

Copeland Discus Series - State Of The Art Semi-Hermetic Piston Technology

Semi-Hermetic Condensing Units - 60Hz



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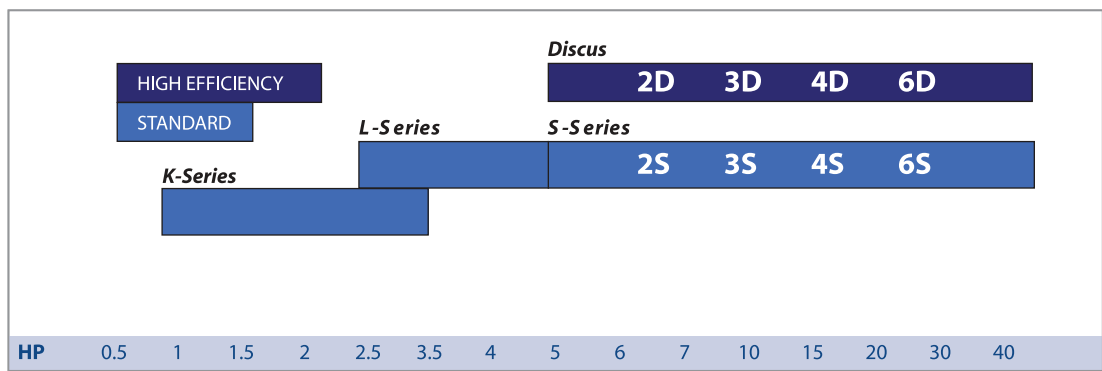
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General information

Semi-Hermetic Air-cooled Condensing Units

For many years, users of DWM Copeland semi-hermetic condensing units have relied on Copeland to provide high performance and value to the market. Copeland is committed to continuous technical development while maintaining the traditional values of DWM Copeland for refrigeration.

This product selection catalogue provides a full listing of the semi-hermetic condensing unit range for 60Hz operation.

Long engineering and manufacturing experience lead to these condensing units, which are manufactured in one of the most advanced facilities in Dubai. They feature excellent quality and are traditionally well known in the refrigeration industry.

Range:

Two versions available:

1. Standard Units

from 1 to 3 hp, economically priced and based on compressors, using reed valve technology. All units are suitable for both medium and low temperature applications.

2. High efficiency Discus units

featuring Discus valve compressor technology, covering models from 5 to 40 hp. These units are specifically suitable for those applications where high efficiency is required.

For R22 low temperature applications, a liquid injection system is required (Demand Cooling). Condensing units available with this are indicated by "DC" in the nomenclature.

Models supplied with ester oil are capable of operating with R404A, R507, R407C, R134a or R22, thus suitable for a broad range of refrigerants and applications.

Models rated for R404A may also be applied with R507. In this case, multiply stated cooling capacity by 1.03 and power input by 1.02.

Standard Equipment

• Compressor

- Single phase motor with thermal overload protector.
- 3-phase motor protected by thermistors in motor windings and overload protector in the terminal box.

All compressors are suitable for direct starting. To reduce inrush currents, motors for star-delta or part-winding start are available on units of 4.5 Hp and above. An unloaded start device is available as option for all units with star-delta or part-winding start motors.

Compressors are equipped with suction and discharge valves with gauge connections and an oil sight glass.

• Condenser

- copper tubes with aluminium fins.
- steel frame with fan baffle.

• Receiver

- With CE approval
- sight glass with receivers from 11.5 l onwards,
- equipped with Rotalock valve and pressure relief valve connection.

• Fan motors

- thermally protected
- Single phase fan motor
- applicable for fan speed control
- maintenance free.

- High /Low pressure switch with automatic reset.

- Differential Oil pressure switch (OPS1) for models of 4.5 HP and above.

• Electrical box

Applied on twin fan models as well as all single-phase versions. The single phase equipment for compressor and fan is mounted and wired in the terminal box for easy installation.

• Protection (class)

Compressor, fan and differential oil-pressure switch IP 54; High/Low pressure switch IP44. All Condensing units will be supplied with a holding charge.

Optional Accessories

- crankcase heater,
- unloaded start,
- fan speed controller,
- housing,
- larger liquid receiver.

Maximum Permissible Operating and Off-Cycle Pressures

Particular attention must be paid to the vapour pressures resulting from the ambient temperature (especially at standstill). The limits permitted for the compressor and other system components must not be exceeded.

The maximum operating pressures for each model are indicated in the corresponding data sheets and on the name plates. The condensing units must only be operated in the operating ranges approved.

Maximum Operating Pressures

Suction side	= 22.5 bar gauge (only during standstill)
Discharge side	= 28 bar gauge

Refrigerant oils

Mineral oils are not miscible with HFCs, and thus cannot be used with HFCs. With HFC refrigerants, polyolester-lubricants (POE) must be used. However, handling these lubricants requires extra care to ensure the long life of the equipment.

Only the following oils are approved for use with R404A, R507, R407C and R134a or R22.

Lubricants

Mobil	EAL Arctic 22 CC
ICI	Emkarate RL 32CF

Moisture

The residual moisture in the installation must be below 50 ppm, and should be verified after 48 hours of operation. To achieve this, it is necessary to install a properly dimensioned filter drier suitable for the respective refrigerant in each system. The correct evacuation techniques are required when commissioning or servicing the refrigeration system.

General information

Oil Identification

Condensing units designed for operating with R404A, R507, R407C, R134a or R22 are factory supplied with one of the approved oils and are suitably identified in several locations to prevent unauthorized lubricant oils from being filled into the system:

- The last figure in the motor designation is replaced by an X in case the compressor contains POE oil.
- A sticker is attached to the compressor close to the oil filler neck.
- In addition to these identifications, the user must mark the refrigerant used in the system on the name plate.

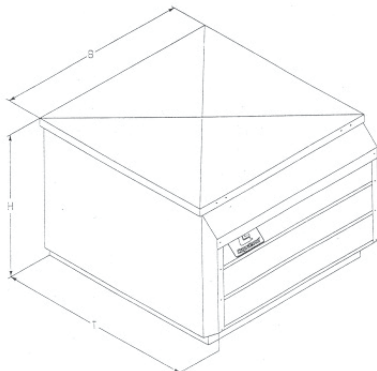
Capacity Data

The capacity data were compiled according to EN 12900 and are valid for 60 cycles (Hz) operation.

Housing

For outdoor application, Copeland offers a range of housings with the following features:

- galvanized housing,
- painted with RAL 7032, rust-resistant paint
- delivered as a flat pack
- easy to mount
- easy access for maintenance



Compressor Motors

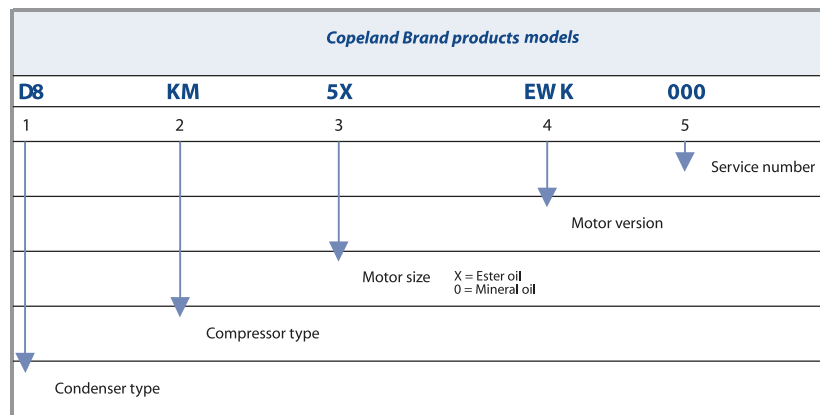
Motor-Version	Voltage	Connection
Code	V(+/-10%)/~ /Hz	
EWK ⁺	220 - 240 / 3 / 60	Y / Δ or Δ
EWK ⁺⁺	380 - 420 / 3 / 60	Y
AWD	440 - 480 / 3 / 60	YY/Y

YY / Y = Part-Winding-Start

Fan Motors

Fan Motor	Fan Blade	Voltage	Run Capacitor	Power Input	Motor Current	Winding Resistance	
Code	Ø, mm	V (+/-10%)/~ /Hz	µF/V	W	A	ohm (+/-10%) ; 25°C	
						Main winding	Aux. Winding
71	300	230 / 1 / 60	2 / 400	105	0.47	115	129
121	350	230 / 1 / 60	4 / 400	162	0.71	72	108
271	420	230 / 1 / 60	7 / 400	385	1.68	25	88
611	500	230 / 1 / 60	10 / 450	730	3.20	8.5	20.5

Model Designation



Fan speed control

An electronic fan speed control is available to control the speed of the fans, based on condenser pressure. One or two fans can be controlled at the same time. The control operates with single-phase fan motors.

The electrical connection is made in the terminal box of the condensing units. The control is mounted on the liquid valve with a Schraeder fitting, and electrically wired. A choice is offered between lowering the speed to a minimum, or switching off the fan. Fan speed versus condenser pressure is determined by adjusting the fan speed controller. Using a fan speed controller offers many operational advantages including:

- Maintaining the necessary minimum condensing pressure for the expansion valve,
- Reduction of noise level in part-load, e.g. during night time,
- Reducing of fluctuations in the condensing pressure.

Model	for	Dimensions		
		B(mm)	T(mm)	H(mm)
B/D	B8, D8	610	640	485
D-L	D8	610	785	485
H	H8, H9	785	750	570
M	M8, M9	785	800	745
F/K	K8, K9	1000	710	495
P-CR	P8	1000	710	670
P-QR	P8	1000	810	670
R/S-QR	R7, S7, S9	1180	890	745
V	V5, V6, V9	1380	890	910
W	W9 (3CYL.)	1690	890	910

Discus - R404A

60 Hz

R404A Discus

Condensing Unit ¹⁾	Amb./ Temp °C	Evaporating Temperature °C															
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5	
R7-2DB-50 X	Q	27	1.96	2.76	4.65	6.10	7.85	9.80	11.95	14.30	16.70	19.30					
		32		2.36	3.35	5.55	7.15	8.95	10.95	13.10	15.40	17.70					
		38		1.90	2.79	3.95	6.30	7.95	9.75	11.70	12.65						
		43			2.34	3.35	5.65	7.15	7.60								
		49			1.83	2.70											
	P	27	2.75	3.16	3.68	4.28	4.95	5.70	6.45	7.25	8.10	8.95					
		32		3.16	3.69	4.33	5.05	5.80	6.65	7.50	8.40	9.35					
		38		3.16	3.71	4.37	5.10	5.95	6.85	7.75	8.70						
		43			3.72	4.40	5.20	6.05	6.95								
		49			3.74	4.44											
R7-2DC-50 X	Q	27			2.33	3.20	4.30	5.60	7.10	8.80	10.70	12.85	15.10	17.70	18.70		
		32			2.03	2.84	3.80	5.00	6.40	7.95	9.75	11.70	13.85	16.20	17.20		
		38				2.41	3.30	4.35	5.55	7.00	8.60	10.35	12.35	14.50	15.40		
		43				2.08	2.85	3.80	4.90	6.15	7.65	9.25					
		49					2.36	3.15	4.10								
	P	27		2.24	2.56	2.91	3.28	3.65	4.03	4.40	4.76	5.10	5.45	5.55			
		32		2.22	2.56	2.93	3.33	3.73	4.15	4.56	4.96	5.35	5.70	5.85			
		38			2.55	2.94	3.37	3.81	4.26	4.72	5.15	5.60	6.05	6.20			
		43			2.52	2.94	3.38	3.85	4.34	4.83	5.30						
		49				2.91	3.38	3.88									
S9-2DL-75 X	Q	27		3.80	5.10	6.65	8.50	10.60	13.00	15.60	18.50	21.60	24.90	26.20			
		32		3.40	4.60	6.05	7.75	9.70	11.90	14.30	17.00	19.90	22.90	24.20			
		38			4.00	5.30	6.80	8.55	10.55	12.75	15.20	17.80					
		43			3.55	4.70	6.05	7.65	9.45	11.45							
		49				4.05	4.20										
	P	27		3.22	3.67	4.15	4.66	5.20	5.75	6.30	6.85	7.40	8.00	8.20			
		32		3.22	3.69	4.20	4.75	5.35	5.95	6.55	7.15	7.80	8.40	8.65			
		38			3.69	4.24	4.83	5.45	6.10	6.80	7.50	8.20					
		43			3.69	4.25	4.87	5.55	6.25	6.95							
		49				4.25	4.90										
V9-2DB-75 X	Q	27		5.20	6.80	8.70	10.85	13.30	16.00	19.00	22.20	25.70	29.30	31.00			
		32		4.70	6.20	7.95	9.95	12.20	14.70	17.40	20.40	23.60	26.90	28.30			
		38			5.50	7.05	8.85	10.85	13.05	15.50	18.10	21.00					
		43			4.90	6.30	7.90	9.65	11.65	13.85							
		49				5.35	5.50										
	P	27		3.87	4.43	5.05	5.65	6.30	7.00	7.70	8.35	9.10	9.80	10.10			
		32		3.89	4.48	5.10	5.80	6.50	7.20	7.95	8.70	9.50	10.30	10.60			
		38			4.51	5.20	5.90	6.65	7.45	8.25	9.10	9.95					
		43			4.51	5.20	5.95	6.75	7.60	8.45							
		49				5.20	6.00										
S9-3DA-50 X	Q	27	2.00	3.35	5.65	7.40	9.35	11.50	13.90	16.50	19.20	22.20					
		32		2.85	4.25	6.75	8.55	10.55	12.70	15.10	17.60	20.30					
		38		2.23	3.50	4.90	7.60	9.35	11.30	13.40	15.70						
		43			2.89	4.15	6.75	8.35	10.10								
		49			2.12	3.25											
	P	27	3.07	3.75	4.47	5.20	5.95	6.75	7.55	8.40	9.25	10.10					
		32		3.72	4.47	5.25	6.10	6.95	7.80	8.70	9.65	10.60					
		38		3.62	4.43	5.30	6.20	7.10	8.05	9.05	10.00						
		43			4.36	5.25	6.20	7.20	8.20								
		49			4.20	5.15											
V6-3DA-75 X	Q	27		5.50	7.50	9.80	12.50	15.50	18.80	22.60	26.60	31.00	36.00	38.00			
		32		4.80	6.70	8.90	11.40	14.20	17.30	20.80	24.60	28.70	33.00	35.00			
		38			5.80	7.80	10.10	12.65	15.50	18.60	22.10	25.80	29.90				
		43			5.00	6.90	9.00	11.35	13.95	16.80	18.70						
		49				5.80	7.70										
	P	27		4.74	5.45	6.20	6.95	7.65	8.35	9.00	9.70	10.30	10.90	11.10			
		32		4.69	5.50	6.30	7.10	7.90	8.65	9.45	10.20	10.90	11.60	11.80			
		38			5.45	6.30	7.20	8.10	9.00	9.85	10.70	11.50	12.30				
		43			5.35	6.30	7.25	8.25	9.20	10.10	11.00						
		49				6.20	7.25										
S9-3DC-75 X	Q	27	2.76	4.20	6.85	8.85	11.05	13.50	16.10	19.00	22.00	25.10					
		32		3.70	5.25	8.10	10.15	12.35	14.80	17.40	20.10	22.90					
		38		3.05	4.40	5.90	9.00	10.95	13.10	15.40							
		43			3.70	5.05	6.55	9.70									
		49			2.78												
	P	27	3.80	4.56	5.40	6.25	7.15	8.10	9.10	10.10	11.20	12.30					
		32		4.56	5.40	6.35	7.30	8.30	9.35	10.40	11.60	12.80					
		38		4.49	5.40	6.35	7.40	8.45	9.60	10.80							
		43			5.30	6.35	7.40	8.55									
		49			5.15												

Q(kW)= Capacity Operating Conditions 20°C Suction Gas Return

P(kW)²⁾ = Power Input

□ 10 K Suction Superheat

1) Models rated for R404A may also be applied with R507. In this case, multiply stated cooling capacity by 1.03 and power input by 1.02

2) Stated power values are incl. of fan power.

Discus - R404A

60 Hz

Condensing Unit ¹⁾	Amb./ Temp °C	Evaporating Temperature °C															
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5	
V6-3DS-100 X	Q	27	4.15	6.10	9.60	12.40	15.60	19.10	23.00	27.20	31.50	36.50					
		32		5.30	7.40	11.40	14.35	17.60	21.20	25.10	29.30	33.50					
		38		4.35	6.30	8.50	12.85	15.80	19.10	22.60	26.30						
		43			5.35	7.40	11.60	14.30	17.30								
		49			4.25	6.00											
	P	27	5.45	6.35	7.35	8.45	9.65	10.90	12.20	13.50	14.90	16.30					
		32	6.40	7.45	8.60	9.90	11.20	12.60	14.10	15.60	17.10						
		38	6.40	7.50	8.75	10.10	11.60	13.10	14.60	16.20							
		43		7.55	8.85	10.30	11.80	13.40									
		49		7.50	8.90												
W9-3DC-100X	Q	27		6.75	9.10	11.80	14.85	18.30	22.10	26.30	31.00	36.00	41.00	43.00			
		32		6.00	8.25	10.75	13.60	16.80	20.40	24.20	28.50	33.00	38.00	40.00			
		38			7.15	9.50	12.10	15.00	18.20	21.70	25.50	29.60					
		43			6.30	8.45	10.85	13.45	16.40	19.60							
		49			7.15	7.65											
	P	27		5.35	6.15	7.00	7.85	8.75	9.60	10.40	11.30	12.10	12.80	13.10			
		32		5.35	6.25	7.15	8.05	9.00	9.95	10.90	11.80	12.70	13.60	13.90			
		38			6.25	7.20	8.25	9.30	10.30	11.40	12.40	13.40					
		43			6.20	7.25	8.35	9.45	10.60	11.70							
		49			7.15	8.35											
W9-3DS-150X	Q	27		9.05	12.10	15.50	19.20	23.30	27.70	32.50	37.50	43.00	48.50	50.50			
		32		8.00	10.90	14.10	17.60	21.40	25.50	29.80	34.50	39.50					
		38			9.50	12.45	15.60	19.00	22.70	26.60							
		43			8.30	11.05	13.95	17.10									
		49															
	P	27		7.05	8.25	9.50	10.80	12.20	13.50	14.90	16.20	17.50	18.80	19.30			
		32		7.05	8.35	9.70	11.10	12.60	14.00	15.50	17.00	18.40					
		38			8.35	9.80	11.40	13.00	14.60	16.20							
		43			8.25	9.85	11.50	13.20									
		49															
Z9-3DS-150 X	Q	27		9.50	12.80	16.50	20.70	25.30	30.50	36.50	42.50	49.50	57.00	60.00			
		32		8.45	11.60	15.10	19.00	23.30	28.20	33.50	39.50	45.50	52.50	55.50			
		38			10.10	13.35	16.90	20.90	25.30	30.00	35.50	41.00	47.50	50.00			
		43			8.90	11.90	15.20	18.90	22.90	27.30	32.00						
		49				10.15	13.15										
	P	27		7.85	8.95	10.10	11.30	12.40	13.60	14.60	15.60	16.50	17.30	17.50			
		32		7.85	9.10	10.40	11.70	12.90	14.20	15.40	16.50	17.60	18.50	18.80			
		38			9.15	10.60	12.00	13.50	14.90	16.20	17.60	18.80	19.90	20.30			
		43			9.10	10.60	12.20	13.80	15.30	16.90	18.30						
		49				10.60	12.30										

Q(kW) = Capacity

Operating Conditions 20°C Suction Gas Return

P (kW)²⁾ = Power Input

□ 10 K Suction Superheat

1) Models rated for R404A may also be applied with R507. In this case, multiply stated cooling capacity by 1.03 and power input by 1.02

2) Stated power values are incl. of fan power.



Discus - R404A

60 Hz

Condensing Unit ¹⁾	Amb./ Temp °C	Evaporating Temperature °C															
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5	
W9-4MF-13X	2	Q	32	6.22	8.65	12.51	15.83	19.51	23.53	27.87	32.48	37.31					
			38	4.30	7.40	11.00	13.97	17.25	20.83	24.69							
			43		5.47	8.59	12.44	15.38	16.59								
			46		4.89	7.85	11.53										
			49		4.33	6.26											
	P	32	6.84	8.23	9.72	11.28	12.92	14.65	16.47	18.38	20.40						
		38	6.75	8.22	9.81	11.48	13.25	15.11	17.06								
		43		8.18	9.84	11.61	13.48	15.38									
		46		8.14	9.84	11.67											
		49		8.08	9.83												
Z9-4ML-15X	4	Q	32	8.34	12.65	16.64	21.24	26.45	32.32	38.85	46.04	53.88					
			38	5.98	10.10	14.85	19.03	23.77	29.08	34.98	41.50	48.61					
			43		7.71	11.97	17.18	21.51	26.37	31.76	37.71						
			46		6.91	11.02	16.06	20.15	24.73								
			49		6.12	10.07	14.93	16.69									
	P	32	9.11	10.64	12.30	14.06	15.87	17.71	19.55	21.38	23.17						
		38	9.18	10.77	12.52	14.39	16.34	18.35	20.37	22.40	24.40						
		43		10.85	12.66	14.63	16.68	18.81	20.98	23.16							
		46		10.89	12.74	14.75	16.87	19.07									
		49		10.93	12.80	14.86	17.01										
Z9-4MM-20X	4	Q	32	9.56	14.29	18.65	23.58	29.11	35.26	42.02	49.38	57.32					
			38	6.94	11.46	16.60	21.06	26.05	31.57	37.64	44.25	51.39					
			43		8.80	13.40	18.95	23.48	28.48	33.97	39.96						
			46		7.90	12.32	17.67	21.93	26.62								
			49		7.01	11.24	16.39										
	P	32	10.11	11.81	13.60	15.45	17.37	19.33	21.35	23.42	25.53						
		38	10.08	11.92	13.87	15.89	18.00	20.16	22.39	24.68	27.02						
		43		11.92	13.99	16.18	18.44	20.78	23.18	25.65							
		46		11.89	14.04	16.31	18.67	21.11									
		49		11.81	14.05	16.40											
Z9-4MT-22X	4	Q	32	10.95	16.01	20.67	26.01	32.04	38.79	46.26	54.44	63.30					
			38	8.07	12.86	18.40	23.24	28.69	34.79	41.54	48.95	56.99					
			43		9.92	14.85	20.90	25.86	31.42	37.57							
			46		8.94	13.65	19.49	24.15	26.37								
			49		7.96	12.46	15.97										
	P	32	11.22	13.16	15.22	17.38	19.64	21.97	24.35	26.79	29.27						
		38	11.22	13.28	15.50	17.83	20.27	22.80	25.39	28.04	30.74						
		43		13.30	15.63	18.11	20.70	23.39	26.15								
		46		13.27	15.67	18.23	20.91	23.63									
		49		13.21	15.68	18.31											
Z9-4MU-25X	4	Q	32	11.77	15.93	22.42	28.22	34.77	42.05	50.07	58.79						
			38	8.70	13.91	19.98	25.18	31.03	37.55	44.74							
			43		10.71	16.02	22.58	27.85	33.73								
			46		9.68	14.73	21.01	25.92									
			49		8.66	13.43											
	P	32	12.31	14.55	16.96	19.49	22.12	24.83	27.60	30.42							
		38	12.34	14.69	17.21	19.88	22.66	25.53	28.47								
		43		14.70	17.30	20.07	22.96	25.96									
		46		14.67	17.31	20.13	23.08										
		49		14.59	17.27												
Z9-6MM-30X	4	Q	32	12.44	19.05	26.64	33.27	40.65	48.79	57.66	67.20	77.34					
			38	10.31	16.61	23.78	29.76	36.36	43.61	51.50							
			43		12.70	19.07	26.75	32.72									
			46		11.39	17.50	24.92										
			49		10.06												
	P	32	14.84	17.54	20.46	23.54	26.78	30.19	33.74	37.45	41.31						
		38	14.74	17.64	20.77	24.11	27.63	31.32	35.17								
		43		17.57	20.88	24.44	28.19										
		46		17.46	20.89	24.57											
		49		17.29													

Q(kW) = Capacity
P(kW)²⁾ = Power Input

Operating Conditions 20°C Suction Gas Return

 0 °C Suction Gas Return
 20 K Suction Superheat

- Models rated for R404a may be applied with R507. Multiply stated cooling capacity by 1.03 and power input by 1.02
- Stated power values are inclusive of fan power
- Delivered separately in two main parts
- Operation with DC, Demand Cooling Liquid Injection Kit

Standard - R134A

60 Hz

R134A Standard

Condensing Unit	Amb./ Temp °C	Evaporating Temperature °C														
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5
D8-KSJ-10 X	Q	27						1.59	2.02	2.52	3.10	3.75	4.50	4.85	5.35	5.80
		32						1.47	1.88	2.36	2.90	3.55	4.25	4.55	5.05	5.45
		38						1.33	1.72	2.17	2.69	3.30	3.95	4.25	4.70	5.10
		43						1.20	1.58	2.01	2.50	3.05	3.70	3.95	4.40	
		49						1.05	1.40	1.81	2.27	2.79	3.35	3.60	4.00	
	P	27						0.92	1.00	1.08	1.16	1.24	1.32	1.35	1.39	1.43
		32						0.94	1.04	1.13	1.22	1.32	1.41	1.45	1.50	1.55
		38						0.97	1.07	1.18	1.29	1.40	1.51	1.55	1.62	1.67
		43						0.98	1.10	1.22	1.34	1.46	1.59	1.64	1.71	
		49						0.99	1.12	1.25	1.39	1.53	1.67	1.73	1.81	
D8-KL-15 X	Q	27						1.83	2.31	2.87	3.50	4.20	5.00	5.35	5.90	6.35
		32						1.69	2.15	2.68	3.25	3.95	4.70	5.00	5.50	5.95
		38						1.53	1.96	2.45	3.00	3.65	4.30	4.60	5.10	5.50
		43						1.40	1.81	2.27	2.78	3.35	4.00	4.30	4.70	
		49						1.25	1.63	2.05	2.52	3.05	3.65	3.90	4.30	
	P	27						1.09	1.20	1.31	1.43	1.54	1.66	1.71	1.78	1.84
		32						1.12	1.25	1.38	1.51	1.64	1.77	1.83	1.91	1.98
		38						1.16	1.30	1.45	1.59	1.75	1.90	1.96	2.05	2.13
		43						1.18	1.34	1.50	1.66	1.83	1.99	2.06	2.16	
		49						1.21	1.38	1.55	1.73	1.92	2.10	2.17	2.28	
H8-LE-20 X	Q	27						2.23	2.90	3.70	4.60	5.65	6.75	7.25	8.00	8.70
		32						2.01	2.65	3.40	4.25	5.20	6.25	6.75	7.45	8.05
		38						1.76	2.36	3.05	3.85	4.70	5.70	6.10	6.80	7.35
		43						1.56	2.12	2.77	3.50	4.30	5.25	5.60	6.25	6.75
		49						1.34	1.86	2.45	3.10	3.85	4.70	5.05	5.60	6.10
	P	27						1.43	1.55	1.68	1.80	1.92	2.05	2.10	2.17	2.24
		32						1.44	1.58	1.73	1.87	2.01	2.16	2.22	2.31	2.39
		38						1.46	1.62	1.78	1.95	2.12	2.29	2.36	2.47	2.56
		43						1.47	1.64	1.82	2.01	2.20	2.39	2.47	2.59	2.70
		49						1.48	1.67	1.86	2.07	2.28	2.50	2.59	2.73	2.85
H8-LF-20 X	Q	27						3.00	3.85	4.80	5.95	7.20	8.55	9.15	10.05	10.85
		32						2.72	3.55	4.45	5.50	6.70	8.00	8.55	9.40	10.15
		38						2.41	3.15	4.05	5.00	6.10	7.30	7.80	8.60	9.30
		43						2.15	2.87	3.70	4.60	5.60	6.75	7.20	7.95	
		49						1.86	2.53	3.25	4.10	5.05	6.05	6.50		
	P	27						1.66	1.85	2.04	2.23	2.42	2.60	2.68	2.78	2.87
		32						1.69	1.90	2.12	2.33	2.54	2.74	2.82	2.94	3.04
		38						1.73	1.96	2.19	2.43	2.66	2.88	2.97	3.11	3.21
		43						1.75	2.00	2.25	2.50	2.74	2.99	3.08	3.23	
		49						1.77	2.03	2.29	2.56	2.83	3.09	3.20		
H8-LL-30 X	Q	27						4.10	5.25	6.55	8.00	9.65	11.35	12.10	13.25	14.20
		32						3.75	4.85	6.10	7.45	8.95	10.60	11.30	12.35	
		38						3.35	4.35	5.50	6.80	8.20	9.70	10.35	11.35	
		43						3.00	3.95	5.05	6.25	7.55	9.00	9.55		
		49						2.59	3.50	4.50	5.60					
	P	27						2.41	2.71	3.04	3.39	3.79	4.24	4.43	4.74	5.00
		32						2.45	2.78	3.14	3.53	3.97	4.45	4.66	4.99	
		38						2.49	2.85	3.25	3.68	4.16	4.69	4.92	5.30	
		43						2.52	2.90	3.33	3.79	4.31	4.87	5.10		
		49						2.54	2.95	3.41	3.91					
M8-LL-30 X	Q	27						4.30	5.50	6.90	8.50	10.30	12.25	13.10	14.40	15.50
		32						3.90	5.05	6.40	7.90	9.60	11.45	12.25	13.45	14.55
		38						3.45	4.55	5.80	7.20	8.75	10.50	11.25	12.35	
		43						3.10	4.15	5.30	6.65	8.10	9.70	10.40	11.45	
		49						2.69	3.65	4.75	5.95	7.30	8.75			
	P	27						2.39	2.67	2.96	3.27	3.61	3.98	4.14	4.39	4.61
		32						2.44	2.74	3.07	3.42	3.80	4.22	4.39	4.67	4.91
		38						2.48	2.82	3.19	3.59	4.02	4.48	4.68	4.99	
		43						2.51	2.88	3.28	3.72	4.18	4.69	4.91	5.25	
		49						2.53	2.94	3.37	3.85	4.37	4.93			

Q(kW) = Capacity

P(kW)²⁾ = Power Input

10 K Suction Superheat

2) Stated power values are incl. of fan power.

Operating Conditions 20°C Suction Gas Return

Discus - R134A

60 Hz

Condensing Unit	Amb./ Temp °C	Evaporating Temperature °C														
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5
R7-2DB-50X	Q	27														
		32														
		38														
		43														
		49														
	P	27														
		32														
		38														
		43														
		49														
S9-3DA-50X	Q	27														
		32														
		38														
		43														
		49														
	P	27														
		32														
		38														
		43														
		49														
S9-3DC-75X	Q	27														
		32														
		38														
		43														
		49														
	P	27														
		32														
		38														
		43														
		49														
V6-3DS-100X	Q	27														
		32														
		38														
		43														
		49														
	P	27														
		32														
		38														
		43														
		49														

Q(kW) = Capacity

P(kW)² = Power Input

□ 10 K Suction Superheat

2) Stated power values are incl. of fan power.

Operating Conditions 20°C Suction Gas Return

R134A Discus

Discus - R134A

60 Hz

Condensing Unit	Amb./ Temp °C	Evaporating Temperature °C														
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5
W9-4MF-13X 2	32	14.50	18.40	22.83	27.80	33.29	39.26	41.78	45.67	49.02						
	38	13.23	16.85	20.94	25.51	30.54	36.02	38.33	41.90	44.97						
	43	12.20	15.58	19.39	23.61	28.26	33.32	35.45								
	46	11.60	14.84	18.46	22.48	26.90										
	49	11.01	14.10	17.54	21.36											
	32	7.74	8.76	9.79	10.84	11.92	13.08	13.56	14.32	14.98						
	38	8.00	9.12	10.25	11.42	12.63	13.91	14.45	15.28	16.01						
	43	8.18	9.38	10.60	11.86	13.18	14.57	15.15								
	46	8.27	9.51	10.79	12.11	13.49										
	49	8.34	9.64	10.97	12.35											
Z9-4ML-15X 4	32	18.43	23.39	29.14	35.71	43.15	51.47	55.04	60.66	65.59						
	38	16.96	21.62	26.98	33.09	39.98	47.68	50.99	56.20	60.76						
	43	15.73	20.14	25.18	30.89	37.32	44.51	47.60	52.47	56.73						
	46	15.00	19.26	24.09	29.57	35.73	42.61	45.56	50.22	54.31						
	49	14.26	18.37	23.01	28.24	34.13	40.70	43.53	47.98							
	32	9.67	10.71	11.75	12.79	13.82	14.83	15.23	15.84	16.34						
	38	10.01	11.17	12.36	13.54	14.73	15.91	16.38	17.08	17.67						
	43	10.26	11.53	12.83	14.14	15.46	16.77	17.30	18.09	18.74						
	46	10.40	11.73	13.10	14.49	15.88	17.28	17.84	18.68	19.38						
	49	10.53	11.93	13.36	14.82	16.30	17.78	18.37	19.26							
Z9-4MM-20X 4	32	20.32	25.67	31.84	38.87	46.78	55.60	59.37	65.30	70.48						
	38	18.73	23.76	29.50	36.03	43.35	51.51	55.00	60.49	65.29						
	43	17.39	22.15	27.55	33.65	40.49	48.09	51.35	56.47	60.95						
	46	16.59	21.19	26.38	32.22	38.77	46.04	49.16	54.06	58.35						
	49	15.79	20.22	25.20	30.79	37.05	43.99	46.97								
	32	10.60	11.74	12.92	14.10	15.27	16.43	16.89	17.56	18.12						
	38	11.01	12.27	13.57	14.91	16.25	17.60	18.13	18.92	19.58						
	43	11.32	12.67	14.09	15.55	17.03	18.52	19.12	20.01	20.75						
	46	11.49	12.89	14.37	15.91	17.48	19.06	19.69	20.64	21.43						
	49	11.64	13.10	14.65	16.26	17.91	19.58	20.25								
Z9-4MT-22X 4	32	22.98	28.88	35.68	43.42	52.10	61.71	65.82	72.23	77.82						
	38	21.35	26.85	33.13	40.25	48.22	57.05	60.82	66.72	71.86						
	43	20.04	25.19	31.04	37.64	45.02	53.19	56.68	62.15	66.91						
	46	19.27	24.21	29.80	36.08	43.11	50.88	54.21	59.41							
	49	18.52	23.25	28.57	34.54	41.21	48.59									
	32	11.89	13.23	14.61	16.03	17.47	18.94	19.54	20.43	21.19						
	38	12.39	13.83	15.35	16.93	18.55	20.21	20.88	21.90	22.76						
	43	12.81	14.33	15.94	17.64	19.40	21.20	21.94	23.06	24.00						
	46	13.06	14.62	16.29	18.06	19.89	21.78	22.56	23.73							
	49	13.32	14.92	16.64	18.47	20.37	22.35									
Z9-4MU-25X 4	32	24.88	31.43	38.96	47.47	56.97	67.43	71.87	78.80	84.79						
	38	22.92	29.07	36.06	43.93	52.70	62.34	66.44	72.82	78.36						
	43	21.28	27.07	33.62	40.96	49.12	58.08	61.89	67.83	72.97						
	46	20.28	25.87	32.15	39.17	46.96	55.51	59.15								
	49	19.28	24.66	30.67	37.37	44.79										
	32	13.24	14.88	16.52	18.20	19.95	21.80	22.59	23.81	24.88						
	38	13.70	15.51	17.32	19.17	21.08	23.10	23.95	25.26	26.41						
	43	14.02	15.97	17.93	19.92	21.98	24.13	25.03	26.43	27.64						
	46	14.19	16.23	18.27	20.35	22.49	24.73	25.66								
	49	14.33	16.45	18.59	20.75	22.98										
Z9-6MM-30X 4	32	29.68	37.21	45.77	55.36	65.95	77.48	82.35	89.90	96.40						
	38	27.38	34.45	42.40	51.27	61.02	71.64	76.11	83.06	89.04						
	43	25.44	32.11	39.58	47.84	56.91	66.76	70.91								
	46	24.25	30.70	37.87	45.78	54.44										
	49	23.05	29.28	36.15	43.70											
	32	15.66	17.66	19.76	21.94	24.21	26.54	27.49	28.94	30.17						
	38	16.21	18.39	20.70	23.10	25.60	28.17	29.23	30.83	32.18						
	43	16.62	18.95	21.42	24.00	26.69	29.47	30.61								
	46	16.84	19.26	21.82	24.52	27.32										
	49	17.04	19.55	22.21	25.01											

Q(kW) = Capacity

P(kW)² = Power Input

10 K Suction Superheat

2) Stated power values are incl. of fan power.

Operating Conditions 20°C Suction Gas Return

Discus - R407C (Dew Point)

60 Hz

R407C Discus (Dew Point)

Condensing Unit	Amb./ Temp °C	Evaporating Temperature °C															
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5	
R7-2DC-50X	2	Q	27						5.60	7.30	9.25	11.45	13.95	16.65	17.80	19.60	21.20
		32						5.05	6.65	8.50	10.60	12.90	15.50	16.60	18.30	19.70	
		38						3.90	5.85	7.55	9.50	11.70	14.10	15.10	16.70	18.00	
		43						3.30	5.20	6.80	8.65	10.70	12.95	13.90	15.40	16.60	
		49						3.90	5.95	7.60	9.50						
	P	27					2.95	3.25	3.60	3.90	4.30	4.70	4.80	5.05	5.25		
	32						2.98	3.34	3.71	4.10	4.51	4.93	5.10	5.40	5.60		
	38						3.01	3.41	3.83	4.27	4.74	5.20	5.45	5.75	6.00		
	43						3.02	3.45	3.91	4.39	4.90	5.45	5.65	6.00	6.30		
	49						3.47	3.97	4.50	5.05							
S9-2DL-75X	2	Q	27						8.20	10.45	13.10	16.10	19.40	23.00	24.60	26.90	28.90
		32						7.50	9.65	12.15	15.00	18.10	21.50	23.00	25.20	27.10	
		38						6.10	8.75	11.05	13.70	16.60	19.80	21.10	23.20	25.00	
		43						7.35	10.20	12.65	15.40	18.40	19.60				
		49						6.45	9.15	11.45							
	P	27					4.00	4.50	5.05	5.60	6.20	6.80	7.10	7.50	7.80		
	32						4.12	4.66	5.25	5.85	6.55	7.20	7.50	7.95	8.30		
	38						4.26	4.86	5.50	6.20	6.90	7.65	8.00	8.45	8.90		
	43							5.00	5.70	6.40	7.20	8.05	8.35				
	49						5.20	5.90	6.70								
V9-2DB-75X	2	Q	27						10.60	13.20	16.20	19.60	23.40	27.50	29.20	31.90	34.20
		32						9.85	12.25	15.10	18.30	21.80	25.70	27.30	29.80	32.00	
		38						8.35	11.20	13.80	16.70	20.00	23.50	25.00	27.40	29.40	
		43						9.65	12.75	15.50	18.50	21.80	23.20				
		49						8.55	11.50	13.95							
	P	27					4.95	5.50	6.05	6.70	7.35	8.00	8.30	8.70	9.10		
	32						5.15	5.75	6.35	7.05	7.75	8.50	8.85	9.30	9.70		
	38						5.40	6.05	6.75	7.50	8.25	9.10	9.45	9.95	10.40		
	43							6.25	7.00	7.80	8.65	9.55	9.90				
	49						6.55	7.35	8.20								
V6-3DA-75X	2	Q	27						12.00	15.15	18.85	23.00	27.70	32.70	34.90	38.20	41.00
		32						11.10	14.05	17.50	21.40	25.80	30.50	32.50	35.50	38.50	
		38						9.25	12.75	15.90	19.50	23.60	27.90	29.80	32.50	35.00	
		43						10.95	14.65	18.00	21.80	25.90	27.60	30.50			
		49						9.70	13.25	16.30	19.70						
	P	27					6.00	6.60	7.20	7.80	8.50	9.20	9.50	9.90	10.30		
	32						6.20	6.80	7.50	8.25	9.00	9.80	10.10	10.60	11.00		
	38						6.40	7.10	7.85	8.65	9.55	10.40	10.80	11.40	11.90		
	43							7.30	8.15	9.00	9.95	11.00	11.40	12.00			
	49						7.55	8.45	9.45	10.50							
W9-3DC-100X	2	Q	27						14.40	18.00	22.20	26.90	32.20	37.90	40.20	43.90	47.00
		32						13.35	16.70	20.60	25.00	30.00	35.50	37.50	41.00	44.00	
		38						11.25	15.20	18.80	22.90	27.40	32.50	34.50	37.50	40.00	
		43						13.10	17.30	21.10	25.30	29.80	31.50	34.50			
		49						11.65	15.60	19.10							
	P	27					6.90	7.60	8.40	9.20	10.10	11.00	11.30	12.00	12.40		
	32						7.20	7.95	8.80	9.70	10.60	11.60	12.00	12.70	13.20		
	38						7.50	8.35	9.25	10.20	11.30	12.40	12.90	13.60	14.20		
	43							8.65	9.65	10.70	11.80	13.00	13.50	14.30			
	49						9.00	10.10	11.20								
W9-3DS-150X	2	Q	27						19.15	23.40	28.30	33.70	39.60	45.90	48.90	52.50	55.90
		32						17.00	21.80	26.40	31.50	37.00	43.00	45.50	49.00	52.00	
		38						15.40	20.10	24.20	28.80	34.00	39.50	41.50			
		43						17.50	22.40	26.70	31.50						
		49						19.10									
	P	27					9.50	10.50	11.60	12.85	14.20	15.65	16.30	17.25	18.10		
	32						9.90	11.00	12.20	13.50	15.00	16.50	17.20	18.20	19.10		
	38						10.40	11.60	12.90	14.30	15.80	17.50	18.20				
	43							12.00	13.40	14.90	16.50						
	49						14.00										
Z9-3DS-150 X	4	Q	27						20.20	25.00	30.60	37.00	44.10	51.90	55.30	60.40	64.90
		32						18.90	23.30	28.60	34.50	41.00	48.50	51.50	56.50	60.50	
		38						16.40	21.40	26.20	31.50	38.00	44.50	47.50	52.00	55.50	
		43						19.90	24.30	29.40	35.00	41.50	44.00	48.00	51.50		
		49						16.90	22.10	26.70	32.00						
	P	27					9.90	10.80	11.70	12.70	13.70	14.70	15.10	15.80	16.30		
	32						10.40	11.30	12.30	13.40	14.50	15.70	16.20	16.90	17.50		
	38						10.90	11.90	13.00	14.20	15.50	16.80	17.40	18.20	18.90		
	43							12.40	13.60	14.90	16.30	17.80	18.40	19.30	20.00		
	49						13.00	14.30	15.70	17.20							

Q(kW) = Capacity
 P(kW)² = Power Input
 10 K Suction Superheat
 2) Stated power values are incl. of fan power.
 Operating Conditions 20° C Suction Gas Return

Standard - R22

60 Hz

Condensing Unit	Amb./ Temp °C	Evaporating Temperature °C															
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5	
D8-KM-100	1	Q	27				1.02	1.32	1.67	2.07	2.53	3.05	3.65	4.30	4.55	5.00	5.40
			32		0.48	0.68	0.93	1.22	1.55	1.93	2.37	2.86	3.40	4.05	4.30	4.70	5.10
			38		0.40	0.59	0.82	1.09	1.41	1.77	2.18	2.64	3.15	3.75	4.00	4.40	4.70
			43		0.33	0.51	0.73	0.99	1.29	1.63	2.02	2.46	2.95	3.50	3.70	4.10	
			49		0.24	0.42	0.63	0.87	1.14	1.46	1.82	2.23	2.69	3.20			
	P	27				0.77	0.84	0.90	0.97	1.04	1.11	1.18	1.26	1.29	1.33	1.37	
		32		0.63	0.70	0.77	0.85	0.93	1.01	1.10	1.18	1.27	1.36	1.40	1.46	1.51	
		38		0.61	0.69	0.78	0.87	0.96	1.06	1.16	1.26	1.37	1.48	1.53	1.60	1.67	
		43		0.59	0.68	0.77	0.87	0.98	1.09	1.20	1.32	1.44	1.58	1.63	1.72		
		49		0.55	0.66	0.76	0.87	0.99	1.12	1.25	1.39	1.53	1.69				
D8-KSJ-100/10X	1	Q	27	0.46	0.69	0.96	1.28	1.65	2.10	2.61	3.20	3.90	4.65				
			32	0.39	0.61	0.87	1.17	1.53	1.95	2.44	3.00	3.65	4.35				
			38		0.52	0.77	1.05	1.38	1.78	2.23	2.76	3.35	4.05				
			43		0.45	0.68	0.95	1.27	1.64	2.07	2.58	3.15	3.80				
			49		0.37	0.59	0.84	1.14	1.49	1.75							
	P	27	0.69	0.81	0.93	1.04	1.16	1.27	1.39	1.53	1.67	1.84					
		32	0.67	0.80	0.92	1.05	1.18	1.31	1.45	1.60	1.76	1.95					
		38		0.77	0.91	1.05	1.20	1.35	1.50	1.68	1.86	2.07					
		43		0.75	0.90	1.05	1.21	1.38	1.55	1.74	1.95	2.17					
		49		0.72	0.88	1.05	1.23	1.41	1.60								
D8-KJ-150/15X	1	Q	27			0.97	1.29	1.67	2.12	2.64	3.25	3.90	4.65	5.45	5.80	6.30	6.80
			32		0.64	0.88	1.18	1.54	1.97	2.46	3.00	3.65	4.35	5.10	5.45	5.95	6.40
			38		0.55	0.78	1.06	1.39	1.79	2.25	2.77	3.35	4.00	4.75	5.05	5.50	5.95
			43		0.48	0.69	0.96	1.27	1.65	2.08	2.57	3.10	3.75	4.45	4.70	5.15	
			49			0.59	0.84	1.13	1.48	1.88	2.34	2.85	3.40	4.05	4.35		
	P	27			0.85	0.94	1.03	1.12	1.22	1.31	1.40	1.49	1.58	1.61	1.66	1.70	
		32		0.76	0.85	0.95	1.05	1.16	1.27	1.38	1.48	1.59	1.69	1.73	1.78	1.83	
		38		0.75	0.85	0.96	1.08	1.20	1.32	1.44	1.57	1.69	1.81	1.85	1.92	1.98	
		43		0.74	0.85	0.97	1.09	1.22	1.36	1.49	1.63	1.77	1.90	1.95	2.03		
		49		0.84	0.97	1.11	1.25	1.40	1.55	1.70	1.85	2.00	2.06				
D8-KL-150/15X	1	Q	27	0.53	0.78	1.08	1.44	1.88	2.39	2.95	3.65	4.40					
			32	0.46	0.69	0.98	1.33	1.74	2.22	2.78	3.40	4.15					
			38		0.59	0.86	1.18	1.57	2.02	2.55	3.15						
			43		0.51	0.76	1.07	1.43	1.86	2.36	2.95						
			49			0.65	0.93	1.27	1.67								
	P	27	0.78	0.92	1.06	1.19	1.33	1.47	1.63	1.79	1.96						
		32	0.76	0.92	1.07	1.22	1.37	1.53	1.69	1.86	2.05						
		38		0.90	1.07	1.24	1.41	1.58	1.76	1.94							
		43		0.88	1.06	1.25	1.43	1.62	1.81	2.01							
		49			1.04	1.25	1.45	1.65									

Q(kW) = Capacity

Operating Conditions 20°C Suction Gas Return

P(kW)²⁾ = Power Input

10 K Suction Superheat

2) Stated power values are incl. of fan power.

Standard - R22

60 Hz

Condensing Unit	Amb./ Temp °C	Evaporating Temperature °C																
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5		
H8-KSJ-150/15X 1	Q	27					1.70	2.19	2.76	3.40	4.15	4.95	5.85	6.85	7.25	7.85	8.40	
		32			0.90	1.20	1.57	2.04	2.58	3.20	3.90	4.70	5.55	6.45	6.85	7.45		
		38			0.80	1.08	1.43	1.86	2.37	2.95	3.60	4.35	5.15	6.00	6.35	6.90		
		43			0.72	0.98	1.31	1.71	2.19	2.74	3.35	4.05	4.80					
		49			0.62	0.86	1.17	1.54	1.98	2.50	3.05	3.70						
	P	27					1.27	1.38	1.50	1.61	1.71	1.80	1.89	1.96	1.98	2.01	2.03	
		32			1.06	1.17	1.29	1.42	1.55	1.68	1.80	1.91	2.02	2.11	2.14	2.18		
		38			1.05	1.18	1.32	1.46	1.61	1.75	1.90	2.03	2.16	2.27	2.31	2.37		
		43			1.04	1.18	1.33	1.49	1.65	1.81	1.97	2.12	2.27					
		49			1.02	1.17	1.34	1.51	1.69	1.87	2.05	2.23						
H8-LE-200/20X 1	Q	27			1.14	1.63	2.23	2.95	3.80	4.80	5.90	7.15	8.55	10.05	10.70	11.70	12.55	
		32			0.99	1.45	2.02	2.71	3.50	4.45	5.50	6.70	8.00	9.45	10.05	11.00		
		38			0.81	1.25	1.78	2.42	3.15	4.05	5.05	6.15	7.35	8.70	9.30			
		43			0.67	1.08	1.59	2.19	2.90	3.70	4.65	5.70	6.85					
		49					1.37	1.93	2.58	3.35	4.20	5.20	6.25					
	P	27			1.40	1.58	1.76	1.96	2.16	2.37	2.57	2.78	2.99	3.21	3.29	3.42	3.52	
		32			1.37	1.56	1.77	1.98	2.21	2.44	2.67	2.91	3.14	3.38	3.48	3.62		
		38			1.33	1.54	1.76	2.00	2.25	2.51	2.77	3.04	3.31	3.58	3.69			
		43			1.29	1.51	1.75	2.01	2.28	2.56	2.84	3.13	3.43					
		49					1.73	2.01	2.30	2.60	2.92	3.24	3.57					
H8-LF-200/20X 1	Q	27	1.06	1.58	2.25	3.05	4.00	5.10	6.35	7.75								
		32	0.92	1.41	2.03	2.80	3.70	4.75	5.95									
		38		1.20	1.78	2.49	3.35	4.30	5.45									
		43		1.04	1.58	2.25	3.05	3.95	5.05									
		49		0.85	1.35	1.96	2.70											
	P	27	1.47	1.71	1.96	2.24	2.54	2.84	3.16	3.50								
		32	1.44	1.69	1.97	2.27	2.59	2.92	3.27									
		38		1.66	1.96	2.29	2.63	3.00	3.38									
		43		1.63	1.95	2.29	2.66	3.05	3.45									
		49		1.59	1.92	2.28	2.67											
H8-LL-300/30X 1	Q	27	1.69	2.45	3.40	4.45	5.75	7.15										
		32	1.49	2.21	3.10	4.10	5.30	6.70										
		38			2.73	3.70	4.85	6.10										
		43			2.45	3.35	4.45	5.65										
		49			2.13	2.55												
	P	27	1.94	2.25	2.61	3.01	3.45	3.94										
		32	1.92	2.26	2.64	3.07	3.54	4.07										
		38			2.66	3.12	3.63	4.20										
		43			2.67	3.15	3.70	4.30										
		49			2.67	3.18												
M8-LF-300/30X 1	Q	27			2.30	3.15	4.15	5.30	6.65	8.15	9.80	11.55	13.45	14.25	15.50	16.50		
		32		1.47	2.07	2.86	3.80	4.95	6.20	7.65	9.20	10.90	12.70	13.45	14.60	15.60		
		38		1.25	1.81	2.55	3.45	4.50	5.70	7.05	8.50	10.10	11.75	12.45	13.55			
		43		1.08	1.61	2.30	3.15	4.15	5.25	6.55	7.90	9.40	11.00	11.70				
		49		0.89	1.38	2.02	2.80	3.70	4.80	5.95	7.25	8.65						
	P	27			1.96	2.22	2.50	2.79	3.07	3.36	3.63	3.89	4.14	4.23	4.35	4.45		
		32			1.70	1.96	2.25	2.55	2.86	3.18	3.49	3.80	4.09	4.37	4.47	4.62	4.74	
		38			1.67	1.95	2.26	2.59	2.94	3.28	3.63	3.97	4.31	4.62	4.74	4.92		
		43			1.64	1.94	2.27	2.62	2.99	3.36	3.74	4.11	4.47	4.82	4.96			
		49			1.59	1.91	2.26	2.64	3.03	3.44	3.85	4.26	4.66					
M8-LL-300/30X 1	Q	27	1.73	2.52	3.50	4.60	5.95	7.50										
		32	1.52	2.26	3.15	4.25	5.55	7.00										
		38			2.82	3.85	5.05	6.40										
		43			2.53	3.50	4.60	5.95										
		49			2.19	3.10												
	P	27	1.94	2.25	2.60	2.99	3.40	3.85										
		32	1.92	2.26	2.63	3.04	3.50	3.99										
		38			2.66	3.10	3.60	4.13										
		43			2.67	3.14	3.67	4.25										
		49			2.67	3.18												

Q(kW) = Capacity

Operating Conditions 20°C Suction Gas Return

P(kW)²⁾ = Power Input

□ 10 K Suction Superheat

2) Stated power values are incl. of fan power.

Discus- R22

60 Hz

R22 - Discus

Condensing Unit	Amb./ Temp °C	Evaporating Temperature °C														
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5
R7-2DL-400 DC 2	Q	27	1.52	2.24	3.15	4.30	5.70	7.30	9.15	11.25	13.60					
		32	2.00	2.88	3.95	5.25	6.80	8.55	10.55	12.75						
		38	1.69	2.52	3.55	4.75	6.20	7.85	9.70	11.75						
		43	2.21	3.20	4.35	5.70	7.30	9.05								
	P	49	1.82	2.74	3.85	5.10										
		27	2.19	2.53	2.93	3.36	3.82	4.30	4.80	5.30	5.80					
		32	2.51	2.94	3.41	3.91	4.44	4.99	5.55	6.10						
		38	2.46	2.93	3.44	3.99	4.56	5.15	5.80	6.40						
R7-2DB-500 DC 2	Q	27	1.93	2.85	3.95	5.30	6.90	8.75	10.85	13.30	16.00					
		32	2.55	3.60	4.90	6.40	8.20	10.20	12.45	15.00						
		38	2.18	3.20	4.40	5.85	7.50	9.40	11.55	13.90						
		43	2.84	4.00	5.35	6.95	8.75									
	P	49	2.38	3.50	4.75											
		27	2.68	3.13	3.61	4.11	4.64	5.20	5.80	6.35	7.00					
		32	3.17	3.68	4.23	4.80	5.40	6.00	6.65	7.35						
		38	3.18	3.74	4.33	4.94	5.60	6.25	7.00	7.70						
R7-2DC-500/50X 2	Q	27					4.95	6.50	8.30	10.30	12.60	15.20	18.00	19.20	21.00	22.70
		32					4.45	5.95	7.65	9.60	11.80	14.20	16.90	18.00	19.80	21.40
		38					5.25	6.90	8.75	10.80	13.10	15.60	16.70	18.40	19.80	
		43					4.70	6.25	8.05	10.00	12.20	14.60	15.60	17.20	18.60	
	P	49					5.50	7.20	9.05	11.10						
		27					2.90	3.22	3.54	3.85	4.17	4.48	4.79	4.91	5.10	5.25
		32					2.92	3.28	3.65	4.01	4.37	4.74	5.10	5.25	5.50	5.65
		38					3.33	3.75	4.17	4.60	5.00	5.45	5.65	5.90	6.15	
S9-2DL-750/75X 2	Q	27					7.25	9.40	11.85	14.65	17.80	21.20	25.00	26.60	29.10	31.50
		32					6.65	8.75	11.10	13.75	16.70	20.00	23.60	25.20	27.50	29.60
		38					7.95	10.20	12.70	15.50	18.70	22.00	23.50	25.70	27.60	
		43					7.30	9.45	11.90	14.55	17.50	20.70	22.10			
	P	49					8.65	10.90	13.45							
		27					3.92	4.41	4.92	5.45	5.95	6.50	7.00	7.25	7.60	7.90
		32					4.01	4.56	5.10	5.70	6.25	6.85	7.50	7.75	8.10	8.45
		38					4.72	5.35	6.00	6.65	7.35	8.00	8.30	8.75	9.10	
V9-2DB-750/75X 2	Q	27					9.45	11.90	14.70	17.80	21.30	25.20	29.40	31.00	34.00	36.50
		32					8.80	11.15	13.80	16.80	20.10	23.80	27.80	29.50	32.00	34.50
		38					10.25	12.75	15.60	18.70	22.20	25.90	27.50	30.00	32.00	
		43					11.90	14.60	17.60	20.80	24.40	25.80				
	P	49					10.90	13.40	16.20							
		27					4.87	5.40	5.95	6.50	7.10	7.65	8.25	8.50	8.90	9.20
		32					5.05	5.65	6.25	6.85	7.50	8.15	8.85	9.15	9.55	9.90
		38					5.90	6.60	7.30	8.00	8.75	9.50	9.85	10.30	10.70	
S9-3DA-500 DC 2	Q	27	2.09	3.15	4.45	6.00	7.80	9.85	12.25							
		32	2.84	4.10	5.55	7.25	9.25	11.50								
		38	2.44	3.60	5.00	6.65	8.50	10.60								
		43	3.25	4.55	6.10	7.85	9.80									
	P	49	2.74	3.95	5.40											
		27	2.70	3.25	3.82	4.42	5.05	5.70	6.40							
		32	3.22	3.85	4.50	5.20	5.90	6.65								
		38	3.15	3.84	4.56	5.30	6.05	6.85								
V6-3DA-750/75X 2	Q	27					10.70	13.70	17.20	21.10	25.40	30.50	35.50	38.00	41.50	44.50
		32					9.85	12.75	16.10	19.80	23.90	28.50	33.50	35.50	39.00	42.00
		38					11.65	14.75	18.30	22.20	26.50	31.00	33.00	36.50	39.00	
		43					10.80	13.75	17.10	20.80	24.80	29.30	31.00	34.00	36.50	
	P	49					12.60	15.70	19.10	22.90						
		27					5.95	6.50	7.10	7.65	8.25	8.80	9.35	9.60	9.90	10.20
		32					6.05	6.75	7.40	8.05	8.70	9.35	10.00	10.30	10.70	11.00
		38					6.95	7.70	8.45	9.25	10.00	10.80	11.10	11.60	12.00	
S9-3DC-750 DC 2	Q	27	2.80	4.00	5.45	7.20	9.30	11.80	14.70							
		32	3.60	5.00	6.65	8.65	11.05	13.80								
		38	3.15	4.45	6.00	7.90	10.15	12.75								
		43	4.00	5.50	7.25	9.40	11.85									
	P	49	3.45	4.85	6.50											
		27	3.36	3.92	4.53	5.20	5.95	6.80	7.80							
		32	3.86	4.54	5.30	6.10	7.05	8.10								
		38	3.77	4.52	5.35	6.25	7.25	8.40								

Q(kW) = Capacity Operating Conditions 20°C Suction Gas Return

P(kW)²⁾ = Power Input

10 K Suction Superheat

DC = Demand Cooling: operating conditions 25°C Suction Gas Return

2) Stated power values are incl. of fan power

Discus- R22

60 Hz

Condensing Unit	Amb./ Temp °C	Evaporating Temperature °C															
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5	
W9-3DC-1000/100X 2	Q	27						12.80	16.30	20.20	24.60	29.50	35.00	40.50	43.00	47.00	50.50
		32						11.85	15.20	18.90	23.10	27.70	33.00	38.50	40.50	44.50	47.50
		38							13.90	17.40	21.30	25.70	30.50	35.50	38.00	41.00	44.00
		43								16.20	19.90	24.00	28.50	33.50	35.50		
		49									14.85	18.30	22.10				
	P	27						6.80	7.55	8.30	9.00	9.75	10.50	11.30	11.60	12.10	12.50
		32						7.05	7.85	8.65	9.50	10.30	11.20	12.10	12.40	13.00	13.50
		38							8.15	9.10	10.00	11.00	12.00	13.00	13.40	14.00	14.60
		43								9.40	10.50	11.50	12.60	13.70	14.20		
		49									9.85	11.00	12.10				
V6-3DS-1000 DC 2	Q	27	3.50	5.45	7.65	10.20	13.20	16.60	20.70								
		32		4.75	6.90	9.35	12.20	15.50	19.30								
		38		3.95	6.05	8.40	11.10	14.25	17.90								
		43			5.35	7.60	10.20	13.25	16.70								
		49			4.55	6.75	9.25										
	P	27	4.59	5.55	6.50	7.45	8.50	9.55	10.70								
		32		5.55	6.55	7.60	8.70	9.85	11.10								
		38		5.50	6.60	7.75	8.95	10.20	11.50								
		43			6.65	7.85	9.15	10.50	11.90								
		49			6.65	8.00	9.35										
W9-3DS-1500/150X 2	Q	27						17.20	21.30	26.00	31.00	37.00	43.00	50.00	52.50	57.00	60.50
		32							20.10	24.50	29.50	35.00	40.50	47.00	49.50	53.50	57.00
		38							18.60	22.80	27.40	32.50	38.00	43.50	46.00		
		43								21.40	25.70	30.50					
		49															
	P	27						9.30	10.30	11.40	12.50	13.70	14.90	16.30	16.80	17.70	18.50
		32						10.70	11.90	13.10	14.40	15.80	17.30	17.90	18.90	19.70	
		38						11.30	12.50	13.90	15.30	16.80	18.50	19.10			
		43							13.10	14.50	16.10						
		49															
Z9-3DS-1500/150X 4	Q	27						18.00	22.50	27.70	33.50	40.00	47.50	55.50	59.00	64.50	69.00
		32						16.90	21.20	26.10	31.50	38.00	45.00	52.50	55.50	61.00	65.00
		38							19.70	24.30	29.50	35.50	42.00	49.00	52.00	56.50	61.00
		43							18.40	22.80	27.70	33.00	39.50	46.00	49.00	53.00	57.00
		49								21.00	25.60	30.50	36.50				
	P	27						9.85	10.70	11.60	12.40	13.30	14.10	14.90	15.30	15.80	16.20
		32						10.20	11.20	12.10	13.10	14.10	15.10	16.10	16.50	17.10	17.60
		38							11.70	12.80	13.90	15.10	16.20	17.40	17.90	18.60	19.20
		43							12.10	13.30	14.60	15.80	17.10	18.50	19.00	19.80	20.50
		49								14.00	15.40	16.80	18.20				

Q(kW) = Capacity

Operating Conditions 20°C Suction Gas Return

P(kW)²⁾ = Power Input

10 K Suction Superheat

DC = Demand Cooling: operating conditions 25°C Suction Gas Return

2) Stated power values are incl. of fan power



Discus- R22

60 Hz

Condensing Unit	Amb./ Temp °C	Evaporating Temperature °C																
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5		
W9-4MF-13X DC ⁴⁾	2	Q	32			7.85	10.54	13.70	17.34	21.44								
			38			7.00	9.53	12.49	15.88	19.70								
			43			6.22	8.60	11.37	14.55	18.13								
			46			5.71	8.00	10.66	13.71									
			49			5.19	7.37	9.91										
	P	32			7.06	8.40	9.82	11.33	12.94									
		38			7.03	8.50	10.05	11.69	13.41									
		43			6.90	8.48	10.14	11.87	13.69									
		46			6.77	8.42	10.14	11.93										
		49			6.61	8.32	10.10											
Z9-4MA-22X	4	Q	32					21.01	26.48	32.68	39.68	47.53	56.26	65.87	69.97	76.37	81.95	
			38					24.28	30.16	36.76	44.12	52.28	61.26	65.09	71.07	76.29		
			43						28.04	34.30	41.24	48.93	57.39	60.99	66.63	71.54		
			46						26.76	32.81	39.51	46.92	55.06	58.53				
			49							31.32	37.77	44.90						
	P	32					11.75	13.04	14.35	15.67	16.98	18.28	19.58	20.09	20.85	21.48		
		38					13.71	15.17	16.64	18.12	19.60	21.07	21.65	22.52	23.24			
		43						15.79	17.39	19.00	20.62	22.23	22.86	23.82	24.61			
		46						16.14	17.81	19.50	21.20	22.89	23.56					
		49							18.21	19.98	21.75							
Z9-4ML-15X DC ⁴⁾	4	Q	32		10.94	14.53	18.64	23.18	28.06									
			38		9.96	13.40	17.33	21.69	26.37									
			43		9.08	12.37	16.16	20.35	24.86									
			46		8.52	11.73	15.42	19.51	23.92									
			49		7.93	11.05	14.65	18.64										
	P	32			9.99	11.53	13.12	14.72	16.28									
		38			10.25	11.91	13.64	15.38	17.09									
		43			10.39	12.15	13.99	15.86	17.70									
		46			10.43	12.26	14.17	16.12	18.04									
		49			10.45	12.34	14.33	16.35										
Z9-4MH-25X	4	Q	32					24.45	30.51	37.34	45.02	53.57	63.01	73.35	77.73	84.56	90.49	
			38					28.15	34.62	41.83	49.83	58.64	68.27	72.35	78.72	84.24		
			43						32.34	39.16	46.69	54.97	64.01	67.85	73.83			
			46							37.55	44.80	52.77						
			49							35.94	42.91							
	P	32				13.95	15.50	17.09	18.72	20.38	22.07	23.77	24.46	25.50	26.37			
		38				16.34	18.08	19.88	21.71	23.57	25.45	26.21	27.36	28.32				
		43					18.86	20.78	22.75	24.75	26.78	27.59	28.82					
		46						21.30	23.34	25.42								
		49						21.80	23.92									
Z9-4MM-20X DC ⁴⁾	4	Q	32		12.38	16.00	20.21	25.03	30.52									
			38		11.17	14.63	18.63	23.21	28.42									
			43		10.11	13.44	17.27	21.65	26.64									
			46		9.45	12.70	16.43	20.70	25.55									
			49		8.78	11.95	15.58	19.73										
	P	32			10.97	12.46	14.04	15.72	17.54									
		38			11.17	12.82	14.56	16.41	18.41									
		43			11.26	13.04	14.92	16.93	19.08									
		46			11.29	13.15	15.11	17.21	19.45									
		49			11.28	13.22	15.28	17.47										
W99-4MI-30X ³⁾	4	Q	32					26.77	33.03	40.06	47.90	56.57	66.09	76.43	80.80	87.57	93.42	
			38					30.50	37.11	44.42	52.47	61.29	70.85	74.89	81.15	86.57		
			43						34.63	41.51	49.04	57.27	66.19	69.95				
			46							39.75	46.98	54.86						
			49							44.91								
	P	32				15.42	17.17	19.00	20.89	22.85	24.87	26.94	27.78	29.06	30.14			
		38				18.09	20.06	22.10	24.21	26.38	28.60	29.51	30.87	32.03				
		43					20.89	23.04	25.27	27.55	29.90	30.85						
		46						23.58	25.87	28.22								
		49						26.44										

Q(kW) = Capacity
P(kW)²⁾ = Power Input

Operating Conditions 20°C Suction Gas Return

 0 °C Suction Gas Return
 20 K Suction Superheat

- 1) Models rated for R404a may be applied with R507. Multiply stated cooling capacity by 1.03 and power input by 1.02
- 2) Stated power values are inclusive of fan power
- 3) Delivered separately in two main parts
- 4) Operation with DC, Demand Cooling Liquid Injection Kit



Discus- R22

60 Hz

Condensing Unit	Amb./ Temp °C	Evaporating Temperature °C															
		-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7	10	12.5	
Z9-4MT-22X DC ⁴⁾	Q	32			13.79	17.81	22.46	27.78	33.82								
		38			12.44	16.27	20.70	25.75	31.48								
		43			11.26	14.94	19.18	24.01	29.50								
		46			10.52	14.12	18.24	22.95	28.28								
		49			9.76	13.28	17.29										
	P	32			12.12	13.81	15.61	17.54	19.64								
		38			12.34	14.20	16.18	18.30	20.59								
		43			12.44	14.44	16.58	18.86	21.32								
		46			12.46	14.56	16.78	19.17	21.73								
		49			12.45	14.64	16.97										
W99-4MJ-33X ³⁾	Q	32						36.52	44.21	52.73	62.10	72.32	83.35	87.98	95.15	101.31	
		38						33.70	40.92	48.86	57.55	67.00	77.18	81.45	88.07	93.76	
		43							38.16	45.62	53.75	62.55					
		46								43.67	51.46						
		49															
	P	32						19.24	21.36	23.57	25.87	28.25	30.71	31.72	33.25	34.55	
		38						20.26	22.52	24.89	27.35	29.89	32.50	33.57	35.19	36.56	
		43							23.44	25.91	28.49	31.15					
		46								26.50	29.14						
		49															
Z9-4MU-25X DC ⁴⁾	Q	32			15.51	20.01	25.19	31.11	37.80								
		38			13.98	18.28	23.21	28.83	35.18								
		43			12.65	16.77	21.50	26.87	32.94								
		46			11.82	15.84	20.45	25.68	31.58								
		49			10.97	14.89	19.37										
	P	32			13.55	15.50	17.58	19.83	22.28								
		38			13.79	15.92	18.20	20.66	23.33								
		43			13.89	16.19	18.64	21.28	24.13								
		46			13.91	16.31	18.87	21.61	24.58								
		49			13.90	16.40	19.06										
W99-4MK-35X ³⁾	Q	32						40.71	49.16	58.46	68.61	79.59	91.33	96.23	103.79	110.25	
		38						37.52	45.45	54.11	63.51	73.64	84.46	88.97			
		43							41.48	50.48	59.25	68.67					
		46							39.53	47.55							
		49															
	P	32						21.86	24.35	26.97	29.72	32.58	35.55	36.77	38.63	40.21	
		38						23.00	25.64	28.42	31.33	34.34	37.47	38.75			
		43							26.61	29.54	32.57	35.71					
		46								27.18	30.15						
		49															
Z9-6MM-30X DC ⁴⁾	Q	32			16.36	21.57	27.45	33.83	40.58								
		38			14.80	19.75	25.33	31.39	37.80								
		43			13.45	18.18	23.51	29.31	35.43								
		46			12.62	17.22	22.40	28.03									
		49			11.77	16.23	21.27										
	P	32			15.24	17.75	20.34	22.93	25.45								
		38			15.58	18.37	21.23	24.11	26.92								
		43			15.74	18.76	21.86	24.97	28.01								
		46			15.77	18.93	22.17	25.42									
		49			15.76	19.06	22.44										
W99-6MI-40X ³⁾	Q	32						47.51	57.68	68.76	80.72	93.50	107.02	112.61			
		38							53.13	63.49	74.59	86.42					
		43							48.22	58.23							
		46															
		49															
	P	32						26.68	29.86	33.22	36.76	40.48	44.37	45.97			
		38							31.35	34.92	38.67	42.59					
		43							32.46	36.19							
		46															
		49															

Q(kW) = Capacity
P(kW)²⁾ = Power Input

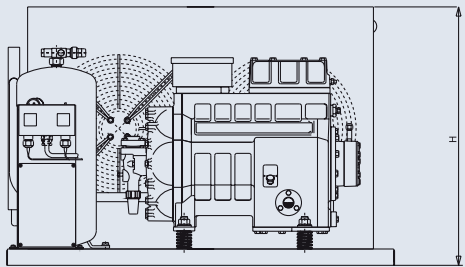
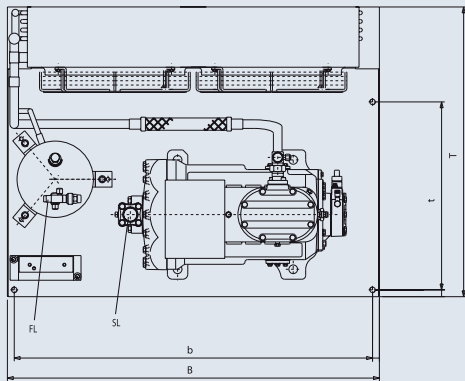
Operating Conditions 20°C Suction Gas Return

 0 °C Suction Gas Return
 20 K Suction Superheat

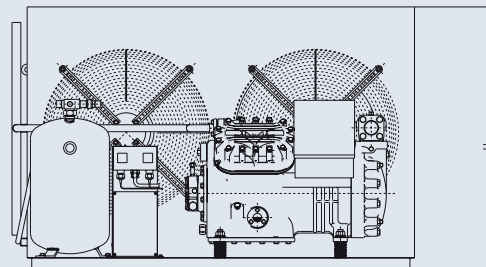
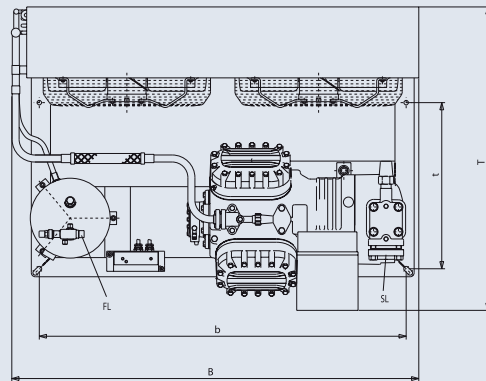
- 1) Models rated for R404a may be applied with R507. Multiply stated cooling capacity by 1.03 and power input by 1.02
- 2) Stated power values are inclusive of fan power
- 3) Delivered separately in two main parts
- 4) Operation with DC, Demand Cooling Liquid Injection Kit

Dimensional Drawings

Condenser P, S, R, V, W with 2S, 3S, 2D, 3D compressor



Condenser V, W with 4D, 6D compressor

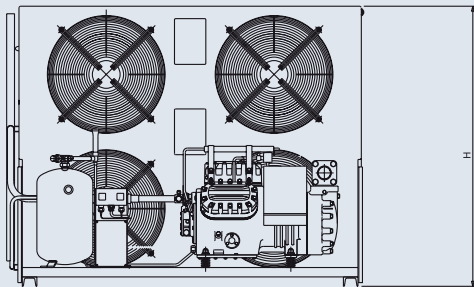
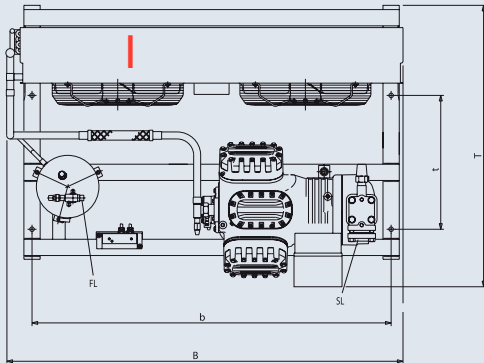


- H: Height
- B: Width
- T: Depth
- b,t: Dimensions (holes)
- SL: Suction line
- FL: Liquid line

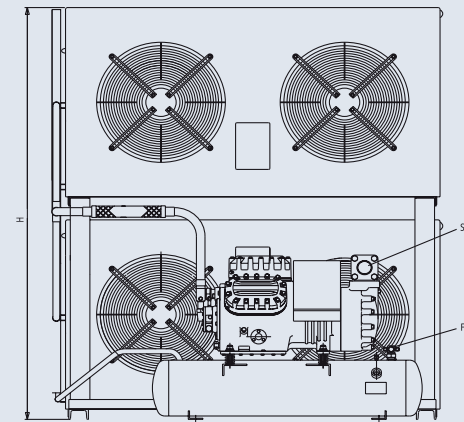
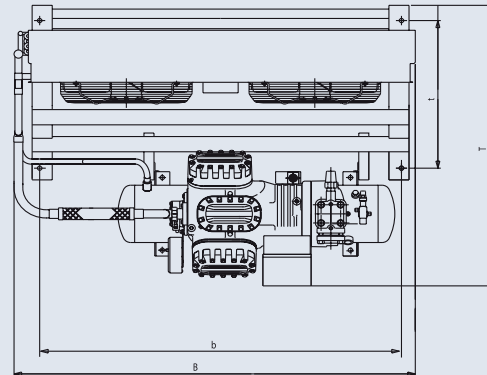
Please refer to data tables on page 25 to 34 for concrete dimensions

Dimensional Drawings

Condenser Z with 4D, 6D compressor



Condenser W99 with 6D compressor



- H: Height
- B: Width
- T: Depth
- b,t: Dimensions (holes)
- SL: Suction line
- FL: Liquid line

Please refer to data tables on page 25 to 34 for concrete dimensions

Mechanical data
Standard

Condensing Unit	Receiver Capacity ⁶⁾	Depth/Width T/B	Height H	Dimensions (holes)	Suction Diameter SL	Liquid Line FL	Air Flow	Gross Weight	Housing Type
	Standard / Option								
D8-KJ-150	3.7	570/560	446	530 x 330 (11)	5/8	1/2	0.51	72	BD
D8-KL-150	3.7	570/560	446	530 x 330 (11)	5/8	1/2	0.51	112	DL
D8-KL-15X	3.7	570/560	446	530 x 330 (11)	5/8	1/2	0.51	72	BD
D8-KM-100	3.7	570/560	446	530 x 330 (11)	5/8	1/2	0.51	71	BD
D8-KSJ-100	3.7	570/560	446	530 x 330 (11)	5/8	1/2	0.51	72	BD
D8-KSJ-10X	3.7	570/560	446	530 x 330 (11)	5/8	1/2	0.51	72	BD
H8-KSJ-150	7.5 / 11.5	680/735	533	700 x 370 (14)	5/8	1/2 / 5/8	1.00	123	H
H8-KSJ-15X	7.5 / 11.5	680/735	533	700 x 370 (11)	5/8	1/2 / 5/8	1.00	70	H
H8-LE-200	7.5 / 11.5	680/735	533	700 x 370 (14)	7/8	1/2 / 5/8	1.00	123	H
H8-LE-20X	7.5 / 11.5	680/735	533	700 x 370 (14)	7/8	1/2 / 5/8	1.00	123	H
H8-LF-200	7.5 / 11.5	680/735	533	700 x 370 (14)	7/8	1/2 / 5/8	1.00	123	H
H8-LF-20X	7.5 / 11.5	680/735	533	700 x 370 (14)	7/8	1/2 / 5/8	1.00	123	H
H8-LL-300	7.5 / 11.5	680/735	533	700 x 370 (14)	7/8	1/2 / 5/8	1.00	100	H / M
H8-LL-30X	7.5 / 11.5	680/735	533	700 x 370 (14)	7/8	1/2 / 5/8	1.00	100	H / M
M8-LF-300	7.5 / 11.5	730/735	708	700 x 390 (14)	7/8	1/2 / 5/8	0.92	100	M
M8-LF-30X	7.5 / 11.5	730/735	708	700 x 390 (14)	7/8	1/2 / 5/8	0.92	100	M
M8-LL-300	7.5 / 11.5	730/735	708	700 x 390 (14)	1 1/8	1/2 / 5/8	0.92	100	M
M8-LL-30X	7.5 / 11.5	730/735	708	700 x 390 (14)	1 1/8	1/2 / 5/8	0.92	100	M

6) Pump down in "kg" as well, for less than 95% of receiver volume at 50°C ambient temperature (R22, R134a, R404A)

Electrical data
Standard

Condensing Unit	Maximum Operating Current (compressor)		Locked Rotor Current (compressor)		Fan Model	Condenser Fan Current 230V/ 1~/60Hz A
	EWK+ 220-240V/3~/60Hz	EWK++ 380-420V/3~/60Hz	EWK+ 220-240V/3~/60Hz	EWK++ 380-420V/3~/60Hz		
	A	A	A	A		
D8-KJ-150	7.0	4.0	44.5	25.6	12 1	0.71
D8-KL-150	6.5	3.7	44.5	25.6	12 1	0.71
D8-KL-15X	7.1	4.1	44.5	25.6	12 1	0.71
D8-KM-100	5.6	3.2	40.5	23.3	12 1	0.71
D8-KSJ-100	5.6	3.2	40.5	23.3	12 1	0.71
D8-KSJ-10X	5.7	3.2	40.5	23.3	12 1	0.71
H8-KSJ-150	7.1	4.1	44.5	25.6	27 1	1.68
H8-KSJ-15X	7.1	4.1	44.5	25.6	27 1	1.68
H8-LE-200	12.0	6.8	84.0	48.5	27 1	1.68
H8-LE-20X	12.0	6.8	84.0	48.5	27 1	1.68
H8-LF-200	11.6	6.6	84.0	48.5	27 1	1.68
H8-LF-20X	9.5	5.4	84.0	48.5	27 1	1.68
H8-LL-300	14.9	8.5	121.0	69.5	27 1	1.68
H8-LL-30X	15.3	8.8	121.0	69.5	27 1	1.68
M8-LF-300	15.1	8.6	121.0	69.5	27 1	1.68
M8-LF-30X	14.3	8.2	121.0	69.5	27 1	1.68
M8-LL-300	14.9	8.5	121.0	69.5	27 1	1.68
M8-LL-30X	15.3	8.8	121.0	69.5	27 1	1.68

Mechanical data

Discus

Condensing Unit	Receiver Capacity ⁶⁾	Depth/Width T/B	Height H	Dimensions (holes)	Suction Diameter SL	Liquid Line FL	Air Flow	Gross Weight	Housing Type
	Standard / Option								
R7-2DC-500	14.0 / 18.0	820/1130	633	1095 x 475 (14)	1 3/8	3/4 / 7/8	1.97	236	RSQR
R7-2DC-50X	14.0 / 18.0	820/1130	633	1095 x 475 (14)	1 3/8	3/4 / 7/8	1.97	236	RSQR
R7-2DL-400 DC	14.0 / 18.0	820/1130	633	1095 x 475 (14)	1 3/8	3/4 / 7/8	1.97	244	RSQR
R7-2DB-500 DC	14.0 / 18.0	820/1130	708	1095 x 475 (14)	1 3/8	3/4 / 7/8	1.97	249	RSQR
R7-2DB-50X	14.0 / 18.0	820/1130	708	1095 x 475 (14)	1 3/8	3/4 / 7/8	1.97	245	RSQR
S9-2DL-750	14.0 / 18.0	820/1330	835	1295 x 475 (14)	1 3/8	3/4 / 7/8	1.94	321	RSQR
S9-2DL-75X	14.0 / 18.0	820/1330	835	1295 x 475 (14)	1 3/8	3/4 / 7/8	1.94	331	RSQR
S9-3DA-500 DC	14.0 / 18.0	820/1130	708	1095 x 475 (14)	1 3/8	3/4 / 7/8	1.94	261	RSQR
S9-3DA-50X	14.0 / 18.0	820/1130	708	1095 x 475 (14)	1 3/8	3/4 / 7/8	1.94	279	RSQR
S9-3DC-750 DC	14.0 / 18.0	820/1130	708	1095 x 475 (14)	1 3/8	3/4 / 7/8	1.94	267	RSQR
S9-3DC-75X	14.0 / 18.0	820/1130	708	1095 x 475 (14)	1 3/8	3/4 / 7/8	1.94	279	RSQR
V9-2DB-750	18.0 / 23.0	820/1330	835	1295 x 475 (14)	1 3/8	7/8	2.18	325	V
V9-2DB-75X	18.0 / 23.0	820/1330	835	1295 x 475 (14)	1 3/8	7/8	2.18	325	V
V6-3DA-750	18.0 / 23.0	820/1330	835	1295 x 475 (14)	1 3/8	7/8	2.97	346	V
V6-3DA-75X	18.0 / 23.0	820/1330	835	1295 x 475 (14)	1 3/8	7/8	2.97	346	V
V6-3DS-1000 DC	18.0 / 23.0	820/1330	835	1295 x 475 (14)	1 3/8	7/8	2.97	364	V
V6-3DS-100X	18.0 / 23.0	820/1330	835	1295 x 475 (14)	1 3/8	7/8	2.97	358	V
W9-3DC-1000	18.0 / 23.0	820/1640	869	1605 x 475 (14)	1 3/8	7/8	3.33	414	W
W9-3DC-100X	18.0 / 23.0	820/1640	869	1605 x 475 (18)	1 3/8	7/8	3.33	416	W
W9-3DS-1500	18.0 / 23.0	820/1640	869	1605 x 475 (14)	1 5/8	7/8	3.33	417	W
W9-3DS-150X	18.0 / 23.0	820/1640	869	1605 x 475 (14)	1 5/8	7/8	3.33	417	W
Z9-3DS-1500	18.0 / 23.0	1102/1600	1252	1435 x 535 (18)	1 5/8	7/8	5.41	533	-
Z9-3DS-150X	18.0 / 23.0	1102/1600	1252	1435 x 535 (18)	1 5/8	7/8	5.41	533	-

6) Pump down in "kg" as well, for less than 95% of receiver volume at 50°C ambient temperature (R22, R134a, R404A)

Electrical data

Discus

Condensing Unit	Maximum Operating Current (compressor)			Locked Rotor Current (compressor)			Fan Model	Condenser Fan Current 230V/ 1~/60Hz A
	EWK+ 220-240V/3~/60Hz	EWK++ 380-420V/3~/60Hz	AWD 440-480V/3~/60Hz	EWK+ 220-240V/3~/60Hz	EWK++ 380-420V/3~/60Hz	AWD 440-480V/3~/60Hz		
	A		A	A		A		
R7-2DC-500	18.9	10.8	9.0	132.0	76.0	53.0	271	1.68
R7-2DC-50X	18.9	10.8	9.0	132.0	76.0	53.0	271	1.68
R7-2DL-400 DC	20.4	11.6	9.7	132.0	76.0	53.0	271	1.68
R7-2DB-500 DC	23.7	13.6	11.3	132.0	76.0	53.0	271	1.68
R7-2DB-50X	28.1	16.1	13.4	132.0	76.0	53.0	271	1.68
S9-2DL-750	27.3	15.6	13.0	184.0	106.0	75.0	271	1.68
S9-2DL-75X	29.0	16.6	13.8	184.0	106.0	75.0	271	1.68
S9-3DA-500 DC	23.7	13.6	11.3	132.0	76.0	53.0	271	1.68
S9-3DA-50X	33.4	19.1	15.9	132.0	76.0	53.0	271	1.68
S9-3DC-750 DC	29.0	16.6	13.8	184.0	106.0	75.0	271	1.68
S9-3DC-75X	38.4	22.0	18.3	184.0	106.0	75.0	271	1.68
V9-2DB-750	32.8	18.7	15.6	184.0	106.0	75.0	271	1.68
V9-2DB-75X	33.8	19.3	16.1	184.0	106.0	75.0	271	1.68
V6-3DA-750	37.8	21.6	18.0	220.0	127.0	98.0	611	3.20
V6-3DA-75X	36.8	21.0	17.5	220.0	127.0	98.0	611	3.20
V6-3DS-1000 DC	39.1	22.3	18.6	274.0	158.0	113.0	611	3.20
V6-3DS-100X	51.2	29.3	24.4	274.0	158.0	113.0	611	3.20
W9-3DC-1000	44.7	25.6	21.3	274.0	158.0	113.0	611	3.20
W9-3DC-100X	43.1	24.6	20.5	274.0	158.0	113.0	611	3.20
W9-3DS-1500	60.5	34.6	28.8	263.0	152.0	123.0	611	3.20
W9-3DS-150X	60.9	34.8	29.0	263.0	152.0	123.0	611	3.20
Z9-3DS-1500	60.5	34.6	28.8	263.0	152.0	123.0	611	3.20
Z9-3DS-150X	60.9	34.8	29.0	263.0	152.0	123.0	611	3.20

Electrical data
Discus

Condensing Unit	Maximum Operating Current (compressor)		Locked Rotor Current (compressor)		Fan Model	Condenser Fan Current 230V/ 1~/60Hz A
	EWK+ 220-240V/3~/60Hz	EWK++ 380-420V/3~/60Hz	EWK+ 220-240V/3~/60Hz	EWK++ 380-420V/3~/60Hz		
	A	A	A	A		
W9-4MF-13X	64.4	38.8	228	132	611	3.2
W9-4MF-13X DC	64.4	38.8	228	132	611	3.2
Z9-4MA-22X	75.9	45.7	386	224	611	3.2
Z9-4MH-25X	86.9	52.4	433	252	611	3.2
Z9-4ML-15X	74.0	44.6	334	194	611	3.2
Z9-4ML-15X DC	74.0	44.6	334	194	611	3.2
Z9-4MM-20X	81.5	49.1	386	224	611	3.2
Z9-4MM-20X DC	81.5	49.1	386	224	611	3.2
Z9-4MT-22X	93.0	56.1	386	224	611	3.2
Z9-4MT-22X DC	93.0	56.1	386	224	611	3.2
Z9-4MU-25X	108	65.4	433	252	611	3.2
Z9-4MU-25X DC	108	65.4	433	252	611	3.2
Z9-6MM-30X	125	75.2	550	320	611	3.2
Z9-6MM-30X DC	125	75.2	550	320	611	3.2
W99-4MI-30X	97.4	58.7	462	268	611	3.2
W99-4MJ-33X	111	66.7	462	268	611	3.2
W99-4MK-35X	128	77.0	550	320	611	3.2
W99-6MI-40X	149	90.0	632	367	611	3.2

Mechanical data

Discus

Condensing Unit	Receiver Capacity 5)	Depth/Width T/B	Height H	Dimensions (holes) b x t mm (Ø")	Suction Diameter SL	Liquid Line LL	Air Flow m ³ /sec.	Gross Weight kg	Number of Fans
	Standard / Option I				Ø" (inch)	Ø" (inch)			
W9-4MF-13X	18.9 / 23	1107/1600	873	1435x515 (18)	1 5/8	7/8	3.33	434	2
W9-4MF-13X DC	18.9 / 23	1107/1600	873	1435x515 (18)	1 5/8	7/8	3.33	434	2
Z9-4MA-22X	18.9 / 23	1107/1600	1252	1435x515 (18)	1 5/8	7/8	5.41	548	4
Z9-4MH-25X	18.9 / 23	1107/1600	1252	1435x515 (18)	2 1/8	7/8	5.41	554	4
Z9-4ML-15X	18.9 / 23	1107/1600	1252	1435x515 (18)	1 5/8	7/8	5.41	551	4
Z9-4ML-15X DC	18.9 / 23	1107/1600	1252	1435x515 (18)	1 5/8	7/8	5.41	551	4
Z9-4MM-20X	18.9 / 23	1107/1600	1252	1435x515 (18)	2 1/8	7/8	5.41	553	4
Z9-4MM-20X DC	18.9 / 23	1107/1600	1252	1435x515 (18)	2 1/8	7/8	5.41	553	4
Z9-4MT-22X	18.9 / 23	1107/1600	1252	1435x515 (18)	2 1/8	7/8	5.41	554	4
Z9-4MT-22X DC	18.9 / 23	1107/1600	1252	1435x515 (18)	2 1/8	7/8	5.41	554	4
Z9-4MU-25X	18.9 / 23	1107/1600	1252	1435x515 (18)	2 1/8	7/8	5.41	557	4
Z9-4MU-25X DC	18.9 / 23	1107/1600	1252	1435x515 (18)	2 1/8	7/8	5.41	557	4
Z9-6MM-30X	18.9 / 23	1131/1600	1252	1435x515 (18)	2 1/8	7/8	5.41	575	4
Z9-6MM-30X DC	18.9 / 23	1131/1600	1252	1435x515 (18)	2 1/8	7/8	5.41	575	4
W99-4MI-30X	47.9	1189/1600	1803	1440 x 630 (18)	2 1/8	7/8	7.25	697	4
W99-4MJ-33X	47.9	1189/1600	1803	1440 x 630 (18)	2 1/8	7/8	7.25	699	4
W99-4MK-35X	47.9	1189/1600	1803	1440 x 630 (18)	2 1/8	7/8	7.25	711	4
W99-6MI-40X	47.9	1209/1600	1803	1440 x 630 (18)	2 1/8	7/8	7.25	728	4

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