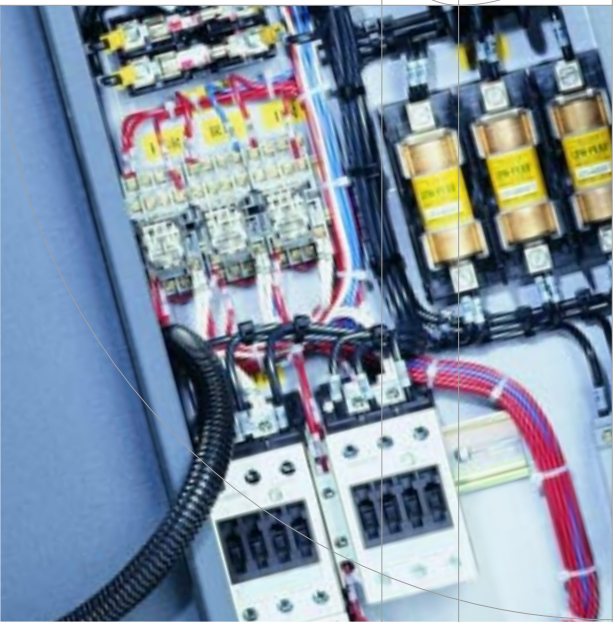




SIEMENS

HVAC Products



Bypass Packages for SED2 HVAC Drives

SED 
HVAC Variable Frequency Drives

Bypass Packages for SED2 Variable Frequency Drives

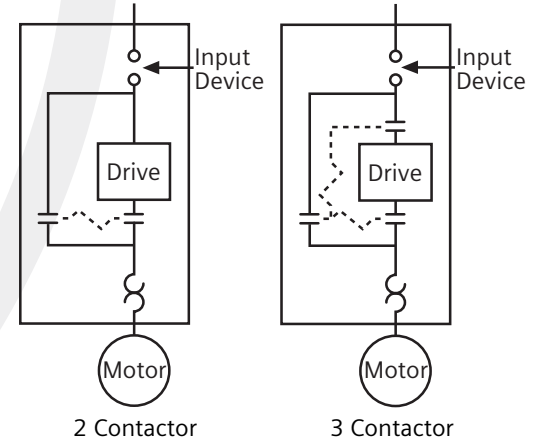
Bypass Power Features

By-pass

- 2 Contactor – Output & Bypass
 - Overload protection in bypass mode
 - Step down transformer with fused primary and secondary
 - Contactors electrically and mechanically interlocked
- 3 Contactor (optional)– Input, Output & Bypass
 - provides drive test
 - provides complete electrical isolation of drive

Input Device

- Disconnect
- Fused Disconnect (optional)
- Circuit Breaker (optional)
- All doors are interlocked and padlockable



Reactor Options

- 3% Line mounted in bypass enclosure
- 3% Line (in NEMA 1 enclosure) supplied separately
- Load reactor mounted in bypass enclosure
- Load reactor (in NEMA 1 enclosure) supplied separately

Standard Bypass Control Features

Our new Bypass package is designed as a companion to our new SED2 family of HVAC variable frequency drives

Auto Bypass

- Relay logic allows the user to send the motor to bypass mode based on the drive's programmable relay.
- The drive's programmable relay is typically set to fault. Can be set-up for applications that run full speed for an extended period of time.

Enable Input

- Generally used for safety tie-ins. The drive or bypass will not operate the motor when open.

Common Remote Start/Stop

- Common remote start/stop can be used in both drive and bypass mode.

Essential Services Mode (Smoke Purge)

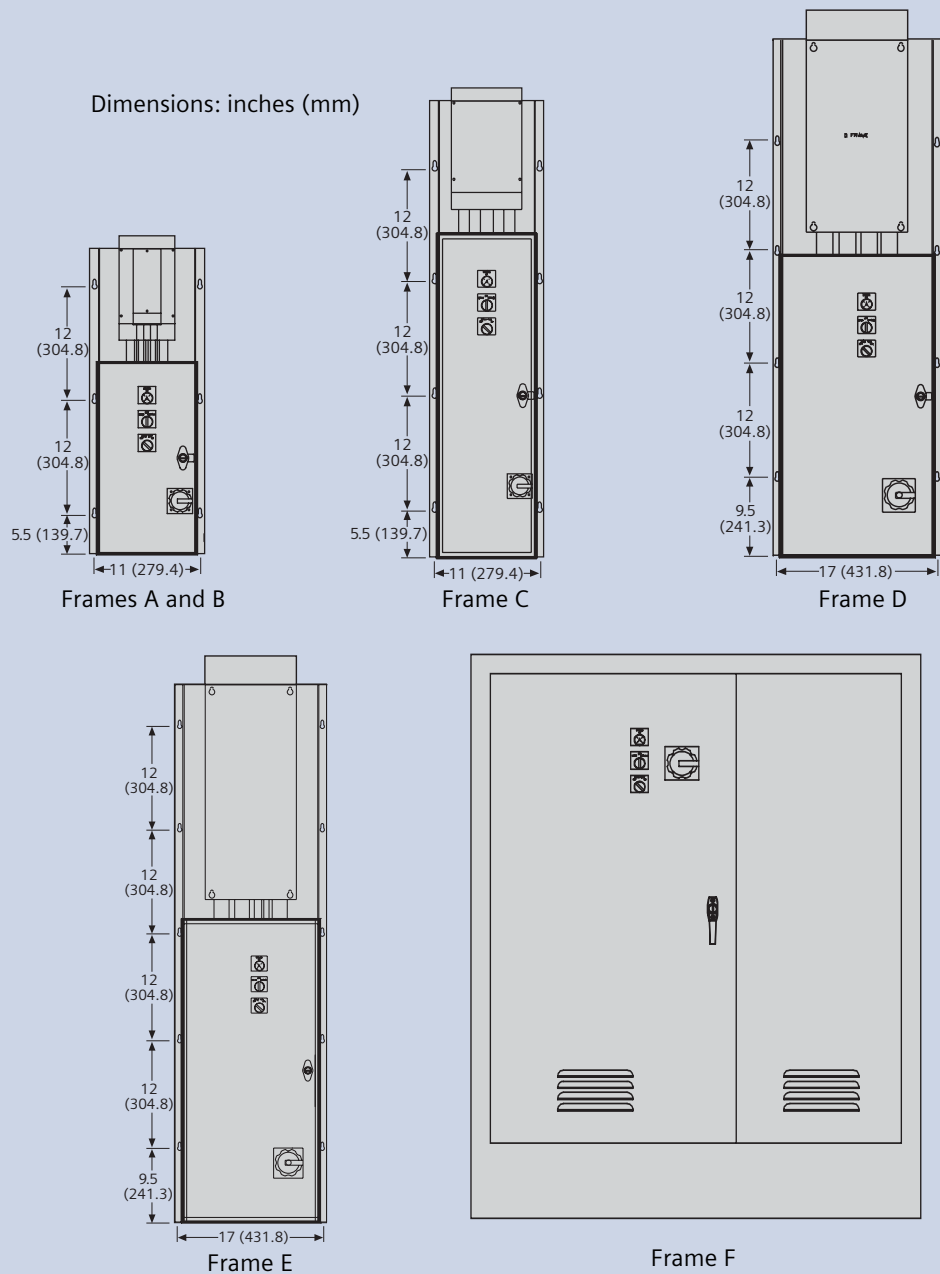
- Typically used for smoke purge. The motor goes to bypass regardless of selected mode.
- No call to stop will have an effect including open safety or stop command.
- Only turning the power off or opening this contact will stop the motor.



Frame Sizes Dimensions: inches (mm)

Frame Size	Height	Width	Depth
A and B	36.0 (914)	12.0 (305)	8.3 (211)
C	49.0 (1245)	12.0 (305)	9.7 (244)
D	57.5 (1461)	18.0 (457)	11.3 (287)
E	66.5 (1689)	18.0 (457)	11.3 (287)
F	60.0 (1524)	48.0 (1219)	17.0 (432)

Mounting Hole Dimensions



Bypass – Door Mounted Control Devices

2 Contactor Units

- “Drive-Off-Bypass” selector
- “Bypass” pilot light

3 Contactor Units

- “Drive-Off-Bypass” selector
- “Bypass” pilot light
- “Drive Test on/off” selector

VFD and Bypass Part Number Configuration Guide

	V	B	A	3	4	0	.	F	1	2	0	X
Model(s)	VBA340.F120											
VB	VFD with bypass											
Series	A											
	Conventional Control											
Voltage	1											
	208 V											
	2											
	230 to 240 V											
	3											
	380 to 480 V											
	4											
	500 to 600 V											
HP rating	0.5, 0.7, 1.0, 1.5, 2.0, 3.0, 4.0, 5.0, 7.5, 10., 15., 20., 25., 30., 40., 50., 60., 75., 100, 125											
Disconnect	D											
	Disconnect											
	F											
	Fused Disconnect											
	B											
	Circuit Breaker (Available soon)											
NEMA rating	1											
	NEMA Type 1											
	5											
	NEMA Type 12 (Available soon)											
Contactors	2											
	2 Contactors											
	3											
	3 Contactors											
Reactor	0											
	None											
	3											
	3% Line Reactor (mounted/wired internally)*											
	L											
	Load Reactor (mounted/wired internally)*											
Other	X											

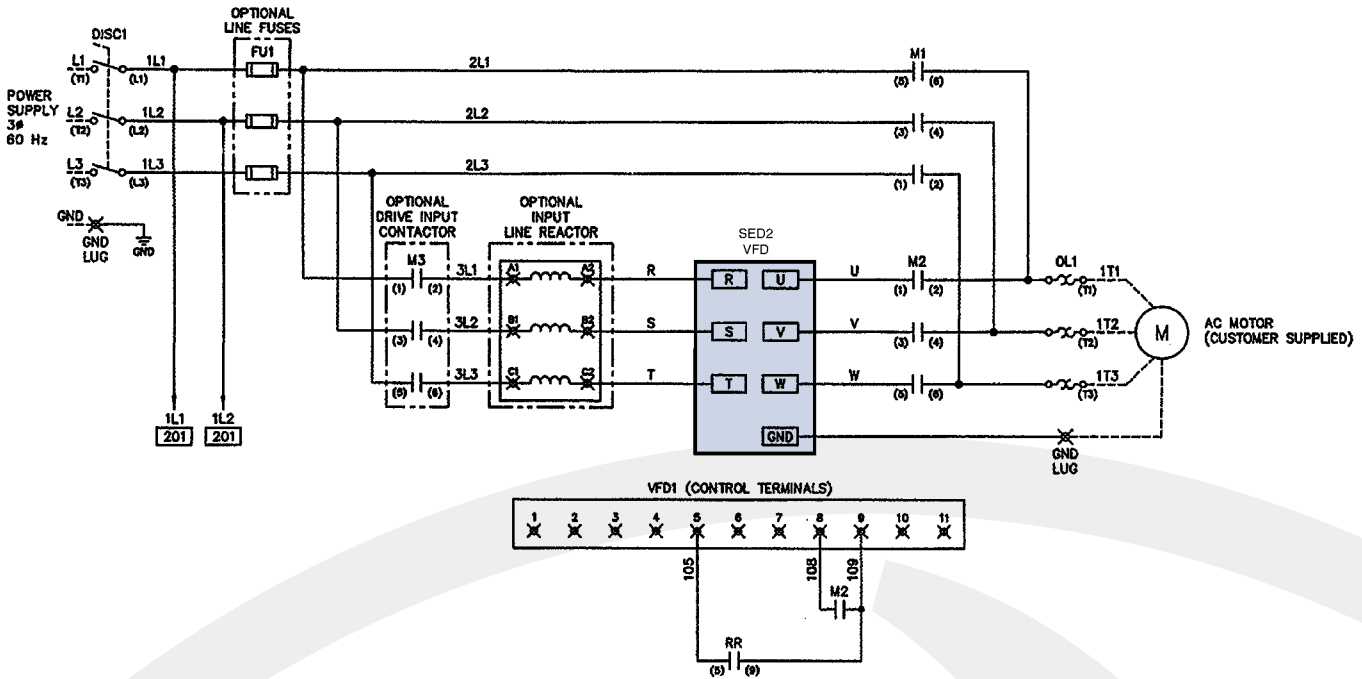
Example shown above:
 VBA340.F120 = VFD with
 bypass, 480V,
 40Hp, fused disconnect,
 NEMA 1, 2 contactors

*Only one can be installed inside bypass enclosure. If both are required, a separate enclosed reactor is required.

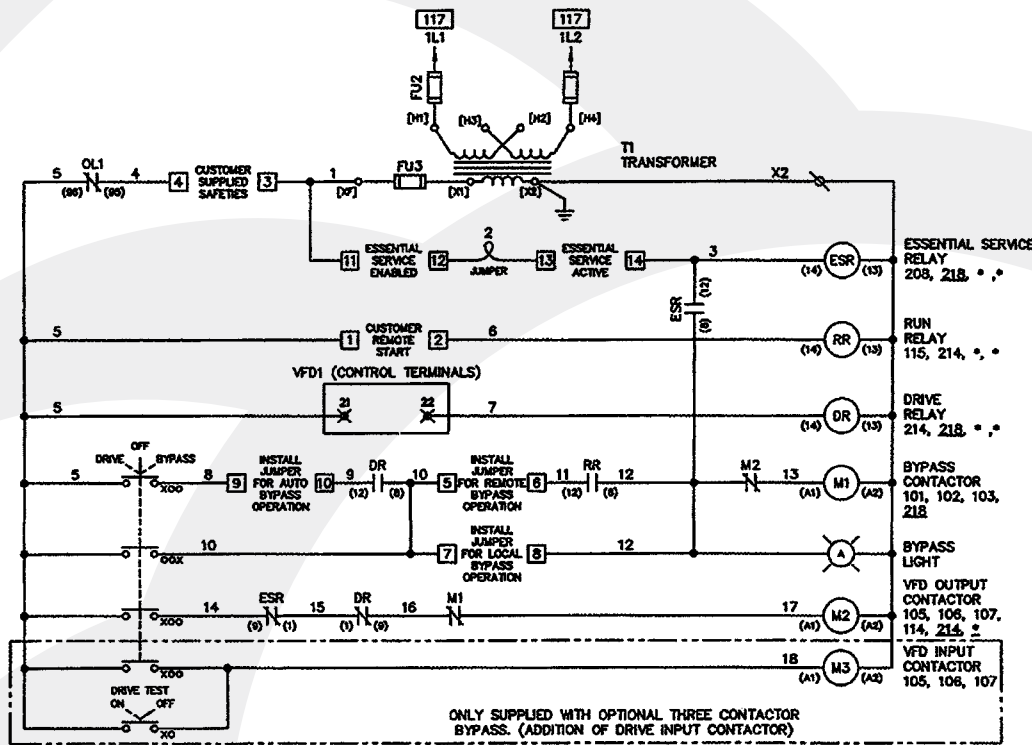
VFD with Bypass Ratings Tables (Maximum Full Load Amps)

HP →	.5	.75	1	1.5	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	125
208V	2.2	3.1	4.0	5.7	7.5	10.6	16.7	24.2	30.8	48.2	59.4	74.8	88	114	143	169	211	273	343
230V	2	2.8	3.6	5.2	6.8	9.6	15.2	22	28	42	54	68	80	104	130	154	192	248	312
460V	1	1.4	1.8	2.6	3.4	4.8	7.6	11	14	21	27	34	40	52	65	77	96	124	156
575V	.8	1.1	1.4	2.1	2.7	3.9	6.1	9	11	17	22	27	32	41	52	62	77	99	125

Power Connection Diagram



Control Logic Diagram (Typical 120V circuit)



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