Honeywell

3G SmartVFD Frame A Wiring Diagrams and Dimensional Drawings

SPECIFICATION DATA

3G SmartVFD Frame Size A

460 Vac: 1.5-10 HP

208/230Vac: 1.5-5HP

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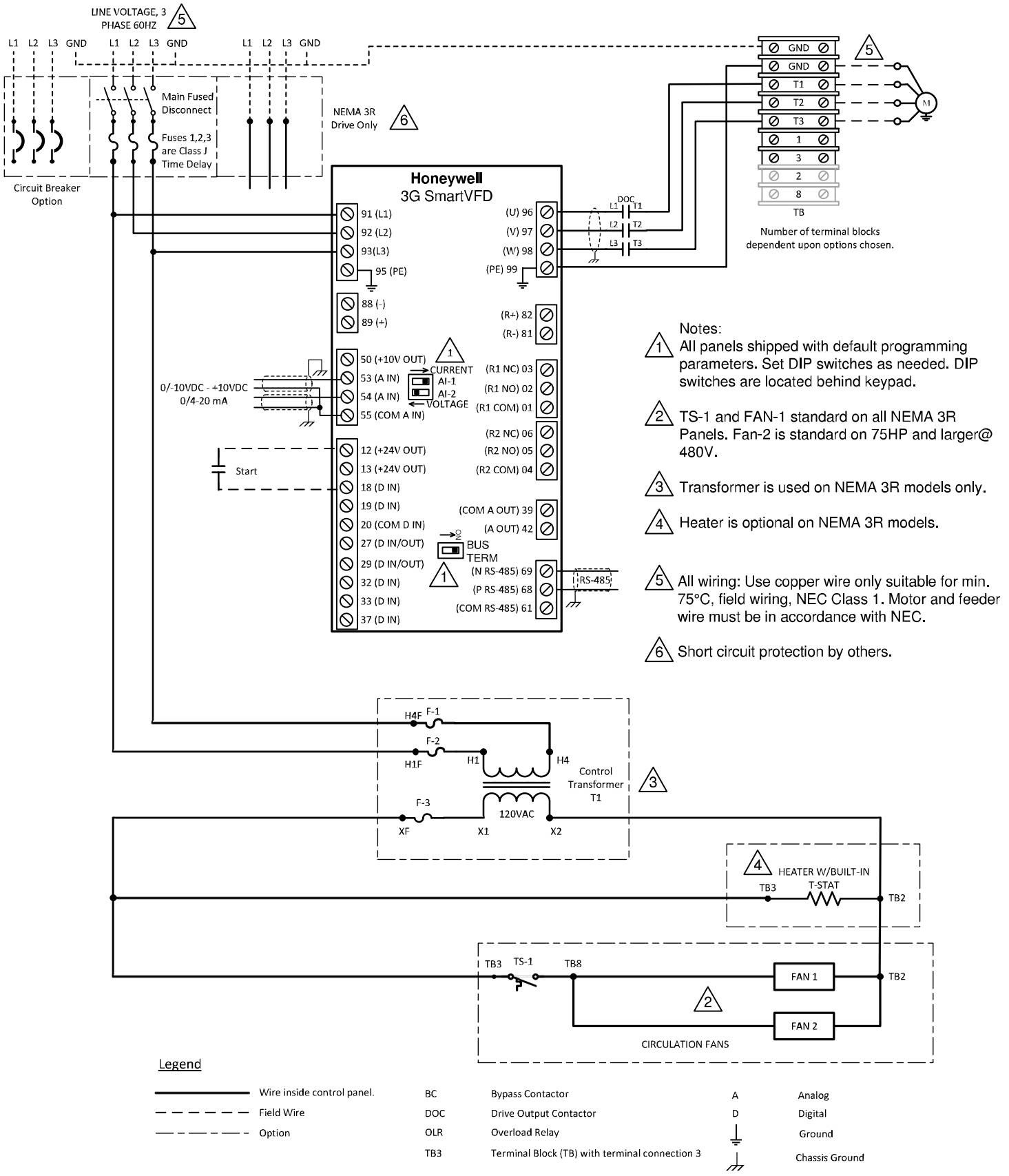
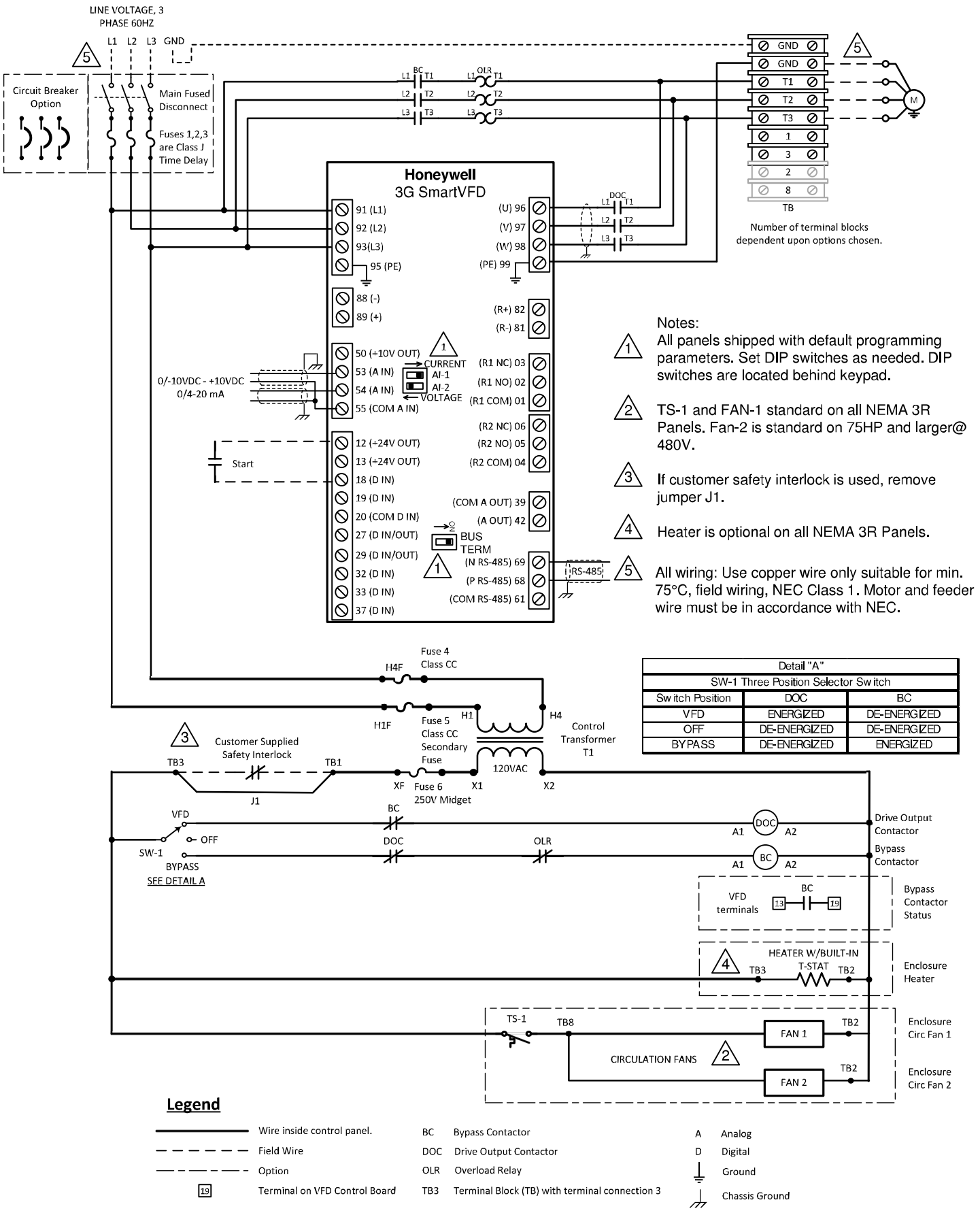
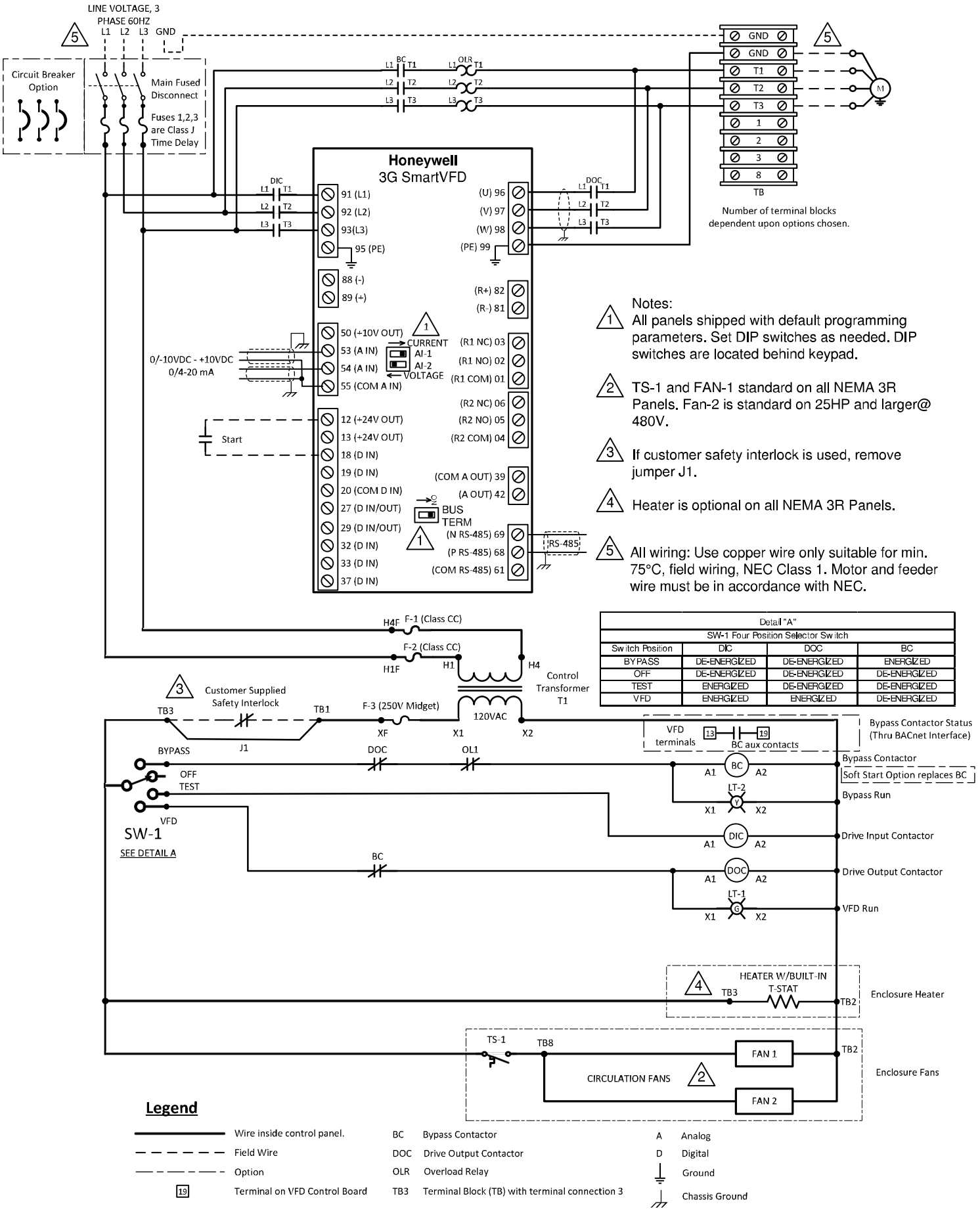


Fig. 1. Frame A, Fused Disconnect, NEMA 3R Drive Only Wiring Diagrams.



Detail "A"		
SW-1 Three Position Selector Switch		
Switch Position	DOC	BC
VFD	ENERGIZED	DE-ENERGIZED
OFF	DE-ENERGIZED	DE-ENERGIZED
BYPASS	DE-ENERGIZED	ENERGIZED

Fig. 2. Frame A, 2 Contactor Wiring Diagrams.

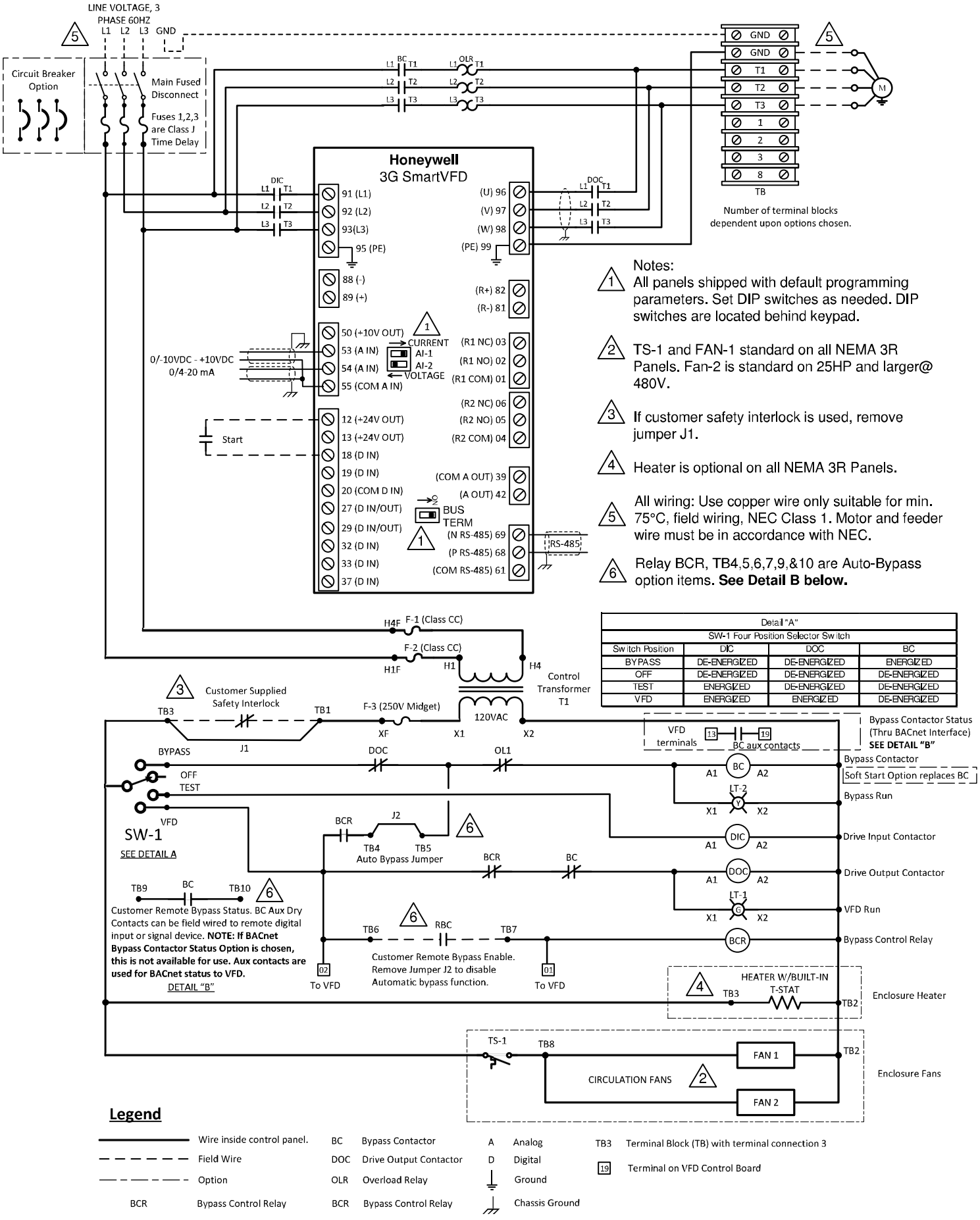


Detail "A" SW-1 Four Position Selector Switch			
Switch Position	DIC	DOC	BC
BYPASS	DE-ENERGIZED	DE-ENERGIZED	ENERGIZED
OFF	DE-ENERGIZED	DE-ENERGIZED	DE-ENERGIZED
TEST	ENERGIZED	DE-ENERGIZED	DE-ENERGIZED
VFD	ENERGIZED	ENERGIZED	DE-ENERGIZED

Legend

———	Wire inside control panel.	BC	Bypass Contactor	A	Analog
– – – – –	Field Wire	DOC	Drive Output Contactor	D	Digital
———	Option	OLR	Overload Relay		Ground
19	Terminal on VFD Control Board	TB3	Terminal Block (TB) with terminal connection 3		Chassis Ground

Fig. 3. Frame A, 3 Contactor Wiring Diagrams.

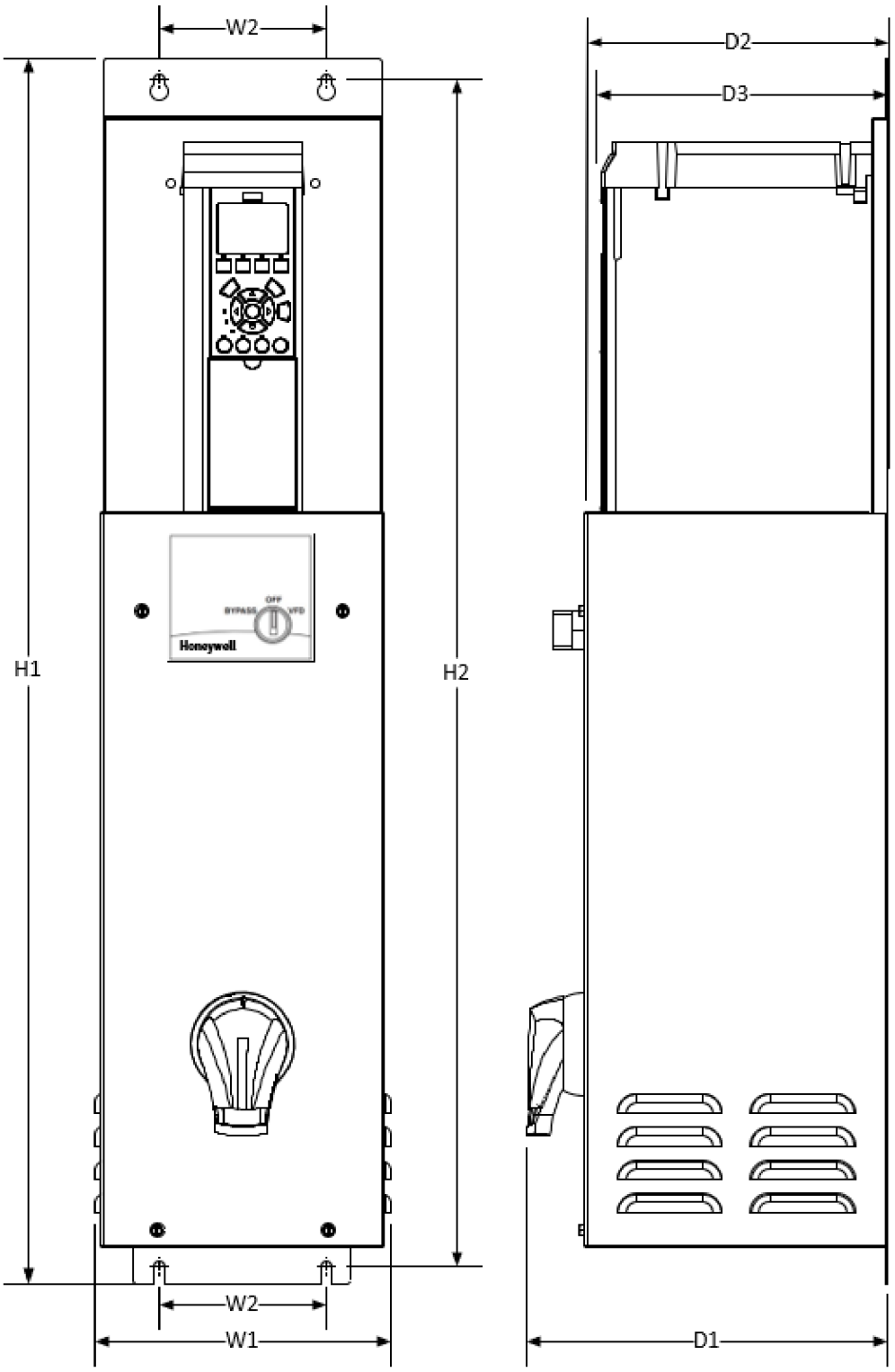


Detail "A" SW-1 Four Position Selector Switch			
Switch Position	DIC	DOC	BC
BYPASS	DE-ENERGIZED	DE-ENERGIZED	ENERGIZED
OFF	DE-ENERGIZED	DE-ENERGIZED	DE-ENERGIZED
TEST	ENERGIZED	DE-ENERGIZED	DE-ENERGIZED
VFD	ENERGIZED	ENERGIZED	DE-ENERGIZED

Legend

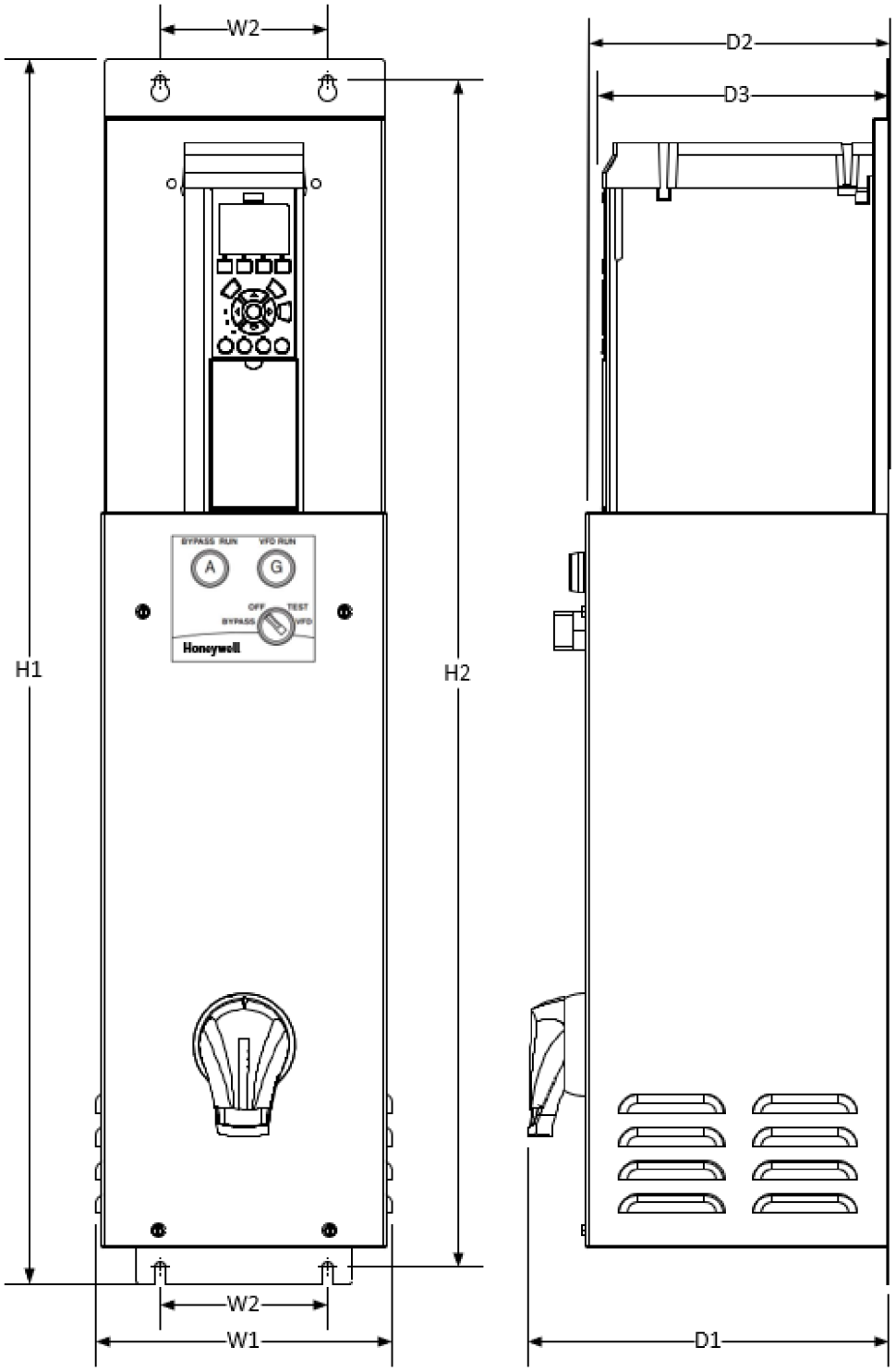
Wire inside control panel.	BC	Bypass Contactor	A	Analog	TB3 Terminal Block (TB) with terminal connection 3
Field Wire	DOC	Drive Output Contactor	D	Digital	19 Terminal on VFD Control Board
Option	OLR	Overload Relay		Ground	
BCR Bypass Control Relay	BCR	Bypass Control Relay		Chassis Ground	

Fig. 4. Frame A, 3 Contractor Auto-bypass Wiring Diagrams.



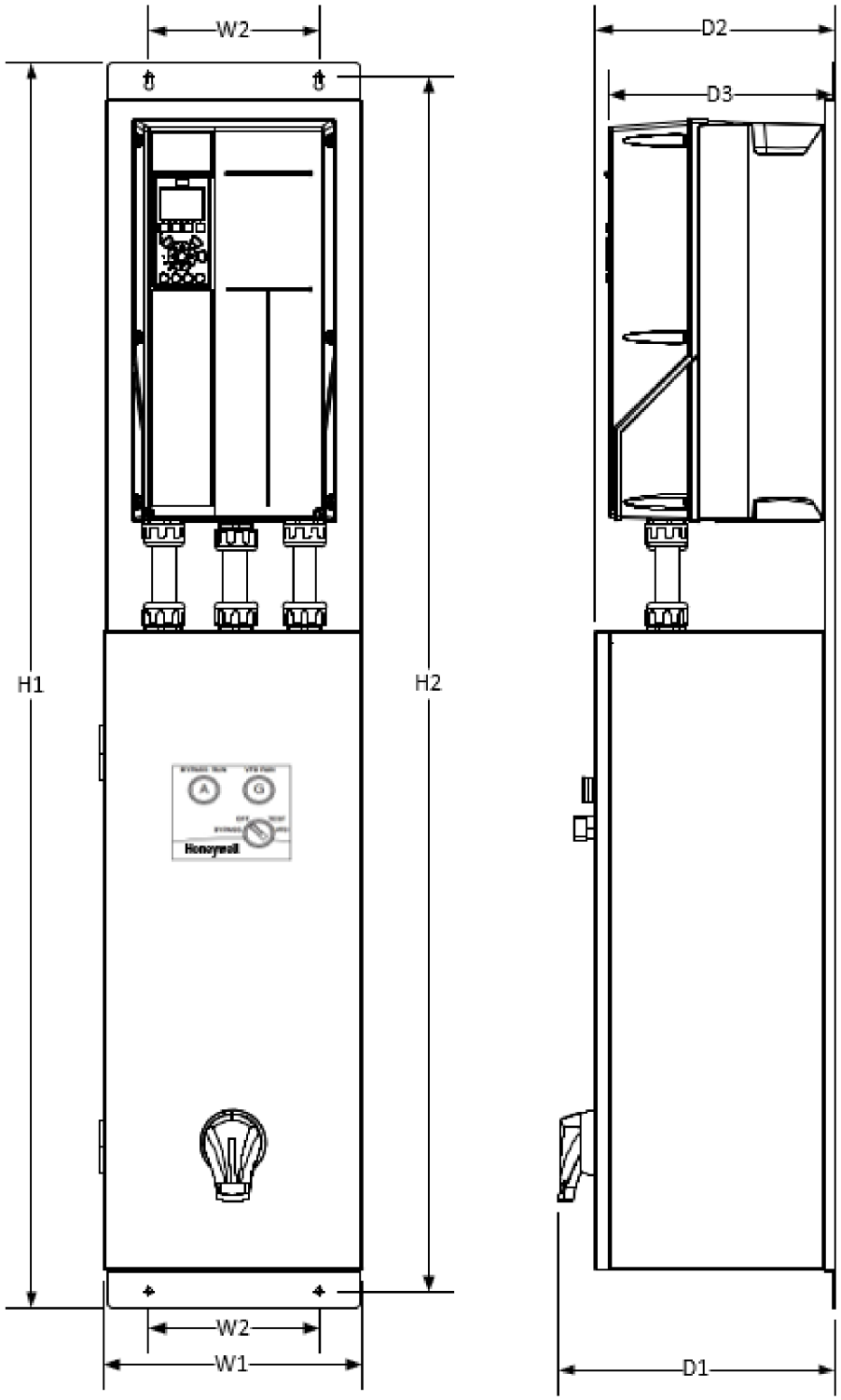
FRAME SIZE	HP AND VOLTAGE		CONFIGURATION	DIMENSIONS (inches)							WEIGHT
	208/230 VAC	460 VAC		W1	W2	HI	H2	DI	D2	D3	LBS.
A2	1.5HP,2HP, 3HP	1.5HP,2HP, 3HP.5HP	DISCONNECT	8.75	5.00	29.59	28.47	10.80	9.00	8.47	34
	1.5HP,2HP, 3HP	1.5HP,2HP, 3HP,5HP	2 CONTACTOR	8.75	5.00	36.59	35.47	10.80	9.00	8.47	39
A3	5HP	7.5HP,10HP	DISCONNECT	8.75	5.00	29.59	28.47	10.80	9.00	8.47	37
	5HP	7.5HP,10HP	2 CONTACTOR	8.75	5.00	36.59	35.47	10.80	9.00	8.47	42

Fig. 5. Frame A: NEMA1, Disconnect Only and 2 Contactor Dimensional Drawings.



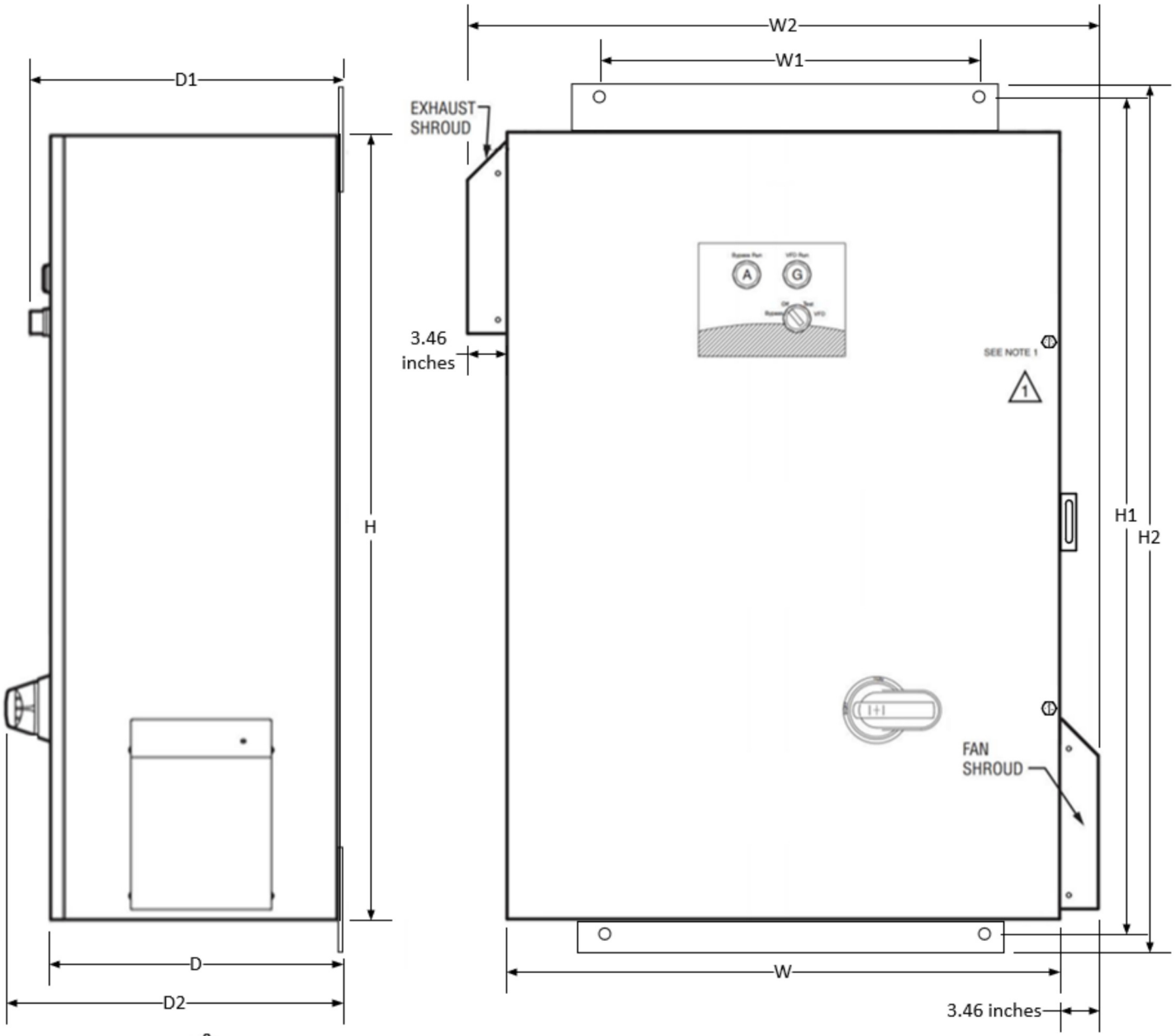
FRAME SIZE	HP AND VOLTAGE		CONFIGURATION	DIMENSIONS (inches)							WEIGHT
	208/230 VAC	460 VAC		W1	W2	HI	H2	DI	D2	D3	LBS.
A2	1.5HP,2HP, 3HP	1.5HP, 2HP, 3HP,5HP	3 CONTACTOR	8.75	5.00	36.59	35.47	10.80	9.00	8.47	45
	1.5HP,2HP, 3HP	1.5HP,2HP, 3HP,5HP	3 CONTACTOR with AUTO BYPASS	8.75	5.00	36.59	35.47	10.80	9.00	8.47	47
A3	5HP	7.5HP,10HP	3 CONTACTOR	8.75	5.00	36.59	35.47	10.80	9.00	8.47	48
	5HP	7.5HP,10HP	3 CONTACTOR with AUTO BYPASS	8.75	5.00	36.59	35.47	10.80	9.00	8.47	50

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



FRAME SIZE	HP AND VOLTAGE		CONFIGURATION	DIMENSIONS (inches)							WEIGHT
	208/230 VAC	460 VAC		W1	W2	H1	H2	D1	D2	D3	LBS.
A5	1.5HP,2HP, 3HP,5HP	1.5HP,2HP, 3HP,5HP, 7.5HP,10HP	DISCONNECT	12.12	8.00	58.50	57.13	12.98	11.13	7.87	60
			2 CONTACTOR	12.12	8.00	58.50	57.13	12.98	11.13	7.87	62
			3 CONTACTOR	12.12	8.00	58.50	57.13	12.98	11.13	7.87	64
			3 CONTACTOR with AUTO BYPASS	12.12	8.00	58.50	57.13	12.98	11.13	7.87	67

Fig. 7. Frame A NEMA12, Disconnect Only, 2 Contactor, 3 Contactor and 3 Contactor with Auto-Bypass.



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

FRAME SIZE	HP AND VOLTAGE		CONFIGURATION	DIMENSIONS (inches)									WEIGHT
	208/230 VAC	460 VAC		W	W1	W2	H	HI	H2	D	DI	D2	LBS.
A2,A3	1.5HP,2HP, 3HP,5HP	1.5HP,2HP, 3HP,5HP, 7.5HP,10HP	DRIVE ONLY	20.00	16.00	26.92	24.00	26.73	27.73	12.31	12.82	14.16	43
			DISCONNECT ONLY										45
			2 CONTACTOR										51
			3 CONTACTOR										54
			3 CONTACTOR with AUTO BYPASS										55

Fig. 8. Frame A: NEMA3R, Disconnect Only, 2 Contactor, 3 Contactor and 3 Contactor with Auto-Bypass.

PRODUCT NOMENCLATURE

HVFD3D 3 C 0100 G 1 0 0 B

Product Family	Note 1
HVFD3D	**Honeywell 3G SmartVFD**
HVFD3B	**Honeywell 3G SmartVFD BYPASS**
HVFDSD	Honeywell SmartVFD HVAC
HVFDSB	Honeywell SmartVFD BYPASS

Input Phase	
3	Three Phase

Nominal Voltage	Note 2
A	208/230
C	460
D	600 Vac

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

Application	Note 4
B	Denotes Model number for Bypass Assembly with VFD
C	Denotes Drive only, new 3G version

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

Contactors	Note 5
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

NOTES

1. HVFDSD/HVFDSB denote 2G drives no longer manufactured. Shown for reference only.

2. 600 Vac Drives with bypasses are Special Order. Call for assistance and Pricing.

3. 1.5HP – 150HP are included in price list. Call for special quote on 200HP and above.

4. Model numbers for Bypass application end in "B". VFD only will end in "C". If "Contactors" choice is "0" and "Options" choice is "0" then "Application" must be "C".

5. If "Contactors" choice is 0 (Drive only), 1 (Fused Disconnect), or 4 (Circuit Breaker Disconnect) then "Options" choice must be "0". If "Contactors" choice is 2 or 5 (2 Contactor bypass) then "Options" choice must be "1". 2-Contactor bypass is available as manual bypass only.

APPLICABLE TECHNICAL LITERATURE

TABLE	REFERENCE
Honeywell 3G SmartVFD Installation and User Guide	31-00559-01
Honeywell 3G SmartVFD Disconnect Panel and NEMA 3R Drive Only Assemblies	62-0439-05
Honeywell 3G SmartVFD Two Contactor Bypass Assemblies	62-0438-05
Honeywell 3G SmartVFD Three Contactor and Three Contactor Auto-Bypass Assemblies	62-2032-05
Honeywell 3G SmartVFD with Bypass or Disconnect Brochure	01-10330-1

ACCESSORIES

TABLE	PART NUMBER
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

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63-4379-03
03-2023 printed in the United States

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