

STULZ

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STULZ Explorer

Technical Data

Technical Data – WPA-060 ... WPA-080

Model		WPA-060	WPA-060SL	WPA-060FC	WPA-070	WPA-070SL	WPA-070FC	WPA-080
General								
Cooling capacity	kW	165.5	160.6	196.0	187.5	180.7	224.2	222.6
Working limits ambient temperature	°C	-10 / +45	-10 / +45	-10 / +45	-10 / +45	-5 / +45	-10 / +45	-10 / +45
Working limits water outlet temperature	°C	-5* / +20	-5* / +20	-5* / +20	-5* / +20	-5* / +20	-5* / +20	-5* / +20
Refrigerant	Type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Secondary power supply	Vac	230	230	230	230	230	230	230
Max. power consumption	kW	79.88	78.60	92.73	92.62	91.37	105.47	109.76
Max. absorbed current	A	138.96	135.76	161.30	160.96	157.76	183.30	191.60
Starting current	A	268.66	265.46	282.30	337.36	334.16	349.30	368.00
Height x width x depth	mm	2,406x2,208x3,140	2,406x2,208x3,140	2,406x2,208x3,140	2,406x2,208x3,140	2,406x2,208x3,140	2,406x2,208x3,140	2,406x2,208x3,140
Noise level	dB(A)	57,8	49,9	58,1	57,8	49,9	58,1	58,1
Compressor								
Scroll compressor	n°	4	4	4	4	4	4	4
Max. power consumption	kW	76.52	76.52	76.52	89.26	89.26	89.26	102.00
Max. absorbed current	A	132	132	132	154	154	154	176
Power consumption W7L35	kW	49.8	52.6	40.7	61.0	65.0	49.4	68.1
Absorbed current W7L35	A	82.3	86.1	69.2	100.4	106.2	83.6	108.6
Fans								
Axial fans	n°	4 x ø710	4 x ø710	4x ø800	4 x ø710	4 x ø710	4 x ø800	4 x ø800
Fan flow	m³/h	57,600	47,840	85,500	57,600	47,840	85,500	85,500
Power consumption	kW	3.36	3.20	5.46	3.36	3.20	5.46	5.46
Max. absorbed current	A	6.96	3.76	15.60	6.96	3.76	15.60	15.60
Hydraulic								
Coolant liquid	Type	Water	Water	Eth. Glycol 30%	Water	Water	Eth. Glycol 30%	Water
Inlet temperature	°C	12	12	15	12	12	15	12
Outlet temperature	°C	7	7	10	7	7	10	7
Water flow	m³/h	28.42	27.59	36.46	32.22	31.08	41.72	38.22
Pressure drops	kPa	39.9	37.8	74.1	39.8	37.3	75.2	37.2
Water connections	Inches	3	3	3	3	3	3	3
FC								
Air temperature (TOTAL FC)	°C			5			5	
Inlet fluid temperature	°C			15			15	

Technical Data – WPA-080SL ... WPA-100SL

Model		WPA-080SL	WPA-080FC	WPA-090	WPA-090SL	WPA-090FC	WPA-100	WPA-100SL
General								
Cooling capacity	kW	216.6	263.1	245.2	237.4	293.4	266.5	276.0
Working limits ambient temperature	°C	-5 / +45	-10 / +45	-10 / +45	-10 / +45	-10 / +45	-10 / +45	-5 / +45
Working limits water outlet temperature	°C	-5* / +20	-5* / +20	-5* / +20	-5* / +20	-5* / +20	-5* / +20	-5* / +20
Refrigerant	Type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Secondary power supply	Vac	230	230	230	230	230	230	230
Max. power consumption	kW	106.83	122.09	121.16	118.19	135.27	132.56	132.01
Max. absorbed current	A	184.92	213.10	209.60	202.92	234.20	227.60	225.38
Starting current	A	361.32	379.10	380.3	373.62	391.20	398.30	396.08
Height x width x depth	mm	2,406x2,208x3,140	2,406x2,208x4,447	2,406x2,208x3,140	2,406x2,208x3,140	2,406x2,208x4,447	2,406x2,208x3,140	2,406x2,206x4,447
Noise level	dB(A)	50.7	58.3	58.2	51.5	58.6	58.2	52.0
Compressor								
Scroll compressor	n°	4	4	4	4	4	4	4
Max. power consumption	kW	102.0	102.0	113.4	113.4	113.4	124.8	124.8
Max. absorbed current	A	176	176	194	194	194	212	212
Power consumption W7L35	kW	71.6	55.9	77.5	81.9	63.3	86.0	81.1
Absorbed current W7L35	A	113.5	92.2	122.7	129.1	102.9	137.9	130.4
Fans								
Axial fans	n°	4 x ø800	6 x ø800	4 x ø800	4 x ø800	6 x ø800	4 x ø800	6 x ø800
Fan flow	m³/h	71,036	128,250	85,500	71,036	128,250	85,500	106,554
Power consumption	kW	5.20	8.19	5.46	5.20	8.19	5.46	7.80
Max. absorbed current	A	8.92	23.40	15.60	8.92	23.40	15.60	13.38
Hydraulic								
Coolant liquid	Type	Water	Eth. Glycol 30%	Water	Water	Eth. Glycol 30%	Water	Water
Inlet temperature	°C	12	15	12	12	15	12	12
Outlet temperature	°C	7	10	7	7	10	7	7
Water flow	m³/h	37.21	48.94	42.12	40.82	54.59	45.79	47.42
Pressure drops	kPa	35.5	68.9	33.7	31.8	63.8	31.9	34.0
Water connections	Inches	3	3	3	3	3	3	3
FC								
Air temperature (TOTAL FC)	°C		5			5		
Inlet fluid temperature	°C		15			15		

Evaporator water (in/out) 12/7 °C; condenser air (in) 35 °C;
 30% glycol-water solution Evaporator solution IN/OUT= 15/10 °C; condenser air 30 °C
 Average sound pressure level at 10 m distance; unit in a free field on a reflective surface.
 Unit at full capacity According to ISO 3744 Pump contribution is not considered.
 *In case of applications with an output fluid temperature below 0 °C, please contact the manufacturer.

Technical Data – WPA-100-FC ... WPA-140

Model		WPA-100FC	WPA-110	WPA-110SL	WPA-110FC	WPA-120	WPA-120SL	WPA-140
General								
Cooling capacity	kW	322.7	318.6	310.3	364.3	353.1	342.6	385.1
Working limits ambient temperature	°C	-10 / +45	-10 / +45	-5 / +45	-10 / +45	-10 / +45	-10 / +45	-10 / +45
Working limits water outlet temperature	°C	-5* / +20	-5* / +20	-5* / +20	-5* / +20	-5* / +20	-5* / +20	-5* / +20
Refrigerant	Type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Secondary power supply	Vac	230	230	230	230	230	230	230
Max. power consumption	kW	146.67	150.64	146.29	162.84	165.07	160.80	181.27
Max. absorbed current	A	252.20	261.40	251.38	283.30	287.40	277.00	317.40
Starting current	A	409.20	499.20	489.18	504.30	525.20	515.00	551.20
Height x width x depth	mm	2,406x2,208x4,447	2,406x2,208x4,447	2,406x2,208x4,447	2,406x2,208x4,447	2,406x2,208x4,447	2,406x2,208x4,447	2,406x2,208x4,447
Noise level	dB(A)	58.6	59.9	52.6	59.9	60.2	53.4	60.8
Compressor								
Scroll compressor	n°	4	4	4	4	4	4	4
Max. power consumption	kW	124.8	139.0	139.0	139.0	153.2	153.2	169.4
Max. absorbed current	A	212	238	238	238	264	264	294
Power consumption W7L35	kW	70.0	92.2	96.4	83.5	106.0	111.3	119.3
Absorbed current W7L35	A	114.3	145.0	151.1	132.7	168.5	176.3	195.2
Fans								
Axial fans	n°	6 x ø800	6 x ø800	6 x ø800	6 x ø800	6 x ø800	6 x ø800	6 x ø800
Fan flow	m³/h	128,250	128,250	106,554	128,250	128,250	106,554	128,250
Power consumption	kW	8.19	8.19	7.80	8.19	8.19	7.80	8.19
Max. absorbed current	A	23.40	23.40	13.38	23.40	23.40	13.38	23.40
Hydraulic								
Coolant liquid	Type	Eth. Glycol 30%	Water	Water	Eth. Glycol 30%	Water	Water	Water
Inlet temperature	°C	15	12	12	15	12	12	12
Outlet temperature	°C	10	7	7	10	7	7	7
Water flow	m³/h	60.03	54.70	53.27	67.78	60.63	58.84	66.14
Pressure drops	kPa	61.7	44.5	42.4	76.6	41.5	39.3	34.8
Water connections	Inches	3	4	4	4	4	4	4
FC								
Air temperature (TOTAL FC)	°C	5			5			
Inlet fluid temperature	°C	15			15			

Technical Data – WPA-100-FC ... WPA-140

Model		WPA-140SL	WPA-160	WPA-160SL	WPA-180	WPA-180SL	WPA-200	WPA-200SL
General								
Cooling capacity	kW	391.7	432.0	419.5	504.0	507.3	559.3	563.4
Working limits ambient temperature	°C	-10 / +45	-10 / +45	-10 / +45	-10 / +45	-10 / +45	-10 / +45	-10 / +45
Working limits water outlet temperature	°C	-5* / +20	-5* / +20	-5* / +20	-5* / +20	-5* / +20	-5* / +20	-5* / +20
Refrigerant	Type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Secondary power supply	Vac	230	230	230	230	230	230	230
Max. power consumption	kW	184.80	201.12	195.00	245.30	241.90	275.30	271.90
Max. absorbed current	A	325.0	355.2	342.0	427.2	418.0	487.2	478.0
Starting current	A	559.0	572.2	559.0	648.2	639.0	678.2	669.0
Height x width x depth	mm	2,406x2,208x5,820	2,406x2,208x5,820	2,406x2,208x5,820	2,406x2,208x5,820	2,406x2,208x7,130	2,406x2,208x5,820	2,406x2,208x7,130
Noise level	dB(A)	53.7	61.6	54.5	62.0	54.7	61.0	54.1
Compressor								
Scroll compressor	n°	4	4	4	6	6	6	6
Max. power consumption	kW	169.4	185.6	185.6	229.8	229.8	259.8	259.8
Max. absorbed current	A	294	324	324	396	396	456	456
Power consumption W7L35	kW	116.2	121.1	126.2	162.8	161.2	188.9	186.8
Absorbed current W7L35	A	190.5	203.7	211.9	258.8	256.5	311.4	308.5
Fans								
Axial fans	n°	8 x ø800	8 x ø800	8 x ø800	8 x ø800	10 x ø800	8 x ø800	10 x ø800
Fan flow	m³/h	142,072	171,000	142,072	171,000	177,590	171,000	177,590
Power consumption	kW	10.40	10.92	10.40	10.92	13.00	10.92	13.00
Max. absorbed current	A	31.20	31.20	17.84	31.20	22.00	31.20	22.00
Hydraulic								
Coolant liquid	Type	Water	Water	Water	Water	Water	Water	Water
Inlet temperature	°C	12	12	12	12	12	12	12
Outlet temperature	°C	7	7	7	7	7	7	7
Water flow	m³/h	67.26	74.16	71.99	86.51	87.08	96.01	96.73
Pressure drops	kPa	35.8	44.3	41.9	64.2	65.0	48.3	49.0
Water connections	Inches	4	5	5	5	5	5	5
FC								
Air temperature (TOTAL FC)	°C							
Inlet fluid temperature	°C							

Evaporator water (in/out) 12/7 °C; condenser air (in) 35 °C;
 30% glycol-water solution Evaporator solution IN/OUT= 15/10 °C; condenser air 30 °C
 Average sound pressure level at 10 m distance; unit in a free field on a reflective surface.
 Unit at full capacity According to ISO 3744 Pump contribution is not considered.
 *In case of applications with an output fluid temperature below 0 °C, please contact the manufacturer.

Technical Data – WSA Standard

Model		WSA-160	WSA-220	WSA-250	WSA-280	WSA-300	WSA-320
General							
Cooling capacity	kW	376	482	568	631	673	739
Power Consumption		121	164	178	203	226	237
Working limits ambient temperature	°C	-18* / +46	-18* / +46	-18* / +46	-18* / +46	-18* / +46	-18* / +46
Working limits water outlet temperature	°C	-5* / +25	-5* / +25	-5* / +25	-5* / +25	-5* / +25	-5* / +25
Refrigerant	Type	R134a	R134a	R134a	R134a	R134a	R134a
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Secondary power supply	Vac	230	230	230	230	230	230
Max. power consumption	kW	336	412	459	495	495	646
Max. absorbed current	A	196	240	268	290	290	347
Starting current	A	586	750	875	946	946	802
Height x width x depth	mm	2473 x 2278 x 4240	2473 x 2278 x 4240	2473 x 2278 x 6960	2473 x 2278 x 6960	2473 x 2278 x 6960	2473 x 2278 x 8080
Noise level	dB(A)	68,9	70,5	69,2	69,6	69,6	70,6
2Compressor							
Cooling Circuit	n°	2	2	2	2	2	2
Semi-Hermetic Double Screw compressor	n°	2	2	2	2	2	2
Partialization	%	12,5...100	12,5...100	12,5...100	12,5...100	12,5...100	12,5...100
Max. power consumption	kW	176	220	392	262	262	310
Max. absorbed current	A	288	364	240	428	428	560
Power consumption W7L35	kW	105	148	154	179	202	205
Absorbed current W7L35	A	163	243	258	296	313	328
Fans							
Axial fans	n°	8	8	12	12	12	16
Fan flow	m³/h	148820	144240	215045	215045	215045	278715
Max. Power consumption	kW	17,6	17,6	26,4	26,4	26,4	35,2
Max. absorbed current	A	37,8	37,8	56,8	56,8	56,8	75,7
Power Consumption W7L35	kW	16	16	24	24	24	32
Absorbed Current W7L35	A	34,4	34,4	51,6	51,6	51,6	68,8
Hydraulic							
Coolant liquid	Type	Water + max 40% glycol					
Inlet temperature	°C	12	12	12	12	12	12
Outlet temperature	°C	7	7	7	7	7	7
Water flow	m³/h	64	83	97	108	115	127
Pressure drops	kPa	44	35	36	38	35	43
Water connections	Inches	6	6	6	6	6	6
EER							
EER		3,10	2,94	3,18	3,11	2,97	3,12
ESEER		4,43	4,65	4,52	4,58	4,45	4,53
IPLV		4,35	4,55	4,48	4,58	4,45	4,37

Technical Data – WSA Standard

Model		WSA-360	WSA-380	WSA-440	WSA-480	WSA-640
General						
Cooling capacity	kW	845	912	1032	1122	1260
Power Consumption		271	294	354	351	431
Working limits ambient temperature	°C	-18* / +46	-18* / +46	-18* / +46	-18* / +46	-18* / +46
Working limits water outlet temperature	°C	-5* / +25	-5* / +25	-5* / +25	-5* / +25	-5* / +25
Refrigerant	Type	R134a	R134a	R134a	R134a	R134a
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Secondary power supply	Vac	230	230	230	230	230
Max. power consumption	kW	706	706	726	844	1018
Max. absorbed current	A	387	387	445	499	609
Starting current	A	861	861	992	1134	1488
Height x width x depth	mm	2473 x 2278 x 8080	2473 x 2278 x 8080	2473 x 2278 x 8080	2473 x 2278 x 11920	2473 x 2278 x 11920
Noise level	dB(A)	70,8	70,8	71,7	72,6	74,0
Cooling circuit						
Cooling Circuit	n°	2	2	2	2	2
Semi-Hermetic Double Screw compressor	n°	2	2	2	2	2
Partialization	%	12,5...100	12,5...100	12,5...100	12,5...100	12,5...100
Max. power consumption	kW	350	350	408	444	554
Max. absorbed current	A	620	620	640	720	894
Power consumption W7L35	kW	239	262	322	303	383
Absorbed current W7L35	A	376	392	479	485	623
Fans						
Axial fans	n°	16	16	16	24	24
Fan flow	m³/h	278715	288480	288480	418070	418070
Max. Power consumption	kW	35,2	35,2	35,2	52,8	52,8
Max. absorbed current	A	75,7	75,7	75,7	113,5	113,5
Power Consumption W7L35	kW	32	32	32	48	48
Absorbed Current W7L35	A	68,8	68,8	68,8	103	103
Hydraulic						
Coolant liquid	Type	Water + max 40% glycol				
Inlet temperature	°C	12	12	12	12	12
Outlet temperature	°C	7	7	7	7	7
Water flow	m³/h	145	156	177	193	216
Pressure drops	kPa	32	38	32	41	49
Water connections	Inches	8	8	8	8	8
EER						
EER		3,12	3,10	2,91	3,19	2,92
ESEER (ISO14511)		4,76	4,65	4,66	4,64	4,53
IPLV		4,6	4,56	4,55	4,47	4,48

Evaporator water (in/out) 12/7 °C; condenser air (in) 35 °C;
Average sound pressure level at 10 m distance; unit in a free field on a reflective surface.
According to ISO 3744. Unit at full capacity. Pump contribution is not considered.
*In case of applications with an output fluid temperature below +5 °C, please contact the manufacturer.

Technical Data – WSA Low Noise

Model		WSA-160SL	WSA-220SL	WSA-250SL	WSA-280SL	WSA-300SL	WSA-320SL
General							
Cooling capacity	kW	360	442	534	589	627	689
Power Consumption		122	175	183	212	239	245
Working limits ambient temperature	°C	-18* / +46	-18* / +46	-18* / +46	-18* / +46	-18* / +46	-18* / +46
Working limits water outlet temperature	°C	-5* / +25	-5* / +25	-5* / +25	-5* / +25	-5* / +25	-5* / +25
Refrigerant	Type	R134a	R134a	R134a	R134a	R134a	R134a
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Secondary power supply	Vac	230	230	230	230	230	230
Max. power consumption	kW	336	412	459	495	495	646
Max. absorbed current	A	196	240	268	290	290	347
Starting current	A	586	750	875	946	946	802
Height x width x depth	mm	2473 x 2278 x 4240	2473 x 2278 x 4240	2473 x 2278 x 6960	2473 x 2278 x 6960	2473 x 2278 x 6960	2473 x 2278 x 8080
Noise level	dB(A)	68,9	70,5	69,2	69,6	69,6	70,6
Cooling Circuit							
Cooling Circuit	n°	2	2	2	2	2	2
Semi-Hermetic Double Screw compressor	n°	2	2	2	2	2	2
Partialization	%	12,5...100	12,5...100	12,5...100	12,5...100	12,5...100	12,5...100
Max. power consumption	kW	176	220	392	262	262	310
Max. absorbed current	A	288	364	240	428	428	560
Power consumption W7L35	kW	105	148	154	179	202	205
Absorbed current W7L35	A	163	243	258	296	313	328
Fans							
Axial fans	n°	8	8	12	12	12	16
Fan flow	m³/h	111280	99570	147655	147655	147655	186770
Max. Power consumption	kW	17,6	17,6	26,4	26,4	26,4	35,2
Max. absorbed current	A	37,8	37,8	56,8	56,8	56,8	75,7
Power Consumption W7L35	kW	10	10	15	15	15	20
Absorbed Current W7L35	A	20	20	30	30	30	40
Hydraulic							
Coolant liquid	Type	Water + max 40% glycol					
Inlet temperature	°C	12	12	12	12	12	12
Outlet temperature	°C	7	7	7	7	7	7
Water flow	m³/h	62	76	92	101	107	118
Pressure drops	kPa	32	33	31	37	28	33
Water connections	Inches	6	6	6	6	6	6
EER							
EER		2,94	2,52	2,91	2,77	2,61	2,81
ESEER (ISO14511)		4,59	4,64	4,65	4,66	4,49	4,64
IPLV		4,63	4,57	4,7	4,71	4,52	4,57

Technical Data – WSA Free Cooling

Model		WSA-160FC	WSA-220FC	WSA-250FC	WSA-280FC	WSA-300FC	WSA-320FC
General							
Cooling capacity	kW	366	469	552	594	652	721
Power Consumption		126	172	185	212	237	247
Working limits ambient temperature	°C	-18* / +46	-18* / +46	-18* / +46	-18* / +46	-18* / +46	-18* / +46
Working limits water outlet temperature	°C	-5* / +25	-5* / +25	-5* / +25	-5* / +25	-5* / +25	-5* / +25
Refrigerant	Type	R134a	R134a	R134a	R134a	R134a	R134a
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Secondary power supply	Vac	230	230	230	230	230	230
Max. power consumption	kW	336	412	459	495	495	646
Max. absorbed current	A	196	240	268	290	290	347
Starting current	A	586	750	875	946	946	802
Height x width x depth	mm	2473 x 2278 x 4240	2473 x 2278 x 4240	2473 x 2278 x 6960	2473 x 2278 x 6960	2473 x 2278 x 6960	2473 x 2278 x 8080
Noise level	dB(A)	68,9	70,5	69,2	69,6	69,6	70,6
Cooling circuit							
Cooling Circuit	n°	2	2	2	2	2	2
Semi-Hermetic Double Screw compressor	n°	2	2	2	2	2	2
Partialization	%	12,5...100	12,5...100	12,5...100	12,5...100	12,5...100	12,5...100
Max. power consumption	kW	176	220	392	262	262	310
Max. absorbed current	A	288	364	240	428	428	560
Power consumption W7L35	kW	110	156	161	187	212	215
Absorbed current W7L35	A	169,4	253,9	267,1	307,9	326,9	342,0
Fans							
Axial fans	n°	8	8	12	12	12	16
Fan flow	m³/h	122250	120127	177851	177851	177851	224542
Max. Power consumption	kW	17,6	17,6	26,4	26,4	26,4	35,2
Max. absorbed current	A	37,8	37,8	56,8	56,8	56,8	75,7
Power Consumption W7L35	kW	16	16	24	24	24	32
Absorbed Current W7L35	A	34,4	34,4	51,6	51,6	51,6	68,8
Hydraulic							
Coolant liquid	Type	Water + max 40% glycol					
Inlet temperature	°C	12	12	12	12	12	12
Outlet temperature	°C	7	7	7	7	7	7
Water flow	m³/h	64,4	82,7	97,4	108,2	115,4	126,8
Pressure drops	kPa	44,01	34,75	35,56	38,25	35,4	42,77
Water connections	Inches	6	6	6	6	6	6
Free Cooling							
Cooling Capacity W10L	kW	376	472	552	611	660	740
Temperature of total FC	°C	0,5	-2	0,5	-0,7	-1,7	0
Flow of fluid to be cooled	m³/h	65	81	95	105	113	127
Pressure drop	kPa	46	72	23	27	31	45
EER							
EER		2,91	2,72	2,99	2,81	2,76	2,92
ESEER (ISO14511)		4,33	4,39	4,50	4,39	4,34	4,44
IPLV		4,23	4,43	4,35	4,3	4,29	4,28

STANDARD - LOW NOISE
 Evaporator water (in/out) 12/7 °C; condenser air (in) 35 °C;
 Average sound pressure level at 10 m distance; unit in a free field on a reflective surface.
 According to ISO 3744. Unit at full capacity. Pump contribution is not considered.
 *In case of applications with an output fluid temperature below +5 °C, please contact the manufacturer.

FREE COOLING
 30% Glycol-Water solution. Evaporator solution IN/OUT= 15/10 °C; Condenser air 30 °C
 Average sound pressure level, at 10m distance, unit in a free field on a reflective surface.
 Unit at full capacity. According to ISO 3744. Pumps contribution is not considered.
 *In case of applications with output fluid temperature below 0°C, please contact the manufacturer

Technical Data – WSA Low Noise

Model		WSA-360SL	WSA-380SL	WSA-440SL	WSA-480SL	WSA-640SL
General						
Cooling capacity	kW	780	851	958	1053	1167
Power Consumption		283	307	379	363	453
Working limits ambient temperature	°C	-18* / +46	-18* / +46	-18* / +46	-18* / +46	-18* / +46
Working limits water outlet temperature	°C	-5* / +25	-5* / +25	-5* / +25	-5* / +25	-5* / +25
Refrigerant	Type	R134a	R134a	R134a	R134a	R134a
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Secondary power supply	Vac	230	230	230	230	230
Max. power consumption	kW	706	706	726	844	1018
Max. absorbed current	A	387	387	445	499	609
Starting current	A	861	861	992	1134	1488
Height x width x depth	mm	2473 x 2278 x 8080	2473 x 2278 x 8080	2473 x 2278 x 8080	2473 x 2278 x 11920	2473 x 2278 x 11920
Noise level	dB(A)	70,8	70,8	71,7	72,6	74,0
Compressor						
Cooling Circuit	n°	2	2	2	2	2
Semi-Hermetic Double Screw compressor	n°	2	2	2	2	2
Partialization	%	12,5...100	12,5...100	12,5...100	12,5...100	12,5...100
Max. power consumption	kW	350	350	408	444	554
Max. absorbed current	A	620	620	640	720	894
Power consumption W7L35	kW	239	262	322	303	383
Absorbed current W7L35	A	376	392	479	485	623
Fans						
Axial fans	n°	16	16	16	24	24
Fan flow	m³/h	186770	199135	199135	280155	280155
Max. Power consumption	kW	35,2	35,2	35,2	52,8	52,8
Max. absorbed current	A	75,7	75,7	75,7	113,5	113,5
Power Consumption W7L35	kW	20	20	20	30	30
Absorbed Current W7L35	A	40	40	40	60	60
Hydraulic						
Coolant liquid	Type	Water + max 40% glycol				
Inlet temperature	°C	12	12	12	12	12
Outlet temperature	°C	7	7	7	7	7
Water flow	m³/h	134	146	164	181	200
Pressure drops	kPa	28	36	42	181	200
Water connections	Inches	8	8	8	8	8
EER						
EER		2,75	2,77	2,52	2,90	2,57
ESEER (ISO14511)		4,78	4,67	4,59	4,72	4,53
IPLV		4,68	4,65	4,53	4,67	4,52

Technical Data – WSA Free Cooling

Model		WSA-360FC	WSA-380FC	WSA-440FC	WSA-480FC	WSA-640FC
General						
Cooling capacity	kW	822	888	1004	1088	1225
Power Consumption		283	306	370	366	451
Working limits ambient temperature	°C	-18* / +46	-18* / +46	-18* / +46	-18* / +46	-18* / +46
Working limits water outlet temperature	°C	-5* / +25	-5* / +25	-5* / +25	-5* / +25	-5* / +25
Refrigerant	Type	R134a	R134a	R134a	R134a	R134a
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Secondary power supply	Vac	230	230	230	230	230
Max. power consumption	kW	706	706	726	844	1018
Max. absorbed current	A	387	387	445	499	609
Starting current	A	861	861	992	1134	1488
Height x width x depth	mm	2473 x 2278 x 4240	2473 x 2278 x 4240	2473 x 2278 x 6960	2473 x 2278 x 6960	2473 x 2278 x 6960
Noise level	dB(A)	70,8	70,8	71,7	72,6	74,0
Cooling circuit						
Cooling Circuit	n°	2	2	2	2	2
Semi-Hermetic Double Screw compressor	n°	2	2	2	2	2
Partialization	%	12,5...100	12,5...100	12,5...100	12,5...100	12,5...100
Max. power consumption	kW	350	350	408	444	554
Max. absorbed current	A	620	620	640	720	894
Power consumption W7L35	kW	251	273	337	318	403
Absorbed current W7L35	A	393,0	407,6	501,2	505,8	650,6
Fans						
Axial fans	n°	16	16	16	24	24
Fan flow	m³/h	224542	240253	240253	336812	336812
Max. Power consumption	kW	35,2	35,2	35,2	52,8	52,8
Max. absorbed current	A	75,7	75,7	75,7	113,5	113,5
Power Consumption W7L35	kW	32	32	32	48	48
Absorbed Current W7L35	A	68,8	68,8	68,8	103	103
Hydraulic						
Coolant liquid	Type	Water + max 40% glycol				
Inlet temperature	°C	12	12	12	12	12
Outlet temperature	°C	7	7	7	7	7
Water flow	m³/h	145	156,4	177,1	192,5	216,2
Pressure drops	kPa	32,24	38,07	31,99	40,68	49,2
Water connections	Inches	8	8	8	8	8
Free Cooling						
Cooling Capacity W10L	kW	835	879	1004	1100	1237
Temperature of total FC	°C	-1,5	-1,3	-3	0	-1,3
Flow of fluid to be cooled	m³/h	144	151	173	189	213
Pressure drop	kPa	52	64	80	44	51
EER						
EER		2,91	2,91	2,72	2,97	2,72
ESEER (ISO14511)		4,55	4,41	4,30	4,49	4,40
IPLV		4,46	4,42	4,41	4,32	4,32

STANDARD - LOW NOISE

Evaporator water (in/out) 12/7 °C; condenser air (in) 35 °C;
Average sound pressure level at 10 m distance; unit in a free field on a reflective surface.
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*In case of applications with an output fluid temperature below +5 °C, please contact the manufacturer.

FREE COOLING

30% Glycol-Water solution. Evaporator solution IN/OUT= 15/10 °C; Condenser air 30 °C
Average sound pressure level, at 10m distance, unit in a free field on a reflective surface.
Unit at full capacity. According to ISO 3744. Pumps contribution is not considered
*In case of applications with output fluid temperature below 0°C, please contact the manufacturer