WSA ErP - Techno Range

Ideal for cooling water or process fluids

WSA ErP is a range of **highly efficient and environmentally friendly** air-cooled liquid chillers with free-cooling technology and cooling capacities **from 290 to 1800kW**.

Designed for cooling process applications 24/7, 365 days a year, the new WSA ErPs feature one or two refrigeration circuits with screw compressors and utilise dry-expansion shell and tube evaporators with high exchange surface area.
Low environmental impact has been achieved thanks to **new HFO refrigerants with low Global Warming Potential R1234ze** (GWP 7). All models are also available with refrigerant R513A (GWP 572).

The WSA ErP range is characterised by high levels of energy efficiency (Class A or B) that allow it to comply with the limits required by the 2009/125/EC Ecodesign ErP 2021 Directive.

Thanks to the special W-shaped configuration of the heat exchanger coils and their sizing, it has been possible to achieve specific power levels (kW/plant area) at the top of the category.

Eco-friendly LOW GWP Version

WSA ErP units are available in two environmentally friendly versions that ensure a reduction in global warming potential:

- HFO refrigerant fluid R1234ze (GWP = 7) classified as A2L non-toxic, slightly flammable and zero impact on the ozone layer.
- Refrigerant fluid R513A (GWP = 572) classified as A1 non-toxic, non-flammable and zero impact on the ozone layer.

HT version for high temperature water applications (e.g. plastic)

The HT version's refrigeration circuit is specially designed to produce chilled water with evaporator outlet temperatures up to 25°C. The compressor has an oversized motor, which allows wide operating limits and high suction temperatures.

Free Cooling for energy savings

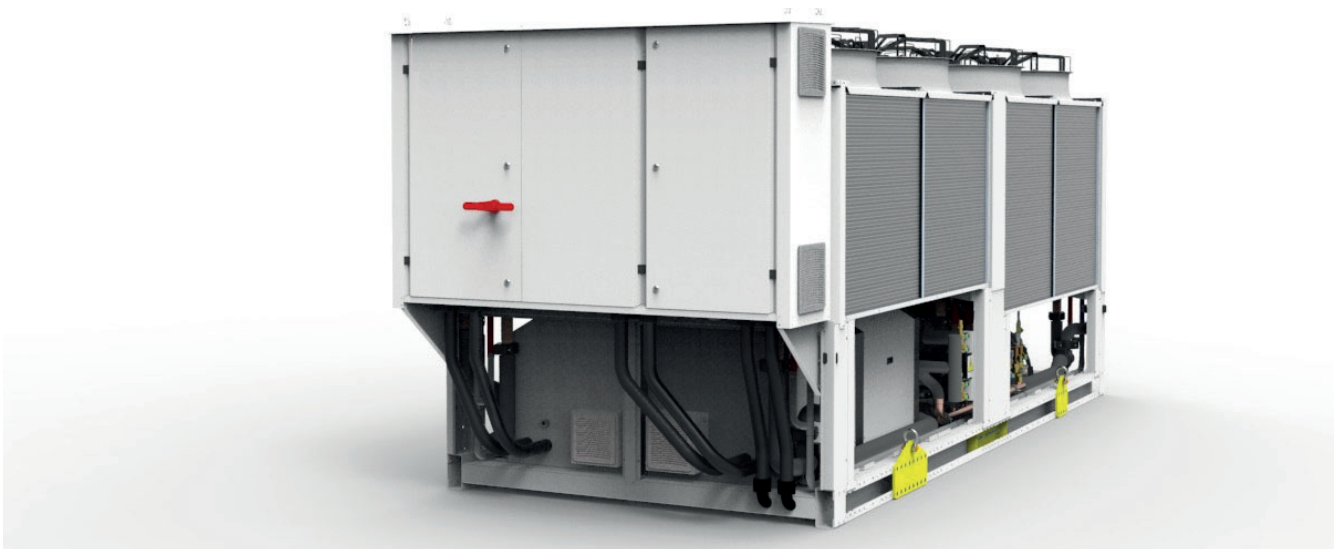
The WSA ErP chillers are available in an **integrated Free Cooling** version, which allows **significant energy savings**, especially in applications requiring high cooling fluid temperatures (plastic) and installation in areas with cold or temperate climates.
Taking advantage of the outside air to cool the fluid, the Free Cooling system can go so far as to replace the cooling circuit entirely, thus allowing the compressors to be switched off. The exchangers have been specifically dimensioned to achieve a Total Free-Cooling Temperature (TFT) 10°C lower than the set point temperature. WSA ErP units **can be combined with FCB free-cooling modules** to maximise free-cooling performance by increasing the TFT temperature.

Low Noise Version

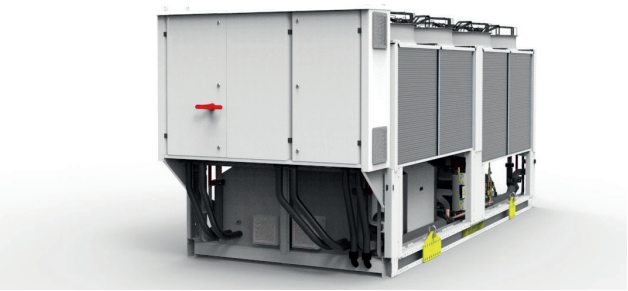
Even in the Low Noise version, which is ideal for installations near residential areas, our units maintain high performance and high energy savings, while guaranteeing low noise levels. The compressor enclosure effectively reduces transmitted noise thanks to a specific composite coating of sound-absorbing materials

Chiller LT version for ambient temperatures down to -20°C

Thanks to a sophisticated condensation control system based on the partialisation of the condensation surface and EC fan speed control, the CHILLER LT version is able to work with ambient temperatures as low as -20°C.



WSA R513A Standard AC



CODE	M.U.	WSA90	WSA110	WSA140	WSA160
Cooling Capacity	kW	192	243	289	358
Power Consumption W7/L35	kW	69	82	109	121
Refrigerant gas	Type	R513A	R513A	R513A	R513A
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	99	118	139	188
Max adsorbed current	A	173	197	229	311
Starting current	A	434	535	680	517
Height x Width x Depht	mm	2485x1140x4330	2485x2280x3205	2485x2280x3205	2485x2280x4330
Noise Level	dB(A)	56,3	61,1	60,3	58,8
Estimated weight	kg	-	-	-	3518

CODE	M.U.	WSA180	WSA200	WSA220	WSA250
Cooling Capacity	kW	397	442	501	542
Power Consumption W7/L35	kW	140	141	166	180
Refrigerant gas	Type	R513A	R513A	R513A	R513A
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	198	207	235	255
Max adsorbed current	A	347	340	394	422
Starting current	A	608	624	732	838
Height x Width x Depht	mm	2485x2280x4330	2485x2280x5875	2485x2280x5875	2485x2280x5875
Noise Level	dB(A)	58,7	62,7	64,1	62,9
Estimated weight	kg	3679	5018	5081	5118

CODE	M.U.	WSA280	WSA300	WSA320	WSA360
Cooling Capacity	kW	635	691	764	834
Power Consumption W7/L35	kW	211	231	236	279
Refrigerant gas	Type	R513A	R513A	R513A	R513A
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	281	281	333	373
Max adsorbed current	A	466	466	606	666
Starting current	A	917	917	762	821
Height x Width x Depht	mm	2485x2280x6955	2485x2280x6955	2485x2280x8080	2485x2280x8080
Noise Level	dB(A)	63,4	65,3	64,3	64,5
Estimated weight	kg	5763	5763	7114	7135

Evaporator water (in/out) 12/7 °C; Condenser air (in) 35 °C. Unit at full capacity.

Pumps contribution is not considered.according to ISO 3744

WSA R513A Standard AC

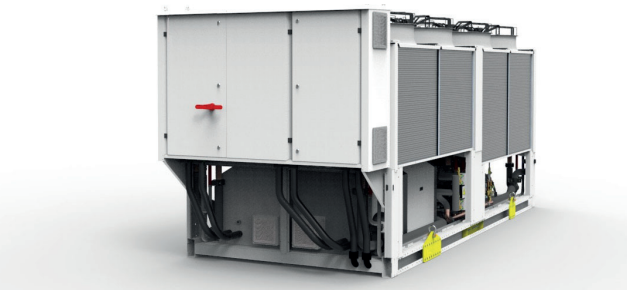
CODE	M.U.	WSA380	WSA420	WSA480	WSA560
Cooling Capacity	kW	952	983	1113	1165
Power Consumption W7/L35	kW	299	326	368	407
Refrigerant gas	Type	R513A	R513A	R513A	R513A
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	377	435	475	539
Max adsorbed current	A	673	693	781	887
Starting current	A	828	959	1071	1279
Height x Width x Depht	mm	2485x2280x9582	2485x2280x9582	2485x2280x10707	2485x2280x10707
Noise Level	dB(A)	65,9	64,9	65,7	66,5
Estimated weight	kg	7711	8190	8751	8971

CODE	M.U.	WSA640	WSA700
Cooling Capacity	kW	1287	1451
Power Consumption W7/L35	kW	443	480
Refrigerant gas	Type	R513A	R513A
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230
Max power consumption	kW	589	592
Max adsorbed current	A	962	970
Starting current	A	1432	1440
Height x Width x Depht	mm	2485x2280x11830	2485x2280x13330
Noise Level	dB(A)	67,1	68,5
Estimated weight	kg	9549	10094

Evaporator water (in/out) 12/7 °C; Condenser air (in) 35 °C. Unit at full capacity.

Pumps contribution is not considered.according to ISO 3744

WSA R513A EC Free Cooling



CODE	M.U.	WSA90	WSA110	WSA140	WSA160
Cooling Capacity	kW	190	239	286	358
Power Consumption W7/L35	kW	70	84	109	123
Refrigerant gas	Type	R513A	R513A	R513A	R513A
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	101	120	141	191
Max adsorbed current	A	174	198	230	311
Starting current	A	435	536	681	517
Height x Width x Depht	mm				
Noise Level	dB(A)	56,6	61,2	60,5	59,2

CODE	M.U.	WSA180	WSA200	WSA220	WSA250
Cooling Capacity	kW	399	446	508	548
Power Consumption W7/L35	kW	145	146	171	185
Refrigerant gas	Type	R513A	R513A	R513A	R513A
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	201	212	240	260
Max adsorbed current	A	347	341	395	423
Starting current	A	608	625	733	839
Height x Width x Depht	mm				
Noise Level	dB(A)	59,1	62,9	64,3	63,1

CODE	M.U.	WSA280	WSA300	WSA320	WSA360
Cooling Capacity	kW	642	694	761	835
Power Consumption W7/L35	kW	217	237	242	284
Refrigerant gas	Type	R513A	R513A	R513A	R513A
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	288	288	341	381
Max adsorbed current	A	467	467	607	667
Starting current	A	918	918	763	822
Height x Width x Depht	mm				
Noise Level	dB(A)	63,6	65,4	64,5	64,7

Evaporator water (in/out) 12/7 °C; Condenser air (in) 35 °C. Unit at full capacity.

Pumps contribution is not considered.according to ISO 3744

WSA R513A EC Free Cooling

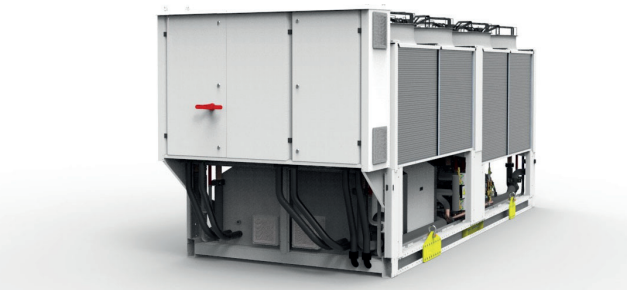
CODE	M.U.	WSA380	WSA420	WSA480	WSA560
Cooling Capacity	kW	955	992	1118	1164
Power Consumption W7/L35	kW	307	334	376	413
Refrigerant gas	Type	R513A	R513A	R513A	R513A
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	386	444	485	549
Max adsorbed current	A	675	695	782	888
Starting current	A	830	961	1072	1280
Height x Width x Depht	mm				
Noise Level	dB(A)	66,1	65,1	65,9	66,7

CODE	M.U.	WSA640	WSA700
Cooling Capacity	kW	1288	1450
Power Consumption W7/L35	kW	450	487
Refrigerant gas	Type	R513A	R513A
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230
Max power consumption	kW	600	605
Max adsorbed current	A	964	972
Starting current	A	1434	1442
Height x Width x Depht	mm		
Noise Level	dB(A)	67,3	68,7

Evaporator water (in/out) 12/7 °C; Condenser air (in) 35 °C. Unit at full capacity.

Pumps contribution is not considered.according to ISO 3744

WSA R1234ze Standard AC



CODE	M.U.	WSA90	WSA110	WSA140	WSA160
Cooling Capacity	kW	178	196	227	257
Power Consumption W7/L35	kW	60	68	76	87
Working limits ambient temperature	C	-10/+48	-10/+48	-10/+48	-10/+48
Working limits water outlet temperature	C	-5/+25	-5/+25	-5/+25	-5/+25
Refrigerant gas	Type	R1234ze	R1234ze	R1234ze	R1234ze
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	116	126	139	163
Max adsorbed current	A	193	207	229	295
Starting current	A	531	623	680	451
Height x Width x Depht	mm	2485x1140x4330		2485x2280x3205	
Noise Level	dB(A)	62	60	60	61
Estimated weight	kg	-	-	-	-

CODE	M.U.	WSA180	WSA220	WSA250	WSA280
Cooling Capacity	kW	329	370	433	471
Power Consumption W7/L35	kW	104	122	130	153
Working limits ambient temperature	C	-10/+48	-10/+48	-10/+48	-10/+48
Working limits water outlet temperature	C	-5/+25	-5/+25	-5/+25	-5/+25
Refrigerant gas	Type	R1234ze	R1234ze	R1234ze	R1234ze
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	204	232	255	277
Max adsorbed current	A	333	387	422	458
Starting current	A	617	725	838	909
Height x Width x Depht	mm	2485x2280x4330	2485x2280x4330	2485x2280x5875	2485x2280x5875
Noise Level	dB(A)	63	64	63	63
Estimated weight	kg	4240	4412	5073	5125

CODE	M.U.	WSA300	WSA320	WSA360	WSA380
Cooling Capacity	kW	525	571	670	726
Power Consumption W7/L35	kW	165	172	199	210
Working limits ambient temperature	C	-10/+48	-10/+48	-10/+48	-10/+48
Working limits water outlet temperature	C	-5/+25	-5/+25	-5/+25	-5/+25
Refrigerant gas	Type	R1234ze	R1234ze	R1234ze	R1234ze
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	277	329	373	373
Max adsorbed current	A	458	598	666	666
Starting current	A	909	754	821	821
Height x Width x Depht	mm	2485x2280x5875	2485x2280x6955	2485x2280x8080	2485x2280x8080
Noise Level	dB(A)	65	64	64	66
Estimated weight	kg	5151	6438	7071	7090

Evaporator water (in/out) 12/7 °C; Condenser air (in) 35 °C. Unit at full capacity.

Pumps contribution is not considered.according to ISO 3744

WSA R1234ze Standard AC

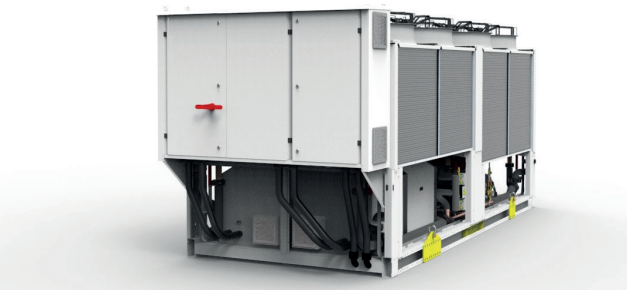
CODE	M.U.	WSA420	WSA480	WSA560
Cooling Capacity	kW	772	872	891
Power Consumption W7/L35	kW	232	266	293
Working limits ambient temperature	C	-10/+48	-10/+48	-10/+48
Working limits water outlet temperature	C	-5/+25	-5/+25	-5/+25
Refrigerant gas	Type	R1234ze	R1234ze	R1234ze
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230
Max power consumption	kW	431	467	535
Max adsorbed current	A	686	766	879
Starting current	A	952	1056	1271
Height x Width x Depht	mm	2485x2280x8080	2485x2280x8080	2485x2280x9582
Noise Level	dB(A)	65	66	67
Estimated weight	kg	7256	7361	8135

CODE	M.U.	WSA640	WSA700
Cooling Capacity	kW	985	1119
Power Consumption W7/L35	kW	317	334
Working limits ambient temperature	C	-10/+48	-10/+48
Working limits water outlet temperature	C	-5/+25	-5/+25
Refrigerant gas	Type	R1234ze	R1234ze
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230
Max power consumption	kW	585	589
Max adsorbed current	A	955	962
Starting current	A	1425	1432
Height x Width x Depht	mm	2485x2280x10707	2485x2280x11830
Noise Level	dB(A)	67	69
Estimated weight	kg	8676	9381

Evaporator water (in/out) 12/7 °C; Condenser air (in) 35 °C. Unit at full capacity.

Pumps contribution is not considered.according to ISO 3744

WSA R1234ze EC Free Cooling



CODE	M.U.	WSA90	WSA110	WSA140	WSA160
Cooling Capacity	kW	182	198	229	261
Power Consumption W7/L35	kW	62	69	78	90
Working limits ambient temperature	C	-20/+48	-20/+48	-20/+48	-20/+48
Working limits water outlet temperature	C	-5/+25	-5/+25	-5/+25	-5/+25
Refrigerant gas	Type	R1234ze	R1234ze	R1234ze	R1234ze
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	118	128	141	165
Max adsorbed current	A	194	208	230	296
Starting current	A	532	624	681	452
Height x Width x Depht	mm	2485x1140x4330		2485x2280x3205	
Noise Level	dB(A)	62	60	60	61

CODE	M.U.	WSA180	WSA220	WSA250	WSA280
Cooling Capacity	kW	333	375	435	477
Power Consumption W7/L35	kW	108	125	136	158
Working limits ambient temperature	C	-20/+48	-20/+48	-20/+48	-20/+48
Working limits water outlet temperature	C	-5/+25	-5/+25	-5/+25	-5/+25
Refrigerant gas	Type	R1234ze	R1234ze	R1234ze	R1234ze
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	207	235	260	282
Max adsorbed current	A	333	387	423	459
Starting current	A	617	725	839	910
Height x Width x Depht	mm	2485x2280x4330	2485x2280x4330	2485x2280x5875	2485x2280x5875
Noise Level	dB(A)	63	64	63	63

CODE	M.U.	WSA300	WSA320	WSA360	WSA380
Cooling Capacity	kW	530	574	675	732
Power Consumption W7/L35	kW	169	179	207	218
Working limits ambient temperature	C	-20/+48	-20/+48	-20/+48	-20/+48
Working limits water outlet temperature	C	-5/+25	-5/+25	-5/+25	-5/+25
Refrigerant gas	Type	R1234ze	R1234ze	R1234ze	R1234ze
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230	230
Max power consumption	kW	282	336	381	381
Max adsorbed current	A	459	599	667	667
Starting current	A	910	755	822	822
Height x Width x Depht	mm	2485x2280x5875	2485x2280x6955	2485x2280x8080	2485x2280x8080
Noise Level	dB(A)	65	64	65	67

Evaporator water (in/out) 12/7 °C; Condenser air (in) 35 °C. Unit at full capacity.

Pumps contribution is not considered.according to ISO 3744

WSA R1234ze EC Free Cooling

CODE	M.U.	WSA420	WSA480	WSA560
Cooling Capacity	kW	778	881	898
Power Consumption W7/L35	kW	239	273	301
Working limits ambient temperature	C	-20/+48	-20/+48	-20/+48
Working limits water outlet temperature	C	-5/+25	-5/+25	-5/+25
Refrigerant gas	Type	R1234ze	R1234ze	R1234ze
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230	230
Max power consumption	kW	439	475	544
Max adsorbed current	A	687	767	881
Starting current	A	953	1057	1273
Height x Width x Depht	mm	2485x2280x8080	2485x2280x8080	2485x2280x9582
Noise Level	dB(A)	66	66	67

CODE	M.U.	WSA640	WSA700
Cooling Capacity	kW	995	1128
Power Consumption W7/L35	kW	326	345
Working limits ambient temperature	C	-20/+48	-20/+48
Working limits water outlet temperature	C	-5/+25	-5/+25
Refrigerant gas	Type	R1234ze	R1234ze
Power supply	V/ph/Hz	400 / 3 / 50	400 / 3 / 50
Second Power supply	Vac	230	230
Max power consumption	kW	595	600
Max adsorbed current	A	956	964
Starting current	A	1426	1434
Height x Width x Depht	mm	2485x2280x10707	2485x2280x11830
Noise Level	dB(A)	67	69

Evaporator water (in/out) 12/7 °C; Condenser air (in) 35 °C. Unit at full capacity.

Pumps contribution is not considered.according to ISO 3744