

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.

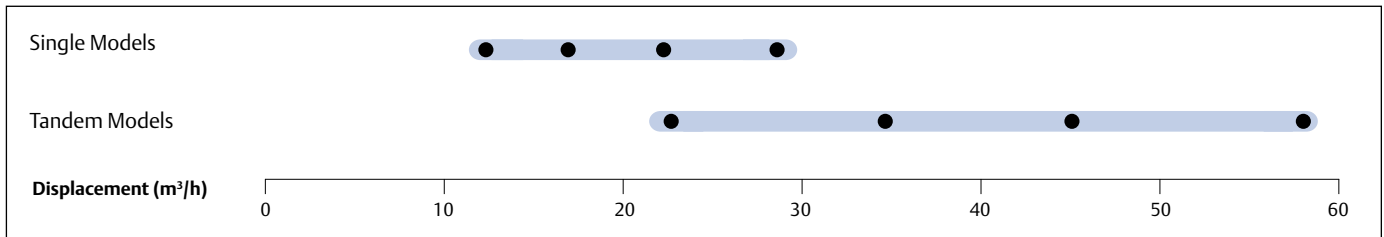
Eight models with single or tandem compressors cover the need of medium temperature refrigeration capacities in various applications. The continuous capacity modulation always provides the right performance, especially for systems with multiple evaporators and variable loads. The remote condenser concept 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 ³ /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
Single Compressor Unit Models														
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
Tandem Compressor Unit Models														
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
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				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
Single Compressor Unit Models															
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
Tandem Compressor Unit Models															
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	24.5	35.0	HLR31-ZBDT90KCE			9.2*	9.4	9.6	9.7	9.9
HLR31-ZBDT116KE			6.4*	17.0	26.7	32.4	45.8	HLR31-ZBDT116KE			13.1*	12.7	12.7	12.7	12.8
HLR31-ZBDT152KE				23.7	35.7	42.9	60.3	HLR31-ZBDT152KE				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
Single Compressor Unit Models															
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
Tandem Compressor Unit Models															
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
Single Compressor Unit Models															
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
Tandem Compressor Unit Models															
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
Single Compressor Unit Models															
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
Tandem Compressor Unit Models															
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
Single Compressor Unit Models															
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
Tandem Compressor Unit Models															
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