# 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 |