

# SmartVFD Frame 6 Wiring Diagrams and Dimensional Drawings

**SPECIFICATION DATA**

SmartVFD Frame Size 6  
460 Vac: 25-40 HP  
208/230 Vac: 15-20 HP

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SMARTVFD FRAME 6 WIRING DIAGRAMS AND DIMENSIONAL DRAWINGS

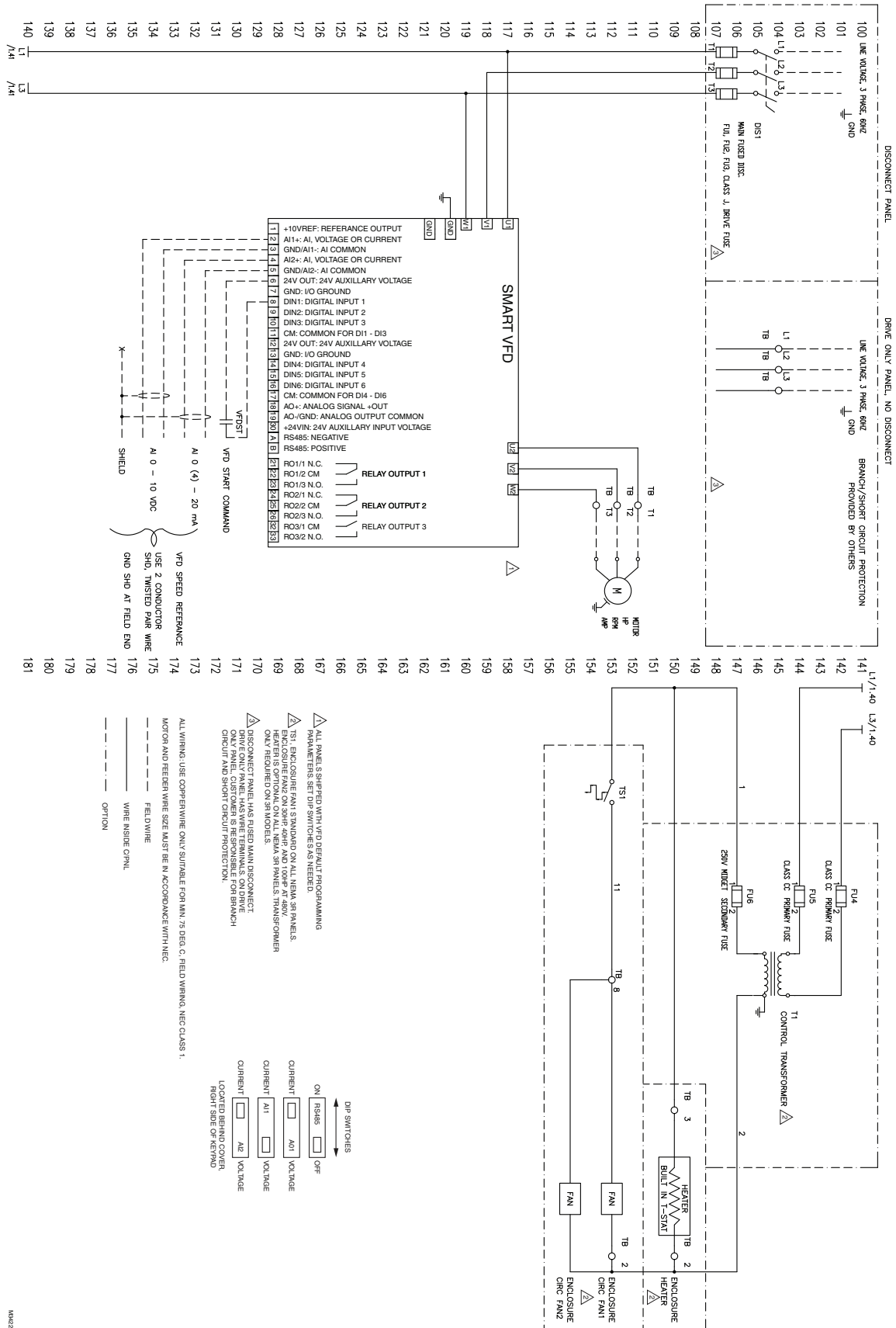


Fig. 1. Frame 6, Fused Disconnect Wiring Diagrams

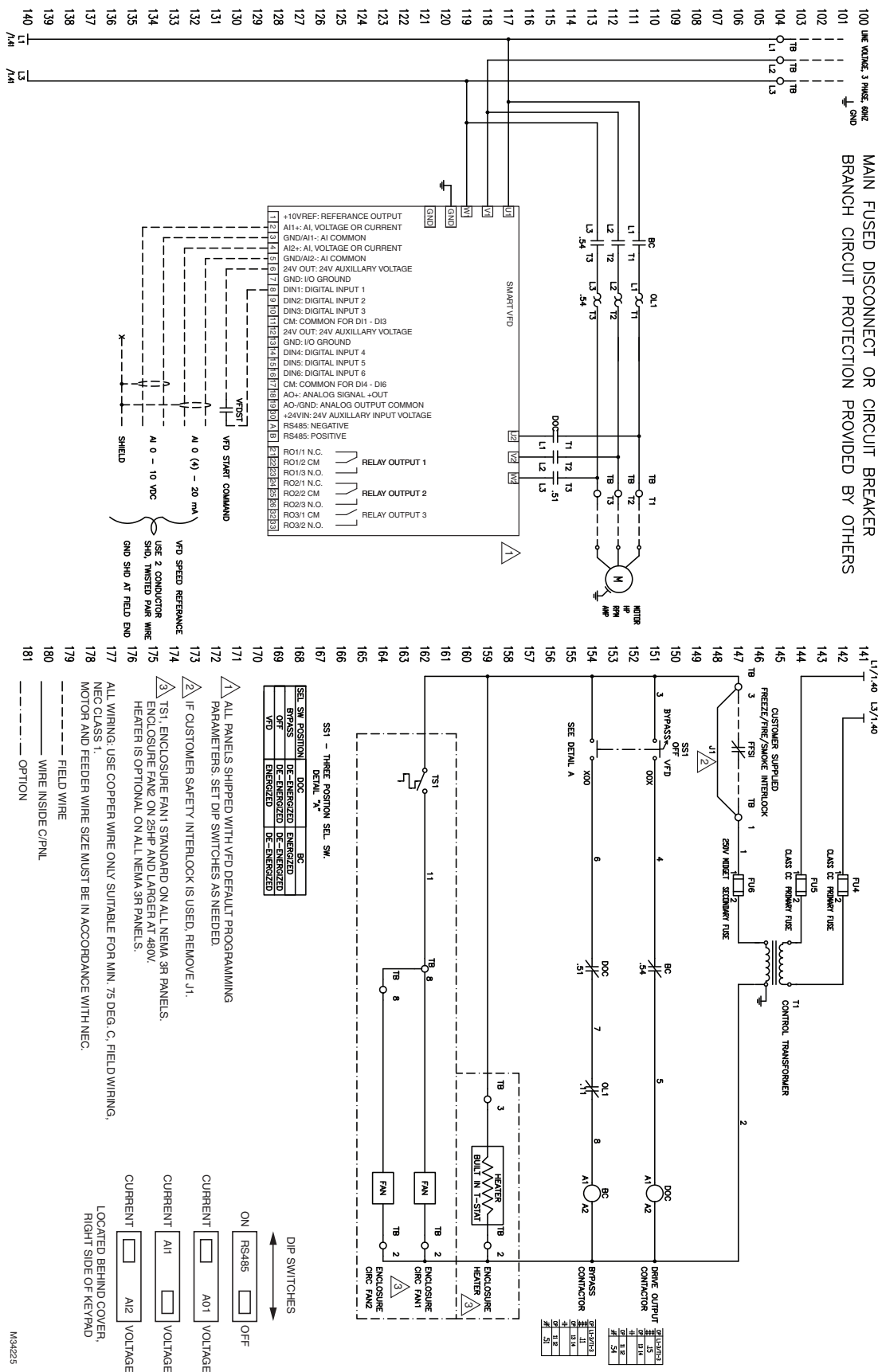


Fig. 2. Frame 6, 2 Contactor Wiring Diagram

SMARTVFD FRAME 6 WIRING DIAGRAMS AND DIMENSIONAL DRAWINGS

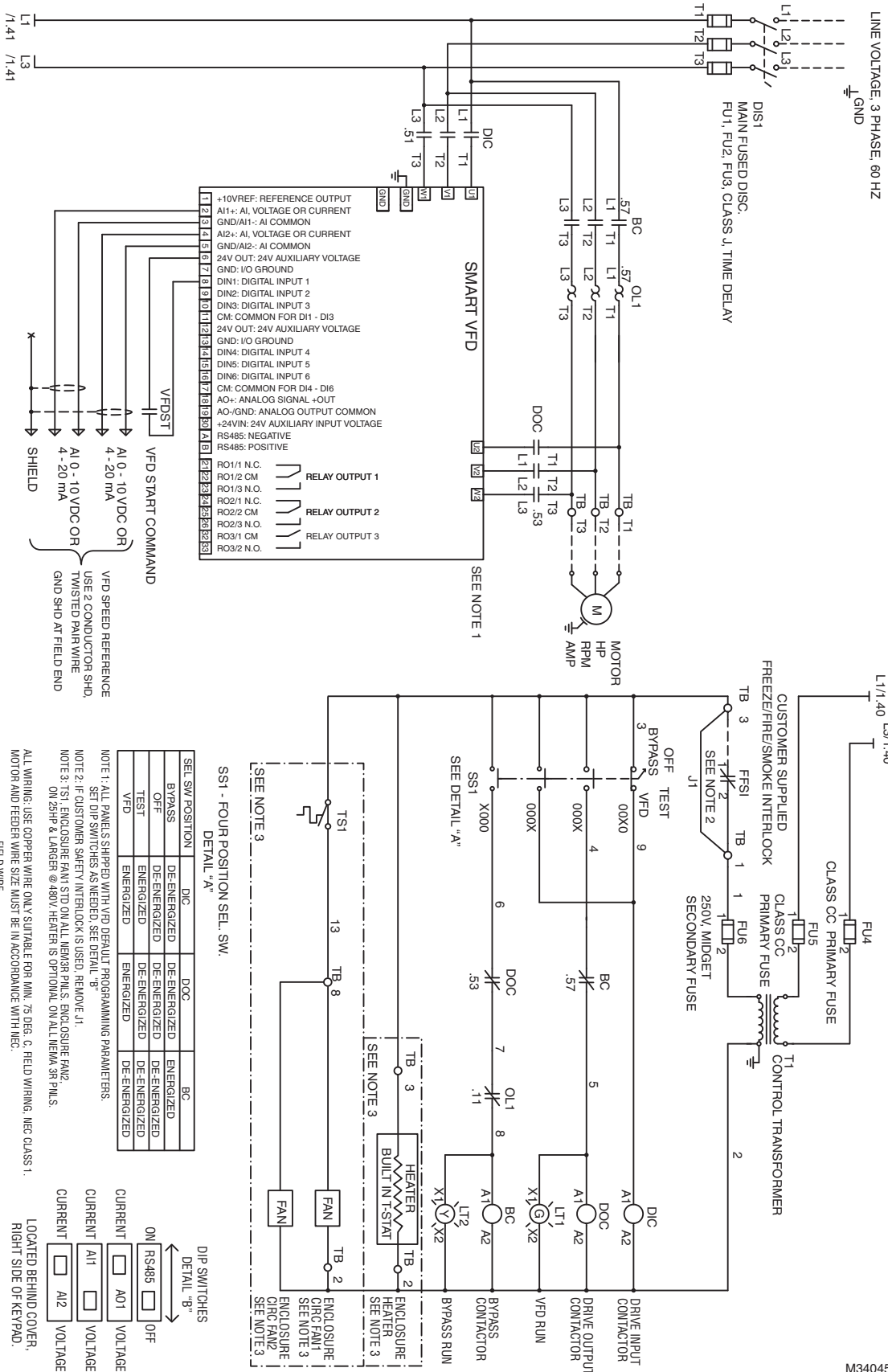


Fig. 3. Frame 6, 3 Contactor Wiring Diagram

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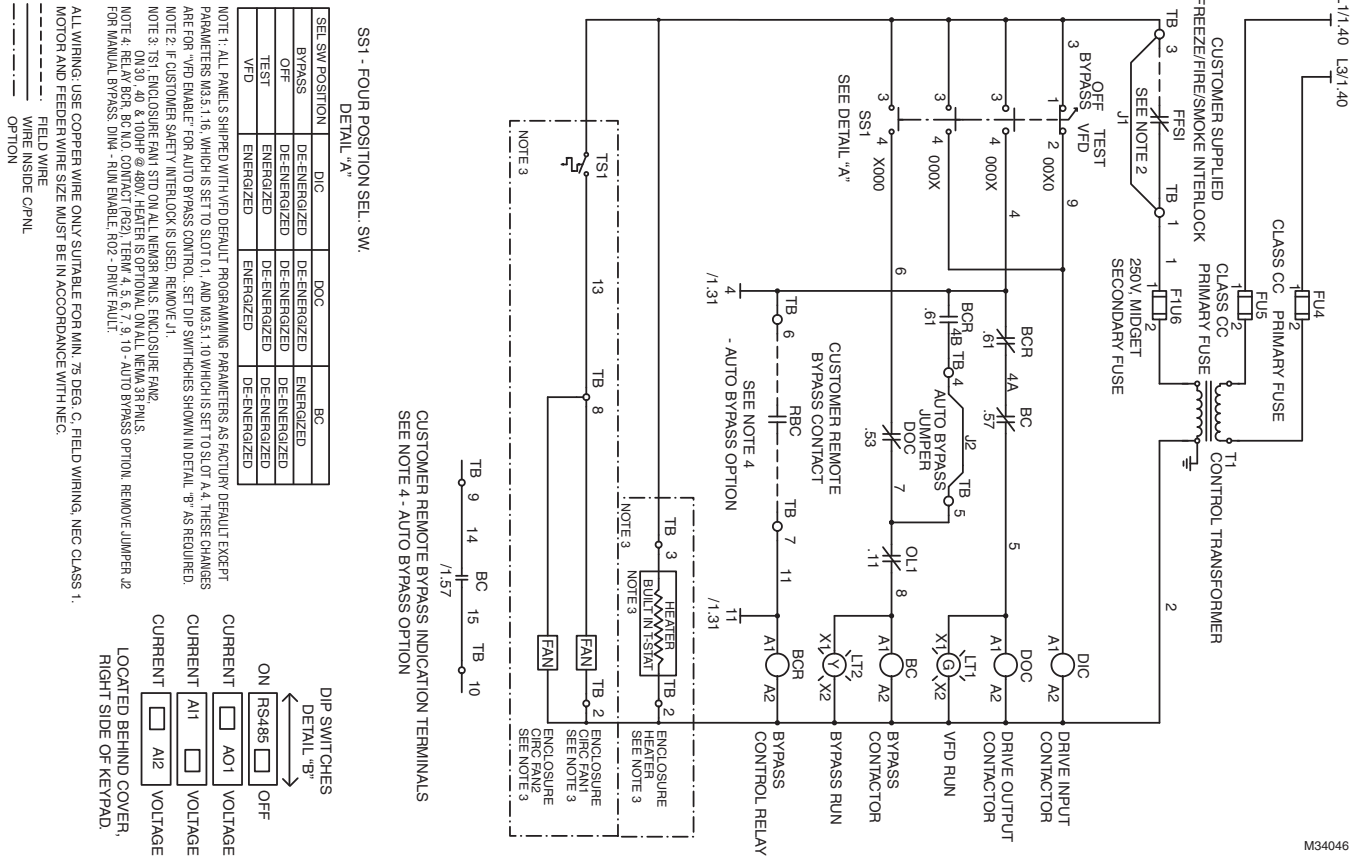
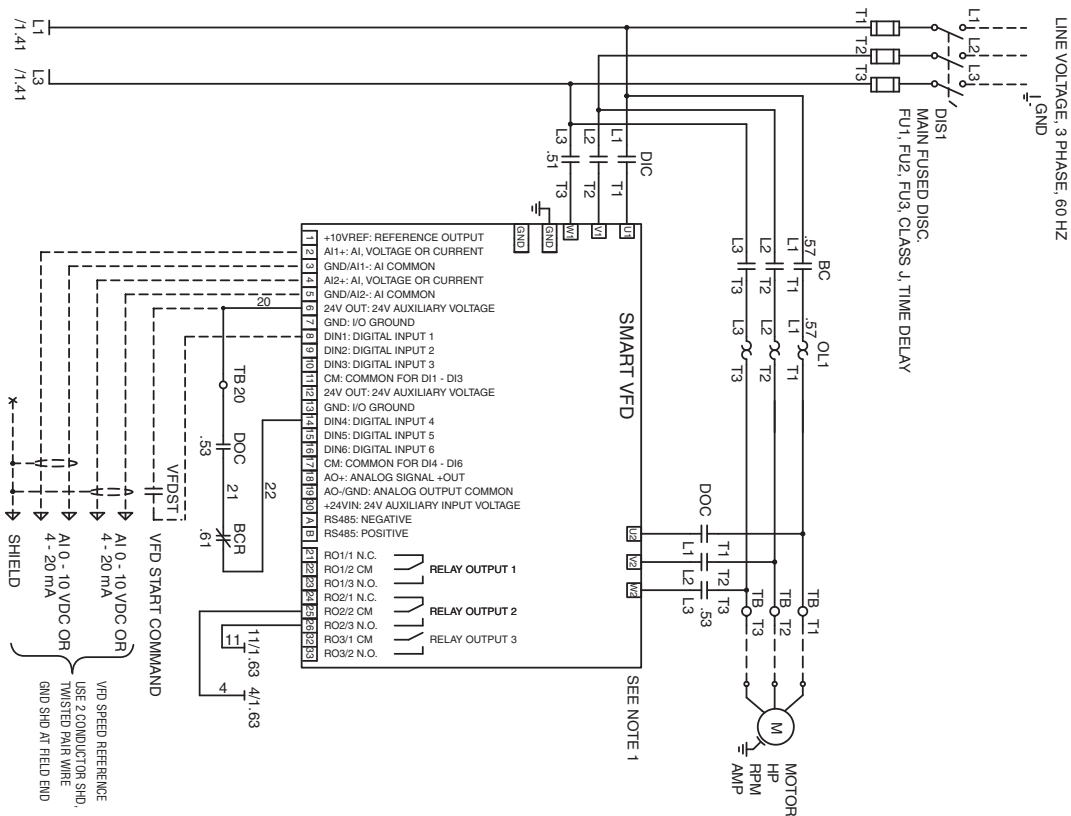


Fig. 4. Frame 6, 3 Contractor with Auto-bypass Wiring Diagrams

SS1 - FOUR POSITION SEL. SW. DETAIL "A"

SEL SW 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

NOTE 1: ALL PANELS SHIPPED WITH VFD DEFAULT PROGRAMMING PARAMETERS AS FACTORY DEFAULT EXCEPT PARAMETERS M3.5, 1.16, WHICH IS SET TO SLOT 0, 1, AND M3.5, 1.10 WHICH IS SET TO SLOT A, 4. THESE CHANGES ARE FOR "VFD ENABLE" FOR AUTO BYPASS CONTROL. SET DIP SWITCHES SHOWN IN DETAIL "B" AS REQUIRED.

NOTE 2: IF CUSTOMER SAFETY INTERLOCK IS USED, REMOVE J1.

NOTE 3: TS1 ENCLOSURE FAN1 STD ON ALL NEMA PLUS ENCLOSURE FAN2, ON 3/0, 4/0 & 100HP @ 480V, HEATER IS OPTIONAL, ON ALL NEMA 3R PLUS.

NOTE 4: RELAY BCR, BC, NO. CONTACT (P22), TERM 4, 5, 6, 7, 9, 10 - AUTO BYPASS OPTION. REMOVE JUMPER J2 FOR MANUAL BYPASS DIM - RUN ENABLE, RO2 - DRIVE FAULT!

ALL WIRING - USE COPPER WIRE ONLY SUITABLE FOR MIN. 75 DEG. C. FIELD WIRING, NEC CLASS 1.

----- FIELD WIRE

----- MOTOR AND FEEDER WIRE SIZE MUST BE IN ACCORDANCE WITH NEC.

----- WIRE INSIDE CPNL

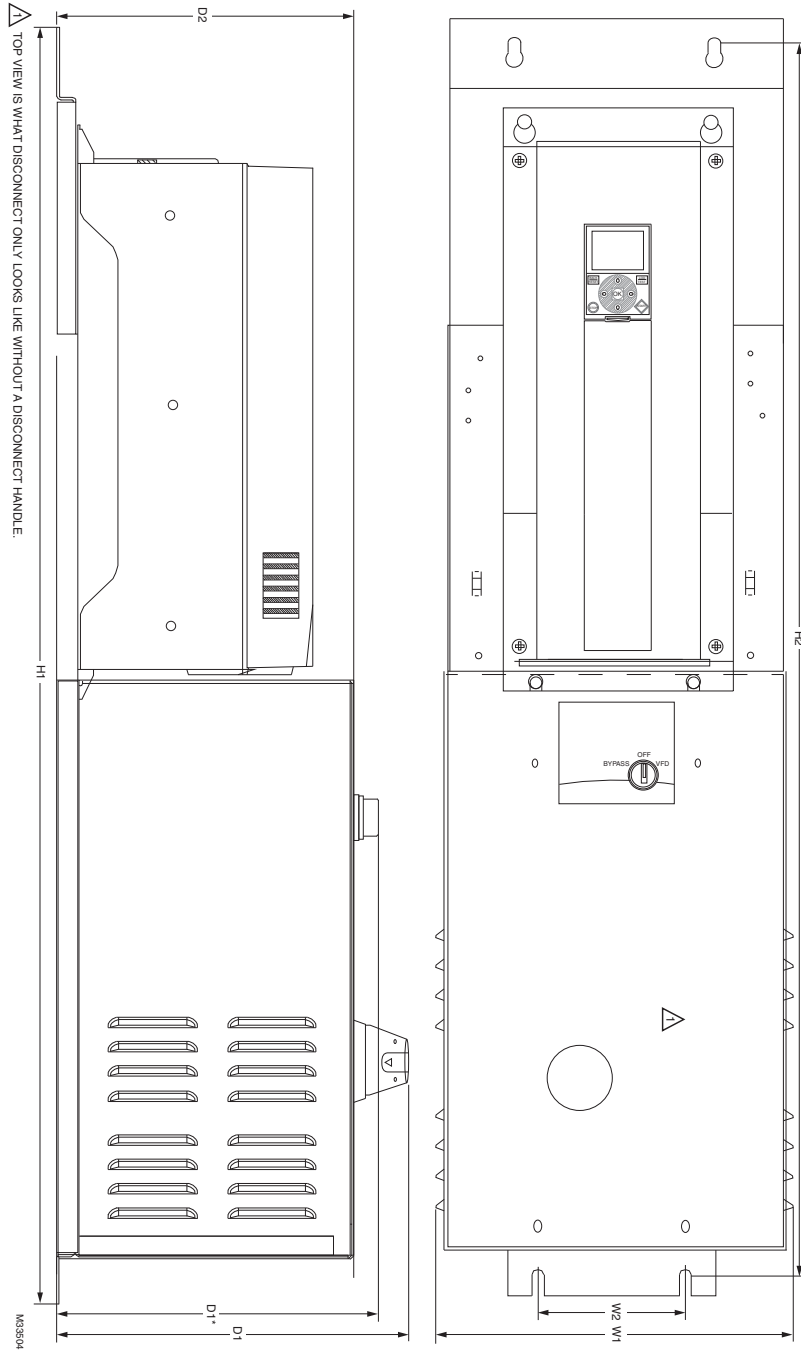
----- OPTION

DIP SWITCHES  
 ON RS485  
 OFF  
 VOLTAGE  
 VOLTAGE  
 VOLTAGE  
 CURRENT  
 CURRENT  
 CURRENT  
 CURRENT

LOCATED BEHIND COVER,  
 RIGHT SIDE OF KEYPAD.

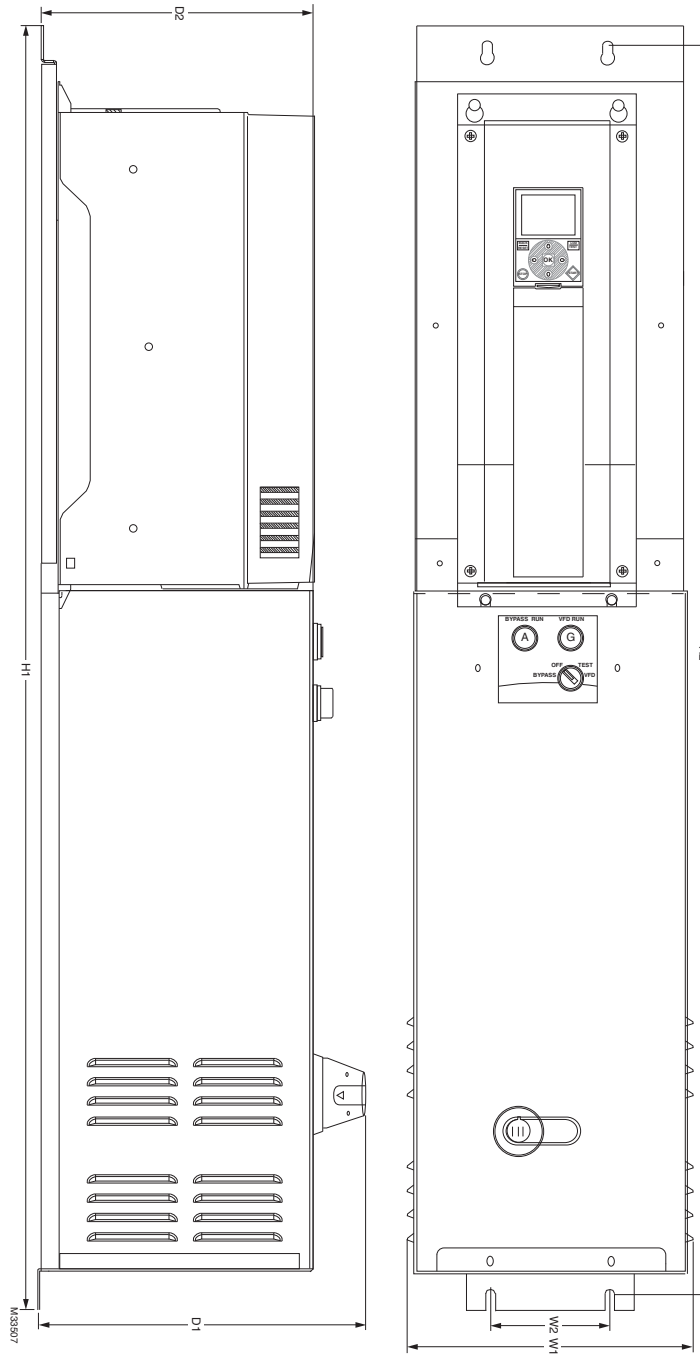
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SMARTVFD FRAME 6 WIRING DIAGRAMS AND DIMENSIONAL DRAWINGS



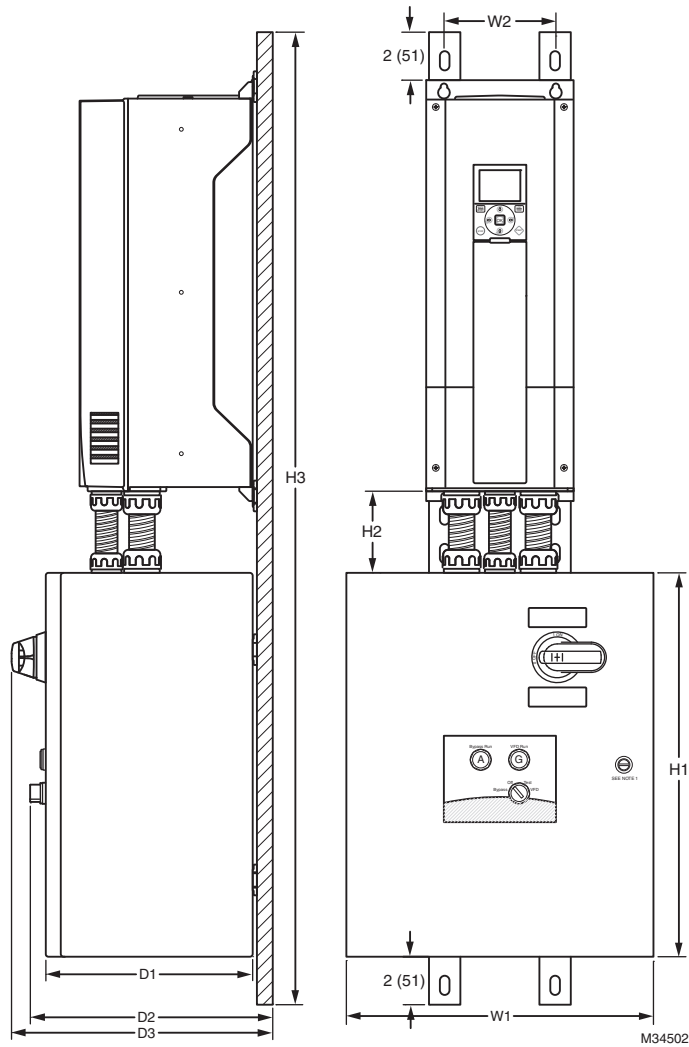
Frame Size	HP and Voltage		Configuration	Dimensions						Weight Lb.
	208/230 Vac	460 Vac		W1	W2	H1	H2	D1	D2	
6		25HP	Disconnect	12.42	4.98	45.17	43.9	11.31	9.57	
* depth of 2 CONT only			2-Contractor	12.42	4.98	45.17	43.9	*10.1	9.57	55
6	15HP	30HP	Disconnect	12.42	4.98	45.17	43.9	11.31	9.57	
			2-Contractor	12.42	4.98	45.17	43.9	*10.1	9.57	59
6	20HP	40HP	Disconnect	12.42	4.98	45.17	43.9	11.31	9.57	
			2-Contractor	12.42	4.98	45.17	43.9	*10.1	9.57	

Fig. 5. Frame 6 NEMA 1: Disconnect only and 2 Contactor Dimensional Drawings.



Frame Size	HP and Voltage		Configuration	Dimensions						Weight Lb.
	208/230 Vac	460 Vac		W1	W2	H1	H2	D1	D2	
6		25HP	3-Contractor	12.42	4.98	55.21	53.99	11.31	9.55	94.5
			3-Contractor with Auto-Bypass	12.42	4.98	55.21	53.99	11.31	9.55	
6	15HP	30HP	3-Contractor	12.42	4.98	55.21	53.99	11.31	9.55	98.5
			3-Contractor with Auto-Bypass	12.42	4.98	55.21	53.99	11.31	9.55	
6	20HP	40HP	3-Contractor	12.42	4.98	55.21	53.99	11.31	9.55	105.5
			3-Contractor with Auto-Bypass	12.42	4.98	55.21	53.99	11.31	9.55	

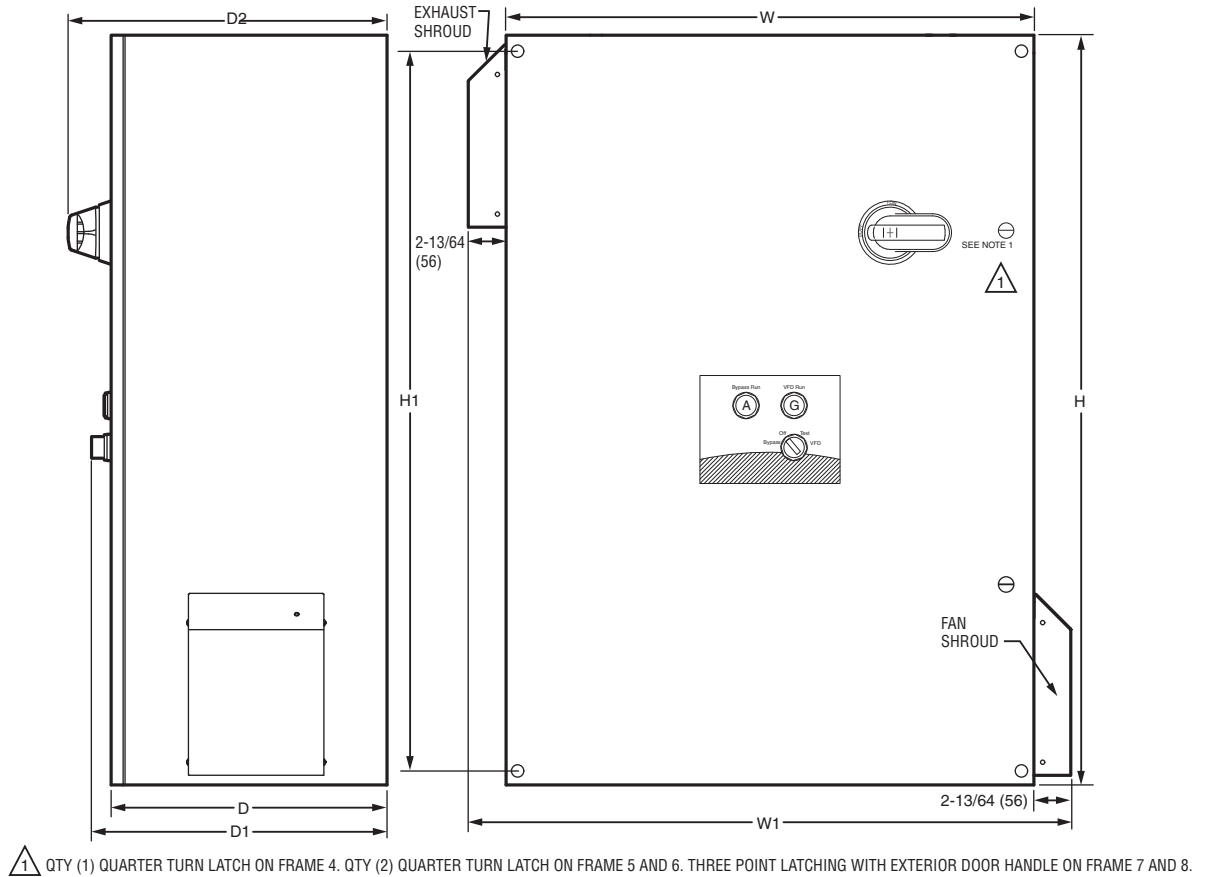
Fig. 6. Frame 6 NEMA 1: 3 Contactor and 3 Contactor with Auto-bypass Dimensional Drawings.



Frame Size	HP and Voltage		Configuration	Dimensions								Weight Lb.
	208/230 Vac	460 Vac		H1	H2	H3	W1	W2	D1	D2*	D3	
6	15HP	25HP	Disconnect Only	16	5	46.5	12	6	10	11.5	13	120
	20HP	30HP					16					120
		40HP					16					136
6		25HP	2-Contactor,	20	5	50.5	16	6	10	11.5	13	120
		30HP	3-Contactor,	20	5	50.5	16	6	10	11.5	13	120
		40HP	3-Contactor with Auto-Bypass	24	5	54.5	20	6	10	11.5	13	136
		15HP	2-Contactor,	20	5	50.5	16	6	10	11.5	13	125
		20HP	3-Contactor, 3-Contactor with Auto-Bypass	24	5	54.5	20	6	10	11.5	13	140

Fig. 7. Frame 6 NEMA 12, Disconnect Only, 2 Contactor, 3 Contactor and 3 Contactor with Auto-Bypass.





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Frame Size	HP and Voltage		Configuration	Dimensions						Weight Lb.
	208/230 Vac	460 Vac		H	H1	W	W1	D	D2	
6	15HP, 20HP	25HP, 30HP, 40HP,	Disconnect Only	36	34.5	24	28.5	10	12	88
			2-Contactor	36	34.5	24	28.5	10	10.5	118
			3-Contactor	36	34.5	30	34.5	10	12	124
			3-Contactor with Auto-Bypass	36	34.5	30	34.5	10	12	124

Fig. 8. Frame 6: NEMA3R: Disconnect Only, 2 Contactor, 3 Contactor and 3 Contactor with Auto-Bypass





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