HONEYWELL COMPACT VARIABLE FREQUENCY DRIVE

SMARTDRIVE COMPACT VFD

DESCRIPTION

This compact VFD is a true micro drive, which saves space in the equipment cabinet and makes installation easy. The SmartDrive architecture allows for ease and speed in drive configuration. The intuitive user interface makes commissioning a breeze. The SmartDrive Compact VFD provides a standard PI Controller. Choose options to fit any application. Interface type, filter, enclosure, inputs, and outputs are available in a wide array of combinations. For wall mounting, a frame kit is recommended. Frame kits are not necessary for installation inside a panel.

FEATURES

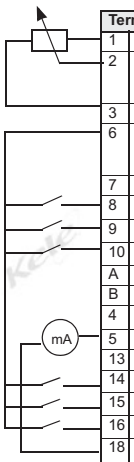
- ***Small, compact micro drive design***
- ***PI controller standard***
- ***No main power supply required for programming***
- ***Intuitive user interface***
- ***DIN rail or screw mounting***
- ***Flexible options include inputs, outputs, field bus, and filtering***
- ***Application interface "touch wheel" makes programming easy***

SPECIFICATIONS

Supply Voltage	208 to 230 VAC, 1 phase input - 3 phase output 380 to 480 VAC, 3 phase input/ output
Motor Rating	0.25 - 7.5 hp
Acceleration Time	0.1- 3000 seconds
Deceleration Time	0.1 - 3000 seconds
Frequency Range	30 - 320 Hz
Digital Switch Inputs	6; 0 - 30 VDC programmable
Analog Inputs	2; (1) 0-10 VDC, (1) 0-20 mA or 4-20 mA
Digital Outputs	1 Open Collector, max. load 48V/ 50mA
Analog Output	1, 0-20 mA or 4-20 mA, RL=500Ω
Relay Outputs	2; (1) SPST N.O. (1) SPDT 250 VAC/2A, 250 VDC/0.4A
Filter Type	RFI
Communication Protocol	RS485 (Modbus protocol), Serial
Operating Humidity	0 to 90% RH (non-condensing)
Operating Temperature	14° to 122°F (-10° to 50°C)
Frame Size	MI1, MI2, MI3
Dimensions	Frame sizes
MI1	6.1"H x 2.6"W x 3.9"D (15.5 x 6.6 x 9.9 cm)
MI2	7.7"H x 3.5"W x 4.0"D (19.6 x 8.9 x 10.2 cm)
MI3	10.3"D x3.9"W x 4.3"D (26.2 x 9.9 x 10.9 cm)
Weights	
MI1	1.20 lb (0.55 kg)
MI2	1.50 lb (0.65 kg)
MI3	2.18 lb (0.99 kg)
Approvals	CE, UL, cUL FILE #E190898
Warranty	3 years

CONTROL I/O

API FULL



Terminal		Signal	Factory preset	Description
1	+10Vre	Ref. voltage out		Maximum load 10 mA
2	AI1	Analog signal in 1	Freq. reference P)	0 - +10 V Ri = 200 kΩ (min)
3	GND	I/O signal ground		
6	24Vout	24V output for DI's		±20%, max. load 50 mA
7	GND	I/O signal ground		
8	DI1	Digital input 1	Start forward P)	0 - +30 V Ri = 12 kΩ min
9	DI2	Digital input 2	Start reverse P)	
10	DI3	Digital input 3	Preset speed B0 P)	
A	A	RS485 signal A	FB Communication	
B	B	RS485 signal B	FB Communication	
4	AI2	Analog signal in 2	PI actual value P)	0(4) - 20 mA, Ri = 200Ω
5	GND	I/O signal ground		
13	GND	I/O signal ground		
14	DI4	Digital input 4	Preset speed B1P)	0 - +30 V Ri = 12 kΩ (min)
15	DI5	Digital input 5	Fault reset P)	
16	DI6	Digital input 6	Disable PI contr. P)	
18	AO		Output frequency P)	0(4) - 20 mA, RL = 500Ω
20	DO	Digital signal out	Active = READY P)	Open collector, max. load 48V/50mA
22	RO 11	Relay out 1	Active = RUN P)	Max. switching load: 250 VAC/2A or 250 VDC/ 0.4A
23	RO 12			
24	RO 21	Relay out 2	Active = FAULT P)	Max. switching load: 250 VAC/2A or 250 VDC/ 0.4A
25	RO 22			
26	RO 23			

P) = Programmable function, see parameter lists and descriptions in installation manual.

Note: NEMA 1 frame kits include the top protection from vertically dripping water with additional physical contact protection over the wiring terminals. Recommended for non-enclosed VFD mounting.

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ORDERING INFORMATION

Full IO Model	Limited IO Model	Supply Voltage	Current Rating	Horsepower	EMC	Frame Size
HVFDCD1B0003F00	HVFDCD1B0003L00	208 to 230 VAC, 1 phase input - 3 phase output	1.7A	0.25	NO	MI1
HVFDCD1B0003F01	HVFDCD1B0003L01	208 to 230 VAC, 1 phase input - 3 phase output	1.7A	0.25	YES	MI1
HVFDCD1B0005F00	HVFDCD1B0005L00	208 to 230 VAC, 1 phase input - 3 phase output	2.4A	0.5	NO	MI1
HVFDCD1B0005F01	HVFDCD1B0005L01	208 to 230 VAC, 1 phase input - 3 phase output	2.4A	0.5	YES	MI1
HVFDCD1B0007F00	HVFDCD1B0007L00	208 to 230 VAC, 1 phase input - 3 phase output	2.8A	0.75	NO	MI1
HVFDCD1B0007F01	HVFDCD1B0007L01	208 to 230 VAC, 1 phase input - 3 phase output	2.8A	0.75	YES	MI1
HVFDCD1B0010F00	HVFDCD1B0010L00	208 to 230 VAC, 1 phase input - 3 phase output	3.7A	1	NO	MI1
HVFDCD1B0010F01	HVFDCD1B0010L01	208 to 230 VAC, 1 phase input - 3 phase output	3.7A	1	YES	MI1
HVFDCD1B0015F00	HVFDCD1B0015L00	208 to 230 VAC, 1 phase input - 3 phase output	4.8A	1.5	NO	MI2
HVFDCD1B0015F01	HVFDCD1B0015L01	208 to 230 VAC, 1 phase input - 3 phase output	4.8A	1.5	YES	MI2
HVFDCD1B0020F00	HVFDCD1B0020L00	208 to 230 VAC, 1 phase input - 3 phase output	7.0A	2	NO	MI2
HVFDCD1B0020F01	HVFDCD1B0020L01	208 to 230 VAC, 1 phase input - 3 phase output	7.0A	2	YES	MI2
HVFDCD1B0030F00	HVFDCD1B0030L00	208 to 230 VAC, 1 phase input - 3 phase output	11.0A	3	NO	MI3
HVFDCD1B0030F01	HVFDCD1B0030L01	208 to 230 VAC, 1 phase input - 3 phase output	11.0A	3	YES	MI3
HVFDCD3C0005F00	HVFDCD3C0005L00	380 to 480 VAC, 3 phase input/ output	1.3A	0.5	NO	MI1
HVFDCD3C0005F01	HVFDCD3C0005L01	380 to 480 VAC, 3 phase input/ output	1.3A	0.5	YES	MI1
HVFDCD3C0007F00	HVFDCD3C0007L00	380 to 480 VAC, 3 phase input/ output	1.9A	0.75	NO	MI1
HVFDCD3C0007F01	HVFDCD3C0007L01	380 to 480 VAC, 3 phase input/ output	1.9A	0.75	YES	MI1
HVFDCD3C0010F00	HVFDCD3C0010L00	380 to 480 VAC, 3 phase input/ output	2.4A	1	NO	MI1
HVFDCD3C0010F01	HVFDCD3C0010L01	380 to 480 VAC, 3 phase input/ output	2.4A	1	YES	MI1
HVFDCD3C0015F00	HVFDCD3C0015L00	380 to 480 VAC, 3 phase input/ output	3.3A	1.5	NO	MI1
HVFDCD3C0015F01	HVFDCD3C0015L01	380 to 480 VAC, 3 phase input/ output	3.3A	1.5	YES	MI1
HVFDCD3C0020F00	HVFDCD3C0020L00	380 to 480 VAC, 3 phase input/ output	4.3A	2	NO	MI2
HVFDCD3C0020F01	HVFDCD3C0020L01	380 to 480 VAC, 3 phase input/ output	4.3A	2	YES	MI2
HVFDCD3C0030F00	HVFDCD3C0030L00	380 to 480 VAC, 3 phase input/ output	5.6A	3	NO	MI2
HVFDCD3C0030F01	HVFDCD3C0030L01	380 to 480 VAC, 3 phase input/ output	5.6A	3	YES	MI2
HVFDCD3C0040F00	HVFDCD3C0040L00	380 to 480 VAC, 3 phase input/ output	7.6A	4	NO	MI3
HVFDCD3C0040F01	HVFDCD3C0040L01	460 to 480 VAC, 3 phase input/ output	7.6A	4	YES	MI3
HVFDCD3C0050F00	HVFDCD3C0050L00	460 to 480 VAC, 3 phase input/ output	9.0A	5	NO	MI3
HVFDCD3C0050F01	HVFDCD3C0050L01	460 to 480 VAC, 3 phase input/ output	9.0A	5	YES	MI3
HVFDCD3C0075F00	HVFDCD3C0075L00	460 to 480 VAC, 3 phase input/ output	12.0A	7.5	NO	MI3
HVFDCD3C0075F01	HVFDCD3C0075L01	460 to 480 VAC, 3 phase input/ output	12.0A	7.5	YES	MI3

ACCESSORIES

HVFDCABLE	Commissioning cable and USB adaptor
HVFDCDMCA	VFD commissioning device
HVFDCDMCAKIT	Commisioning kit
HVFDCDNEMA1FR1	Enclosure upgrade Nema 1 kit frame size1
HVFDCDNEMA1FR2	Enclosure upgrade Nema 1 kit frame size2
HVFDCDNEMA1FR3	Enclosure upgrade Nema 1 kit frame size3