

HONEYWELL VARIABLE FREQUENCY DRIVES

High Torque Performance and Precise Control



Honeywell

DRIVE ENERGY SAVINGS AND EFFICIENCY WITH HONEYWELL LOW-VOLTAGE DRIVES

Honeywell’s energy efficient variable frequency motor drives meet automation requirements across a variety of industrial segments and process applications, ranging from small pumps to large compressors.

A BETTER FIT FOR YOUR APPLICATION

Honeywell Variable Frequency Drives (VFDs) are designed with application support in mind. There are three models of differing sizes and frequency ranges – from 0.4 to 500kw – making the solution suitable for a variety of applications.

- MVS100 is a versatile, fit-for-purpose drive that improves the performance of mechanical devices and equipment. It offers a powerful PID function, a high degree of IP/ NEMA protection, and a range of user-defined function blocks.
- MVIS7 facilitates precision control for specific applications. It combines closed-loop PID and multi-variable, sensorless vector control with advanced control algorithms.
- MVH100 delivers energy savings and optimized control and operations for fan and pump equipment across various industrial applications. It provides specific function blocks for applications such as HVAC (damper control), chemicals and marine.

In addition, the space-efficient, compact design of Honeywell drives enables plenty of room for other equipment; and its compatibility with industry-standard BACnet, EtherCAT, Ethernet/IP and Modbus protocols ensures quick and easy integration with virtually any type of controller.

Variable Frequency Drives



MVS100 Standard Drive

- 1Ø 200V: 0.4kW~2.2kW
- 3Ø 200V: 0.4kW~15kW
- 3Ø 400V: 0.4kW~75kW
- IP66 NEMA4X
3Ø 200V: 0.4kW~15kW
- IP66 NEMA4X
3Ø 400V: 0.4~22kW

MVH100 Fan and Pump Drive

- 3Ø 200V: 0.75kW~18.5kW
- 3Ø 400V: 0.75kW~500kW

MVIS7 High Performance Drive

- 3Ø 200V: 0.75kW~75kW
- 3Ø 400V: 0.75kW~375kW

SEAMLESS INTEGRATION

Every model features plug-and-play integration with Honeywell’s Experion DCS system and ControlEdge platform. Because of this, hours of manual mapping and integration work can be accomplished in minutes, with reduced chance of error. The solution is scalable too, offering easy connection to I/O modules and communications interfaces. Furthermore, end users can benefit from optional Honeywell TotalCare remote and on-site support services to facilitate the installation, startup and future expansion of their drive solution.

EASY AND RAPID CONFIGURATION

Developed with ease of use in mind, Honeywell VFD incorporates a template-based multi-copier that can multiply configurations, enabling faster startup time. It also includes a powerful drives engineering tool at no extra cost, minimizing configuration time and providing peace-of-mind; and features a built-in library that can power applications ranging from pumps to ventilators.

The software configuration tool enables users to easily manage drives using their laptop or PC.

The tool capabilities include:

- the parameterization of drives (MVS100, MVIS7, MVH100)
- an oscilloscope function that monitors data graphically, in real-time
- a drive testing capability featuring intuitive configuration and parameterization
- the capability to backup parameters and copy data.

With enriched function blocks and easy to use tool, it significantly reduces the time and complexity required to configure Honeywell VFDs.

EFFICIENT OPERATIONS

Energy-efficient operation is another drive hallmark. The solution offers energy savings performance of 30-40% compared with direct on line drives; noise-filtering harmonics of 18-37% THD; and a DC reactor that

improves power supply input and reduces harmonics. It also features low-speed torque control for a soft start.

DESIGNED FOR SAFETY AND COMPLIANCE

Finally, the solution offers the highest levels of safety and compliance. Safety-wise, it supports IEC 61508 SIL2 and IEC EN60240-1 standards encompassing engineering and machinery. It also meets Category C2/ C3, Class A EMC compliance for noise. And, with IP66, NEMA 4X and 3C2 compliance, Honeywell VFD offers the waterproofing, corrosion protection and conformal coating required for application in harsh environments.





TECHNICAL SPECIFICATION

Series Name			MVS100			MVH100	MVIS7
			Standard I/O	Multiple I/O	30~75kW I/O		
Voltage & Capacity			1Ø 200~240V: 0.4~2.2kW [CT] 3Ø 200~240V : 0.4~15kW [CT] 3Ø 380~480V: 0.4~75kW [CT]			3Ø 200~240V: 0.75~18.5kW 3Ø 380~480V: 0.75~90kW 3Ø 380~500V: 110~500kW	3Ø 200~230V: 0.75~75kW [CT] 3Ø 380~480V: 0.75~375kW [CT]
Control Mode	V/F		✓			✓	✓
	Slip Compensation		✓			✓	✓
	Sensorless Vector		✓			-	✓
	Sensored Vector		-			-	✓
Overload Capacity *CT- Constant Torque *VT- Variable Torque *HD- Heavy Duty *ND- Normal Duty			CT(HD): Rated current 150%/1min VT(ND): Rated current 120%/1min			VT(ND) 0.75~90kW: 120%/1min 110~500kW: 110%/1min	CT(HD): Rated current 150%/1min VT(ND): Rated current 110%/1min
Input Terminal	Multifunction		5 points (P1~P5)	7 points (P1~P7)	7 points (P1~P7)	7 points (P1~P7)	8 points (P1~P8)
	Analog (Voltage)		1 point (-10~10V)	1 point (-10~10V)	1 point (-10~10V)	1 point (-10~10V)	1 point (-10~10V)
	Analog (Current)		1 point (4~20mA)	1 point (4~20mA)	1 point (4~20mA)	1 point (0~20mA)	1 point (0~20mA)
	Pulse		-	1 point (0~32kHz)	1 point (0~32kHz)	1 point (0~32kHz)	-
Output Terminal	Relay		1 point (NO/NC/COM)	1 point (NO/NC/COM)	2 v (NO/NC/COM, NO/NC)	5 points (NO/NC/COM, NO/NC, NO/NC, NO/NC, NO/NC)	2 points (NO/NC/COM, NO/NC)
	Open Collector		1 point	1 point	1 point	1 point	1 point
	Analog		1 point (0~10V or 0~20mA)	1 point (0~10V or 0~20mA)	2 points (0~10V or 0~20mA)	2 points (0~10V or 0~20mA)	2 points(0~10V, 0~20mA)
Dynamic Braking Unit			Built-in: 0.4~22kW Option: 30~75kW			Built-in: 0.75~30kW Option: 37~500kW	Built-in: 0.75~22W Option: 30~375kW
EMC Filter			Built-In option: 1Ø 200V 0.4~2.2kW (C2) Built-In option: 3Ø 400V 0.4~4.0kW (C3) Built-in: 3Ø 400V 5.5~75kW (C3)			Built-in: 3Ø 400V 0.75~500kW (C3)	Built-in: 3Ø 200/400V 0.75~7.5kW (C2) 3Ø 200/400V 11~22kW (C3) Built-in: 3Ø 200V 0.75~22kW 3Ø 400V 0.75~220kW
DC Reactor			Built-in: 3Ø 400V 30~75kW			Built-in: 3Ø 400V 37~500kW	3Ø 400V 0.75~220kW
Communications (*:Under Development)	Industry Ethernet	EtherNet IP/Modbus TCP (1Port)	✓			-	✓
		EtherNet IP/Modbus TCP (2Port)	-			✓*	✓
		PROFINET	✓			-	✓
		Modbus TCP (1Port)	-			-	-
		CC-Link IE	-			-	✓
		RAPIDnet	-			-	✓
		RAPIDnet+	-			✓*	✓
	FieldBus	DeviceNet	-			-	✓
		Profibus-DP	✓			-	✓
		CANopen	✓			-	✓
		CC-Link	-			-	✓
		Modbus RTU	✓(Built-in)			✓(Built-in)	✓(Built-in)
		Fnet, Rnet	-			-	✓
		MVDP	✓(Built-in)			✓(Built-in)	✓(Built-in)
	Motion	EtherCAT	✓			-	-
	BAS (Building Automation)	BACnet/IP	-			✓*	-
		BACnet/MSTP	-			✓(Built-in)	-
Lonworks		-			✓(Built-in)	✓	
MetaSys N2		-			✓(Built-in)	-	
Other Options			Extention I/O, Remote cable (1/2/3/5m), Remote keypad, Flange, Conduit			Extention I/O, Remote cable (2/3m), Flange, Conduit, Disconnect switch	PLC, Extention I/O, Safety (Built-In option), Synchronous, Position, Binary input, Encoder, 24V Encoder, Remote cable (2/3m)
Certification			KC, CE, UL, cUL, UKCA, Safety			KC, CE, UL, cUL, UKCA, [Marin] ABS, BV, CCS, DNV/GL, KR, LR, NK, RINA, RS	KC, CE, UL, cUL, UKCA, Safety, C-Tick [Marin] ABS, BV, DNV, KR
Enclosure Type			0.4~75kW: IP20, UL Type 1(Conduit option) 0.4~22kW: IP66(Indoor use only)			0.75~185kW: IP20 220~500kW: IP00 0.75~500kW: UL Type 1 (Conduit option)	200V Class 0.75~22kW, 400V Class 0.75~75kW : IP21 (UL Type 1(Conduit option)) 200V Class 30~75kW, 400V Class 90~375kW : IP00 (200V Class 30~75kW, IP20(Conduit option))

SUITABILITY FOR INDUSTRIAL APPLICATIONS

APPLICATION		TYPE				TORQUE		DRIVE SERIES		
		FrL	GL	FL	IL	CT	VT	MVS100	MVH100	MVIS7
Water & Wastewater	Fan			✓						
	Pump			✓			✓			
	Compressor			✓		✓	✓			
	Mixer			✓		✓				
Metals & Materials Management	Fan			✓			✓			
	Pump			✓			✓			
	Compressor			✓		✓				
	Conveyor	✓				✓				
	Press				✓	✓				
	Winder (Drawing Machine)				✓	✓				
	Winder (Stranding Machine)				✓	✓				
	Hoist (Hoist)		✓			✓				
	Hoist (Trolley, Gantry)	✓				✓				
Energy	Fan			✓			✓			
	Pump			✓			✓			
	Compressor			✓		✓				
	Conveyor	✓				✓				
	Hoist (Hoist)		✓			✓				
	Hoist (Trolley, Gantry)					✓				
	High-capacity Fan & Pump (Power Generation Industry)			✓			✓			
Food & Beverage	Fan			✓			✓			
	Pump			✓			✓			
	Compressor			✓		✓				
	Conveyor	✓				✓				
	Mixer	✓		✓		✓				
	Extruder	✓				✓				
	Packing Machine (Synchronization, Position Control)	✓				✓				
	Cutting Machine (Synchronization, Position Control)	✓				✓				
	Labeling Machine (Synchronization, Position Control)	✓				✓				
	Hoist (Hoist)		✓			✓				
Mining	Fan			✓			✓			
	Pump			✓			✓			
	Compressor			✓		✓				
	Conveyor	✓				✓				
	Crusher / Drill Machine	✓				✓				
	Excavators									
	Crane (Hoist)		✓			✓				
	Crane (Gantry/Trolley, Rotating/Turning)	✓				✓				
	Hoist (Hoist)		✓			✓				
HVAC / Refrigerator	Fan			✓			✓			
	Pump			✓			✓			
	Compressor			✓		✓				

Optimal Suitable

FrL=Friction Load | GL= Gravity Load | FL = Fluid Load | IL=Inertia Load | CT=Constant Torque | VT=Variable Torque

APPLICATION		TYPE				TORQUE		DRIVE SERIES		
		FrL	GL	FL	IL	CT	VT	MVS100	MVH100	MVIS7
Marin	Fan			✓			✓			
	Pump			✓			✓			
	Compressor			✓		✓				
	Conveyor	✓				✓				
	Winch (Hoist)		✓			✓				
	Winch (Gantry, Trolley)	✓				✓				
	Hoist (Hoist)		✓			✓				
Oil & Gas / Chemical	Hoist (Gantry, Trolley)					✓				
	Fan (Blower)			✓			✓			
	Oil & Rod Pump			✓			✓			
	Compressor			✓		✓				
	Conveyor	✓				✓				
	Mixer			✓		✓				
	Extruder		✓			✓				
Plastic & Rubber	Fan / Blower			✓			✓			
	Pump			✓			✓			
	Compressor			✓		✓				
	Conveyor	✓				✓				
	Mixer			✓		✓				
	Extruder	✓			✓	✓				
	Screw & Vibration Feeder					✓				
	Injection Molding	✓			✓	✓				
	Winder		✓			✓				
	Hoist (Hoist)					✓				
	Hoist (Trolley, Gantry)					✓				
Textiles	Fan			✓			✓			
	Pump			✓			✓			
	Compressor			✓		✓				
	Spinning Machine (Threading & Spinning)				✓	✓				
	Winder (Weaving)				✓	✓				
	Winder (Knitting)				✓	✓				
	Washing & Drying (Washer & Dryer)			✓	✓	✓				
	Printing									
	Extruder	✓				✓				
	Hoist (Hoist)		✓			✓				
	Hoist (Trolley, Gantry)	✓				✓				
Pulp & Paper	Fan			✓			✓			
	Agitator Pump			✓			✓			
	Compressor			✓		✓				
	Winder (Fixed Contact Control)				✓	✓				
	Roller Drum				✓	✓				
	Drying Machine	✓					✓			
	Coating Machine	✓				✓				
	Slitter	✓				✓				
	Hoist (Hoist)		✓			✓				
	Hoist (Gantry, Trolley)					✓				
Crane & Hoist	Crane (Hoist)		✓			✓				
	Crane (Gantry/Trolley, Rotating/Turning)	✓				✓				
	Hoist (Hoist)		✓			✓				
	Hoist (Gantry, Trolley)					✓				
	Automatic Warehouse (Lift)		✓			✓				
	Automatic Garage (Gantry)	✓				✓				

SERVICE AND SUPPORT

From installation and start up to system maturity and future expansion, Honeywell TotalCare remote and on-site support services ensure you get maximum return from your automation system investment. The TotalCare Service program features specially designed service package options in addition to Honeywell's standard support commitment under the Scalable Control Solutions portfolio.

Available on an annual subscription basis, TotalCare Lite and Enhanced service packages encompass system updates, upgrades, corrective and preventive maintenance, support requests and more. Factory-trained remote service engineers provide technical support and rapid responses to queries regarding procedures, documentation, operation, service, training, and system enhancements. In addition, TotalCare remote services include a review of operational procedures, software analysis and diagnostic evaluations when required.



WHY HONEYWELL?

Honeywell is one of the world's most recognized and respected brands, with a track record of delivery and decades of experience across industries and a culture of innovation in software, systems and connected devices.

Honeywell's solution portfolio spans industrial measurement, control and safety systems, thermal solutions, terminal automation, analytics, cybersecurity, industrial software and connectivity. With customers in more than 125 countries, Honeywell has broader and deeper international presence than any other industrial company.

Speak with us today about how we can help fulfil your objectives.

For More Information

To learn more about Honeywell drive solutions,
please visit process.honeywell.com

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**THE
FUTURE
IS
WHAT
WE
MAKE IT**

Honeywell