SmartDrive Compact Inverters

Honeywell

Your Smart way to Energy Efficient HVAC Control

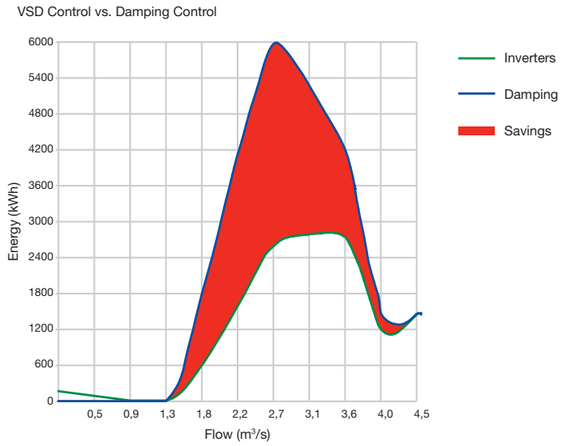
Easy energy savings

Flow-generating equipment, such as fans, pumps and compressors, are often used without speed control. Instead, flow is often controlled by throttling, using a valve or damper, so motors run at full speed.

As Heating, Ventilation, Air Conditioning (HVAC) systems rarely require maximum flow, a system operating without speed control wastes energy significantly over most of its operating time.
Up to 70% of energy can be saved by using SmartDrive compact inverters to control motor speeds.

Energy savings through inverters

Ventilation application - Inverter speed control vs. damper control



Inverters are known by many names, such as a variable frequency drives (VFD), variable speed drives (VSD), frequency converters and AC drives. All mean essentially the same thing: an electronic device that provides step-less speed control for an electric motor. However, today's inverters also feature other functionalities, including control and protection for other equipment in the system.

Ideal for HVAC systems

The SmartDrive Compact range of inverters is designed for typical HVAC applications. They are very easy to install, commission and operate.

Key Features

- 0.37 - 2.2 kW in 230V (1~in, 3~out)
- 0.55 - 5.5 kW in 400V (3~)
- IP20 enclosure
- RFI filters for installation in public electrical network (e.g. typical buildings) integrated as standard (EN61800-3 category C2)

Sizes MI1 MI2 MI3

Smart design

Due to their smart design, SmartDrive Compact inverters offer you a lot of flexibility for installation. They are a true micro-drive, saving space in your equipment cabinet.

Frame size	Width (mm)	Height (mm)	Depth (mm)
MI1	66	157	98
MI2	90	195	102
MI3	100	251	109

Time saving

The compact size simplifies installation, while their easy set-up features make commissioning a breeze. In short, the SmartDrive Compact range is built to save you time.

- Start-up Wizard – typical HVAC application commissioned in 30 seconds
- Quick menu – fast and easy way to reach the most typical parameters
- "Local-Remote" control change with a single button – fast manual testing in commissioning
- Screw or DIN-rail mounting as standard – flexibility in installation
- Side-by-side mounting optimizes installation space

Covering all HVAC requirements

- EMC requirements in typical building installation fulfilled as standard
- All printed circuit boards varnished to maximize reliability
- Maximum ambient with full power +50 °C
- Single power rating suitable for both fan/pump (variable torque) and machinery (constant torque) applications.
- Wide selection of freely programmable inputs and outputs:

Input/Output type	QTY	NOTE
Analog Input	2	1 x 0(4)-20 mA 1 x 0(2)-10 V
Digital Input	6	
Analog Output	1	0(4)-20 mA
Digital Output	3	2 x Relay 1 x Open collector Output
Fieldbus	1	Modbus RTU
+24VDC Input	1	Connection for +24VDC back-up power for the control electronics and communication
+24VDC Output	1	24VDC auxiliary voltage
$+10VDC_{ref}$	1	Reference voltage

Parametering without power

The COMP-LOADER accessory offers you to upload and download parameters without powering the inverter.

- Parameter copying from one inverter to others
- Downloading of parameter sets created with the SmartDrive PC tool
- Works also as an adapter for direct connection to PCs.

Type overview: Mains voltage 208-240 V, 50/60 Hz, 1~input (3~output for the motor), enclosure class IP20, EMC level C2

Inverter type	Motor shaft power P [kW] 230 V 50 °C	Loadability		Mechanical size	Dimensions [W x H x D in mm]	Weight [kg]
		Rated continuous current [A]	150% overload current (1 min/10 min) [A]			
COMP230-P37-20	0,37	2,4	3,6	MI1	66 x 157 x 98	0,55
COMP230-P75-20	0,75	3,7	5,6	MI1	66 x 157 x 98	0,55
COMP230-1P1-20	1,1	4,8	7,2	MI2	90 x 195 x 102	0,7
COMP230-1P5-20	1,5	7	10,5	MI2	90 x 195 x 102	0,7
COMP230-2P2-20	2,2	9,6	14,4	MI3	100 x 251 x 109	0,99

Type overview: Mains voltage 380-480 V, 50/60 Hz, 3~, enclosure class IP20, EMC level C2

Inverter type	Motor shaft power P [kW] 400 V 50 °C	Loadability		Mechanical size	Dimensions [W x H x D in mm]	Weight [kg]
		Rated continuous current [A]	150% overload current (1 min/10 min) [A]			
COMP400-P55-20	0,55	1,9	2,9	MI1	66 x 157 x 98	0,55
COMP400-P75-20	0,75	2,4	3,6	MI1	66 x 157 x 98	0,55
COMP400-1P1-20	1,1	3,3	5,0	MI1	66 x 157 x 98	0,55
COMP400-1P5-20	1,5	4,3	6,5	MI2	90 x 195 x 102	0,7
COMP400-2P2-20	2,2	5,6	8,4	MI2	90 x 195 x 102	0,7
COMP400-3P0-20	3	7,6	11,4	MI3	100 x 251 x 109	0,99
COMP400-4P0-20	4	9	13,5	MI3	100 x 251 x 109	0,99
COMP400-5P5-20	5,5	12	18,0	MI3	100 x 251 x 109	0,99

Options and accessories

Option	Order code	Note
IP21 enclosure upgrade kits	COMP-IP21-KIT1	IP21 enclosure upgrade kit for size MI1
	COMP-IP21-KIT2	IP21 enclosure upgrade kit for size MI2
	COMP-IP21-KIT3	IP21 enclosure upgrade kit for size MI3
Parameter up/download and PC connection tools	COMP-LOADER	SmartDrive Compact parameter loader with 3 m cable for PC connection (USB)
	COMP-LOADER-NC	SmartDrive Compact parameter loader without cable
	SMARTDRIVE-USB-3M	SmartDrive 3 m connection cable for COMP-LOADER and PC (USB)

Find out more
For more information on Honeywell inverters and other Honeywell products visit us online at Http://ecc.emea.honeywell.com

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EN3B-0394GE51 R0209
February 2009

Honeywell