

WPA Mini - Techno Range

Ideal for cooling water or process fluids

Air cooled chillers designed for process cooling 24/7, 365 days a year, characterized by two refrigerant circuits with scroll compressors in tandem optimized for the use of R410A, plate evaporator and cooling capacity from 95 kW to 170 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 WPAmini range feature high levels of energy efficiency (Class A or B) and compliance with the limits required by the 2009/125/EC Ecodesign ErP 2021 Directive.

The integrated Free Cooling version available for the WPAmini range allows strong energy saving especially in 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 allow the reduction the overall dimensions and the minimization of the refrigerant charge. For a better resistance to corrosion, the e-coating protective treatment is available (option).

Eco-friendly LOW GWP version

Upon request, WPAmini 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 slightly flammable, in PED safety group 1.

Free Cooling for energy saving

WPAmini chillers are available in an integrated Free Cooling version, which allows 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, 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 able to meet the most diverse needs, thanks to a wide range of options and the possibility to extend the operating limits of the WPAmini 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)



WPAmi Standard

CODE		M.U.	WPA030	WPA045	WPA050	WPA055		
Cooling capacity	W15L32	kW	106,8	136,6	168,6	194,2		
Absorbed power	W15L32	kW	24,6	34,8	40,7	48,9		
SEPR			5,26	4,75	5,06	5,01		
Cooling capacity	W7L35	kW	82,2	106,2	131,2	150,1		
Absorbed power	W7L35	kW	25,1	34,8	41	48		
Refrigerant Gas			R410A	R410A	R410A	R410A		
Refrigerant Gas charge		kg	8 + 8	11 + 11	14 + 14	16 + 16		
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
Nominal Frequency		Hz	50	60	50	60	50	60
Height x Width x Depth		mm	2350 x 1370 x 3650	2350 x 1370 x 3650	2350 x 1370 x 3650	2350 x 1370 x 3650		
Shipping weight		kg	1579	1634	1670	1778		

WPAmi Low Noise

CODE		M.U.	WPA030	WPA045	WPA050	WPA055		
Cooling capacity	W15L32	kW	103,2	130,7	161,2	184		
Absorbed power	W15L32	kW	26	37,5	43,5	52,7		
SEPR			4,76	4,53	4,83	4,75		
Cooling capacity	W7L35	kW	79,7	101,8	125,5	142,5		
Absorbed power	W7L35	kW	26,3	37,2	43,7	52,3		
Refrigerant Gas			R410A	R410A	R410A	R410A		
Refrigerant Gas charge		kg	8 + 8	10 + 10	13 + 13	15 + 15		
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
Nominal Frequency		Hz	50	60	50	60	50	60
Height x Width x Depth		mm	2350 x 1370 x 3650	2350 x 1370 x 3650	2350 x 1370 x 3650	2350 x 1370 x 3650		
Shipping weight		kg	1594	1649	1685	1793		

WPAmi Free Cooling

CODE		M.U.	WPA030	WPA045	WPA050	WPA055		
Cooling capacity	W15L32	kW	89,7	123,1	141,2	169,3		
Free Cooling Cooling capacity	W15L32	kW	110,6	121,6	150,7	166,5		
Absorbed power	W7L35	kW	22,8	33,6	43,5	48,8		
Refrigerant Gas			R410A	R410A	R410A	R410A		
Refrigerant Gas charge		kg	8 + 8	11 + 11	14 + 14	16 + 16		
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
Nominal Frequency		Hz	50	60	50	60	50	60
Height x Width x Depth		mm	2316 x 1370 x 3650	2350 x 1370 x 3650	2350 x 1370 x 3650	2350 x 1370 x 3650		
Shipping weight		kg	1842	1882	1933	2041		

WPAmi Low Noise Free Cooling

CODE		M.U.	WPA030	WPA045	WPA050	WPA055		
Cooling capacity	W15L32	kW	86,6	117,2	133,3	154,9		
Free Cooling Cooling capacity	W15L32	kW	99,5	108,1	143,7	147,8		
Absorbed power	W7L35	kW	24,1	36,4	47,4	55,5		
Refrigerant Gas			R410A	R410A	R410A	R410A		
Refrigerant Gas charge		kg	8 + 8	10 + 10	13 + 13	15 + 15		
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
Nominal Frequency		Hz	50	60	50	60	50	60
Height x Width x Depth		mm	2350 x 1370 x 3650	2350 x 1370 x 3650	2350 x 1370 x 3650	2350 x 1370 x 3650		
Shipping weight		kg	1858	1897	1948	2056		

(1) Evaporator water IN/OUT 12/7 °C; condensing air 35 °C. Unit at full load
(2) In accordance with ISO 3744, the contribution of pumps is not considered.