

# Copeland™ Commercial HVACR Variable Frequency Drives

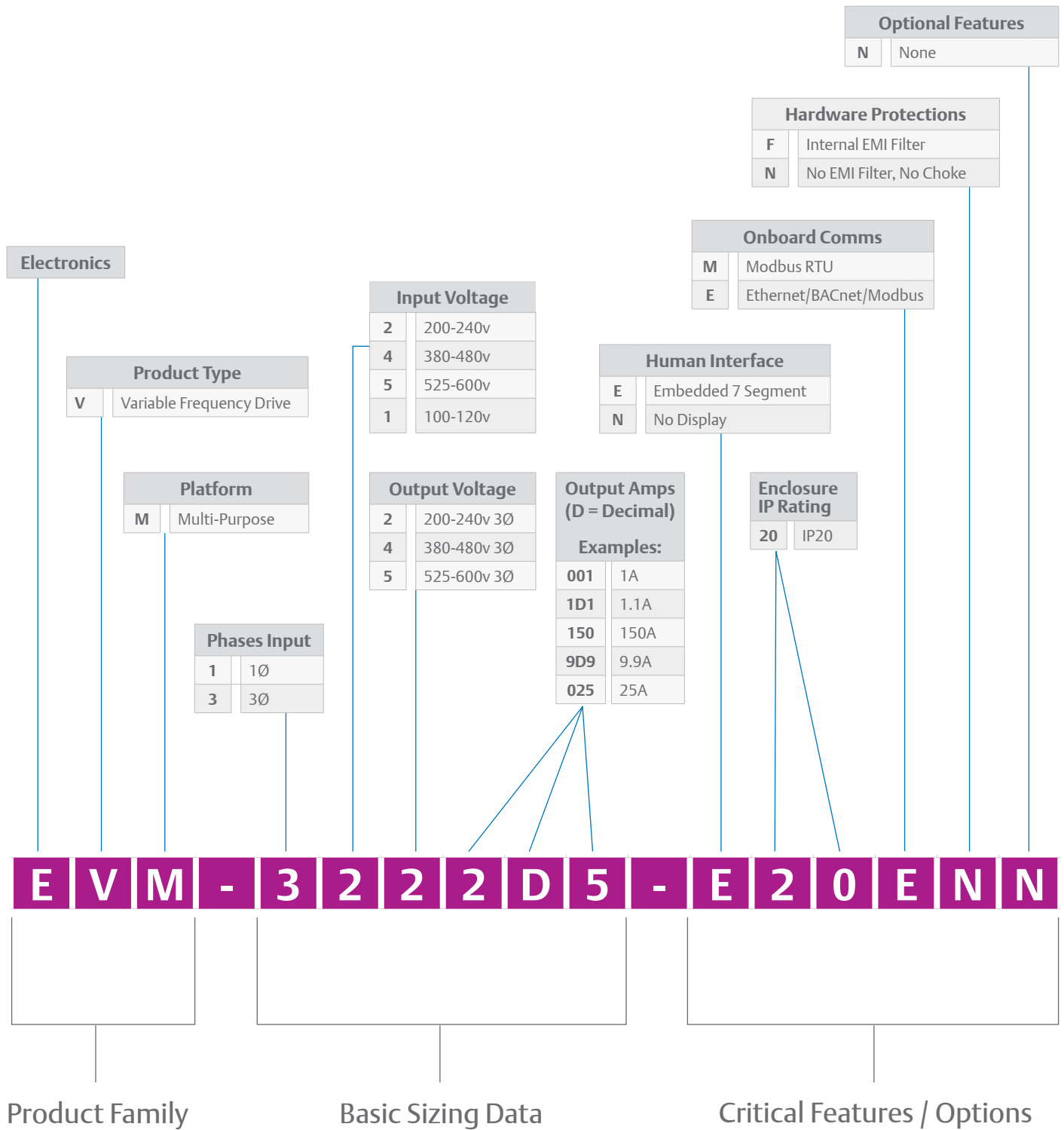
EVM Series



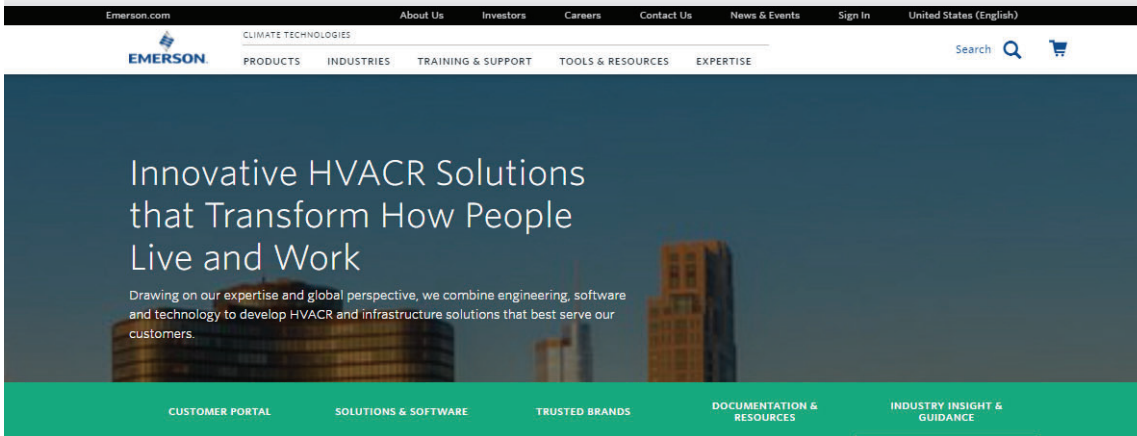
**COPELAND™**

  
**EMERSON™**

# Nomenclature



# Online Product Information



Climate.Emerson.com

At Emerson, our industry-leading heating, air conditioning and refrigeration technologies create comfortable residential and commercial environments, maintain the integrity of goods throughout the cold chain, and improve operational and energy efficiencies to make life easier.



## Copeland™ Online Product Information (OPI) Tool

Gain access to the most comprehensive product information in the industry via our online product information (OPI) tool. Explore our newly updated tool to experience its new capabilities and improved user experience.

[COPELAND ONLINE PRODUCT INFORMATION TOOL >](#)

Access for more product information.

## Customer Portal

Registered customers can access our portal for a whole range of quick and easy self-serve solutions. Access and purchase products, obtain product specifications and features, related product content, and much more.

Emerson customers can also track their perishable shipments using Oversight. Our cloud-based online portal, Oversight, serves as the real-time resource for monitoring in-transit shipment information such as temperature, location and other measurements which may affect the quality of sensitive cargo.

Access customer portals and tools from one page.

[ACCESS CUSTOMER PORTAL >](#)

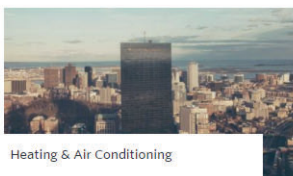


Oversight Cargo Tracking & Monitoring

[TRACK YOUR SHIPMENT >](#)



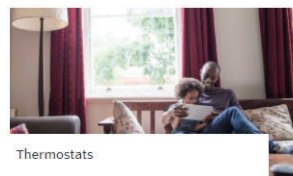
## Solutions & Software



Heating & Air Conditioning



Refrigeration



Thermostats

For more information, visit [Emerson.com/CopelandOPI](https://www.emerson.com/CopelandOPI).

# High-Level Features

- 4 frame sizes (0.5 – 25HP)
- Keypad (onboard, remote, and no display options)
- Onboard Safe Torque Off (STO) option
- 5 onboard communication protocols
- Motor auto-tuning
- Bluetooth®
- Pro and basic versions
- Onboard energy savings calculator
- Flammable refrigerant approved

## Bluetooth Onboard

- Monitor and configure
- Update firmware
- Easy registration
- Interface without opening control cabinet
- Troubleshooting

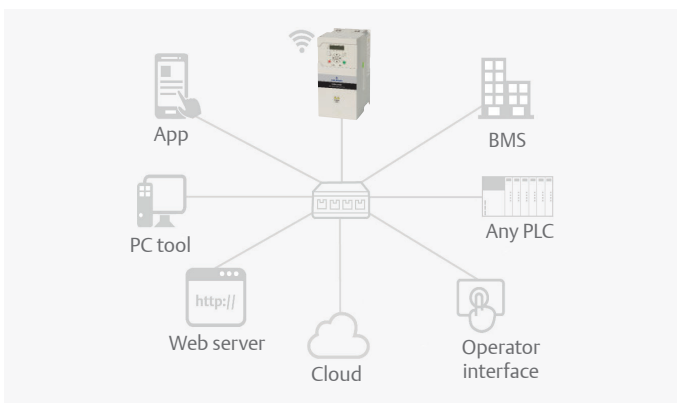
## Webserver Onboard

- Connect via browser (no software needed)
- Monitor and configure
- Update firmware

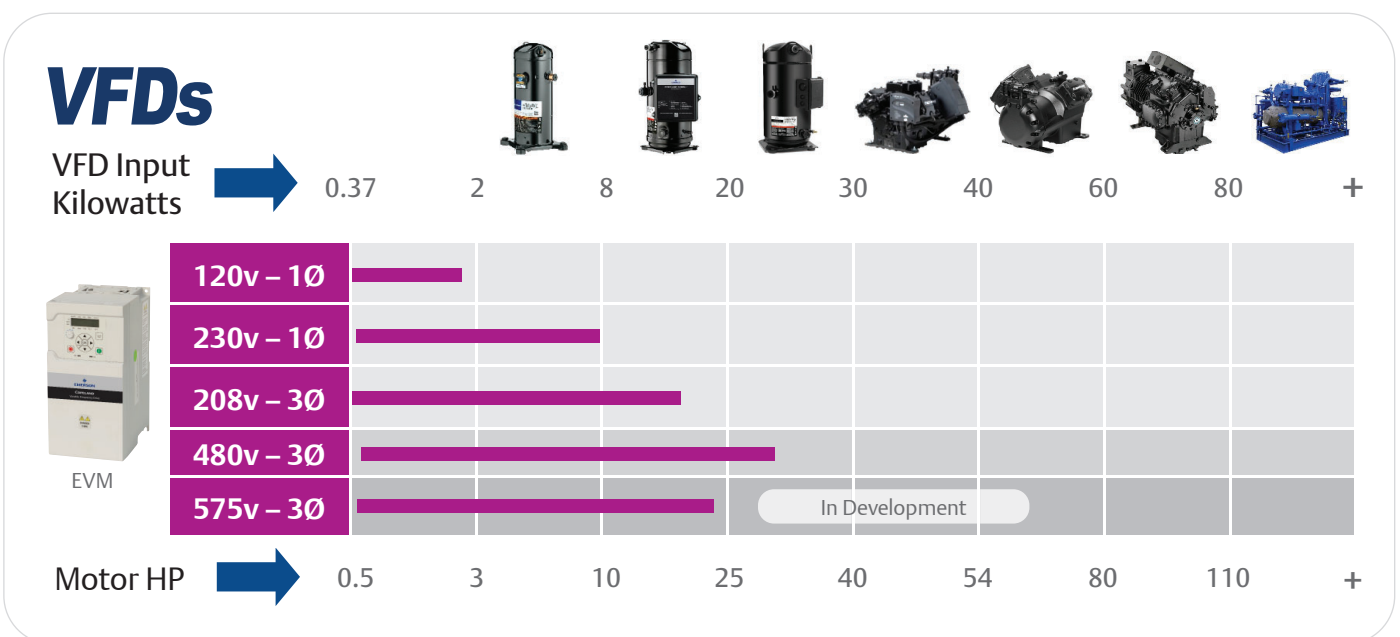
## Available Onboard Comms

- Modbus RTU or TCP
- BACnet MS/TP or IP
- Ethernet IP/TCP
- Optional cards: CANopen, Dual Ethernet Port, Profibus

## Ultimate Flexibility



## EVM Compressor Pairing



# EVM Models

EVM Platform Overview	
Ambient Operating Temperature Range	-30°C to 50°C (-22°F to 122°F)
Input Frequency Range (Hz)	50-60
Output Frequency Range (Hz)	0-400
Maximum Overload	200% (2 sec/20 sec)
Digital Inputs	4
Analog Inputs	1
Relay Outputs	2
Digital Outputs	0
IP Rating	IP20
Brake Chopper	Included



	EVM Product Groups	
	Pro	Basic
Display Type	Embedded Seven Segment Display	No Display
Communication Capabilities	Bluetooth, Ethernet IP / TCP, BACnet MS/TP/IP, Modbus RTU / TCP	Bluetooth, Modbus RTU
Safe Torque Off Option	Yes	No

EVM Platform - Dimensions, Weight, & Mounting					
Frame	Product height (in)	Product width (in)	Product depth (in)	Product weight (lbs)	Mounting type
1	5.98	2.83	7.03	2.6	DIN Rail/ Panel Mount
2	8.66	4.29	7.05	5.8	
3	10.24	5.12	7.09	8.2	
4	11.81	7.24	7.68	13.9	Panel Mount

# EVM Models

Voltage/phase input & output	Input	Output	Model numbers	Maximum output current rating	Maximum output power rating (kW)	Internal EMI filter	Frame size
Pro Models	100-120v 1Ø	200-240v 3Ø	EVM-1122D5-E20ENN	2.5	0.37	No	1
			EVM-1124D8-E20ENN	4.8	0.75	No	1
			EVM-1124D8-E20EFN	4.8	0.75	Yes	1
			EVM-1126D9-E20ENN	6.9	1.10	No	2
			EVM-1126D9-E20EFN	6.9	1.10	Yes	2
			EVM-1127D8-E20ENN	7.8	1.50	No	2
			EVM-1127D8-E20EFN	7.8	1.50	Yes	2
	200-240v 1Ø	200-240v 3Ø	EVM-1222D5-E20ENN	2.5	0.37	No	1
			EVM-1222D5-E20EFN	2.5	0.37	Yes	1
			EVM-1224D8-E20ENN	4.8	0.75	No	1
			EVM-1224D8-E20EFN	4.8	0.75	Yes	1
			EVM-1227D8-E20ENN	7.8	1.50	No	1
			EVM-1227D8-E20EFN	7.8	1.50	Yes	1
			EVM-122011-E20ENN	11.0	2.20	No	2
			EVM-122011-E20EFN	11.0	2.20	Yes	2
			EVM-122017-E20ENN	17.0	4.00	No	2
			EVM-122017-E20EFN	17.0	4.00	Yes	2
			EVM-122025-E20ENN	25.0	5.50	No	3
	EVM-122025-E20EFN	25.0	5.50	Yes	3		
	200-240v 3Ø		EVM-3222D5-E20ENN	2.5	0.37	No	1
			EVM-3222D5-E20EFN	2.5	0.37	Yes	1
			EVM-3224D8-E20ENN	4.8	0.75	No	1
			EVM-3224D8-E20EFN	4.8	0.75	Yes	1
			EVM-3227D8-E20ENN	7.8	1.50	No	1
			EVM-3227D8-E20EFN	7.8	1.50	Yes	1
			EVM-322011-E20ENN	11.0	2.20	No	1
			EVM-322011-E20EFN	11.0	2.20	Yes	1
			EVM-322017-E20ENN	17.0	4.00	No	2
			EVM-322017-E20EFN	17.0	4.00	Yes	2
			EVM-322025-E20ENN	25.0	5.50	No	2
			EVM-322025-E20EFN	25.0	5.50	Yes	2
			EVM-322032-E20ENN	32.0	7.50	No	3
			EVM-322032-E20EFN	32.0	7.50	Yes	3
			EVM-322048-E20ENN	48.0	11.00	No	4
			EVM-322048-E20EFN	48.0	11.00	Yes	4
			EVM-322062-E20ENN	62.0	15.00	No	4
			EVM-322062-E20EFN	62.0	15.00	Yes	4
	380-480v 3Ø		EVM-3442D2-E20ENN	2.2	0.75	No	1
			EVM-3442D2-E20EFN	2.2	0.75	Yes	1
			EVM-3444D3-E20ENN	4.3	1.50	No	1
			EVM-3444D3-E20EFN	4.3	1.50	Yes	1
			EVM-3445D6-E20ENN	5.6	2.20	No	1
			EVM-3445D6-E20EFN	5.6	2.20	Yes	1
			EVM-3447D6-E20ENN	7.6	3.00	No	1
			EVM-3447D6-E20EFN	7.6	3.00	Yes	1
			EVM-344012-E20ENN	12.0	5.50	No	2
EVM-344012-E20EFN			12.0	5.50	Yes	2	
EVM-344016-E20ENN			16.0	7.50	No	2	

# EVM Models

Voltage/phase input & output	Input	Output	Model numbers	Maximum output current rating	Maximum output power rating (kW)	Internal EMI filter	Frame size
Pro Models	380-480v 3Ø		EVM-344016-E20EFN	16.0	7.50	Yes	2
			EVM-344023-E20ENN	23.0	11.00	No	2
			EVM-344023-E20EFN	23.0	11.00	Yes	2
			EVM-344031-E20ENN	31.0	15.00	No	3
			EVM-344031-E20EFN	31.0	15.00	Yes	3
			EVM-344038-E20ENN	38.0	18.50	No	4
			EVM-344038-E20EFN	38.0	18.50	Yes	4
			EVM-344046-E20ENN	46.0	22.00	No	4
			EVM-344046-E20EFN	46.0	22.00	Yes	4
Basic Models	200-240v 3Ø		EVM-3222D5-N20MNN	2.5	0.37	No	1
			EVM-3222D5-N20MFN	2.5	0.37	Yes	1
			EVM-3224D8-N20MNN	4.8	0.75	No	1
			EVM-3224D8-N20MFN	4.8	0.75	Yes	1
			EVM-3227D8-N20MNN	7.8	1.50	No	1
			EVM-3227D8-N20MFN	7.8	1.50	Yes	1
			EVM-322011-N20MNN	11.0	2.20	No	1
			EVM-322011-N20MFN	11.0	2.20	Yes	1
			EVM-322017-N20MNN	17.0	4.00	No	2
			EVM-322017-N20MFN	17.0	4.00	Yes	2
			EVM-322025-N20MNN	25.0	5.50	No	2
			EVM-322025-N20MFN	25.0	5.50	Yes	2
			EVM-322032-N20MNN	32.0	7.50	No	3
			EVM-322032-N20MFN	32.0	7.50	Yes	3
			EVM-322048-N20MNN	48.0	11.00	No	4
			EVM-322048-N20MFN	48.0	11.00	Yes	4
			EVM-322062-N20MNN	62.0	15.00	No	4
			EVM-322062-N20MFN	62.0	15.00	Yes	4
	380-480v 3Ø		EVM-3442D2-N20MNN	2.2	0.75	No	1
			EVM-3442D2-N20MFN	2.2	0.75	Yes	1
			EVM-3444D3-N20MNN	4.3	1.50	No	1
			EVM-3444D3-N20MFN	4.3	1.50	Yes	1
			EVM-3445D6-N20MNN	5.6	2.20	No	1
			EVM-3445D6-N20MFN	5.6	2.20	Yes	1
			EVM-3447D6-N20MNN	7.6	3.00	No	1
			EVM-3447D6-N20MFN	7.6	3.00	Yes	1
			EVM-344012-N20MNN	12.0	5.50	No	2
			EVM-344012-N20MFN	12.0	5.50	Yes	2
			EVM-344016-N20MNN	16.0	7.50	No	2
			EVM-344016-N20MFN	16.0	7.50	Yes	2
			EVM-344023-N20MNN	23.0	11.00	No	2
			EVM-344023-N20MFN	23.0	11.00	Yes	2
			EVM-344031-N20MNN	31.0	15.00	No	3
	EVM-344031-N20MFN	31.0	15.00	Yes	3		
	EVM-344038-N20MNN	38.0	18.50	No	4		
	EVM-344038-N20MFN	38.0	18.50	Yes	4		
	EVM-344046-N20MNN	46.0	22.00	No	4		
	EVM-344046-N20MFN	46.0	22.00	Yes	4		

## About Emerson

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