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## Semi-hermetic condensing units - 60Hz

State-of-the-art semi-hermetic piston technology



Product Catalogue

**COPELAND™**

  
**EMERSON.**





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## Semi-hermetic air-cooled condensing units

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

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

Long engineering and manufacturing experience have led to these condensing units, produced in one of the most advanced facilities in Europe. They feature excellent quality and are traditionally well known in the refrigeration industry.

## Range

Three versions are available:

1. Two-stage units for very low temperature applications, units with 2-stage compressors in the range of 20 to 30 HP are available.
2. High efficiency Copeland Discus™ units featuring Discus™ valve compressor technology, covering models from 4 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 system are indicated by “DC” in the nomenclature.

3. Standard units from 1 to 3 hp, economically priced and based on K & L compressors, using reed valve technology.

**Note:** Models rated for R404A may also be applied with R507A. In this case, multiply stated cooling capacity by 1.03 and power input and motor current by 1.02.

Models supplied with ester oil are capable of operating with R404A, R507A, R134a or R22, thus suitable for a broad range of refrigerants and applications.

## Standard equipment

### Compressor

- 3-phase motor protected by thermistors in motor windings and overload protector in the terminal box

Safe Lubrication is another key feature available with the compressors. K and L ester oil models (identified by an “X” in the model designation) incorporate an internal oil pump to enhance durability particularly in R404A applications. Standardizing all ester oil models with this improvement permits their universal application with R404A, R22, R134a and R507. An oil pressure switch is not required with air-cooled models.

### Condenser

- Copper tube
- Steel frame with fan baffle

### Receiver

- With **CE** approval
- Sight glass with receivers from 11.7 onwards
- Equipped with Rotalock valve and pressure relief valve connection

### Fan motors

- Thermally protected, single-phase fan motor
- Z-12 comes with three-phase fans
- Run capacitor mounted and wired into terminal box
- Applicable for fan speed control
- Maintenance free

**CoreSense™ technology** unlocks advanced diagnostics, protection and communication capabilities. With in-depth system information, technicians can make faster, more accurate decisions resulting in improved compressor performance and reliability.

For all 4M and 6M models, CoreSense will be supplied as a standard.

**High / low pressure switch** with automatic reset

**Differential oil pressure switch (OPS2)** for 2D/3D models.

### Protection (class)

- Compressor, fan and differential oil pressure switch IP54
- High / Low pressure switch IP44
- All condensing units are supplied with a holding charge

## Optional accessories\*

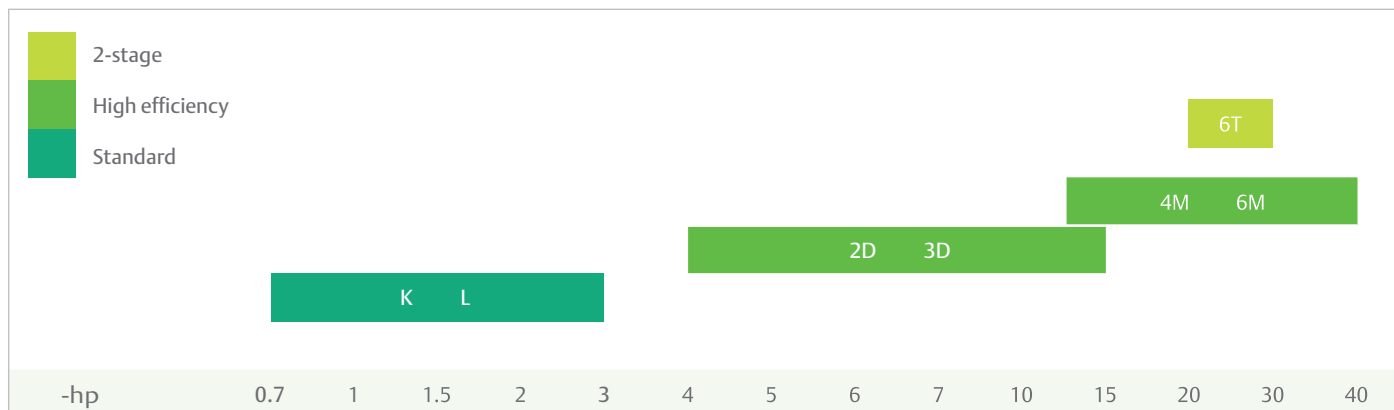
Three versions are available:

- Crankcase heater
- Unloaded start
- Filter drier
- Sight glass
- Suction accumulator
- Oil separator

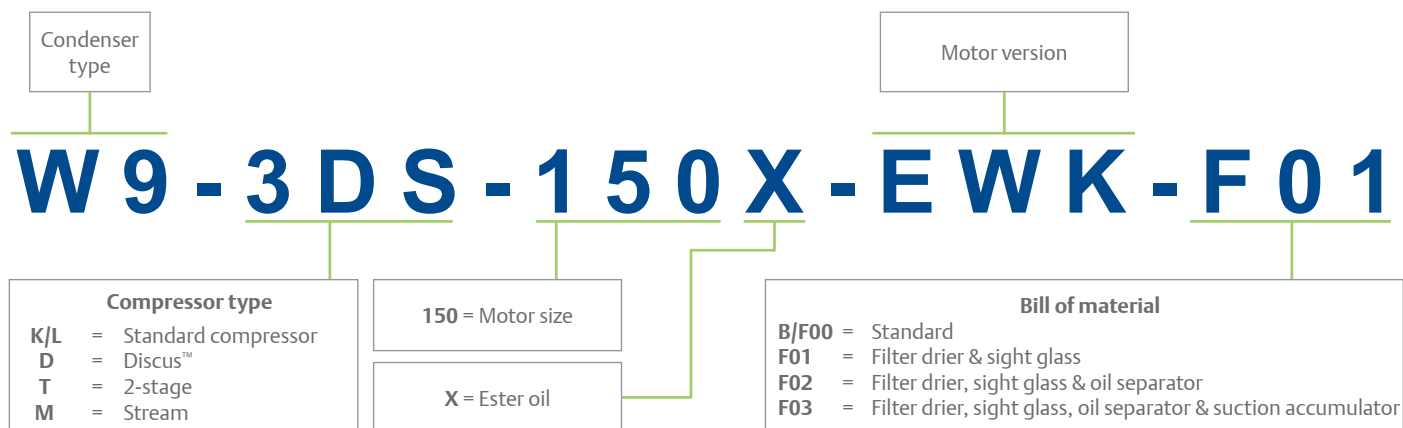
\*The two-stage units with Z12 condenser come with crankcase heater, oil separator, suction accumulator, liquid line with replaceable core filter drier and moisture indicator, differential oil pressure switch (OPS2), discharge line check valve, vibration absorber and sub-cooler assembly with integrated filter drier, moisture indicator, solenoid valve and expansion valve as a standard.

# General information

## Product range



## Nomenclature



## 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 on 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 = 32.5 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, R507A, R134a, R22.

## Lubricants

ICI Emkarate RL32-3MAF

Mobil EAL Arctic 22 CC

### Speciality of POE oil

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.

## Compressor Motors

Motor-Version Code	Voltage V(+/-10%)/~/Hz	Connection
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 Code	Voltage V (+/-10%)/~/Hz	Run capacitor μF / V	Power input W	Motor current A
121	230 / 1 / 60	4 / 400	110	0.65
271	230 / 1 / 60	6.3 / 400	235	1.40
611	230 / 1 / 60	10 / 400	400	2.25
610	230 Y/400 Δ/3/660	-	900	2.8/1.6

## Oil identification

Condensing units designed for operation with R404A, R507A, 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 size 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.

## Cooling capacity

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

Model	Ambient temp (°C)	Evaporating temperature °C																			
		Capacity ( kW )										Power Input ( kW )									
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	-40	-35	-30	-25	-20	-15	-10	-5	0	5
D8-KM-7X	32	0.52	0.74	0.99	1.28	1.62	2.00	2.42	2.89	3.41	3.98	0.64	0.73	0.83	0.92	1.01	1.10	1.18	1.26	1.34	1.40
	38	0.43	0.63	0.86	1.13	1.44	1.78	2.17	2.60	3.07	3.58	0.61	0.71	0.82	0.93	1.03	1.14	1.24	1.34	1.43	1.52
	43	0.36	0.54	0.76	1.00	1.28	1.60	1.96	2.35	2.78	3.26	0.57	0.69	0.81	0.93	1.04	1.16	1.28	1.40	1.50	1.60
	46	0.31	0.49	0.69	0.93	1.19	1.49	1.83	2.20	2.61		0.55	0.67	0.80	0.92	1.06	1.18	1.30	1.42	1.54	
	49	0.27	0.44	0.63	0.85	1.10	1.38	1.70				0.53	0.66	0.79	0.92	1.06	1.19	1.32			
D8-KJ-10X	32	0.71	0.99	1.32	1.70	2.13	2.60	3.13	3.70	4.33	4.99	0.80	0.93	1.06	1.20	1.34	1.48	1.61	1.74	1.88	2.01
	38	0.59	0.85	1.15	1.50	1.88	2.31	2.79	3.31	3.87	4.48	0.78	0.92	1.07	1.22	1.37	1.52	1.68	1.83	1.98	2.13
	43	0.50	0.74	1.02	1.33	1.68	2.07	2.51	2.98	3.50		0.76	0.91	1.06	1.23	1.39	1.56	1.72	1.89	2.06	
	46	0.44	0.67	0.94	1.23	1.56	1.94	2.34				0.75	0.90	1.06	1.23	1.40	1.57	1.74			
	49	0.39	0.61	0.86	1.14	1.44						0.74	0.90	1.06	1.23	1.40					
D8-KSJ-10X	32	1.00	1.33	1.71	2.14	2.63						1.10	1.23	1.38	1.53	1.70					
	38	0.85	1.15	1.50	1.90							1.08	1.23	1.40	1.58						
	43	0.72	1.00	1.32	1.69							1.06	1.22	1.41	1.61						
	46	0.64	0.91	1.22	1.57							1.03	1.22	1.41	1.63						
	49	0.57	0.82	1.11	1.44							1.01	1.20	1.41	1.64						
H8-KSJ-15X	32	1.00	1.35	1.76	2.23	2.78	3.40	4.09	4.87	5.72		1.10	1.27	1.44	1.62	1.80	1.98	2.15	2.30	2.44	
	38	0.86	1.18	1.56	1.98	2.48	3.04	3.68	4.39			1.08	1.26	1.44	1.64	1.84	2.04	2.24	2.42		
	43	0.74	1.04	1.38	1.78	2.24	2.75	3.34				1.08	1.25	1.44	1.65	1.86	2.09	2.30			
	46	0.68	0.96	1.28	1.66	2.09	2.58	3.14				1.07	1.25	1.44	1.66	1.88	2.11	2.35			
	49	0.61	0.88	1.19	1.54	1.95	2.41					1.06	1.25	1.44	1.66	1.90	2.14				
D8-KL-15X	32	1.16	1.53	1.96	2.44	2.97						1.20	1.35	1.52	1.70	1.90					
	38	1.00	1.34	1.73	2.17	2.66						1.18	1.36	1.54	1.76	1.98					
	43	0.87	1.18	1.54	1.94							1.16	1.36	1.56	1.80						
	46	0.79	1.09	1.42	1.81							1.15	1.36	1.58	1.82						
	49	0.72	1.00	1.32								1.14	1.35	1.58							
H8-LE-20X	32	1.00	1.56	2.20	2.92	3.73	4.63	5.62	6.69	7.84	9.06	1.22	1.44	1.68	1.92	2.18	2.45	2.72	3.01	3.30	3.61
	38		1.23	1.83	2.50	3.24	4.06	4.95	5.91	6.95	8.05		1.38	1.63	1.90	2.19	2.48	2.79	3.11	3.43	3.77
	43		0.96	1.52	2.15	2.83	3.58	4.39	5.27				1.30	1.58	1.86	2.17	2.49	2.83	3.17		
	46			1.34	1.94	2.59	3.29	4.06						1.54	1.84	2.16	2.49	2.84			
	49			1.17	1.73	2.34								1.49	1.80	2.14					
H8-LF-20X	32	1.44	2.08	2.82	3.65	4.57						1.58	1.90	2.22	2.56	2.92					
	38	1.12	1.72	2.39	3.15	3.98						1.56	1.88	2.23	2.59	2.96					
	43		1.44	2.05	2.74	3.51							1.86	2.22	2.60	2.99					
	46		1.27	1.86	2.51	3.23							1.85	2.22	2.60	3.00					
	49		1.12	1.66	2.28								1.84	2.21	2.60						

\* Note(s): Rating condition is based on a return gas temperature of 20°C

Refer MEA Select for other operating conditions.

Model	Ambient temp (°C)	Evaporating temperature °C																			
		Capacity ( kW )										Power Input ( kW )									
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	-40	-35	-30	-25	-20	-15	-10	-5	0	5
M8-LF-30X	32	1.76	2.48	3.31	4.26	5.32	6.51	7.81	9.22	10.75	12.35	1.87	2.19	2.51	2.83	3.15	3.49	3.83	4.18	4.54	4.91
	38	1.44	2.11	2.87	3.74	4.71	5.78	6.96	8.25			1.80	2.15	2.49	2.85	3.20	3.57	3.95	4.33		
	43	1.19	1.81	2.51	3.31	4.20	5.18	6.27				1.73	2.09	2.46	2.84	3.22	3.61	4.02			
	46	1.04	1.63	2.30	3.05	3.90	4.83					1.68	2.05	2.43	2.82	3.22	3.63				
	49	0.89	1.46	2.09	2.80							1.62	2.00	2.39	2.80						
H8-LL-30X	32	2.25	3.18	4.22	5.36	6.61						2.16	2.62	3.13	3.68	4.30					
	38	1.80	2.66	3.61	4.66	5.80						2.04	2.54	3.09	3.69	4.35					
	43	1.45	2.24	3.12	4.09							1.92	2.45	3.04	3.67						
	46		2.00	2.83								2.39	2.99								
	49		1.76									2.32									
M8-LL-30X	32	2.34	3.33	4.45	5.71	7.10						2.18	2.64	3.14	3.67	4.25					
	38	1.88	2.79	3.82	4.98	6.24						2.07	2.57	3.11	3.69	4.32					
	43	1.51	2.35	3.31	4.37	5.54						1.94	2.48	3.06	3.69	4.36					
	46		2.10	3.00	4.01							2.42	3.02	3.67							
	49		1.84	2.70								2.34	2.97								

\* Note(s): Rating condition is based on a return gas temperature of 20°C  
 Refer MEA Select for other operating conditions.



# Technical data

R404A/R507A  
Discus

Model	Ambient temp (°C)	Evaporating temperature °C																			
		Capacity ( kW )										Power Input ( kW )									
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	-40	-35	-30	-25	-20	-15	-10	-5	0	5
R7-2DC-50X	32	2.03	2.83	3.82	5.00	6.38	7.96	9.74	11.70	13.85	16.20	2.22	2.56	2.93	3.33	3.73	4.15	4.56	4.96	5.35	5.72
	38		2.41	3.28	4.33	5.56	6.98	8.58	10.35	12.35	14.50		2.55	2.94	3.37	3.81	4.26	4.72	5.17	5.61	6.04
	43		2.08	2.85	3.78	4.89	6.17	7.63	9.27	11.10			2.52	2.94	3.38	3.85	4.34	4.83	5.32	5.80	
	46			2.60	3.46	4.50	5.70	7.07	8.61	10.30				2.93	3.38	3.87	4.37	4.88	5.39	5.90	
	49			2.36	3.15	4.11	5.22	6.51	7.96	9.57				2.91	3.38	3.88	4.40	4.93	5.46	5.99	
R7-2DL-40X	32		4.68	6.06	7.62	9.36	11.30	13.40	15.65				3.73	4.29	4.88	5.51	6.17	6.88	7.64		
	38			5.33	6.73	8.31	10.05	11.95						4.34	4.99	5.67	6.39	7.17			
	43			4.73	6.01	7.45	9.03	10.75						4.37	5.06	5.79	6.57	7.39			
	46				5.58	6.93	8.42	10.05							5.10	5.86	6.66	7.52			
	49				5.15	6.42	7.82								5.13	5.92	6.76				
S9-2DL-75X	32	3.40	4.59	6.03	7.73	9.68	11.90	14.30	17.00	19.85	22.90	3.22	3.69	4.20	4.75	5.33	5.93	6.54	7.16	7.78	8.41
	38		4.02	5.30	6.81	8.57	10.55	12.75	15.20	17.80	20.60		3.69	4.24	4.83	5.46	6.11	6.79	7.48	8.18	8.89
	43		3.57	4.71	6.07	7.65	9.45	11.45	13.70	16.10			3.69	4.25	4.87	5.54	6.24	6.96	7.71	8.47	
	46			4.37	5.63	7.11	8.80	10.70	12.80	15.10				4.25	4.89	5.58	6.30	7.06	7.84	8.63	
	49			4.04	5.20	6.57	8.15	9.93	11.90					4.25	4.90	5.61	6.36	7.15	7.96		
V9-2DB-75X	32	4.61	6.08	7.80	9.76	12.00	14.45	17.20	20.20	23.40	26.80	4.06	4.59	5.20	5.88	6.59	7.34	8.11	8.87	9.64	10.40
	38		5.38	6.92	8.68	10.65	12.90	15.35	18.00	20.90	24.00		4.68	5.30	5.99	6.75	7.54	8.36	9.19	10.05	10.85
	43		4.79	6.18	7.76	9.55	11.55	13.75	16.15	18.80			4.76	5.37	6.07	6.85	7.67	8.53	9.42	10.30	
	46			5.74	7.21	8.88	10.75	12.80	15.05	17.50				5.42	6.12	6.90	7.74	8.62	9.53	10.45	
	49			5.30	6.66	8.20	9.92	11.85	13.95					5.46	6.16	6.95	7.80	8.70	9.64		
R7-2DB-50X	32		5.53	7.13	8.95	10.95	13.10	15.35	17.70				4.33	5.03	5.81	6.63	7.50	8.40	9.33		
	38			6.31	7.95	9.76	11.70	13.75						5.12	5.95	6.83	7.77	8.75			
	43			5.65	7.15	8.80	10.55	12.45						5.19	6.05	6.99	7.98	9.02			
	46				6.68	8.23	9.90								6.11	7.08	8.11				
	49				6.21	7.67									6.17	7.16					
S9-3DA-50X	32		6.77	8.57	10.55	12.70	15.10	17.60	20.30				5.27	6.09	6.93	7.81	8.70	9.63	10.60		
	38			7.60	9.37	11.30	13.40	15.65						6.18	7.10	8.05	9.03	10.05			
	43			6.76	8.36	10.10	12.00	14.00						6.20	7.19	8.20	9.25	10.30			
	46				7.74	9.37	11.10	13.00							7.22	8.27	9.36	10.50			
	49				7.11	8.62	10.25								7.23	8.33	9.46				
V6-3DA-75X	32	4.81	6.72	8.91	11.40	14.20	17.30	20.80	24.60	28.70	33.10	4.69	5.48	6.28	7.09	7.88	8.66	9.43	10.15	10.90	11.55
	38		5.79	7.81	10.10	12.65	15.50	18.65	22.10	25.80	29.90		5.44	6.32	7.21	8.10	8.98	9.84	10.70	11.50	12.30
	43		5.02	6.90	9.00	11.35	13.95	16.85	20.00	23.50			5.35	6.30	7.26	8.23	9.19	10.15	11.05	11.95	
	46			6.35	8.35	10.55	13.05	15.75	18.75	22.00				6.27	7.27	8.28	9.29	10.30	11.25	12.25	
	49			5.81	7.70	9.80	12.15	14.70	17.55	20.60				6.22	7.27	8.32	9.38	10.40	11.45	12.45	

\* Note(s): Rating condition is based on a return gas temperature of 20°C

Refer MEA Select for other operating conditions.

Model	Ambient temp (°C)	Evaporating temperature °C																																									
		Capacity ( kW )										Power Input ( kW )																															
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	-40	-35	-30	-25	-20	-15	-10	-5	0	5																						
S9-3DC-75X	32		8.11	10.15	12.35	14.80	17.35	20.10	22.90														6.33	7.29	8.30	9.35	10.45	11.60	12.80														
	38			8.98	10.95	13.10	15.35	17.75																	7.38	8.46	9.58	10.75	12.00														
	43				9.72	11.60	13.65	15.80																		8.53	9.71	10.95	12.25														
	46				8.95	10.70	12.60																			8.53	9.75	11.00															
	49				8.17	9.79																				8.52	9.77																
W9-3DC-100X	32	5.94	8.27	10.85	13.75	16.90	20.40	24.20	28.20	32.60	37.30	5.46	6.34	7.26	8.22	9.19	10.15	11.10	12.05	12.95	13.80																						
	38		7.16	9.55	12.15	15.05	18.15	21.60	25.20	29.20	33.30		6.34	7.35	8.40	9.47	10.55	11.60	12.65	13.70	14.65																						
	43		6.25	8.46	10.85	13.45	16.30	19.40	22.70	26.30				6.29	7.36	8.49	9.64	10.80	11.95	13.10	14.25																						
	46			7.80	10.05	12.55	15.20	18.05	21.20	24.50					7.34	8.51	9.72	10.95	12.15	13.35	14.55																						
	49			7.15	9.28	11.60	14.05	16.75	19.65						7.29	8.51	9.77	11.05	12.30	13.60																							
V6-3DS-100X	32		11.40	14.35	17.60	21.20	25.10	29.30	33.70							8.62	9.88	11.20	12.60	14.05	15.55	17.05																					
	38			12.85	15.80	19.05	22.60	26.30									10.15	11.60	13.10	14.65	16.25																						
	43			11.60	14.30	17.25	20.40	23.90									10.30	11.80	13.40	15.05	16.75																						
	46				13.40	16.20	19.20	22.40										11.95	13.60	15.30	17.05																						
	49				12.50	15.10	17.90											12.00	13.70	15.50																							
W9-3DS-150X	32	8.02	10.95	14.10	17.60	21.40	25.50	29.80	34.50	39.30	44.50	7.05	8.33	9.69	11.10	12.55	14.05	15.50	17.00	18.40	19.80																						
	38		9.51	12.45	15.60	19.05	22.70	26.60	30.70	35.10				8.33	9.81	11.35	12.95	14.60	16.20	17.80	19.40																						
	43		8.32	11.05	13.95	17.10	20.40	23.90	27.60						8.23	9.83	11.50	13.20	14.95	16.70	18.40																						
	46			10.20	12.95	15.90	19.00	22.30								9.79	11.50	13.30	15.10	16.95																							
	49			9.38	12.00	14.70	17.60										9.72	11.50	13.35	15.25																							
Z9-3DS-150X	32	8.63	11.85	15.45	19.50	24.10	29.30	35.00	41.30	48.30	55.90	7.87	9.08	10.30	11.55	12.75	13.90	15.00	15.95	16.85	17.55																						
	38		10.35	13.70	17.45	21.70	26.30	31.50	37.30	43.60	50.60			9.15	10.55	11.95	13.30	14.65	15.90	17.10	18.10	19.05																					
	43		9.11	12.25	15.70	19.55	23.90	28.60	33.90	39.70	46.10				9.11	10.60	12.15	13.70	15.15	16.60	17.90	19.15	20.20																				
	46			11.35	14.65	18.30	22.40	26.90	31.80	37.30						10.65	12.25	13.85	15.45	16.95	18.40	19.70																					
	49			10.45	13.60	17.05	20.90	25.10	29.80	34.90						10.60	12.30	14.00	15.70	17.30	18.80	20.20																					
W9-4MF-13X	32		12.50	15.85	19.50	23.50	27.90	32.50	37.30							9.72	11.30	12.90	14.65	16.45	18.40	20.40																					
	38		11.00	13.95	17.25	20.80	24.70	28.80									9.81	11.50	13.25	15.10	17.05	19.10																					
	43			12.45	15.40	18.60	22.10	25.80										11.60	13.50	15.45	17.50	19.65																					
	46			11.55	14.25	17.25	20.50												11.65	13.60	15.60	17.75																					
	49				13.15	15.95														13.70	15.80																						
Z9-4MA-22X	32		13.65	17.95	22.70	28.10	34.00	40.60	47.70	55.50	63.90					10.30	11.80	13.30	14.75	16.20	17.60	19.00	20.40	21.80																			
	38		11.75	15.75	20.20	25.10	30.50	36.50	43.00	50.10	57.70						10.30	12.00	13.65	15.30	16.95	18.55	20.20	21.80	23.40																		
	43			13.95	18.10	22.60	27.60	33.10	39.00	45.60	52.60							12.05	13.85	15.70	17.50	19.35	21.10	22.90	24.70																		
	46			12.85	16.80	21.10	25.90	31.00	36.70	42.90	49.60								12.05	13.95	15.90	17.85	19.75	21.70	23.60	25.50																	
	49			11.80	15.55	19.65	24.10	29.00	34.40	40.20										12.00	14.05	16.10	18.10	20.20	22.20	24.20																	

\* Note(s): Rating condition is based on a return gas temperature of 20°C

Model	Ambient temp (°C)	Evaporating temperature °C																			
		Capacity ( kW )										Power Input ( kW )									
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	-40	-35	-30	-25	-20	-15	-10	-5	0	5
Z9-4MH-25X	32		15.75	20.50	25.90	31.90	38.70	46.20	54.30	63.20	72.70		11.90	13.65	15.40	17.25	19.05	20.90	22.70	24.60	26.40
	38		13.75	18.15	23.10	28.60	34.70	41.50	48.90	56.90	65.60		11.95	13.80	15.80	17.80	19.85	21.90	24.00	26.10	28.20
	43			16.15	20.70	25.70	31.30	37.50	44.30	51.70	59.60			13.90	16.05	18.25	20.50	22.80	25.10	27.40	29.70
	46			14.95	19.25	24.00	29.30	35.10	41.50	48.50				13.90	16.15	18.45	20.80	23.20	25.70	28.10	
	49			13.75	17.80	22.30	27.30	32.80	38.80					13.90	16.25	18.65	21.10	23.70	26.20		
Z9-4ML-15X	32	12.65	16.65	21.20	26.50	32.30	38.90	46.00	53.90			10.65	12.30	14.05	15.85	17.70	19.55	21.40	23.20		
	38		14.85	19.05	23.80	29.10	35.00	41.50	48.60				12.55	14.40	16.35	18.35	20.40	22.40	24.40		
	43			17.20	21.50	26.40	31.80	37.70	44.20					14.65	16.70	18.80	21.00	23.20	25.30		
	46			16.05	20.20	24.70	29.80	35.40						14.75	16.85	19.05	21.30	23.60			
	49			14.95	18.80	23.10	27.90	33.20						14.85	17.05	19.30	21.60	24.00			
Z12-4MI-30X	32		18.65	24.30	30.50	37.40	45.10	53.60	62.90	73.10	84.10		15.25	17.15	19.00	20.80	22.60	24.40	26.10	27.80	29.60
	38		16.30	21.60	27.30	33.70	40.70	48.40	56.80	66.00	76.00		15.30	17.50	19.60	21.70	23.70	25.80	27.70	29.70	31.70
	43			19.25	24.60	30.50	36.90	43.90	51.60	60.00	69.20			17.65	20.00	22.30	24.60	26.80	29.00	31.20	33.40
	46			17.85	23.00	28.50	34.60	41.20	48.50	56.40	65.00			17.65	20.20	22.60	25.10	27.50	29.80	32.10	34.40
	49			16.45	21.30	26.50	32.20	38.50	45.30	52.70				17.65	20.30	22.90	25.50	28.00	30.50	33.00	
Z9-4MM-20X	32	14.30	18.65	23.60	29.10	35.30	42.00	49.40	57.30			11.80	13.60	15.45	17.35	19.35	21.30	23.40	25.50		
	38		16.60	21.10	26.10	31.60	37.60	44.30	51.40				13.85	15.90	18.00	20.20	22.40	24.70	27.00		
	43			18.95	23.50	28.50	34.00	40.00	46.40					16.20	18.45	20.80	23.20	25.70	28.20		
	46			17.65	21.90	26.60	31.80	37.40						16.30	18.65	21.10	23.60	26.20			
	49			16.40	20.40	24.80	29.60	34.80						16.40	18.85	21.40	24.00	26.70			
Z12-4MJ-33X	32		20.60	26.60	33.40	40.90	49.40	58.80	69.00	80.20	92.20		16.50	18.55	20.70	22.80	25.00	27.10	29.20	31.30	33.30
	38		18.20	23.70	29.80	36.70	44.30	52.70	62.00	72.10	82.90		16.65	18.90	21.20	23.60	26.00	28.40	30.70	33.10	35.40
	43			21.20	26.80	33.10	40.00	47.70	56.10	65.20	75.20			19.05	21.60	24.10	26.70	29.30	31.90	34.50	37.10
	46			19.75	25.00	30.90	37.40	44.60	52.50	61.10	70.50			19.15	21.70	24.40	27.10	29.80	32.60	35.30	38.00
	49			18.30	23.30	28.70	34.80	41.60	49.00	57.00				19.20	21.90	24.60	27.40	30.30	33.20	36.00	
Z9-4MT-22X	32	16.00	20.70	26.00	32.00	38.80	46.30	54.40	63.30			13.15	15.20	17.40	19.65	22.00	24.40	26.80	29.30		
	38		18.40	23.20	28.70	34.80	41.50	49.00	57.00				15.50	17.85	20.30	22.80	25.40	28.00	30.70		
	43			20.90	25.90	31.40	37.60	44.30						18.10	20.70	23.40	26.20	29.00			
	46			19.50	24.20	29.40	35.20	41.50						18.25	20.90	23.70	26.60	29.50			
	49				22.40	27.30	32.80	38.70							21.10	24.00	26.90	30.00			
Z12-4MK-35X	32		23.00	29.50	36.80	45.10	54.30	64.50	75.60	87.60	100.50		18.55	20.90	23.40	25.90	28.50	31.10	33.70	36.30	38.90
	38		20.30	26.20	32.80	40.30	48.60	57.70	67.70	78.50	90.20		18.85	21.40	24.00	26.70	29.60	32.40	35.20	38.00	40.80
	43			23.40	29.50	36.20	43.70	52.00	61.00	70.80	81.50			21.70	24.40	27.30	30.30	33.30	36.30	39.30	42.30
	46			21.80	27.40	33.70	40.70	48.50	57.00	66.20				21.80	24.60	27.60	30.70	33.80	36.90	40.00	
	49			20.10	25.40	31.30	37.80	45.00	52.90	61.60				21.90	24.80	27.90	31.00	34.20	37.50	40.70	

\* Note(s): Rating condition is based on a return gas temperature of 20°C



Model	Ambient temp (°C)	Evaporating temperature °C																				
		Capacity ( kW )										Power Input ( kW )										
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	-40	-35	-30	-25	-20	-15	-10	-5	0	5	
Z9-4MU-25X	32	17.35	22.40	28.20	34.80	42.10	50.10	58.80					14.55	16.95	19.50	22.10	24.80	27.60	30.40			
	38		20.00	25.20	31.00	37.60	44.70							17.20	19.90	22.70	25.50	28.50				
	43			22.60	27.90	33.70	40.20								20.10	23.00	26.00	29.00				
	46			21.00	25.90	31.40	37.50								20.10	23.10	26.10	29.30				
	49				24.00	29.10										23.20	26.30					
Z12-6MI-40X	32		27.00	34.60	43.20	52.70	63.20	74.70	87.10	100.50	114.50			21.70	24.60	27.70	30.80	33.90	37.10	40.40	43.70	47.10
	38		23.90	30.90	38.60	47.20	56.70	67.00	78.10	90.10	103.00			22.00	25.30	28.60	32.00	35.40	38.90	42.50	46.10	49.80
	43			27.70	34.80	42.60	51.10	60.50	70.60	81.40					25.70	29.30	32.90	36.60	40.40	44.20	48.00	
	46			25.80	32.50	39.80	47.80	56.50	66.00	76.20					25.90	29.70	33.40	37.30	41.20	45.10	49.10	
	49			23.90	30.10	37.00	44.40	52.60							26.20	30.00	33.90	37.90	42.00			
Z9-6MM-30X	32		26.60	33.20	40.50	48.60	57.50	67.10	77.30					20.70	23.80	26.90	30.30	33.80	37.50	41.40		
	38		23.80	29.70	36.20	43.40	51.30	59.80						21.00	24.40	27.80	31.40	35.20	39.20			
	43			26.70	32.60	39.00	46.10	53.80							24.60	28.30	32.20	36.20	40.40			
	46			24.90	30.40	36.40	43.00								24.70	28.60	32.60	36.70				
	49				28.20	33.80										28.70	32.90					
Z12-6MU-40X	32		33.90	42.60	52.40	63.30	75.30	88.30	102.50					27.20	31.00	35.00	39.20	43.50	48.10	52.80		
	38		30.30	38.20	47.00	56.70	67.50	79.10	91.70					27.60	31.70	36.00	40.50	45.20	50.00	55.10		
	43			34.40	42.40	51.20	60.90	71.50							32.10	36.70	41.40	46.40	51.50			
	46			32.10	39.60	47.90	57.00	66.90							32.30	37.00	41.90	47.00	52.30			
	49				36.80	44.50	53.00									37.20	42.20	47.50				

\* Note(s): Rating condition is based on a return gas temperature of 20°C  
Refer MEA Select for other operating conditions.

Model	Ambient temp (°C)	Evaporating temperature °C															
		Capacity ( kW )								Power Input ( kW )							
		-60	-50	-45	-40	-35	-30	-25	-20	-60	-50	-45	-40	-35	-30	-25	-20
Z12-6TH-200X-SUB	32	7.32	12.50	15.80	19.60	23.80	28.50	33.50	39.00	12.70	15.80	17.40	19.00	20.70	22.50	24.40	26.40
	38	7.12	12.20	15.35	18.95	23.00	27.40	32.20	37.40	13.20	16.55	18.25	20.00	21.90	23.80	25.90	28.10
	43	6.94	11.85	14.95	18.40	22.30	26.50	31.10		13.75	17.20	19.00	20.90	22.90	24.90	27.20	
	46	6.82	11.65	14.70	18.05	21.80	26.00	30.40		14.05	17.60	19.45	21.40	23.50	25.60	27.90	
	49	6.69	11.45	14.40	17.70	21.40				14.45	18.05	19.95	22.00	24.10			
Z12-6TJ-250X-SUB	32	9.03	14.75	18.65	23.10	28.00	33.20	38.40	43.60	14.45	17.50	19.40	21.50	23.60	25.80	28.00	30.00
	38	8.76	14.20	17.90	22.20	26.80	31.70	36.60	41.40	15.05	18.35	20.30	22.60	24.90	27.30	29.70	31.90
	43	8.54	13.70	17.25	21.30	25.70	30.40	35.00		15.60	19.05	21.20	23.50	26.00	28.60	31.20	
	46	8.42	13.40	16.85	20.80	25.10	29.60	34.10		15.95	19.50	21.70	24.10	26.70	29.40	32.10	
	49	8.29	13.10	16.45	20.30					16.30	20.00	22.20	24.70				
Z12-6TK-300X-SUB	32	12.20	20.00	24.90	30.50	36.80	43.80	51.60	60.20	16.20	20.40	22.70	25.10	27.70	30.70	34.10	37.90
	38	11.65	19.40	24.20	29.60	35.70	42.60	50.20		17.00	21.50	23.90	26.50	29.40	32.50	36.10	
	43	11.30	18.90	23.60	28.90	34.90	41.60	49.00		17.70	22.50	25.00	27.70	30.70	34.10	37.90	
	46	11.15	18.70	23.30	28.60	34.50				18.10	23.00	25.60	28.50	31.60			
	49	11.05	18.50	23.10						18.50	23.60	26.30					

\* Note(s): Rating condition is based on a return gas temperature of 20°C  
 Refer MEA Select for other operating conditions.

Model	Ambient temp (°C)	Evaporating temperature °C																	
		Capacity ( kW )									Power Input ( kW )								
		-20	-15	-10	-5	0	5	7	10	12.5	-20	-15	-10	-5	0	5	7	10	12.5
D8-KSJ-10X	32	1.47	1.88	2.36	2.91	3.54	4.25	4.56	5.04	5.47	0.92	1.02	1.11	1.20	1.30	1.39	1.42	1.48	1.52
	38	1.32	1.72	2.17	2.69	3.28	3.94	4.23	4.68	5.08	0.95	1.06	1.16	1.27	1.38	1.49	1.54	1.60	1.66
	43	1.20	1.58	2.00	2.50	3.06	3.68	3.95	4.38		0.96	1.08	1.20	1.32	1.44	1.57	1.62	1.69	
	46	1.12	1.49	1.90	2.38	2.92	3.53	3.79	4.20		0.96	1.09	1.22	1.34	1.48	1.61	1.66	1.74	
	49	1.05	1.40	1.80	2.26	2.78	3.37	3.62	4.01		0.97	1.10	1.23	1.37	1.51	1.65	1.71	1.80	
D8-KL-15X	32	1.69	2.15	2.67	3.27	3.95	4.70	5.02	5.52	5.96	1.10	1.23	1.36	1.48	1.62	1.76	1.80	1.89	1.96
	38	1.53	1.96	2.45	3.00	3.63	4.32	4.62	5.08	5.49	1.14	1.28	1.42	1.58	1.72	1.88	1.94	2.03	2.11
	43	1.40	1.80	2.26	2.78	3.36	4.01	4.29	4.72		1.16	1.32	1.48	1.64	1.80	1.98	2.04	2.14	
	46	1.32	1.72	2.15	2.65	3.21	3.82	4.09	4.50		1.18	1.34	1.50	1.68	1.86	2.03	2.10	2.21	
	49	1.25	1.62	2.05	2.52	3.05	3.64	3.89	4.28		1.19	1.36	1.54	1.72	1.90	2.08	2.15	2.26	
H8-LE-20X	32	2.01	2.65	3.40	4.25	5.21	6.27	6.73	7.45	8.07	1.44	1.58	1.72	1.87	2.01	2.16	2.22	2.31	2.39
	38	1.76	2.35	3.04	3.83	4.71	5.70	6.12	6.78	7.36	1.46	1.62	1.78	1.95	2.12	2.29	2.36	2.47	2.56
	43	1.56	2.12	2.77	3.50	4.32	5.23	5.62	6.24	6.77	1.47	1.64	1.82	2.01	2.20	2.39	2.47	2.59	2.70
	46	1.44	1.99	2.61	3.30	4.09	4.96	5.33	5.91	6.42	1.48	1.66	1.84	2.04	2.24	2.45	2.53	2.66	2.77
	49	1.34	1.86	2.45	3.12	3.86	4.69	5.04	5.60	6.08	1.48	1.66	1.86	2.07	2.28	2.50	2.59	2.73	2.85
H8-LF-20X	32	2.72	3.53	4.46	5.51	6.68	7.99	8.54	9.41	10.15	1.70	1.90	2.12	2.33	2.54	2.74	2.82	2.94	3.04
	38	2.41	3.16	4.03	5.00	6.10	7.30	7.81	8.61	9.31	1.73	1.96	2.19	2.43	2.66	2.88	2.97	3.11	3.21
	43	2.15	2.87	3.68	4.59	5.61	6.74	7.21	7.96		1.76	2.00	2.25	2.50	2.74	2.99	3.08	3.23	
	46	2.00	2.69	3.48	4.35	5.33	6.40	6.86	7.56		1.76	2.01	2.27	2.53	2.79	3.04	3.14	3.29	
	49	1.86	2.52	3.27	4.11	5.04	6.07	6.50			1.77	2.03	2.29	2.56	2.83	3.09	3.20		
H8-LL-30X	32	3.76	4.85	6.08	7.46	8.97	10.60	11.30	12.35		2.45	2.78	3.14	3.53	3.97	4.45	4.66	4.99	
	38	3.33	4.36	5.51	6.80	8.20	9.72	10.35	11.35		2.49	2.85	3.25	3.68	4.16	4.69	4.92	5.28	
	43	2.99	3.96	5.05	6.25	7.57	8.98	9.57			2.52	2.90	3.33	3.79	4.31	4.87	5.12		
	46	2.78	3.73	4.78	5.93	7.19					2.53	2.93	3.37	3.86	4.39				
	49	2.58	3.50	4.51	5.62						2.54	2.95	3.41	3.91					
M8-LL-30X	32	3.90	5.07	6.39	7.90	9.59	11.45	12.25	13.45	14.55	2.44	2.74	3.07	3.42	3.80	4.22	4.39	4.67	4.91
	38	3.46	4.55	5.80	7.20	8.77	10.50	11.25	12.35		2.48	2.82	3.19	3.59	4.02	4.48	4.68	4.99	
	43	3.10	4.14	5.31	6.63	8.09	9.71	10.40	11.45		2.51	2.88	3.28	3.72	4.18	4.69	4.91	5.24	
	46	2.89	3.90	5.02	6.29	7.70	9.24	9.89	10.90		2.52	2.91	3.33	3.79	4.28	4.81	5.04	5.39	
	49	2.69	3.66	4.74	5.96	7.30	8.77				2.53	2.93	3.37	3.85	4.37	4.93			

\* Note(s): Rating condition is based on a return gas temperature of 20°C  
Refer MEA Select for other operating conditions.



# Technical data

R134a  
Discus

Model	Ambient temp (°C)	Evaporating temperature °C															
		Capacity ( kW )								Power Input ( kW )							
		-20	-15	-10	-5	0	5	10	12.5	-20	-15	-10	-5	0	5	10	12.5
R7-2DL-40X	32	4.97	6.57	8.39	10.45	12.70	15.20	17.85	19.25	3.15	3.52	3.90	4.28	4.66	5.04	5.42	5.61
	38	4.44	5.94	7.62	9.50	11.60	13.85	16.30	17.55	3.22	3.63	4.06	4.49	4.92	5.35	5.77	5.98
	43	4.02	5.43	7.00	8.74	10.65	12.75	14.95	16.15	3.27	3.72	4.18	4.64	5.11	5.57	6.02	6.24
	46	3.78	5.13	6.63	8.28	10.10	12.05	14.20		3.30	3.76	4.24	4.72	5.20	5.68	6.15	
	49	3.55	4.84	6.26	7.82	9.53	11.40			3.32	3.80	4.29	4.79	5.29	5.79		
R7-2DB-50X	32	6.23	8.11	10.25	12.60	15.25	18.10	21.20	22.70	3.56	4.04	4.53	5.04	5.55	6.07	6.60	6.86
	38	5.61	7.37	9.35	11.55	13.95	16.55	19.35	20.80	3.64	4.17	4.71	5.27	5.83	6.40	6.96	7.24
	43	5.10	6.76	8.61	10.65	12.90	15.25	17.80		3.70	4.26	4.84	5.43	6.03	6.63	7.22	
	46	4.81	6.41	8.18	10.10	12.25	14.50			3.73	4.30	4.90	5.51	6.13	6.75		
	49	4.52	6.06	7.75	9.59					3.76	4.34	4.95	5.58				
S9-3DA-50X	32	7.20	9.30	11.70	14.40	17.45	20.80	24.40	26.40	4.03	4.52	5.01	5.52	6.04	6.56	7.08	7.34
	38	6.50	8.48	10.70	13.25	16.05	19.15	22.50	24.30	4.12	4.66	5.22	5.80	6.38	6.96	7.55	7.85
	43	5.92	7.80	9.91	12.30	14.90	17.80	20.90	22.50	4.18	4.76	5.37	5.99	6.63	7.26	7.90	8.22
	46	5.58	7.40	9.43	11.70	14.20	16.95			4.21	4.81	5.45	6.10	6.76	7.43		
	49	5.24	7.00	8.96	11.15	13.55				4.23	4.86	5.51	6.19	6.88			
S9-3DC-75X	32	8.73	11.15	13.90	17.00	20.30	24.00	27.90	29.90	4.81	5.42	6.06	6.72	7.40	8.09	8.80	9.16
	38	7.94	10.25	12.80	15.60	18.70	22.10	25.60	27.50	4.97	5.65	6.35	7.07	7.82	8.58	9.34	9.73
	43	7.31	9.47	11.85	14.50	17.35	20.50			5.10	5.82	6.57	7.34	8.13	8.94		
	46	6.95	9.02	11.30	13.85	16.55				5.17	5.91	6.68	7.49	8.30			
	49	6.59	8.58	10.75	13.15					5.24	6.00	6.80	7.62				
V6-3DS-100X	32	11.70	14.95	18.65	22.90	27.60	32.70	38.40	41.40	6.32	7.16	8.02	8.88	9.75	10.60	11.50	11.90
	38	10.75	13.80	17.30	21.20	25.60	30.40	35.70	38.40	6.54	7.46	8.40	9.36	10.35	11.30	12.25	12.75
	43	10.00	12.95	16.20	19.90	24.00	28.50	33.40	36.00	6.72	7.70	8.71	9.74	10.80	11.85	12.90	13.40
	46	9.60	12.45	15.60	19.15	23.10	27.40			6.84	7.84	8.89	9.96	11.05	12.15		
	49	9.19	11.95	15.00	18.45	22.20				6.96	7.99	9.06	10.15	11.30			
W9-4MF-13X	32	14.55	18.40	22.80	27.80	33.30	39.20	45.50		7.74	8.77	9.79	10.85	11.90	13.10	14.35	
	38	13.25	16.85	20.90	25.50	30.60	36.00	41.80		8.00	9.12	10.25	11.40	12.65	13.95	15.35	
	43	12.20	15.55	19.40	23.60	28.30	33.30	38.60		8.18	9.39	10.60	11.90	13.20	14.60	16.15	
	46	11.60	14.80	18.45	22.50	27.00	31.70	36.80		8.28	9.53	10.80	12.15	13.55	15.00	16.60	
	49		14.10	17.55	21.40	25.60	30.10	34.90			9.67	11.00	12.40	13.85	15.40	17.05	
Z9-4MA-22X	32	16.35	20.70	25.70	31.60	38.30	45.80	54.30	58.90	8.58	9.43	10.25	11.05	11.80	12.50	13.10	13.40
	38	14.95	19.00	23.70	29.20	35.50	42.50	50.40	54.70	8.75	9.73	10.70	11.65	12.60	13.45	14.25	14.65
	43	13.75	17.60	22.10	27.20	33.10	39.70	47.10	51.10	8.84	9.92	11.00	12.10	13.15	14.15	15.15	15.60
	46	13.05	16.75	21.10	26.00	31.60	38.00	45.10	48.90	8.87	10.00	11.15	12.30	13.45	14.60	15.65	16.15
	49	12.30	15.90	20.00	24.80	30.20	36.30	43.00	46.70	8.87	10.05	11.30	12.50	13.75	14.95	16.15	16.70

\* Note(s): Rating condition is based on a return gas temperature of 20°C

Refer MEA Select for other operating conditions.

Model	Ambient temp (°C)	Evaporating temperature °C															
		Capacity ( kW )								Power Input ( kW )							
		-20	-15	-10	-5	0	5	10	12.5	-20	-15	-10	-5	0	5	10	12.5
Z9-4MH-25X	32	18.55	23.50	29.20	35.90	43.40	51.90	61.30	66.30	9.93	10.95	12.00	13.00	14.00	14.95	15.85	16.30
	38	16.95	21.60	27.00	33.20	40.20	48.10	56.80	61.40	10.15	11.30	12.50	13.70	14.90	16.05	17.15	17.70
	43	15.60	20.00	25.10	30.90	37.50	44.90	53.00	57.30	10.30	11.55	12.85	14.20	15.55	16.85	18.15	18.80
	46	14.75	19.05	24.00	29.60	35.90	42.90	50.70	54.80	10.30	11.65	13.05	14.45	15.90	17.30	18.70	19.40
	49	13.90	18.05	22.80	28.20	34.20	40.90	48.30	52.30	10.35	11.75	13.20	14.70	16.25	17.75	19.25	19.95
Z9-4ML-15X	32	18.40	23.40	29.20	35.80	43.20	51.50	60.70		9.68	10.70	11.75	12.80	13.85	14.85	15.85	
	38	16.95	21.60	27.00	33.10	40.00	47.70	56.20		10.00	11.20	12.40	13.55	14.75	15.90	17.05	
	43	15.70	20.10	25.20	30.90	37.30	44.50	52.40		10.25	11.55	12.85	14.15	15.45	16.75	18.05	
	46	15.00	19.25	24.10	29.50	35.70	42.50	50.10		10.40	11.75	13.10	14.50	15.90	17.25	18.60	
	49	14.30	18.35	23.00	28.20	34.10	40.60	47.80		10.55	11.95	13.35	14.80	16.25	17.70	19.15	
Z9-4MM-20X	32	20.30	25.70	31.80	38.90	46.80	55.60	65.30		10.60	11.75	12.90	14.10	15.25	16.45	17.55	
	38	18.75	23.80	29.50	36.00	43.40	51.50	60.50		11.00	12.25	13.55	14.90	16.25	17.60	18.90	
	43	17.40	22.20	27.60	33.70	40.50	48.10	56.50		11.30	12.65	14.10	15.55	17.05	18.50	20.00	
	46	16.60	21.20	26.40	32.20	38.80	46.00	54.10		11.50	12.90	14.35	15.90	17.50	19.05	20.60	
	49	15.80	20.20	25.20	30.80	37.10	44.00	51.60		11.65	13.10	14.65	16.25	17.90	19.60	21.30	
Z9-4MT-22X	32	21.30	27.30	34.20	42.10	51.10	61.20			11.90	13.25	14.60	16.00	17.45	18.90		
	38	19.55	25.10	31.50	38.80	47.10	56.50			12.40	13.85	15.35	16.90	18.55	20.20		
	43	18.10	23.30	29.20	36.10	43.80	52.50			12.75	14.30	15.95	17.65	19.40	21.20		
	46	17.20	22.20	27.90	34.40	41.80	50.10			12.95	14.55	16.25	18.05	19.90	21.80		
	49	16.35	21.10	26.50	32.70	39.80	47.70			13.15	14.80	16.55	18.40	20.40	22.40		
Z9-4MU-25X	32	24.70	31.30	39.00	47.60	57.20	67.60	78.70		13.20	14.85	16.50	18.20	19.95	21.80	23.90	
	38	22.80	29.00	36.10	44.10	52.90	62.40	72.70		13.70	15.50	17.30	19.15	21.10	23.10	25.40	
	43	21.20	27.00	33.70	41.10	49.20	58.10	67.60		14.00	15.95	17.90	19.90	22.00	24.20	26.60	
	46	20.30	25.80	32.20	39.30	47.00	55.50	64.50		14.20	16.20	18.25	20.30	22.50	24.80	27.30	
	49	19.30	24.70	30.70	37.40	44.80	52.80	61.40		14.35	16.45	18.55	20.70	23.00	25.40	27.90	
Z9-6MM-30X	32	29.60	37.20	45.80	55.40	66.00	77.50	89.90		15.65	17.70	19.80	22.00	24.20	26.50	28.90	
	38	27.40	34.40	42.40	51.30	61.00	71.60	83.00		16.25	18.40	20.70	23.10	25.60	28.10	30.80	
	43	25.50	32.10	39.60	47.80	56.90	66.70	77.20		16.65	18.95	21.40	24.00	26.60	29.40	32.20	
	46	24.30	30.70	37.90	45.70	54.40	63.70	73.70		16.85	19.25	21.80	24.50	27.20	30.10	33.00	
	49		29.30	36.20	43.70	51.90	60.80	70.30			19.55	22.20	24.90	27.80	30.80	33.80	
Z12-6MU-40X	32	37.30	46.80	57.40	69.30	82.50	96.90	112.50		21.10	23.70	26.40	29.20	32.20	35.40	38.80	
	38	34.60	43.40	53.20	64.10	76.20	89.40	104.00		21.80	24.60	27.60	30.70	33.90	37.40	41.00	
	43	32.30	40.70	49.80	59.80	70.90	83.10	96.40		22.30	25.30	28.40	31.80	35.20	38.90	42.70	
	46	31.00	39.00	47.70	57.30	67.80	79.30	91.90		22.50	25.60	28.90	32.40	36.00	39.80	43.70	
	49		37.30	45.60	54.70	64.60	75.50	87.40			25.90	29.30	32.90	36.70	40.60	44.70	

\* Note(s): Rating condition is based on a return gas temperature of 20°C

Refer MEA Select for other operating conditions.

# Technical data

R22  
Standard

Model	Ambient temp (°C)	Evaporating temperature °C																			
		Capacity ( kW )										Power Input ( kW )									
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	-40	-35	-30	-25	-20	-15	-10	-5	0	5
D8-KM-7X	32	0.41	0.62	0.86	1.14	1.48	1.86	2.29	2.78	3.33	3.93		0.58	0.66	0.74	0.81	0.89	0.96	1.03	1.10	1.17
	38	0.33	0.52	0.75	1.02	1.32	1.68	2.09	2.54	3.06	3.63		0.56	0.64	0.73	0.82	0.91	0.99	1.08	1.16	1.25
	43		0.44	0.66	0.92	1.20	1.54	1.92	2.35	2.84	3.38			0.63	0.73	0.83	0.92	1.02	1.12	1.22	1.32
	46		0.40	0.61	0.86	1.14	1.46	1.82	2.24	2.71	3.23			0.62	0.72	0.83	0.93	1.03	1.14	1.25	1.36
	49			0.56	0.80	1.06	1.38	1.74	2.13	2.59	3.09				0.72	0.83	0.94	1.05	1.16	1.28	1.40
D8-KJ-10X	32	0.63	0.87	1.16	1.53	1.96	2.45	3.01	3.64	4.33	5.09	0.71	0.81	0.91	1.02	1.12	1.23	1.34	1.44	1.55	1.66
	38	0.55	0.77	1.05	1.38	1.78	2.24	2.77	3.35	4.00	4.72	0.71	0.82	0.93	1.04	1.16	1.28	1.41	1.54	1.66	1.78
	43	0.48	0.69	0.95	1.27	1.64	2.07	2.57	3.12	3.74	4.41	0.71	0.82	0.94	1.06	1.19	1.32	1.46	1.60	1.74	1.88
	46		0.64	0.89	1.20	1.56	1.97	2.45	2.98	3.57	4.23		0.82	0.94	1.06	1.20	1.34	1.49	1.64	1.79	1.94
	49		0.59	0.83	1.12	1.47	1.87	2.33	2.84	3.41	4.04		0.81	0.94	1.07	1.22	1.36	1.52	1.68	1.83	2.00
D8-KSJ-10X	32	0.86	1.16	1.52	1.94	2.43	3.00	3.64	4.37			0.90	1.03	1.16	1.28	1.42	1.58	1.74	1.92		
	38	0.76	1.04	1.38	1.78	2.23	2.76	3.37	4.06			0.89	1.03	1.18	1.32	1.48	1.66	1.84	2.05		
	43	0.68	0.95	1.27	1.64	2.07	2.57	3.15	3.81			0.88	1.03	1.19	1.36	1.53	1.72	1.92	2.15		
	46	0.63	0.90	1.20	1.56	1.98	2.46					0.87	1.03	1.20	1.38	1.56	1.76				
	49	0.59	0.84	1.14	1.48							0.86	1.03	1.20	1.39						
H8-KSJ-15X	32	0.90	1.20	1.57	2.03	2.58	3.20	3.90	4.68	5.53	6.44	1.06	1.17	1.30	1.42	1.55	1.68	1.80	1.91	2.02	2.11
	38	0.80	1.07	1.42	1.86	2.36	2.95	3.60	4.33	5.13	5.99	1.05	1.18	1.32	1.46	1.60	1.76	1.90	2.03	2.16	2.27
	43	0.72	0.97	1.30	1.71	2.19	2.74	3.36	4.04	4.80		1.04	1.18	1.33	1.48	1.64	1.81	1.97	2.12	2.27	
	46	0.67	0.92	1.24	1.62	2.09	2.62	3.21	3.87	4.60		1.03	1.18	1.34	1.50	1.67	1.84	2.01	2.18	2.33	
	49	0.62	0.86	1.16	1.54	1.98	2.49	3.07	3.71			1.02	1.17	1.34	1.51	1.69	1.87	2.05	2.22		
D8-KL-15X	32	0.98	1.32	1.74	2.22	2.78	3.41	4.14				1.05	1.20	1.35	1.50	1.67	1.84	2.03			
	38	0.86	1.18	1.56	2.02	2.54	3.15					1.05	1.22	1.39	1.56	1.74	1.92				
	43	0.76	1.06	1.43	1.86	2.35	2.93					1.04	1.23	1.41	1.60	1.78	1.98				
	46	0.70	1.00	1.35	1.76	2.24						1.03	1.23	1.42	1.62	1.81					
	49	0.64	0.93	1.27	1.67							1.02	1.23	1.42	1.63						
H8-LE-20X	32	0.99	1.45	2.02	2.71	3.51	4.44	5.50	6.69	8.00	9.44	1.37	1.56	1.76	1.98	2.21	2.44	2.67	2.91	3.14	3.38
	38	0.81	1.25	1.78	2.42	3.17	4.04	5.03	6.14	7.37	8.72	1.33	1.54	1.76	2.00	2.25	2.51	2.77	3.04	3.31	3.58
	43	0.67	1.08	1.58	2.19	2.89	3.71	4.64	5.69	6.86		1.30	1.51	1.75	2.01	2.28	2.56	2.84	3.13	3.43	
	46		0.99	1.48	2.05	2.73	3.52	4.42	5.43	6.56			1.50	1.74	2.01	2.29	2.58	2.88	3.19	3.50	
	49			1.36	1.92	2.58	3.34	4.20	5.18	6.27				1.73	2.01	2.30	2.60	2.92	3.24	3.57	
H8-LF-20X	32	1.40	2.03	2.79	3.70	4.75	5.94					1.69	1.97	2.27	2.59	2.92	3.27				
	38	1.20	1.78	2.49	3.33	4.32	5.44					1.66	1.96	2.29	2.63	3.00	3.38				
	43	1.04	1.58	2.24	3.04	3.97	5.03					1.64	1.94	2.29	2.66	3.05	3.45				
	46	0.94	1.46	2.10	2.87	3.76						1.61	1.94	2.29	2.67	3.07					
	49	0.85	1.34	1.96	2.69							1.58	1.92	2.28	2.67						

\* Note(s): Rating condition is based on a return gas temperature of 20°C

Refer MEA Select for other operating conditions.



Model	Ambient temp (°C)	Evaporating temperature °C																				
		Capacity ( kW )										Power Input ( kW )										
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	-40	-35	-30	-25	-20	-15	-10	-5	0	5	
M8-LF-30X	32	1.46	2.07	2.86	3.82	4.94	6.22	7.64	9.20	10.90	12.70	1.70	1.96	2.25	2.55	2.86	3.18	3.49	3.80	4.09	4.37	
	38	1.25	1.81	2.54	3.44	4.49	5.69	7.03	8.49	10.10	11.75	1.67	1.96	2.26	2.59	2.94	3.28	3.63	3.97	4.31	4.62	
	43	1.08	1.60	2.30	3.14	4.13	5.27	6.53	7.92	9.42	11.00	1.64	1.94	2.27	2.62	2.99	3.36	3.74	4.11	4.47	4.82	
	46	0.98	1.48	2.15	2.97	3.93	5.02	6.24	7.58	9.03	10.60	1.62	1.92	2.27	2.63	3.01	3.40	3.79	4.19	4.57	4.94	
	49	0.88	1.38	2.01	2.80	3.72	4.78	5.96	7.25	8.65			1.60	1.92	2.26	2.64	3.03	3.44	3.85	4.26	4.66	
H8-LL-30X	32	2.20	3.08	4.11	5.31	6.68						2.26	2.64	3.07	3.54	4.07						
	38		2.73	3.70	4.83	6.12							2.66	3.12	3.63	4.20						
	43		2.45	3.37	4.44	5.66							2.67	3.15	3.70	4.30						
	46		2.29	3.18									2.67	3.17								
	49		2.13										2.67									
M8-LL-30X	32	2.26	3.17	4.26	5.53	6.99						2.26	2.63	3.04	3.50	3.99						
	38		2.81	3.83	5.03	6.40							2.66	3.10	3.60	4.13						
	43		2.52	3.49	4.62	5.93							2.67	3.14	3.67	4.24						
	46		2.36	3.29	4.38								2.67	3.16	3.71							
	49		2.19	3.09									2.67	3.18								

\* Note(s): Rating condition is based on a return gas temperature of 20°C

Refer MEA Select for other operating conditions.

Model	Ambient temp (°C)	Evaporating temperature °C																					
		Capacity ( kW )										Power Input ( kW )											
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	-40	-35	-30	-25	-20	-15	-10	-5	0	5		
R7-2DC-50X	32				4.43	5.93	7.65	9.60	11.80	14.20	16.90					2.96	3.32	3.68	4.04	4.39	4.75	5.10	
	38					5.26	6.89	8.74	10.80	13.10	15.65						3.37	3.79	4.20	4.61	5.03	5.45	
	43					4.70	6.27	8.03	10.00	12.20	14.60						3.39	3.85	4.31	4.78	5.24	5.72	
	46						5.89	7.60	9.52	11.65	13.95							3.88	4.37	4.86	5.36	5.87	
	49						5.52	7.18	9.03	11.10								3.90	4.42	4.94	5.47		
R7-2DL-40X-DC	32	2.88	3.98	5.30	6.84	8.59	10.55	12.75							2.94	3.41	3.91	4.43	4.97	5.54	6.10		
	38	2.52	3.55	4.80	6.25	7.90	9.75	11.75							2.93	3.44	3.98	4.56	5.16	5.77	6.41		
	43	2.21	3.19	4.37	5.75	7.32	9.08								2.89	3.44	4.02	4.64	5.28	5.94			
	46	2.02	2.97	4.11	5.44	6.96									2.85	3.42	4.03	4.67	5.33				
	49	1.82	2.75	3.85	5.14										2.81	3.39	4.02	4.69					
S9-2DL-75X	32				6.65	8.72	11.10	13.75	16.75	20.00	23.60					4.07	4.61	5.17	5.73	6.30	6.88	7.48	
	38					7.94	10.20	12.70	15.55	18.65	22.00						4.77	5.39	6.03	6.67	7.33	8.00	
	43					7.32	9.47	11.90	14.55	17.55	20.70						4.89	5.57	6.26	6.97	7.69	8.43	
	46						9.05	11.40	14.00	16.85								5.68	6.40	7.15	7.91		
	49						8.64	10.90	13.45										5.78	6.54	7.32		
V9-2DB-75X	32				8.79	11.15	13.80	16.80	20.10	23.80	27.80					5.08	5.67	6.28	6.89	7.52	8.16	8.81	
	38					10.25	12.75	15.60	18.75	22.20	25.90						5.94	6.61	7.30	8.00	8.73	9.47	
	43						11.90	14.60	17.55	20.80	24.40							6.87	7.62	8.39	9.18	10.00	
	46						11.40	14.00	16.85	20.00									7.02	7.81	8.62	9.45	
	49						10.90	13.40	16.20											7.18	8.00	8.85	
R7-2DB-50X-DC	32	3.62	4.92	6.45	8.22	10.25	12.45	15.05							3.68	4.22	4.79	5.38	6.00	6.67	7.34		
	38	3.20	4.42	5.87	7.54	9.45	11.60	13.90							3.74	4.32	4.94	5.58	6.25	6.96	7.72		
	43	2.83	4.00	5.38	6.97	8.79	10.85								3.75	4.37	5.03	5.71	6.42	7.17			
	46	2.61	3.75	5.08	6.62										3.74	4.38	5.06	5.77					
	49	2.39	3.49	4.78											3.71	4.39	5.09						
S9-3DA-50X-DC	32	4.09	5.57	7.30	9.30	11.55									3.85	4.50	5.18	5.88	6.62				
	38	3.63	5.03	6.66	8.53	10.65									3.84	4.56	5.30	6.07	6.86				
	43	3.24	4.56	6.10	7.87	9.86									3.80	4.56	5.36	6.17	7.01				
	46	2.99	4.28	5.76	7.46	9.38									3.76	4.55	5.37	6.21	7.08				
	49	2.74	3.98	5.41											3.70	4.52	5.37						
V6-3DA-75X	32				9.87	12.75	16.05	19.80	23.90	28.50	33.60					6.10	6.76	7.42	8.07	8.71	9.35	9.99	
	38					11.65	14.75	18.25	22.20	26.50	31.20						6.98	7.73	8.48	9.23	9.99	10.75	
	43					10.80	13.75	17.05	20.80	24.80	29.30						7.15	7.98	8.81	9.65	10.50	11.35	
	46						13.15	16.35	19.95	23.90	28.10							8.12	9.00	9.90	10.80	11.70	
	49						12.60	15.70	19.10	22.90								8.27	9.20	10.15	11.10		

\* Note(s): Rating condition is based on a return gas temperature of 20°C

Refer MEA Select for other operating conditions.

# Technical data

Model	Ambient temp (°C)	Evaporating temperature °C																									
		Capacity ( kW )										Power Input ( kW )															
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	-40	-35	-30	-25	-20	-15	-10	-5	0	5						
S9-3DC-75X-DC	32	5.00	6.69	8.71	11.10	13.90									4.54	5.29	6.11	7.03	8.06								
	38	4.46	6.04	7.94	10.20	12.80									4.52	5.34	6.25	7.25	8.37								
	43	4.01	5.50	7.30	9.43	11.95									4.47	5.36	6.33	7.41	8.59								
	46	3.73	5.18	6.92	8.98										4.42	5.35	6.36	7.48									
	49	3.46	4.86	6.54											4.36	5.32	6.38										
W9-3DC-100X	32				11.85	15.15	18.90	23.10	27.70	32.80	38.40							7.08	7.89	8.70	9.52	10.35	11.20	12.05			
	38					13.90	17.40	21.30	25.70	30.50	35.60								8.20	9.12	10.05	11.00	11.95	12.95			
	43						16.20	19.95	24.00	28.50	33.40									9.46	10.45	11.50	12.55	13.65			
	46							15.50	19.10	23.10	27.40										9.66	10.75	11.80	12.95			
	49							14.85	18.30	22.10											9.86	11.00	12.10				
V6-3DS-100X-DC	32	6.91	9.38	12.25	15.60	19.45									6.56	7.60	8.68	9.83	11.05								
	38	6.04	8.40	11.15	14.30	17.95									6.60	7.75	8.92	10.15	11.50								
	43	5.35	7.63	10.25	13.30	16.80									6.63	7.86	9.12	10.45	11.85								
	46	4.95	7.19	9.75	12.70	16.15									6.64	7.92	9.24	10.60	12.10								
	49	4.56	6.76	9.27											6.66	7.99	9.36										
W9-3DS-150X	32					20.10	24.50	29.50	34.90	40.70	47.00									10.85	11.95	13.15	14.45	15.75	17.20		
	38					18.60	22.80	27.40	32.40	37.90	43.70										11.35	12.60	13.90	15.30	16.80	18.35	
	43						21.40	25.70	30.50													13.10	14.55	16.05			
	46						20.50	24.70														13.40	14.90				
	49																										
Z9-3DS-150X	32				17.10	21.50	26.60	32.30	38.70	46.00	54.00									10.20	11.15	12.05	12.95	13.80	14.65	15.45	
	38					19.95	24.70	30.10	36.10	42.90	50.40										11.65	12.70	13.75	14.80	15.80	16.80	
	43					18.65	23.20	28.30	34.00	40.30	47.40										12.10	13.25	14.40	15.55	16.70	17.85	
	46						22.30	27.20	32.70	38.80	45.60											13.55	14.80	16.00	17.25	18.50	
	49						21.40	26.10	31.40	37.30	43.80											13.90	15.20	16.50	17.80	19.10	
W9-4MF-13X-DC	32	7.86	10.55	13.75	17.40	21.60									7.06	8.39	9.80	11.30	12.90								
	38	7.02	9.56	12.55	15.95	19.80									7.03	8.50	10.05	11.65	13.40								
	43	6.23	8.63	11.40	14.65	18.25									6.90	8.48	10.15	11.85	13.65								
	46	5.73	8.03	10.70	13.80										6.78	8.42	10.15	11.95									
	49	5.21	7.40	9.96											6.61	8.33	10.10										
Z9-4MA-22X	32				21.00	26.50	32.70	39.70	47.50	56.30	65.90									11.75	13.05	14.35	15.65	17.00	18.30	19.55	
	38					24.30	30.20	36.80	44.10	52.30	61.30										13.70	15.15	16.65	18.10	19.60	21.10	
	43						28.00	34.30	41.20	48.90	57.40											15.80	17.40	19.00	20.60	22.20	
	46						26.80	32.80	39.50	46.90	55.10											16.15	17.80	19.50	21.20	22.90	
	49							31.30	37.80	44.90													18.20	19.95	21.70		

\* Note(s): Rating condition is based on a return gas temperature of 20°C

Refer MEA Select for other operating conditions.

# Technical data

Model	Ambient temp (°C)	Evaporating temperature °C																				
		Capacity ( kW )										Power Input ( kW )										
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	-40	-35	-30	-25	-20	-15	-10	-5	0	5	
Z9-4MIH-25X	32				24.50	30.50	37.30	45.00	53.60	63.00	73.40				13.95	15.50	17.10	18.70	20.40	22.10	23.80	
	38					28.20	34.60	41.80	49.80	58.60	68.30					16.35	18.10	19.90	21.70	23.60	25.50	
	43						32.30	39.20	46.70	55.00	64.00						18.85	20.80	22.70	24.70	26.80	
	46							37.60	44.80	52.80								21.30	23.30	25.40		
	49								35.90	42.90									21.80	23.90		
Z9-4ML-15X-DC	32	10.95	14.55	18.65	23.20	28.10								9.98	11.50	13.10	14.70	16.25				
	38	9.98	13.40	17.35	21.70	26.40								10.25	11.90	13.60	15.35	17.05				
	43	9.09	12.40	16.20	20.40	24.90								10.40	12.15	14.00	15.85	17.65				
	46	8.53	11.75	15.45	19.55	24.00								10.45	12.25	14.15	16.10	18.00				
	49	7.94	11.05	14.70	18.70									10.45	12.35	14.30	16.35					
Z12-4MI-30X	32				27.50	34.00	41.40	49.80	59.20	69.60	81.10				17.15	18.80	20.50	22.20	23.90	25.70	27.40	
	38					31.50	38.40	46.30	55.00	64.70	75.40					19.75	21.60	23.50	25.40	27.30	29.30	
	43						35.90	43.30	51.50	60.60	70.60						22.50	24.50	26.50	28.60	30.70	
	46							34.40	41.50	49.40	58.10	67.70						23.00	25.00	27.20	29.30	31.50
	49								39.70	47.30	55.60	64.80							25.60	27.80	30.00	32.30
Z9-4MM-20X-DC	32	12.40	16.05	20.30	25.10	30.60								10.95	12.45	14.00	15.70	17.50				
	38	11.20	14.65	18.65	23.30	28.50								11.15	12.80	14.55	16.40	18.35				
	43	10.15	13.45	17.30	21.70	26.70								11.25	13.05	14.90	16.90	19.05				
	46	9.47	12.75	16.50	20.80	25.60								11.30	13.15	15.10	17.20	19.40				
	49	8.80	11.95	15.60	19.80									11.30	13.20	15.25	17.45					
Z12-4MJ-33X	32				30.50	37.80	45.90	55.10	65.30	76.70	89.10				18.90	20.80	22.70	24.70	26.80	28.80	30.90	
	38					34.90	42.60	51.10	60.70	71.20	82.70					21.80	23.90	26.10	28.30	30.60	32.90	
	43						39.80	47.80	56.80	66.60	77.40						24.90	27.20	29.60	32.00	34.40	
	46							38.10	45.90	54.40	63.90	74.20						25.50	27.80	30.30	32.80	35.30
	49								43.90	52.10	61.10								28.40	31.00	33.50	
Z9-4MT-22X-DC	32	13.80	17.85	22.50	27.90	33.90								12.10	13.80	15.60	17.50	19.60				
	38	12.45	16.30	20.80	25.80	31.60								12.35	14.20	16.15	18.25	20.50				
	43	11.30	15.00	19.25	24.10	29.60								12.45	14.45	16.55	18.85	21.30				
	46	10.55	14.15	18.30	23.00	28.40								12.45	14.55	16.75	19.15	21.70				
	49	9.79	13.30	17.35	22.00									12.45	14.65	16.95	19.45					
Z12-4MK-35X	32				34.20	42.30	51.30	61.40	72.70	85.00	98.50				21.10	23.30	25.60	27.90	30.30	32.80	35.40	
	38					39.10	47.60	57.00	67.40	78.90	91.40					24.50	26.90	29.50	32.10	34.80	37.50	
	43						44.40	53.30	63.10	73.80	85.40						28.00	30.70	33.50	36.30	39.20	
	46							51.00	60.40	70.70								31.40	34.20	37.20		
	49								48.80	57.80									32.00	35.00		

\* Note(s): Rating condition is based on a return gas temperature of 20°C

Refer MEA Select for other operating conditions.

# Technical data

Model	Ambient temp (°C)	Evaporating temperature °C																							
		Capacity ( kW )										Power Input ( kW )													
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	-40	-35	-30	-25	-20	-15	-10	-5	0	5				
Z9-4MU-25X-DC	32	15.55	20.10	25.30	31.20	38.00									13.55	15.50	17.55	19.80	22.20						
	38	14.00	18.35	23.30	28.90	35.30									13.80	15.90	18.20	20.60	23.30						
	43	12.70	16.80	21.60	27.00	33.10									13.90	16.20	18.60	21.20	24.10						
	46	11.85	15.90	20.50	25.80	31.70									13.90	16.30	18.85	21.60	24.50						
	49	11.00	14.95	19.45											13.90	16.40	19.05								
Z12-6MI-40X	32					49.80	60.90	73.10	86.60	101.50	117.00								27.90	30.70	33.70	36.80	40.00	43.20	
	38					45.80	56.20	67.70	80.30	94.00	108.50								29.20	32.30	35.60	38.90	42.30	45.90	
	43						52.30	63.20	75.00	87.80										33.60	37.00	40.60	44.20		
	46							60.40	71.80												37.80	41.50			
	49																								
Z9-6MM-30X-DC	32	16.40	21.60	27.50	34.00	40.80									15.25	17.75	20.30	22.90	25.40						
	38	14.85	19.80	25.40	31.50	38.00									15.55	18.35	21.20	24.10	26.80						
	43	13.50	18.25	23.60	29.40	35.60									15.75	18.75	21.80	24.90	27.90						
	46	12.65	17.25	22.50	28.20										15.75	18.90	22.10	25.40							
	49	11.80	16.30	21.40											15.75	19.05	22.40								

\* Note(s): Rating condition is based on a return gas temperature of 20°C  
Refer MEA Select for other operating conditions.



# Technical data

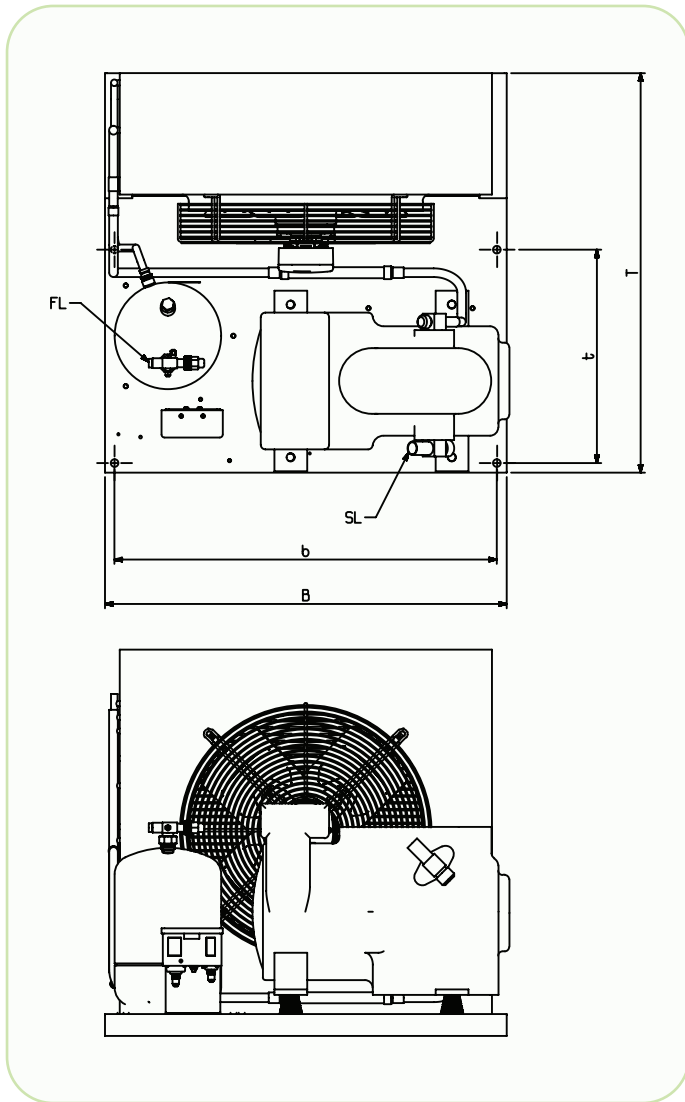
R22  
2-Stage

Model	Ambient temp (°C)	Evaporating temperature °C													
		Capacity ( kW )							Power Input ( kW )						
		-50	-45	-40	-35	-30	-25	-20	-50	-45	-40	-35	-30	-25	-20
Z12-6TH-200X-SUB	32	11.15	14.05	17.55	21.80	26.80	32.80	39.70	14.00	15.20	16.55	18.10	19.75	21.60	23.60
	38	10.85	13.70	17.15	21.30	26.20	32.00	38.80	14.60	15.95	17.45	19.15	21.10	23.10	25.50
	43		13.35	16.75	20.80	25.70	31.40	38.00		16.55	18.20	20.10	22.20	24.50	27.10
	46		13.10	16.45	20.50	25.30	30.90	37.50		16.90	18.65	20.60	22.90	25.30	28.10
	49		12.80	16.15	20.10					17.20	19.10	21.20			
Z12-6TJ-250X-SUB	32	11.85	15.30	19.45	24.40	30.40	37.40	45.70	14.80	16.35	18.15	20.10	22.30	24.70	27.30
	38	11.40	14.80	18.90	23.80	29.70	36.60	44.70	15.40	17.15	19.10	21.30	23.70	26.30	29.20
	43		14.30	18.35	23.20	29.00	35.80	43.70		17.75	19.85	22.20	24.80	27.70	30.90
	46		13.95	17.95	22.80	28.50	35.20			18.10	20.30	22.80	25.50	28.60	
	49		13.55	17.55	22.30					18.45	20.80	23.40			
Z12-6TK-300X-SUB	32	14.15	19.15	24.60	30.80	37.60	45.40	54.00	16.85	19.20	21.60	24.20	26.80	29.60	32.50
	38	13.70	18.75	24.30	30.40	37.20	44.80	53.30	17.55	20.10	22.80	25.50	28.40	31.40	34.60
	43		18.55	24.10	30.20	36.90	44.40	52.70		20.80	23.60	26.60	29.70	32.90	36.30
	46		18.45	24.00	30.10	36.80				21.20	24.10	27.20	30.40		
	49		18.40							21.50					

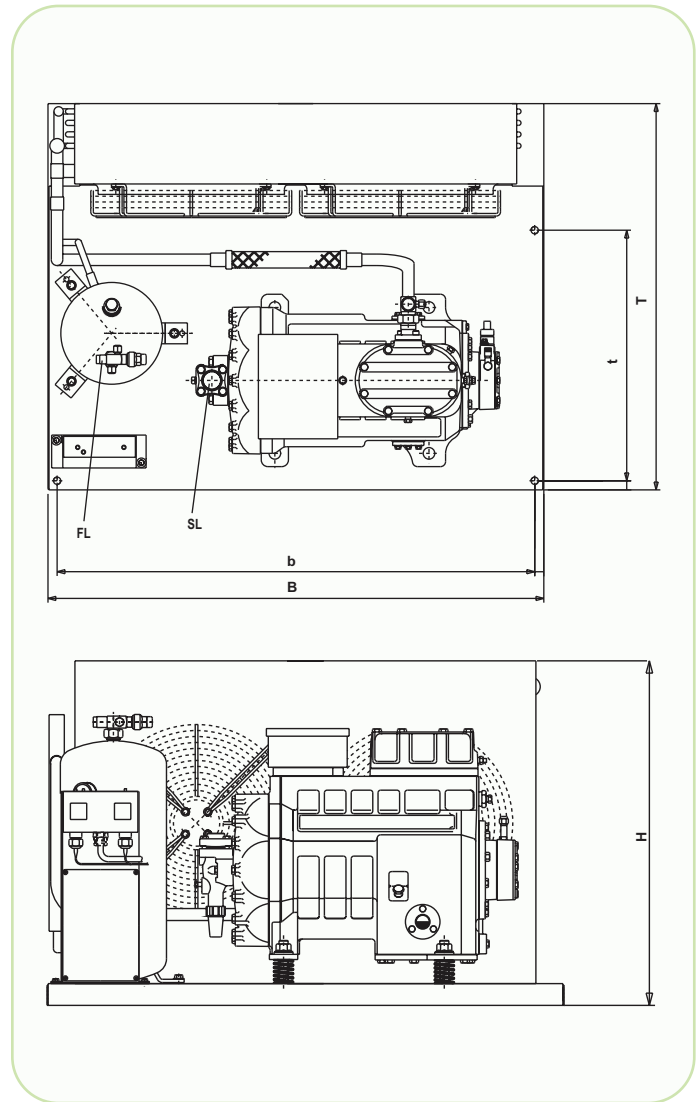
\* Note(s): Rating condition is based on a return gas temperature of 20°C  
Refer MEA Select for other operating conditions.

# Dimensional Drawings

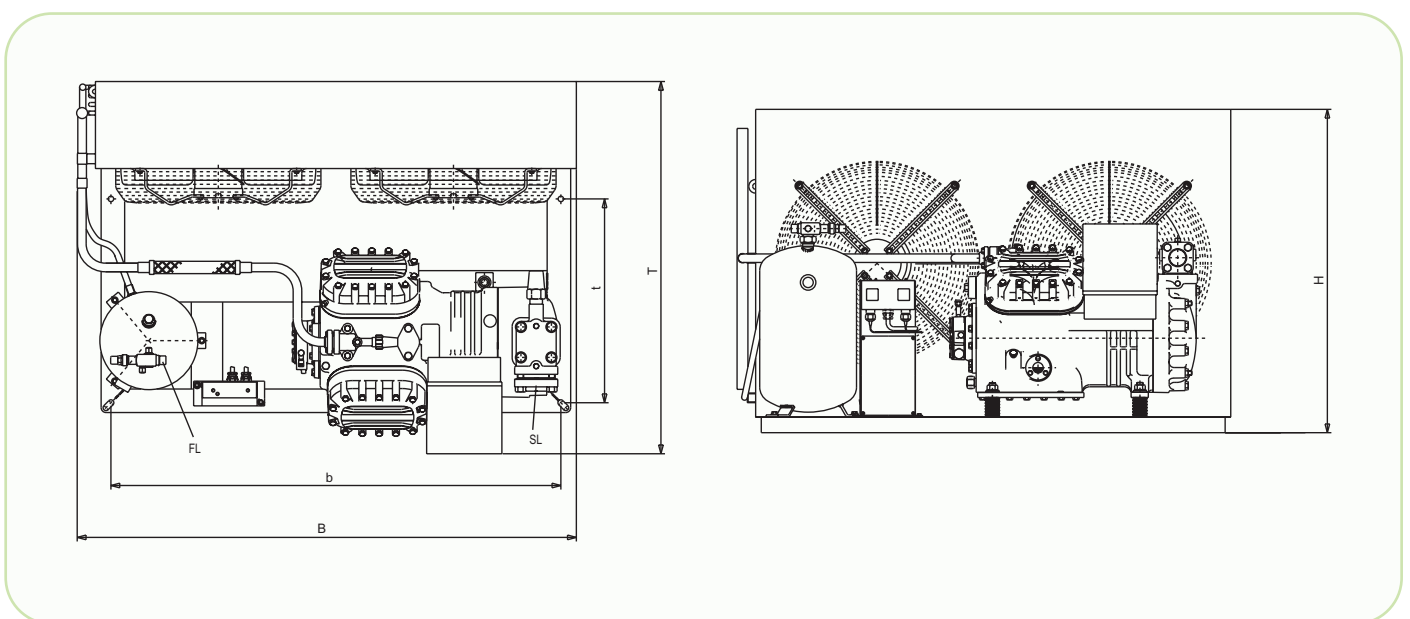
Condenser D, H, M with L, K compressor



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



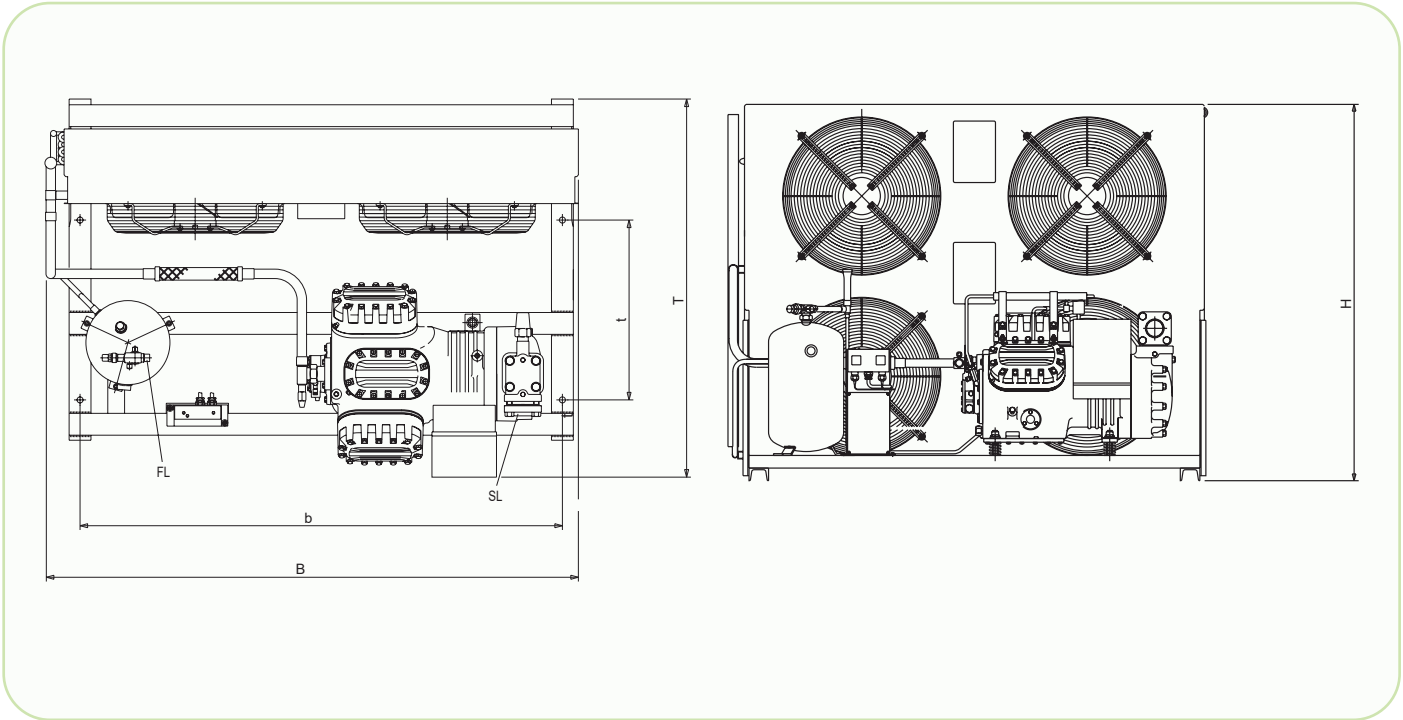
Condenser W with 4M compressor



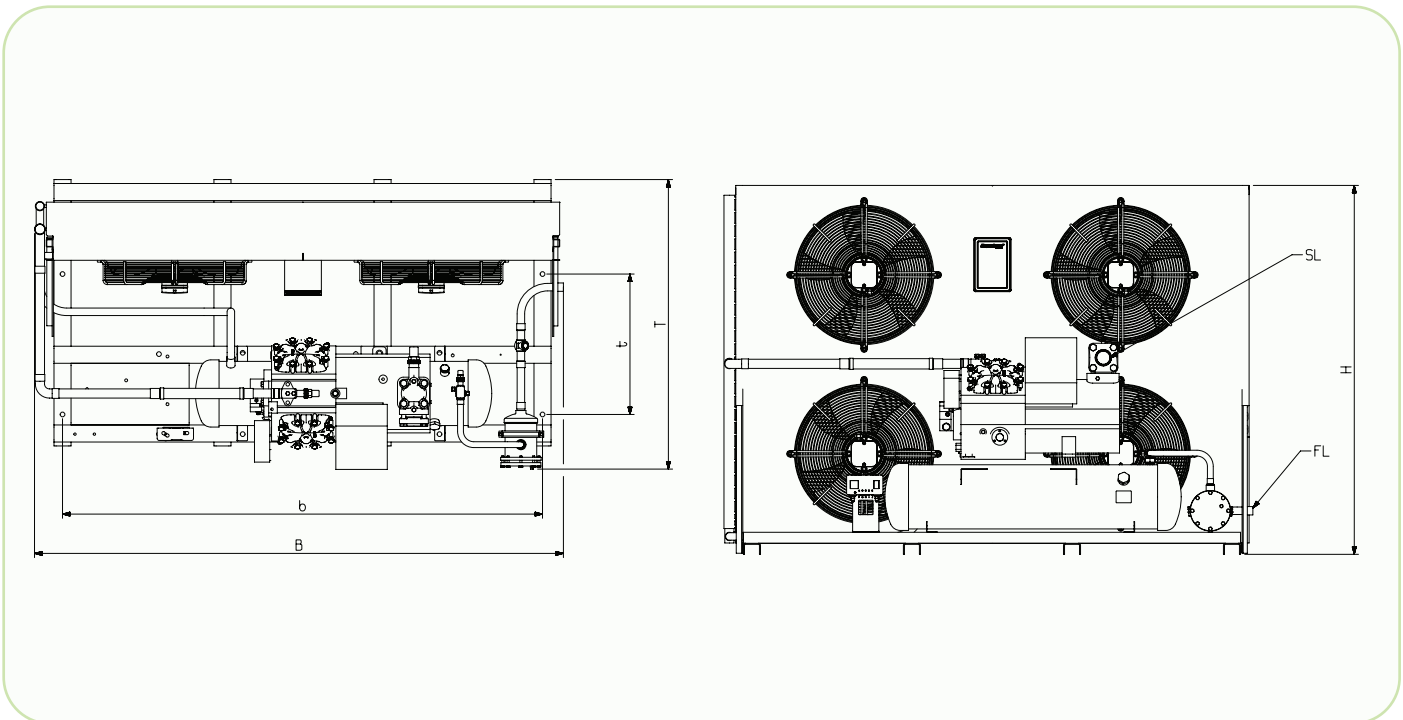
H : Height      T : Depth      SL : Suction line  
 B : Width      b,t : Dimensions (holes)      FL : Liquid line

# Dimensional Drawings

Condenser Z with 3D, 4M, 6M compressor



Condenser Z12 with 4M, 6M compressor



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

# Mechanical Data

Sr no	Condensing Unit	Compressor	Receiver capacity Ltr Standard	*Mounting Dimensions (hole dia), mm (b x t)*	Number of fans	*Air flow cu.m/sec*	Gross weight kg	Height mm	Depth/width mm (T/B)	Suction diameter inch (SL)	Liquid line inch (FL)
1	D8-KM-7X	KM-7	3.3	530 x 475 (11)	1	0.51	67.5	396	715/560	1/2	1/2
2	D8-KJ-10X	KJ-10	3.9	530 x 475 (11)	1	0.51	72.0	446	715/560	7/8	1/2
3	D8-KSJ-10X	KSJ-10	3.9	530 x 475 (11)	1	0.51	72.0	446	715/560	7/8	1/2
4	H8-KSJ-15X	KSJ-15	7.9	700 x 370 (11)	1	1.00	70.0	533	680/735	5/8	1/2
5	D8-KL-15X	KL-15	3.9	530 x 475 (11)	1	0.51	72.0	446	715/560	7/8	1/2
6	H8-LE-20X	LE-20	7.9	700 x 370 (14)	1	1.00	123.0	533	680/735	7/8	1/2
7	H8-LF-20X	LF-20	7.9	700 x 370 (14)	1	1.00	123.0	533	680/735	7/8	1/2
8	M8-LF-30X	LF-30	7.9	700 x 390 (14)	1	0.92	139.0	708	730/735	7/8	1/2
9	H8-LL-30X	LL-30	7.9	700 x 370 (14)	1	1.00	130.0	533	680/735	7/8	1/2
10	M8-LL-30X	LL-30	7.9	700 x 390 (14)	1	0.92	144.0	708	730/735	7/8	1/2
11	R7-2DC-50X	2DC-50	15.8	1095 x 475 (14)	2	1.97	236.0	633	820/1130	1 3/8	3/4
12	R7-2DL-40X	2DL-40	15.8	1095 x 475 (14)	2	1.97	244.0	633	820/1130	1 3/8	3/4
13	S9-2DL-75X	2DL-75	18.9	1295 x 475 (14)	2	1.94	331.0	835	820/1330	1 3/8	7/8
14	V9-2DB-75X	2DB-75	18.9	1295 x 475 (14)	2	2.18	325.0	835	820/1330	1 3/8	7/8
15	R7-2DB-50X	2DB-50	15.8	1095 x 475 (14)	2	1.97	245.0	708	820/1130	1 3/8	3/4
16	S9-3DA-50X	3DA-50	15.8	1095 x 475 (14)	2	1.94	279.0	708	820/1130	1 3/8	3/4
17	V6-3DA-75X	3DA-75	18.9	1295 x 475 (14)	2	2.97	346.0	835	820/1330	1 3/8	7/8
18	S9-3DC-75X	3DC-75	15.8	1095 x 475 (14)	2	1.94	279.0	708	820/1130	1 3/8	3/4
19	W9-3DC-100X	3DC-100	18.9	1605 x 475 (18)	2	3.33	416.0	869	820/1640	2 1/8	7/8
20	V6-3DS-100X	3DS-100	18.9	1295 x 475 (14)	2	2.97	358.0	835	820/1330	1 3/8	7/8
21	W9-3DS-150X	3DS-150	18.9	1605 x 475 (14)	2	3.33	417.0	869	820/1640	1 5/8	7/8
22	W9-4MF-13X	4MF-13	18.9	1435x515 (18)	2	3.33	434.0	873	1107/1600	1 5/8	7/8
23	Z9-3DS-150X	3DS-150	18.9	1435 x 535 (18)	4	5.41	533.0	1263	1102/1600	1 5/8	7/8
24	Z9-4MA-22X	4MA-22	18.9	1435 x 535 (18)	4	5.41	548.0	1263	1107/1600	1 5/8	7/8
25	Z9-4MH-25X	4MH-25	18.9	1435 x 535 (18)	4	5.41	554.0	1263	1107/1600	2 1/8	7/8
26	Z9-4ML-15X	4ML-15	18.9	1435x515 (18)	4	5.41	551.0	1263	1107/1600	1 5/8	7/8
27	Z12-4MI-30X	4MI-30	47.9	1829 x 535 (18)	4	7.50	683.0	1406	1180/2001	2 1/8	7/8
28	Z9-4MM-20X	4MM-20	18.9	1435x515 (18)	4	5.41	553.0	1263	1107/1600	2 1/8	7/8
29	Z12-4MJ-33X	4MJ-33	47.9	1829 x 535 (18)	4	7.50	685.0	1406	1180/2001	2 1/8	7/8
30	Z9-4MT-22X	4MT-22	18.9	1435x515 (18)	4	5.41	554.0	1263	1107/1600	2 1/8	7/8
31	Z12-4MK-35X	4MK-35	47.9	1829 x 535 (18)	4	7.50	697.0	1406	1180/2001	2 1/8	7/8
32	Z9-4MU-25X	4MU-25	18.9	1435 x 535 (18)	4	5.41	557.0	1263	1107/1600	2 1/8	7/8
33	Z12-6MI-40X	6MI-40	47.9	1829 x 535 (18)	4	7.50	714.0	1406	1180/2001	2 1/8	7/8
34	Z9-6MM-30X	6MM-30	18.9	1435x515 (18)	4	5.41	575.0	1263	1130/1600	2 1/8	7/8
35	Z12-6MU-40X	6MU-40	47.9	1829 x 535 (18)	4	7.50	720.0	1406	1180/2001	2 5/8	7/8
36	Z12-6TH-200X SUB	6TH-200 SUB	47.9	1829 x 535 (18)	4	7.50	779.0	1406	1180/2001	2 1/8	7/8
37	Z12-6TJ-250X SUB	6TJ-250 SUB	47.9	1829 x 535 (18)	4	7.50	804.0	1406	1180/2001	2 1/8	7/8
38	Z12-6TK-300X SUB	6TK-300 SUB	47.9	1829 x 535 (18)	4	7.50	825.0	1406	1180/2001	2 1/8	7/8

\* Note(s): Rating condition is based on a return gas temperature of 20°C

# Electrical Data

Sr no	Condensing Unit		Compressor maximum operating current (A)		Compressor locked rotor current (A)		Condenser Fan Current (A) 230V/ 1~/ 60Hz
	CDU	COMP	EWK+ 220-240V/3~/60Hz	EWK++ 380-420V/3~/60Hz	EWK+ 220-240V/3~/60Hz	EWK++ 380-420V/3~/60Hz	
1	D8-KM-7X	KM-7	5.1	2.9	29	17	0.65
2	D8-KJ-10X	KJ-10	6.7	3.8	41	23	0.65
3	D8-KSJ-10X	KSJ-10	5.7	3.6	41	23	0.65
4	H8-KSJ-15X	KSJ-15	7.1	4.1	45	26	1.40
5	D8-KL-15X	KL-15	7.1	4.1	45	26	0.65
6	H8-LE-20X	LE-20	12.0	6.8	84	49	1.40
7	H8-LF-20X	LF-20	9.5	6.6	84	49	1.40
8	M8-LF-30X	LF-30	14.3	8.2	121	70	1.40
9	H8-LL-30X	LL-30	15.3	8.8	121	70	1.40
10	M8-LL-30X	LL-30	15.3	8.8	121	70	1.40
11	R7-2DC-50X	2DC-50	18.9	10.8	132	76	1.40
12	R7-2DL-40X	2DL-40	23.3	13.3	133	76	1.40
13	S9-2DL-75X	2DL-75	29.0	16.6	184	106	1.40
14	V9-2DB-75X	2DB-75	33.8	19.3	184	106	1.40
15	R7-2DB-50X	2DB-50	28.1	16.1	132	76	1.40
16	S9-3DA-50X	3DA-50	33.4	19.1	132	76	1.40
17	V6-3DA-75X	3DA-75	36.8	21.0	220	127	2.25
18	S9-3DC-75X	3DC-75	38.4	22.0	184	106	1.40
19	W9-3DC-100X	3DC-100	43.1	24.6	274	158	2.25
20	V6-3DS-100X	3DS-100	51.2	29.3	274	158	2.25
21	W9-3DS-150X	3DS-150	60.9	34.8	263	152	2.25
22	Z9-3DS-150X	3DS-150	60.9	34.8	263	152	2.25
23	W9-4MF-13X	4MF-13	64.4	38.8	228	132	2.25
24	Z9-4MA-22X	4MA-22	75.9	45.7	386	234	2.25
25	Z9-4MH-25X	4MH-25	86.9	52.4	433	260	2.25
26	Z9-4ML-15X	4ML-15	74.0	44.6	334	194	2.25
27	Z12-4MI-30X	4MI-30	102.7	58.7	508	290	2.8/1.6
28	Z9-4MM-20X	4MM-20	81.5	49.1	386	224	2.25
29	Z12-4MJ-33X	4MJ-33	116.7	66.7	508	290	2.8/1.6
30	Z9-4MT-22X	4MT-22	93.0	56.1	386	224	2.25
31	Z12-4MK-35X	4MK-35	134.8	77.0	635	363	2.8/1.6
32	Z9-4MU-25X	4MU-25	108.0	65.4	433	252	2.25
33	Z12-6MI-40X	6MI-40	157.5	90.0	732	418	2.8/1.6
34	Z9-6MM-30X	6MM-30	125.0	75.2	550	320	2.25
35	Z12-6MU-40X	6MU-40	158.0	95.5	633	368	2.8/1.6
36	Z12-6TH-200X-SUB	6TH-200 SUB	79.1	45.2	368	210	2.8/1.6
37	Z12-6TJ-250X SUB	6TJ-250 SUB	93.6	53.5	417	238	2.8/1.6
38	Z12-6TK-300X SUB	6TK-300 SUB	115.7	66.1	642	367	2.8/1.6



## PRESSURE TEMPERATURE CHART AT SEA LEVEL

°C	R-134a	R22	R404A HP 62	R407F Vapor	R407F Liquid	R407A Vapor	R407A Liquid	R407C Vapor	R407C Liquid	R408A	R410A	R502	R507A AZ50*	°F
-45.6	0.63	0.21	0.00	-0.26	0.03	0.30	0.03	0.37	0.09	0.07	0.34	-0.03	0.06	-50.0
-44.4	0.61	0.16	0.05	-0.22	0.08	0.26	0.03	0.33	0.04	0.02	0.41	0.02	0.12	-48.0
-43.3	0.59	0.12	0.11	-0.17	0.14	0.22	0.08	0.29	0.01	0.04	0.48	0.08	0.18	-46.0
-42.2	0.56	0.06	0.17	-0.12	0.20	0.17	0.14	0.25	0.07	0.10	0.57	0.14	0.24	-44.0
-41.1	0.53	0.01	0.23	-0.07	0.27	0.12	0.21	0.20	0.13	0.15	0.65	0.19	0.30	-42.0
-40.0	0.50	0.04	0.30	-0.02	0.34	0.07	0.27	0.16	0.19	0.21	0.74	0.26	0.37	-40.0
-38.9	0.47	0.10	0.37	0.04	0.41	0.01	0.34	0.11	0.26	0.28	0.83	0.32	0.44	-38.0
-37.8	0.44	0.15	0.43	0.10	0.48	0.04	0.41	0.06	0.32	0.34	0.92	0.39	0.52	-36.0
-36.7	0.41	0.21	0.51	0.16	0.56	0.10	0.48	0.00	0.39	0.41	1.01	0.46	0.59	-34.0
-35.6	0.37	0.28	0.59	0.22	0.64	0.16	0.56	0.06	0.46	0.48	1.12	0.53	0.68	-32.0
-34.4	0.33	0.34	0.66	0.29	0.72	0.23	0.63	0.11	0.53	0.55	1.22	0.60	0.75	-30.0
-33.3	0.29	0.41	0.74	0.36	0.80	0.29	0.72	0.17	0.61	0.63	1.33	0.68	0.84	-28.0
-32.2	0.25	0.48	0.83	0.43	0.89	0.36	0.80	0.23	0.69	0.71	1.44	0.76	0.93	-26.0
-31.1	0.21	0.55	0.92	0.51	0.98	0.43	0.89	0.30	0.77	0.79	1.56	0.84	1.02	-24.0
-30.0	0.17	0.63	1.01	0.59	1.08	0.51	0.98	0.37	0.86	0.88	1.68	0.93	1.12	-22.0
-28.9	0.13	0.70	1.10	0.67	1.18	0.59	1.08	0.45	0.94	0.97	1.81	1.01	1.21	-20.0
-27.8	0.08	0.79	1.20	0.75	1.28	0.67	1.17	0.52	1.04	1.06	1.94	1.11	1.32	-18.0
-26.7	0.03	0.87	1.30	0.84	1.39	0.75	1.28	0.60	1.14	1.15	2.07	1.20	1.42	-16.0
-25.6	0.02	0.96	1.41	0.93	1.50	0.84	1.38	0.68	1.23	1.25	2.21	1.30	1.53	-14.0
-24.4	0.08	1.05	1.52	1.03	1.61	0.93	1.49	0.77	1.34	1.35	2.35	1.40	1.64	-12.0
-23.3	0.13	1.14	1.63	1.13	1.73	1.03	1.60	0.85	1.44	1.46	2.50	1.51	1.76	-10.0
-22.2	0.19	1.23	1.74	1.23	1.85	1.12	1.72	0.94	1.55	1.57	2.66	1.61	1.88	-8.0
-21.1	0.25	1.34	1.86	1.34	1.98	1.23	1.83	1.03	1.67	1.68	2.81	1.73	2.00	-6.0
-20.0	0.32	1.44	1.99	1.45	2.11	1.33	1.96	1.13	1.79	1.79	2.98	1.84	2.13	-4.0
-18.9	0.38	1.54	2.12	1.56	2.24	1.44	2.09	1.23	1.91	1.91	3.15	1.96	2.26	-2.0
-17.8	0.45	1.66	2.25	1.68	2.38	1.55	2.22	1.34	2.03	2.03	3.32	2.08	2.40	0.0
-16.7	0.52	1.77	2.39	1.80	2.52	1.67	2.36	1.45	2.17	2.16	3.50	2.21	2.54	2.0
-15.6	0.59	1.89	2.52	1.93	2.67	1.79	2.50	1.56	2.30	2.29	3.69	2.34	2.68	4.0
-14.4	0.66	2.01	2.67	2.06	2.82	1.92	2.65	1.68	2.43	2.43	3.88	2.48	2.83	6.0
-13.3	0.74	2.14	2.82	2.20	2.98	2.05	2.80	1.80	2.58	2.57	4.08	2.61	2.99	8.0
-12.2	0.82	2.26	2.97	2.34	3.14	2.18	2.95	1.92	2.72	2.71	4.29	2.76	3.15	10.0
-11.1	0.90	2.40	3.13	2.48	3.31	2.32	3.11	2.05	2.88	2.86	4.50	2.90	3.31	12.0
-10.0	0.99	2.54	3.30	2.63	3.48	2.46	3.28	2.19	3.03	3.01	4.72	3.06	3.48	14.0
-8.9	1.08	2.68	3.46	2.79	3.66	2.61	3.45	2.32	3.19	3.17	4.94	3.21	3.66	16.0
-7.8	1.17	2.82	3.63	2.94	3.84	2.76	3.62	2.46	3.36	3.32	5.17	3.37	3.83	18.0
-6.7	1.27	2.97	3.81	3.11	4.03	2.92	3.80	2.61	3.53	3.49	5.41	3.53	4.01	20.0
-5.6	1.37	3.12	4.00	3.28	4.22	3.08	3.99	2.77	3.71	3.66	5.65	3.70	4.21	22.0
-4.4	1.47	3.28	4.19	3.45	4.42	3.25	4.18	2.92	3.89	3.84	5.90	3.88	4.40	24.0
-3.3	1.58	3.45	4.38	3.63	4.63	3.42	4.37	3.08	4.08	4.02	6.15	4.06	4.60	26.0
-2.2	1.69	3.61	4.58	3.82	4.84	3.60	4.57	3.25	4.27	4.21	6.42	4.23	4.80	28.0
-1.1	1.80	3.79	4.78	4.01	5.05	3.78	4.78	3.42	4.46	4.39	6.69	4.43	5.01	30.0
0.0	1.92	3.97	4.99	4.21	5.28	3.97	4.99	3.59	4.67	4.59	6.97	4.62	5.23	32.0
1.1	2.03	4.15	5.21	4.41	5.51	4.17	5.21	3.78	4.88	4.79	7.26	4.81	5.45	34.0
2.2	2.16	4.34	5.43	4.62	5.74	4.37	5.43	3.97	5.09	5.00	7.55	5.02	5.68	36.0
3.3	2.28	4.53	5.66	4.84	5.98	4.57	5.67	4.16	5.31	5.21	7.86	5.23	5.91	38.0
4.4	2.41	4.73	5.89	5.06	6.23	4.79	5.90	4.36	5.53	5.43	8.17	5.44	6.15	40.0
5.6	2.55	4.93	6.12	5.29	6.48	5.00	6.14	4.56	5.77	5.65	8.48	5.66	6.39	42.0
6.7	2.69	5.14	6.37	5.52	6.74	5.23	6.40	4.77	6.00	5.88	8.81	5.89	6.65	44.0
7.8	2.83	5.35	6.62	5.76	7.01	5.46	6.66	4.99	6.25	6.12	9.14	6.12	6.90	46.0
8.9	2.98	5.57	6.88	6.01	7.28	5.70	6.92	5.21	6.50	6.36	9.48	6.35	7.17	48.0

## PRESSURE TEMPERATURE CHART AT SEA LEVEL

°C	R-134a	R22	R404A HP 62	R407F Vapor	R407F Liquid	R407A Vapor	R407A Liquid	R407C Vapor	R407C Liquid	R408A	R410A	R502	R507A AZ50*	°F
10.0	3.13	5.80	7.14	6.26	7.57	5.94	7.19	5.43	6.75	6.60	9.83	6.59	7.44	50.0
11.1	3.29	6.03	7.41	6.52	7.85	6.19	7.46	5.67	7.01	6.86	10.20	6.84	7.72	52.0
12.2	3.45	6.26	7.70	6.79	8.15	6.44	7.74	5.91	7.28	7.11	10.57	7.10	8.01	54.0
13.3	3.61	6.51	7.98	7.07	8.45	6.71	8.03	6.16	7.56	7.38	10.94	7.35	8.30	56.0
14.4	3.79	6.76	8.27	7.35	8.76	6.98	8.33	6.41	7.84	7.65	11.34	7.62	8.59	58.0
15.6	3.96	7.01	8.57	7.64	9.08	7.26	8.63	6.68	8.13	7.93	11.73	7.89	8.90	60.0
16.7	4.14	7.27	8.88	7.94	9.40	7.54	8.94	6.94	8.43	8.21	12.14	8.17	9.21	62.0
17.8	4.32	7.54	9.19	8.24	9.74	7.83	9.26	7.22	8.74	8.50	12.56	8.46	9.54	64.0
18.9	4.51	7.81	9.50	8.55	10.08	8.13	9.59	7.50	9.05	8.80	12.99	8.74	9.86	66.0
20.0	4.70	8.09	9.83	8.88	10.43	8.44	9.92	7.79	9.37	9.10	13.42	9.04	10.20	68.0
21.1	4.90	8.37	10.17	9.20	10.78	8.76	10.26	8.09	9.69	9.42	13.87	9.34	10.54	70.0
22.2	5.11	8.67	10.51	9.54	11.15	9.08	10.61	8.39	10.03	9.74	14.32	9.66	10.89	72.0
23.3	5.32	8.97	10.86	9.89	11.52	9.41	10.97	8.70	10.37	10.06	14.79	9.98	11.25	74.0
24.4	5.53	9.28	11.22	10.24	11.90	9.75	11.34	9.03	10.72	10.40	15.27	10.30	11.62	76.0
25.6	5.75	9.59	11.59	10.60	12.29	10.10	11.71	9.35	11.07	10.74	15.76	10.63	11.99	78.0
26.7	5.98	9.90	11.96	10.98	12.69	10.46	12.09	9.69	11.43	11.09	16.26	10.97	12.38	80.0
27.8	6.21	10.23	12.34	11.36	13.10	10.82	12.48	10.03	11.81	11.44	16.77	11.32	12.77	82.0
28.9	6.45	10.57	12.73	11.75	13.52	11.19	12.88	10.39	12.19	11.81	17.29	11.67	13.17	84.0
30.0	6.69	10.91	13.13	12.15	13.94	11.57	13.28	10.75	12.58	12.18	17.83	12.03	13.58	86.0
31.1	6.94	11.26	13.54	12.55	14.38	11.97	13.70	11.12	12.98	12.56	18.37	12.40	13.99	88.0
32.2	7.19	11.61	13.96	12.97	14.82	12.37	14.12	11.50	13.39	12.94	18.93	12.78	14.42	90.0
33.3	7.46	11.98	14.39	13.40	15.27	12.78	14.56	11.88	13.80	13.34	19.50	13.16	14.86	92.0
34.4	7.72	12.35	14.82	13.84	15.74	13.20	15.01	12.28	14.23	13.74	20.08	13.55	15.30	94.0
35.6	7.99	12.73	15.26	14.29	16.21	13.63	15.46	12.69	14.66	14.16	20.68	13.95	15.76	96.0
36.7	8.28	13.12	15.72	14.74	16.69	14.06	15.92	13.10	15.10	14.58	21.28	14.36	16.22	98.0
37.8	8.57	13.51	16.18	15.21	17.19	14.51	16.39	13.52	15.55	15.01	21.90	14.78	16.70	100.0
38.9	8.86	13.92	16.66	15.69	17.69	14.97	16.87	13.96	16.01	15.45	22.53	15.20	17.18	102.0
40.0	9.15	14.32	17.14	16.18	18.20	15.44	17.36	14.41	16.48	15.90	23.18	15.63	17.67	104.0
41.1	9.46	14.74	17.63	16.68	18.72	15.92	17.86	14.86	16.96	16.35	23.84	16.08	18.17	106.0
42.2	9.77	15.17	18.13	17.19	19.26	16.41	18.37	15.32	17.45	16.82	24.51	16.52	18.69	108.0
43.3	10.10	15.61	18.65	17.71	19.80	16.91	18.89	15.79	17.95	17.29	25.20	16.99	19.21	110.0
44.4	10.42	16.06	19.17	18.25	20.36	17.43	19.42	16.28	18.46	17.78	25.90	17.45	19.74	112.0
45.6	10.76	16.51	19.70	18.79	20.92	17.94	19.97	16.78	18.97	18.27	26.61	17.93	20.29	114.0
46.7	11.10	16.97	20.25	19.35	21.50	18.48	20.52	17.28	19.50	18.77	27.34	18.41	20.85	116.0
47.8	11.45	17.45	20.81	19.92	22.09	19.03	21.08	17.80	20.04	19.29	28.09	18.91	21.41	118.0
48.9	11.81	17.93	21.37	20.50	22.69	19.59	21.66	18.33	20.59	19.81	28.85	19.41	21.99	120.0
50.0	12.17	18.42	21.95	21.10	23.30	20.16	22.23	18.87	21.15	20.34	29.62	19.92	22.59	122.0
51.1	12.54	18.92	22.54	21.71	23.92	20.74	22.83	19.42	21.72	20.89	30.41	20.45	23.19	124.0
52.2	12.92	19.43	23.14	22.33	24.55	21.33	23.44	19.99	22.30	21.44	31.22	20.99	23.80	126.0
53.3	13.31	19.94	23.75	22.96	25.20	21.94	24.06	20.56	22.90	22.01	32.04	21.52	24.43	128.0
54.4	13.70	20.48	24.38	23.61	25.86	22.56	24.68	21.14	23.50	22.58	32.88	22.08	25.07	130.0
55.6	14.11	21.01	25.02	24.27	26.53	23.19	25.32	21.75	24.12	23.17	33.74	22.65	25.72	132.0
56.7	14.52	21.56	25.67	24.94	27.21	23.84	25.98	22.36	24.74	23.77	34.61	23.22	26.39	134.0
57.8	14.94	22.12	26.34	25.63	27.90	24.50	26.64	22.99	25.38	24.37	35.50	23.81	27.06	136.0
58.9	15.37	22.69	27.01	26.34	28.61	25.18	27.32	23.63	26.03	24.99	36.41	24.40	27.75	138.0
60.0	15.81	23.27	27.70	27.06	29.33	25.87	28.01	24.28	26.69	25.62	37.34	25.01	28.46	140.0
61.1	16.26	23.86	28.41	27.79	30.07	26.57	28.71	24.94	27.36	26.27	38.29	25.62	29.18	142.0
62.2	16.71	24.46	29.13	28.54	30.81	27.29	29.43	25.63	28.04	26.92	39.26	26.26	29.92	144.0
63.3	17.17	25.07	29.87	29.31	31.57	28.02	30.15	26.32	28.74	27.59	40.24	26.90	30.67	146.0
64.4	17.65	25.69	30.61	30.09	32.35	28.77	30.90	27.03	29.45	28.27	41.25	27.54	31.43	148.0
65.6	18.13	26.32	31.39	30.89	33.13	29.54	31.65	27.76	30.17	28.96	42.28	28.21	32.22	150.0

## General information

Technical data are correct at the time of printing. Updates may occur, and should you need confirmation of a specific value, please contact Emerson clearly stating the information required.

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