

Honeywell

3G SmartVFD Frame B Wiring Diagrams and Dimensional Drawings

SPECIFICATION DATA

3G SmartVFD Frame Size B

460 Vac: 15 - 40 HP

208/230 Vac: 7.5 - 20 HP

CONTENTS

SmartVFD Frame B Wiring Diagrams	2
Frame B: Fused Disconnect Wiring Diagrams, NEMA 3R Drive Only	2
Frame B: 2 Contactor Wiring Diagrams	3
Frame B: 3 Contactor Wiring Diagrams	4
Frame B: 3 Contactor Auto-bypass Wiring Diagrams	5
SmartVFD Frame B Dimensional Diagrams	6
Frame B: NEMA 1, Disconnect Only and 2 Contactor	6
Frame B: NEMA 1, 3 Contactor and 3 Contactor with Auto-Bypass	7
Frame B: NEMA 12, Disconnect Only, 2 Contactor, 3 Contactor and 3 Contactor with Auto-Bypass	8
Frame B: NEMA 3R, Drive Only, Disconnect Only, 2 Contactor, 3 Contactor and 3 Contactor w/ Auto-Bypass	9
Nomenclature, Accessories, and Applicable Literature	10

J&L Manufacturing, Inc.

PO Box 678 Fuquay Varina, NC 27526

984-225-2900

www.jandlmanufacturing.com



3G SMARTVFD FRAME B WIRING DIAGRAMS AND DIMENSIONAL DRAWINGS

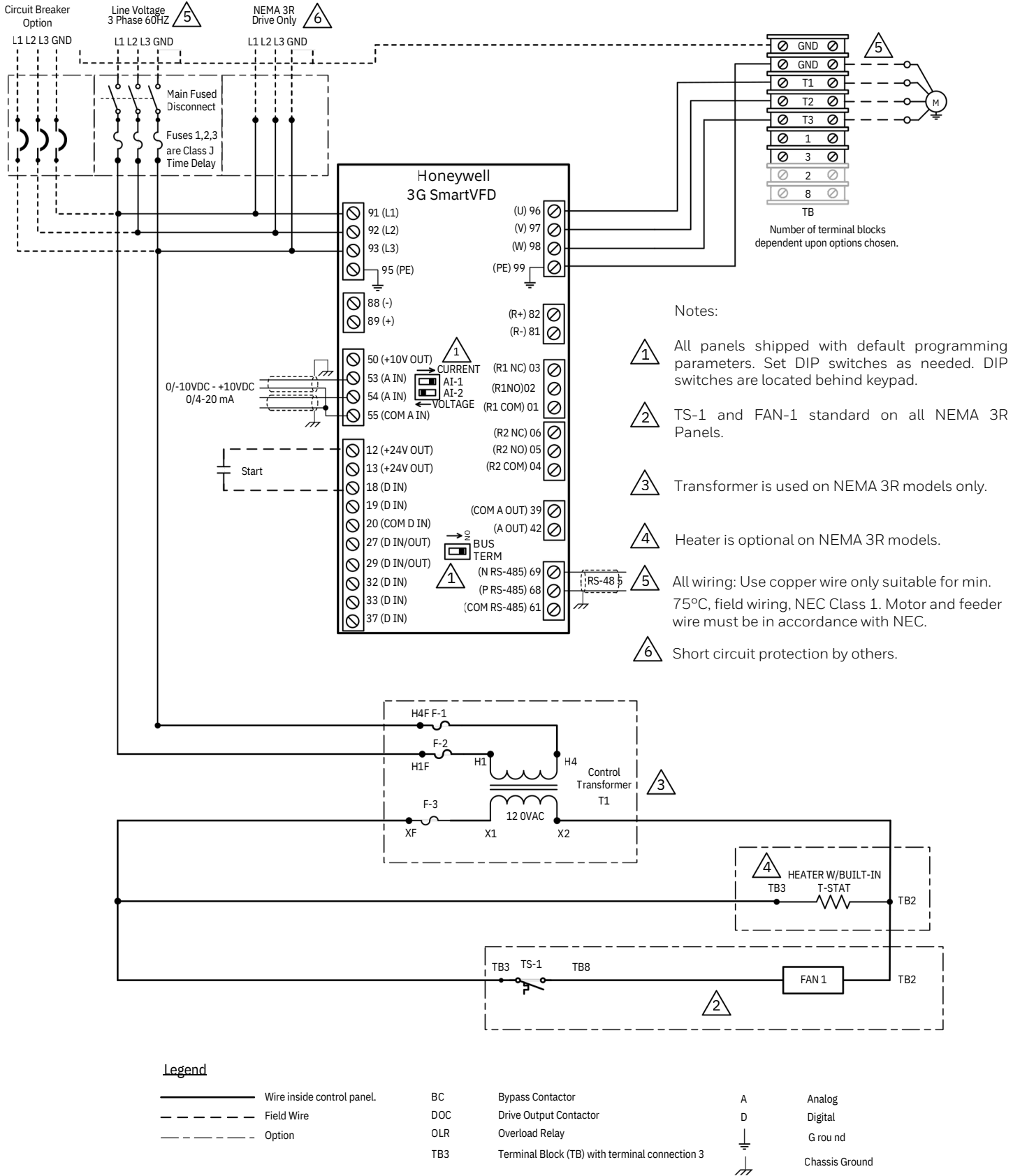


Fig. 1. - Frame B: Fused Disconnect, NEMA 3R Drive Only Wiring Diagrams.

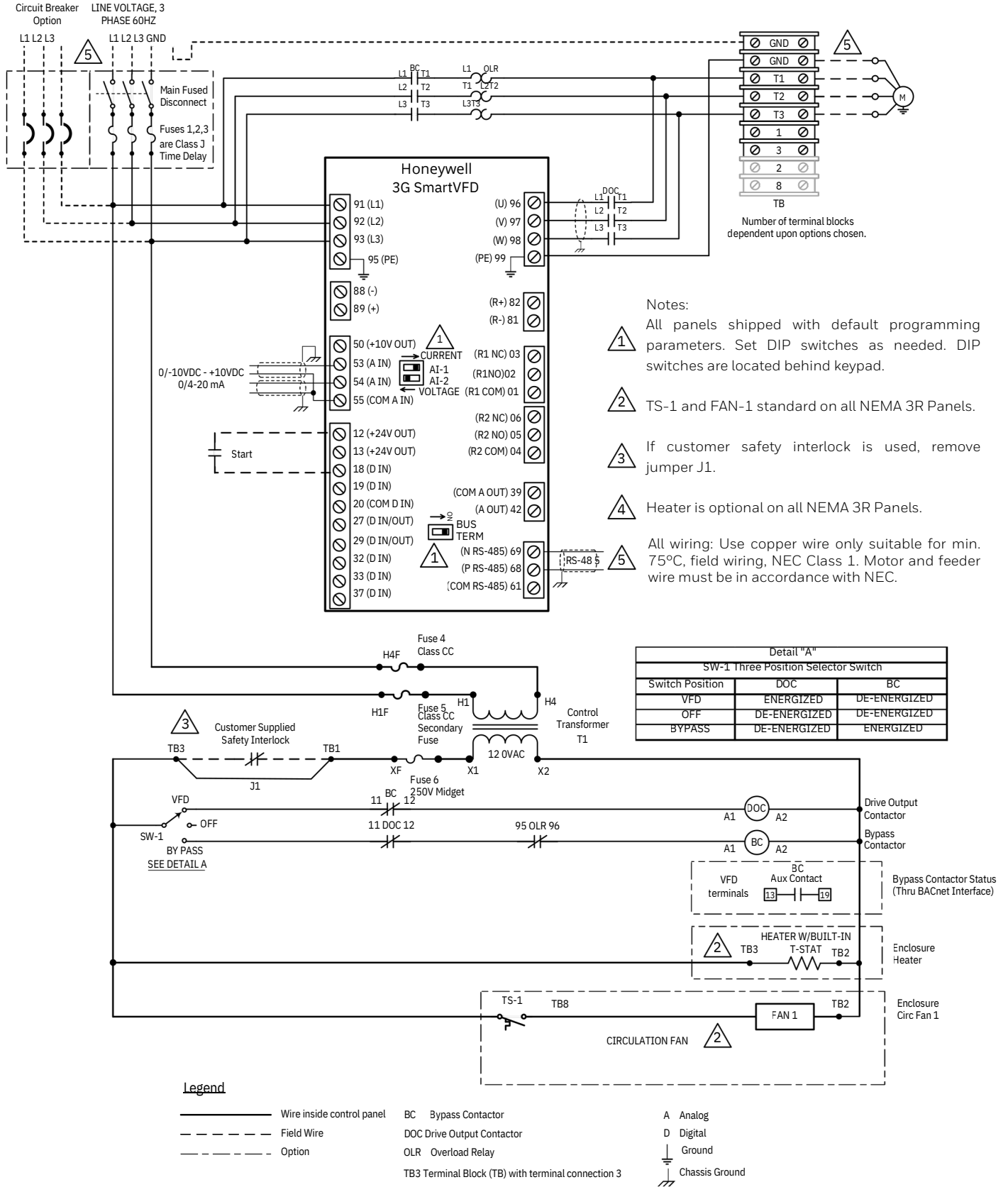


Fig. 2. - Frame B: 2 Contactor Wiring Diagrams.

3G SMARTVFD FRAME B WIRING DIAGRAMS AND DIMENSIONAL DRAWINGS

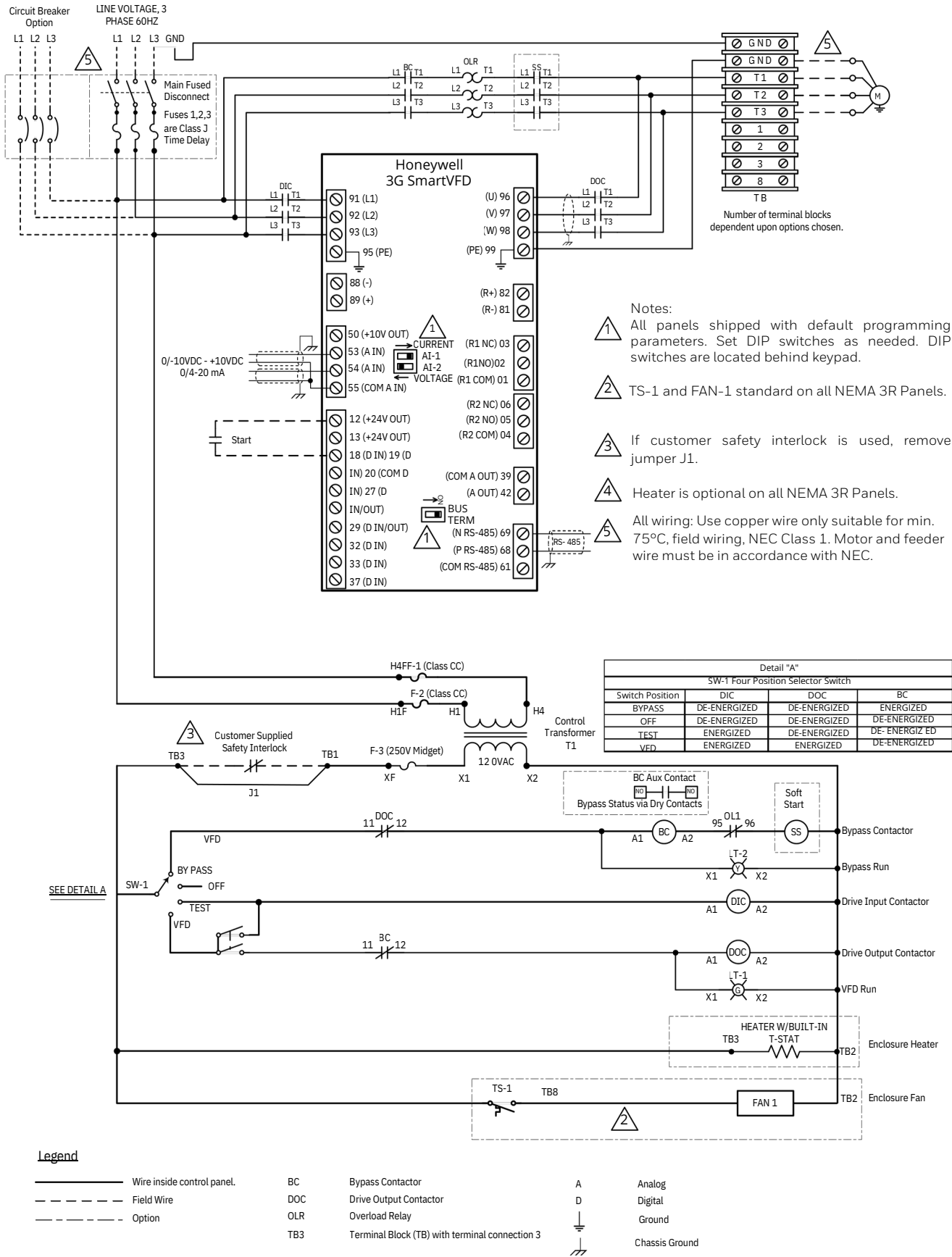


Fig. 3. - Frame B 3 Contactor Wiring Diagrams.

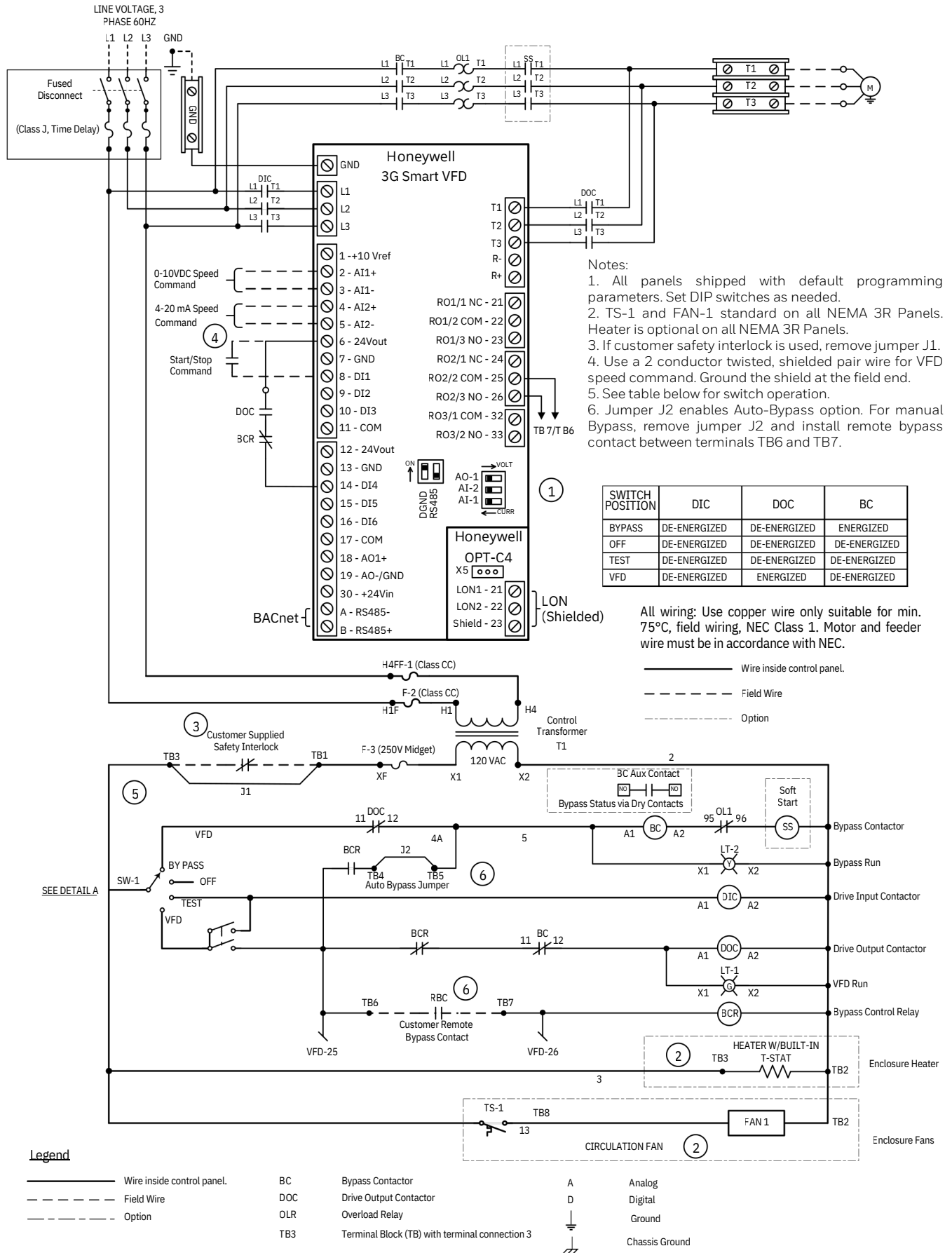
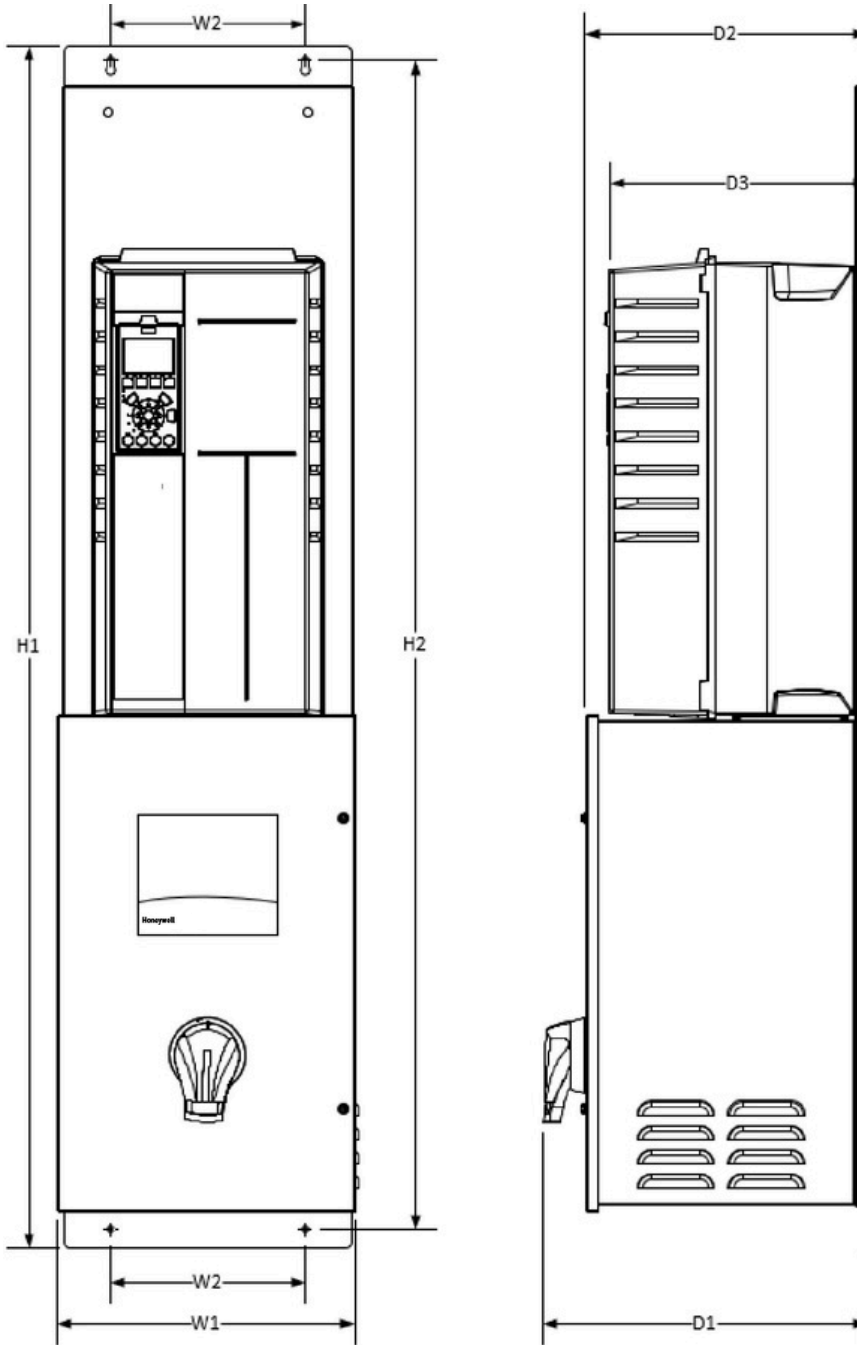
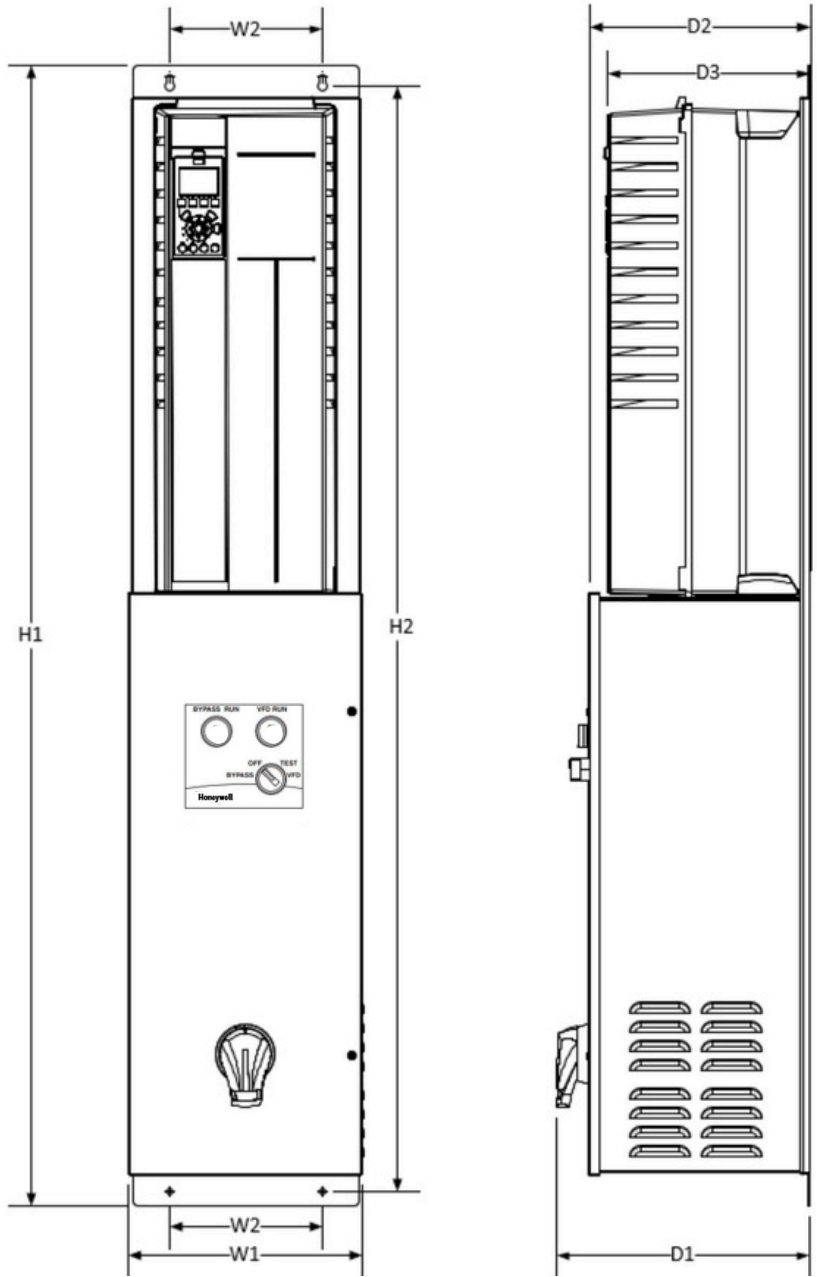


Fig. 4. - Frame B: 3 Contactor Auto-Bypass Wiring Diagrams.



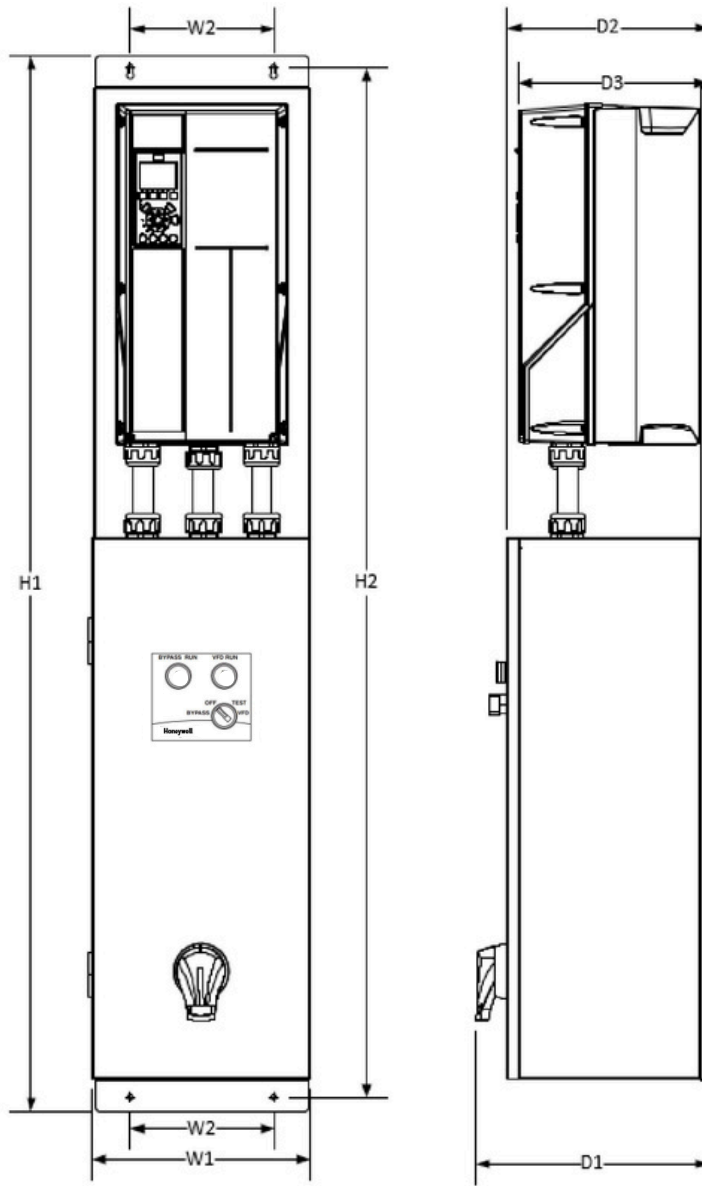
FRAME SIZE	HP AND VOLTAGE		CONFIGURATION	DIMENSIONS (inches)							WEIGHT LBS.
	208/230 VAC	460 VAC		W1	W2	H1	H2	D1	D2	D3	
B1	7.5HP,10HP	15HP,20HP	DISCONNECT	12.30	8.00	49.64	48.27	13.32	11.59	10.78	74
	7.5HP,10HP	15HP,20HP	2 CONTACTOR	12.30	8.00	59.64	58.27	13.32	11.59	10.78	96
	15HP	25HP	DISCONNECT	12.30	8.00	49.64	48.27	13.32	11.59	10.78	75
	15HP	25HP	2 CONTACTOR	12.30	8.00	59.64	58.27	13.32	11.59	10.78	97
B2	20HP	30HP,40HP	DISCONNECT	12.30	8.00	49.64	48.27	13.32	11.59	10.78	99
	20HP	30HP,40HP	2 CONTACTOR	12.30	8.00	59.64	58.27	13.32	11.59	10.78	123

Fig. 5. - Frame B: NEMA 1, Disconnect Only and 2 Contactor Dimensional Drawings.



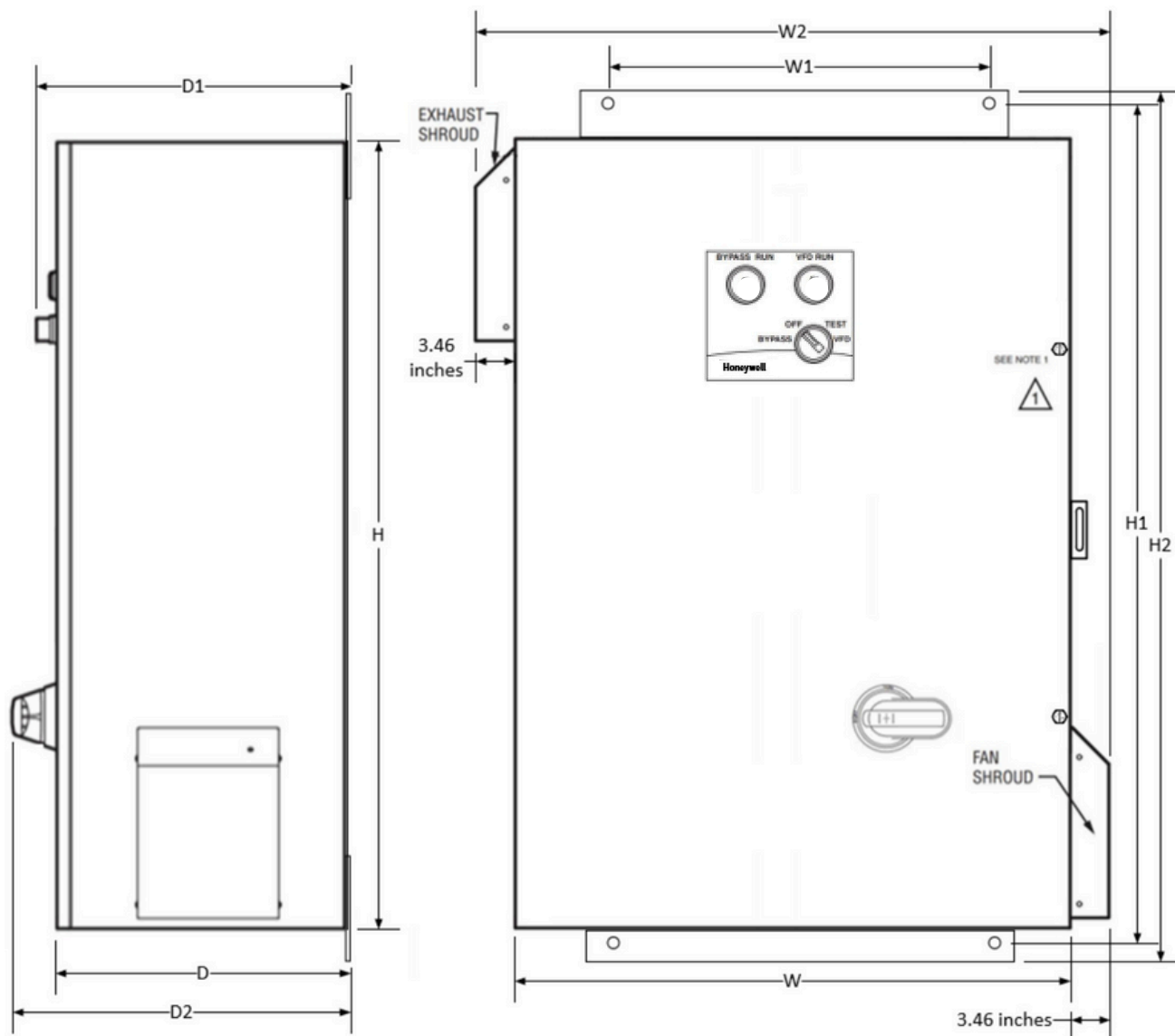
FRAME SIZE	HP AND VOLTAGE		CONFIGURATION	DIMENSIONS (inches)							WEIGHT LBS.
	208/230 VAC	460 VAC		W1	W2	H1	H2	D1	D2	D3	
B1	7.5HP, 10HP	15HP, 20HP	3 CONTACTOR	12.30	8.00	59.64	58.27	13.32	11.59	10.78	98
	7.5HP, 10HP	15HP, 20HP	3 CONTACTOR with AUTO BYPASS	12.30	8.00	59.64	58.27	13.32	11.59	10.78	99
	15HP	25HP	3 CONTACTOR	12.30	8.00	59.64	58.27	13.32	11.59	10.78	99
	15HP	25HP	3 CONTACTOR with AUTO BYPASS	12.30	8.00	59.64	58.27	13.32	11.59	10.78	101
B2	20HP	30HP, 40HP	3 CONTACTOR	12.30	8.00	59.64	58.27	13.32	11.59	10.78	122
	20HP	30HP, 40HP	3 CONTACTOR with AUTO BYPASS	12.30	8.00	59.64	58.27	13.32	11.59	10.78	124

Fig. 6. - Frame B: NEMA 1, 3 Contactor and 3 Contactor with Auto-Bypass Dimensional Drawings



FRAME SIZE	HP AND VOLTAGE		CONFIGURATION	DIMENSIONS (inches)						WEIGHT LBS.	
	208/230 VAC	460 VAC		W1	W2	H1	H2	D1	D2		D3
B1	7.5HP,10HP	15HP,20HP	DISCONNECT	12.30	8.00	58.50	57.13	13.32	11.59	10.78	79
	7.5HP,10HP	15HP,20HP	2 or 3 CONTACTOR	12.30	8.00	58.50	57.13	13.32	11.59	10.78	103
	7.5HP,10HP	15HP,20HP	3 CONTACTOR with AUTO BYPASS	12.30	8.00	58.50	57.13	13.32	11.59	10.78	104
	15HP	25HP	DISCONNECT	12.30	8.00	58.50	57.13	13.32	11.59	10.78	80
	15HP	25HP	2 or 3 CONTACTOR	12.30	8.00	58.50	57.13	13.32	11.59	10.78	106
	15HP	25HP	3 CONTACTOR with AUTO BYPASS	12.30	8.00	58.50	57.13	13.32	11.59	10.78	107
B2	20HP	30HP,40HP	DISCONNECT	12.30	8.00	65.19	63.82	13.32	11.59	10.78	104
	20HP	30HP,40HP	2 or 3 CONTACTOR	12.30	8.00	65.19	63.82	13.32	11.59	10.78	127
	20HP	30HP,40HP	3 CONTACTOR with AUTO BYPASS	12.30	8.00	65.19	63.82	13.32	11.59	10.78	129

Fig. 7. - Frame B: NEMA 12, Disconnect Only, 2 Contactor, 3 Contactor and 3 Contactor with Auto-Bypass



Qty (2) Latching Screw Bolts for Frame B. Optional locking hasp

FRAME SIZE	HP AND VOLTAGE		CONFIGURATION	DIMENSIONS (inches)									WEIGHT LBS.
	208/230 VAC	460 VAC		W	W1	W2	H	H1	H2	D	D1	D2	
B1	7.5HP,10HP	15HP,20HP	DRIVE or DISCONNECT	30.14	16.00	36.92	36.06	38.80	39.80	11.59	12.59	13.44	95
	7.5HP,10HP	15HP,20HP	2 or 3 CONTACTOR	30.14	16.00	36.92	36.06	38.80	39.80	11.59	12.59	13.44	166
	7.5HP,10HP	15HP,20HP	3 CONTACTOR with AUTO BYPASS	30.14	16.00	36.92	36.06	38.80	39.80	11.59	12.59	13.44	168
	15HP	25HP	DRIVE or DISCONNECT	30.14	16.00	36.92	36.06	38.80	39.80	11.59	12.59	13.44	95
	15HP	25HP	2 or 3 CONTACTOR	30.14	16.00	36.92	36.06	38.80	39.80	11.59	12.59	13.44	166
	15HP	25HP	3 CONTACTOR with AUTO BYPASS	30.14	16.00	36.92	36.06	38.80	39.80	11.59	12.59	13.44	168
B2	20HP	30HP,40HP	DRIVE or DISCONNECT	30.14	16.00	36.92	36.06	38.80	39.80	11.59	12.59	13.44	104
	20HP	30HP,40HP	2 or 3 CONTACTOR	30.14	16.00	36.92	36.06	38.80	39.80	11.59	12.59	13.44	175
	20HP	30HP,40HP	3 CONTACTOR with AUTO BYPASS	30.14	16.00	36.92	36.06	38.80	39.80	11.59	12.59	13.44	177

Fig. 8. - Frame B: NEMA 3R, Drive Only, Disconnect Only, 2 Contactor, 3 Contactor and 3 Contactor with Auto-Bypass.

PRODUCT NOMENCLATURE

HVFD3D 3 C 0100 G 1 0 0 B -XXXX

Product Family

HVFD3D	Honeywell3G SmartVFD
HVFD3B	Honeywell3G SmartVFD BYPASS

Input Phase

3	Three Phase
---	-------------

Nominal Voltage Note 1

A	208/230
C	460
D	600

Nominal Horsepower Note 2

0015	1.5HP
0020	2HP
0030	3HP
0050	5HP
0075	7.5HP
0100	10HP
0150	15HP
0200	20HP
0250	25HP
0300	30HP
0400	40HP
0500	50HP
0600	60HP
0750	75HP
1000	100 HP
1250	125 HP
1500	150 HP
2000	200 HP
2500	250 HP
3000	300 HP
4000	400 HP

Option Code (Refer to Specification & Install guide for Details)

XXXX	"X" indicates no option selected, any other letter shown, then option is applicable per Options chart below
------	---

Application Note 3

B	Denotes Model number for Bypass Assembly with VFD
C	Denotes Drive only, new 3G version

Bypass Type

0	No Bypass Option
1	Manual Bypass
2	Manual Bypass with Soft Start Option
3	Auto Bypass Option
4	Auto Bypass and Soft Start Option

Contactor Note 4

0	Drive Only
1	Fused Disconnect Only
2	Two Contactor Bypass with Fused Disconnect
3	Three Contactor Bypass with Fused Disconnect
4	Circuit Breaker Disconnect Only
5	Two Contactor Bypass w / Circuit Breaker Disconnect
6	Three Contactor Bypass w / Circuit Breaker Disconnect

Enclosure Type

1	NEMA 1
2	NEMA 12
3	NEMA 3R
4	NEMA 3R with Heater

Interface

G	Graphical Keypad
---	------------------

Options Chart (XXXX)= No Options Selected

Communication Option Position 1 (X _ _) Note 5

X	BACnetMSTP (Standardbuild)
A	Factory Installed LonCard (HVFD3DOPTLON)
B	Factory Installed BACnet IP card (HVFD3DOPTBACIP)
C	Factory Installed MODbus Card (HVFD3DOPTMODIP)
D	Factory Installed Ethernet Card (HVFD3DOPTETHIP)

Enclosure Material Type Position 2 (_ X _)

X	Painted Cold Rolled Steel (Standard Build)
S	Stainless Steel

Keypad Location Position 3 (_ _ X _)

X	Factory Standard VFD Face (No Option Selected)
A	NEMA 1 or NEMA 12 Cabinet Face
B	NEMA 3R Cabinet Face

CUSTOM BUILD Position 4 (_ _ _ X)

X	Standard Build (No Option Selected)
C	Custom Build, Call Factory for pricing & available options

Notes

- 600 Vac Drives with bypasses are Special Order. Call for assistance and pricing.
- Models 1.5HP - 150HP are included in price list. Call for special quote on 200 HP and above.
- Model numbers for Bypass application end in "B". VFD only part numbers will end in "C". If "Contactors" choice is "0" and "Bypass type" choice is "0" then "Application" must be "C". For a NEMA 3R Drive only application, the Model number will end in "C" since the unit is an assembly consisting of a NEMA 1 VFD factory installed in a NEMA 3R enclosure.
- If "Contactors" choice is 0 (Drive only), 1 (Fused Disconnect), or 4 (Circuit Breaker Disconnect) then "Bypass Type" choice must be "0". If "Contactors" choice is 2 or 5 (2 Contactor bypass) then "Bypass Type" choice must be "1". 2-Contactor bypass assemblies are available as manual bypass only.
- Option Chart denotes options available to modify standard Bypass models. Choice XXXX denotes a standard model with no factory options selected.

ACCESSORIES

TABLE	REFERENCE
Honeywell 3G SmartVFD Lon Card	HVFD3DOPTLON
Honeywell 3G SmartVFD Graphic Keypad	HVFD3DKEYPAD
Honeywell 3G SmartVFD Real Time Clock Card	HVFD3DOPTRTC
Honeywell 3G SmartVFD Ethernet IP Card	HVFD3DOPTETHIP
Honeywell 3G SmartVFD BACnet IP Card	HVFD3DOPTBACIP
Honeywell 3G SmartVFD Modbus TC/IP Card	HVFD3DOPTMODIP
Honeywell 3G SmartVFD Mounting Kit for Keypad on Door	HVFD3DDOORMOUNT
Honeywell 3G SmartVFD 3 meter Cable for Door Kit	HVFD3DREMOTE3M

APPLICABLE TECHNICAL LITERATURE

TABLE	REFERENCE
Honeywell 3G SmartVFD Installation and User Guide	31-00559-01

This Page Left Intentionally Blank

3G SMARTVFD FRAME B WIRING DIAGRAMS AND DIMENSIONAL DRAWINGS

The product is manufactured by J&L Manufacturing. By using this J&L Manufacturing, Inc. literature, you agree that J&L Manufacturing, Inc. will have no liability for any damages arising out of your use or modification to the literature. You will defend and indemnify J&L Manufacturing, Inc., its affiliates and subsidiaries, from and against any liability, cost, or damages, including attorney's fees, arising out of, or resulting from, any modification to the literature by you.

The Honeywell trademark is used under license from Honeywell International Inc. Honeywell International Inc. makes no representations or warranties with respect to this product.

J&L Manufacturing, Inc.
PO Box 678 Fuquay Varina, NC 27526
984-225-2900
www.jandlmanufacturing.com

63-4381-04 Rev. 10-2025
Printed in United States

Honeywell