



WPA - Techno Range

Ideal for cooling water or process fluids

Liquid chillers designed for process cooling 24/7, 365 days a year, air cooled with two refrigerant circuits and scroll compressors installed in tandem/trio optimized for the use of R410A, plate/tube evaporator and cooling capacity from 160 kW to 550 kW.

Cosmotec experience in process cooling has led to the development of this range of industrial chillers able to meet the wide operating limits (both ambient and user side) required by the new technologies used for energy saving.

All chillers in the WPA range are characterized by high levels of energy efficiency (Class A or B) and compliance with the limits required by Directive 2009/125/EC Ecodesign ErP 2021.

The integrated Free Cooling version available for the WPA range also allows significant energy savings, especially in the case of installations in areas with cold or temperate climates.

Even in the Low Noise version, ideal for installations near residential areas, our units maintain high performance and high energy savings, ensuring low noise.

The Electronic Expansion Valve (EEV) optimizes temperature and pressure of gas evaporation, increasing the efficiency at partial loads on the user side and helping to extend the operating range of the unit.

The Microchannel condensers are entirely made of aluminium and expressly designed to maximize the performance of the chiller, and they allow to reduce the overall dimensions and to minimize the refrigerant charge. For a better resistance to corrosion, the e-coating protective treatment is available (option).

Eco-Friendly LOW GWP version

Upon request, WPA units are available with environmentally friendly R454B refrigerant fluid that provides a reduction in global warming potential (GWP = 467). Classified as A2L R454B is non-toxic but mildly flammable, in PED safety group 1.

Free Cooling for energy saving

WPA chillers are available in an integrated Free Cooling version, which allows a strong energy saving, especially in applications that require high temperatures of the cooling fluid (plastic, data centers) and installation in areas with cold or temperate climates. By exploiting the external air to cool the fluid, the Free Cooling system can even replace the cooling circuit entirely, thus allowing the deactivation of the compressors.

Wide operating limits

Each application has different needs based on ambient temperature, fluid temperature, positioning, sound level, etc. Cosmotec is capable to meet the most different needs, thanks to a wide range of options and the possibility to extend the operating limits of the WPA series chillers, if required. A few examples:

- Very hot and dusty environment
- Very cold environment
- High temperature water applications (plastic)
- Cold water applications (Food, Beverage, biogas)



WPA Standard



CODE		M.U.	WPA060	WPA070	WPA080	WPA090
Cooling Capacity	W15L32	kW	210,5	237,7	298,3	314,2
Absorbed Power	W15L32	kW	51,8	63,2	71,6	82
SEPR			5,36	5,36	5,02	5,72
Cooling Capacity	W7L35	kW	165,5	187,5	222,6	245,2
Absorbed Power	W7L35	kW	53,2	64,4	73,7	83
Refrigerant Gas			R410A	R410A	R410A	R410A
Refrigerant Gas charge		kg	18	17,5	17	18
Cooling circuits/Compressors		N°	2 / 4	2 / 4	2 / 4	2 / 4
Rated voltage		V~	400 . 3 460, 3	400 . 3 460, 3	400 . 3 460, 3	400 . 3 460, 3
Nominal Frequency		Hz	50 60	50 60	50 60	50 60
Height x Width x Depth		mm	2410x3100x2206	2410x3100x2206	2410x3100x2206	2410x3100x2206
Shipping weight		kg	2293	2323	2395	2420

CODE		M.U.	WPA100	WPA110	WPA120	WPA140
Cooling Capacity	W15L32	kW	343	416,3	460,3	499,9
Absorbed Power	W15L32	kW	91,7	99,7	114,1	129,5
SEPR			5,68	5,88	5,62	5,87
Cooling Capacity	W7L35	kW	266,5	318,6	353,1	385,1
Absorbed Power	W7L35	kW	91,6	100,4	114,2	127,5
Refrigerant Gas			R410A	R410A	R410A	R410A
Refrigerant Gas charge		kg	15,5	22,5	25	24,5
Cooling circuits/Compressors		N°	2 / 4	2 / 4	2 / 4	2 / 4
Rated voltage		V~	400 . 3 460, 3	400 . 3 460, 3	400 . 3 460, 3	400 . 3 460, 3
Nominal Frequency		Hz	50 60	50 60	50 60	50 60
Height x Width x Depth		mm	2410x3100x2206	2410x4400x2206	2410x4400x2206	2410x4400x2206
Shipping weight		kg	2440	3119	3173	3219

CODE		M.U.	WPA160	WPA180	WPA200
Cooling Capacity	W15L32	kW	564,9	657,3	727,4
Absorbed Power	W15L32	kW	132,1	174,1	200,6
SEPR			5,84	5,79	6,18
Cooling Capacity	W7L35	kW	432	504	559,3
Absorbed Power	W7L35	kW	131,9	173,6	199,8
Refrigerant Gas			R410A	R410A	R410A
Refrigerant Gas charge		kg	69	80,5	89
Cooling circuits/Compressors		N°	2 / 4	2 / 6	2 / 6
Rated voltage		V~	400 . 3 460, 3	400 . 3 460, 3	400 . 3 460, 3
Nominal Frequency		Hz	50 60	50 60	50 60
Height x Width x Depth		mm	2410x5770x2206	2410x5770x2206	2410x5770x2206
Shipping weight		kg	4158	4559	4561



WPA Free Cooling

CODE	M.U.	WPA060FC		WPA070FC		WPA080FC		WPA090FC		WPA100FC		WPA110FC	
Cooling capacity	kW	188,1		214,4		241,6		267,5		290,3		341,3	
FC Cooling capacity	kW	209,9		217,5		304,4		314,8		323,2		333,3	
Absorbed Power	kW	50,4		59,4		69,3		78,6		88,6		94,5	
Refrigerant Gas		R410A		R410A		R410A		R410A		R410A		R410A	
Refrigerant Gas charge	kg	18		17,5		17		18		15,5		22,5	
Cooling circuits/Compressors	N°	2 / 4		2 / 4		2 / 4		2 / 4		2 / 4		2 / 4	
Rated voltage	V~	400,3	460,3	400,3	460,3	400,3	460,3	400,3	460,3	400,3	460,3	400,3	460,3
Nominal Frequency	Hz	50	60	50	60	50	60	50	60	50	60	50	60
Height x Width x Depth	mm	2410x3140x2206		2410x3140x2206		2410x3140x2206		2410x3140x2206		2410x3140x2206		2410x4400x2206	
Shipping weight	kg	3054		3089		3743		3932		3953		4145	

WPA Low Noise

CODE	M.U.	WPA060SL		WPA070SL		WPA080SL		WPA090SL	
Cooling capacity	W15L32 kW	203,6		228,3		274,9		303,2	
Absorbed Power	W15L32 kW	54,7		67,5		75,2		86,7	
SEPR		5,22		5,17		4,88		5,58	
Cooling capacity	W7L35 kW	160,6		180,7		216,6		237,4	
Absorbed Power	W7L35 kW	55,8		68,1		76,8		87,1	
Refrigerant Gas		R410A		R410A		R410A		R410A	
Refrigerant Gas charge	kg	18		17,5		17		18	
Cooling circuits/Compressors	N°	2 / 4		2 / 4		2 / 4		2 / 4	
Rated voltage	V~	400,3	460,3	400,3	460,3	400,3	460,3	400,3	460,3
Nominal Frequency	Hz	50	60	50	60	50	60	50	60
Height x Width x Depth	mm	2410x3100x2206		2410x3100x2206		2410x3100x2206		2410x3100x2206	
Shipping weight	kg	2293		2323		2395		2420	

CODE	M.U.	WPA100SL		WPA110SL		WPA120SL		WPA140SL	
Cooling capacity	W15L32 kW	356,6		404,1		444,8		509,5	
Absorbed Power	W15L32 kW	88,3		104,2		119,9		127,2	
SEPR		5,82		5,82		5,44		5,86	
Cooling capacity	W7L35 kW	276		310,3		342,6		391,7	
Absorbed Power	W7L35 kW	88,9		104,2		119,1		126,7	
Refrigerant Gas		R410A		R410A		R410A		R410A	
Refrigerant Gas charge	kg	15,5		22,5		25		24,5	
Cooling circuits/Compressors	N°	2 / 4		2 / 4		2 / 4		2 / 4	
Rated voltage	V~	400,3	460,3	400,3	460,3	400,3	460,3	400,3	460,3
Nominal Frequency	Hz	50	60	50	60	50	60	50	60
Height x Width x Depth	mm	2410x3100x2206		2410x4400x2206		2410x4400x2206		2410x5770x2206	
Shipping weight	kg	3095		3119		3173		3855	

CODE	M.U.	WPA160SL		WPA180SL		WPA200SL	
Cooling capacity	W15L32 kW	546,2		662,1		733,5	
Absorbed Power	W15L32 kW	137,7		174,4		200,4	
SEPR		5,72		5,83		6,23	
Cooling capacity	W7L35 kW	419,5		507,3		563,4	
Absorbed Power	W7L35 kW	136,6		174,2		199,9	
Refrigerant Gas		R410A		R410A		R410A	
Refrigerant Gas charge	kg	69		80,5		89	
Cooling circuits/Compressors	N°	2 / 4		2 / 6		2 / 6	
Rated voltage	V~	400,3	460,3	400,3	460,3	400,3	460,3
Nominal Frequency	Hz	50	60	50	60	50	60
Height x Width x Depth	mm	2410x5770x2206		2410x7100x2206		2410x7100x2206	
Shipping weight	kg	4256		5205		5211	