

# Copeland Scroll™ YHV Variable Speed Scroll for A2L Refrigerants

For Home Comfort

## The Perfect Match for Comfort Applications

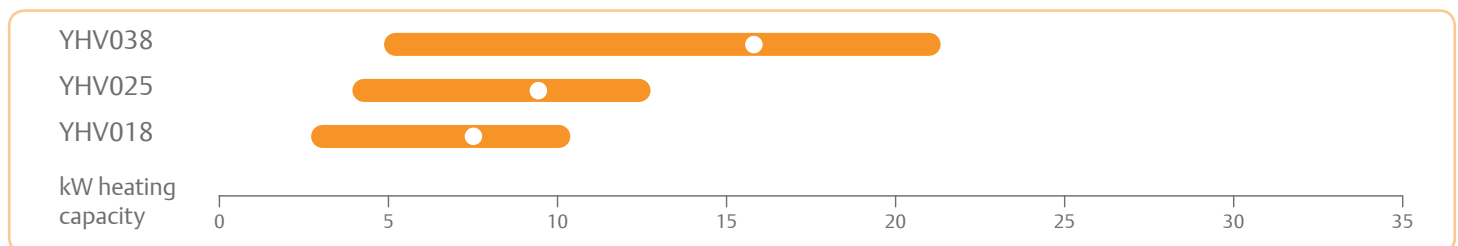
YHV\*2P scroll compressors are qualified to reach an evaporating temperature of -10°C at 68°C condensing temperature with R454B/R452B without the need of enhanced vapor injection (EVI). This range is designed to support system manufacturers build brine-to-water or air-to-water heat pumps that meet the requirements of the F-gas phasedown. The YHV compressor range maintains the same envelope, efficiency and capacity of the previous R410A range.

The matched range of ED3 inverter drives is qualified per EN60335-1 and available for 1ph and 3ph power supply. The ED3 drive can be cooled down by air or liquid. YHV\*2P compressors and their matched drives belong to PED category II and therefore comply with stringent quality requirements: they are hermetically sealed and electrical connections are not source of ignition.

This solution is offered to system manufacturers as a CE certified package for faster time to market and for the highest level of compressor protection.



## YHV Compressor Line-up - R454B/R452B

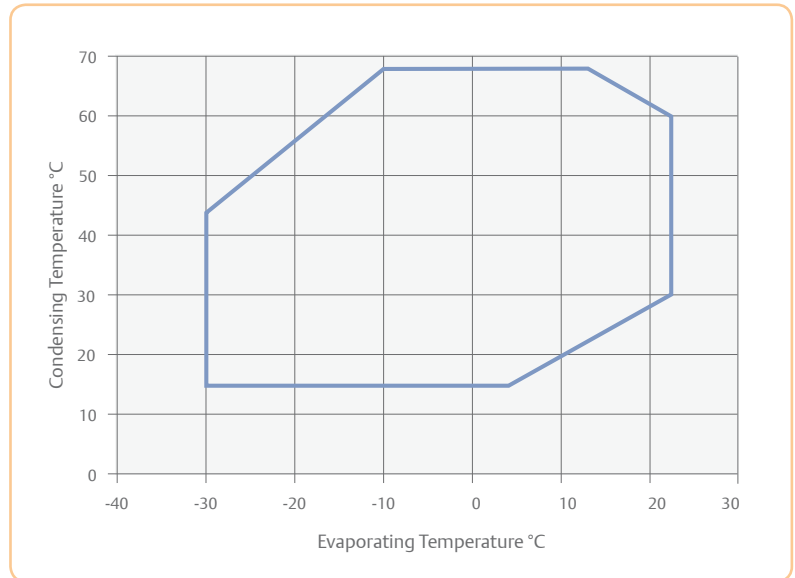


Conditions: Heating kW evaporating -7°C, condensing 50°C, 4K subcooling, 5K superheat

## Features and Benefits

- Suitable for air-to-water and brine-to-water applications thanks to the wide application envelope
- F-gas compliant
- Compressor model with 3-feet, for compactness in the unit
- «Pre-compliant» solution to relevant application standards (EN378, EN60335), to improve system development and time to market
- Special envelope related overload protection, inrush-current limitation and speed-drop protection mode for state of the art compressor protection

## YHV Operating Envelope - R454B



## Technical Overview

Compressor										
R410A	Heating Capacity (kW)		COP*	Displacement (cm <sup>3</sup> )	Stub Suction (inch)	Stub Discharge (inch)	Oil Quantity (l)	Length / Width / Height (mm)	Net Weight (kg)	Sound Pressure @1 m (dBA)**
	Min	Max								
YHV0182P	2.6	10.1	3.0	18.0	3/4	1/2	0.7	218/198/334	15	61
YHV0252P	3.9	12.4	3.1	25.0	3/4	1/2	0.7	218/198/334	16	65
YHV0382P	5.4	21.4	3.2	38.0	3/4	1/2	1.2	218/198/384	20	64

Conditions: heating kW (-7/50)

\*@ Nominal speed (90Hz)

\*\* @ 1m: sound pressure level at 1m distance from the compressor, free field condition

Inverter Drive										
Model	Matched Compressor with CE Certification	Power Input (kW)	Amps (A)	Cooling	Frequency (Hz)		Net Weight (kg)	1Ph 230V	3Ph 400V	Length / Width / Height (mm)*
		Nominal	Nominal		Min	Max				
ED3011A	YHV018	2.6	15	Air/liquid	15	120	2.8	✓	n.a.	205/240/143
ED3015A	YHV018-025	3.8	15		15	120	2.8	✓	n.a.	205/240/143
ED3020A	YHV025-38	5.0	20		15	120	3.6	✓	n.a.	205/250/180
ED3013B	YHV018-025	3.8	13		15	120	3.4	n.a.	✓	205/250/183
ED3018B	YHV025-38	5.0	18		15	120	4.4	n.a.	✓	205/250/183
ED3022B	YHV038	8.0	22		15	120	5.2	n.a.	✓	233/316/150

Conditions: suction superheat 5K, subcooling 4K

\*Air-cooled version including fins

[climate.emerson.com/en-gb](http://climate.emerson.com/en-gb)

Emerson Commercial & Residential Solutions

Emerson Climate Technologies GmbH - Pascalstrasse 65 - 52076 Aachen, Germany

Tel. +49 (0) 2408 929 0 - Fax: +49 (0) 2408 929 570 - Internet: [climate.emerson.com/en-gb](http://climate.emerson.com/en-gb)

The Emerson logo is a trademark and service mark of Emerson Electric Co. Emerson Climate Technologies Inc. is a subsidiary of Emerson Electric Co. Copeland is a registered trademark and Copeland Scroll is a trademark of Emerson Climate Technologies Inc.. All other trademarks are property of their respective owners. Emerson Climate Technologies GmbH shall not be liable for errors in the stated capacities, dimensions, etc., as well as typographic errors. Products, specifications, designs and technical data contained in this document are subject to modification by us without prior notice. Illustrations are not binding.

© 2019 Emerson Climate Technologies, Inc.

EMERSON. CONSIDER IT SOLVED.™