

Copeland Scroll™ Summit Series

Quietness at Highest Seasonal
Efficiency for Medium and Low
Temperature Applications



Copeland Scroll™


EMERSON™

Its design allows for light and compact equipment and provides the best seasonal efficiency in the market, while being the quietest compressor when fitted with its sound shell.

Emerson Climate Technologies first introduced a few years ago the Summit Series for medium temperature applications. Now, the Summit Series is available for low temperature applications also and is designed to meet the specific needs of refrigeration.



Summit Series ZB for Medium Temperature

- Range of six models including two Digital models
- Flexibility in terms of required capacity
- Seasonal efficiencies up to 15% higher than traditional semi-hermetic compressors
- Extremely quiet operation, specially adapted to applications in urban and domestic areas
- Availability of Sound Shell option for an additional 10 to 12 dBA sound attenuation
- Includes Copeland Scroll Digital™ Technology for simple, stepless 10 to 100% capacity modulation
- Light weight and compactness, ideal for distributed systems
- Wide operating envelope with 10°C low condensing limit and fast pull-down capabilities
- One model for multi-refrigerants (R407A/F/C, R448A, R449A, R450, R513A, R404A and R134a)
- CoreSense option for diagnostic and protection capabilities. Possibility to control digital operation via CoreSense

- Vapor injection (EVI) possibility to improve system efficiency by an additional 25% and boost compressor cooling capacity by 40%
- Light weight and compactness, more than half the weight of equivalent semi-hermetic compressors
- Optional Sound Shell for silent operation
- Wide operating envelope up to 10°C low condensing
- Double lifting hooks for better handling
- One model for multi-refrigerants (R407A/F, R448A, R449A, R404A)
- CoreSense option for diagnostic and protection capabilities. Possibility to control both liquid injection and digital control

Summit Series ZF for Low Temperature

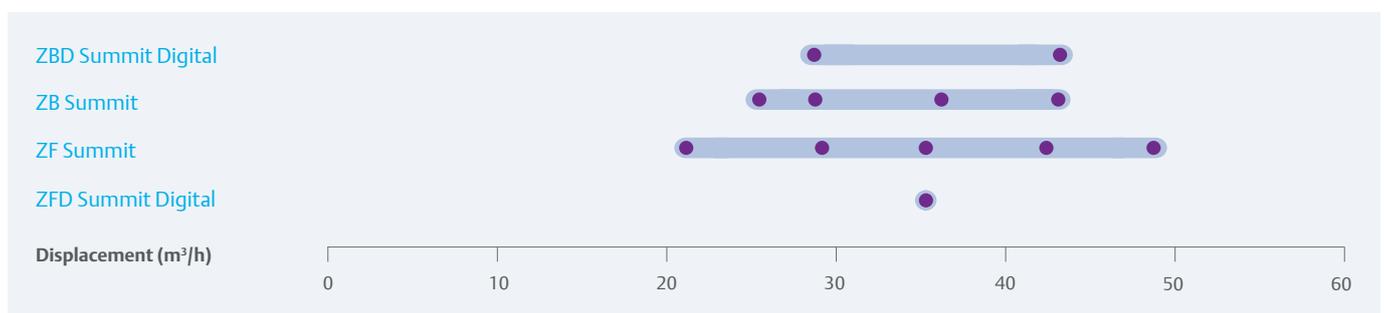
- Range of six models dedicated to low temperature including one digital model
- Each model is capable of liquid or vapor injection
- Seasonal efficiencies comparable to Emerson’s best semi-hermetic compressors
- Easy, reliable and efficient liquid injection via Discharge Temperature Control (DTC) valve

The Quietest Compressor with its Dedicated Sound Shell

As a response to environmental noise problems which are particularly disturbing in refrigeration applications, Emerson Climate Technologies has developed a dedicated Sound Shell for the Summit series. It encapsulates the compressor entirely and minimizes sound leaks allowing a 10 to 12 dBA sound attenuation. This makes Summit the quietest compressor on the market.

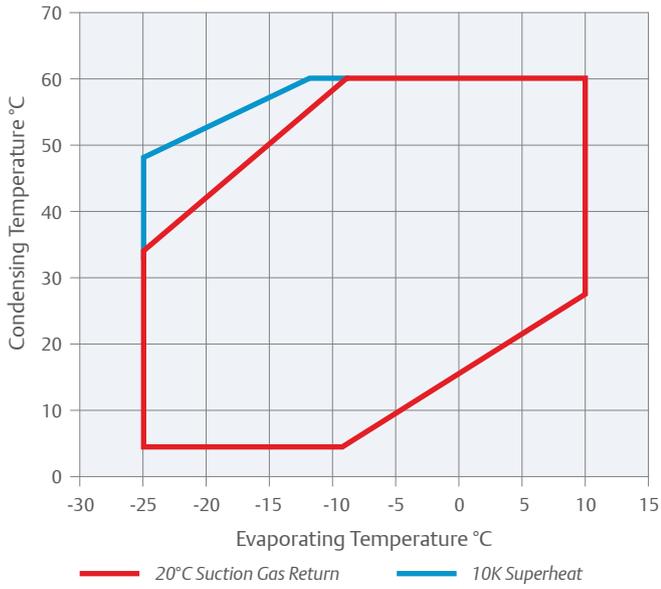


Compressor Range

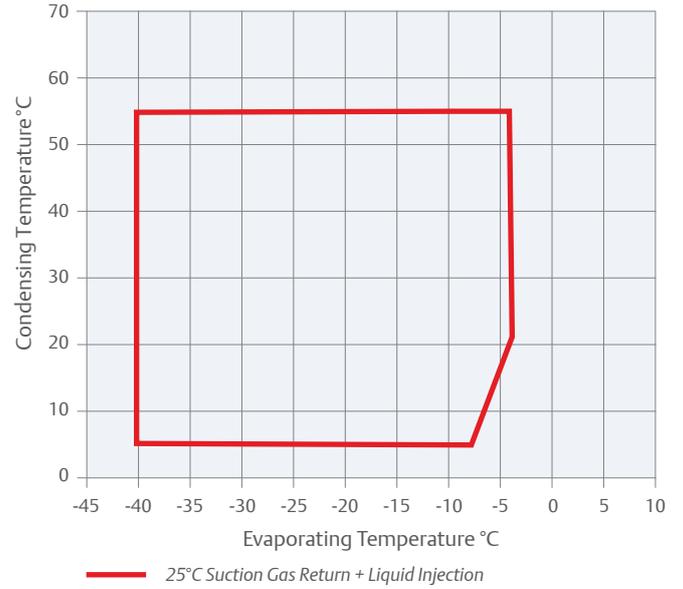


Operating Envelope

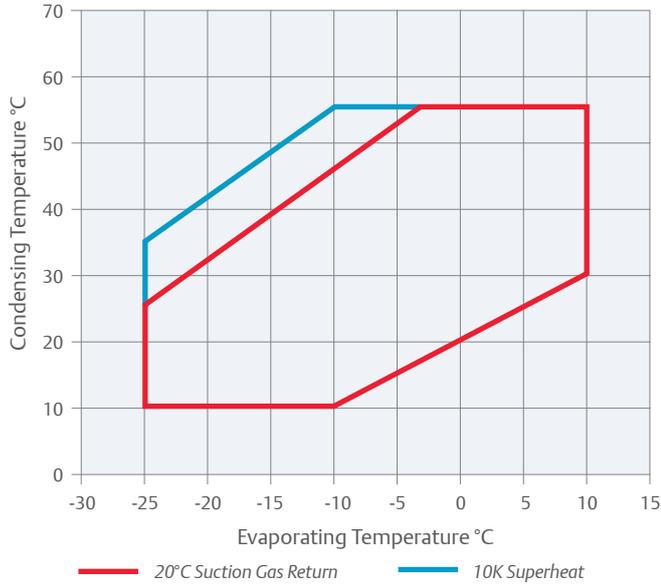
R448A/R449A ZB Scroll



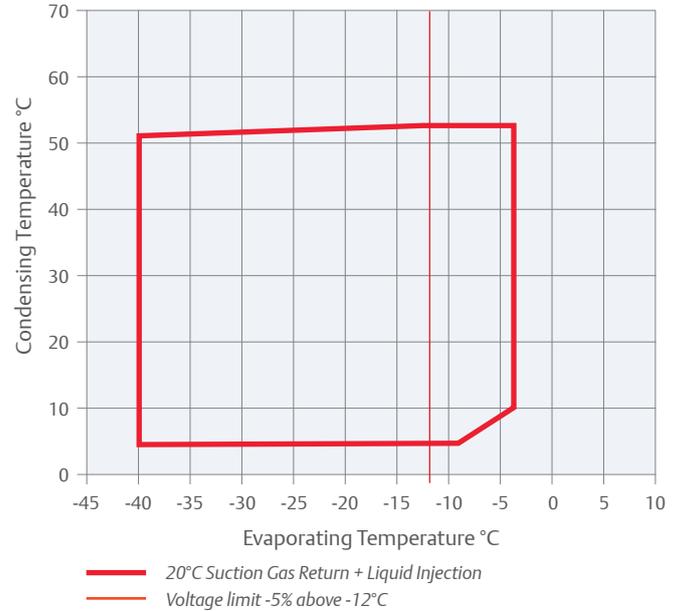
R448A/R449A - ZF Liquid Injection



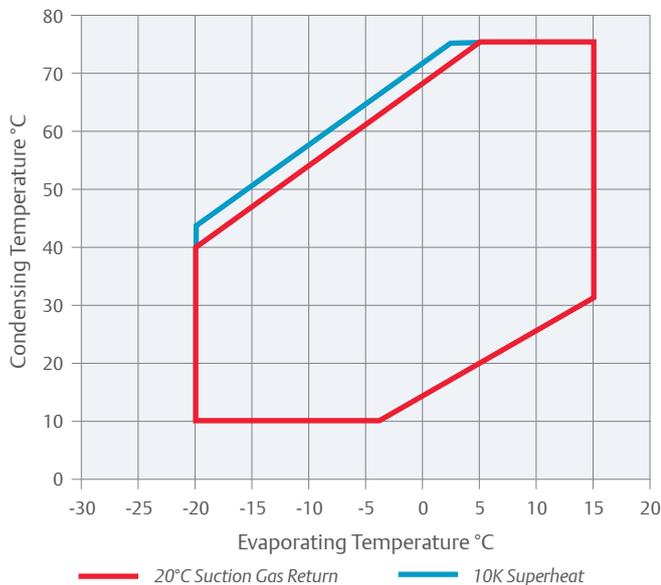
R407A - ZB Scroll



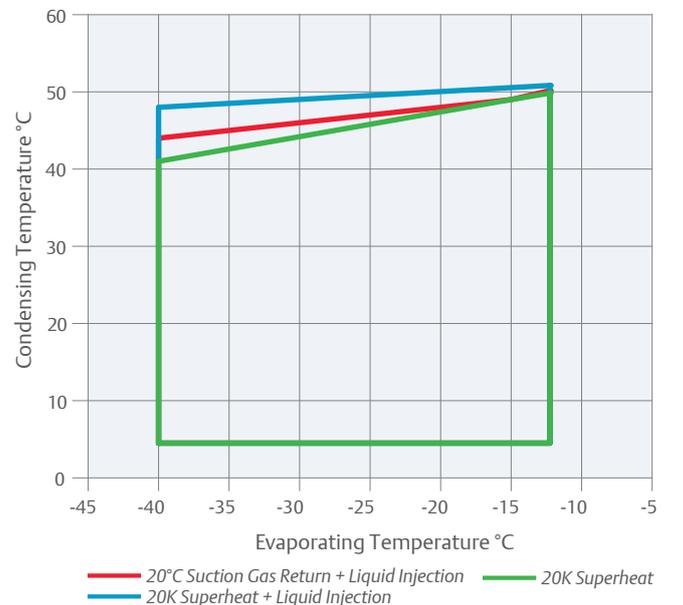
R407A - ZF Scroll



R134a - ZB Scroll



R448A/R449A ZF* K5 EVI Scroll





Technical Overview

Models	Nominal hp	Displacement (m³/h)	Cooling Capacity (kW)		Rotalock Suction (inch)	Rotalock Discharge (inch)	Oil Quantity (l)	Length/Width/Height (mm)	Net Weight (kg)	Motor Version/Code	Maximum Operating Current (A)	Locked Rotor Current (A)	Sound Pressure @ 1m (dBA) ***
			R448A/R449A	R407A									
ZB Models													
ZB66K5E	9.0	25.7	14.7	14.4	1 3/4	1 1/4	3.4	280/280/534	59.9	TFD	17.5	111.0	66
ZB76K5E	10.0	28.8	17.3	16.7	1 3/4	1 1/4	3.4	280/280/534	61.2	TFD	20.4	118.0	67
ZB95K5E	13.0	36.4	21.1	20.7	1 3/4	1 1/4	3.4	280/280/552	64.9	TFD	28.2	140.0	69
ZB114K5E	15.0	43.4	25.1	24.1	1 3/4	1 1/4	3.4	280/280/552	66.2	TFD	33.5	174.0	72
ZBD Summit Digital Models													
ZBD76K5E	10.0	28.8	17.6	17.1	1 3/4	1 1/4	3.4	299/280/534	61.2	TFD	24.0	118.0	66
ZBD114K5E	15.0	43.3	25.5	24.1	1 3/4	1 1/4	3.4	299/280/552	68.9	TFD	33.3	174.0	71
ZF Summit Models with Liquid Injection													
ZF25K5E	7.5	21.4	4.9	4.3	1 1/4	1 1/4	1.9	246/257/452	39.5	TFD	16.0	102.0	70
ZF34K5E	10.0	29.1	6.1	5.9	1 3/4	1 1/4	3.4	280/280/534	63.1	TFD	25.0	100.0	68
ZF41K5E	13.0	35.3	7.6	7.3	1 3/4	1 1/4	3.4	280/280/534	63.1	TFD	29.0	118.0	69
ZF49K5E	15.0	42.4	9.1	8.6	1 3/4	1 1/4	3.4	280/280/552	66.2	TFD	30.0	139.0	72
ZF Summit Models with Vapor Injection													
ZF25K5E EVI	7.5	21.4	6.2	6.1	1 1/4	1 1/4	1.9	246/257/452	39.5	TFD	16.0	102.0	70
ZF34K5E EVI	10.0	29.1	8.1	8.0	1 3/4	1 1/4	3.4	280/280/534	63.1	TFD	25.0	100.0	68
ZF41K5E EVI	13.0	35.3	9.9	10.1	1 3/4	1 1/4	3.4	280/280/534	63.1	TFD	29.0	118.0	69
ZF49K5E EVI	15.0	42.4	11.8	12.1	1 3/4	1 1/4	3.4	280/280/552	66.2	TFD	30.0	139.0	72
ZF54K5E EVI	17.0	48.3	14.1	14.5	1 3/4	1 1/4	3.4	363/312/552	66.2	TFD	31.0	168.0	78
ZFD Summit Digital Model For Liquid and Vapor Injection													
ZFD41K5E	13.0	35.3	7.4	7.3	1 3/4	1 1/4	3.4	310/280/534	66.2	TFD	20.4	118.0	73
ZFD41K5E EVI	13.0	35.3	9.9	10.1	1 3/4	1 1/4	3.4	310/280/534	66.2	TFD	20.4	118.0	73

** 3 Ph : 380-420V/50Hz

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

Conditions for ZB/ZBD: Evaporating -10°C, Condensing 45°C, Suction gas Return 20°C, Subcooling 0K

Conditions for ZF/ZFD: Evaporating -35°C, Condensing 40°C, Suction gas Return 20°C, Subcooling 0K

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