



MOTOR CONTROLS

HONEYWELL VARIABLE FREQUENCY DRIVE WITH BYPASS SMARTVFD HVAC WITH BYPASS ASSEMBLY

DESCRIPTION

Honeywell's integral bypass and disconnect system make applying the SmartVFD drive a snap. Available with a simple fused disconnect switch, a 2-contactor bypass assembly, or a 3-contactor bypass assembly, it simplifies installation. All the features of the SmartVFD are included -- a wide array of configurable inputs and outputs, and all the most popular network protocols, and the super easy startup wizards that speed commissioning. All drives feature Hand-Off-Auto operation as a fully integrated keypad function. Make the SmartVFD choice for your variable speed drive needs.

FEATURES

- **Disconnect, 2-, or 3-contactor bypass**
- **Fused disconnect**
- **Auto bypass available**
- **Available in NEMA 1, 12, or 3R enclosure types**
- **Compact size**
- **SmartVFD wizard for pump or fan control**
- **Intuitive commissioning**
- **High resolution graphic interface**
- **User manual built in to firmware**



Honeywell



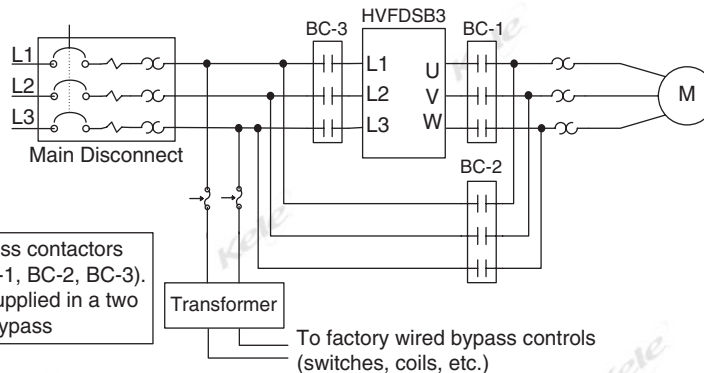
SPECIFICATIONS

Supply Voltage	208 VAC, 3 phase, 60 Hz 230 VAC, 3 phase, 60 Hz 480 VAC, 3 phase, 60Hz	Relay Outputs	2 each SPDT 8A at 24 VDC or 250 VAC 0.4A at 125 VDC Minimum load 10Ma at 5 VAC/VDC
Motor Rating	1.0 to 250 Hp	Filter Type	5% DC choke , and class 2 GMC/RFI
Frequency Range	0 - 320 Hz	EMC	Complies with EN50082-1, -2
Acceleration Time	0.1 - 3000 seconds	Communication Protocol	
Deceleration Time	0.1 - 3000 seconds	RS485	BACnet MS/TP, N2, Modbus
Digital Inputs	6 factory preset	Ethernet	BACnet/ IP, Modbus/TCP
Analog Input	2; 0-10V or 4-20 mA programmable	Operating Humidity	0 to 95% RH (non-condensing)
Digital Output	Open collector, max. load 48V / 50 mA	Operating Temperature	14° to 104°F (-10° to 40°C)
Analog Output	1; 4-20 mA	Approvals	UL Listed File #E190898 cUL CE RoHS
		Eco Friendly	Yes
		Warranty	3 years

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WIRING



Three bypass contactors shown (BC-1, BC-2, BC-3). BC-3 not supplied in a two contactor bypass

Note: Typical wiring shown. Refer to product installation manual for electrical wiring connections and requirements.



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DIMENSIONS - IN (CM)												
Frame Size	Horsepower and Voltage		Configuration	NEMA 1			NEMA 12			NEMA 3 R		
	208/ 230 VAC	460 VAC		Width	Height	Depth	Width	Height	Depth	Width	Height	Depth
4	0.75-4 Hp	1.5-7.5 Hp	Disconnect	8.9 (22.6)	8.9 (22.6)	10.7 (26.2)	12.0 (29.4)	36.0 (88.2)	8.8 (21.6)	20.5 (50.2)	20.0 (49.0)	10.0 (24.5)
			2-Contactor	8.9 (22.6)	8.9 (22.6)	10.7 (26.2)	16.0 (39.2)	36.0 (88.2)	8.8 (21.6)	24.5 (60.0)	24.0 (58.8)	10.0 (24.5)
			3-Contactor, 3-Contactor w/ Auto- Bypass	8.9 (22.6)	8.9 (22.6)	10.7 (26.2)	16.0 (39.2)	36.0 (88.2)	8.8 (21.6)	24.5 (60.0)	24.0 (58.8)	10.0 (24.5)
5	5-10Hp	10-20 Hp	Disconnect	8.9 (22.6)	34.5 (84.5)	10.7 (26.2)	12.0 (29.4)	40.0 (98)	8.8 (21.6)	24.5 (60.0)	24.0 (58.8)	10.0 (24.5)
			2-Contactor	8.9 (22.6)	34.5 (84.5)	10.7 (26.2)	16.0 (39.2)	44.0 (107.8)	8.8 (21.6)	28.5 (69.8)	30.0 (73.5)	10.0 (24.5)
			3-Contactor, 3-Contactor w/ Auto- Bypass	8.9 (22.6)	41.5 (101.7)	10.7 (26.2)	16.0 (39.2)	44.0 (107.8)	8.8 (21.6)	28.5 (69.8)	30.0 (73.5)	10.0 (24.5)
6	15-20Hp	25-40 Hp	Disconnect	12.4 (30.4)	45.0 (110.3)	12.6 (30.9)	16.0 (39.2)	46.0 (112.7)	10.8 (26.5)	28.5 (69.8)	36.0 (88.2)	10.0 (24.5)
			2-Contactor	12.4 (30.4)	45.0 (110.3)	12.6 (30.9)	20.0 (49.0)	54.0 (132.3)	10.8 (26.5)	34.5 (84.5)	36.0 (88.2)	10.0 (24.5)
			3-Contactor, 3-Contactor w/ Auto- Bypass	12.4 (30.4)	55.0 (134.8)	12.6 (30.9)	20.0 (49.0)	54.0 (132.3)	10.8 (26.5)	34.5 (84.5)	36.0 (88.2)	10.0 (24.5)
7	25-40Hp	50-75 Hp	Disconnect	20.84 (51.1)	51.5 (126.2)	11.4 (27.9)	16.0 (39.2)	50.0 (122.5)	11.8 (28.9)	28.5 (69.8)	48.0 (117.6)	12.0 (29.4)
			2-Contactor	20.84 (51.1)	51.5 (126.2)	11.4 (27.9)	24.0 (58.8)	64.0 (156.8)	13.6 (33.3)	40.4 (98.9)	48.0 (117.6)	12.0 (29.4)
			3-Contactor, 3-Contactor w/ Auto- Bypass	20.84 (51.1)	59.0 (144.6)	11.4 (27.9)	24.0 (58.8)	64.0 (156.8)	13.6 (33.3)	40.4 (98.9)	48.0 (117.6)	12.0 (29.4)
8	50-75 Hp	100-150 Hp	Disconnect	25.0 (61.3)	60.0 (147.0)	16.2 (39.7)	20.0 (49.0)	64.0 (156.8)	15.1 (36.9)	40.4 (98.9)	48.0 (117.6)	12.0 (29.4)
			2-Contactor	25.0 (61.3)	60.0 (147.0)	16.2 (39.7)	56.0 (137.2)	48.0 (117.6)	15.1 (36.9)	40.4 (98.9)	60.0 (147.0)	12.0 (29.4)
			3-Contactor, 3-Contactor w/ Auto- Bypass	25.0 (61.3)	70.0 (171.5)	16.2 (39.7)	56.0 (137.2)	48.0 (117.6)	15.1 (36.9)	40.4 (98.9)	60.0 (147.0)	12.0 (29.4)

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SMART VFD BYPASS CONFIGURATIONS

Our five configurations make it easy for you to select the right bypass to complete your drive package. All bundles are available in NEMA 1, NEMA 12 and ventilated NEMA 3R HOA (HAND OFF AUTO).

SmartVFD Disconnect Only

- Adds a fused disconnect to the VFD.

SmartVFD 2-Contactor Bypass

Provides an economical means of bypassing the VFD.

- Freeze/Fire/Smoke Interlock

SmartVFD 3-Contactor Bypass

Commission, service or replace the VFD without affecting the operation of the motor.

- Fused Disconnect
- Freeze/Fire/Smoke Interlock
- VFD is isolated from power with motor running in BYPASS mode
- TEST position powers the VFD without sending power to the motor

SmartVFD 3-Contactor Bypass with Auto-Bypass

The package adds the control capabilities below to the standard three contactor bypass.

- Any VFD fault will automatically send the bypass to BYPASS mode
- A contact closure sends the bypass to BYPASS mode
- Dry contacts indicate when the bypass is in BYPASS mode, alerting the building management system



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HONEYWELL VARIABLE FREQUENCY DRIVE WITH BYPASS SMARTVFD HVAC WITH BYPASS ASSEMBLY

ORDERING INFORMATION

HVFDSB3	Honeywell SmartVFD HVAC	
A	208 VAC - up to 75 Hp	
B	230 VAC - up to 75 Hp	
C	480 VAC - up to 150 Hp	
Motor Horsepower		
0007	.75 Hp	208, 230 & 480 VAC
0010	1 Hp	208, 230 & 480 VAC
0015	1.5 Hp	208, 230 & 480 VAC
0020	2 Hp	208, 230 & 480 VAC
0030	3 Hp	208, 230 & 480 VAC
0040	4 Hp	208, 230 & 480 VAC
0050	5 Hp	208, 230 & 480 VAC
0075	7.5 Hp	208, 230 & 480 VAC
0100	10 Hp	208, 230 & 480 VAC
0150	15 Hp	208, 230 & 480 VAC
0200	20 Hp	208, 230 & 480 VAC
0250	25 Hp	208, 230 & 480 VAC
0300	30 Hp	208, 230 & 480 VAC
0400	40 Hp	208, 230 & 480 VAC
0500	50 Hp	208, 230 & 480 VAC
0600	60 Hp	208, 230 & 480 VAC
0750	75 Hp	208, 230 & 480 VAC
1000	100 Hp	480 VAC
1250	125 Hp	480 VAC
1500	150 Hp	480 VAC
User Interface		
G	Graphic User Interface	
Enclosure		
1	NEMA 1	
2	NEMA 12	
3	NEMA 3R	
Options		
10	Disconnect only	
20	Drive with 2 contractor BYPASS	
30	Drive with 3 contractor BYPASS	
31	Drive with 3 contractor BYPASS, w/ Fused disconnect and Auto-bypass	

HVFDSB3

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0400

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Example: HVDSB3C0400G130 480 VAC, 40 Hp, Smart VFD NEMA 1 with graphic keypad display, 3 contractor bypass

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ACCESSORIES

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32006630-001
HVFCABLE

LON communication card
Commissioning cable and USB adaptor