



**The Smart Choice  
For Energy Savings**



# Energy Savings Are Smart For You. And Smart For The World.

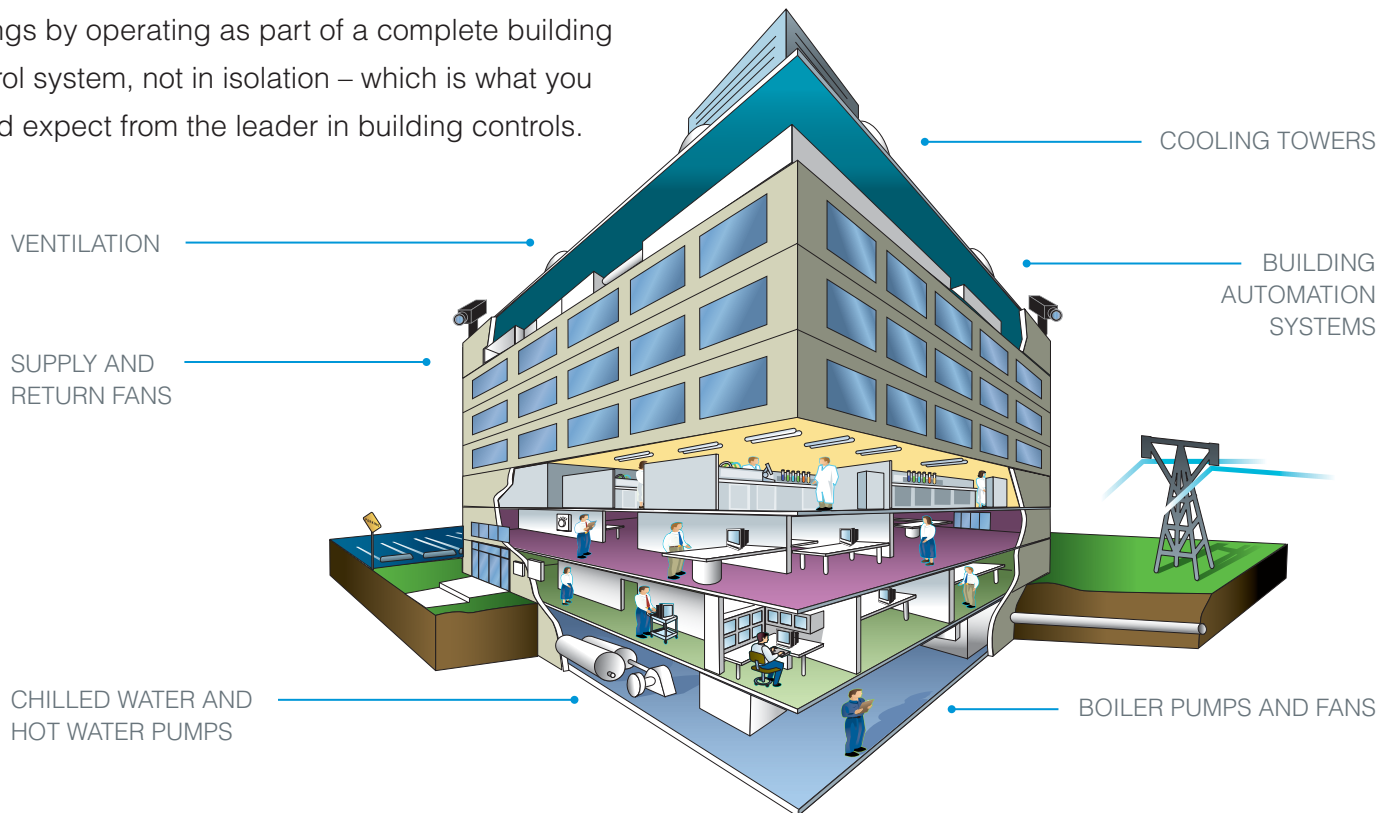
About three-quarters of the energy consumed by commercial buildings is in the form of electricity. In fact, buildings consume more than 70% of the electricity produced in the U.S. — and at least half of that electricity is used to circulate air and water.



There are three components of an energy strategy — production, transmission, and conservation. Although great advancements continue to be made in production and transmission, the most significant savings can be realized through conservation strategies utilizing proven technologies such as Variable Frequency Drives (VFDs). Conservation does not require sacrifice; it means improved performance with less consumption (now that's smart).

## MAXIMIZE SAVINGS WITH SMARTVFD HVAC AND SMARTVFD BYPASS

Much of the electricity consumed by buildings is used to circulate air and water. Loads on these systems are often well below their capacity, resulting in waste. The smart way to cut energy costs — and reduce waste — is to make these systems operate more efficiently by optimizing the speed of the fan or the pump. The Honeywell SmartVFD HVAC and BYPASS maximize savings by operating as part of a complete building control system, not in isolation — which is what you would expect from the leader in building controls.





# The Smart Choice For Smart Buildings

It's a common myth that any VFD can easily be applied in a commercial application, but many VFDs are not the right tool for the job — like walking your dog with an SUV. The Honeywell SmartVFD HVAC and BYPASS are designed specifically for commercial buildings to deliver the energy savings that building owners and facility managers need.

## SMARTVFD HVAC — SMART INSTALLATION, SMART COMMISSIONING, AND SMART COMMUNICATION

The Honeywell SmartVFD HVAC makes installation and commissioning easy for you and energy savings easy for your customers:

- Start-up Wizards — All you have to do is tell the VFD whether you have a pump or a fan, enter nominal motor information, and you are up and running
- Graphic Interface — The easy-to-use keypad and interface deliver menu-driven programming and monitoring for fast, uniform commissioning. It's also easy for the building owner or manager to learn and use, helping to reduce service calls. Plus, a manual is built into the keypad for easy access when needed.
- Built-In Communications — With BACnet®, N2 and Modbus built in, your customers will enjoy a lower total installed cost and reliable communications with the building management system.
- PC Software Wizards — Commissioning, programming and troubleshooting are all a snap thanks to these guided Startup and PID wizards.
- Built-In PLC — Another reason why SmartVFD HVAC is a great value for your customers, the built-in PLC eliminates the need for an expensive external controller.
- DC Choke for harmonic protection.
- Standard RFI Filter — Ensures that EMC/RFI requirements are met.
- Bypass Options — Meet specifications and system critical applications with a comprehensive bypass offering.
- Real-Time Clock — Battery included.
- Fire Mode for safe operation.
- Motor Switch Ride-Through — Easy, fault-free maintenance.

**Remember, unlike industrial VFDs, Honeywell SmartVFDs are built specifically for commercial buildings.**

# SmartVFD HVAC Ben



## HIGH-RESOLUTION GRAPHIC DISPLAY

It's not just easy on the eyes, it's also easy to use. The graphic display shows actual value graphs, allows easy uploading and downloading of parameters, and has multiple help functions and the manual built-in.



## MONITOR SYSTEM PERFORMANCE

The data needed to analyze usage and make adjustments for maximum energy savings is right at your fingertips. Actual electricity consumption in kWh can be monitored using the VFD PC Wizard, and can be conveniently displayed in bar graphs. At any time, the user can see the actual power consumption currently in use — a great tool for managing energy savings.

# Benefits — A Closer Look

## DETERMINE ROOT CAUSE OF FAULTS

With the SmartVFD HVAC, troubleshooting involves very little trouble. The built in, on screen manual provides a help text for every fault, and the actual values and references are stored at the time of the fault for easy review. Graphing capabilities are available for easy reporting.

## COMMUNICATION STANDARD

Integrating Honeywell SmartVFD HVAC into a building management system is a breeze. There's no need for extra cards because it offers a wide range of communications protocols right out of the box, including:

- RS485
  - BACnet
  - Modbus
  - N2
- Ethernet
  - BACnet/IP
  - Modbus/TCP
- Available options
  - LONWORKS®
  - DeviceNet

## SMART INTERFACE DOES THE THINKING FOR YOU

Honeywell SmartVFD HVAC doesn't just work in the laboratory — it works in the field. From the variety of network protocols that make integration easy, to the guided Startup and PID wizards, the design and technology of SmartVFDs make them true HVAC drives. Intuitive menus assist with commissioning, programming, troubleshooting and overall operation.



## ALL BACKED BY HONEYWELL

Already among the leading names in HVAC variable frequency drives, Honeywell is pleased to deliver the SmartVFD HVAC line — the third generation of Honeywell VFDs. Designed specifically for commercial applications and backed by more than a century of Honeywell's control expertise, you can count on Honeywell's SmartVFD HVAC and BYPASS to deliver long-term service and energy savings for your customer. You simply can't find a commercial building control name with a more proven record than Honeywell.



# Now it's easier than ever to select the best Honeywell SmartVFD BYPASS for your application.

For system critical applications, you must be able to select a bypass that meets the requirements of the specification. The SmartVFD BYPASS is easy to specify, select, install and commission. The SmartVFD BYPASS is the perfect complement to the advanced capabilities of the SmartVFD family — a combination that is both simple and smart.



## SmartVFD BYPASS CONFIGURATIONS

Our five configurations make it easy for you to select the right bypass to complete your drive package. All bundles are available in NEMA 1, NEMA 12 and ventilated NEMA 3R.

### SmartVFD Disconnect

- Adds a fused disconnect to the VFD.

### SmartVFD 2-Contactor

Provides an economical means of bypassing the VFD.

- No Main Disconnect
- Freeze/Fire/Smoke Interlock

### SmartVFD 3-Contactor

Commission, service or replace the VFD without affecting the operation of the motor. Provide additional bypass control capabilities with Auto-bypass and HOA options.

- Fused Disconnect
- Freeze/Fire/Smoke Interlock
- VFD can be isolated from power with motor running in BYPASS mode
- TEST position powers the VFD without sending power to the motor

### SmartVFD 3-Contactor Options

#### AUTO-BYPASS

- Any VFD fault will automatically send the bypass to BYPASS mode
- A contact closure sends the bypass to BYPASS mode
- Dry contacts indicate when the bypass is in BYPASS mode, alerting the building management system

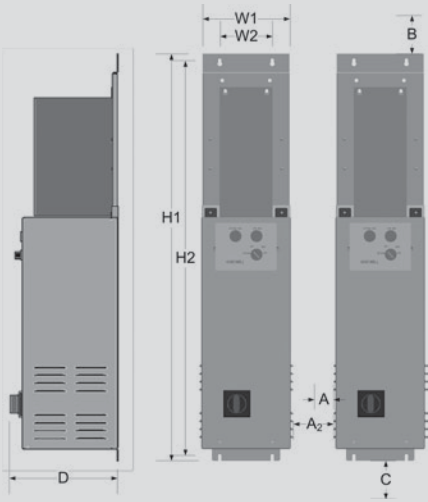
#### AUTO-BYPASS AND HOA (HAND-OFF-AUTO)

- Auto-bypass functions above
- Potentiometer on front of bypass panel allows "Hand" control of VFD

## SLEEKER. SMALLER. SMARTER.

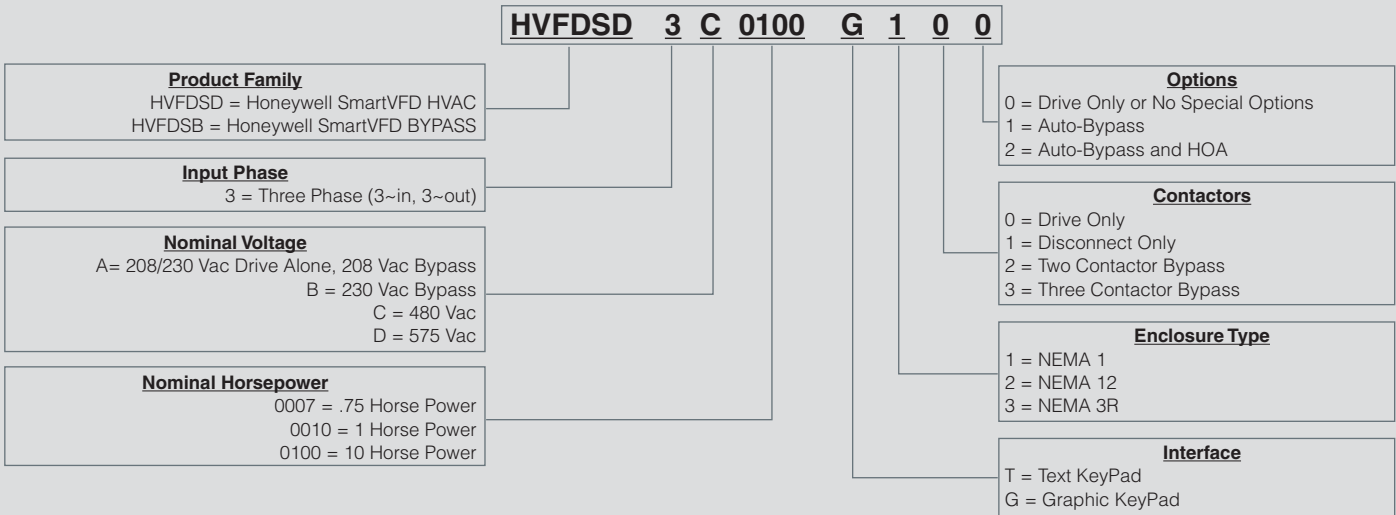
As the latest evolution of the Honeywell VFD line, the SmartVFD BYPASS is sleeker, smaller, lighter and less expensive.

# EASY SELECTION FOR ANY APPLICATION



Frame Size	HP And Voltage			Configuration	Dimensions (in)				
	208/230 VAC	460 VAC	575 VAC		W1	W2	H1	H2	D
4	1-4 HP	1-7.5 HP		Disconnect	8.9	5.0	31.7	30.6	10.7
				2-Contactor	8.9	5.0	31.7	30.6	10.7
				3-Contactor	8.9	5.0	38.7	37.6	10.7
5	5-10 HP	10-20 HP		Disconnect	8.9	5.0	34.5	33.4	10.7
				2-Contactor	8.9	5.0	34.5	33.4	10.7
				3-Contactor	8.9	5.0	41.5	40.4	10.7
6	15-20 HP	25-40 HP	3-30 HP	Disconnect	12.4	5.0	45.0	43.7	12.6
				2-Contactor	12.4	5.0	45.0	43.7	12.6
				3-Contactor	12.4	5.0	55.0	53.7	12.6

## NAMING STRUCTURE



**Learn More**

For more information on  
Honeywell Variable Frequency Drives,  
contact your local Honeywell distributor,  
your Honeywell sales representative,  
call 1-800-466-3993 or visit  
**[customer.honeywell.com/VFD](http://customer.honeywell.com/VFD)**.

**Automation and Control Solutions**

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