



Close Control and Vertical DX units

Close Control units provide a strict control of environmental conditions such as temperature, humidity in data centers, laboratories, and other applications where sensitive equipment or processes require stable and controlled conditions.

Vertical DX units can be used in industries, data centers and tertiary application thanks to their high reliability, high efficiency and low noise level.

TECNAIR
A Panasonic Company



LOGICOL

P Series - Perimetral - R32

First complete package solution for critical environment up to 21 kW.

Cooling capacity - direct expansion: 7,4 to 20,5 kW.

R32
REFRIGERANT

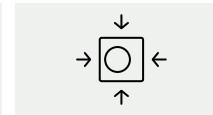
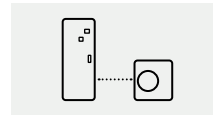


The Range at the glance

Smart solution for precise cooling in smaller critical cooling environment by combining Panasonic PACi NX condensing unit with Tecnaïr P Series DX unit. The technical characteristics of this solution make it ideal for applications such as: museums, archives and control rooms.

Advantages

- High efficiency
- Strict control of room temperature and humidity
- Low GWP refrigerant R32
- Flexibility



Complete package solution.

Solution for small critical environment.

Sustainable solution.

Technical features

NEW UPZ/OPZ - direct expansion air conditioners with air cooled or water cooled condensers - R32

Sizes		71	111	121	141	211
Cooling capacity ¹⁾	kW	7,44	9,92	12,5	14,71	20,47
Sensible cooling capacity ¹⁾	kW	6,89	8,41	10,67	12,60	20,47
EER ²⁾		3,52	3,13	2,79	2,61	2,38
Air flow	m ³ /h	2200	3200	3500	3200	7000
Sound pressure ³⁾	dB(A)	51	59	59	59	56
Dimension	Height	1990	1990	1990	1990	1990
	Width	750	750	750	750	750
	Depth	600	600	600	600	600
Overall weight	kg	150	200	205	205	205

PACi NX outdoor combination

Outdoor unit single phase			U-71PZH4E5	U-100PZH4E5	U-125PZH4E5	U-140PZH4E5	—
Outdoor unit three phase			U-71PZH4E8	U-100PZH4E8	U-125PZH4E8	U-140PZH4E8	U-250PZH4E8
Power supply	Single phase	V	220 - 230 - 240	220 - 230 - 240	220 - 230 - 240	220 - 230 - 240	—
	Three phase	V	380 - 400 - 415	380 - 400 - 415	380 - 400 - 415	380 - 400 - 415	380 - 400 - 415
Sound pressure	Cool / Heat (Hi)	dB(A)	48/50	52/52	55/55	56/56	59/63
Sound power	Cool / Heat (Hi)	dB(A)	65/67	69/69	73/73	74/74	78/82
Dimension	HxWxD	mm	996x980x370	996x980x370	996x980x370	996x980x370	996x1140x460
Net weight	1ph / 3ph	kg	66	84/82	86/84	86/84	109
	Liquid	Inch (mm)	3/8(9,52)	3/8(9,52)	3/8(9,52)	3/8(9,52)	1/2(12,70)
Pipe length range	Gas	Inch (mm)	5/8(15,88)	5/8(15,88)	5/8(15,88)	5/8(15,88)	7/8(22,22)
	Min ~ Max	m	5 ~ 60	5 ~ 100	5 ~ 100	5 ~ 100	5 ~ 100
Elevation difference (in / out)	Max	m	15/30 ²⁾	15/30 ²⁾	15/30 ²⁾	15/30 ²⁾	30
Pre-charged pipe length		m	30	30	30	30	30
Additional gas amount		g/m	30	40	40	40	80
Refrigerant (R32) / CO ₂ Eq.		kg / T	1,95/1,32	2,70/1,82	3,00/2,03	3,00/2,03	4,80/3,24
Operating range	Cool Min ~ Max	°C	-15 ~ +52	-20 ⁴⁾ ~ +52	-20 ⁴⁾ ~ +52	-20 ⁴⁾ ~ +52	-15 ~ +52
	Heat Min ~ Max	°C	-20 ~ +24	-20 ~ +24	-20 ~ +24	-20 ~ +24	-20 ~ +35

1) Performance refers to: intake air 24 °C-45%Rh; R410A refrigerant; condensing temperature 45 °C; water temperature 7/12 °C; external static pressure 30 Pa. The declared performance does not consider the heat generated by the fans, which must be added to the thermal load of the system. 2) EER (energy efficiency ratio) = total cooling capacity / input power of compressors + input power of fans (excluding air-cooled condensers). 3) Sound pressures at a distance of 2 m; in a free field; pursuant to UNI EN ISO 3744:2010. 4) Outdoor unit located lower / outdoor unit located higher. 5) Pipe length up to 30 m.

P Series - Perimetral

Perimetral and compact solution.

Cooling capacity - chilled water: 9,9 to 160,0 kW.

Cooling capacity - direct expansion: 8,2 to 95,0 kW.



The range at a glance

Although optimised for data centres, the technical characteristics of the P Series units make them ideal for various types of special applications, including: metrology labs, TV production studios, musical instrument recording and storage rooms, museums and archives, control rooms in power stations and railway junctions. Moreover, they are ideal for use in many industrial sectors: optics, electronics, electromedical devices, electrical or electronic equipment production, musical instrument production, etc.

Advantages

- Versions with upward and downward air delivery
- Strict control of room temperature and humidity
- Very high EER (energy efficiency ratio) and low operating costs
- High usage flexibility and wide range of accessories
- Version with low GWP R513A refrigerant available

Free cooling and two sources models available.

Technical features

UPA/OPA - direct expansion air conditioners with air-cooled or water-cooled condensers																
Sizes		71	111	141	211	251	301	321	322	361	461	422	512	662	852	932
Cooling capacity ¹⁾	kW	8,2	10,7	14,7	21,0	27,4	32,3	35,2	33,8	38,1	48,1	43,7	57,8	67,3	84,4	94,9
Sensible cooling capacity ¹⁾	kW	7,9	10,7	12,9	21,0	25,7	32,3	35,2	33,8	38,1	46,8	43,7	53,6	66,2	73,7	86,3
EER ²⁾		3,83	3	3,40	3,30	3,14	3,21	3,13	3,34	3,57	3,63	3,47	3,34	3,26	3,27	3,64
Air flow	m ³ /h	2200	3200	3200	7000	7000	12000	12000	12000	14000	14000	14000	14000	18000	18000	21000
Sound pressure ³⁾	dB(A)	51	59	59	56	57	67	67	67	58	58	58	59	61	61	61
Dimension	Height	mm	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990
	Width	mm	750	750	750	860	860	1410	1410	1410	1750	1750	1750	2300	2300	2640
	Depth	mm	600	600	600	880	880	880	880	880	880	880	880	880	880	880
Overall weight	kg	170	220	225	280	305	360	385	430	460	470	535	540	685	705	745
Air-cooled free cooling		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Water-cooled free cooling		○	○	○	○	○	○	●	○	○	●	○	○	●	●	○
Two sources		○	○	○	●	○	○	●	○	○	●	○	●	●	●	●

NEW UPN/OPN - direct expansion air conditioners with air cooled or water cooled condensers - R513A															
Sizes		71	111	141	181	211	251	301	302	312	322	422	512	612	
Cooling capacity ¹⁾	kW	7,82	11,52	13,58	19,78	22,24	26,92	33,82	30,92	40,12	46,58	46,92	55,65	59,37	
Sensible cooling capacity ¹⁾	kW	7,82	11,52	12,42	19,78	22,24	25,72	33,82	30,92	40,12	44,05	46,92	55,62	59,37	
EER ²⁾		3,49	3,32	3,41	3,41	3,29	3,30	3,61	3,32	3,36	3,36	3,43	3,46	3,47	
Air flow	m ³ /h	2200	3200	3200	7000	7000	7000	12000	12000	12000	12000	14000	14000	18000	
Sound pressure ³⁾	dB(A)	51	59	59	58	58	58	67	67	67	67	59	59	61	
Dimension	Height	mm	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	
	Width	mm	750	750	750	860	860	860	1410	1410	1410	1410	1750	2300	
	Depth	mm	600	600	600	880	880	880	880	880	880	880	880	880	
Overall weight	kg	225	235	235	280	295	305	360	380	365	385	535	540	685	

UPU/OPU - chilled water air conditioners											
Sizes		10	20	30	50	60	70	80	110	160	220
Cooling capacity ¹⁾	kW	9,9	17,2	30,0	41,0	52,8	63,1	65,4	80,0	110,0	160,0
Sensible cooling capacity ¹⁾	kW	9,3	14,9	27,8	36,2	47,4	54,2	61,8	73,0	99,7	146,0
EER ²⁾		38,26	29,13	30,00	24,54	22,75	24,17	24,79	24,17	29,33	24,17
Air flow	m ³ /h	2200	3200	7000	8000	12000	12000	16000	18000	24.000	36000
Sound pressure ³⁾	dB(A)	51	59	56	60	67	68	61	62	62	65
Dimension	Height	mm	1990	1990	1990	1990	1990	1990	1990	1990	1990
	Width	mm	750	750	860	860	1410	1410	1750	1750	2640
	Depth	mm	600	600	880	880	880	880	880	880	880
Overall weight	kg	125	150	245	250	270	280	375	410	690	810
Two sources		○	○	○	●	○	●	○	●	●	○

1) Performance refers to: intake air 24 °C-45%Rh; R410A refrigerant; condensing temperature 45 °C; water temperature 7/12 °C; external static pressure 30 Pa. The declared performance does not consider the heat generated by the fans, which must be added to the thermal load of the system. 2) EER (energy efficiency ratio) = total cooling capacity / input power of compressors + input power of fans (excluding air-cooled condensers). 3) Sound pressures at a distance of 2 m; in a free field; pursuant to UNI EN ISO 3744:2010.