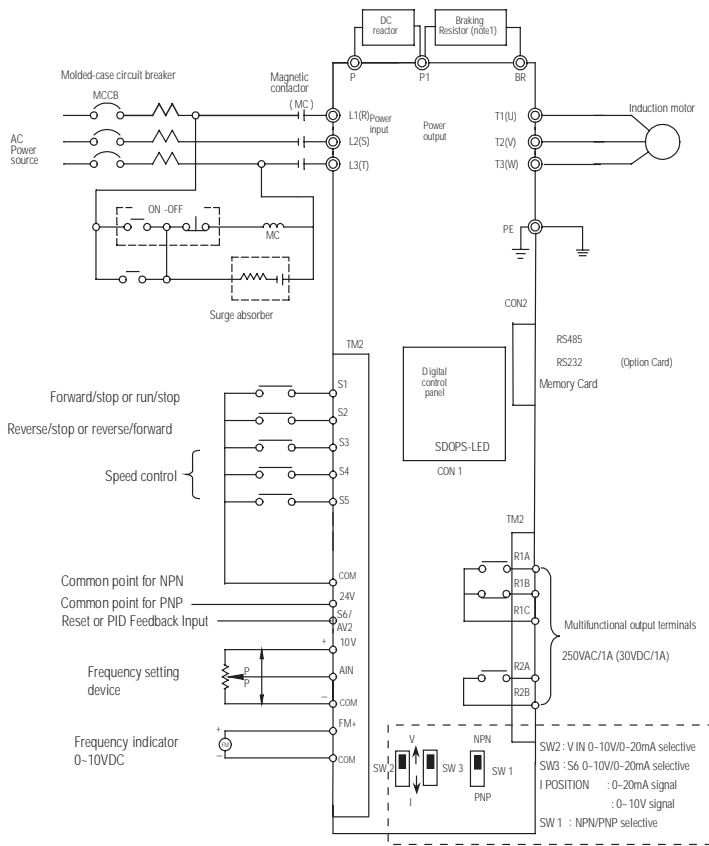
#### PLC FUNCTIONALITY



# CV10

## Compact and Versatile AC Drive

### TERMINAL LAYOUT



### PLC FUNCTIONALITY AVAILABLE

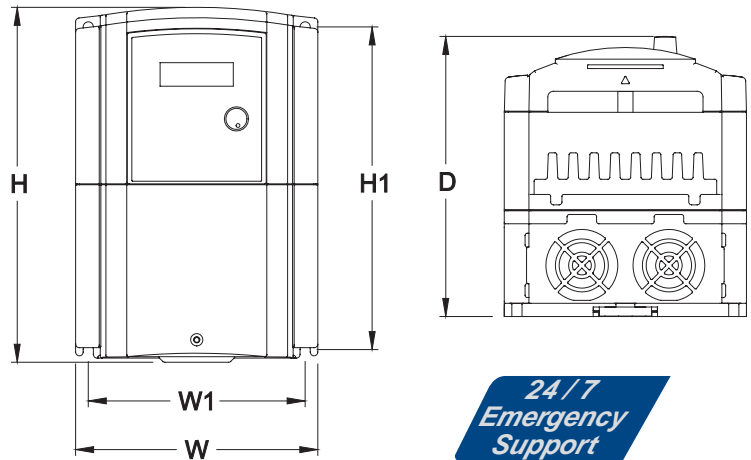
- ▶ Up to 7 Digital Inputs (S1 - S6 and AIN)
- ▶ 2 Digital Relay Outputs (R1 and R2)
- ▶ 15 Internal Relays
- ▶ 8 Time Delay Relays, 4 Counters
- ▶ 2 External Analog Inputs (S6 and AIN), 5 Internal Analog Inputs
- ▶ 4 Comparators for Analog Inputs and 4 Encoder Input Comparators
- ▶ 8 Drive Function Control Blocks (Forward/Reverse, 2 Preset Speeds with Acceleration and Deceleration Control)
- ▶ Up to 158 PLC Control Elements (Contacts, Coils, etc.)
- ▶ Up to 40 Rungs of PLC logic

### SPECIFICATIONS

Control Mode	Sensorless Vector and V/Hz
Input Voltage Rating	230Vac single and 3-phase; 460Vac 3-phase
Input Voltage Tolerance	+10%, -15Hz
Frequency Control Range	0 to 650Hz
Speed Control Accuracy	+/- 0.5% [Sensorless Vector Mode]
Speed Commands	0 to 10Vdc, 0 to 20mA, pulse input
Overload Capacity	150% current of drive rating for 1 minute
Braking	DC Injection Braking and Dynamic Braking
Protective Functions	Motor and Inverter Overload, Over-Voltage, Over-heat, Peak Overcurrent
Programmable I/O	6 Digital Input(NPN or PNP), 2 relay outputs
Ambient Temperature	-10°C to +50°C, (14°F to 122°F)
Enclosures	IP20 Protected Chassis / Nema 1

### DIMENSIONS & WEIGHTS

FRAME SIZE	INPUT VOLTAGE	HP RANGE	DIMENSIONS (in)			WEIGHT (lbs)
			H	W	D	
<b>IP20 Open Protected Chassis</b>						
Frame 1	230Vac single phase	1/2 and 1hp	6.42	3.54	5.79	2.65
Frame 1	230Vac 3-phase	1/2 to 2hp	6.42	3.54	5.79	2.65
Frame 1	460Vac 3-phase	1 and 2Hp	6.42	3.54	5.79	2.65
Frame 2	230Vac single phase	2 and 3Hp	7.36	5.04	5.83	4.19
Frame 2	230Vac 3-phase	3 and 5Hp	7.36	5.04	5.83	4.19
Frame 2	460Vac 3-phase	3 and 5Hp	7.36	5.04	5.83	3.97
Frame 3	230Vac 3-phase	7.5 and 10Hp	10.24	7.32	7.68	12.35
Frame 3	460Vac 3-phase	7.5 to 15hp	10.24	7.32	7.68	12.35
<b>Nema 1 Enclosure</b>						
Frame 1	230Vac single phase	1/2 and 1hp	7.29	3.54	5.79	2.91
Frame 1	230Vac 3-phase	1/2 to 2hp	7.29	3.54	5.79	2.91
Frame 1	460Vac 3-phase	1 and 2Hp	7.29	3.54	5.79	2.91
Frame 2	230Vac single phase	2 and 3Hp	9.06	5.04	5.83	4.61
Frame 2	230Vac 3-phase	3 and 5Hp	9.06	5.04	5.83	4.61
Frame 2	460Vac 3-phase	3 and 5Hp	9.06	5.04	5.83	4.37
Frame 3	230Vac 3-phase	7.5 and 10Hp	12.38	7.32	7.68	13.5
Frame 3	460Vac 3-phase	7.5 to 15hp	12.38	7.32	7.68	13.5



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