

TECHNICAL DATA SHEET



TSA

CONDENSING UNITS
WITH AIR CONDENSATION,
CENTRIFUGAL COMPRESSORS
AND AXIAL FANS FOR
OUTDOOR INSTALLATION



TSA Range 190 - 2.400 kW

TSA Range

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation



Centrifugal compressors
AC or EC axial fans both 800 and 910 mm

R134a

HFO
1234ze

General Description

Available on several models equipped with one or more centrifugal compressors, dimensioned to be used with refrigerant type R134a or with the new HFO-1234ze low GWP refrigerant.

The units of the TSA series are assembled on a strong self-supporting metal screwed and welded structure, painted with epoxy powder with anti-rust coating for outdoor installation. All units are supplied completely wired and ready to be connected to the user's plant. Prior to delivery every machine is submitted to a performance test, with intervention tests of all the safety systems and components installed.

Each unit is available with low-speed fans and compressor sound insulation kit (Low Noise LN version or Super Low Noise LLN) for installation in areas where sound levels must be kept to a minimum.

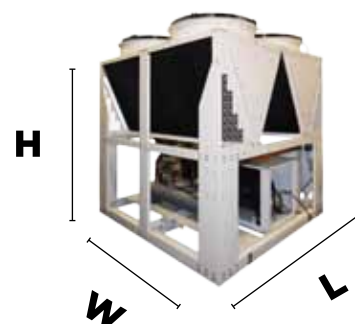
Typical units dimensions

Length: from 2.410 to 25.530 mm

Width: 2.250 mm

Height: 2.525 mm

Operating Weight: from 1.280 kg to 12.998 kg



2.410



25.530



Length from 2.410 mm to 25.530 mm. The bigger sizes are delivered in two sections.

TSA with EC fans 800 mm

R134a

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA with EC fans 800 mm		TSA 1A 190 A EC	TSA 1A 220 A EC	TSA 1A 260 A EC	TSA 1A 300 A EC	TSA 1A 320 A EC	TSA 1B 350 A EC
CHILLER PERFORMANCE							
Refrigerant		R134a	R134a	R134a	R134a	R134a	R134a
Total cooling capacity	kW	190	220	260	300	320	350
Nominal power input	kW	57,0	63,8	78,3	91,8	91,3	103,5
E.E.R.	Coef.	3,33	3,33	3,32	3,27	3,50	3,38
Energy class		A	A	A	A	A	A
E.S.E.E.R.	Coef.	4,88	4,99	4,83	5,05	5,19	4,78
Noise Pressure Level	dB(A)	58,00	58,00	59,00	59,00	59,00	61,00
Distance	m	10,00	10,00	10,00	10,00	10,00	10,00
WORKING CONDITIONS							
Compressors type (*1)	Type	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
Compressors number	n°	1	1	1	1	1	1
Condenser coil type (*2)	Type	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
Evaporator type (*3)	Type	-	-	-	-	-	-
Power circuit voltage	V/Ph/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Control circuit voltage	V/Ph/Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
Total power input	kW	57	63,8	78,3	91,8	91,3	103,5
Total running current	A	91,6	101,8	124,1	144,6	143,9	169,8
Total max current	A	151,2	151,2	156,8	156,8	156,8	226,8
Total starting current	A	16,2	16,2	21,8	21,8	21,8	21,8
DIMENSIONS							
Length with cabinet	mm	2410	2410	3460	3460	4510	4510
Width	mm	2250	2250	2250	2250	2250	2250
Height	mm	2525	2525	2525	2525	2525	2525
Shipping weight	kg	1280	1288	1744	1776	2056	2080
(*1) Oil Free: Centrifugal Oil Free Compressor							
(*2) AL / AL: Aluminium							
(*4) Delivered in 2 sections							

TSA with EC fans 800 mm

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA 1B 400 A EC	TSA 2A 450 A EC	TSA 2A 500 A EC	TSA 2A 550 A EC	TSA 2A 600 A EC	TSA 2A 640 A EC	TSA 2B 700 A EC	TSA 2B 800 A EC	TSA 3A 900 A EC	TSA 3A 960 A EC	TSA 3B 1000 A EC
R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
400	450	500	550	600	640	700	800	900	960	1000
124,1	130,2	147,3	162,5	183,6	182,6	207,0	244,7	271,9	273,9	297,3
3,22	3,46	3,39	3,38	3,27	3,50	3,38	3,27	3,31	3,50	3,36
A	A	A	A	A	A	A	A	A	A	A
4,9	5,2	5,22	5,31	5,05	5,19	5,17	5,26	5,28	5,33	5,1
62,00	61,00	62,00	62,00	62,00	62,00	64,00	64,00	63,00	64,00	66,00
10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
1	2	2	2	2	2	2	2	3	3	3
AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
-	-	-	-	-	-	-	-	-	-	-
400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
124,1	130,2	147,3	162,5	183,6	182,6	207,0	244,7	271,9	273,9	297,3
202,1	207,4	233,6	256,8	289,2	287,8	339,6	398,6	428,2	431,7	489,0
232,4	302,4	308,0	308,0	313,6	313,6	453,6	459,2	464,8	470,4	680,4
27,4	119,9	135,8	147,4	166,4	165,7	191,6	223,9	305,4	309,6	347,8
4510	4510	5560	5560	6610	6610	6610	7660	8710	9760	9760
2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
2525	2525	2525	2525	2525	2525	2525	2525	2525	2525	2525
2264	2376	2376	2992	3344	3344	3408	3936	4408	4760	5072

TSA with EC fans 800 mm

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA with EC fans 800 mm		TSA 3B 1100 A EC	TSA 3B 1200 A EC	TSA 4A 1280 A EC	TSA 4B 1350 A EC	TSA 4B 1500 A EC	TSA 4B 1600 A EC
CHILLER PERFORMANCE							
Refrigerant		R134a	R134a	R134a	R134a	R134a	R134a
Total cooling capacity	kW	1100	1200	1280	1350	1500	1600
Nominal power input	kW	329,0	372,3	365,2	400,8	451,8	489,4
E.E.R.	Coef.	3,34	3,22	3,50	3,37	3,32	3,27
Energy class		A	A	A	A	A	A
E.S.E.E.R.	Coef.	5,09	5,11	5,3	5,22	5,25	5,26
Noise Pressure Level	dB(A)	66,00	66,00	65,00	67,00	67,00	67,00
Distance	m	10,00	10,00	10,00	10,00	10,00	10,00
WORKING CONDITIONS							
Compressors type (*1)	Type	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
Compressors number	n°	3	3	4	4	4	4
Condenser coil type (*2)	Type	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
Evaporator type (*3)	Type	-	-	-	-	-	-
Power circuit voltage	V/Ph/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Control circuit voltage	V/Ph/Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
Total power input	kW	329,0	372,3	365,2	400,8	451,8	489,4
Total running current	A	538,1	606,3	575,6	658,4	738,0	797,2
Total max current	A	686,0	697,2	627,2	907,2	918,4	918,4
Total starting current	A	382,4	431,6	453,5	515,6	578,1	622,5
DIMENSIONS							
Length with cabinet	mm	10810	12910	12910	12910	15030 (*4)	15030 (*4)
Width	mm	2250	2250	2250	2250	2250	2250
Height	mm	2525	2525	2525	2525	2525	2525
Shipping weight	kg	5464	6176	6448	6568	7727	8109
(*1) Oil Free: Centrifugal Oil Free Compressor							
(*2) AL / AL: Aluminium							
(*4) Delivered in 2 sections							

TSA with EC fans 800 mm

R134a

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA 6A 1800 A EC	TSA 6A 1920 A EC	TSA 6B 2000 A EC	TSA 6B 2200 A EC	TSA 6B 2400 A EC						
R134a	R134a	R134a	R134a	R134a						
1800	1920	2000	2200	2400						
543,8	547,8	594,6	658,0	730,6						
3,31	3,50	3,36	3,34	3,28						
A	A	A	A	A						
5,3	5,29	5,24	5,24	5,31						
66,00	67,00	69,00	69,00	69,00						
10,00	10,00	10,00	10,00	10,00						
Oil Free	Oil Free	Oil Free	Oil Free	Oil Free						
6	6	6	6	6						
AL / AL	AL / AL	AL / AL	AL / AL	AL / AL						
-	-	-	-	-						
400-3-50	400-3-50	400-3-50	400-3-50	400-3-50						
230-1-50	230-1-50	230-1-50	230-1-50	230-1-50						
543,8	547,8	594,6	658,0	730,6						
856,4	863,4	978,0	1076,2	1190,2						
929,6	940,8	1360,8	1372,0	1372,0						
733,6	741,3	836,8	920,5	1015,5						
17130 (*4)	19230 (*4)	19230 (*4)	21330 (*4)	21330 (*4)						
2250	2250	2250	2250	2250						
2525	2525	2525	2525	2525						
9104	9852	10532	11382	11356						

TSA with EC fans 800 mm



Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA with EC fans 800 mm		TSA 1Z 200A EC	TSA 1Z 250A EC	TSA 1Z 300A EC	TSA 1Z 350A EC	TSA 2Z 400A EC	TSA 2Z 450A EC
CHILLER PERFORMANCE							
Refrigerant		HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze
Total cooling capacity	kW	200	250	300	350	400	450
Nominal power input	kW	57,6	66,5	82,0	103,3	112,8	122,9
E.E.R.	Coef.	3,47	3,76	3,66	3,39	3,55	3,66
Energy class		A	A	A	A	A	A
E.S.E.E.R.	Coef.	4,98	5,14	5,34	5,33	5,34	5,46
Noise Pressure Level	dB(A)	60,00	60,00	61,00	61,00	63,00	63,00
Distance	m	10,00	10,00	10,00	10,00	10,00	10,00
WORKING CONDITIONS							
Compressors type (*1)	Type	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
Compressors number	n°	1	1	1	1	2	2
Condenser coil type (*2)	Type	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
Evaporator type (*3)	Type	-	-	-	-	-	-
Power circuit voltage	V/Ph/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Control circuit voltage	V/Ph/Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
Total power input	kW	57,6	66,5	82,0	103,3	112,8	122,9
Total running current	A	96,5	110,2	134,4	167,9	189,2	204,8
Total max current	A	221,2	224,0	226,8	232,4	445,2	448,0
Total starting current	A	16,2	19,0	21,8	27,4	112,2	121,4
DIMENSIONS							
Length with cabinet	mm	2410	3460	4510	4510	5560	5560
Width	mm	2250	2250	2250	2250	2250	2250
Height	mm	2525	2525	2525	2525	2525	2525
Shipping weight	kg	1558	1929	2309	2480	3031	3240
(*1) Oil Free: Centrifugal Oil Free Compressor							
(*2) AL / AL: Aluminium							
(*4) Delivered in 2 sections							

TSA with EC fans 800 mm

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA 2Z 500A EC	TSA 2Z 550A EC	TSA 2Z 600A EC	TSA 2Z 650A EC	TSA 2Z 700A EC	TSA 3Z 800A EC	TSA 3Z 900A EC	TSA 3Z 1000A EC	TSA 3Z 1050A EC	TSA 4Z 1100A EC	TSA 4Z 1200A EC
HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze
500	550	600	650	700	800	900	1000	1050	1100	1200
132,9	148,6	165,8	188,1	206,6	216,3	249,5	296,8	309,9	300,7	335,0
3,76	3,70	3,62	3,46	3,39	3,70	3,61	3,37	3,39	3,66	3,58
A	A	A	A	A	A	A	A	A	A	A
5,42	5,47	5,53	5,58	5,54	5,58	5,52	5,52	5,50	5,52	5,56
63,00	64,00	64,00	64,00	64,00	65,00	65,00	66,00	66,00	67,00	67,00
10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
2	2	2	2	2	3	3	3	3	4	4
AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
-	-	-	-	-	-	-	-	-	-	-
400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
132,9	148,6	165,8	188,1	206,6	216,3	249,5	296,8	309,9	300,7	335,0
220,4	244,8	271,6	306,6	335,8	357,3	408,8	482,8	503,7	495,2	548,8
448,0	453,6	456,4	459,2	464,8	680,4	686,0	691,6	697,2	912,8	918,4
129,2	144,2	159,0	177,9	195,3	260,0	296,2	347,4	363,2	394,6	436,2
6610	6610	7660	7660	8710	9760	10810	11860	12910	15030 (*3)	15030 (*3)
2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
2525	2525	2525	2525	2525	2525	2525	2525	2525	2525	2525
3601	3696	4095	4133	4560	5349	5776	6204	6745	7904	7971

TSA with EC fans 800 mm

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA with EC fans 800 mm		TSA 4Z 1300A EC	TSA 4Z 1400A EC	TSA 6Z 1500A EC	TSA 6Z 1600A EC	TSA 6Z 1800A EC	TSA 6Z 2000A EC
CHILLER PERFORMANCE							
Refrigerant		HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze
Total cooling capacity	kW	1300	1400	1500	1600	1800	2000
Nominal power input	kW	376,2	413,2	402,2	432,6	499,0	593,6
E.E.R.	Coef.	3,46	3,39	3,73	3,70	3,61	3,37
Energy class		A	A	A	A	A	A
E.S.E.E.R.	Coef.	5,63	5,54	5,64	5,58	5,61	5,61
Noise Pressure Level	dB(A)	67,00	67,00	68,00	68,00	68,00	69,00
Distance	m	10,00	10,00	10,00	10,00	10,00	10,00
WORKING CONDITIONS							
Compressors type (*1)	Type	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
Compressors number	n°	4	4	6	6	6	6
Condenser coil type (*2)	Type	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
Evaporator type (*3)	Type	-	-	-	-	-	-
Power circuit voltage	V/Ph/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Control circuit voltage	V/Ph/Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
Total power input	kW	376,2	413,2	402,2	432,6	499,0	593,6
Total running current	A	613,2	671,6	666,8	714,6	817,6	965,6
Total max current	A	918,4	929,6	1349,6	1360,8	1372,0	1383,2
Total starting current	A	484,5	531,1	575,6	617,3	705,0	830,2
DIMENSIONS							
Length with cabinet	mm	15030 (*4)	17130 (*4)	17130 (*4)	19230 (*4)	21330 (*4)	23430 (*4)
Width	mm	2250	2250	2250	2250	2250	2250
Height	mm	2525	2525	2525	2525	2525	2525
Shipping weight	kg	7990	9253	9567	10422	11296	12160
(*1) Oil Free: Centrifugal Oil Free Compressor							
(*2) AL / AL: Aluminium							
(*4) Delivered in 2 sections							

TSA with EC fans 800 mm



Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA 6Z 2100A EC										
HFO-1234ze										
2100										
619,8										
3,39										
A										
5,57										
69,00										
10,00										
Oil Free										
6										
AL / AL										
-										
400-3-50										
230-1-50										
619,8										
1007,4										
1394,4										
866,9										
25530 (*4)										
2250										
2525										
12996										

TSA with AC fans 800 mm

R134a

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA with AC fans 800 mm		TSA 1A 190 A AC	TSA 1A 220 A AC	TSA 1A 260 A AC	TSA 1A 300 A AC	TSA 1A 320 A AC	TSA 1B 350 A AC
CHILLER PERFORMANCE							
Refrigerant		R134a	R134a	R134a	R134a	R134a	R134a
Total cooling capacity	kW	190	220	260	300	320	350
Nominal power input	kW	57,0	63,8	78,3	91,8	91,3	103,5
E.E.R.	Coef.	3,33	3,45	3,32	3,27	3,50	3,38
Energy class		A	A	A	A	A	A
E.S.E.E.R.	Coef.	4,23	4,53	4,2	4,4	4,53	4,44
Noise Pressure Level	dB(A)	58,00	58,00	59,00	59,00	59,00	61,00
Distance	m	10,00	10,00	10,00	10,00	10,00	10,00
WORKING CONDITIONS							
Compressors type (*1)	Type	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
Compressors number	n°	1	1	1	1	1	1
Condenser coil type (*2)	Type	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
Evaporator type (*3)	Type	-	-	-	-	-	-
Power circuit voltage	V/Ph/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Control circuit voltage	V/Ph/Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
Total power input	kW	57,0	63,8	78,3	91,8	91,3	103,5
Total running current	A	95,2	105,4	129,5	150,0	149,3	175,2
Total max current	A	154,8	154,8	162,2	162,2	162,2	232,2
Total starting current	A	19,8	19,8	27,2	27,2	27,2	27,2
DIMENSIONS							
Length with cabinet	mm	2410	2410	3460	3460	4510	4510
Width	mm	2250	2250	2250	2250	2250	2250
Height	mm	2525	2525	2525	2525	2525	2525
Shipping weight	kg	1280	1288	1744	1776	2056	2080
(*1) Oil Free: Centrifugal Oil Free Compressor							
(*2) AL / AL: Aluminium							
(*4) Delivered in 2 sections							

TSA with AC fans 800 mm

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA 1B 400 A AC	TSA 2A 450 A AC	TSA 2A 500 A AC	TSA 2A 550 A AC	TSA 2A 600 A AC	TSA 2A 640 A AC	TSA 2B 700 A AC	TSA 2B 800 A AC	TSA 3A 900 A AC	TSA 3A 960 A AC	TSA 3B 1000 A AC
R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
400	450	500	550	600	640	700	800	900	960	1000
124,1	130,2	147,3	162,5	183,6	182,6	207,0	244,7	271,9	273,9	297,3
3,22	3,46	3,39	3,38	3,27	3,50	3,38	3,27	3,31	3,50	3,36
A	A	A	A	A	A	A	A	A	A	A
4,35	4,58	4,47	4,62	4,47	4,53	4,59	4,62	4,61	4,58	4,46
62,00	61,00	62,00	62,00	62,00	62,00	64,00	64,00	63,00	64,00	66,00
10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
1	2	2	2	2	2	2	2	3	3	3
AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
-	-	-	-	-	-	-	-	-	-	-
400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
124,1	130,2	147,3	162,5	183,6	182,6	207,0	244,7	271,9	273,9	297,3
209,3	214,6	242,6	265,8	300,0	298,6	350,4	411,2	442,6	447,9	505,2
239,6	309,6	317,0	317,0	324,4	324,4	464,4	471,8	479,2	486,6	696,6
34,6	127,1	144,8	156,4	177,2	176,5	202,4	236,5	319,8	325,8	364,0
4510	4510	5560	5560	6610	6610	6610	7660	8710	9760	9760
2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
2525	2525	2525	2525	2525	2525	2525	2525	2525	2525	2525
2264	2376	2736	2992	3344	3344	3408	3936	4408	4760	5072

TSA with AC fans 800 mm

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA with AC fans 800 mm		TSA 3B 1100 A AC	TSA 3B 1200 A AC	TSA 4A 1280 A AC	TSA 4B 1350 A AC	TSA 4B 1500 A AC	TSA 4B 1600 A AC
CHILLER PERFORMANCE							
Refrigerant		R134a	R134a	R134a	R134a	R134a	R134a
Total cooling capacity	kW	1100	1200	1280	1350	1500	1600
Nominal power input	kW	329,0	372,3	365,2	400,8	451,8	489,4
E.E.R.	Coef.	3,34	3,22	3,50	3,37	3,32	3,27
Energy class		A	A	A	A	A	A
E.S.E.E.R.	Coef.	4,51	4,42	4,57	4,59	4,52	4,62
Noise Pressure Level	dB(A)	66,00	66,00	65,00	67,00	67,00	67,00
Distance	m	10,00	10,00	10,00	10,00	10,00	10,00
WORKING CONDITIONS							
Compressors type (*1)	Type	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
Compressors number	n°	3	3	4	4	4	4
Condenser coil type (*2)	Type	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
Evaporator type (*3)	Type	-	-	-	-	-	-
Power circuit voltage	V/Ph/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Control circuit voltage	V/Ph/Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
Total power input	kW	329,0	372,3	365,2	400,8	451,8	489,4
Total running current	A	556,1	627,9	597,2	680,0	763,2	822,4
Total max current	A	704,0	718,8	648,8	928,8	943,6	943,6
Total starting current	A	400,4	453,2	475,1	537,2	603,3	647,7
DIMENSIONS							
Length with cabinet	mm	10810	12910	12910	12910	15030 (*4)	15030 (*4)
Width	mm	2250	2250	2250	2250	2250	2250
Height	mm	2525	2525	2525	2525	2525	2525
Shipping weight	kg	5464	6176	6448	6568	7727	8109
(*1) Oil Free: Centrifugal Oil Free Compressor							
(*2) AL / AL: Aluminium							
(*4) Delivered in 2 sections							

TSA with AC fans 800 mm

R134a

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA 6A 1800 A AC	TSA 6A 1920 A AC	TSA 6B 2000 A AC	TSA 6B 2200 A AC	TSA 6B 2400 A AC						
R134a	R134a	R134a	R134a	R134a						
1800	1920	2000	2200	2400						
543,8	547,8	594,6	658,0	730,6						
3,31	3,50	3,36	3,34	3,28						
A	A	A	A	A						
4,63	4,56	4,57	4,57	4,68						
66,00	67,00	69,00	69,00	69,00						
10,00	10,00	10,00	10,00	10,00						
Oil Free	Oil Free	Oil Free	Oil Free	Oil Free						
6	6	6	6	6						
AL / AL	AL / AL	AL / AL	AL / AL	AL / AL						
-	-	-	-	-						
400-3-50	400-3-50	400-3-50	400-3-50	400-3-50						
230-1-50	230-1-50	230-1-50	230-1-50	230-1-50						
543,8	547,8	594,6	658,0	730,6						
885,2	895,8	1010,4	1112,2	1226,2						
958,4	973,2	1393,2	1408,0	1408,0						
762,4	773,7	869,2	956,5	1051,5						
17130 (*4)	19230 (*4)	19230 (*4)	21330 (*4)	21330 (*4)						
2250	2250	2250	2250	2250						
2525	2525	2525	2525	2525						
9104	9852	10532	11382	11356						

TSA with EC fans 910 mm

R134a

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA with EC fans 910 mm		TSA 1A 190 B EC	TSA 1A 220 B EC	TSA 1A 260 B EC	TSA 1A 300 B EC	TSA 1A 320 B EC	TSA 1B 350 B EC
CHILLER PERFORMANCE							
Refrigerant		R134a	R134a	R134a	R134a	R134a	R134a
Total cooling capacity	kW	190	220	260	300	320	350
Nominal power input	kW	58,4	65,2	79,0	92,5	94,8	107,0
E.E.R.	Coef.	3,25	3,37	3,29	3,24	3,38	3,27
Energy class		A	A	A	A	A	A
E.S.E.E.R.	Coef.	4,8	4,86	4,78	5,01	5,01	4,65
Noise Pressure Level	dB(A)	60,00	60,00	61,00	61,00	62,00	63,00
Distance	m	10,00	10,00	10,00	10,00	10,00	10,00
WORKING CONDITIONS							
Compressors type (*1)	Type	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
Compressors number	n°	1	1	1	1	1	1
Condenser coil type (*2)	Type	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
Evaporator type (*3)	Type	-	-	-	-	-	-
Power circuit voltage	V/Ph/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Control circuit voltage	V/Ph/Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
Total power input	kW	58,4	65,2	79,0	92,5	94,8	107,0
Total running current	A	93,6	103,8	124,9	145,4	149,1	175,0
Total max current	A	153,2	153,2	157,6	157,6	162,0	232,0
Total starting current	A	18,2	18,2	22,6	22,6	27,0	27,0
DIMENSIONS							
Length with cabinet	mm	2410	2410	2410	3460	3460	3460
Width	mm	2250	2250	2250	2250	2250	2250
Height	mm	2540	2540	2540	2540	2540	2540
Shipping weight	kg	1248	1248	1408	1704	1736	1752
(*1) Oil Free: Centrifugal Oil Free Compressor							
(*2) AL / AL: Aluminium							
(*4) Delivered in 2 sections							

TSA with EC fans 910 mm

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA 1B 400 B EC	TSA 2A 450 B EC	TSA 2A 500 B EC	TSA 2A 550 B EC	TSA 2A 600 B EC	TSA 2A 640 B EC	TSA 2B 700 B EC	TSA 2B 800 B EC	TSA 3A 900 B EC	TSA 3A 960 B EC	TSA 3B 1000 B EC
R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
400	450	500	550	600	640	700	800	900	960	1000
126,9	133,0	149,4	167,4	185,0	189,6	214,0	251,0	280,3	281,6	305,0
3,15	3,38	3,35	3,29	3,24	3,38	3,27	3,19	3,21	3,41	3,28
A	A	A	A	A	A	A	A	A	A	A
4,8	5,1	5,15	5,16	5,01	5,01	5,02	5,12	5,12	5,19	4,98
63,00	63,00	64,00	64,00	64,00	65,00	66,00	66,00	66,00	66,00	68,00
10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
1	2	2	2	2	2	2	2	3	3	3
AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
-	-	-	-	-	-	-	-	-	-	-
400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
126,9	133,0	149,4	167,4	185,0	189,6	214,0	251,0	280,3	281,6	305,0
206,1	211,4	236,4	264,0	290,8	298,2	350,0	407,8	440,6	442,9	500,2
236,4	306,4	310,8	315,2	315,2	324,0	464,0	468,4	477,2	481,6	691,6
31,4	123,9	138,6	154,6	168,0	176,1	202,0	233,1	317,8	320,8	359,0
3460	4510	4510	4510	5560	5560	5560	6610	7660	7660	7660
2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540
1920	2304	2360	2640	2928	2992	3056	3552	4024	4056	4376

TSA with EC fans 910 mm

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA with EC fans 910 mm		TSA 3B 1100 B EC	TSA 3B 1200 B EC	TSA 4A 1280 B EC	TSA 4B 1350 B EC	TSA 4B 1500 B EC	TSA 4B 1600 B EC
CHILLER PERFORMANCE							
Refrigerant		R134a	R134a	R134a	R134a	R134a	R134a
Total cooling capacity	kW	1100	1200	1280	1350	1500	1600
Nominal power input	kW	338,8	377,9	379,2	414,8	464,4	502,0
E.E.R.	Coef.	3,25	3,18	3,38	3,25	3,23	3,19
Energy class		A	A	A	A	A	A
E.S.E.E.R.	Coef.	4,95	5,04	5,12	5,06	5,11	5,12
Noise Pressure Level	dB(A)	68,00	68,00	68,00	69,00	69,00	69,00
Distance	m	10,00	10,00	10,00	10,00	10,00	10,00
WORKING CONDITIONS							
Compressors type (*1)	Type	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
Compressors number	n°	3	3	4	4	4	4
Condenser coil type (*2)	Type	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
Evaporator type (*3)	Type	-	-	-	-	-	-
Power circuit voltage	V/Ph/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Control circuit voltage	V/Ph/Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
Total power input	kW	338,8	377,9	379,2	414,8	464,4	502,0
Total running current	A	552,5	613,9	596,4	679,2	756,4	815,6
Total max current	A	700,4	704,8	648,0	928,0	936,8	936,8
Total starting current	A	396,8	439,2	474,3	536,4	596,5	640,9
DIMENSIONS							
Length with cabinet	mm	8710	9760	10810	10810	12910	12910
Width	mm	2250	2250	2250	2250	2250	2250
Height	mm	2540	2540	2540	2540	2540	2540
Shipping weight	kg	4760	5088	5744	5872	6911	7319
(*1) Oil Free: Centrifugal Oil Free Compressor							
(*2) AL / AL: Aluminium							
(*4) Delivered in 2 sections							

TSA with EC fans 910 mm

R134a

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA 6A 1800 B EC	TSA 6A 1920 B EC	TSA 6B 2000 B EC	TSA 6B 2200 B EC	TSA 6B 2400 B EC						
R134a	R134a	R134a	R134a	R134a						
1800	1920	2000	2200	2400						
560,6	563,2	610,0	677,6	755,8						
3,21	3,41	3,28	3,25	3,18						
A	A	A	A	A						
5,14	5,15	5,11	5,1	5,14						
69,00	69,00	71,00	71,00	71,00						
10,00	10,00	10,00	10,00	10,00						
Oil Free	Oil Free	Oil Free	Oil Free	Oil Free						
6	6	6	6	6						
AL / AL	AL / AL	AL / AL	AL / AL	AL / AL						
-	-	-	-	-						
400-3-50	400-3-50	400-3-50	400-3-50	400-3-50						
230-1-50	230-1-50	230-1-50	230-1-50	230-1-50						
560,6	563,2	610,0	677,6	755,8						
881,2	885,8	1000,4	1105,0	1227,8						
954,4	963,2	1383,2	1400,8	1409,6						
758,4	763,7	859,2	949,3	1053,1						
15030 (*4)	15030 (*4)	15030 (*4)	17130 (*4)	19230 (*4)						
2250	2250	2250	2250	2250						
2540	2540	2540	2540	2540						
8288	8356	9036	9877	10549						

TSA with EC fans 910 mm



Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA with EC fans 910 mm		TSA 1Z 200B EC	TSA 1Z 250B EC	TSA 1Z 300B EC	TSA 1Z 350B EC	TSA 2Z 400B EC	TSA 2Z 450B EC
CHILLER PERFORMANCE							
Refrigerant		HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze
Total cooling capacity	kW	200	250	300	350	400	450
Nominal power input	kW	59,0	68,9	85,5	106,1	116,6	127,8
E.E.R.	Coef.	3,39	3,63	3,51	3,30	3,43	3,52
Energy class		A	A	A	A	A	A
E.S.E.E.R.	Coef.	4,86	4,96	5,11	5,19	5,18	5,26
Noise Pressure Level	dB(A)	61,00	62,00	63,00	63,00	65,00	65,00
Distance	m	10,00	10,00	10,00	10,00	10,00	10,00
WORKING CONDITIONS							
Compressors type (*1)	Type	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
Compressors number	n°	1	1	1	1	2	2
Condenser coil type (*2)	Type	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
Evaporator type (*3)	Type	-	-	-	-	-	-
Power circuit voltage	V/Ph/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Control circuit voltage	V/Ph/Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
Total power input	kW	59,0	68,9	85,5	106,1	116,6	127,8
Total running current	A	98,5	113,8	139,6	171,9	194,8	212,0
Total max current	A	223,2	227,6	232,0	236,4	450,8	455,2
Total starting current	A	18,2	22,6	27,0	31,4	117,8	128,6
DIMENSIONS							
Length with cabinet	mm	2410	3460	3460	3460	4510	4510
Width	mm	2250	2250	2250	2250	2250	2250
Height	mm	2540	2540	2540	2540	2540	2540
Shipping weight	kg	1511	1881	1938	2062	2613	2831
(*1) Oil Free: Centrifugal Oil Free Compressor							
(*2) AL / AL: Aluminium							
(*4) Delivered in 2 sections							

TSA with EC fans 910 mm

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA 2Z 500B EC	TSA 2Z 550B EC	TSA 2Z 600B EC	TSA 2Z 650B EC	TSA 2Z 700B EC	TSA 3Z 800B EC	TSA 3Z 900B EC	TSA 3Z 1000B EC	TSA 3Z 1050B EC	TSA 4Z 1100B EC	TSA 4Z 1200B EC
HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze
500	550	600	650	700	800	900	1000	1050	1100	1200
140,6	155,6	173,8	197,2	215,0	224,0	259,3	308,7	323,9	311,2	347,6
3,56	3,53	3,45	3,30	3,26	3,57	3,47	3,24	3,24	3,53	3,45
A	A	A	A	A	A	A	A	A	A	A
5,16	5,25	5,30	5,33	5,33	5,41	5,33	5,31	5,26	5,35	5,37
65,00	66,00	66,00	66,00	66,00	67,00	68,00	68,00	68,00	69,00	69,00
10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
2	2	2	2	2	3	3	3	3	4	4
AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
-	-	-	-	-	-	-	-	-	-	-
400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
140,6	155,6	173,8	197,2	215,0	224,0	259,3	308,7	323,9	311,2	347,6
232,0	255,2	283,6	320,2	348,2	368,5	423,2	500,4	524,5	510,4	567,2
459,6	464,0	468,4	472,8	477,2	691,6	700,4	709,2	718,0	928,0	936,8
140,8	154,6	171,0	191,5	207,7	271,2	310,6	365,0	384,0	409,8	454,6
5560	5560	6610	6610	7660	7660	8710	9760	10810	10810	12910
2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540
3221	3278	3677	3715	4114	4513	4940	5377	5919	6270	7087

TSA with EC fans 910 mm

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA with EC fans 910 mm		TSA 4Z 1300B EC	TSA 4Z 1400B EC	TSA 6Z 1500B EC	TSA 6Z 1600B EC	TSA 6Z 1800B EC	TSA 6Z 2000B EC
CHILLER PERFORMANCE							
Refrigerant		HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze	HFO-1234ze
Total cooling capacity	kW	1300	1400	1500	1600	1800	2000
Nominal power input	kW	394,4	430,0	424,6	453,6	518,6	617,4
E.E.R.	Coef.	3,30	3,26	3,53	3,53	3,47	3,24
Energy class		A	A	A	A	A	A
E.S.E.E.R.	Coef.	5,38	5,33	5,36	5,35	5,41	5,39
Noise Pressure Level	dB(A)	69,00	69,00	70,00	70,00	71,00	71,00
Distance	m	10,00	10,00	10,00	10,00	10,00	10,00
WORKING CONDITIONS							
Compressors type (*1)	Type	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
Compressors number	n°	4	4	6	6	6	6
Condenser coil type (*2)	Type	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
Evaporator type	Type	-	-	-	-	-	-
Power circuit voltage	V/Ph/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Control circuit voltage	V/Ph/Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
Total power input	kW	394,4	430,0	424,6	453,6	518,6	617,4
Total running current	A	640,4	696,4	700,4	745,8	846,4	1000,8
Total max current	A	945,6	954,4	1383,2	1392,0	1400,8	1418,4
Total starting current	A	511,7	555,9	609,2	648,5	733,8	865,4
DIMENSIONS							
Length with cabinet	mm	12910 (*4)	15030 (*4)	15030 (*4)	17130 (*4)	17130 (*4)	19230 (*4)
Width	mm	2250	2250	2250	2250	2250	2250
Height	mm	2540	2540	2540	2540	2540	2540
Shipping weight	kg	7163	8379	8731	9567	9624	10488
(*1) Oil Free: Centrifugal Oil Free Compressor							
(*2) AL / AL: Aluminium							
(*4) Delivered in 2 sections							

TSA with EC fans 910 mm



Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA 6Z 2100B EC										
HFO-1234ze										
2100										
647,8										
3,24										
A										
5,33										
71,00										
10,00										
Oil Free										
6										
AL / AL										
-										
400-3-50										
230-1-50										
647,8										
1049,0										
1436,0										
908,5										
21330 (*4)										
2250										
2540										
11324										

TSA with AC fans 910 mm

R134a

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA with AC fans 910 mm		TSA 1A 190 B AC	TSA 1A 220 B AC	TSA 1A 260 B AC	TSA 1A 300 B AC	TSA 1A 320 B AC	TSA 1B 350 B AC
CHILLER PERFORMANCE							
Refrigerant		R134a	R134a	R134a	R134a	R134a	R134a
Total cooling capacity	kW	190	220	260	300	320	350
Nominal power input	kW	58,3	65,1	78,7	89,3	93,1	106,9
E.E.R.	Coef.	3,26	3,38	3,30	3,36	3,44	3,28
Energy class		A	A	A	A	A	A
E.S.E.E.R.	Coef.	4,28	4,53	4,34	4,55	4,39	4,32
Noise Pressure Level	dB(A)	59,00	59,00	60,00	60,00	61,00	63,00
Distance	m	10,00	10,00	10,00	10,00	10,00	10,00
WORKING CONDITIONS							
Compressors type (*1)	Type	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
Compressors number	n°	1	1	1	1	1	1
Condenser coil type (*2)	Type	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
Evaporator type (*3)	Type	-	-	-	-	-	-
Power circuit voltage	V/Ph/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Control circuit voltage	V/Ph/Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
Total power input	kW	58,3	65,1	78,7	89,3	93,1	106,9
Total running current	A	97,3	107,6	129,7	145,9	153,1	181,4
Total max current	A	155,6	155,6	160,8	160,8	166,0	236,0
Total starting current	A	20,6	20,6	25,8	25,8	31,0	31,0
DIMENSIONS							
Length with cabinet	mm	2410	2410	2410	3460	3460	3460
Width	mm	2250	2250	2250	2250	2250	2250
Height	mm	2540	2540	2540	2540	2540	2540
Shipping weight	kg	1248	1248	1408	1704	1736	1752
(*1) Oil Free: Centrifugal Oil Free Compressor							
(*2) AL / AL: Aluminium							
(*4) Delivered in 2 sections							

TSA with AC fans 910 mm

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA 1B 400 B AC	TSA 2A 450 B AC	TSA 2A 500 B AC	TSA 2A 550 B AC	TSA 2A 600 B AC	TSA 2A 640 B AC	TSA 2B 700 B AC	TSA 2B 800 B AC	TSA 3A 900 B AC	TSA 3A 960 B AC	TSA 3B 1000 B AC
R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a	R134a
400	450	500	550	600	640	700	800	900	960	1000
126,8	132,7	149,0	167,0	178,6	186,1	213,7	251,2	270,4	276,7	304,6
3,15	3,39	3,36	3,29	3,36	3,44	3,28	3,19	3,33	3,47	3,28
A	A	A	A	A	A	A	A	A	A	A
4,34	4,58	4,57	4,53	4,63	4,39	4,46	4,56	4,52	4,54	4,42
63,00	62,00	62,00	63,00	63,00	64,00	66,00	66,00	65,00	66,00	67,00
10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00	10,00
Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
1	2	2	2	2	2	2	2	3	3	3
AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
-	-	-	-	-	-	-	-	-	-	-
400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
126,8	132,7	149,0	167,0	178,6	186,1	213,7	251,2	270,4	276,7	304,6
214,0	219,0	245,2	274,0	291,8	306,2	362,8	422,8	442,9	454,1	518,0
241,2	311,2	316,4	321,6	321,6	332,0	472,0	477,2	487,6	492,8	702,8
36,2	130,1	145,8	162,8	171,7	184,1	212,4	245,0	322,8	332,0	374,6
3460	4510	4510	4510	5560	5560	5560	6610	7660	7660	7660
2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
2540	2540	2540	2540	2540	2540	2540	2540	2540	2540	2540
1920	2304	2360	2640	2928	2992	3056	3552	4024	4056	4376

TSA with AC fans 910 mm

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA with AC fans 910 mm		TSA 3B 1100 B AC	TSA 3B 1200 B AC	TSA 4A 1280 B AC	TSA 4B 1350 B AC	TSA 4B 1500 B AC	TSA 4B 1600 B AC
CHILLER PERFORMANCE							
Refrigerant		R134a	R134a	R134a	R134a	R134a	R134a
Total cooling capacity	kW	1100	1200	1280	1350	1500	1600
Nominal power input	kW	338,0	378,0	372,2	413,8	463,5	502,3
E.E.R.	Coef.	3,25	3,18	3,44	3,26	3,24	3,19
Energy class		A	A	A	A	A	A
E.S.E.E.R.	Coef.	4,43	4,49	4,43	4,45	4,46	4,56
Noise Pressure Level	dB(A)	67,00	68,00	67,00	69,00	69,00	69,00
Distance	m	10,00	10,00	10,00	10,00	10,00	10,00
WORKING CONDITIONS							
Compressors type (*1)	Type	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free	Oil Free
Compressors number	n°	3	3	3	4	4	4
Condenser coil type (*2)	Type	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL	AL / AL
Evaporator type (*3)	Type	-	-	-	-	-	-
Power circuit voltage	V/Ph/Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Control circuit voltage	V/Ph/Hz	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50	230-1-50
Total power input	kW	338,0	378,0	372,2	413,8	463,5	502,3
Total running current	A	572,8	636,8	612,4	704,4	784,4	845,6
Total max current	A	713,2	718,4	664,0	944,0	954,4	954,4
Total starting current	A	414,6	459,0	490,3	559,3	621,9	667,8
DIMENSIONS							
Length with cabinet	mm	8710	9760	10810	10810	12910	12910
Width	mm	2250	2250	2250	2250	2250	2250
Height	mm	2540	2540	2540	2540	2540	2540
Shipping weight	kg	4760	5088	5744	5872	6911	7319
(*1) Oil Free: Centrifugal Oil Free Compressor							
(*2) AL / AL: Aluminium							
(*4) Delivered in 2 sections							

TSA with AC fans 910 mm

R134a

Condensing units with air condensation, centrifugal compressors and axial fans for outdoor installation

TSA 6A 1800 B AC	TSA 6A 1920 B AC	TSA 6B 2000 B AC	TSA 6B 2200 B AC	TSA 6B 2400 B AC						
R134a	R134a	R134a	R134a	R134a						
1800	1920	2000	2200	2400						
540,7	553,4	609,2	676,0	755,9						
3,33	3,47	3,28	3,25	3,18						
A	A	A	A	A						
4,52	4,52	4,52	4,49	4,54						
68,00	69,00	70,00	70,00	71,00						
10,00	10,00	10,00	10,00	10,00						
Oil Free	Oil Free	Oil Free	Oil Free	Oil Free						
4	4	4	4	4						
AL / AL	AL / AL	AL / AL	AL / AL	AL / AL						
-	-	-	-	-						
400-3-50	400-3-50	400-3-50	400-3-50	400-3-50						
230-1-50	230-1-50	230-1-50	230-1-50	230-1-50						
540,7	553,4	609,2	676,0	755,9						
885,8	908,2	1036,0	1145,6	1273,6						
975,2	985,6	1405,6	1426,4	1436,8						
765,7	786,1	892,6	987,4	1095,8						
15030 (*4)	15030 (*4)	15030 (*4)	17130 (*4)	19230 (*4)						
2250	2250	2250	2250	2250						
2540	2540	2540	2540	2540						
8288	8356	9036	9877	10549						