

# Condensing Units

## Condensing Units

Emerson Climate Technologies offers the broadest and most reliable condensing unit product line-up. Leveraging the latest compressor technology, each platform provides you the option to select the refrigerant, capacity and application temperature combinations that meet your requirements. A huge variety of Copeland™ indoor and outdoor condensing units offer the right solution for applications in food retail and food service, commercial and industrial refrigeration.

Copeland EazyCool™ Scroll Outdoor Condensing Units are designed and fully equipped for a quick and easy installation and ideal to integrate into urban environments. The latest scroll technology is combined with high-quality Alco components and covered by a weatherproof housing in a unique design.

The Copeland EazyCool Refrigeration Unit ZX Series offers the highest energy efficiency available in a standard unit to lower operators' utility bills. Ranging in size from 2 to 7.5 hp, the ZX units are perfectly suited for typical food service and retail applications. The key benefits of compactness, silence and efficiency in the standard models will be enhanced by the capability of continuous capacity modulation of the ZX Digital models. This makes ZX Digital condensing units the perfect fit for applications with wide load variations.

Copeland Scroll™ indoor condensing units are equipped with the latest refrigeration scroll compressors and constitute the widest range of their kind. The modular line concept offers base units which can be adapted to the target application by various options including weather housings and fan speed controls.

Copeland Scroll Digital Receiver Units HLR are an innovative offering for food service and retail businesses. Their compact design and the power of Digital Scroll continuous capacity modulation enable optimized environmental integration with highest system efficiency.

Semi-hermetic condensing units: robust, reliable and efficient air-cooled condensing unit platforms featuring semi-hermetic reciprocating compressor technology are for use in high-, medium- and low-temperature applications. Emerson Climate Technologies has expanded its semi-hermetic product range by the innovative Stream Indoor Condensing Units. Therewith we can offer a product range from 0.8 - 40 hp with dedicated refrigerant approvals for R407A/F, R448A/ R449A, R404A, R134a, R450A and R513A.

# Copeland EazyCool™ Outdoor Condensing Units with Scroll Compressors

Copeland™ air-cooled outdoor condensing units for medium-temperature and low-temperature applications.

Emerson Climate Technologies has developed this series of condensing units especially for outdoor use. The latest Scroll technology is combined with high-quality components and covered by an absolutely weather-resistant synthetic resin housing in a unique design.

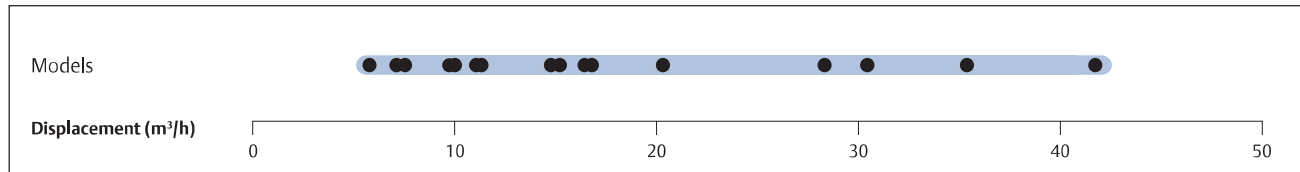
The EazyCool line-up offers state-of-the-art technology and models featuring stepless capacity control, vapor injection and fan speed control. This makes it the first choice for target applications in food retail and food service:

- Proximity and convenience stores
- Mini markets and supermarkets
- Bars, restaurants and kitchens
- Beer cellars and beverage coolers

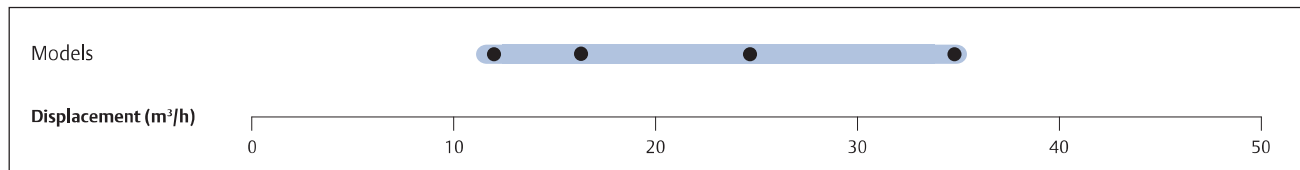


*Copeland EazyCool Outdoor Condensing Units with Scroll Compressors*

## EazyCool OLQ/OMQ Line-up



## EazyCool Digital Line-up



## Features and Benefits

- Standard equipment: Scroll compressor(s), crankcase heater(s), condenser with thermally protected fan(s), fan speed control, HP and LP switch, liquid receiver, filter drier & sight glass, weather-resistant housing
- Suitable for multiple refrigerants: R407A/F, R448A/ R449A, R404A, R134a, R450A and R513A.
- Wide range of quality accessories
- Excellent efficiency
- Filter drier, liquid sight glass and solenoid valve in liquid line

## Maximum Allowable Pressure (PS)

- Low Side PS 22.5 bar (g)
- High Side PS 28 bar (g)

**Technical Overview**

Models	Displacement (m <sup>3</sup> /h)	Receiver Capacity (l)	Number of fans	Total Fan Motor Power (W)	Suction Line Diameter (inch)	Liquid Line Diameter (inch)	Width/Depth/Height (mm)	Net Weight (kg)	Motor Version/Code		Maximum Operating Current (A)		Locked Rotor Current (A)		Sound Pressure @10m - dB(A)***
									1 Ph*	3 Ph**	1 Ph*	3 Ph**	1 Ph*	3 Ph**	
<b>Medium Temperature Models</b>															
OMQ-15	3.4	8.1	1	145	7/8	1/2	1050/630/720	74.0	PFJ	TFD	13	5	58	26	34.0
OMQ-21	4.6	8.1	1	145	7/8	1/2	1050/630/720	84.0	PFJ	TFD	16	7	82	40	35.0
OMQ-26	5.4	8.1	1	145	7/8	1/2	1050/630/720	85.0	PFJ	TFD	18	9	97	46	35.0
OMQ-30	6.0	8.1	1	145	7/8	1/2	1050/630/720	98.0		TFD		10		49	36.0
OMQ-38	8.2	8.1	1	145	7/8	1/2	1250/642/720	99.0		TFD		13		66	37.0
OMQ-45	9.2	8.1	1	145	7/8	1/2	1250/642/720	118.0		TFD		13		74	39.0
OMQ-56	11.5	17.7	2	290	1 3/8	5/8	2100/670/950	224.0		TWD		15		99	44.0
OMTQ-60	13.1	17.7	2	290	1 3/8	5/8	2100/670/950	209.0		TFD		2x10		2x49	42.0
OMTQ-76	15.1	17.7	2	290	1 3/8	5/8	2100/670/950	211.0		TFD		2x13		2x66	43.0
OMQ-75	15.3	17.7	2	290	1 3/8	5/8	2100/670/950	224.0		TWD		22		127	44.0
OMTQ-90	19.9	17.7	2	550	1 3/8	5/8	2100/670/950	225.0		TFD		2x13		2x74	45.0
OMQ-92	20.5	17.7	2	550	1 3/8	5/8	2100/670/950	246.0		TWD		25		167	46.0
OMQ-110	23.7	17.7	2	550	1 5/8	5/8	2100/670/950	255.0		TWD		29		198	47.0
<b>Digital Medium Temperature Models</b>															
OMQ-30D	6.2	8.1	1	145	7/8	1/2	1050/630/720	98.0		TFD		8		52	36.0
OMQ-45D	9.4	8.1	1	145	7/8	1/2	1250/642/720	118.0		TFD		12		74	39.0
OMTQ-60D	13.2	17.7	2	290	1 3/8	5/8	2100/670/950	209.0		TFD		8+10			42.0
OMTQ-90D	20.0	17.7	2	550	1 3/8	5/8	2100/670/950	225.0		TFD		12+13			45.0
<b>Low Temperature Models</b>															
OLQ-09	1.9	8.1	1	145	7/8	1/2	1050/630/720	83.0		TFD		6		40	34.0
OLQ-11	2.4	8.1	1	145	7/8	1/2	1050/630/720	86.0		TFD		7		46	35.0
OLQ-13	2.7	8.1	1	145	7/8	1/2	1050/630/720	96.0		TFD		8		52	36.0
OLQ-15	3.4	8.1	1	145	7/8	1/2	1250/642/720	100.0		TFD		10		64	37.0
OLQ-18	4.0	8.1	1	145	7/8	1/2	1250/642/720	118.0		TFD		13		74	39.0
OLQ-24V	7.2	17.7	2	290	1 3/8	5/8	2100/670/950	228.0		TWD		16		99	44.0
OLTQ-26V	8.2	17.7	2	550	1 3/8	5/8	2100/670/950	221.0		TFD		2x9		2x52	42.0
OLQ-33V	9.8	17.7	2	550	1 3/8	5/8	2100/670/950	228.0		TWD		21		127	44.0
OLQ-40V	11.8	17.7	2	550	1 3/8	5/8	2100/670/950	238.0		TWD		27		167	46.0
OLTQ-36V	12.1	17.7	2	550	1 3/8	5/8	2100/670/950	235.0		TFD		2x14		2x74	45.0
OLQ-48V	14.7	17.7	2	550	1 5/8	5/8	2100/670/950	259.0		TWD		31		198	47.0
<b>Digital Low Temperature Models</b>															
OLQ-18DV	6.1	17.7	2	290	7/8	5/8	2100/670/950	200.0		TFD		14		74	39.0
OLTQ-36DV	12.1	17.7	2	550	1 3/8	5/8	2100/670/950	235.0		TFD		14+14		2x74	45.0

\* 1ph: 230V/ 50Hz

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

\*\*\* @ 10m: sound pressure level at 10m distance from the compressor, free field condition

Capacity Data

Ambient Temperature: 32°C															
R407A	Cooling Capacity (kW)							R407A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
<b>Medium Temperature Models</b>															
OMQ-15					3.3	3.9	5.4	OMQ-15					1.8	1.9	2.1
OMQ-21					4.2*	5.2		OMQ-21					2.7*	2.9	
OMQ-26					5.0*	6.1		OMQ-26					3.0*	3.2	
OMQ-30					5.6*	6.9		OMQ-30					3.7*	4.0	
OMQ-38					8.1	9.7	13.2	OMQ-38					4.0	4.2	4.8
OMQ-45					8.7*	10.6		OMQ-45					4.9*	5.3	
OMQ-56				7.2*	11.1	13.2	17.8	OMQ-56				5.5*	6.1	6.4	7.0
OMQ-75				10.1*	14.6*	17.6	23.2	OMQ-75				7.2*	8.3*	9.1	10.3
OMQ-92				13.1*	19.8	23.3	31.3	OMQ-92				9.0*	10.3	10.9	12.3
OMQ-110				15.2*	22.3*	27.0	36.1	OMQ-110				11.2*	12.8*	13.8	15.6
OMTQ-60				8.3*	13.0	15.5	21.0	OMTQ-60				6.1*	6.8	7.2	8.2
OMTQ-76				9.8*	15.2	17.9		OMTQ-76				7.8*	8.8	9.4	
OMTQ-90				12.4*	19.0	22.5	30.6	OMTQ-90				8.0*	9.3	9.9	11.1
<b>Low Temperature Models</b>															
OLQ-09		1.6	2.0	3.0	4.3	5.1	6.8	OLQ-09		1.7	1.7	1.9	2.2	2.3	2.8
OLQ-13		2.2	2.8	4.2	6.0	7.1		OLQ-13		2.5	2.6	3.0	3.6	3.9	
OLQ-15		2.8	3.5	5.4	7.8	9.2	12.5	OLQ-15		2.8	3.0	3.4	4.0	4.4	5.5
OLQ-18		3.3	4.2	6.3	9.1	10.7	14.2*	OLQ-18		3.4	3.7	4.2	4.9	5.3	6.4*
OLQ-24V		5.8	7.2	10.4	14.3	16.4	21.0	OLQ-24V		4.9	5.3	6.3	8.0	9.2	13.0
OLQ-33V		7.7	9.8	14.5	18.7	20.1	20.4	OLQ-33V		6.4	6.8	7.8	9.3	10.5	13.9
OLQ-40V		10.2	12.6	18.3	24.7	28.0	34.5	OLQ-40V		7.6	8.2	9.8	12.2	13.8	18.1
OLTQ-36V		10.2*	12.2*	17.4*	25.2*	30.6*		OLTQ-36V		8.0*	8.3*	9.1*	10.7*	12.2*	
<b>Digital Medium Temperature Models</b>															
OMQ-30D					5.9*	7.0*		OMQ-30D					3.8*	4.1*	
OMQ-45D					8.6*	10.6		OMQ-45D					4.8*	5.2	
OMTQ-60D				8.3*	13.0	15.5	20.9	OMTQ-60D				6.2*	6.9	7.3	8.3
OMTQ-90D				12.6	18.7	22.3	30.5	OMTQ-90D				8.7	9.5	10.0	11.0
<b>Digital Low Temperature Models</b>															
OLTQ-36DV		10.0*	12.1*	17.3*	25.4*	30.8*		OLTQ-36DV		7.8*	8.1*	9.0*	10.8*	12.3*	

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

Preliminary data

Capacity Data

Ambient Temperature: 32°C															
R407F	Cooling Capacity (kW)							R407F	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
<b>Medium Temperature Models</b>															
OMQ-15					3.1	3.7	5.1	OMQ-15					2.0	2.0	2.2
OMQ-21					4.0*	4.9		OMQ-21					3.0*	3.2	
OMQ-26					4.8*	5.9		OMQ-26					3.4*	3.6	
OMQ-30					5.7*	6.8*		OMQ-30					4.0*	4.2*	
OMQ-38					7.8*	9.6	13.3	OMQ-38					4.4*	4.7	5.3
OMQ-45					8.7*	10.8		OMQ-45					5.3*	5.7	
OMTQ-60					12.4*	15.2		OMTQ-60					7.3*	7.7	
OMTQ-76					14.3*	17.2*		OMTQ-76					9.7*	10.3*	
OMTQ-90				11.7*	18.6*	22.9	31.8	OMTQ-90				9.1*	10.3*	10.9	12.2
<b>Low Temperature Models</b>															
OLQ-09		1.7	2.1	3.2	4.5	5.3		OLQ-09		1.8	1.8	2.0	2.3	2.5	
OLQ-11		2.0	2.5	3.8	5.3			OLQ-11		2.2	2.3	2.5	2.9		
OLQ-13		2.3	2.9	4.4	6.2			OLQ-13		2.6	2.8	3.2	3.8		
OLQ-15		2.9	3.7	5.6	8.1	9.6	13.0	OLQ-15		2.9	3.1	3.6	4.3	4.7	5.9
OLQ-18		3.5	4.4	6.6	9.4	11.1		OLQ-18		3.7	3.9	4.5	5.2	5.7	
<b>Digital Medium Temperature Models</b>															
OMQ-30D					6.1*	7.2*		OMQ-30D					3.5*	3.9*	
OMQ-45D					9.1*	11.1		OMQ-45D					5.0*	5.5	
OMTQ-60D					12.6*	15.4		OMTQ-60D					7.0*	7.5	
OMTQ-90D				11.8*	18.9*	23.2	31.7	OMTQ-90D				8.6*	10.0*	10.8	12.4

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

Preliminary data

## Capacity Data

Ambient Temperature: 32°C																
R448A	Cooling Capacity (kW)							R448A	Power Input (kW)							
	Evaporating Temperature (°C)								Evaporating Temperature (°C)							
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5	
Medium Temperature Models																
OMQ-15				2.1	3.2	3.9	5.4		OMQ-15				1.7	1.8	1.8	2.0
OMQ-21				3.0*	4.5	5.4	7.2		OMQ-21				2.4*	2.8	2.9	3.3
OMQ-26				3.5*	5.4	6.4	8.6		OMQ-26				2.8*	3.1	3.3	3.7
OMQ-30				3.8*	6.1	7.2			OMQ-30				3.3*	3.8	4.0	
OMQ-38				5.4	8.1	9.7	13.2		OMQ-38				3.8	4.2	4.4	4.9
OMQ-45				5.8*	9.2	10.9	14.7		OMQ-45				4.5*	5.0	5.3	6.0
Low Temperature Models																
OLQ-09		1.7	2.2	3.2	4.5	5.2			OLQ-09		2.0	2.0	2.2	2.5	2.7	
OLQ-13		2.5	3.1	4.6	6.3	7.3			OLQ-13		2.6	2.7	3.0	3.5	3.9	
OLQ-15		3.1	3.9	5.9	8.3	9.6			OLQ-15		3.1	3.3	3.7	4.3	4.7	
OLQ-18		3.6	4.5	6.8	9.5	11.1			OLQ-18		3.9	3.9	4.3	5.0	5.5	
OLQ-24V		5.7*	7.1*	10.5*	14.8*	17.3*			OLQ-24V		4.8*	5.2*	5.9*	6.6*	7.0*	
OLQ-33V		7.9*	9.8*	14.6*	20.6*	24.1*	32.3		OLQ-33V		6.4*	6.9*	7.7*	8.6*	9.0*	9.9
OLQ-40V		9.5*	12.4*	18.6*	25.7*	29.7*			OLQ-40V		7.6*	8.7*	10.6*	11.9*	12.6*	
Digital Medium Temperature Models																
OMQ-30D				4.1*	6.2	7.3			OMQ-30D				2.9*	3.5	3.9	
OMQ-45D				6.1*	9.5	11.2	14.9		OMQ-45D				3.8*	4.7	5.2	6.2

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

Preliminary data

Capacity Data

Ambient Temperature: 32°C															
R449A	Cooling Capacity (kW)							R449A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
<b>Medium Temperature Models</b>															
OMQ-15				2.1	3.2	3.9	5.4	OMQ-15				1.7	1.8	1.8	2.0
OMQ-21				2.9*	4.5	5.4	7.2	OMQ-21				2.4*	2.8	2.9	3.3
OMQ-26				3.5*	5.4	6.4	8.6	OMQ-26				2.8*	3.1	3.3	3.7
OMQ-30				3.8*	6.1	7.2		OMQ-30				3.3*	3.8	4.0	
OMQ-38				5.4	8.1	9.7	13.2	OMQ-38				3.8	4.2	4.4	4.9
OMQ-45				5.8*	9.2	10.9	14.7	OMQ-45				4.5*	5.0	5.3	6.0
<b>Low Temperature Models</b>															
OLQ-09		1.7	2.2	3.2	4.5	5.2		OLQ-09		2.0	2.0	2.2	2.5	2.7	
OLQ-13		2.5	3.1	4.6	6.3	7.3		OLQ-13		2.6	2.7	3.0	3.5	3.9	
OLQ-15		3.1	3.9	5.9	8.3	9.6		OLQ-15		3.1	3.3	3.7	4.3	4.7	
OLQ-18		3.6	4.5	6.8	9.5	11.1		OLQ-18		3.9	3.9	4.3	5.0	5.5	
OLQ-24V		5.7*	7.1*	10.5*	14.8*	17.3*		OLQ-24V		4.8*	5.2*	5.9*	6.7*	7.0*	
OLQ-33V		7.9*	9.8*	14.6*	20.6*	24.1*	32.3	OLQ-33V		6.4*	6.9*	7.8*	8.6*	9.0*	9.9
OLQ-40V		9.5*	12.4*	18.6*	25.7*	29.6*		OLQ-40V		7.6*	8.7*	10.6*	12.0*	12.6*	
<b>Digital Medium Temperature Models</b>															
OMQ-30D				4.1*	6.2	7.3		OMQ-30D				2.9*	3.5	3.9	
OMQ-45D				6.1*	9.5	11.2	14.9	OMQ-45D				3.8*	4.7	5.2	6.2

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K  
 \* Conditions: EN13215: Suction Superheat 10K

Preliminary data



Capacity Data

Ambient Temperature: 32°C															
R404A	Cooling Capacity (kW)							R404A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
<b>Medium Temperature Models</b>															
OMQ-15				2.3	3.4	3.9	5.2	OMQ-15				1.9	2.0	2.0	2.1
OMQ-21				3.3	4.6	5.3	6.7	OMQ-21				2.8	3.0	3.1	3.4
OMQ-26				3.9	5.4	6.2	8.1	OMQ-26				3.2	3.4	3.5	3.8
OMQ-30				4.3	6.0	6.9	8.9	OMQ-30				3.8	4.1	4.3	4.7
OMQ-38				5.8	8.2	9.5	12.4	OMQ-38				4.3	4.6	4.8	5.2
OMQ-45				6.6	9.2	10.6	13.7	OMQ-45				5.1	5.5	5.7	6.2
OMQ-56				8.3	11.5	13.4	17.4	OMQ-56				6.2	6.7	6.9	7.5
OMQ-75				11.3	15.3	17.4	22.1	OMQ-75				8.2	9.3	9.8	10.9
OMQ-92				14.9	20.5	23.7	30.7	OMQ-92				10.2	11.2	11.8	13.1
OMQ-110				17.3	23.7	27.3	35.1	OMQ-110				12.7	14.1	14.8	16.4
OMTQ-60				9.4	13.1	15.1	19.6	OMTQ-60				7.0	7.5	7.8	8.4
OMTQ-76				11.1	15.1	17.3		OMTQ-76				9.3	10.1	10.6	
OMTQ-90				14.2	19.9	23.1	30.2	OMTQ-90				9.6	10.3	10.7	11.5
<b>Low Temperature Models</b>															
OLQ-09		1.9	2.3	3.3	4.5	5.2	6.6	OLQ-09		2.0	2.0	2.3	2.6	2.7	3.2
OLQ-11		2.4	2.8	3.9	5.2	5.9	7.5	OLQ-11		2.4	2.5	2.8	3.2	3.5	4.1
OLQ-13		2.7	3.3	4.7	6.3	7.1	9.0	OLQ-13		2.6	2.7	3.1	3.6	3.9	4.5
OLQ-15		3.4	4.2	6.0	8.2	9.5	12.1	OLQ-15		3.2	3.4	3.9	4.5	4.9	5.8
OLQ-18V		6.0	7.1	9.7	13.1	15.0		OLQ-18V		4.6	5.0	6.0	7.1	7.8	
OLQ-18		4.0	4.9	6.9	9.4	10.8	13.8	OLQ-18		3.9	4.1	4.6	5.2	5.6	6.5
OLQ-24V		7.2	8.7	12.3	16.4	18.6	23.3	OLQ-24V		5.6	6.0	6.8	7.9	8.5	10.1
OLQ-33V		9.8	11.9	16.8	22.8	26.1	33.7	OLQ-33V		7.4	7.9	8.8	10.0	10.7	12.2
OLQ-40V		11.8	14.9	21.4	28.4	32.0	39.3	OLQ-40V		8.7	9.8	12.0	14.0	15.1	17.4
OLQ-48V		14.7	17.6	24.0	30.9	34.3		OLQ-48V		11.1	12.2	14.7	18.1	20.2	
OLTQ-26V		8.2	9.9	14.3	19.8	23.1	31.1	OLTQ-26V		6.4	6.7	7.4	8.2	8.7	9.6
OLTQ-36V		12.1	14.4	20.0	27.1	31.4		OLTQ-36V		8.9	9.6	11.1	12.8	13.8	
<b>Digital Medium Temperature Models</b>															
OMQ-30D				4.6	6.2	7.0	8.8	OMQ-30D				3.2	3.7	3.9	4.5
OMQ-45D				6.9	9.4	10.8	13.7	OMQ-45D				4.4	5.2	5.6	6.4
OMTQ-60D				9.5	13.2	15.2	19.7	OMTQ-60D				6.5	7.2	7.5	8.3
OMTQ-90D				13.9	20.0	23.5	31.5	OMTQ-90D				9.6	10.4	10.9	12.1
<b>Digital Low Temperature Models</b>															
OLQ-18DV		6.1	7.3	10.2	13.9	16.1	21.3	OLQ-18DV		4.3	4.7	5.3	6.0	6.5	7.4
OLTQ-36DV		12.1	14.4	20.0	27.1	31.4		OLTQ-36DV		8.9	9.6	11.1	12.8	13.8	

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

Capacity Data

Ambient Temperature: 32°C															
R407C	Cooling Capacity (kW)							R407C	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
Medium Temperature Models															
OMQ-15				1.8*	3.0	3.7	5.1	OMQ-15				1.6*	1.6	1.7	1.8
OMQ-21				2.7*	4.1*	5.0	6.9	OMQ-21				2.2*	2.5*	2.6	3.0
OMQ-26				3.2*	4.9*	6.0	8.3	OMQ-26				2.5*	2.8*	3.0	3.3
OMQ-30					5.6*	6.7*	9.1	OMQ-30					3.5*	3.8*	4.4
OMQ-38				5.0*	7.6*	9.2	12.6	OMQ-38				3.4*	3.7*	3.9	4.4
OMQ-45				5.5*	8.4*	10.3	14.2	OMQ-45				4.1*	4.5*	4.8	5.5
OMQ-56				6.9*	10.4*	12.7	17.4	OMQ-56				5.3*	5.8*	6.1	6.6
OMQ-75				9.3*	13.7*	16.2*	22.2	OMQ-75				6.7*	7.7*	8.2*	9.4
OMQ-92				12.0*	17.8*	21.7	29.6	OMQ-92				8.4*	9.4*	10.0	11.1
OMQ-110				14.2*	21.1*	25.6	34.7	OMQ-110				10.6*	12.0*	12.8	14.4
OMTQ-60				7.2*	11.3*	13.9	19.3	OMTQ-60				5.6*	6.2*	6.6	7.4
OMTQ-76				8.1*	12.9*	15.7*	22.3	OMTQ-76				6.8*	7.8*	8.4*	9.8
OMTQ-90				10.6*	17.0*	21.0	29.3	OMTQ-90				7.8*	8.6*	9.1	10.1

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K  
 \* Conditions: EN13215: Suction Superheat 10K

Ambient Temperature: 32°C															
R134a	Cooling Capacity (kW)							R134a	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
Medium Temperature Models															
OMQ-15				1.4	2.2	2.7	3.9	OMQ-15				1.0	1.1	1.1	1.2
OMQ-21				2.0	3.1	3.8	5.4	OMQ-21				1.4	1.5	1.6	1.8
OMQ-26				2.3	3.6	4.4	6.3	OMQ-26				1.6	1.7	1.8	2.0
OMQ-30				2.5*	4.2	5.1	7.2	OMQ-30				1.9*	2.0	2.1	2.4
OMQ-38				3.3	5.3	6.5	9.4	OMQ-38				2.1	2.3	2.4	2.6
OMQ-45				4.1	6.3	7.7	11.0	OMQ-45				2.5	2.7	2.9	3.2
OMQ-56				4.6*	7.3*	9.1	13.0	OMQ-56				3.3*	3.6*	3.7	4.0
OMQ-75				6.4*	9.8*	12.3	17.2	OMQ-75				4.0*	4.6*	4.9	5.6
OMQ-92				8.1*	12.6*	15.7	22.2	OMQ-92				5.4*	5.9*	6.2	6.8
OMTQ-60				5.1*	8.3*	10.5	15.1	OMTQ-60				3.8*	4.0*	4.2	4.5
OMTQ-76				6.1*	10.0*	12.6	18.0	OMTQ-76				4.4*	4.9*	5.1	5.7
OMTQ-90				7.7*	12.3*	15.6	22.5	OMTQ-90				5.5*	5.7*	5.9	6.4
OMQ-110				9.9*	15.2*	19.0	26.6	OMQ-110				6.6*	7.3*	7.8	8.6
Digital Medium Temperature Models															
OMQ-30D					4.3	5.1	7.1	OMQ-30D					2.0	2.2	2.5
OMQ-45D					6.2	7.6	10.7	OMQ-45D					2.8	3.0	3.4
OMTQ-38D			2.2	5.5	8.9	10.9	15.7	OMTQ-38D			3.1	3.2	3.5	3.7	4.1
OMTQ-48D			4.7	7.4	11.1	13.5	19.3	OMTQ-48D			3.1	3.9	4.5	4.8	5.3
OMTQ-60D				5.3*	8.7	10.5	14.9	OMTQ-60D				3.5*	3.9	4.1	4.6
OMTQ-90D				8.3	12.8	15.6	22.4	OMTQ-90D				5.1	5.6	5.9	6.5

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K  
 \* Conditions: EN13215: Suction Superheat 10K

Preliminary data

## Capacity Data

Ambient Temperature: 32°C																
R450A	Cooling Capacity (kW)							R450A	Power Input (kW)							
	Evaporating Temperature (°C)								Evaporating Temperature (°C)							
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5	
Medium Temperature Models																
OMQ-15				1.2	1.9	2.4	3.5		OMQ-15				0.9	0.9	0.9	1.0
OMQ-21				1.7	2.8	3.4	5.0		OMQ-21				1.3	1.3	1.4	1.5
OMQ-26				2.0	3.2	4.0	5.8		OMQ-26				1.5	1.5	1.6	1.7
OMQ-30				2.2*	3.8	4.6	6.7		OMQ-30				1.7*	1.8	1.8	1.9
OMQ-38				3.0	4.8	5.9	8.7		OMQ-38				2.0	2.1	2.1	2.3
OMQ-45				3.5	5.5	6.8	9.9		OMQ-45				2.4	2.4	2.5	2.7
Digital Medium Temperature Models																
OMQ-30D				2.3*	3.8	4.6	6.6		OMQ-30D				1.5*	1.7	1.8	2.0
OMQ-45D				3.6	5.7	6.9	10.0		OMQ-45D				2.1	2.4	2.5	2.9

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

Preliminary data

## Capacity Data

Ambient Temperature: 32°C																
R513A	Cooling Capacity (kW)							R513A	Power Input (kW)							
	Evaporating Temperature (°C)								Evaporating Temperature (°C)							
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5	
Medium Temperature Models																
OMQ-15				1.4	2.3	2.8	4.0		OMQ-15				1.1	1.1	1.1	1.1
OMQ-21				2.0*	3.3	4.0	5.5		OMQ-21				1.5*	1.6	1.7	1.8
OMQ-26				2.3*	3.8	4.6	6.5		OMQ-26				1.7*	1.8	1.9	2.0
OMQ-30				2.6*	4.3	5.3	7.4		OMQ-30				2.0*	2.1	2.2	2.4
OMQ-38				3.6	5.6	6.9	9.8		OMQ-38				2.4	2.5	2.6	2.8
OMQ-45				3.9*	6.5	7.9	11.2		OMQ-45				2.8*	2.9	3.0	3.3
Digital Medium Temperature Models																
OMQ-30D				2.7*	4.4	5.3	7.4		OMQ-30D				1.8*	2.0	2.1	2.4
OMQ-45D				4.0*	6.6	8.0	11.2		OMQ-45D				2.5*	2.8	3.0	3.5

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

Preliminary data



# Copeland EazyCool™ Outdoor Condensing Units for Refrigeration Networks

Copeland™ outdoor condensing unit networks for medium-temperature and low-temperature applications.

Emerson Climate Technologies has developed this version of outdoor scroll condensing units with interconnectivity in order to create medium and large refrigeration network systems.

The EazyCool condensing unit networks perfectly fit in applications where larger cooling capacities and capacity modulation are required.

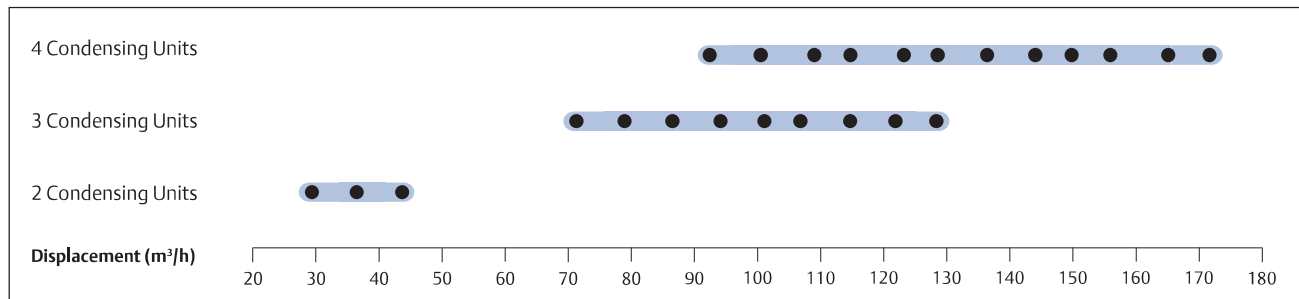
Typical applications are:

- Cold and freeze stores
- Discount and convenience stores
- Supermarkets and mini-markets
- Petrol station forecourts



*Copeland EazyCool Outdoor Condensing Units for Refrigeration Networks*

## Copeland EazyCool Network Line-up



Conditions EN13215 R404A: Evaporating Temperature MT -10°C/LT -35°C, Ambient Temperature 32°C, Suction Gas Return 20°C

## Features and Benefits

- Standard equipment: Copeland Scroll™ compressor(s), crankcase heater(s), condenser with thermally protected low speed fan(s), fan speed controller, oil separator, suction and liquid equalization lines, HP and LP switch, oil reservoir, EC2 Electronic controller, weather-resistant housing
- Oil control system with oil separator, TRAX OIL on each compressor, oil distribution lines and additional liquid receiver unit for large networks
- LON Master/Slave communication
- Capacity modulation with up to 8 compressors or stepless with Digital Scroll
- Perfect capacity adjustment by a wide range of combination opportunities

## Maximum Allowable Pressures (PS)

- Low Side PS 22.5 bar(g)
- High Side PS 28 bar(g)

Capacity Data - OMQ

R404A		Medium Temperature (-10/+32°C)						
Displacement (m³/h)	Motor Capacity (kW)	Model Configuration						
<b>2 Condensing Units Network</b>								
28.8	14.8	OMQ75 NLO	+	OMQ56 NL				
28.8	17.1	OMQ75 NLO	+	OMQ75 NL				
35.6	19.7	OMQ92 NLO	+	OMQ75 NL				
35.6	22.2	OMQ92 NLO	+	OMQ92 NL				
42.8	25.1	OMQ110 NLO	+	OMQ 92 NL				
42.8	28.0	OMQ110 NLO	+	OMQ110 NL				
<b>3 Condensing Units Network</b>								
70.6	21.0	OMQ75 NO	+	OMQ56 N	+	OMQ56 N		
78.5	23.3	OMQ75 NO	+	OMQ75 N	+	OMQ56 N		
86.4	25.7	OMQ75 NO	+	OMQ75 N	+	OMQ75 N		
93.2	28.2	OMQ92 NO	+	OMQ75 N	+	OMQ75 N		
100.0	30.8	OMQ92 NO	+	OMQ92 N	+	OMQ75 N		
106.8	33.3	OMQ92 NO	+	OMQ92 N	+	OMQ92 N		
114.0	36.2	OMQ110 NO	+	OMQ92 N	+	OMQ92 N		
121.2	39.1	OMQ110 NO	+	OMQ110 N	+	OMQ92 N		
128.4	42.0	OMQ110 NO	+	OMQ110 N	+	OMQ110 N		
<b>4 Condensing Units Network</b>								
91.5	27.2	OMQ75 NO	+	OMQ56 N	+	OMQ56 N	+	OMQ56 N
99.4	29.5	OMQ75 NO	+	OMQ75 N	+	OMQ56 N	+	OMQ56 N
107.3	31.9	OMQ75 NO	+	OMQ75 N	+	OMQ75 N	+	OMQ56 N
115.2	34.2	OMQ75 NO	+	OMQ75 N	+	OMQ75 N	+	OMQ75 N
122.0	36.8	OMQ92 NO	+	OMQ75 N	+	OMQ75 N	+	OMQ75 N
128.8	39.3	OMQ92 NO	+	OMQ92 N	+	OMQ75 N	+	OMQ75 N
135.6	41.9	OMQ92 NO	+	OMQ92 N	+	OMQ92 N	+	OMQ75 N
142.4	44.4	OMQ92 NO	+	OMQ92 N	+	OMQ92 N	+	OMQ92 N
149.6	47.3	OMQ110 NO	+	OMQ92 N	+	OMQ92 N	+	OMQ92 N
156.8	50.2	OMQ110 NO	+	OMQ110 N	+	OMQ92 N	+	OMQ92 N
164.0	53.1	OMQ110 NO	+	OMQ110 N	+	OMQ110 N	+	OMQ92 N
171.2	56.0	OMQ110 NO	+	OMQ110 N	+	OMQ110 N	+	OMQ110 N

Capacity Data - OLQ

R404A		Low Temperature (-35/+32°C)						
Cooling Capacity (kW)	Motor Capacity (kW)	Model Configuration						
<b>2 Condensing Units Network</b>								
16.4	13.9	OLQ33V NLO	+	OLQ24V NL				
18.7	16.4	OLQ33V NLO	+	OLQ33V NL				
20.9	17.0	OLQ40V NLO	+	OLQ33V NL				
23.0	17.6	OLQ40V NLO	+	OLQ40V NL				
25.4	20.6	OLQ48V NLO	+	OLQ40V NL				
27.8	23.6	OLQ48V NLO	+	OLQ48V NL				
<b>3 Condensing Units Network</b>								
23.4	19.6	OLQ33V NO	+	OLQ24V N	+	OLQ24V N		
25.7	22.1	OLQ33V NO	+	OLQ33V N	+	OLQ24V N		
28.1	24.6	OLQ33V NO	+	OLQ33V N	+	OLQ33V N		
30.2	25.2	OLQ40V NO	+	OLQ33V N	+	OLQ33V N		
32.4	25.8	OLQ40V NO	+	OLQ40V N	+	OLQ33V N		
34.5	26.4	OLQ40V NO	+	OLQ40V N	+	OLQ40V N		
36.9	29.4	OLQ48V NO	+	OLQ40V N	+	OLQ40V N		
39.3	32.4	OLQ48V NO	+	OLQ48V N	+	OLQ40V N		
41.7	35.4	OLQ48V NO	+	OLQ48V N	+	OLQ48V N		
<b>4 Condensing Units Network</b>								
30.4	25.3	OLQ33V NO	+	OLQ24V N	+	OLQ24V N	+	OLQ24V N
32.7	27.8	OLQ33V NO	+	OLQ33V N	+	OLQ24V N	+	OLQ24V N
35.1	30.3	OLQ33V NO	+	OLQ33V N	+	OLQ33V N	+	OLQ24V N
37.4	32.8	OLQ33V NO	+	OLQ33V N	+	OLQ33V N	+	OLQ33V N
39.6	33.4	OLQ40V NO	+	OLQ33V N	+	OLQ33V N	+	OLQ33V N
41.7	34.0	OLQ40V NO	+	OLQ40V N	+	OLQ33V N	+	OLQ33V N
43.9	34.6	OLQ40V NO	+	OLQ40V N	+	OLQ40V N	+	OLQ33V N
46.0	35.2	OLQ40V NO	+	OLQ40V N	+	OLQ40V N	+	OLQ40V N
48.4	38.2	OLQ48V NO	+	OLQ40V N	+	OLQ40V N	+	OLQ40V N
50.8	41.2	OLQ48V NO	+	OLQ48V N	+	OLQ40V N	+	OLQ40V N
53.2	44.2	OLQ48V NO	+	OLQ48V N	+	OLQ48V N	+	OLQ40V N
55.6	47.2	OLQ48V NO	+	OLQ48V N	+	OLQ48V N	+	OLQ48V N

Conditions: EN13215: Suction Gas Return 20°C, Suction Superheat 10K





# Copeland EazyCool™ ZX Outdoor Refrigeration Units with Scroll Compressors

Copeland™ compact outdoor refrigeration units are for medium-temperature and low-temperature applications.

With this new range of outdoor refrigeration units, Emerson Climate Technologies offers a solution for refrigeration applications with space and noise constraints which responds to the increasing demand for energy-efficient refrigeration solutions units.

Copeland EazyCool ZX outdoor refrigeration units feature the most complete and unique equipment. Their advanced electronic controller enables precise parameter control and displays the system status. Vapor injection and liquid injection technology significantly increase system efficiency and operation map. Electronic protection functions, oil separator and suction accumulator guarantee optimum system safety.

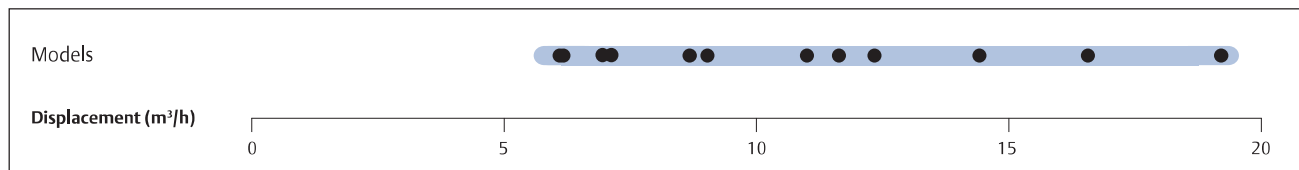
Lowest life cycle costs and comprehensive safety features make Copeland EazyCool ZX a cost efficient and reliable choice for:

- Convenience stores
- Cold rooms
- Fast food stores, bars and restaurants
- Beverage coolers

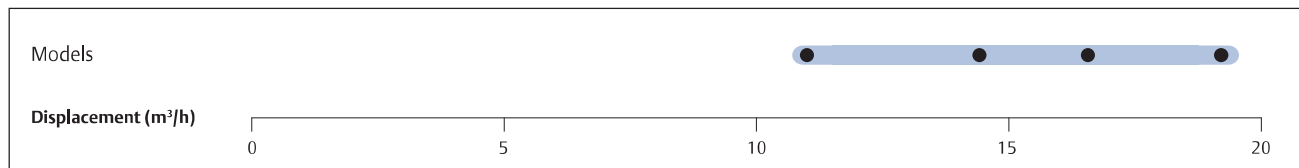


*Copeland EazyCool ZX Outdoor Refrigeration Units with Scroll Compressors*

## Copeland EazyCool ZX Line-up



## Copeland EazyCool ZX Digital Line-up



## Features and Benefits

- Standard equipment: Copeland Scroll™ compressor, crankcase heater, electronic controller, fan(s) with speed control, liquid receiver, safety switches, filter drier and sight glass, oil separator and suction accumulator (LT models only)
- Copeland EazyCool ZX Digital models allow for 10% to 100% continuous capacity modulation
- Diagnostic capabilities protect the unit from over-current, phase loss and phase imbalance
- LED display shows real time system status
- Precise electronic suction pressure control
- Energy and operation cost saving due to excellent energy efficiency
- Noise attenuation due to low speed fan motors with sickle blades, fan speed control and sound jacket
- High capacity vapor injection technology for LT models
- Space saving due to compact dimensions
- Easy and quick installation
- Multiple refrigerant approvals incl. R407A/F, R448A/R449A, R404A, R134a, R450A and R513A

## Maximum Allowable Pressures (PS)

- Low Side PS 22.5 bar (g)
- High Side PS 28.8 bar (g)

## Technical Overview

Model	Displacement (m <sup>3</sup> /h)	Receiver Capacity (l)	Number of fans	Total Fan Motor Power (W)	Suction Line Diameter (inch)	Liquid Line Diameter (inch)	Width/Depth/Height (mm)	Net Weight (kg)	Motor Version/Code		Maximum Operating Current (A)		Locked Rotor Current (A)		Sound Pressure @10m - dB(A)***	
									1 Ph*	3 Ph**	1 Ph*	3 Ph**	1 Ph*	3 Ph**		
<b>Medium Temperature Models</b>																
ZXME020E	5.9	4.4	1	116	3/4	1/2	1029/424/840	76.0	PFJ	TFD	13	5	58	26	39.0	
ZXME025E	6.8	4.4	1	116	3/4	1/2	1029/424/840	79.0	PFJ		12		61		40.0	
ZXME030E	8.6	4.4	1	116	3/4	1/2	1029/424/840	79.0	PFJ	TFD	16	7	82	40	40.0	
ZXME040E	11.7	4.4	1	116	7/8	1/2	1029/424/840	91.0	PFJ		24		114		40.0	
ZXME040E	14.4	4.4	1	116	7/8	1/2	1029/424/840	91.0		TFD		10		49	40.0	
ZXME050E	17.1	6.3	2	246	7/8	1/2	1029/424/1242	108.0		TFD		13		66	41.0	
ZXME060E	18.8	6.3	2	246	7/8	1/2	1029/424/1242	112.0		TFD		13		74	41.0	
ZXME075E	11.9	6.3	2	246	7/8	1/2	1029/424/1242	118.0		TFD		14		101	42.0	
<b>Digital Medium Temperature Models</b>																
ZXDE-040E	11.4	6.3	2	246	7/8	1/2	1029/424/1242	104.0		TFD		8		48	40.0	
ZXDE-050E	14.4	6.3	2	246	7/8	1/2	1029/424/1242	108.0		TFD		11		64	41.0	
ZXDE-060E	17.1	6.3	2	246	7/8	1/2	1029/424/1242	112.0		TFD		11		74	41.0	
ZXDE-075E	18.8	6.3	2	246	7/8	1/2	1029/424/1242	118.0		TFD		14		100	42.0	
<b>Low Temperature Models</b>																
ZXLE020E	6.1	4.4	1	116	3/4	1/2	1029/424/840	79.0	PFJ	TFD	14	6	57	39	39.0	
ZXLE025E	7.1	4.4	1	116	3/4	1/2	1029/424/840	79.0	PFJ	TFD	16	6	74	39	39.0	
ZXLE030E	8.0	4.4	1	116	3/4	1/2	1029/424/840	81.0	PFJ	TFD	18	7	82	36	40.0	
ZXLE040E	12.7	4.4	1	116	7/8	1/2	1029/424/840	93.0		TFD		9		52	40.0	
ZXLE050E	14.4	6.3	2	246	7/8	1/2	1029/424/1242	106.0		TFD		12		52	41.0	
ZXLE060E	17.1	6.3	2	246	7/8	1/2	1029/424/1242	116.0		TFD		14		74	41.0	
ZXLE075E	18.8	6.3	2	246	7/8	1/2	1029/424/1242	121.0		TFD		15		101	41.0	

\* 1ph: 230V/ 50Hz

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

\*\*\* @ 10m: sound pressure level at 10m distance from the compressor, free field condition

## Capacity Data

Ambient Temperature: 32°C															
R407A	Cooling Capacity (kW)							R407A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
<b>Medium Temperature Models</b>															
ZXME020E					3.5	4.1	5.6	ZXME020E					1.7	1.7	1.7
ZXME025E**					3.9	4.7	6.6	ZXME025E**					1.7	1.8	1.9
ZXME030E					4.9	5.9	8.3	ZXME030E					2.3	2.4	2.6
ZXME040E**					6.0	7.1	9.9	ZXME040E**					3.0	3.1	3.5
ZXME040E					6.3	7.5	10.3	ZXME040E					3.2	3.4	3.8
ZXME050E					8.7	10.4	14.4	ZXME050E					3.7	3.9	4.3
ZXME060E					9.8	11.8	16.4	ZXME060E					4.3	4.5	5.0
ZXME075E					11.3	13.6	18.9	ZXME075E					4.9	5.1	5.6
<b>Low Temperature Models</b>															
ZXLE020E		1.5	1.9	3.0	4.3	5.1	6.7	ZXLE020E		1.4	1.5	1.6	1.8	1.8	2.0
ZXLE025E		1.8	2.2	3.4	5.0	5.9	7.9	ZXLE025E		1.6	1.7	1.8	2.0	2.0	2.3
ZXLE030E		2.0	2.5	3.9	5.6	6.6	8.7	ZXLE030E		1.8	1.9	2.0	2.2	2.3	2.5
ZXLE040E		3.1	3.9	5.9	8.3	9.6		ZXLE040E		2.7	2.9	3.4	4.0	4.4	
ZXLE050E		3.6	4.5	6.8	9.7	11.4	14.8	ZXLE050E		3.1	3.2	3.7	4.3	4.7	5.4
ZXLE060E		4.2	5.3	7.9	11.3	13.1		ZXLE060E		3.7	3.9	4.5	5.3	5.8	
ZXLE075E		4.8	5.9	9.0	13.0	15.2	19.9	ZXLE075E		3.9	4.1	4.6	5.4	5.8	6.7
<b>Digital Medium Temperature Models</b>															
ZXDE-040E				4.7	7.3	8.8	12.5	ZXDE-040E				2.7	2.8	2.9	3.1
ZXDE-050E				5.8	8.7	10.4	14.4	ZXDE-050E				3.5	3.7	3.9	4.3
ZXDE-060E				6.4	9.8	11.8	16.4	ZXDE-060E				4.0	4.3	4.5	5.0
ZXDE-075E				7.4	11.3	13.6	18.9	ZXDE-075E				4.5	4.9	5.1	5.6

Suction Gas Return 20°C / Subcooling 0K

\*\* Single Phase only

Preliminary data

## Capacity Data

Ambient Temperature: 32°C																
R407F	Cooling Capacity (kW)							R407F	Power Input (kW)							
	Evaporating Temperature (°C)								Evaporating Temperature (°C)							
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5	
<b>Medium Temperature Models</b>																
ZXME020E					3.4	4.0	5.7	ZXME020E					1.6	1.6	1.7	
ZXME025E**				3.3	5.0	6.0	8.4	ZXME025E**				2.1	2.3	2.5	2.7	
ZXME030E					4.9	5.9	8.3	ZXME030E					2.3	2.4	2.6	
ZXME040E**				4.0	6.0	7.1	9.9	ZXME040E**				2.8	3.0	3.1	3.5	
ZXME040E					6.5*	8.0	10.9	ZXME040E					3.3*	3.5	4.0	
ZXME050E				5.7*	8.6	10.4	14.4	ZXME050E				3.5*	3.7	3.9	4.3	
ZXME060E				6.2*	9.7	11.8	16.4	ZXME060E				4.0*	4.3	4.5	5.0	
ZXME075E				7.1*	11.2	13.6	18.9	ZXME075E				4.5*	4.9	5.1	5.6	
<b>Low Temperature Models</b>																
ZXLE020E		1.6	2.0	3.1	4.5	5.3	7.0	ZXLE020E		1.5	1.6	1.7	1.9	1.9	2.2	
ZXLE025E		1.8	2.3	3.6	5.3	6.2	8.2	ZXLE025E		1.7	1.8	1.9	2.1	2.2	2.4	
ZXLE030E		2.1	2.6	4.0	5.9	6.9	9.1	ZXLE030E		1.9	2.0	2.1	2.3	2.4	2.7	
ZXLE040E		3.3	4.1	6.1	8.6*	10.0*		ZXLE040E		2.9	3.1	3.6	4.3*	4.7*		
ZXLE050E		3.8	4.7	7.1	10.2	11.9	15.4	ZXLE050E		3.2	3.4	3.9	4.6	5.0	5.8	
ZXLE060E		4.4	5.5	8.3	11.8	13.7		ZXLE060E		3.9	4.1	4.8	5.7	6.2		
ZXLE075E		5.0	6.2	9.4	13.6	15.9	20.8	ZXLE075E		4.1	4.3	4.9	5.7	6.2	7.2	
<b>Digital Medium Temperature Models</b>																
ZXDE-040E				4.7	7.2	8.8	12.4	ZXDE-040E				2.8	2.9	3.0	3.2	
ZXDE-050E				5.7	8.6	10.5	14.6	ZXDE-050E				3.6	3.9	4.1	4.5	
ZXDE-060E				5.9	9.0	10.9	15.1	ZXDE-060E				3.9	4.2	4.4	4.8	
ZXDE-075E				6.7	10.2	12.3	17.2	ZXDE-075E				4.3	4.6	4.8	5.2	

Suction Gas Return 20°C / Subcooling 0K

\*Suction Superheat 10K, Subcooling 0K

\*\* Single Phase only

Preliminary data

## Capacity Data

Ambient Temperature: 32°C																
R448A	Cooling Capacity (kW)							R448A	Power Input (kW)							
	Evaporating Temperature (°C)								Evaporating Temperature (°C)							
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5	
<b>Medium Temperature Models</b>																
ZXME020E				2.2	3.4	4.1	5.8	ZXME020E				1.6	1.6	1.6	1.8	
ZXME025E**				2.6	4.0	4.8	6.8	ZXME025E**				1.7	1.8	1.9	2.0	
ZXME030E				3.4	5.0	6.1	8.4	ZXME030E				2.1	2.3	2.4	2.6	
ZXME040E				4.3	6.6	7.8	10.7	ZXME040E				3.0	3.3	3.5	3.9	
ZXME050E				5.8	8.8	10.5	14.6	ZXME050E				3.6	3.8	3.9	4.3	
ZXME060E				6.6	10.1	12.0	16.7	ZXME060E				4.1	4.4	4.6	5.0	
ZXME075E				7.6	11.6	13.9	19.2	ZXME075E				4.7	5.1	5.3	5.8	
<b>Low Temperature Models</b>																
ZXLE020E		1.6	2.0	3.1	4.4	5.2	7.0	ZXLE020E		1.4	1.5	1.7	1.8	1.8	1.9	
ZXLE025E		1.8	2.3	3.6	5.2	6.2	8.3	ZXLE025E		1.6	1.7	1.9	2.0	2.0	2.1	
ZXLE030E		2.1	2.6	4.0	5.7	6.8	9.3	ZXLE030E		1.8	1.9	2.0	2.1	2.2	2.3	
ZXLE040E		3.2	4.0	6.0	8.3	9.7		ZXLE040E		2.6	2.9	3.3	3.7	3.9		
ZXLE050E		4.0	5.0	7.3	10.4	12.1	16.3	ZXLE050E		3.1	3.4	3.9	4.3	4.5	4.9	
ZXLE060E		4.7	5.8	8.5	12.0	14.0		ZXLE060E		3.7	4.1	4.7	5.3	5.6		
ZXLE075E		5.2	6.5	9.7	13.7	16.2	21.8	ZXLE075E		3.9	4.2	4.8	5.3	5.6	6.1	
<b>Digital Medium Temperature Models</b>																
ZXDE-040E				4.8	7.2	8.7	12.3	ZXDE-040E				2.5	2.7	2.8	3.1	
ZXDE-050E				5.8	8.7	10.4	14.4	ZXDE-050E				3.2	3.7	3.9	4.4	
ZXDE-060E				6.8	10.1	12.0	16.6	ZXDE-060E				3.9	4.5	4.8	5.5	
ZXDE-075E				7.7	11.4	13.6	18.8	ZXDE-075E				4.2	4.8	5.1	5.8	

Suction Gas Return 20°C / Subcooling 0K

\*\* Single Phase only

Preliminary data

Capacity Data

Ambient Temperature: 32°C																
R449A	Cooling Capacity (kW)							R449A	Power Input (kW)							
	Evaporating Temperature (°C)								Evaporating Temperature (°C)							
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5	
Medium Temperature Models																
ZXME020E				2.2	3.4	4.1	5.8	ZXME020E				1.6	1.6	1.6	1.8	
ZXME025E**				2.6	4.0	4.8	6.8	ZXME025E**				1.7	1.8	1.9	2.0	
ZXME030E				3.4	5.0	6.1	8.4	ZXME030E				2.1	2.3	2.4	2.6	
ZXME040E				4.3	6.6	7.8	10.7	ZXME040E				3.0	3.3	3.5	3.9	
ZXME050E				5.8	8.8	10.5	14.6	ZXME050E				3.6	3.8	3.9	4.3	
ZXME060E				6.6	10.1	12.0	16.7	ZXME060E				4.1	4.4	4.6	5.0	
ZXME075E				7.6	11.6	13.9	19.2	ZXME075E				4.7	5.1	5.3	5.8	
Low Temperature Models																
ZXLE020E		1.6	2.0	3.1	4.4	5.2	7.0	ZXLE020E		1.4	1.5	1.7	1.8	1.8	1.9	
ZXLE025E		1.8	2.3	3.6	5.2	6.2	8.3	ZXLE025E		1.6	1.7	1.9	2.0	2.0	2.1	
ZXLE030E		2.1	2.6	4.0	5.7	6.8	9.3	ZXLE030E		1.8	1.9	2.0	2.1	2.2	2.3	
ZXLE040E		3.2	4.0	6.0	8.3	9.7		ZXLE040E		2.6	2.9	3.3	3.7	3.9		
ZXLE050E		4.0	5.0	7.3	10.4	12.1	16.3	ZXLE050E		3.1	3.4	3.9	4.3	4.5	4.9	
ZXLE060E		4.7	5.8	8.5	12.0	14.0		ZXLE060E		3.7	4.1	4.7	5.3	5.6		
ZXLE075E		5.2	6.5	9.7	13.7	16.2	21.8	ZXLE075E		3.9	4.2	4.8	5.3	5.6	6.1	
Digital Medium Temperature Models																
ZXDE-040E				4.8	7.2	8.7	12.3	ZXDE-040E				2.5	2.7	2.8	3.1	
ZXDE-050E				5.8	8.7	10.4	14.4	ZXDE-050E				3.2	3.7	3.9	4.4	
ZXDE-060E				6.8	10.1	12.0	16.6	ZXDE-060E				3.9	4.5	4.8	5.5	
ZXDE-075E				7.7	11.4	13.6	18.8	ZXDE-075E				4.2	4.8	5.1	5.8	

Suction Gas Return 20°C / Subcooling 0K

\*\* Single Phase only

Preliminary data

## Capacity Data

Ambient Temperature: 32°C															
R404A	Cooling Capacity (kW)							R404A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
<b>Medium Temperature Models</b>															
ZXME020E				2.4	3.6	4.2	5.7	ZXME020E				1.8	1.8	1.8	1.8
ZXME025E**				3.0	4.3	5.1	6.9	ZXME025E**				1.9	2.0	2.0	2.1
ZXME030E				3.7	5.2	6.2	8.2	ZXME030E				2.4	2.5	2.6	2.7
ZXME040E**				4.7	6.8	8.0	10.6	ZXME040E**				3.2	3.4	3.5	3.8
ZXME040E				4.9	7.0	8.2	10.8	ZXME040E				3.2	3.4	3.5	3.8
ZXME050E				6.4	9.1	10.7	14.4	ZXME050E				4.0	4.2	4.3	4.5
ZXME060E				7.3	10.4	12.2	16.2	ZXME060E				4.6	4.8	5.0	5.3
ZXME075E				8.4	11.9	13.9	18.5	ZXME075E				5.1	5.4	5.5	5.9
<b>Low Temperature Models</b>															
ZXLE020E		1.9	2.4	3.5	4.9	5.7		ZXLE020E		1.6	1.7	1.9	2.1	2.1	
ZXLE025E		2.2	2.8	4.1	5.8	6.7		ZXLE025E		1.9	2.0	2.2	2.4	2.5	
ZXLE030E		2.6	3.2	4.6	6.4	7.4		ZXLE030E		2.1	2.2	2.4	2.6	2.6	
ZXLE040E		4.0	4.9	7.0	9.6	11.0		ZXLE040E		3.0	3.2	3.6	4.1	4.4	
ZXLE050E		5.0	6.0	8.5	11.5	13.2		ZXLE050E		3.6	3.9	4.4	5.0	5.4	
ZXLE060E		5.8	7.0	9.8	13.2	15.0	18.9	ZXLE060E		4.4	4.7	5.5	6.3	6.7	7.7
ZXLE075E		6.5	7.9	11.2	15.3	17.6		ZXLE075E		4.6	4.9	5.5	6.2	6.6	
<b>Digital Medium Temperature Models</b>															
ZXDE-040E				5.3	7.6	8.9	12.2	ZXDE-040E				2.7	3.0	3.1	3.3
ZXDE-050E				6.4	9.0	10.6	14.1	ZXDE-050E				3.6	4.0	4.3	4.7
ZXDE-060E				7.4	10.5	12.2	16.1	ZXDE-060E				4.3	4.9	5.2	5.8
ZXDE-075E				8.4	11.9	13.8	18.3	ZXDE-075E				4.7	5.3	5.6	6.3

Suction Gas Return 20°C / Subcooling 0K

\*\* Single Phase only

Ambient Temperature: 32°C															
R134a	Cooling Capacity (kW)							R134a	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
<b>Medium Temperature Models</b>															
ZXME020E				1.4	2.3	2.8	4.0	ZXME020E				1.0	1.0	1.0	1.1
ZXME025E**				1.5	2.6	3.2	4.7	ZXME025E**				1.2	1.3	1.3	1.4
ZXME030E				2.1	3.2	4.0	5.8	ZXME030E				1.3	1.4	1.4	1.5
ZXME040E**				2.6	4.3	5.3	7.8	ZXME040E**				2.0	2.1	2.2	2.4
ZXME040E				2.8	4.4	5.4	7.8	ZXME040E				1.7	1.8	1.9	2.0
ZXME050E				3.4	5.5	6.8	9.9	ZXME050E				2.1	2.3	2.4	2.5
ZXME060E				4.2	6.5	8.0	11.7	ZXME060E				2.5	2.6	2.7	3.0
ZXME075E				4.8	7.5	9.1	13.2	ZXME075E				3.1	3.2	3.3	3.6
<b>Digital Medium Temperature Models</b>															
ZXDE-040E					4.3	5.3	8.0	ZXDE-040E					1.8	1.9	1.9
ZXDE-050E					5.3	6.5	9.7	ZXDE-050E					2.3	2.4	2.5
ZXDE-060E					6.3	7.9	11.7	ZXDE-060E					2.7	2.8	3.0
ZXDE-075E					7.2	8.8	12.7	ZXDE-075E					3.0	3.0	3.3

Suction Gas Return 20°C / Subcooling 0K

\*\* Single Phase only

Preliminary data

Capacity Data

Ambient Temperature: 32°C																
R450A	Cooling Capacity (kW)							R450A	Power Input (kW)							
	Evaporating Temperature (°C)								Evaporating Temperature (°C)							
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5	
<b>Medium Temperature Models</b>																
ZXME020E				1.2	2.0	2.5	3.6	ZXME020E				0.9	0.9	0.9	0.9	
ZXME025E**				1.4	2.3	2.8	4.2	ZXME025E**				1.0	1.0	1.0	1.1	
ZXME030E				1.8	2.9	3.6	5.3	ZXME030E				1.2	1.2	1.2	1.3	
ZXME040E				2.5	3.9	4.9	7.1	ZXME040E				1.6	1.6	1.6	1.7	
ZXME050E				3.1	5.0	6.1	9.1	ZXME050E				2.0	2.1	2.1	2.2	
ZXME060E				3.6	5.8	7.1	10.5	ZXME060E				2.3	2.4	2.4	2.5	
ZXME075E				4.0	6.5	8.0	11.8	ZXME075E				2.6	2.7	2.7	2.9	
<b>Digital Medium Temperature Models</b>																
ZXDE-040E				2.5	3.9	4.9	7.1	ZXDE-040E				1.6	1.6	1.6	1.7	
ZXDE-050E				3.1	5.0	6.1	9.1	ZXDE-050E				2.0	2.1	2.1	2.2	
ZXDE-060E				3.6	5.8	7.1	10.5	ZXDE-060E				2.3	2.4	2.4	2.5	
ZXDE-075E				4.0	6.5	8.0	11.8	ZXDE-075E				2.6	2.7	2.7	2.9	

Suction Gas Return 20°C / Subcooling 0K

\*\* Single Phase only

Preliminary data

Ambient Temperature: 32°C																
R513A	Cooling Capacity (kW)							R513A	Power Input (kW)							
	Evaporating Temperature (°C)								Evaporating Temperature (°C)							
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5	
<b>Medium Temperature Models</b>																
ZXME020E				1.5	2.3	2.9	4.2	ZXME020E				1.0	1.0	1.0	1.1	
ZXME025E**				1.7	2.7	3.3	4.9	ZXME025E**				1.2	1.2	1.2	1.3	
ZXME030E				2.2	3.4	4.2	6.0	ZXME030E				1.4	1.4	1.5	1.6	
ZXME040E				3.0	4.6	5.7	8.2	ZXME040E				1.9	1.9	2.0	2.1	
ZXME050E				3.8	5.9	7.2	10.5	ZXME050E				2.4	2.5	2.5	2.6	
ZXME060E				4.4	6.8	8.4	12.1	ZXME060E				2.8	2.8	2.9	3.0	
ZXME075E				4.9	7.7	9.4	13.5	ZXME075E				3.1	3.2	3.2	3.4	
<b>Digital Medium Temperature Models</b>																
ZXDE-040E				3.0	4.6	5.7	8.2	ZXDE-040E				1.9	1.9	2.0	2.1	
ZXDE-050E				3.8	5.9	7.2	10.5	ZXDE-050E				2.4	2.5	2.5	2.6	
ZXDE-060E				4.4	6.8	8.4	12.1	ZXDE-060E				2.8	2.8	2.9	3.0	
ZXDE-075E				4.9	7.7	9.4	13.5	ZXDE-075E				3.1	3.2	3.2	3.4	

Suction Gas Return 20°C / Subcooling 0K

\*\* Single Phase only

Preliminary data



# Copeland Scroll™ Indoor Condensing Units for Refrigeration

Copeland™ air-cooled condensing units for medium temperature and low temperature applications.

Copeland Scroll condensing units are equipped with the latest refrigeration scroll compressors and build the widest range of its kind. The modular line concept offers base units which can be adapted to the target application by various options including weather housings and fan speed controls.

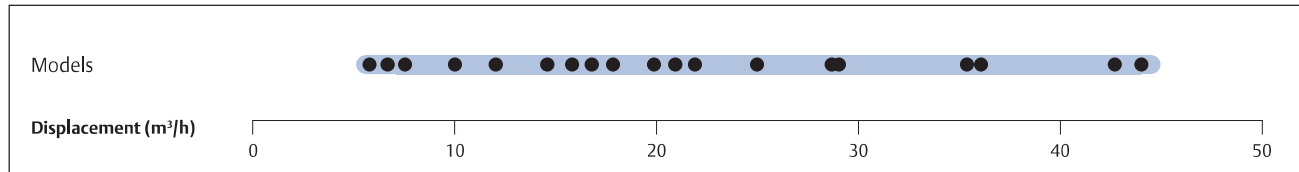
Copeland Scroll condensing units are available with normal or high capacity condensers to ensure optimum performance even under extreme conditions. They are equipped with dedicated medium or low temperature compressors which makes them suitable for all general refrigeration applications, such as:

- Mini markets and supermarkets
- Bars, restaurants and kitchens
- Beer cellars and beverage coolers
- Cold rooms
- Milk cooling tank

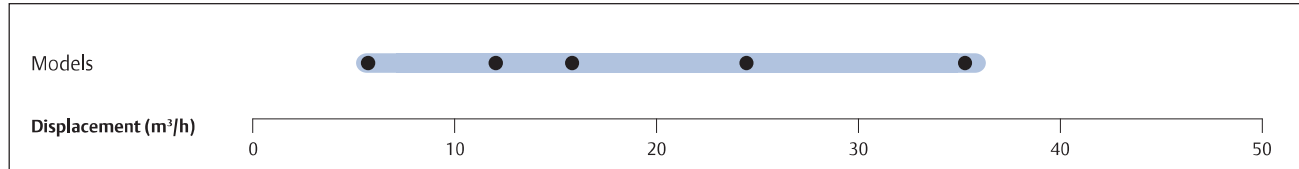


*Copeland Scroll  
Indoor Condensing Unit*

## Copeland Scroll Condensing Units Line-up



## Copeland Scroll Digital Condensing Units Line-up



## Features and Benefits

- Standard equipment: base plate, scroll compressor, crank case heater, condenser with 1ph fan(s), HP and LP switch, liquid receiver with rotalock-valve, suction- and discharge shut-off valves
- Suitable for multiple refrigerants: R407A/F, R448A/R449A, R404A, R134a, R450A and R513A
- Wide range of quality accessories
- Excellent efficiency and reliability

## Maximum Allowable Pressures (PS)

- Low Side PS 22.5 bar (g)
- High Side PS = 28 bar (g)

## Technical Overview

Model	Displacement (m <sup>3</sup> /h)	Receiver Capacity (l)	Number of fans	Total Fan Motor Power (W)	Suction Line Diameter (inch)	Liquid Line Diameter (inch)	Width/Depth/Height (mm)	Net Weight (kg)	Motor Version/Code		Maximum Operating Current (A)		Locked Rotor Current (A)		Sound Pressure @10m - dB(A)***
									1 Ph*	3 Ph**	1 Ph*	3 Ph**	1 Ph*	3 Ph**	
<b>Medium Temperature Models</b>															
MC-D8-ZB15KE	5.9	3.9	1	110	¼	½	560/570/446	48.0	PFJ	TFD	13	5	58	26	45.8
MC-H8-ZB15KE	5.9	7.9	1	235	¼	½	735/680/533	57.0	PFJ	TFD	13	5	58	26	48.6
MC-D8-ZB19KE	6.8	3.9	1	110	¼	½	560/570/446	49.0	PFJ	TFD	13	7	61	32	45.9
MC-K9-ZB19KE	6.8	7.9	2	220	¼	½	950/640/454	66.5	PFJ	TFD	13	7	61	32	47.5
MC-H8-ZB19KE	6.8	7.9	1	235	¼	½	735/680/533	61.0	PFJ	TFD	13	7	61	32	48.7
MC-D8-ZB21KE	8.6	3.9	1	110	⅞	½	560/570/446	50.0	PFJ	TFD	16	7	82	40	46.4
MC-H8-ZB21KE	8.6	7.9	1	235	⅞	½	735/680/533	61.0	PFJ	TFD	16	7	82	40	48.9
MC-K9-ZB21KE	8.6	7.9	2	220	⅞	½	950/640/454	67.5	PFJ	TFD	16	7	82	40	47.8
MC-K9-ZB26KE	10.0	7.9	2	220	⅞	½	950/640/454	68.0	PFJ	TFD	18	9	97	46	47.8
MC-H8-ZB26KE	10.0	7.9	1	235	⅞	½	735/680/533	62.0	PFJ	TFD	18	9	97	46	48.9
MC-H8-ZB30KE	11.7	7.9	1	235	⅞	½	735/680/533	74.0	PFJ	TFD	26	10	142	49	49.1
MC-M8-ZB30KE	11.7	7.9	1	235	⅞	½	735/730/708	86.5	PFJ	TFD	26	10	142	49	48.6
MC-P8-ZB30KE	11.7	7.9	2	220	⅞	½	950/640/633	86.5		TFD		10		49	48.5
MC-H8-ZB38KE	14.4	7.9	1	235	⅞	½	735/680/533	77.0	PFJ	TFD	32	13	142	66	49.2
MC-M8-ZB38KE	14.4	7.9	1	235	⅞	½	735/730/708	89.0	PFJ	TFD	32	13	142	66	48.8
MC-P8-ZB38KE	14.4	7.9	2	220	⅞	½	950/640/633	89.0	PFJ	TFD	32	13	142	66	48.7
MC-M8-ZB42KE	16.2	7.9	1	235	⅞	½	735/730/708	91.0	PFJ		36		150		49.4
MC-R7-ZB42KE	16.2	7.9	2	470	⅞	½	1130/680/633	101.0	PFJ		36		150		52.7
MC-M8-ZB45KE	17.1	7.9	1	235	⅞	½	735/730/708	91.0		TFD		13		74	49.4
MC-M9-ZB45KE	17.1	7.9	1	400	⅞	½	735/730/708	95.5		TFD		13		74	49.4
MC-R7-ZB45KE	17.1	7.9	2	470	⅞	½	1130/680/633	101.0		TFD		13		74	49.5
MC-R7-ZB50KE	19.8	7.9	2	470	1 ⅜	½	1130/820/621	110.0		TFD		15		100	49.3
MC-S9-ZB50KE	22.1	11.7	2	470	1 ⅜	⅝	1130/820/703	113.0		TFD		15		100	49.7
MC-R7-ZB58KE	22.1	7.9	2	470	1 ⅜	½	1130/820/621	110.0		TFD		16		95	
MC-S9-ZB58KE	22.1	11.7	2	470	1 ⅜	⅝	1130/820/703	113.0		TFD		16		95	
MC-S9-ZB66KE	24.9	11.7	2	470	1 ⅜	⅝	1130/820/707	116.0		TFD		18		111	50.3
MC-V9-ZB66KE	24.9	15.8	2	470	1 ⅜	¾	1330/820/821	150.0		TFD		18		111	50.2
MC-V9-ZB76KE	29.1	15.8	2	470	1 ⅜	¾	1330/820/835	151.0		TFD		20		118	50.2
MC-V6-ZB76KE	29.1	15.8	2	800	1 ⅜	¾	1330/820/835	168.0		TFD		20		118	54.7
MC-V9-ZB95KE	36.4	15.8	2	470	1 ⅜	¾	1330/820/835	155.0		TFD		28		140	50.7
MC-V6-ZB95KE	36.4	15.8	2	800	1 ⅜	¾	1330/820/835	172.0		TFD		28		140	54.7
MC-V6-ZB114KE	43.3	15.8	2	800	1 ⅜	¾	1330/820/835	174.0		TFD		33		174	54.7
MC-W9-ZB114KE	43.3	15.8	2	800	1 ⅜	¾	1640/820/864	174.0		TFD		33		174	54.7
<b>Digital Medium Temperature Models</b>															
MC-M8-ZBD30	11.7	11.7	1	235	⅞	⅝	735/730/708	86.5		TFD		8		52	48.6
MC-M9-ZBD45	17.1	11.7	1	400	⅞	⅝	735/730/708	95.5		TFD		12		74	49.4
MC-V6-ZBDT60	23.4	18.9	2	800	1 ⅜	¾	1330/820/835	207.0		TFD		8+10			57.4
MC-V6-ZBDT90	34.1	18.9	2	800	1 ⅜	¾	1330/820/835	218.0		TFD		12+13			57.4
MC-S9-ZF48KE	11.7	11.7	2	470	1 ⅜	⅝	1130/820/708	189.0		TWD		29		198	54.7

\* 1ph: 230V/ 50Hz

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

\*\*\* @ 10m: sound pressure level at 10m distance from the compressor, free field condition

## Technical Overview

Models	Displacement (m <sup>3</sup> /h)	Receiver Capacity (l)	Number of fans	Total Fan Motor Power (W)	Suction Line Diameter (inch)	Liquid Line Diameter (inch)	Width/Depth/Height (mm)	Net Weight (kg)	Motor Version/Code		Maximum Operating Current (A)		Locked Rotor Current (A)		Sound Pressure @10m - dB(A)***	
									1 Ph*	3 Ph**	1 Ph*	3 Ph**	1 Ph*	3 Ph**		
<b>Low Temperature Models</b>																
MC-B8-ZF06KE	3.3	3.3	1	85	7/8	1/2	560/570/396	64.0		TFD		5		26	46.7	
MC-D8-ZF09KE	3.9	3.9	1	110	7/8	1/2	560/570/446	64.0		TFD		6		40	46.7	
MC-H8-ZF09KE	7.9	7.9	1	235	7/8	1/2	735/680/533	66.0		TFD		6		40	49.1	
MC-H8-ZF11KE	7.9	7.9	1	235	7/8	1/2	735/680/533	67.0		TFD		7		46	49.4	
MC-H8-ZF13KE	7.9	7.9	1	235	7/8	1/2	735/680/533	77.0		TFD		8		52	49.5	
MC-M8-ZF13KE	7.9	7.9	1	235	7/8	1/2	735/730/708	85.0		TFD		8		52	49.0	
MC-M9-ZF13KE	7.9	7.9	1	400	7/8	1/2	735/730/708	95.5		TFD		8		52		
MC-H8-ZF15KE	7.9	7.9	1	235	7/8	1/2	735/680/533	83.0		TFD		10		64	50.0	
MC-M8-ZF15KE	7.9	7.9	1	235	7/8	1/2	735/730/708	86.0		TFD		10		64	49.6	
MC-R7-ZF15KE	7.9	7.9	2	470	1 3/8	1/2	1130/680/708	105.0		TFD		10		64	52.0	
MC-M8-ZF18KE	7.9	7.9	1	235	7/8	1/2	735/730/708	88.0		TFD		13		74	49.9	
MC-M9-ZF18KE	7.9	7.9	1	400	7/8	1/2	735/730/708	95.5		TFD		13		74	50.0	
MC-S9-ZF18KE	7.9	7.9	2	470	1 3/8	1/2	1130/680/708	168.0		TFD		13		74		
MC-P8-ZF24KE	11.7	7.9	2	220	1 3/8	1/2	950/640/633	146.0		TWD		16		99	52.4	
MC-S9-ZF24KE	11.7	11.7	2	470	1 3/8	1/2	1130/820/708	170.0		TWD		16		99	54.0	
MC-R7-ZF33KE	11.7	11.7	2	470	1 3/8	5/8	1130/820/633	160.0		TWD		22		127	55.0	
MC-V9-ZF33KE	11.7	11.7	2	470	1 3/8	5/8	1330/820/835	195.0		TWD		22		127	54.7	
MC-S9-ZF40KE	11.7	11.7	2	470	1 3/8	5/8	1130/820/708	180.0		TWD		25		167	54.7	
MC-V6-ZF40KE	11.7	11.7	2	800	1 3/8	5/8	1330/820/835	218.0		TWD		25		167	57.4	
MC-S9-ZF48KE	11.7	11.7	2	470	1 3/8	5/8	1130/820/708	189.0		TWD		29		198	54.7	

\* 1ph: 230V/ 50Hz

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

\*\*\* @ 10m: sound pressure level at 10m distance from the compressor, free field condition

Capacity Data

Ambient Temperature: 32°C																	
R407A	Cooling Capacity (kW)							R407A	Power Input (kW)								
	Evaporating Temperature (°C)								Evaporating Temperature (°C)								
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5		
Medium Temperature Models																	
MC-H8-ZB15KE					3.5	4.2	5.9	MC-H8-ZB15KE					1.7	1.8	1.9		
MC-D8-ZB15KE					3.2	3.8	5.3	MC-D8-ZB15KE					1.8	1.9	2.1		
MC-D8-ZB19KE					3.7*	4.5	6.1	MC-D8-ZB19KE					2.2*	2.3	2.5		
MC-K9-ZB19KE					4.1	4.9	6.8	MC-K9-ZB19KE					2.1	2.1	2.3		
MC-H8-ZB19KE					4.1	4.9	6.9	MC-H8-ZB19KE					2.1	2.2	2.3		
MC-K9-ZB21KE					4.8	5.8	8.0	MC-K9-ZB21KE					2.5	2.6	2.8		
MC-H8-ZB21KE					4.8	5.8	8.0	MC-H8-ZB21KE					2.5	2.6	2.8		
MC-D8-ZB21KE					4.2*	5.1		MC-D8-ZB21KE					2.7*	3.0			
MC-K9-ZB26KE					5.4	6.4	8.8	MC-K9-ZB26KE					2.9	3.0	3.4		
MC-H8-ZB26KE					5.4	6.4	8.9	MC-H8-ZB26KE					2.9	3.0	3.4		
MC-M8-ZB30KE					6.4	7.8	10.8	MC-M8-ZB30KE					3.3	3.4	3.7		
MC-P8-ZB30KE					6.5	7.8	10.9	MC-P8-ZB30KE					3.2	3.4	3.7		
MC-H8-ZB30KE					5.9*	7.3		MC-H8-ZB30KE					3.5*	3.7			
MC-H8-ZB38KE					7.2*	8.6*		MC-H8-ZB38KE					4.5*	4.9*			
MC-P8-ZB38KE					7.8*	9.6	13.0	MC-P8-ZB38KE					4.1*	4.4	5.0		
MC-M8-ZB38KE					7.7*	9.5		MC-M8-ZB38KE					4.2*	4.5			
MC-R7-ZB42KE**					6.0*	9.3	11.1	15.3	MC-R7-ZB42KE**					4.4*	4.8	5.0	5.3
MC-M8-ZB42KE**					5.6*	8.2*	10.0	13.4	MC-M8-ZB42KE**					4.6*	5.1*	5.5	6.0
MC-M8-ZB45KE					8.5*	10.3		MC-M8-ZB45KE					5.2*	5.6			
MC-R7-ZB45KE					9.6	11.5	15.7	MC-R7-ZB45KE					4.9	5.1	5.5		
MC-M9-ZB45KE					9.3	11.0	14.9	MC-M9-ZB45KE					5.1	5.3	5.8		
MC-R7-ZB50KE					11.0	13.2	18.0	MC-R7-ZB50KE					6.0	6.3	6.9		
MC-S9-ZB50KE					11.4	13.7	19.0	MC-S9-ZB50KE					5.7	5.9	6.4		
MC-R7-ZB58KE					11.1 <sup>†</sup>	13.8		MC-R7-ZB58KE					6.6*	7.1			
MC-S9-ZB58KE					11.9	14.5	20.4	MC-S9-ZB58KE					6.3	6.7	7.4		
MC-V9-ZB66KE					13.8	16.7	23.2	MC-V9-ZB66KE					6.9	7.3	8.1		
MC-S9-ZB66KE					13.2	15.9	21.9	MC-S9-ZB66KE					7.3	7.7	8.7		
MC-V9-ZB76KE					15.8	19.0	26.3	MC-V9-ZB76KE					8.2	8.7	9.8		
MC-V6-ZB76KE					16.7	20.2	28.4	MC-V6-ZB76KE					8.0	8.4	9.2		
MC-V6-ZB95KE					19.5	23.5	32.6	MC-V6-ZB95KE					10.7	11.3	12.6		
MC-V9-ZB95KE					17.4*	21.5		MC-V9-ZB95KE					11.3*	12.1			
MC-V6-ZB114KE					21.4*	26.8		MC-V6-ZB114KE					13.0*	13.9			
MC-W9-ZB114KE					22.5	27.4	38.4	MC-W9-ZB114KE					12.9	13.6	15.4		

Suction Gas Return 20°C / Subcooling 0K

\*Suction Superheat 10K, Subcooling 0K

\*\* Single Phase only

Preliminary data

## Capacity Data

Ambient Temperature: 32°C															
R407A	Cooling Capacity (kW)							R407A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
Low Temperature Models															
MC-H8-ZF09KE		1.7	2.1	3.2	4.7	5.5	7.6	MC-H8-ZF09KE		1.7	1.7	1.8	2.1	2.3	2.7
MC-D8-ZF09KE		1.6	2.0	3.0	4.3	5.0	6.6*	MC-D8-ZF09KE		1.7	1.7	1.9	2.1	2.3	2.8*
MC-M9-ZF13KE		2.3	2.9	4.5	6.7	8.0	11.1	MC-M9-ZF13KE		2.5	2.6	2.8	3.2	3.4	4.1
MC-H8-ZF13KE		2.3	2.8	4.3	6.3	7.4	10.0	MC-H8-ZF13KE		2.5	2.6	2.9	3.4	3.7	4.6
MC-M8-ZF13KE		2.3	2.9	4.4	6.5	7.7	10.6	MC-M8-ZF13KE		2.4	2.5	2.8	3.2	3.4	4.2
MC-M8-ZF15KE		2.8	3.5	5.3	7.6	9.0	12.2	MC-M8-ZF15KE		2.9	3.1	3.6	4.2	4.7	5.8
MC-R7-ZF15KE		2.9	3.6	5.6	8.2	9.7	13.5	MC-R7-ZF15KE		3.0	3.1	3.5	4.0	4.4	5.3
MC-H8-ZF15KE		2.7	3.4	5.1	7.2	8.5		MC-H8-ZF15KE		3.0	3.3	3.8	4.6	5.1	
MC-S9-ZF18KE		3.5	4.4	6.7	9.9	11.8	16.3	MC-S9-ZF18KE		3.5	3.7	4.1	4.6	4.9	5.8
MC-M8-ZF18KE		3.3	4.2	6.2	8.9	10.4	13.7*	MC-M8-ZF18KE		3.6	3.8	4.4	5.1	5.6	6.8*
MC-M9-ZF18KE		3.4	4.3	6.5	9.3	11.1	14.9	MC-M9-ZF18KE		3.6	3.8	4.3	4.9	5.3	6.4
MC-P8-ZF24KE		4.2	5.2	7.8	10.8	12.5		MC-P8-ZF24KE		4.5	4.9	5.7	6.6	7.1	
MC-S9-ZF24KE		4.4	5.5	8.5	12.2	14.5	19.5	MC-S9-ZF24KE		4.4	4.7	5.3	6.0	6.4	7.3
MC-V9-ZF33KE		6.1	7.7	11.6	16.7	19.7	26.3	MC-V9-ZF33KE		5.7	6.1	7.0	8.0	8.6	9.9
MC-R7-ZF33KE		5.9	7.3	10.9	15.3	17.7		MC-R7-ZF33KE		6.0	6.5	7.5	8.8	9.5	
MC-S9-ZF40KE		7.2	9.0	13.3	18.6	21.5		MC-S9-ZF40KE		7.5	8.1	9.5	11.1	11.9	
MC-V6-ZF40KE		7.5	9.5	14.4	20.8	24.5	32.9	MC-V6-ZF40KE		7.3	7.8	8.9	10.2	10.8	12.4
MC-S9-ZF48KE		8.5	10.6	15.4	20.9			MC-S9-ZF48KE		10.1	10.9	12.9	15.2		
Digital Medium Temperature Models															
MC-M8-ZBD30					6.8	8.1	11.1	MC-M8-ZBD30					3.4	3.6	4.0
MC-M9-ZBD45					9.2	11.0	15.0	MC-M9-ZBD45					4.9	5.2	5.8
MC-V6-ZBDT60				9.4	14.4	17.4	24.3	MC-V6-ZBDT60				6.0	6.4	6.7	7.3
MC-V6-ZBDT90				12.7	19.1	22.8	31.4	MC-V6-ZBDT90				8.8	9.5	9.9	10.9

Suction Gas Return 20°C / Subcooling 0K

\*Suction Superheat 10K, Subcooling 0K

\*\* Single Phase only

Preliminary data

Capacity Data

Ambient Temperature: 32°C															
R407F	Cooling Capacity (kW)							R407F	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
<b>Medium Temperature Models</b>															
MC-H8-ZB15KE					3.4	4.1	5.7	MC-H8-ZB15KE					1.8	1.9	1.9
MC-D8-ZB15KE					3.0	3.7	5.0	MC-D8-ZB15KE					2.0	2.0	2.2
MC-H8-ZB19KE					4.0	4.8	6.7	MC-H8-ZB19KE					2.2	2.3	2.5
MC-K9-ZB19KE					4.0	4.8	6.7	MC-K9-ZB19KE					2.2	2.3	2.5
MC-D8-ZB19KE					3.5*	4.3	5.9	MC-D8-ZB19KE					2.4*	2.5	2.8
MC-K9-ZB21KE					4.7	5.6	7.7	MC-K9-ZB21KE					2.7	2.9	3.1
MC-H8-ZB21KE					3.9*	4.7*		MC-H8-ZB21KE					3.0*	3.2*	
MC-H8-ZB26KE					5.1*	6.3	8.6	MC-H8-ZB26KE					3.3*	3.5	3.9
MC-K9-ZB26KE					5.1*	6.3	8.6	MC-K9-ZB26KE					3.3*	3.5	3.9
MC-M8-ZB30KE				4.1*	6.6	8.0	11.2	MC-M8-ZB30KE				3.3*	3.5	3.7	4.1
MC-P8-ZB30KE				4.1*	6.6	8.0	11.3	MC-P8-ZB30KE				3.2*	3.5	3.6	4.0
MC-H8-ZB30KE					6.1*	7.5		MC-H8-ZB30KE					3.8*	4.0	
MC-M8-ZB38KE					7.6*	9.3		MC-M8-ZB38KE					4.7*	4.9	
MC-P8-ZB38KE					7.7*	9.4		MC-P8-ZB38KE					4.6*	4.9	
MC-H8-ZB38KE					7.0*	8.4*		MC-H8-ZB38KE					5.0*	5.3*	
MC-R7-ZB45KE				5.9*	9.7	11.8	16.4	MC-R7-ZB45KE				4.7*	5.2	5.5	6.0
MC-M9-ZB45KE					9.1*	11.2	15.5	MC-M9-ZB45KE					5.4*	5.7	6.4
MC-M8-ZB45KE					8.4*	10.2*		MC-M8-ZB45KE					5.6*	6.0*	
MC-R7-ZB58KE					11.7*	14.6		MC-R7-ZB58KE					7.1*	7.6	
MC-S9-ZB58KE				7.1*	12.4*	15.4	21.5	MC-S9-ZB58KE				6.0*	6.7*	7.2	8.1
MC-V9-ZB66KE				8.7*	14.6	17.7	24.6	MC-V9-ZB66KE				6.6*	7.4	7.8	8.7
MC-S9-ZB66KE					13.6*	16.8		MC-S9-ZB66KE					7.7*	8.3	
MC-V9-ZB76KE				9.8*	16.3*	20.1	27.8	MC-V9-ZB76KE				7.6*	8.7*	9.4	10.7
MC-V6-ZB76KE				10.6*	17.8	21.6	30.2	MC-V6-ZB76KE				7.6*	8.5	8.9	9.9
MC-W9-ZB114KE				13.3*	23.2*	29.0		MC-W9-ZB114KE				12.1*	13.7*	14.7	
MC-V6-ZB114KE					22.6*	28.2		MC-V6-ZB114KE					14.0*	15.1	
<b>Low Temperature Models</b>															
MC-B8-ZF06KE		1.2	1.4	2.1				MC-B8-ZF06KE		1.5	1.6	1.8			
MC-H8-ZF09KE		1.7	2.2	3.3	4.9	5.8	7.9	MC-H8-ZF09KE		1.8	1.8	1.9	2.2	2.4	2.8
MC-D8-ZF09KE		1.7	2.1	3.1	4.4	5.2		MC-D8-ZF09KE		1.8	1.8	2.0	2.3	2.5	
MC-H8-ZF11KE		2.2	2.7	4.1	5.9	6.9	9.3	MC-H8-ZF11KE		2.1	2.2	2.4	2.7	3.0	3.5
MC-M9-ZF13KE		2.4	3.1	4.7	7.0	8.3	11.6	MC-M9-ZF13KE		2.6	2.7	3.0	3.3	3.6	4.3
MC-M8-ZF13KE		2.4	3.0	4.6	6.8	8.1	11.0	MC-M8-ZF13KE		2.5	2.6	2.9	3.4	3.7	4.5
MC-H8-ZF13KE		2.4	3.0	4.5	6.5	7.7		MC-H8-ZF13KE		2.6	2.8	3.1	3.6	4.0	
MC-H8-ZF15KE		2.8	3.6	5.3	7.5			MC-H8-ZF15KE		3.2	3.5	4.1	5.0		
MC-R7-ZF15KE		3.0	3.8	5.8	8.5	10.2	14.0	MC-R7-ZF15KE		3.1	3.3	3.7	4.2	4.6	5.6
MC-M8-ZF15KE		2.9	3.7	5.5	8.0	9.4		MC-M8-ZF15KE		3.0	3.3	3.8	4.5	5.0	
MC-M8-ZF18KE		3.5	4.3	6.5	9.2	10.8		MC-M8-ZF18KE		3.8	4.1	4.7	5.5	6.0	
MC-M9-ZF18KE		3.5	4.5	6.8	9.7	11.5		MC-M9-ZF18KE		3.8	4.0	4.6	5.2	5.7	
MC-S9-ZF18KE		3.6	4.6	7.1	10.4	12.3	17.0	MC-S9-ZF18KE		3.7	3.9	4.3	4.9	5.2	6.1
<b>Digital Medium Temperature Models</b>															
MC-M8-ZBD30				4.6*	6.8	8.1	10.9	MC-M8-ZBD30				2.8*	3.3	3.6	4.1
MC-M9-ZBD45					9.4*	11.6	15.5	MC-M9-ZBD45					5.1*	5.5	6.6
MC-V6-ZBDT60				9.1*	14.3	17.2	24.0	MC-V6-ZBDT60				6.1*	6.7	6.9	7.6
MC-V6-ZBDT90				12.1*	19.7	23.7	32.6	MC-V6-ZBDT90				8.7*	10.1	10.7	12.2

Suction Gas Return 20°C / Subcooling 0K

\*Suction Superheat 10K, Subcooling 0K

Preliminary data

Capacity Data

Ambient Temperature: 32°C															
R448A	Cooling Capacity (kW)							R448A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
<b>Medium Temperature Models</b>															
MC-D8-ZB15KE				2.1	3.2	3.8	5.3	MC-D8-ZB15KE				1.7	1.8	1.8	2.0
MC-H8-ZB15KE				2.2	3.5	4.2	5.9	MC-H8-ZB15KE				1.7	1.7	1.7	1.8
MC-D8-ZB19KE				2.3*	3.7	4.4	6.0	MC-D8-ZB19KE				2.0*	2.1	2.2	2.5
MC-H8-ZB19KE				2.6	4.0	4.8	6.6	MC-H8-ZB19KE				1.9	2.0	2.1	2.3
MC-K9-ZB19KE				2.6	3.9	4.7	6.6	MC-K9-ZB19KE				1.9	2.0	2.0	2.3
MC-D8-ZB21KE				2.9*	4.5	5.3	7.0	MC-D8-ZB21KE				2.4*	2.8	3.0	3.4
MC-H8-ZB21KE				3.3	4.9	5.9	8.1	MC-H8-ZB21KE				2.3	2.5	2.6	2.8
MC-K9-ZB21KE				3.3	4.9	5.9	8.1	MC-K9-ZB21KE				2.3	2.5	2.6	2.9
MC-H8-ZB26KE				3.8	5.6	6.7	9.2	MC-H8-ZB26KE				2.8	3.0	3.1	3.5
MC-K9-ZB26KE				3.7	5.6	6.6	9.1	MC-K9-ZB26KE				2.8	3.0	3.2	3.5
MC-H8-ZB30KE				4.0*	6.4	7.5	10.3	MC-H8-ZB30KE				3.2*	3.6	3.8	4.2
MC-P8-ZB30KE				4.4	6.7	8.0	11.0	MC-P8-ZB30KE				3.1	3.3	3.4	3.8
MC-M8-ZB30KE				4.4	6.7	8.0	10.9	MC-M8-ZB30KE				3.1	3.3	3.5	3.9
MC-H9-ZB38KE				4.7*	7.5	8.8		MC-H9-ZB38KE				4.3*	4.8	5.1	
MC-P8-ZB38KE				5.1*	8.0	9.5	13.0	MC-P8-ZB38KE				3.9*	4.3	4.5	5.1
MC-M8-ZB38KE				5.0*	8.0	9.4	12.8	MC-M8-ZB38KE				4.0*	4.4	4.6	5.2
MC-M8-ZB42KE**				5.5*	8.7	10.3	13.9	MC-M8-ZB42KE**				4.6*	5.2	5.5	6.2
MC-R7-ZB42KE**				6.3	9.5	11.4	15.7	MC-R7-ZB42KE**				4.4	4.7	4.9	5.4
MC-M8-ZB45KE				5.7*	9.0	10.6	14.3	MC-M8-ZB45KE				4.7*	5.2	5.5	6.3
MC-R7-ZB45KE				6.5	9.8	11.8	16.1	MC-R7-ZB45KE				4.5	4.8	5.0	5.5
MC-M9-ZB45KE				6.3	9.5	11.3	15.4	MC-M9-ZB45KE				4.6	5.0	5.2	5.9
MC-R7-ZB58KE				7.1*	12.0	14.4	19.7	MC-R7-ZB58KE				6.1*	6.8	7.2	8.1
MC-S9-ZB58KE				7.5*	12.5	15.1	20.8	MC-S9-ZB58KE				5.9*	6.4	6.7	7.5
MC-S9-ZB66KE				8.6*	13.9	16.5	22.4	MC-S9-ZB66KE				6.7*	7.4	7.8	8.7
MC-V9-ZB66KE				9.0*	14.5	17.3	23.7	MC-V9-ZB66KE				6.5*	7.0	7.3	8.1
MC-V6-ZB76KE				10.9*	17.4	21.0	29.0	MC-V6-ZB76KE				7.4*	8.0	8.4	9.3
MC-V9-ZB76KE				10.3*	16.6	19.8	26.9	MC-V9-ZB76KE				7.5*	8.3	8.8	10.0
MC-V9-ZB95KE				11.2*	18.8	22.5	30.2	MC-V9-ZB95KE				10.2*	11.5	12.3	14.2
MC-W9-ZB114KE				14.1*	23.6	28.5	39.3	MC-W9-ZB114KE				11.9*	13.1	13.8	15.6
MC-V6-ZB114KE				13.8*	23.1	27.9	38.3	MC-V6-ZB114KE				12.2*	13.4	14.1	16.1
<b>Low Temperature Models</b>															
MC-D8-ZF09KE		1.7	2.2	3.2	4.5	5.2		MC-D8-ZF09KE		2.0	2.0	2.2	2.5	2.7	
MC-H8-ZF09KE		1.8	2.3	3.4	4.9	5.7		MC-H8-ZF09KE		1.9	1.9	2.0	2.3	2.5	
MC-H8-ZF13KE		2.5	3.1	4.7	6.7	7.8		MC-H8-ZF13KE		2.6	2.6	2.9	3.4	3.7	
MC-M8-ZF13KE		2.6	3.2	4.9	7.0	8.2		MC-M8-ZF13KE		2.5	2.5	2.8	3.1	3.4	
MC-M9-ZF13KE		2.6	3.3	5.0	7.2	8.5		MC-M9-ZF13KE		2.6	2.6	2.8	3.1	3.4	
MC-H8-ZF15KE		3.0	3.8	5.5	7.6			MC-H8-ZF15KE		3.4	3.6	4.2	5.0		
MC-M8-ZF15KE		3.1	3.9	5.8	8.1	9.4		MC-M8-ZF15KE		3.3	3.4	3.9	4.5	5.0	
MC-R7-ZF15KE		3.2	4.0	6.1	8.7	10.3		MC-R7-ZF15KE		3.3	3.4	3.7	4.3	4.6	
MC-M8-ZF18KE		3.6	4.5	6.7	9.3	10.8		MC-M8-ZF18KE		4.1	4.2	4.6	5.4	5.9	
MC-M9-ZF18KE		3.7	4.6	6.9	9.8	11.5		MC-M9-ZF18KE		4.0	4.0	4.4	5.0	5.4	
MC-S9-ZF18KE		3.8	4.8	7.2	10.4	12.3		MC-S9-ZF18KE		3.8	3.8	4.1	4.6	4.9	
<b>Digital Medium Temperature Models</b>															
MC-M8-ZBD30				4.5	6.8	8.1	11.1	MC-M8-ZBD30				2.7	3.2	3.5	4.1
MC-M9-ZBD45				6.5	9.7	11.6	15.6	MC-M9-ZBD45				4.0	4.8	5.2	6.1
MC-V6-ZBDT60				9.4	14.3	17.1	23.8	MC-V6-ZBDT60				5.8	6.3	6.6	7.4
MC-V6-ZBDT90				13.2	19.9	23.6	32.4	MC-V6-ZBDT90				8.3	9.3	9.9	11.3

Suction Gas Return 20°C / Subcooling 0K

\*Suction Superheat 10K, Subcooling 0K

\*\* Single Phase only

Preliminary data

Capacity Data

Ambient Temperature: 32°C															
R449A	Cooling Capacity (kW)						R449A	Power Input (kW)							
	Evaporating Temperature (°C)							Evaporating Temperature (°C)							
	-45	-35	-30	-20	-10	-5		+5	-45	-35	-30	-20	-10	-5	+5
<b>Medium Temperature Models</b>															
MC-D8-ZB15KE				2.1	3.2	3.8	5.3	MC-D8-ZB15KE				1.7	1.8	1.8	2.0
MC-H8-ZB15KE				2.2	3.5	4.2	5.9	MC-H8-ZB15KE				1.7	1.7	1.7	1.8
MC-D8-ZB19KE				2.3*	3.7	4.4	6.0	MC-D8-ZB19KE				2.0*	2.1	2.2	2.5
MC-H8-ZB19KE				2.6	4.0	4.8	6.6	MC-H8-ZB19KE				1.9	2.0	2.1	2.3
MC-K9-ZB19KE				2.6	3.9	4.7	6.6	MC-K9-ZB19KE				1.9	2.0	2.0	2.3
MC-D8-ZB21KE				2.9*	4.5	5.3	7.0	MC-D8-ZB21KE				2.4*	2.8	3.0	3.4
MC-H8-ZB21KE				3.3	4.9	5.9	8.1	MC-H8-ZB21KE				2.3	2.5	2.6	2.8
MC-K9-ZB21KE				3.3	4.9	5.9	8.1	MC-K9-ZB21KE				2.3	2.5	2.6	2.9
MC-H8-ZB26KE				3.8	5.6	6.7	9.2	MC-H8-ZB26KE				2.8	3.0	3.1	3.5
MC-K9-ZB26KE				3.7	5.6	6.6	9.1	MC-K9-ZB26KE				2.8	3.0	3.2	3.5
MC-H8-ZB30KE				4.0*	6.4	7.5	10.3	MC-H8-ZB30KE				3.2*	3.6	3.8	4.2
MC-P8-ZB30KE				4.4	6.7	8.0	11.0	MC-P8-ZB30KE				3.1	3.3	3.4	3.8
MC-M8-ZB30KE				4.4	6.7	8.0	10.9	MC-M8-ZB30KE				3.1	3.3	3.5	3.9
MC-P8-ZB38KE				5.1*	8.0	9.5	13.0	MC-P8-ZB38KE				3.9*	4.3	4.5	5.1
MC-M8-ZB38KE				5.0*	8.0	9.4	12.8	MC-M8-ZB38KE				4.0*	4.4	4.6	5.2
MC-H8-ZB38KE				4.7*	7.5	8.8		MC-H8-ZB38KE				4.3*	4.8	5.1	
MC-M8-ZB42KE**				5.5*	8.7	10.3	13.9	MC-M8-ZB42KE**				4.6*	5.2	5.5	6.2
MC-R7-ZB42KE**				6.3	9.5	11.4	15.7	MC-R7-ZB42KE**				4.4	4.7	4.9	5.4
MC-M8-ZB45KE				5.7*	9.0	10.6	14.3	MC-M8-ZB45KE				4.7*	5.2	5.5	6.3
MC-R7-ZB45KE				6.5	9.8	11.8	16.1	MC-R7-ZB45KE				4.5	4.8	5.0	5.5
MC-M9-ZB45KE				6.3	9.5	11.3	15.4	MC-M9-ZB45KE				4.6	5.0	5.2	5.9
MC-R7-ZB58KE				7.1*	12.0	14.4	19.7	MC-R7-ZB58KE				6.1*	6.8	7.2	8.1
MC-S9-ZB58KE				7.5*	12.5	15.1	20.8	MC-S9-ZB58KE				5.9*	6.4	6.7	7.5
MC-S9-ZB66KE				8.6*	13.9	16.5	22.4	MC-S9-ZB66KE				6.7*	7.4	7.8	8.7
MC-V9-ZB66KE				9.0*	14.5	17.3	23.7	MC-V9-ZB66KE				6.4*	7.0	7.3	8.1
MC-V6-ZB76KE				10.9*	17.4	21.0	29.0	MC-V6-ZB76KE				7.4*	8.0	8.4	9.3
MC-V9-ZB76KE				10.3*	16.6	19.8	26.9	MC-V9-ZB76KE				7.5*	8.3	8.8	10.0
MC-V6-ZB95KE				12.3*	20.5	24.5	33.4	MC-V6-ZB95KE				9.9*	10.8	11.4	12.8
MC-V9-ZB95KE				11.2*	18.8	22.5	30.2	MC-V9-ZB95KE				10.2*	11.5	12.3	14.2
MC-V6-ZB114KE				13.7*	23.1	27.9	38.3	MC-V6-ZB114KE				12.2*	13.4	14.1	16.1
MC-W9-ZB114KE				14.1*	23.6	28.5	39.3	MC-W9-ZB114KE				11.9*	13.1	13.8	15.6
<b>Low Temperature Models</b>															
MC-D8-ZF09KE		1.7	2.2	3.2	4.5	5.2		MC-D8-ZF09KE		2.0	2.0	2.2	2.5	2.7	
MC-H8-ZF09KE		1.8	2.3	3.4	4.9	5.7		MC-H8-ZF09KE		1.9	1.9	2.0	2.3	2.5	
MC-H8-ZF13KE		2.5	3.1	4.7	6.7	7.8		MC-H8-ZF13KE		2.6	2.6	2.9	3.4	3.7	
MC-M8-ZF13KE		2.6	3.2	4.9	7.0	8.2		MC-M8-ZF13KE		2.5	2.5	2.8	3.1	3.4	
MC-M9-ZF13KE		2.6	3.3	5.0	7.2	8.5		MC-M9-ZF13KE		2.6	2.6	2.8	3.1	3.4	
MC-H8-ZF15KE		3.0	3.8	5.5	7.6			MC-H8-ZF15KE		3.4	3.6	4.2	5.0		
MC-M8-ZF15KE		3.1	3.9	5.8	8.1	9.4		MC-M8-ZF15KE		3.3	3.4	3.9	4.5	5.0	
MC-R7-ZF15KE		3.2	4.0	6.1	8.7	10.3		MC-R7-ZF15KE		3.3	3.4	3.7	4.3	4.6	
MC-M8-ZF18KE		3.6	4.5	6.7	9.3	10.8		MC-M8-ZF18KE		4.1	4.2	4.6	5.4	5.9	
MC-M9-ZF18KE		3.7	4.6	6.9	9.8	11.5		MC-M9-ZF18KE		4.0	4.0	4.4	5.0	5.4	
MC-S9-ZF18KE		3.8	4.8	7.2	10.4	12.3		MC-S9-ZF18KE		3.8	3.8	4.1	4.6	4.9	
<b>Digital Medium Temperature Models</b>															
MC-M8-ZBD30				4.5	6.8	8.1	11.1	MC-M8-ZBD30				2.7	3.2	3.5	4.1
MC-M9-ZBD45				6.5	9.7	11.6	15.6	MC-M9-ZBD45				4.0	4.8	5.2	6.1
MC-V6-ZBDT60				9.4	14.3	17.1	23.8	MC-V6-ZBDT60				5.8	6.3	6.6	7.4
MC-V6-ZBDT90				13.2	19.9	23.6	32.4	MC-V6-ZBDT90				8.3	9.3	9.9	11.3

Suction Gas Return 20°C / Subcooling 0K  
 \*Suction Superheat 10K, Subcooling 0K  
 \*\* Single Phase only  
 Preliminary data



## Capacity Data

Ambient Temperature: 32°C															
R404A	Cooling Capacity (kW)							R404A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
Medium Temperature Models															
MC-H8-ZB15KE				2.5	3.6	4.3	5.8	MC-H8-ZB15KE				1.9	1.9	1.9	1.9
MC-D8-ZB15KE				2.2	3.3	3.8	5.0	MC-D8-ZB15KE				1.9	2.0	2.0	2.1
MC-K9-ZB19KE				2.9	4.1	4.8	6.5	MC-K9-ZB19KE				2.1	2.2	2.2	2.4
MC-H8-ZB19KE				2.9	4.1	4.8	6.5	MC-H8-ZB19KE				2.1	2.2	2.3	2.4
MC-D8-ZB19KE				2.6	3.7	4.3	5.6	MC-D8-ZB19KE				2.2	2.4	2.5	2.6
MC-H8-ZB21KE				3.6	5.1	5.9	7.8	MC-H8-ZB21KE				2.6	2.7	2.8	3.0
MC-K9-ZB21KE				3.6	5.1	5.9	7.8	MC-K9-ZB21KE				2.6	2.7	2.8	3.0
MC-D8-ZB21KE				3.2	4.4	5.0	6.4	MC-D8-ZB21KE				2.8	3.1	3.2	3.5
MC-K9-ZB26KE				4.1	5.7	6.6	8.7	MC-K9-ZB26KE				3.1	3.3	3.4	3.6
MC-H8-ZB26KE				4.1	5.7	6.6	8.6	MC-H8-ZB26KE				3.1	3.3	3.4	3.7
MC-H8-ZB30KE				4.6	6.4	7.4	9.6	MC-H8-ZB30KE				3.7	3.9	4.1	4.4
MC-P8-ZB30KE				5.0	7.1	8.3	11.1	MC-P8-ZB30KE				3.3	3.5	3.5	3.8
MC-M8-ZB30KE				4.8	6.8	7.9	10.5	MC-M8-ZB30KE				3.4	3.6	3.7	4.0
MC-H8-ZB38KE				5.3	7.3	8.4	10.7	MC-H8-ZB38KE				4.8	5.2	5.4	6.0
MC-P8-ZB38KE				6.0	8.4	9.7	12.9	MC-P8-ZB38KE				4.2	4.5	4.7	5.1
MC-M8-ZB38KE				5.7	8.0	9.2	12.0	MC-M8-ZB38KE				4.4	4.8	5.0	5.4
MC-R7-ZB42KE**				6.9	9.8	11.4	15.1	MC-R7-ZB42KE**				4.8	5.1	5.2	5.6
MC-M8-ZB42KE**				6.3	8.7	10.0	12.8	MC-M8-ZB42KE**				5.1	5.6	5.8	6.3
MC-R7-ZB45KE				7.1	10.1	11.8	15.6	MC-R7-ZB45KE				5.0	5.3	5.4	5.8
MC-M8-ZB45KE				6.5	8.9	10.3	13.2	MC-M8-ZB45KE				5.3	5.7	6.0	6.5
MC-M9-ZB45KE				6.9	9.6	11.1	14.5	MC-M9-ZB45KE				5.1	5.5	5.7	6.1
MC-S9-ZB50KE				7.9	12.0	14.2	18.9	MC-S9-ZB50KE				5.8	6.1	6.3	6.7
MC-R7-ZB50KE				7.5	11.4	13.4	17.7	MC-R7-ZB50KE				6.0	6.5	6.7	7.2
MC-R7-ZB58KE				8.5	12.4	14.5	18.8	MC-R7-ZB58KE				6.7	7.3	7.6	8.3
MC-S9-ZB58KE				8.9	13.1	15.4	20.3	MC-S9-ZB58KE				6.4	6.9	7.1	7.7
MC-S9-ZB66KE				10.3	14.5	16.8	21.7	MC-S9-ZB66KE				7.4	7.9	8.2	8.9
MC-V9-ZB66KE				10.7	15.1	17.6	23.0	MC-V9-ZB66KE				7.1	7.6	7.8	8.5
MC-V6-ZB76KE				12.9	18.5	21.6	28.7	MC-V6-ZB76KE				8.0	8.6	8.9	9.6
MC-V9-ZB76KE				12.2	17.2	19.9	25.8	MC-V9-ZB76KE				8.3	9.0	9.4	10.3
MC-V6-ZB95KE				14.9	21.5	25.2	33.1	MC-V6-ZB95KE				10.7	11.4	11.9	13.0
MC-V9-ZB95KE				12.2*	19.3	22.4	28.7	MC-V9-ZB95KE				11.2*	12.4	13.0	14.3
MC-W9-ZB114KE				16.8	24.6	28.8	38.0	MC-W9-ZB114KE				13.2	14.1	14.6	16.0
MC-V6-ZB114KE				15.1*	24.3	28.4	37.3	MC-V6-ZB114KE				13.1*	14.3	14.8	16.2

Suction Gas Return 20°C / Subcooling 0K

\* Suction Superheat 10K, Subcooling 0K

\*\* Single Phase only

Ambient Temperature: 32°C															
R404A	Cooling Capacity (kW)							R404A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
<b>Low Temperature Models</b>															
MC-B8-ZF06KE		1.3	1.6	2.2	2.9	3.2		MC-B8-ZF06KE		1.7	1.8	2.1	2.4	2.6	
MC-D8-ZF09KE		1.9	2.3	3.3	4.4	5.0	6.3	MC-D8-ZF09KE		2.0	2.1	2.3	2.6	2.8	3.2
MC-H8-ZF09KE		2.0	2.5	3.6	4.9	5.7	7.5	MC-H8-ZF09KE		2.0	2.0	2.2	2.5	2.6	3.0
MC-H8-ZF11KE		2.5	3.0	4.3	5.8	6.7	8.7	MC-H8-ZF11KE		2.4	2.5	2.7	3.1	3.3	3.8
MC-M9-ZF13KE		2.9	3.6	5.3	7.3	8.5	11.2	MC-M9-ZF13KE		2.6	2.7	3.0	3.4	3.6	4.1
MC-H8-ZF13KE		2.8	3.4	4.9	6.6	7.6	9.7	MC-H8-ZF13KE		2.6	2.7	3.1	3.5	3.8	4.3
MC-M8-ZF13KE		2.8	3.5	5.1	7.0	8.1	10.6	MC-M8-ZF13KE		2.5	2.6	2.9	3.3	3.6	4.1
MC-R7-ZF15KE		3.5	4.4	6.4	8.9	10.4	13.6	MC-R7-ZF15KE		3.4	3.6	4.0	4.5	4.9	5.7
MC-M8-ZF15KE		3.4	4.2	5.9	8.1	9.2	11.7	MC-M8-ZF15KE		3.3	3.5	4.0	4.7	5.1	6.0
MC-H8-ZF15KE		3.3	4.0	5.6	7.4	8.4		MC-H8-ZF15KE		3.4	3.7	4.3	5.0	5.5	
MC-M8-ZF18KE		3.9	4.8	6.8	9.2	10.5	13.3	MC-M8-ZF18KE		4.0	4.3	4.8	5.5	5.9	6.8
MC-M9-ZF18KE		4.0	5.0	7.2	9.8	11.3	14.6	MC-M9-ZF18KE		4.0	4.2	4.6	5.2	5.6	6.4
MC-S9-ZF18KE		4.2	5.2	7.6	10.6	12.4	16.5	MC-S9-ZF18KE		3.8	4.0	4.4	4.9	5.2	5.9
MC-P8-ZF24KE		5.0	6.0	8.4	11.2	12.7	15.9	MC-P8-ZF24KE		4.9	5.3	6.1	6.9	7.4	8.5
MC-S9-ZF24KE		5.3	6.5	9.3	12.7	14.7	19.1	MC-S9-ZF24KE		4.9	5.2	5.8	6.5	6.9	7.9
MC-R7-ZF33KE		6.8	8.2	11.5	15.3	17.3		MC-R7-ZF33KE		6.6	7.1	8.3	9.6	10.4	
MC-V9-ZF33KE		7.1	8.7	12.6	17.2	19.8	25.5	MC-V9-ZF33KE		6.3	6.7	7.7	8.8	9.4	10.7
MC-S9-ZF40KE		8.4	10.2	14.1	18.6	21.0		MC-S9-ZF40KE		8.3	9.0	10.4	12.0	12.9	
MC-V6-ZF40KE		8.9	11.0	15.8	21.7	25.0	32.6	MC-V6-ZF40KE		8.1	8.6	9.7	11.1	11.8	13.2
MC-S9-ZF48KE		9.6	11.6	15.9	20.6			MC-S9-ZF48KE		11.2	12.2	14.2	16.6		
<b>Digital Medium Temperature Models</b>															
MC-M8-ZBD30				5.0	6.9	8.0	10.5	MC-M8-ZBD30				3.0	3.4	3.6	4.0
MC-M9-ZBD45				7.1	9.8	11.4	14.6	MC-M9-ZBD45				4.5	5.2	5.6	6.4
MC-V6-ZBDT60				10.4	14.9	17.6	23.6	MC-V6-ZBDT60				6.3	6.7	7.0	7.5
MC-V6-ZBDT90				14.1	20.4	24.1	32.5	MC-V6-ZBDT90				9.6	10.4	10.8	11.9

Suction Gas Return 20°C / Subcooling 0K

\*Suction Superheat 10K, Subcooling 0K

\*\* Single Phase only

Preliminary data

## Capacity Data

Ambient Temperature: 32°C															
R407C	Cooling Capacity (kW)							R407C	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
Medium Temperature Models															
MC-D8-ZB15KE				1.8*	3.0	3.6	5.1	MC-D8-ZB15KE				1.6*	1.6	1.7	1.8
MC-H8-ZB15KE				1.9*	3.2	3.9	5.6	MC-H8-ZB15KE				1.6*	1.6	1.6	1.7
MC-H8-ZB19KE				2.2*	3.5	4.3	6.3	MC-H8-ZB19KE				1.7*	1.8	1.9	2.0
MC-D8-ZB19KE				2.0*	3.2*	4.0	5.7	MC-D8-ZB19KE				1.7*	1.9*	2.0	2.2
MC-K9-ZB19KE				2.2*	3.5	4.3	6.3	MC-K9-ZB19KE				1.7*	1.8	1.9	2.0
MC-H8-ZB21KE				2.9*	4.6	5.5	7.8	MC-H8-ZB21KE				2.1*	2.3	2.4	2.6
MC-K9-ZB21KE				2.8*	4.6	5.5	7.7	MC-K9-ZB21KE				2.1*	2.3	2.4	2.6
MC-D8-ZB21KE				2.6*	4.0*	4.9*	6.8	MC-D8-ZB21KE				2.2*	2.5*	2.6*	3.0
MC-H8-ZB26KE				3.3*	5.1*	6.3	8.8	MC-H8-ZB26KE				2.5*	2.7*	2.9	3.2
MC-K9-ZB26KE				3.3*	5.1*	6.2	8.7	MC-K9-ZB26KE				2.5*	2.7*	2.9	3.2
MC-M8-ZB30KE				4.2*	6.2*	7.5	10.4	MC-M8-ZB30KE				2.8*	3.2*	3.3	3.7
MC-H8-ZB30KE				4.0*	5.9*	7.1	9.7	MC-H8-ZB30KE				3.0*	3.4*	3.6	4.0
MC-P8-ZB30KE				4.2*	6.3	7.5	10.5	MC-P8-ZB30KE				2.8*	3.1	3.3	3.6
MC-M8-ZB38KE				4.9*	7.5*	9.1	12.3	MC-M8-ZB38KE				3.6*	3.9*	4.2	4.7
MC-H8-ZB38KE					7.0*	8.4*	11.4	MC-H8-ZB38KE					4.3*	4.5*	5.3
MC-P8-ZB38KE				4.9*	7.5*	9.1	12.5	MC-P8-ZB38KE				3.6*	3.9*	4.1	4.6
MC-R7-ZB42KE**				5.7*	8.8	10.5	14.7	MC-R7-ZB42KE**				4.3*	4.6	4.7	4.8
MC-M8-ZB42KE**				5.3*	7.9*	9.4*	13.0	MC-M8-ZB42KE**				4.5*	4.9*	5.1*	5.6
MC-R7-ZB45KE				5.8*	9.1	11.1	15.5	MC-R7-ZB45KE				4.1*	4.5	4.7	5.1
MC-M8-ZB45KE				5.4*	8.2*	9.8*	13.8	MC-M8-ZB45KE				4.3*	4.8*	5.1*	5.9
MC-M9-ZB45KE				5.6*	8.7*	10.7	14.8	MC-M9-ZB45KE				4.2*	4.6*	4.9	5.5
MC-S9-ZB50KE				6.3*	10.5	12.8	17.8	MC-S9-ZB50KE				4.9*	5.2	5.4	6.0
MC-R7-ZB50KE				5.9*	10.0	12.3	17.1	MC-R7-ZB50KE				5.1*	5.5	5.7	6.3
MC-V9-ZB66KE				9.0*	13.8	16.5	23.0	MC-V9-ZB66KE				5.8*	6.4	6.7	7.3
MC-S9-ZB66KE					13.3	15.9	22.0	MC-S9-ZB66KE					6.7	7.1	7.9
MC-V6-ZB76KE				10.4*	16.3	19.7	27.6	MC-V6-ZB76KE				6.9*	7.5	7.7	8.5
MC-V9-ZB76KE				10.0*	15.6	18.7	26.0	MC-V9-ZB76KE				6.9*	7.7	8.1	9.1
MC-W9-ZB114KE				13.6*	22.2	26.9	37.7	MC-W9-ZB114KE				10.7*	11.9	12.5	14.0

Suction Gas Return 20°C / Subcooling 0K

\*Suction Superheat 10K, Subcooling 0K

\*\* Single Phase only

Preliminary data

Capacity Data

Ambient Temperature: 32°C															
R134a	Cooling Capacity (kW)							R134a	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
<b>Medium Temperature Models</b>															
MC-D8-ZB15KE				1.4	2.2	2.7	3.9	MC-D8-ZB15KE				1.0	1.0	1.1	1.2
MC-H8-ZB15KE				1.4	2.3	2.8	4.1	MC-H8-ZB15KE				1.1	1.1	1.1	1.2
MC-H8-ZB19KE				1.6	2.6	3.2	4.7	MC-H8-ZB19KE				1.2	1.3	1.3	1.4
MC-K9-ZB19KE				1.6	2.6	3.2	4.7	MC-K9-ZB19KE				1.2	1.2	1.3	1.3
MC-D8-ZB19KE				1.6	2.5	3.1	4.4	MC-D8-ZB19KE				1.1	1.2	1.3	1.4
MC-H8-ZB21KE				2.1	3.2	4.0	5.7	MC-H8-ZB21KE				1.5	1.5	1.6	1.7
MC-K9-ZB21KE				2.1	3.2	4.0	5.8	MC-K9-ZB21KE				1.4	1.5	1.6	1.7
MC-D8-ZB21KE				1.9*	3.1	3.7	5.3	MC-D8-ZB21KE				1.4*	1.5	1.6	1.8
MC-H8-ZB26KE				2.3	3.7	4.5	6.5	MC-H8-ZB26KE				1.7	1.8	1.8	2.0
MC-K9-ZB26KE				2.4	3.7	4.5	6.5	MC-K9-ZB26KE				1.6	1.7	1.8	1.9
MC-M8-ZB30KE				2.8	4.4	5.3	7.7	MC-M8-ZB30KE				1.9	2.0	2.0	2.2
MC-P8-ZB30KE				2.8	4.4	5.4	7.8	MC-P8-ZB30KE				1.8	1.9	2.0	2.1
MC-H8-ZB30KE				2.7	4.2	5.2	7.4	MC-H8-ZB30KE				1.9	2.0	2.1	2.3
MC-P8-ZB38KE				3.3	5.4	6.6	9.5	MC-P8-ZB38KE				2.2	2.4	2.5	2.7
MC-M8-ZB38KE				3.3	5.3	6.5	9.3	MC-M8-ZB38KE				2.2	2.4	2.5	2.8
MC-H8-ZB38KE				3.0*	5.1	6.3	8.9	MC-H8-ZB38KE				2.3*	2.6	2.7	3.0
MC-R7-ZB42KE**				3.9	6.1	7.5	10.8	MC-R7-ZB42KE**				2.8	2.9	2.9	2.9
MC-M8-ZB42KE**				3.8	5.9	7.1	10.1	MC-M8-ZB42KE**				2.8	2.9	3.0	3.1
MC-M8-ZB45KE				4.0	6.2	7.6	10.9	MC-M8-ZB45KE				2.7	2.9	3.0	3.3
MC-M9-ZB45KE				4.1	6.4	7.8	11.3	MC-M9-ZB45KE				2.7	2.9	3.0	3.3
MC-R7-ZB45KE				4.2	6.5	8.0	11.6	MC-R7-ZB45KE				2.8	2.9	3.0	3.2
MC-R7-ZB50KE				4.7	7.3	8.9	12.8	MC-R7-ZB50KE				3.4	3.5	3.7	4.0
MC-S9-ZB50KE				4.8	7.5	9.1	13.1	MC-S9-ZB50KE				3.3	3.4	3.5	3.8
MC-S9-ZB58KE				5.3	8.3	10.2	14.6	MC-S9-ZB58KE				3.7	3.8	4.0	4.3
MC-R7-ZB58KE				5.2	8.1	9.9	14.1	MC-R7-ZB58KE				3.8	4.0	4.1	4.5
MC-S9-ZB66KE				6.1	9.4	11.4	16.4	MC-S9-ZB66KE				4.1	4.3	4.5	4.9
MC-V9-ZB66KE				6.2	9.5	11.6	16.7	MC-V9-ZB66KE				4.0	4.2	4.4	4.7
MC-V9-ZB76KE				7.0	10.8	13.1	18.8	MC-V9-ZB76KE				4.7	4.9	5.2	5.6
MC-V6-ZB76KE				7.1	11.1	13.6	19.6	MC-V6-ZB76KE				4.9	5.0	5.2	5.6
MC-V9-ZB95KE				8.3	13.3	16.2	22.9	MC-V9-ZB95KE				5.9	6.4	6.7	7.4
MC-V6-ZB95KE				8.6	13.8	16.9	24.2	MC-V6-ZB95KE				5.9	6.3	6.5	7.1
MC-V6-ZB114KE				9.9	16.1	19.8	28.4	MC-V6-ZB114KE				7.2	7.6	8.0	8.7
MC-W9-ZB114KE				9.9	16.2	20.0	28.7	MC-W9-ZB114KE				7.1	7.6	7.9	8.6
<b>Digital Medium Temperature Models</b>															
MC-M8-ZBD30				2.9	4.5	5.4	7.6	MC-M8-ZBD30				1.8	2.0	2.1	2.4
MC-M9-ZBD45				3.9*	6.4	7.7	11.0	MC-M9-ZBD45				2.6*	3.0	3.1	3.5
MC-V6-ZBDT60				5.8	9.1	11.1	16.0	MC-V6-ZBDT60				3.9	4.1	4.3	4.6
MC-V6-ZBDT90				8.4	13.0	15.9	22.9	MC-V6-ZBDT90				5.2	5.7	6.0	6.6

Suction Gas Return 20°C / Subcooling 0K

\*Suction Superheat 10K, Subcooling 0K

\*\* Single Phase only

Preliminary data

Capacity Data

Ambient Temperature: 32°C															
R450A	Cooling Capacity (kW)							R450A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
Medium Temperature Models															
MC-D8-ZB15KE				1.2	1.9	2.4	3.5	MC-D8-ZB15KE				0.9	0.9	0.9	0.9
MC-H8-ZB15KE				1.2	2.0	2.5	3.7	MC-H8-ZB15KE				1.0	1.0	1.0	1.0
MC-D8-ZB19KE				1.4	2.2	2.7	4.0	MC-D8-ZB19KE				1.1	1.1	1.1	1.2
MC-H8-ZB19KE				1.4	2.3	2.8	4.2	MC-H8-ZB19KE				1.1	1.1	1.1	1.2
MC-K9-ZB19KE				1.4	2.3	2.8	4.2	MC-K9-ZB19KE				1.1	1.1	1.1	1.2
MC-D8-ZB21KE				1.6*	2.8	3.4	4.9	MC-D8-ZB21KE				1.3*	1.3	1.4	1.5
MC-H8-ZB21KE				1.8	2.9	3.6	5.3	MC-H8-ZB21KE				1.3	1.4	1.4	1.4
MC-K9-ZB21KE				1.8	2.9	3.6	5.3	MC-K9-ZB21KE				1.3	1.3	1.3	1.4
MC-H8-ZB26KE				2.1	3.3	4.1	6.0	MC-H8-ZB26KE				1.5	1.6	1.6	1.7
MC-K9-ZB26KE				2.1	3.3	4.1	6.0	MC-K9-ZB26KE				1.5	1.5	1.6	1.7
MC-H8-ZB30KE				2.4	3.8	4.7	6.9	MC-H8-ZB30KE				1.8	1.8	1.8	1.9
MC-M8-ZB30KE				2.4	3.9	4.9	7.1	MC-M8-ZB30KE				1.7	1.7	1.8	1.8
MC-P8-ZB30KE				2.5	4.0	4.9	7.2	MC-P8-ZB30KE				1.7	1.7	1.7	1.8
MC-H9-ZB38KE				2.7*	4.6	5.7	8.2	MC-H9-ZB38KE				2.2*	2.3	2.4	2.6
MC-M8-ZB38KE				3.0	4.8	5.9	8.6	MC-M8-ZB38KE				2.1	2.2	2.2	2.4
MC-P8-ZB38KE				3.0	4.8	6.0	8.7	MC-P8-ZB38KE				2.1	2.1	2.2	2.3
MC-M8-ZB42KE**				3.3	5.3	6.5	9.4	MC-M8-ZB42KE**				2.4	2.5	2.5	2.7
MC-R7-ZB42KE**				3.4	5.5	6.8	10.0	MC-R7-ZB42KE**				2.5	2.5	2.6	2.7
MC-M8-ZB45KE				3.5	5.5	6.8	9.8	MC-M8-ZB45KE				2.5	2.5	2.6	2.8
MC-M9-ZB45KE				3.5	5.7	7.0	10.2	MC-M9-ZB45KE				2.6	2.6	2.7	2.8
MC-R7-ZB45KE				3.6	5.8	7.1	10.5	MC-R7-ZB45KE				2.6	2.6	2.7	2.8
MC-R7-ZB58KE				4.5	7.2	8.8	12.7	MC-R7-ZB58KE				3.3	3.6	3.8	4.1
MC-S9-ZB58KE				4.6	7.3	8.9	13.0	MC-S9-ZB58KE				3.3	3.5	3.7	4.0
MC-S9-ZB66KE				5.1	8.1	9.9	14.4	MC-S9-ZB66KE				3.6	3.9	4.1	4.5
MC-V9-ZB66KE				5.2	8.2	10.1	14.6	MC-V9-ZB66KE				3.6	3.9	4.0	4.4
MC-V6-ZB76KE				6.0	9.7	11.9	17.4	MC-V6-ZB76KE				4.4	4.7	4.9	5.2
MC-V9-ZB76KE				5.9	9.4	11.6	16.9	MC-V9-ZB76KE				4.1	4.5	4.7	5.2
MC-V6-ZB95KE				7.3	11.8	14.5	21.3	MC-V6-ZB95KE				5.4	5.7	6.0	6.7
MC-V9-ZB95KE				7.1	11.3	14.0	20.3	MC-V9-ZB95KE				5.3	5.7	6.0	6.8
MC-V6-ZB114KE				8.4	13.8	17.0	24.8	MC-V6-ZB114KE				6.5	7.0	7.3	8.1
MC-W9-ZB114KE				8.5	13.8	17.1	25.0	MC-W9-ZB114KE				6.5	7.0	7.3	8.0
Digital Medium Temperature Models															
MC-M8-ZBD30				2.5	4.0	4.9	7.1	MC-M8-ZBD30				1.5	1.7	1.8	2.0
MC-M9-ZBD45				3.6	5.8	7.1	10.2	MC-M9-ZBD45				2.3	2.6	2.7	3.0
MC-V6-ZBDT60				5.0	8.1	10.1	14.8	MC-V6-ZBDT60				3.5	3.6	3.7	4.0
MC-V6-ZBDT90				7.3	11.6	14.3	21.0	MC-V6-ZBDT90				4.8	5.1	5.2	5.7

Suction Gas Return 20°C / Subcooling 0K  
 \*Suction Superheat 10K, Subcooling 0K  
 \*\* Single Phase only  
 Preliminary data

Capacity Data

Ambient Temperature: 32°C															
R513A	Cooling Capacity (kW)							R513A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
	-45	-35	-30	-20	-10	-5	+5		-45	-35	-30	-20	-10	-5	+5
<b>Medium Temperature Models</b>															
MC-D8-ZB15KE				1.4	2.3	2.8	4.0	MC-D8-ZB15KE				1.1	1.1	1.1	1.1
MC-H8-ZB15KE				1.5	2.4	2.9	4.2	MC-H8-ZB15KE				1.1	1.1	1.1	1.1
MC-D8-ZB19KE				1.6*	2.6	3.2	4.4	MC-D8-ZB19KE				1.2*	1.3	1.3	1.4
MC-H8-ZB19KE				1.8	2.8	3.3	4.8	MC-H8-ZB19KE				1.3	1.3	1.3	1.4
MC-K9-ZB19KE				1.8	2.8	3.4	4.8	MC-K9-ZB19KE				1.3	1.3	1.3	1.4
MC-D8-ZB21KE				2.0*	3.3	3.9	5.3	MC-D8-ZB21KE				1.5*	1.6	1.7	1.8
MC-H8-ZB21KE				2.3	3.5	4.2	5.9	MC-H8-ZB21KE				1.5	1.6	1.6	1.7
MC-K9-ZB21KE				2.3	3.5	4.2	5.9	MC-K9-ZB21KE				1.5	1.6	1.6	1.7
MC-H8-ZB26KE				2.5	3.9	4.7	6.8	MC-H8-ZB26KE				1.8	1.9	1.9	2.0
MC-K9-ZB26KE				2.5	3.9	4.8	6.8	MC-K9-ZB26KE				1.8	1.8	1.9	2.0
MC-H8-ZB30KE				2.7*	4.5	5.5	7.8	MC-H8-ZB30KE				2.0*	2.1	2.2	2.4
MC-M8-ZB30KE				3.0	4.6	5.7	8.2	MC-M8-ZB30KE				2.0	2.0	2.1	2.2
MC-P8-ZB30KE				3.0	4.7	5.8	8.3	MC-P8-ZB30KE				1.9	2.0	2.0	2.1
MC-H9-ZB38KE				3.2*	5.4	6.5	9.2	MC-H9-ZB38KE				2.6*	2.8	2.9	3.1
MC-M8-ZB38KE				3.4*	5.6	6.8	9.7	MC-M8-ZB38KE				2.5*	2.6	2.7	2.9
MC-P8-ZB38KE				3.7	5.7	7.0	10.0	MC-P8-ZB38KE				2.5	2.6	2.6	2.8
MC-M8-ZB42KE**				3.7*	6.2	7.6	10.7	MC-M8-ZB42KE**				2.8*	3.0	3.1	3.3
MC-R7-ZB42KE**				4.2	6.6	8.0	11.5	MC-R7-ZB42KE**				2.9	3.0	3.0	3.2
MC-M8-ZB45KE				3.9*	6.5	7.8	11.1	MC-M8-ZB45KE				2.9*	3.1	3.2	3.4
MC-M9-ZB45KE				4.3	6.7	8.1	11.6	MC-M9-ZB45KE				3.0	3.1	3.2	3.4
MC-R7-ZB45KE				4.4	6.8	8.3	12.0	MC-R7-ZB45KE				3.0	3.1	3.1	3.3
MC-R7-ZB58KE				5.5	8.4	10.2	14.4	MC-R7-ZB58KE				3.9	4.1	4.3	4.7
MC-S9-ZB58KE				5.5	8.6	10.5	14.9	MC-S9-ZB58KE				3.9	4.0	4.1	4.5
MC-S9-ZB66KE				6.2	9.6	11.6	16.4	MC-S9-ZB66KE				4.3	4.5	4.7	5.1
MC-V9-ZB66KE				6.3	9.7	11.8	16.8	MC-V9-ZB66KE				4.3	4.4	4.5	4.9
MC-V6-ZB76KE				7.4	11.5	14.0	20.2	MC-V6-ZB76KE				5.1	5.3	5.5	5.8
MC-V9-ZB76KE				7.2	11.2	13.6	19.3	MC-V9-ZB76KE				4.9	5.2	5.4	5.9
MC-V6-ZB95KE				8.9	14.0	17.1	24.3	MC-V6-ZB95KE				6.4	6.7	6.9	7.4
MC-V9-ZB95KE				8.6	13.4	16.2	22.8	MC-V9-ZB95KE				6.3	6.8	7.1	7.8
MC-V6-ZB114KE				10.1	16.3	19.9	28.1	MC-V6-ZB114KE				7.8	8.2	8.5	9.1
MC-W9-ZB114KE				10.2	16.4	20.0	28.3	MC-W9-ZB114KE				7.7	8.2	8.4	9.0
MC-V6-ZB114KE			10.2					MC-V6-ZB114KE							
<b>Digital Medium Temperature Models</b>															
MC-M8-ZBD30				3.0	4.7	5.7	8.1	MC-M8-ZBD30				1.8	2.0	2.1	2.3
MC-M9-ZBD45				4.4	6.8	8.2	11.6	MC-M9-ZBD45				2.7	3.0	3.2	3.6
MC-V6-ZBDT60				6.2	9.6	11.9	17.2	MC-V6-ZBDT60				4.0	4.2	4.3	4.6
MC-V6-ZBDT90				8.8	13.7	16.8	24.0	MC-V6-ZBDT90				5.6	6.0	6.2	6.7

Suction Gas Return 20°C / Subcooling 0K

\*Suction Superheat 10K, Subcooling 0K

\*\* Single Phase only

Preliminary data

# Copeland Scroll Digital™ Receiver Unit HLR

Copeland Scroll Digital Receiver Units are the perfect choice for remote condenser systems.

These Scroll Digital Receiver Units are an innovative offering by Emerson Climate Technologies for food service and retail businesses. Their compact design and the power of Digital Scroll continuous capacity modulation allow for optimized environmental integration at highest system efficiency.

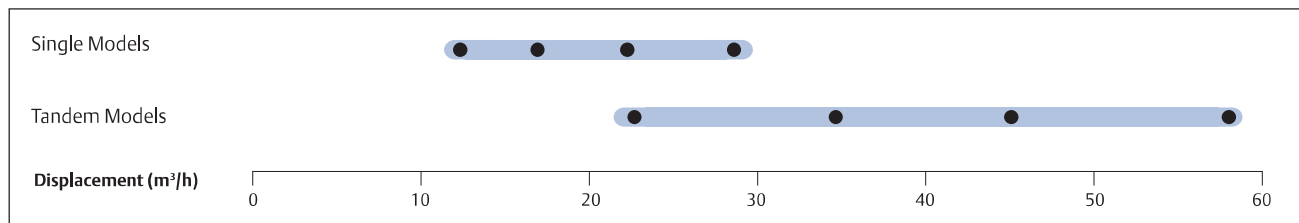
Eight models with single or tandem compressors cover the need of medium temperature refrigeration capacities in various applications. The continuous capacity modulation always provides the right performance, especially for systems with multiple evaporators and variable loads. The remote condenser concept allows for optimal building integration.



Digital Receiver Unit HLR



## Digital Receiver Unit HLR Line-up



### Features and Benefits

- Standard equipment: Digital Scroll compressor, liquid receiver, liquid line with filter drier and sight glass, HP/LP switch, complete electrical box including controller with overload protection and communication interface
- Continuous capacity modulation 10-100 % (Single) or 5-100 % (Tandem)
- Precise suction pressure control
- Maximum system flexibility by free choice of third party condensers
- Excellent energy efficiency
- High reliability
- Easy and quick installation
- Suitable for multiple refrigerants: R407A/F, R448A/R449A, R404A, R134a, R450A and R513A

### Maximum Allowable Pressures (PS)

- Low Side PS 22.5 bar (g)
- High Side PS = 28/32 bar (g)

## Technical Overview

Models	Displacement (m <sup>3</sup> /h)	Receiver Capacity (l)	Suction Line Diameter (inch)	Liquid Line Diameter (inch)	Width/Depth/Height (mm)	Net Weight (kg)	Motor Version/Code		Maximum Operating Current (A)		Locked Rotor Current (A)		Sound Pressure @1 m - dB(A)***	
							1 Ph*	3 Ph**	1 Ph*	3 Ph**	1 Ph*	3 Ph**	without sound shell	with sound shell
<b>Single Compressor Unit Models</b>														
HLR13-ZBD30KE	11.7	13	7/8	5/8	690/400/710	72	TFD		8		52		59	49
HLR13-ZBD45KE	17.1	13	7/8	5/8	690/400/710	75	TFD		12		74		61	51
HLR13-ZBD58KE	22.1	13	1 1/8	3/4	725/400/710	84	TFD		15		95		65	55
HLR13-ZBD76KE	28.8	13	1 3/8	3/4	725/400/710	90	TFD		20		118		66	56
<b>Tandem Compressor Unit Models</b>														
HLR31-ZBDT60KE	23.4	31	1 3/8	7/8	970/480/910	130	TFD		8+8		52 + 52		62	-
HLR31-ZBDT90KE	34.1	31	1 3/8	7/8	970/480/910	138	TFD		12 + 12		74 + 74		64	-
HLR31-ZBDT116KE	44.2	31	1 5/8	1 1/8	970/480/870	165	TFD		15 + 15		95 + 95		68	-
HLR31-ZBDT152KE	58.2	31	1 5/8	1 3/8	970/480/870	175	TFD		20 + 20		118 + 118		69	-



## Capacity Data

Condensing Temperature: 40°C															
R407A	Cooling Capacity (kW)						R407A	Power Input (kW)							
	Evaporating Temperature (°C)							Evaporating Temperature (°C)							
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
Single Compressor Unit Models															
HLR13-ZBD30KCE				4.0*	6.8	8.4	12.4	HLR13-ZBD30KCE				3.2*	3.1	3.2	3.2
HLR13-ZBD45KCE				5.5*	9.4	11.7	17.2	HLR13-ZBD45KCE				4.4*	4.3	4.4	4.4
Tandem Compressor Unit Models															
HLR31-ZBDT60KCE				8.0*	13.6	16.8	24.6	HLR31-ZBDT60KCE				6.2*	6.2	6.2	6.3
HLR31-ZBDT90KCE				11.4*	18.9	23.2	34.1	HLR31-ZBDT90KCE				8.7*	8.8	8.8	8.8

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Suction Superheat 10K

Preliminary data

Condensing Temperature: 40°C															
R407F	Cooling Capacity (kW)						R407F	Power Input (kW)							
	Evaporating Temperature (°C)							Evaporating Temperature (°C)							
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
HLR13-ZBD30KCE			2.8*	4.8	7.3	8.8	12.8	HLR13-ZBD30KCE			2.0*	2.5	2.8	2.9	3.1
HLR13-ZBD45KCE				6.4*	10.8	13.2	18.9	HLR13-ZBD45KCE				3.7*	4.1	4.3	4.6
HLR31-ZBDT60KCE				8.9*	14.5	17.7	25.7	HLR31-ZBDT60KCE				5.4*	5.7	5.8	6.0
HLR31-ZBDT90KCE				12.4*	21.2	26.1	37.9	HLR31-ZBDT90KCE				7.8*	8.4	8.5	8.8

Conditions: EN12900: Condensing Temperature 45°C, Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN12900: Condensing Temperature 45°C, Suction Superheat 10K

Condensing Temperature: 40°C															
R448A	Cooling Capacity (kW)						R448A	Power Input (kW)							
	Evaporating Temperature (°C)							Evaporating Temperature (°C)							
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
Single Compressor Unit Models															
HLR13-ZBD30KCE				4.1*	6.8	8.3	12.1	HLR13-ZBD30KCE				2.7*	3.0	3.1	3.4
HLR13-ZBD45KCE				6.0*	10.0	12.2	17.7	HLR13-ZBD45KCE				3.8*	4.2	4.4	4.8
Tandem Compressor Unit Models															
HLR31-ZBDT60KCE				8.2*	13.5	16.6	24.2	HLR31-ZBDT60KCE				5.4*	5.9	6.2	6.8
HLR31-ZBDT90KCE				12.0*	20	24.4	35.4	HLR31-ZBDT90KCE				7.6*	8.4	8.8	9.6
HLR31-ZBDT116KCE				13.7*	25.5	31.7	46.2	HLR31-ZBDT116KCE				11.9*	11.8	11.9	12.1
HLR31-ZBDT152KCE				19.8*	34.9	43.10	62.5	HLR31-ZBDT152KCE				15.8*	16.0	16.10	16.5

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Suction Superheat 10K

Preliminary data

## Capacity Data

Condensing Temperature: 40°C															
R449A	Cooling Capacity (kW)							R449A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
<b>Single Compressor Unit Models</b>															
HLR13-ZBD30KCE				4.1*	6.8	8.3	12.1	HLR13-ZBD30KCE				2.7*	3.0	3.1	3.4
HLR13-ZBD45KCE				6.0*	10.0	12.2	17.7	HLR13-ZBD45KCE				3.8*	4.2	4.4	4.8
<b>Tandem Compressor Unit Models</b>															
HLR31-ZBDT60KCE				8.2*	13.5	16.6	24.2	HLR31-ZBDT60KCE				5.4*	5.9	6.2	6.8
HLR31-ZBDT90KCE				11.9*	20.0	24.4	35.4	HLR31-ZBDT90KCE				7.6*	8.4	8.8	9.6
HLR31-ZBDT116KCE				13.7*	25.5	31.7	46.2	HLR31-ZBDT116KCE				11.9*	11.8	11.9	12.1
HLR31-ZBDT152KCE				19.7*	34.9	43.10	62.5	HLR31-ZBDT152KCE				15.8*	16.0	16.10	16.5

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Suction Superheat 10K

Preliminary data

Condensing Temperature: 45°C															
R404A	Cooling Capacity (kW)							R404A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
<b>Single Compressor Unit Models</b>															
HLR13-ZBD30KCE			2.7*	4.8	7.0	8.4	11.8	HLR13-ZBD30KCE			2.4*	2.9	3.1	3.2	3.5
HLR13-ZBD45KCE			3.4*	6.6	10.2	12.5	18.0	HLR13-ZBD45KCE			4.4*	4.6	4.8	4.9	5.2
HLR13-ZBD58KCE				8.6	13.5	16.3	22.9	HLR13-ZBD58KCE				6.4	6.4	6.4	6.4
HLR13-ZBD76KCE				11.8	17.9	21.4	30.2	HLR13-ZBD76KCE				8.1	8.3	8.3	8.4
<b>Tandem Compressor Unit Models</b>															
HLR31-ZBDT60KCE			5.4*	9.6	14.1	16.9	23.6	HLR31-ZBDT60KCE			4.9*	5.8	6.3	6.5	6.9
HLR31-ZBDT90KCE				7.0*	13.4	20.3	35.0	HLR31-ZBDT90KCE			9.2*	9.4	9.6	9.7	9.9
HLR31-ZBDT116KCE				6.4*	17.0	26.7	45.8	HLR31-ZBDT116KCE			13.1*	12.7	12.7	12.7	12.8
HLR31-ZBDT152KCE					23.7	35.7	60.3	HLR31-ZBDT152KCE				16.2	16.4	16.5	16.8

Conditions: EN12900: Condensing Temperature 45°C, Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN12900: Condensing Temperature 45°C, Suction Superheat 10K

Condensing Temperature: 40°C															
R407C	Cooling Capacity (kW)							R407C	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
<b>Single Compressor Unit Models</b>															
HLR13-ZBD30KCE					6.2	7.6	11.1	HLR13-ZBD30KCE					3.0	3.0	3.0
HLR13-ZBD45KCE					8.9	11.1	16.5	HLR13-ZBD45KCE					4.1	4.1	4.2
<b>Tandem Compressor Unit Models</b>															
HLR31-ZBDT60KCE					12.2*	15.2	22.2	HLR31-ZBDT60KCE					6.0*	6.0	6.1
HLR31-ZBDT90KCE					17.5*	22.2	32.9	HLR31-ZBDT90KCE					8.3*	8.3	8.4

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Suction Superheat 10K

## Capacity Data

Condensing Temperature: 40°C															
R134a	Cooling Capacity (kW)							R134a	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
<b>Single Compressor Unit Models</b>															
HLR13-ZBD30KCE					4.3	5.2	7.5	HLR13-ZBD30KCE					1.9	2.0	2.2
HLR13-ZBD45KCE					6.0	7.5	11.2	HLR13-ZBD45KCE					2.7	2.9	3.1
HLR13-ZBD58KCE					7.8	9.7	14.4	HLR13-ZBD58KCE					3.8	3.8	3.9
HLR31-ZBD76KCE					10.2	12.7	18.9	HLR31-ZBD76KCE					4.9	5.0	5.1
<b>Tandem Compressor Unit Models</b>															
HLR31-ZBDT60KCE					8.3	10.3	15.2	HLR31-ZBDT60KCE					3.9	4.0	4.2
HLR31-ZBDT90KCE					12.1	15.1	22.6	HLR31-ZBDT90KCE					5.5	5.6	5.9
HLR31-ZBDT116KCE					15.6	19.4	28.8	HLR31-ZBDT116KCE					7.5	7.6	7.8
HLR31-ZBDT152KCE					20.4	25.3	37.8	HLR31-ZBDT152KCE					9.8	9.9	10.2

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K  
Preliminary data

Condensing Temperature: 40°C															
R450A	Cooling Capacity (kW)							R450A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
<b>Single Compressor Unit Models</b>															
HLR13-ZBD30KCE				2.0*	3.6	4.6	6.9	HLR13-ZBD30KCE				1.5*	1.6	1.7	1.8
HLR13-ZBD45KCE				3.0*	5.4	6.7	10.2	HLR13-ZBD45KCE				2.2*	2.4	2.5	2.8
<b>Tandem Compressor Unit Models</b>															
HLR31-ZBDT60KCE				4.1*	7.3	9.1	13.8	HLR31-ZBDT60KCE				3.0*	3.2	3.3	3.6
HLR31-ZBDT90KCE				5.9*	10.8	13.5	20.3	HLR31-ZBDT90KCE				4.4*	4.7	4.9	5.3

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K  
Preliminary data

Condensing Temperature: 40°C															
R513A	Cooling Capacity (kW)							R513A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
<b>Single Compressor Unit Models</b>															
HLR13-ZBD30KCE				2.5*	4.3	5.4	8.0	HLR13-ZBD30KCE				1.8*	1.9	2.0	2.1
HLR13-ZBD45KCE				3.6*	6.4	7.9	11.9	HLR13-ZBD45KCE				2.6*	2.8	2.9	3.1
<b>Tandem Compressor Unit Models</b>															
HLR31-ZBDT60KCE				5.0*	8.7	10.8	16.0	HLR31-ZBDT60KCE				3.5*	3.9	4.0	4.2
HLR31-ZBDT90KCE				7.3*	12.8	15.9	23.7	HLR31-ZBDT90KCE				5.1*	5.6	5.8	6.3

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K  
Preliminary data



## Semi-Hermetic Condensing Units K/L Compressors

Copeland™ air-cooled indoor condensing units for medium temperature and low temperature applications.

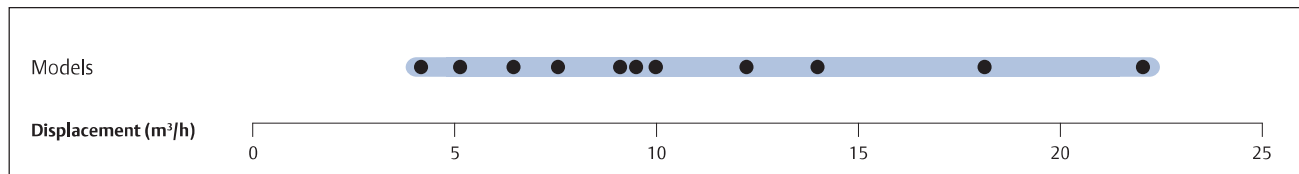
Long-term engineering and manufacturing experience has led to these condensing units with reed valve technology compressors. Their excellent quality and reliability is traditionally well known in the refrigeration industry.

This series of condensing units is equipped with single fan or twin fans which allows for very compact dimensions. The wide range of models offers solutions for most applications including operation in extreme conditions like high evaporation temperatures and high ambient temperatures.



*Semi-Hermetic Condensing Unit K/L Compressors*

### Semi-Hermetic K & L Condensing Units Line-up



#### Features and Benefits

- Standard equipment: compressor, condenser with thermally protected fan(s), discharge line with flexible pipe loop or vibration absorber, liquid receiver with shut-off-valve, HP/LP switch with automatic reset
- Suitable for a broad range of refrigerants: R407A/F, R404A and R134a
- Wide range of quality accessories
- Proven reliability

#### Maximum Allowable Pressures (PS)

- Low Side PS 22.5 bar (g)
- High Side PS = 28 bar (g)

## Technical Overview

Models	Displacement (m <sup>3</sup> /h)	Receiver Capacity (l)	Number of fans	Total Fan Motor Power (W)	Suction Line Diameter (inch)	Liquid Line Diameter (inch)	Width/Depth/Height (mm)	Net Weight (kg)	Motor Version/Code		Maximum Operating Current (A)		Locked Rotor Current (A)		Sound Pressure @10m - dB(A)***
									1 Ph*	3 Ph**	1 Ph*	3 Ph**	1 Ph*	3 Ph**	
B8-KM-5X-B	3.3	3.3	1	85	5/8	1/2	560/570/396	56.0	CAG	EWL	5	2	24	12	39.0
B8-KJ-7X-B	3.3	3.4	1	85	5/8	1/2	560/570/396	57.5	CAG	EWL	6	2	35	12	
B8-KM-7X-B	4.0	3.5	1	85	1/2	1/2	560/570/396	57.5	CAG	EWL	6	2	35	12	
B8-KSJ-10X-B	6.3	3.6	1	85	5/8	1/2	560/570/396	58.5	CAG	EWL	7	3	32	16	
B8-KJ-10X-B	3.3	3.7	1	85	5/8	1/2	560/570/396	57.5	CAG	EWL	7	3	32	16	39.0
B8-KL-15X-B	3.3	3.3	1	85	5/8	1/2	560/570/396	57.5	CAG	EWL	8	3	43	19	39.5
D8-KSJ-15X-B	3.9	7.9	1	110	7/8	1/2	560/570/446	62.0	CAG	EWL	9	3	43	19	45.6
D8-KSL-20X-B	3.9	3.9	1	110	5/8	1/2	560/570/446	60.0		EWL		5		23	
D8-LE-20X-B	3.9	3.9	1	110	7/8	1/2	560/715/446	96.5		EWL		6		38	
D8-LF-20X-B	3.9	3.9	1	110	7/8	1/2	560/715/446	98.5		EWL		6		38	
H8-KSL-20X-B	7.9	7.9	1	235	5/8	1/2	735/680/533	60.0		EWL		5		23	
H8-LE-20X-B	7.9	7.9	1	235	7/8	1/2	735/680/533	108.0		EWL		6		38	
H8-LJ-20X-B	7.9	7.9	1	235	7/8	1/2	735/680/533	103.0		EWL		6		38	
H8-LJ-30X-B	7.9	7.9	1	235	7/8	1/2	735/680/533	108.0		EWL		7		51	48.5
H8-LL-30X-B	7.9	7.9	1	235	1 1/8	1/2	735/680/533	110.0		EWL		7		51	48.5
P8-LF-30X-B	7.9	7.9	2	220	1 1/8	1/2	950/640/633	127.0		EWL		7		51	47.8
H8-LF-30X-B	7.9	7.9	1	235	7/8	1/2	735/680/533	108.0		EWL		7		51	48.5
P8-LJ-30X-B	7.9	7.9	2	220	7/8	1/2	950/640/633	127.0		EWL		7		51	47.8
K9-LL-30X-B	7.9	7.9	2	220	1 1/8	1/2	950/640/454	134.0		EWL		7		51	47.2
P8-LL-40X-B	7.9	7.9	2	220	1 1/8	1/2	950/640/633	128.0		EWL		10		59	48.0
K9-LSG-40X-B	7.9	7.9	2	220	1 1/8	1/2	950/640/454	131.0		EWL		9		59	50.9
H8-LL-40X-B	7.9	7.9	1	235	1 1/8	1/2	735/680/533	112.0		EWL		10		59	48.6
H8-LSG-40X-B	7.9	7.9	1	235	1 1/8	1/2	735/680/533	116.0		EWL		9		59	

\* 1ph: 230V/ 50Hz

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

\*\*\* @ 10m: sound pressure level at 10m distance from the compressor, free field condition

## Capacity Data

Ambient Temperature: 32°C															
R407A		Cooling Capacity (kW)						R407A		Power Input (kW)					
		Evaporating Temperature (°C)								Evaporating Temperature (°C)					
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
B8-KM-5X-B		0.5	0.7	1.2				B8-KM-5X-B		0.5	0.6	0.7			
B8-KM-7X-B		0.5	0.7	1.2	1.8	2.2	3.0	B8-KM-7X-B		0.6	0.6	0.8	0.9	1.0	1.2
B8-KJ-7X-B		0.7	0.9	1.5				B8-KJ-7X-B		0.7	0.8	1.0			
B8-KJ-10X-B		0.7	0.9	1.5	2.3	2.7		B8-KJ-10X-B		0.6	0.7	0.9	1.2	1.4	
D8-KSJ-15X-B		0.9	1.2	2.0	3.0	3.6		D8-KSJ-15X-B		0.9	1.0	1.3	1.5	1.7	
B8-KSJ-10X-B		0.9	1.2	1.9				B8-KSJ-10X-B		0.9	1.0	1.3			
B8-KL-15X-B		1.0	1.3	2.1				B8-KL-15X-B		1.0	1.1	1.4			
D8-LE-20X-B		0.9	1.4	2.6	4.1	5.0		D8-LE-20X-B		0.9	1.1	1.5	2.0	2.2	
H8-LE-20X-B		0.9	1.5	2.8	4.6	5.6	7.9	H8-LE-20X-B		1.0	1.2	1.6	2.1	2.3	2.7
H8-LF-30X-B		1.3	2.0	3.7	5.9	7.1		H8-LF-30X-B		1.4	1.6	2.2	2.8	3.1	
P8-LF-30X-B		1.4	2.1	3.9	6.2	7.5	10.6	P8-LF-30X-B		1.3	1.6	2.2	2.7	3.0	3.6
D8-LF-20X-B		1.3	1.8	3.2				D8-LF-20X-B		1.2	1.5	2.0			
P8-LJ-30X-B		1.9	2.6	4.5	6.9	8.3		P8-LJ-30X-B		1.7	1.9	2.6	3.2	3.6	
H8-LJ-20X-B		1.6	2.3	4.2				H8-LJ-20X-B		1.5	1.8	2.5			
H8-LJ-30X-B		1.8	2.6	4.3	6.6	7.9		H8-LJ-30X-B		1.7	2.0	2.6	3.3	3.7	
H8-LL-40X-B		2.1	3.1	5.3	8.0	9.5		H8-LL-40X-B		1.9	2.2	3.1	4.1	4.6	
H8-LL-30X-B		2.1	3.0	5.2				H8-LL-30X-B		1.8	2.2	3.1			
P8-LL-40X-B		2.2	3.2	5.6	8.6	10.4		P8-LL-40X-B		1.9	2.2	3.1	4.0	4.5	
K9-LSG-40X-B		2.7	3.8	6.3				K9-LSG-40X-B		2.3	2.7	3.8			

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

Capacity Data

Ambient Temperature: 32°C															
R404A	Cooling Capacity (kW)							R404A	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
B8-KM-7X-B	0.3	0.6	0.8	1.3	1.9	2.2	3.0	B8-KM-7X-B	0.4	0.6	0.7	0.8	1.0	1.1	1.3
B8-KM-5X-B	0.3	0.6	0.8	1.3				B8-KM-5X-B	0.5	0.6	0.6	0.8			
B8-KJ-7X-B	0.4	0.8	1.1	1.7				B8-KJ-7X-B	0.6	0.8	0.9	1.1			
B8-KJ-10X-B	0.4	0.8	1.1	1.7	2.4	2.8	3.6	B8-KJ-10X-B	0.5	0.8	0.9	1.1	1.4	1.5	1.8
D8-KSJ-15X-B	0.6	1.1	1.4	2.2	3.2	3.8		D8-KSJ-15X-B	0.7	1.0	1.1	1.4	1.8	1.9	
B8-KSJ-10X-B	0.6	1.1	1.3					B8-KSJ-10X-B	0.8	1.0	1.2				
B8-KL-15X-B	0.7	1.2	1.5	2.3				B8-KL-15X-B	0.9	1.1	1.3	1.6			
H8-KSL-20X-B	0.9	1.7	2.2	3.3	4.8	5.7		H8-KSL-20X-B	1.1	1.5	1.7	2.1	2.6	2.8	
D8-KSL-20X-B	0.9	1.6	2.0	3.1	4.3			D8-KSL-20X-B	1.0	1.3	1.5	2.0	2.6		
H8-LE-20X-B		1.3	1.9	3.2	4.8	5.8	7.8	H8-LE-20X-B		1.2	1.4	1.9	2.3	2.5	3.0
D8-LE-20X-B		1.2	1.7	2.9	4.3	5.0		D8-LE-20X-B		1.1	1.3	1.7	2.2	2.5	
H8-LF-30X-B	0.9	2.1	2.7	4.4	6.3	7.4		H8-LF-30X-B	1.3	1.9	2.1	2.7	3.3	3.6	
P8-LF-30X-B	1.0	2.1	2.9	4.7	6.9	8.2	11.1	P8-LF-30X-B	1.3	1.9	2.1	2.6	3.2	3.4	4.0
D8-LF-20X-B		1.7	2.2	3.5				D8-LF-20X-B		1.5	1.8	2.4			
H8-LJ-20X-B		2.1	2.9					H8-LJ-20X-B		1.8	2.2				
P8-LJ-30X-B	1.1	2.4	3.2	5.1	7.5	8.9	11.9	P8-LJ-30X-B	1.4	2.0	2.3	3.0	3.6	4.0	4.6
H8-LJ-30X-B	1.1	2.3	3.0	4.7	6.8	7.9		H8-LJ-30X-B	1.4	2.0	2.4	3.0	3.8	4.2	
H8-LL-40X-B	1.4	2.8	3.6	5.7	8.1	9.4		H8-LL-40X-B	1.7	2.4	2.8	3.7	4.7	5.3	
H8-LL-30X-B	1.2	2.7	3.6	5.7				H8-LL-30X-B	1.5	2.2	2.7	3.6			
P8-LL-40X-B	1.4	2.9	3.9	6.2	9.1	10.8		P8-LL-40X-B	1.7	2.4	2.8	3.6	4.5	5.0	
K9-LL-30X-B	1.2	2.7	3.6	5.7				K9-LL-30X-B	1.5	2.2	2.6	3.6			
H8-LSG-40X-B	1.7	3.4	4.4	6.7				H8-LSG-40X-B	1.9	2.8	3.3	4.5			
K9-LSG-40X-B	1.7	3.4	4.4	6.7				K9-LSG-40X-B	1.9	2.8	3.3	4.5			

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

Ambient Temperature: 32°C															
R134a	Cooling Capacity (kW)							R134a	Power Input (kW)						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
B8-KM-5X-B				0.8	1.2	1.5	2.2	B8-KM-5X-B				0.6	0.6	0.6	0.6
B8-KJ-7X-B				1.0	1.6	1.9	2.8	B8-KJ-7X-B				0.8	0.8	0.8	0.8
B8-KSJ-10X-B				1.2	1.9	2.4	3.4	B8-KSJ-10X-B				0.8	0.9	1.0	0.8
B8-KL-15X-B				1.4	2.2	2.6	3.7	B8-KL-15X-B				0.9	1.2	1.3	1.2
D8-KSL-20X-B				1.8	2.9	3.5	5.0	D8-KSL-20X-B				1.1	1.4	1.5	1.8
H8-KSL-20X-B				1.9	3.0	3.7	5.4	H8-KSL-20X-B				1.2	1.5	1.6	1.8
D8-LE-20X-B				1.6	2.7	3.4	4.9	D8-LE-20X-B				1.4	1.4	1.4	1.4
H8-LE-20X-B				1.7	2.9	3.6	5.4	H8-LE-20X-B				1.5	1.5	1.5	1.5
D8-LF-20X-B				2.2	3.6	4.4	6.2	D8-LF-20X-B				1.7	1.7	1.7	1.7
H8-LJ-20X-B				2.7	4.3	5.2	7.5	H8-LJ-20X-B				2.2	2.2	2.2	2.2
H8-LL-30X-B				3.2	5.2	6.4	9.2	H8-LL-30X-B				2.1	2.1	2.1	2.1
K9-LL-30X-B				3.2	5.3	6.5	9.3	K9-LL-30X-B				2.1	2.6	2.1	2.1
H8-LSG-40X-B				4.2	6.5	7.9	11.0	H8-LSG-40X-B				3.2	3.2	3.2	3.2
K9-LSG-40X-B				4.2	6.6	8.0	11.1	K9-LSG-40X-B				2.5	3.2	3.6	3.6

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K



## Condensing Units with Semi-Hermetic Discus™ Compressors

Copeland™ air-cooled indoor condensing units for medium temperature and low temperature applications.

In a further approach to improve compressor performance and reduce compression losses, Emerson Climate Technologies engineers developed the Discus valve technology.

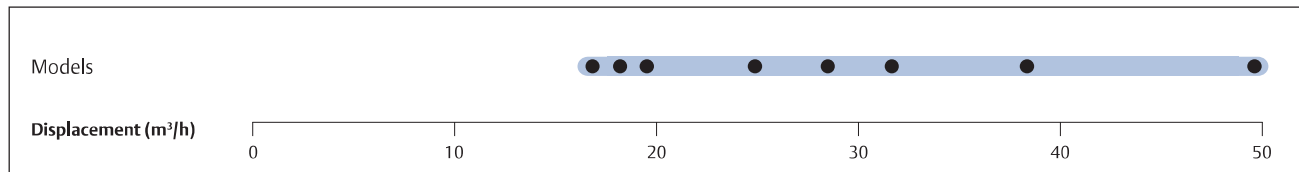
This series of condensing units is equipped with 2 or 3 cylinder semi-hermetic compressors with Discus valve technology. The models are specifically suitable for those applications where high efficiency and low energy consumption is required.

The wide range of compressor models combined with 2 or 4 fan high capacity condensers covers most application needs of low temperature and medium temperature applications.



Condensing Units with Semi-Hermetic Discus Compressors

### Discus Condensing Units Line-up



### Features and Benefits

- Standard equipment: Discus compressor, condenser with thermally protected fan(s), discharge line with flexible pipe loop or vibration absorber, liquid receiver with shut-off-valve, HP/LP switch with automatic reset, oil pressure safety control OPS2
- Suitable for multiple refrigerants: R407A/F, R448A/R449A, R404A, R134a, R450A and R513A
- Wide range of quality accessories
- Excellent efficiency
- Proven reliability

### Maximum Allowable Pressures (PS)

- Low Side PS 22.5 bar (g)
- High Side PS = 28 bar (g)

## Technical Overview

Model	Displacement (m <sup>3</sup> /h)	Receiver Capacity (l)	Number of fans	Total Fan Motor Power (W)	Suction Line Diameter (inch)	Liquid Line Diameter (inch)	Width/Depth/Height (mm)	Net Weight (kg)	Motor Version/ Code	Maximum Operating Current (A)	Locked Rotor Current (A)	Sound Pressure @10m -dB(A)***
									3 Ph**	3 Ph**	3 Ph**	
P8-2DC-50X-B	17	11.7	2	220	1 3/8	5/8	950/740/633	186.0	AWM	9	55	
R7-2DD-50X-B	19	15.8	2	470	1 3/8	3/4	1130/820/633	196.0	AWM	10	55	
P8-2DL-75X-B	24	11.7	2	220	1 3/8	5/8	950/740/633		AWM	14	82	50.0
R7-2DL-75X-B	24	15.8	2	470	1 3/8	3/4	1130/820/708	205.0	AWM	14	82	
P8-2DB-50X-B	28	11.7	2	220	1 3/8	5/8	950/740/633	186.0	AWM	13	55	49.6
P8-2DB-75X-B	28	11.7	2	220	1 3/8	5/8	950/740/633	191.0	AWM	16	82	52.0
S9-2DB-75X-B	28	15.8	2	470	1 3/8	3/4	1130/820/708	212.0	AWM	16	82	
P8-3DA-50X-B	32	11.7	2	220	1 3/8	5/8	950/740/633	205.0	AWM	16	55	51.6
P8-3DA-75X-B	32	11.7	2	220	1 3/8	5/8	950/740/633	211.0	AWM	18	106	52.0
S9-3DA-75X-B	32	18.9	2	470	1 3/8	7/8	1330/820/835	259.0	AWM	18	106	
R7-3DC-100X-B	38	15.8	2	470	1 3/8	3/4	1129/820/633	234.0	AWM	21	121	56.0
R7-3DC-75X-B	38	15.8	2	470	1 3/8	3/4	1130/820/633	278.0	AWM	18	82	54.6
S9-3DS-100X-B	50	15.8	2	470	1 3/8	3/4	1130/820/708	239.0	AWM	24	121	54.0
S9-3DS-150X-B	50	15.8	2	470	1 3/8	3/4	1129/820/708	243.0	AWM	29	123	57.0

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

\*\*\* @ 10m: sound pressure level at 10m distance from the compressor, free field condition

## Capacity Data

Ambient Temperature: 32°C															
R407A		Cooling Capacity (kW)						R407A		Power Input (kW)					
		Evaporating Temperature (°C)								Evaporating Temperature (°C)					
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
P8-2DC-50X-B		1.8	2.6	4.5	7.1	8.7	12.3	P8-2DC-50X-B		1.6	1.9	2.5	3.2	3.6	4.5
R7-2DD-50X-B		2.4	3.4	5.8	9.1	11.0	15.5	R7-2DD-50X-B		2.2	2.5	3.2	4.0	4.4	5.2
R7-2DL-75X-B				7.1	10.9	13.1	18.2	R7-2DL-75X-B				4.0	5.0	5.5	6.6
P8-2DB-75X-B				7.9	11.4	13.2		P8-2DB-75X-B				4.8	6.3	7.1	
S9-2DB-75X-B				8.7	13.2	15.7	21.4	S9-2DB-75X-B				4.9	6.1	6.8	8.1
P8-2DB-50X-B		3.3*	4.5*	7.9	11.3	13.2		P8-2DB-50X-B		3.0*	3.5*	4.7	6.2	7.1	
S9-3DA-75X-B				9.8	14.7	17.5	23.7	S9-3DA-75X-B				5.6	7.0	7.8	9.4
P8-3DA-50X-B		3.7*	5.0*	8.7	12.1	13.9		P8-3DA-50X-B		3.4*	4.1*	5.6	7.4	8.5	
P8-3DA-75X-B				8.5	12.2	14.2		P8-3DA-75X-B				5.5	7.2	8.2	
R7-3DC-75X-B		4.7*	6.3*	11.1	15.8	18.3		R7-3DC-75X-B		4.3*	5.1*	6.8	8.8	9.9	
V6-3DC-100X-B				12.6	19.1	22.9	31.5	V6-3DC-100X-B				6.6	8.2	9.0	10.6
R7-3DC-100X-B				11.1	16.2	18.9		R7-3DC-100X-B				6.5	8.5	9.6	
V6-3DS-150X-B				16.1	23.8	28.2	37.8	V6-3DS-150X-B				8.9	11.2	12.4	15.0
S9-3DS-100X-B		6.3*	8.5*	14.7	20.5	23.6		S9-3DS-100X-B		5.7*	6.7*	9.0	11.8	13.4	
W9-3DS-150X-B				16.3	24.2	28.7	38.8	W9-3DS-150X-B				8.8	11.1	12.3	14.7

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

Ambient Temperature: 32°C															
R448A		Cooling Capacity (kW)						R448A		Power Input (kW)					
		Evaporating Temperature (°C)								Evaporating Temperature (°C)					
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
P8-2DC-50X		1.7*	2.8	4.9	7.6	9.1	12.6	P8-2DC-50X		1.6*	2.0	2.7	3.4	3.8	4.6
R7-2DD-50X		2.0*	3.3	5.9	9.2	11.1	15.6	R7-2DD-50X		2.1*	2.5	3.3	4.1	4.5	5.3
P8-2DL-75X		2.6*	3.7*	6.7	10.1	12.0		P8-2DL-75X		2.5*	2.9*	3.8	4.9	5.6	
R7-2DL-75X		2.8*	4.2	7.1	11.0	13.4	18.8	R7-2DL-75X		2.8*	3.1	4.0	5.0	5.5	6.8
P8-2DB-50X		3.6*	4.8*	8.0	11.4	13.3		P8-2DB-50X		3.1*	3.6*	4.8	6.4	7.2	
P8-2DB-75X		3.7*	5.0*	8.2	11.7	13.5		P8-2DB-75X		3.2*	3.7*	5.0	6.4	7.3	
S9-2DB-75X		4.0*	5.4*	9.2	13.6	16.3	22.1	S9-2DB-75X		3.4*	3.9*	5.0	6.2	6.8	8.3
P8-3DA-50X		4.0*	5.2*	8.6	12.2			P8-3DA-50X		3.5*	4.1*	5.6	7.4		
P8-3DA-75X		3.8*	5.3*	9.0	13.0	15.1		P8-3DA-75X		3.6*	4.2*	5.7	7.4	8.3	
S9-3DA-75X		4.2*	5.9*	10.4	15.5	18.4	25.1	S9-3DA-75X		3.8*	4.4*	5.8	7.1	7.9	9.4
R7-3DC-100X		4.6*	6.6*	11.5	16.5	19.2		R7-3DC-100X		4.1*	4.8*	6.6	8.5	9.6	
V6-3DC-100X		5.2*	7.8	13.1	19.7	23.4	32.0	V6-3DC-100X		4.4*	5.2	6.7	8.2	9.1	10.8
R7-3DC-75X		5.1*	6.7*	11.0	15.8	18.4		R7-3DC-75X		4.5*	5.1*	6.8	8.7	9.8	
S9-3DS-100X		7.0*	9.0*	14.8	21.2			S9-3DS-100X		5.8*	6.8*	9.1	11.9		
S9-3DS-150X		7.3*	9.5*	15.3	21.2	24.3		S9-3DS-150X		6.1*	7.0*	9.3	11.9	13.3	
V6-3DS-150X		7.8*	10.3*	16.9	24.5	28.8	38.2	V6-3DS-150X		6.3*	7.2*	9.2	11.4	12.6	15.2
W9-3DS-150X		7.8*	10.4*	17.2	24.9	29.4	39.2	W9-3DS-150X		6.3*	7.2*	9.1	11.3	12.5	15.0

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

Preliminary data

## Capacity Data

Ambient Temperature: 32°C															
R449A		Cooling Capacity (kW)						R449A		Power Input (kW)					
		Evaporating Temperature (°C)								Evaporating Temperature (°C)					
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
P8-2DC-50X		1.7*	2.8	4.9	7.6	9.1	12.6	P8-2DC-50X		1.6*	2.0	2.7	3.4	3.8	4.6
R7-2DD-50X		2.0*	3.3	5.9	9.2	11.1	15.6	R7-2DD-50X		2.1*	2.5	3.3	4.1	4.5	5.3
P8-2DL-75X		2.6*	3.7*	6.7	10.1	12.0		P8-2DL-75X		2.5*	2.9*	3.8	4.9	5.6	
R7-2DL-75X		2.8*	4.2	7.1	11.0	13.4	18.8	R7-2DL-75X		2.8*	3.1	4.0	5.0	5.5	6.8
P8-2DB-50X		3.6*	4.8*	8.0	11.4	13.3		P8-2DB-50X		3.1*	3.6*	4.8	6.4	7.2	
P8-2DB-75X		3.7*	4.9*	8.2	11.7	13.5		P8-2DB-75X		3.2*	3.7*	5.0	6.4	7.3	
S9-2DB-75X		4.0*	5.4*	9.2	13.6	16.3	22.1	S9-2DB-75X		3.4*	3.9*	5.0	6.2	6.8	8.3
P8-3DA-50X		4.0*	5.2*	8.6	12.2			P8-3DA-50X		3.5*	4.1*	5.6	7.4		
P8-3DA-75X		3.8*	5.2*	9.0	13.0	15.1		P8-3DA-75X		3.6*	4.2*	5.7	7.4	8.3	
S9-3DA-75X		4.2*	5.9*	10.4	15.5	18.4	25.1	S9-3DA-75X		3.8*	4.4*	5.8	7.1	7.9	9.4
R7-3DC-100X		4.6*	6.6*	11.5	16.5	19.2		R7-3DC-100X		4.1*	4.8*	6.6	8.5	9.6	
V6-3DC-100X		5.2*	7.8	13.1	19.7	23.4	32.0	V6-3DC-100X		4.4*	5.2	6.7	8.2	9.1	10.8
R7-3DC-75X		5.1*	6.6*	11.0	15.8	18.4		R7-3DC-75X		4.5*	5.1*	6.8	8.7	9.8	
S9-3DS-100X		6.9*	9.0*	14.8	21.2			S9-3DS-100X		5.8*	6.8*	9.1	11.9		
S9-3DS-150X		7.3*	9.5*	15.3	21.2	24.3		S9-3DS-150X		6.1*	7.0*	9.3	11.9	13.3	
V6-3DS-150X		7.8*	10.3*	16.9	24.5	28.8	38.2	V6-3DS-150X		6.3*	7.2*	9.2	11.4	12.6	15.2
W9-3DS-150X		7.8*	10.4*	17.2	24.9	29.4	39.2	W9-3DS-150X		6.3*	7.2*	9.1	11.3	12.5	15.0

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

Preliminary data

Ambient Temperature: 32°C															
R404A		Cooling Capacity (kW)						R404A		Power Input (kW)					
		Evaporating Temperature (°C)								Evaporating Temperature (°C)					
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
P8-2DC-50X-B		2.4	3.2	5.2	7.9	9.5	13.0	P8-2DC-50X-B		2.0	2.3	3.0	3.7	4.0	4.7
R7-2DD-50X-B		3.1	4.1	6.7	9.9	11.7	15.9	R7-2DD-50X-B		2.6	3.0	3.8	4.5	4.9	5.6
R7-2DL-75X-B		3.8	5.0	8.0	11.8	13.9	18.6	R7-2DL-75X-B		3.2	3.6	4.5	5.6	6.1	7.3
P8-2DB-75X-B		4.8	6.0	8.9	12.2	14.0		P8-2DB-75X-B		3.7	4.2	5.5	6.9	7.7	
S9-2DB-75X-B		5.1	6.5	10.0	14.2	16.7	21.9	S9-2DB-75X-B		3.9	4.4	5.6	6.9	7.6	8.9
P8-2DB-50X-B	2.0*	4.6	5.9	8.9	12.3			P8-2DB-50X-B	2.5*	3.4	4.0	5.4	7.0		
P8-3DA-50X-B	2.3*	5.4	6.7	9.6	12.9			P8-3DA-50X-B	2.9*	4.2	5.0	6.5	8.3		
P8-3DA-75X-B		5.0	6.5	9.8	13.5	15.4		P8-3DA-75X-B		4.1	4.8	6.4	8.1	9.0	
S9-3DA-75X-B		5.4	7.1	11.2	16.0	18.7	24.5	S9-3DA-75X-B		4.4	5.1	6.5	8.0	8.7	10.3
R7-3DC-75X-B	3.1*	6.7	8.4	12.1	16.2			R7-3DC-75X-B	3.9*	5.4	6.2	7.9	9.9		
R7-3DC-100X-B		6.3	8.2	12.3	16.6	18.9		R7-3DC-100X-B		5.1	5.9	7.8	9.8	10.8	
V6-3DC-100X-B		7.1	9.3	14.6	20.9	24.5	32.5	V6-3DC-100X-B		5.4	6.2	7.8	9.3	10.1	11.5
S9-3DS-100X-B	4.2*	9.0	11.3	16.2	21.5			S9-3DS-100X-B	5.1*	7.1	8.2	10.7	13.5		
V6-3DS-150X-B		9.4	12.2	18.5	25.9	30.1	39.1	V6-3DS-150X-B		7.1	8.2	10.6	12.9	14.1	16.3
W9-3DS-150X-B		9.4	12.2	18.7	26.2	30.5	39.7	W9-3DS-150X-B		7.1	8.2	10.5	12.9	14.0	16.2

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

## Capacity Data

Ambient Temperature: 32°C															
R134a		Cooling Capacity (kW)						R134a		Power Input (kW)					
		Evaporating Temperature (°C)								Evaporating Temperature (°C)					
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
B8-KM-5X-B				0.8	1.2	1.5	2.2	B8-KM-5X-B				0.6	0.6	0.6	0.6
B8-KJ-7X-B				1.0	1.6	1.9	2.8	B8-KJ-7X-B				0.8	0.8	0.8	0.8
B8-KSJ-10X-B				1.2	1.9	2.4	3.4	B8-KSJ-10X-B				0.8	0.9	1.0	0.8
B8-KL-15X-B				1.4	2.2	2.6	3.7	B8-KL-15X-B				0.9	1.2	1.3	1.2
D8-KSL-20X-B				1.8	2.9	3.5	5.0	D8-KSL-20X-B				1.1	1.4	1.5	1.8
H8-KSL-20X-B				1.9	3.0	3.7	5.4	H8-KSL-20X-B				1.2	1.5	1.6	1.8
D8-LE-20X-B				1.6	2.7	3.4	4.9	D8-LE-20X-B				1.4	1.4	1.4	1.4
H8-LE-20X-B				1.7	2.9	3.6	5.4	H8-LE-20X-B				1.5	1.5	1.5	1.5
D8-LF-20X-B				2.2	3.6	4.4	6.2	D8-LF-20X-B				1.7	1.7	1.7	1.7
H8-LJ-20X-B				2.7	4.3	5.2	7.5	H8-LJ-20X-B				2.2	2.2	2.2	2.2
H8-LL-30X-B				3.2	5.2	6.4	9.2	H8-LL-30X-B				2.1	2.1	2.1	2.1
K9-LL-30X-B				3.2	5.3	6.5	9.3	K9-LL-30X-B				2.1	2.6	2.1	2.1
H8-LSG-40X-B				4.2	6.5	7.9	11.0	H8-LSG-40X-B				3.2	3.2	3.2	3.2
K9-LSG-40X-B				4.2	6.6	8.0	11.1	K9-LSG-40X-B				2.5	3.2	3.6	3.6

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

Refer to Emerson's Select software for R450A and R513A capacity data.



# Condensing Units with Semi-Hermetic Stream Compressors and CoreSense™ Diagnostics

Copeland air-cooled indoor condensing units for low, medium and high temperature applications.

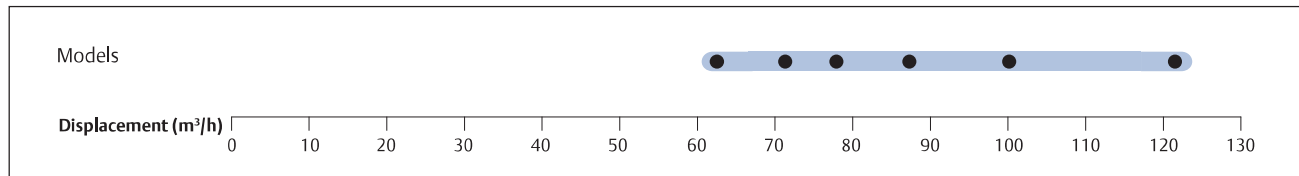
This series of condensing units is equipped with 4 or 6 cylinder high performance semi-hermetic Stream compressors. The advanced protection and diagnostic features reduce service costs and system downtime. These models are specifically suitable for those applications where high efficiency and reliability is required to achieve low lifecycle costs.

Multiple refrigerant approvals and wide range of accessories improve flexibility in system design.



Condensing Units with Semi-Hermetic Stream Compressors and CoreSense™ Diagnostics

## Condensing Units with Stream Compressor Line-up



### Features and Benefits

- Standard equipment: Stream compressor with CoreSense Diagnostics, condenser with thermally protected fan(s), discharge line with flexible pipe loop or vibration absorber, liquid receiver with shut-off-valve, HP/LP switch with automatic reset.
- Suitable for multiple refrigerants: R407A/F, R448A/R449A, R404A, R134a, R450A and R513A
- Wide range of quality accessories
- Excellent efficiency
- Proven reliability

### Maximum Allowable Pressures (PS)

- Low pressure side = 22.5 bar
- High pressure side = 28 bar

### CoreSense Diagnostics Features

- Motor and oil protection
- Storage of compressor asset and advanced runtime information
- Runtime and alarm signalling using multicoloured LED flash-codes
- System communication via Modbus
- Compressor power sensing

## Technical Overview

Model	Displacement (m <sup>3</sup> /h)	Receiver Capacity (l)	Number of fans	Total Fan Motor Power (W)	Suction Line Diameter (inch)	Liquid Line Diameter (inch)	Net Weight (kg)	Motor Version/ Code	Maximum Operating Current (A)	Locked Rotor Current (A)	Sound Pressure @10m - dB(A)***
								3 Ph**	3 Ph**	3 Ph**	
<b>W99-6MI-40X</b>	121	47.9	4	1600	2 1/8	7/8	521.0	AWM	71	304	59.0
<b>Z9-4MA-22X</b>	62	18.9	4	1600	1 5/8	7/8	383.0	AWM	36	175	59.0
<b>V6-4ML-15X</b>	62	18.9	2	800	1 5/8	7/8	303.0	AWM	35	156	57.0
<b>V6-4MF-13X</b>	62	18.9	2	800	1 5/8	7/8	295.0	AWM	31	105	57.0
<b>Z9-4MH-25X</b>	71	18.9	4	1600	2 1/8	7/8	389.0	AWM	42	199	59.0
<b>Z9-4MM-20X</b>	78	18.9	4	1600	2 1/8	7/8	388.0	AWM	39	175	
<b>Z9-4MI-30X</b>	78	18.9	4	1600	2 1/8	7/8	416.0	AWM	47	221	59.0
<b>Z9-4MT-22X</b>	88	18.9	4	1600	2 1/8	7/8	389.0	AWM	45	175	
<b>Z9-4MJ-33X</b>	88	18.9	4	1600	2 1/8	7/8	416.0	AWM	53	221	59.0
<b>W9-4MT-22X</b>	88	18.9	2	800	2 1/8	7/8	358.0	AWM	45	175	59.0
<b>W9-4MM-20X</b>	100	18.9	2	800	2 1/8	7/8	358.0	AWM	39	175	57.0
<b>Z9-4MU-25X</b>	100	18.9	4	1600	2 1/8	7/8	392.0	AWM	52	199	59.0
<b>Z9-6MM-30X</b>	121	18.9	4	1600	2 1/8	7/8	410.0	AWM	60	255	59.0
<b>W99-4MK-35X</b>		47.9	4	1600	2 1/8	7/8	504.0	AWM	61	255	59.0
<b>Z9-4ML-15X</b>		18.9	4	1600	1 5/8	7/8	386.0	AWM	35	156	

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

\*\*\* @ 10m: sound pressure level at 10m distance from the compressor, free field condition



## Capacity Data

R407A	Cooling Capacity (kW)							R407A	Power Input (kW)						
	Ambient Temperature: 32°C								Ambient Temperature: 32°C						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
V6-4MF-13X		7.5*	10.3*	18.4	26.5	31.0		V6-4MF-13X		6.9*	8.1*	10.9	14.0	15.8	
Z9-4MA-22X				20.9	32.0	38.7	54.5	Z9-4MA-22X				11.0	13.3	14.5	17.0
Z9-4ML-15X		10.2*	15.2	24.6	36.7	43.8		Z9-4ML-15X		8.9*	10.2	12.9	15.8	17.4	
Z9-4MH-25X				24.4	36.6	43.9	60.9	Z9-4MH-25X				12.9	15.7	17.1	20.0
V6-4ML-15X		9.3*	12.6*	21.7	30.9	35.9		V6-4ML-15X		8.2*	9.6*	12.9	16.7	18.9	
Z9-4MI-30X				26.6	40.0	47.9	66.1	Z9-4MI-30X				14.2	17.4	19.0	22.5
Z9-4MM-20X		11.4*	16.7	26.7	39.6	47.2		Z9-4MM-20X		9.7*	11.2	14.3	17.6	19.3	
W9-4MM-20X		10.5*	14.0*	23.8	33.8	39.2		W9-4MM-20X		9.0*	10.6*	14.3	18.5	20.9	
Z9-4MJ-33X				29.3	43.6	52.0	71.2	Z9-4MJ-33X				15.9	19.6	21.5	25.8
W9-4MT-22X		11.1*	14.7*	25.1	35.2	40.6		W9-4MT-22X		10.3*	12.1*	16.4	21.4	24.3	
Z9-4MT-22X		12.1*	17.9	28.4	41.9	49.8		Z9-4MT-22X		10.9*	12.6	16.2	20.1	22.2	
W99-4MK-35X				32.4	47.9	56.8	76.6	W99-4MK-35X				18.1	22.6	25.0	30.4
Z9-4MU-25X		13.2*	19.8	31.7	46.5	55.0		Z9-4MU-25X		12.1*	14.0	18.1	22.8	25.5	
Z9-6MM-30X		15.8*	23.7	37.5	54.5	64.0		Z9-6MM-30X		14.2*	16.5	21.7	27.6	30.9	
W99-6MI-40X				38.4	56.2	66.1	87.7	W99-6MI-40X				21.6	27.3	30.5	37.5

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

R407F	Cooling Capacity (kW)							R407F	Power Input (kW)						
	Ambient Temperature: 32°C								Ambient Temperature: 32°C						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
Z9-4MA-22X				21.3*	34.0	41.1	57.5	Z9-4MA-22X				11.7*	14.2	15.5	18.0
V6-4MF-13X		8.0*	11.0*	18.1*	27.5	32.1		V6-4MF-13X		7.2*	8.5*	11.4*	14.9	16.8	
V6-4ML-15X		9.9*	13.3*	21.4*	32.4			V6-4ML-15X		8.6*	10.1*	13.6*	17.9		
Z9-4MH-25X				24.4*	38.7	46.5	64.6	Z9-4MH-25X				13.5*	16.6	18.1	21.3
Z9-4MI-30X				26.9*	42.0	50.2	68.8	Z9-4MI-30X				14.7*	18.2	20.0	23.9
W9-4MM-20X		10.9*	14.6*	23.3*	35.1			W9-4MM-20X		9.6*	11.2*	15.0*	19.6		
Z9-4MJ-33X				29.6*	45.9	54.5	74.1	Z9-4MJ-33X				16.6*	20.6	22.9	27.7
W9-4MT-22X		12.4*	16.4*	25.5*	36.1*			W9-4MT-22X		10.9*	12.7*	17.2*	22.8*		
Z9-4MU-25X		14.8*	19.8*	32.2*	49.5	58.5		Z9-4MU-25X		12.7*	14.7*	19.1*	24.4	27.3	
W99-4MK-35X				32.5*	50.1	59.3	79.8	W99-4MK-35X				18.8*	23.6	26.4	32.7
W99-6MI-40X				38.4*	59.0	69.3	91.6	W99-6MI-40X				22.6*	28.9	32.4	40.2
Z9-6MM-30X		17.7*	23.7*	38.1*	58.0	68.1		Z9-6MM-30X		15.1*	17.4*	22.8*	29.3	32.8	

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

Capacity Data

R448A	Cooling Capacity (kW)						
	Ambient Temperature: 32°C						
	Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5
Z9-4MA-22X		9.0*	13.1	21.8	33.6	40.8	57.8
V6-4MF-13X		8.4*	11.0*	18.2	25.8	30.1	
Z9-4MH-25X		10.6*	15.2	24.9	37.5	45.0	62.2
V6-4ML-15X		10.5*	13.8*	22.4	31.6	36.6	
Z9-4ML-15X		11.5*	16.0	25.3	37.3	44.3	
Z9-4MI-30X		11.9*	17.2	27.9	41.7	49.7	68.2
W9-4MM-20X		11.7*	15.3*	24.5	34.1	39.2	
Z9-4MM-20X		12.7*	17.6	27.7	40.3	47.5	
Z9-4MJ-33X		13.2*	18.8	30.3	45.0	53.6	73.3
W9-4MT-22X		13.1*	16.9*	27.0	37.2		
Z9-4MT-22X		14.4*	18.8*	30.7	44.5	52.4	
W99-4MK-35X		14.7*	19.8*	33.4	49.3	58.5	79.3
Z9-4MU-25X		15.2*	20.0*	33.1	48.3	57.1	
W99-6MI-40X		17.8*	23.9*	40.0	57.7	67.5	88.5
Z9-6MM-30X		18.3*	24.0*	39.1	55.5	64.6	

R448A	Power Input (kW)						
	Ambient Temperature: 32°C						
	Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5
Z9-4MA-22X		7.8*	9.0	11.3	13.6	14.8	17.2
V6-4MF-13X		7.0*	8.2*	11.1	14.4	16.3	
Z9-4MH-25X		9.1*	10.4	13.2	16.1	17.7	20.9
V6-4ML-15X		8.4*	9.8*	13.2	17.3	19.7	
Z9-4ML-15X		9.1*	10.4	13.2	16.3	17.9	
Z9-4MI-30X		9.8*	11.4	14.6	17.9	19.7	23.2
W9-4MM-20X		9.3*	10.9*	14.6	19.3	22.0	
Z9-4MM-20X		10.0*	11.4	14.5	18.0	20.0	
Z9-4MJ-33X		10.8*	12.5	16.2	20.2	22.3	26.8
W9-4MT-22X		10.5*	12.4*	16.7	22.1		
Z9-4MT-22X		11.2*	12.8*	16.4	20.5	22.8	
W99-4MK-35X		12.3*	14.2*	18.6	23.3	25.9	31.3
Z9-4MU-25X		12.3*	14.2*	18.5	23.6	26.5	
W99-6MI-40X		14.5*	16.9*	21.9	27.7	30.9	37.9
Z9-6MM-30X		14.6*	16.9*	22.2	28.1	31.4	

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

Preliminary data

R449A	Cooling Capacity (kW)						
	Ambient Temperature: 32°C						
	Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5
Z9-4MA-22X		9.0*	13.1	21.8	33.6	40.8	57.8
V6-4MF-13X		8.4*	11.0*	18.2	25.8	30.1	
Z9-4MH-25X		10.5*	15.2	24.9	37.5	45.0	62.2
V6-4ML-15X		10.4*	13.7*	22.4	31.6	36.6	
Z9-4ML-15X		11.4*	16.0	25.3	37.3	44.3	
W9-4MM-20X		11.7*	15.2*	24.5	34.1	39.2	
Z9-4MJ-33X		13.2*	18.8	30.3	45.0	53.6	73.3
W9-4MT-22X		13.1*	16.9*	27.0	37.2		
Z9-4MT-22X		14.3*	18.8*	30.7	44.5	52.4	
W99-4MK-35X		14.7*	19.7*	33.4	49.3	58.5	79.3
Z9-4MU-25X		15.1*	19.9*	33.1	48.3	57.1	
W99-6MI-40X		17.7*	23.8*	40.0	57.7	67.5	88.5
Z9-6MM-30X		18.2*	24.0*	39.1	55.5	64.6	

R449A	Power Input (kW)						
	Ambient Temperature: 32°C						
	Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5
Z9-4MA-22X		7.8*	9.0	11.3	13.6	14.8	17.2
V6-4MF-13X		7.0*	8.2*	11.1	14.4	16.3	
Z9-4MH-25X		9.1*	10.4	13.2	16.1	17.7	20.9
V6-4ML-15X		8.4*	9.8*	13.2	17.3	19.7	
Z9-4ML-15X		9.1*	10.4	13.2	16.3	17.9	
W9-4MM-20X		9.3*	10.9*	14.6	19.3	22.0	
Z9-4MJ-33X		10.8*	12.5	16.2	20.2	22.3	26.8
W9-4MT-22X		10.5*	12.4*	16.7	22.1		
Z9-4MT-22X		11.2*	12.8*	16.4	20.5	22.8	
W99-4MK-35X		12.3*	14.2*	18.6	23.3	25.9	31.3
Z9-4MU-25X		12.3*	14.2*	18.5	23.6	26.5	
W99-6MI-40X		14.5*	16.9*	21.9	27.7	30.9	37.9
Z9-6MM-30X		14.6*	16.9*	22.2	28.1	31.4	

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

Preliminary data

## Capacity Data

R404A	Cooling Capacity (kW)							R404A	Power Input (kW)						
	Ambient Temperature: 32°C								Ambient Temperature: 32°C						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
Z9-4MA-22X		11.7	15.3	24.0	34.8	41.0	55.0	Z9-4MA-22X		8.9	10.1	12.5	14.9	16.0	18.2
V6-4MF-13X	4.3*	10.8	13.7	20.4	28.4	32.8		V6-4MF-13X	5.8*	8.2	9.5	12.3	15.3	16.9	
V6-4ML-15X	5.4*	13.0	16.4	23.9	32.6	37.2		V6-4ML-15X	7.1*	9.9	11.5	14.9	18.7	20.6	
Z9-4MH-25X		13.4	17.5	27.3	39.6	46.7	62.8	Z9-4MH-25X		10.2	11.6	14.6	17.6	19.1	22.0
Z9-4ML-15X	5.9*	14.2	18.1	27.7	39.5	46.3		Z9-4ML-15X	7.9*	10.5	12.0	15.0	18.0	19.4	
Z9-4MM-20X	6.8*	15.9	20.1	30.2	42.5	49.4		Z9-4MM-20X	8.7*	11.6	13.1	16.3	19.7	21.3	
W9-4MM-20X	6.3*	14.5	18.1	25.9	34.6	39.2		W9-4MM-20X	7.9*	11.0	12.7	16.5	20.7	23.0	
Z9-4MI-30X		15.4	20.0	30.5	43.1	50.3	66.1	Z9-4MI-30X		11.4	13.0	16.3	19.6	21.2	24.6
Z9-4MJ-33X		17.0	21.8	33.2	46.9	54.6	71.6	Z9-4MJ-33X		12.4	14.2	17.9	21.8	23.8	27.8
W9-4MT-22X	7.2*	15.9	19.7	28.1	37.6			W9-4MT-22X	8.8*	12.4	14.4	18.7	23.6		
Z9-4MT-22X	7.9*	17.7	22.2	33.3	46.9	54.6		Z9-4MT-22X	9.6*	13.0	14.7	18.5	22.4	24.4	
W99-4MK-35X		18.9	24.1	36.5	51.3	59.6	77.8	W99-4MK-35X		14.1	16.2	20.5	25.2	27.6	32.4
Z9-4MU-25X	8.4*	19.2	24.2	36.1	50.7			Z9-4MU-25X	10.5*	14.4	16.5	20.9	25.5		
W99-6MI-40X		22.1	28.2	42.3	58.8	67.9	87.3	W99-6MI-40X		16.8	19.3	24.8	30.6	33.6	40.0
Z9-6MM-30X	10.1*	22.8	28.4	41.8	58.1	67.2		Z9-6MM-30X	12.8*	17.5	20.0	25.3	31.2	34.3	

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

\* Conditions: EN13215: Suction Superheat 10K

R407C	Cooling Capacity (kW)							R407C	Power Input (kW)						
	Ambient Temperature: 32°C								Ambient Temperature: 32°C						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
Z9-4MA-22X				20.0	30.4	36.7	51.5	Z9-4MA-22X				10.7	12.9	13.9	16.0
Z9-4MH-25X				22.7	34.8	42.0	58.8	Z9-4MH-25X				12.2	14.8	16.1	18.8
Z9-4MI-30X				25.3	38.3	46.0	64.0	Z9-4MI-30X				13.4	16.4	18.0	21.1
Z9-4MJ-33X				27.8	42.0	50.4	69.6	Z9-4MJ-33X				14.8	18.4	20.2	24.3
W99-4MK-35X				31.9	47.7	56.9	77.5	W99-4MK-35X				16.9	21.2	23.5	28.5
W99-6MI-40X				36.2	53.5	63.3	84.5	W99-6MI-40X				20.0	25.5	28.4	34.9

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

Preliminary data

## Capacity Data

R134a	Cooling Capacity (kW)							R134a	Power Input (kW)						
	Ambient Temperature: 32°C								Ambient Temperature: 32°C						
	Evaporating Temperature (°C)								Evaporating Temperature (°C)						
Model	-45	-35	-30	-20	-10	-5	+5	Model	-45	-35	-30	-20	-10	-5	+5
Z9-4MA-22X				14.0	21.9	26.9	39.1	Z9-4MA-22X				7.4	8.8	9.4	10.6
V6-4MF-13X				12.4	19.6	23.8	33.8	V6-4MF-13X				6.6	8.2	9.1	10.9
Z9-4ML-15X				15.7	24.8	30.5	44.0	Z9-4ML-15X				8.3	10.0	10.9	12.5
Z9-4MH-25X				15.8	24.9	30.6	44.4	Z9-4MH-25X				8.5	10.2	11.1	12.6
V6-4ML-15X				14.8	22.9	27.7	38.6	V6-4ML-15X				7.7	9.8	10.9	13.2
W9-4MM-20X				16.4	25.2	30.3	42.1	W9-4MM-20X				8.5	10.8	12.0	14.6
Z9-4MI-30X				17.5	27.2	33.3	47.9	Z9-4MI-30X				9.1	11.0	12.0	13.8
Z9-4MM-20X				17.3	27.1	33.2	47.6	Z9-4MM-20X				9.1	11.0	12.0	13.8
Z9-4MJ-33X				19.5	30.1	36.7	52.4	Z9-4MJ-33X				10.2	12.3	13.4	15.5
Z9-4MT-22X				19.6	30.4	37.1	52.9	Z9-4MT-22X				10.2	12.4	13.6	15.9
W9-4MT-22X				18.5	28.0	33.6	45.9	W9-4MT-22X				9.7	12.3	13.7	16.9
Z9-4MU-25X				21.2	33.3	40.6	57.9	Z9-4MU-25X				11.3	14.0	15.4	18.3
W99-4MK-35X				21.8	33.7	41.0	58.5	W99-4MK-35X				11.2	13.8	15.2	18.0
Z9-6MM-30X				25.3	39.1	47.4	66.7	Z9-6MM-30X				13.3	16.7	18.4	22.1
W99-6MI-40X				25.2	39.0	47.4	67.3	W99-6MI-40X				13.5	16.5	18.2	21.7

Conditions: EN13215: Suction Gas Return 20°C, Subcooling 0K

Refer to Emerson's Select software for R450A and R513A capacity data.

## Compressors Motor Codes Table

Semi-Hermetic						
Motor Codes	Voltage	Connection		Motor Codes	Voltage	Connection
<b>Standard Motor Version</b>						
CAG	220-230/1/50	-				
EWL (DK, DL, D2S)	220-240/3/50	Δ		EWN (DK, DL, D2S)	250-280/3/60	Δ
EWL (DK, DL, D2S)	380-420/3/50	Y		EWN (DK, DL, D2S)	440-480/3/60	Y
AWM	380-420/3/50	YY/Y		AWD	440-480/3/60	YY/Y
<b>Special Motor Version</b>						
EWM	380-420/3/50	Δ/Y-Start		EWD	440-480/3/60	Δ/Y-Start
AWR	220-240/3/50	YY/Y		EWK (not D8)	220-240/3/60	Δ
AWY	500-550/3/50	YY/Y		EWK (not D8)	380-420/3/60	Y
				AWC	208-230/3/60	YY/Y
				AWX	380/3/60	YY/Y
<b>Hermetic &amp; Scroll</b>						
Motor Codes	Voltage	Connection		Motor Codes	Voltage	Connection
<b>Standard Motor Version</b>						
PFJ	220-240/1/50	-		PFJ	265/1/60	-
PFT	220-240/1/50	-				
PFZ	220-240/1/50	-				
TFD	380-420/3/50	Y		TFD	460/3/60	Y
TFM	380-420/3/50	Y				
TWD	380-420/3/50	Y		TWD	460/3/60	Y
FWD	380-420/3/50	Δ/Δ				
FWM	380-420/3/50	Δ/Δ				
TWM	380-420/3/50	Y				
<b>Special Motor Version</b>						
TF5	200-220/3/50	Y		TF5	200-230/3/60	Y
TWR	220-240/3/50	Y		TW7	380/3/60	Y
TWC	200/3/50	Y		TWC	208-230/3/60	Y
TFE	500/3/50	Y		TFE	575/3/60	Y
TWE	500/3/50	Y		TWE	575/3/60	Y
				TF7	380/3/60	Y
TW5	200-220/3/50	Y		TW5	220-230/3/60	Y
<b>Variable Speed Motor Version</b>						
*E9	BPM Motor	-				

YY/Y = part-winding-start  
 Δ/Δ = part-winding-start