



SIEMENS



BT300™ Variable Frequency Drive with Conventional or Electronic Bypass

Ultra-reliable bypass options
create ultimate peace-of-mind.

The perfect power solution at a great value.

Answers for infrastructure and cities.

Unstoppable power.

The BT300 VFD with Conventional or Electronic Bypass: One compact design, two bypass options, and non-stop coverage for demanding HVAC environments.



The BT300 VFD with Bypass ensures the HVAC equipment at mission critical facilities runs continuously and efficiently.

- Laboratories
- Data Centers
- Airports
- Hospitals

An increased focus on energy efficiency of variable flow systems has increased the need for easy-to-use and highly reliable Variable Frequency Drives. Facilities need devices that help reduce installation time and maintenance costs, while maximizing energy savings and optimizing occupant comfort. Additionally, half of today's drive specifications require bypass functionality. To meet these growing needs, Siemens is introducing the BT300 Variable Frequency Drive offering with Conventional or Electronic Bypass options.

The BT300 VFD with Conventional or Electronic Bypass is designed with the same sophisticated and industry-leading features of the BT300 VFD. This provides peace-of-mind to customers in mission critical facilities.

The Conventional Bypass utilizes selector switches and indicator lights as primary functions.

The Electronic Bypass utilizes internal control boards that act as the brains and eliminate the control wiring, relay logic, and terminal blocks. They are replaced with advanced built-in features that are accessible from an electronic keypad.

VFDs with Conventional or Electronic Bypass are built for North America and assembled in the USA. Integrating the same sophisticated features and easy-to-use menu structure found in a BT300 VFD makes the installation and commissioning of a BT300 VFD with Bypass quick and easy.



Reduce installation time and maintenance costs with either option:

On-board Ethernet – Lead the way with the first VFD with bypass that offers on-board Ethernet. All standard HVAC protocols are ready for “out of the box” installation. Ethernet and RS-485 connections are included for APOGEE® P1, BACnet IP and MS/TP, Modbus RTU/TCP, and Metasys N2. Since communication is built into the drive, there is no need for a cabinet, power supply, converter, or extra cabling. This saves time during installation.

5% Impedance with Harmonic Filters – Protect against distortion, especially in sensitive areas, such as laboratories, data centers, airports, and hospitals.

Seismic Certification – Meets International Building Code 2012 Standard for confident coverage of critical systems after a seismic event.

Rugged Housing, Compact Footprint – Helps lower shipping costs, makes installation easy, and ensures long-lasting performance in demanding HVAC environments.

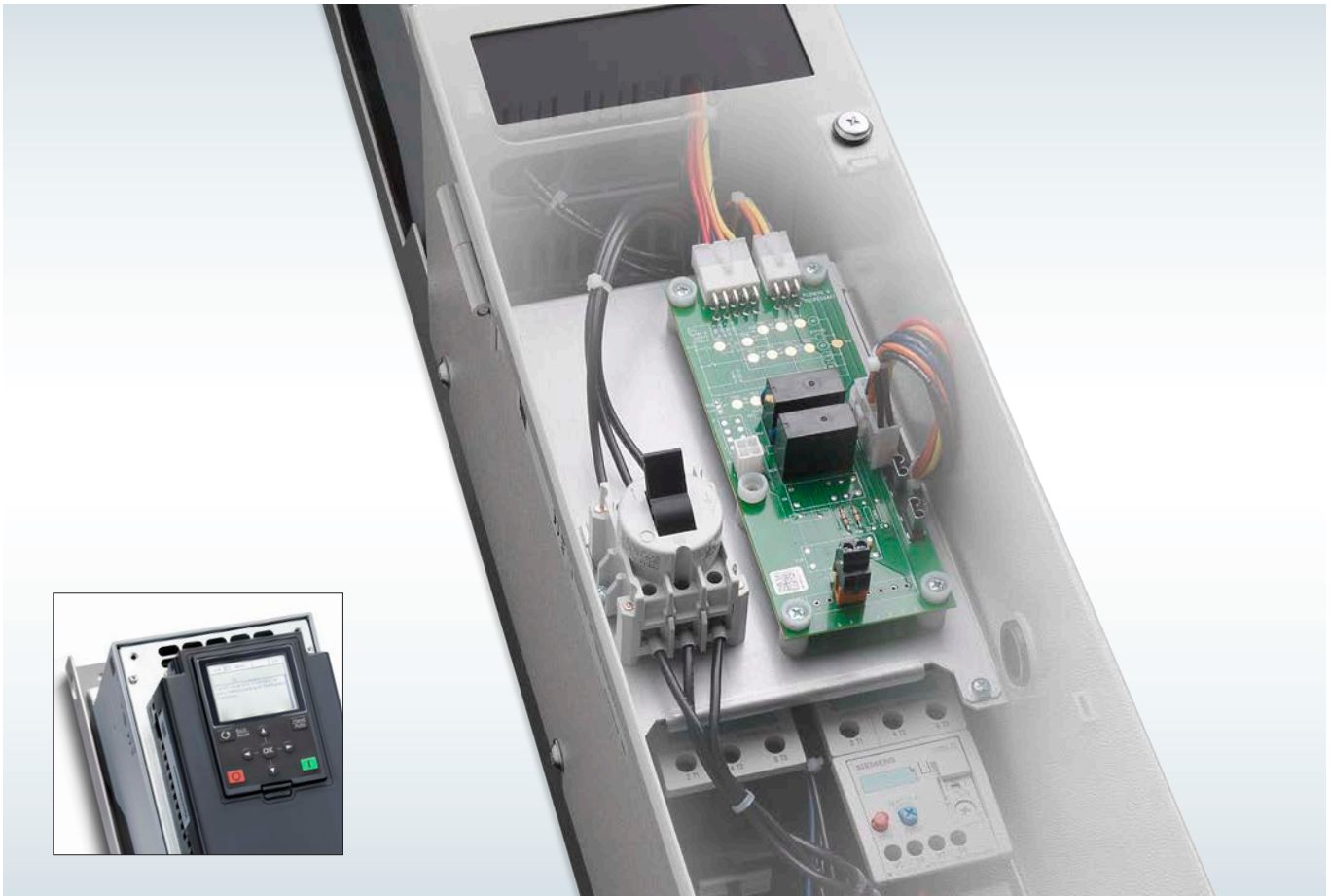
Diagnostic Board – Allows the drive to continue to run while servicing the bypass. Easily accessible test points enable troubleshooting of the bypass components and their functionality while energized. A fusible link prevents electrical damage to the bypass circuitry.

Safety Switch – While in bypass mode, the drive can be replaced without de-energizing power to the driven equipment. There's no need to remove fuses or fuse blocks and no equipment down time when replacing the drive.

Departures 3

Vertrekkende vluchten Flight departures	
06:00	AA 1111 Amsterdam
06:15	KL 666 Frankfurt
06:30	BA 222 London
06:45	AF 333 Paris
07:00	DL 444 New York
07:15	UA 555 Chicago
07:30	SW 666 Stockholm
07:45	SK 777 Copenhagen
08:00	IB 888 Barcelona
08:15	RY 999 Rome
08:30	FR 111 Athens
08:45	EW 222 Warsaw
09:00	LO 333 Lodz
09:15	W6 444 Wrocław
09:30	6E 555 Krakow
09:45	8L 666 Katowice
10:00	W9 777 Poznan
10:15	4U 888 Prague
10:30	OS 999 Vienna
10:45	6H 111 Budapest
11:00	FM 222 Milan
11:15	IG 333 Bergamo
11:30	AZ 444 Rome
11:45	W4 555 Venice
12:00	6N 666 Naples
12:15	FR 777 Palermo
12:30	U2 888 Catania
12:45	6L 999 Cagliari
13:00	W5 111 Palermo
13:15	6M 222 Cagliari
13:30	6K 333 Cagliari
13:45	6J 444 Cagliari
14:00	6I 555 Cagliari
14:15	6H 666 Cagliari
14:30	6G 777 Cagliari
14:45	6F 888 Cagliari
15:00	6E 999 Cagliari
15:15	6D 111 Cagliari
15:30	6C 222 Cagliari
15:45	6B 333 Cagliari
16:00	6A 444 Cagliari





**Both Bypass Options Feature:
Advanced Keypad with Start-Up
Wizards and Displays**

- Built-in simplicity with an intuitive, easy-to-use Bypass Start-up Wizard
- Nine user-defined values of Drive or Bypass can be monitored and displayed at one time
- Graphical keypad features help texts and clear fault info including possible causes and remedies

**Conventional Bypass Features:
Two Drive Bypass Configuration
Options**

Choose either the two contactors and a service switch, or the traditional three-contactor configuration. Selector switches and indicator lights are incorporated for primary functions.

**22 mm Components with
Wide Viewing Angle**

Industrial style operators and lights have a longer life and require less maintenance.

**Electronic Bypass Features:
Full Bypass Control –
Even if the Bypass Board Fails**

If the bypass control board malfunctions, the Electronic Diagnostic Board provides an override switch input to allow the motor to continue to run in bypass.

Auto Bypass

Bypass can be auto-activated based on the drive's programmable relay.

Pass Through I/O

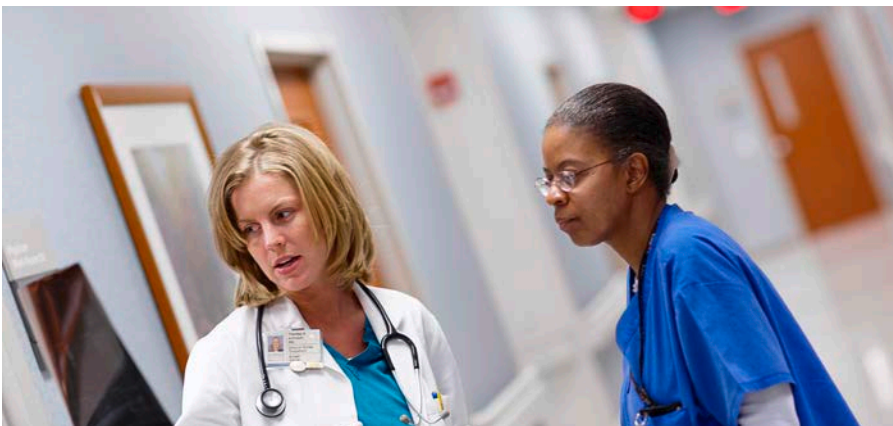
Monitor and display up to 8 safety interlocks. For easy troubleshooting, read the status of all 12 I/O points of the drive, plus up to 8 additional inputs.

Additional HVAC I/O Capability

For external safety systems, PID loops, and external device control and monitoring.

Essential Service

This system override enhances operator safety by eliminating the drives from the control scheme and running the motor in bypass mode.



Product Ordering

Your Product Number																		
Example Product Number				B	T	E	-	0	4	0	X	4	-	B	0	1	2	L
Model(s)																		
BTC		Conventional																
BTE		Electronic																
HP																		
1, 1.5, 2, 3, 5, 7.5, 10, 15																		
20, 25, 30, 40, 50, 60, 75																		
100, 125, 150, 200, 250																		
X=no fract HP																		
5= 1/2 hp																		
Voltage																		
2		200 to 240																
4		380 to 480																
Disconnect																		
F		Fused Disconnect																
B		Circuit Breaker																
Enclosure																		
01		Enclosure Type 1																
Contactor																		
3		3 contactors (input/output and bypass contactors) (Conventional option only)																
2		2 contactor bypass with service switch																
Options																		
L		Lon Card Installed																

Example shown:

BTE-040X4-B012L

BT300 Electronic Bypass, 480 volt, 40 hp, Type 1, circuit breaker and 2 contactor bypass with a service switch and Lon card installed in drive.

Frame Sizes and Power Ranges

Voltage	KW	0.75	1.1	1.5	2.2	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132	160	
	HP	1	1.5	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	125	150	200	250	
208V	Frame Size	4				5			6		7			8			9		NA			
480V		N/A	4				5			6			7			8		9				

Type 1 Bypass Approximate Weights

Frame Size	4	5	6	7	8 and 9
Weight lbs. (kg)	50 (23)	69 (31)	112 (51)	187 (85)	1000 (454)

NOTE: VFD products are only available through authorized distribution channels.

To locate an authorized distributor, please contact a Siemens Building Technologies representative at 1.800.515.9964.

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Answers for infrastructure and cities.

Our world is undergoing changes that force us to think in new ways: demographic change, urbanization, global warming and resource shortages. Maximum efficiency has top priority – and not only where energy is concerned. In addition, we need to increase comfort for the well-being of users. Also, our need for safety and security is constantly growing. For our customers, success is defined by how well they manage these challenges. Siemens has the answers.

“We are the trusted technology partner for energy-efficient, safe and secure buildings and infrastructure.”