

# Copeland Scroll™ XHV variable speed with matched ED3 inverter drives

For home comfort

## The perfect match for comfort applications

The XHV range of scroll compressors is qualified to reach an evaporating temperature of -10°C at 68°C condensing temperature with R410A without the need of enhanced vapor injection (EVI). XHV compressors are suitable for both brine-to-water and air-to-water applications.

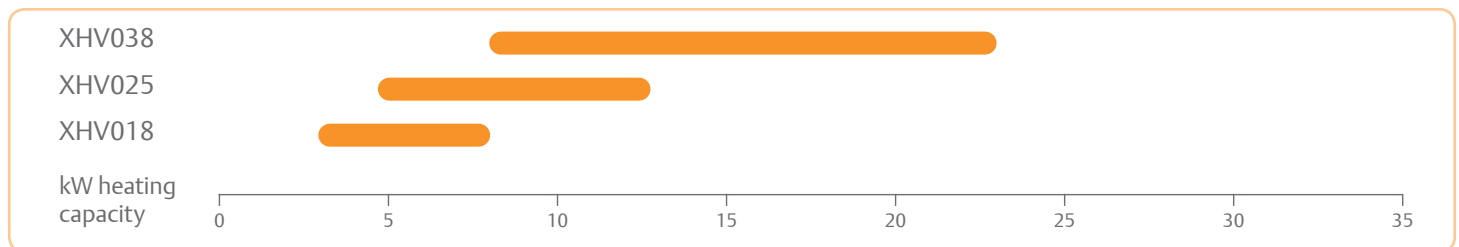
The matched range of ED3 inverter drives is qualified per EN60335-1 and available for 1ph and 3ph power supply. The ED3 drive can be cooled by air or liquid.

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



XHV qualification for A2L refrigerants (R454B/R542B) is expected for the end of 2018: the line-up will be the same as for R410A, but the compressors will be named YHV. The A2L class will have an impact on the PED class of the YHV compressors.

## XHV compressor line-up - R410A\*



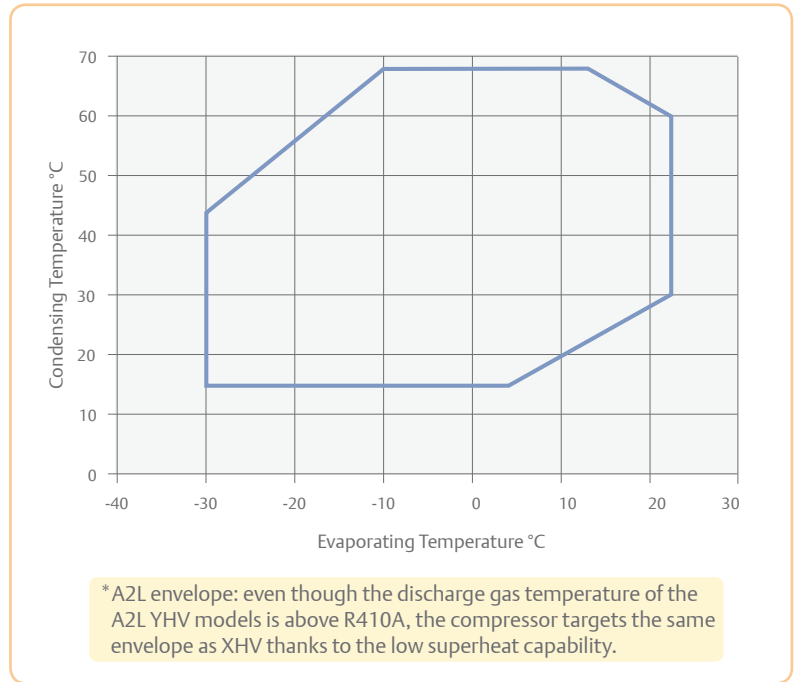
Conditions: Heating kW evaporating -7°C, condensing 50°C, 4K subcooling, 5K superheat

\* The YHV A2L line-up will have a slightly lower heating capacity at these conditions, but tests have shown that the COP is in line with R410A.

## Features and benefits

- Wide application envelope. Suitable for air-to-water and brine-to-water applications thanks to the low superheat capability
- Compressor model with 3-feet, for compactness in the unit
- CE qualified packages based on EN60335-2-34 and application-ready solution based on EN60335-2-40 and EN55014 to improve time-to-market and reduce development costs
- Special envelope related overload protection, inrush-current limitation and speed-drop protection mode for state of the art compressor protection

## XHV operating envelope - R410A\*



## 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								
XHV0181P	2.6	10.7	3.0	18.0	3/4	1/2	0.7	218/198/334	15	61
XHV0251P	3.7	14.8	3.1	25.0	3/4	1/2	0.7	218/198/334	16	65
XHV0382P	5.5	22.8	3.1	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

A2L data under review. Preliminary data available on request for some models.

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				
ED3015A	XHV018-25	3.8	15	Air/liquid	15	120	2.8	✓	n.a.	205/244/143
ED3020A	XHV025-38	5.5	20		15	120	3.6	✓	n.a.	205/250/180
ED3013B	XHV018-25	4.4	13		15	120	3.4	n.a.	✓	205/250/183
ED3018B	XHV025-38	6.0	18		15	120	4.4	n.a.	✓	205/250/183
ED3022B	XHV038	8.8	22		15	120	5.2	n.a.	✓	233/316/150

Conditions: suction superheat 5K, subcooling 4K

\* Air-cooled version including fins

Similar matching with A2L

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