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CLOSE CONTROL AND VERTICAL DX UNITS 2026 / 2027

TOTAL HVAC&R SOLUTION

heating & cooling solutions

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Vertical DX units

Close Control units provide a strict control of environmental conditions such as temperature, humidity in data centres, laboratories, and other applications where sensitive equipment or processes require stable and controlled conditions.
Vertical DX units can be used in industries, data centres and tertiary application thanks to their high reliability, high-efficiency and low noise level.

ABOUT

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PRODUCT SPECIFICATIONS

Close Control - Techline

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Vertical DX units

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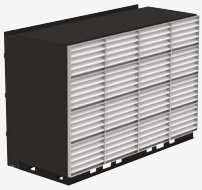
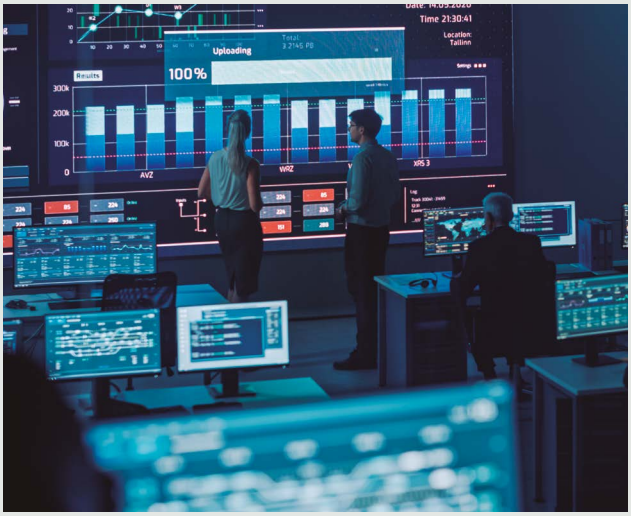
Quick selection guide - Close Control - chilled water

Page	Size	Cooling capacity (kW)	Air flow (m³/h)	Sound pressure (dB(A))	Dimension H x W x D (mm)
P Series - Perimetral	10	9,9	2200	51	1990 x 750 x 600
	20	17,2	3200	59	1990 x 750 x 600
	30	30,0	7000	56	1990 x 860 x 880
	50	41,0	8000	60	1990 x 860 x 880
	60	52,8	12000	67	1990 x 1410 x 880
P. 10	70	63,1	12000	68	1990 x 1410 x 880
	80	65,4	16000	61	1990 x 1750 x 880
	110	80,0	18000	62	1990 x 1750 x 880
	160	110,0	24000	62	1990 x 2640 x 880
	220	160,0	36000	65	1990 x 3495 x 880
G Series - Great	70	55,5	11000	58	1990 x 1320 x 921
	150	112,6	23000	60	1990 x 1840 x 921
	150 XH	129,7	26000	62	2350 x 1840 x 1050
P. 11	230	176,6	36000	63	1990 x 2740 x 921
	230 XH	220,7	39000	65	2350 x 2740 x 1050
	300	202,8	45200	62	1990 x 4020 x 921
	300 XH XS	251,0	44000	67	2350 x 3200 x 1090
R Series - In-Row	20	24,5	5600	53	1970 x 300 x 1200
P. 12	40	37,3	9000	62	2000 x 600 x 1220
W Series - Cold Wall	2X1	From 112 to 500,5	—	—	1800 x 1900 x 1400
	3X1		—	—	1800 x 2850 x 1400
	4X1		—	—	1800 x 3800 x 1400
P. 12 	2X2		—	—	3600 x 1900 x 1400
	3X2		—	—	3600 x 2850 x 1400
	4X2		—	—	3600 x 3800 x 1400

Techline

Techline, precise cooling solutions designed specifically for data centre applications.

4 series that with their high quality, high reliability, high level of customisation meet different application needs and installation requirements.



Quick selection guide - Close Control - direct expansion

Page	Size	Cooling capacity (kW)	Air flow (m³/h)	Sound pressure (dB(A))	Dimension H x W x D (mm)
P Series – UPZ-OPZ · R32*	71	7,44	2200	51	1990 x 750 x 600
	111	9,92	3500	59	1990 x 750 x 600
P. 8	121	12,50	3500	59	1990 x 750 x 600
	141	14,71	3500	59	1990 x 750 x 600
	211	20,47	7000	56	1990 x 860 x 880
P Series – Perimetral · R410A	71	8,2	2200	51	1990 x 750 x 600
	111	10,7	3200	59	1990 x 750 x 600
	141	14,7	3200	59	1990 x 750 x 600
	211	21,0	7000	56	1990 x 860 x 880
	251	27,4	7000	57	1990 x 860 x 880
	301	32,0	12000	67	1990 x 1410 x 880
	321	35,0	12000	67	1990 x 1410 x 880
P. 10	322	34,0	12000	67	1990 x 1410 x 880
	361	38,0	14000	58	1990 x 1750 x 880
	461	48,0	14000	58	1990 x 1750 x 880
	422	44,0	14000	58	1990 x 1750 x 880
	512	58,0	14000	59	1990 x 1750 x 880
	662	67,0	18000	61	1990 x 2300 x 880
	852	84,0	18000	61	1990 x 2300 x 880
	932	95,0	21000	61	1990 x 2640 x 880
P Series – UPN-OPN · R513A	71	7,8	2200	51	1990 x 750 x 600
	111	11,5	3200	59	1990 x 750 x 600
	141	13,6	3200	59	1990 x 750 x 600
	181	19,8	7000	58	1990 x 860 x 880
	211	22,2	7000	58	1990 x 860 x 880
	251	26,9	7000	58	1990 x 860 x 880
	301	33,8	12000	67	1990 x 1410 x 880
P. 10	302	30,9	12000	67	1990 x 1410 x 880
	312	40,1	12000	67	1990 x 1410 x 880
	322	46,6	12000	67	1990 x 1410 x 880
	422	46,9	14000	59	1990 x 1750 x 880
	512	55,7	14000	59	1990 x 1750 x 880
	612	59,4	18000	61	1990 x 2300 x 880
G Series – Great · R410A	932	102,6	18000	56	1990 x 2390 x 921
	1342	153,9	31500	61	1990 x 3120 x 921
P. 11					
R Series – In-Row · R410A	121	11,4	3200	51	1970 x 300 x 1200
	201	22,0	3600	53	1970 x 300 x 1200
P. 12	231	22,9	6000	54	2000 x 600 x 1220
	361	36,6	6000	56	2000 x 600 x 1220

Tentative data

*Possible combination with PACi NX outdoor unit. Check PACi NX compatible models.

Quick selection guide – Vertical DX units

Page	Size	Cooling capacity (kW)	Air flow (m³/h)	Sound pressure (dB(A))	Dimension L x W x H (mm)
T-XAR – air cooled models · R407C	1200	12,3	2000	51	890 x 1540 x 430
	1900	16,2	3200	56	1000 x 1735 x 500
	2450	19,8	4500	59	1300 x 1840 x 600
P. 14	3250	29,0	5800	65	1530 x 1830 x 600
	4650	38,9	9000	61	1715 x 1970 x 790
	6450	55,0	12000	69	1980 x 1970 x 790
T-CX and T-XAO – water cooled models · R407C	25	8,0	1500	52	800 x 1280 x 407
	1200	15,0	2000	51	890 x 1540 x 430
	1900	18,0	3200	55	1000 x 1735 x 500
	2450	23,0	4500	58	1300 x 1840 x 600
P. 16	3250	32,4	5800	64	1530 x 1830 x 600
	4650	45,7	9000	60	1715 x 1970 x 790

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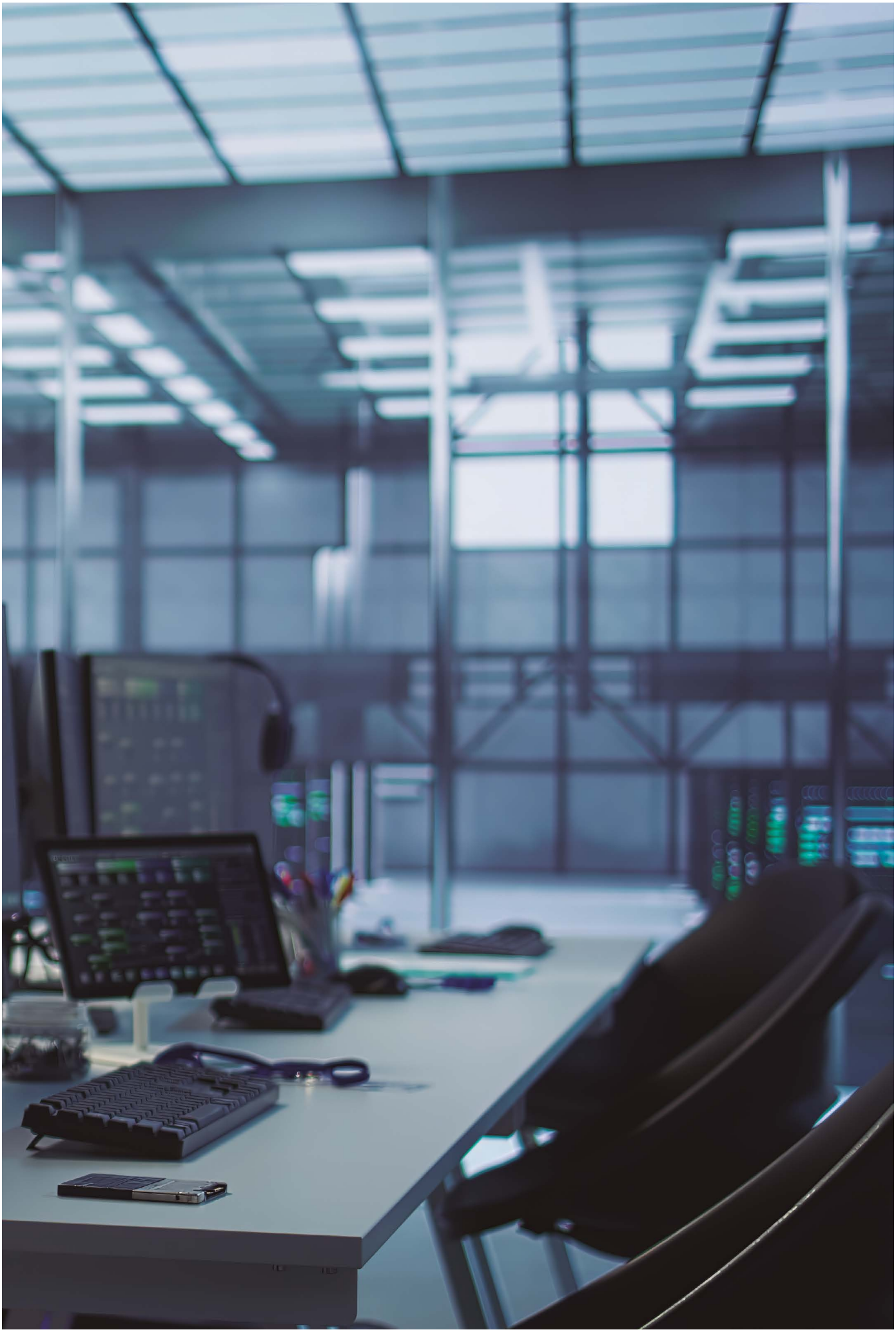
P Series and PACi NX – First complete package solution for critical environment up to 21 kW.

First Panasonic and Tecnair synergy.

Comprehensive solution for precise cooling in smaller critical cooling environment thanks to the combination of cutting-edge DX technology from Panasonic and Tecnair.
Efficient, energy-saving and flexible system powered by R32 refrigerant that allows environmental benefit thanks to its low GWP.



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 a glance

Smart solution for precise cooling in smaller critical cooling environment by combining Panasonic PACi NX condensing unit with Tecnair 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

R32 SUSTAINABLE SOLUTION

Model		Humidifier		Modulating heater	
Up flow	Down flow	3 kg/h	8 kg/h	6 kW	9 kW
T-OPZ0071AA-E001	T-UPZ0071AA-E001	–	–	–	–
T-OPZ0111AA-E001	T-UPZ0111AA-E001	–	–	–	–
T-OPZ0121AA-E001	T-UPZ0121AA-E001	–	–	–	–
T-OPZ0141AA-E001	T-UPZ0141AA-E001	–	–	–	–
T-OPZ0211AA-E001	T-UPZ0211AA-E001	–	–	–	–
T-OPZ0071AA-E002	T-UPZ0071AA-E002	✔	–	–	–
T-OPZ0111AA-E002	T-UPZ0111AA-E002	✔	–	–	–
T-OPZ0121AA-E002	T-UPZ0121AA-E002	✔	–	–	–
T-OPZ0141AA-E002	T-UPZ0141AA-E002	✔	–	–	–
T-OPZ0211AA-E002	T-UPZ0211AA-E002	✔	–	–	–
T-OPZ0211AA-E003	T-UPZ0211AA-E003	–	✔	–	–
T-OPZ0071AA-E004	T-UPZ0071AA-E004	✔	–	✔	–
T-OPZ0111AA-E004	T-UPZ0111AA-E004	✔	–	✔	–
T-OPZ0121AA-E004	T-UPZ0121AA-E004	✔	–	✔	–
T-OPZ0141AA-E004	T-UPZ0141AA-E004	✔	–	✔	–
T-OPZ0211AA-E004	T-UPZ0211AA-E004	✔	–	–	✔
T-OPZ0211AA-E005	T-UPZ0211AA-E005	–	✔	–	✔

Built-in advanced control with integrated Modbus.

The advanced control system offers full Modbus control to deliver optimum performance and easier access to information. A predictive safety system is designed to prevent unwanted shut-downs.

Wide full graphic LCD colour display.

Technical performance

UPZ/OPZ - direct expansion air conditioners with air cooled or water cooled condensers · R32								
Version with humidifier and modulating heater								
Sizes			71	111	121	141	211	211
Indoor unit	**Up flow**	**T-OPZ**	**0071AA-E004**	**0111AA-E004**	**0121AA-E004**	**0141AA-E004**	**0211AA-E004**	**0211AA-E005**
Indoor unit	**Down flow**	**T-UPZ**	**0071AA-E004**	**0111AA-E004**	**0121AA-E004**	**0141AA-E004**	**0211AA-E004**	**0211AA-E005**
Cooling capacity [1]		kW	7,44	9,92	12,50	14,71	20,47	20,47
Sensible cooling capacity [1]		kW	6,89	8,41	10,67	12,60	20,47	20,47
EER [2]			**3,52**	**3,13**	**2,79**	**2,61**	**2,38**	**2,38**
Air flow		m^3/h	2.200	3.500	3.500	3.500	7.000	7.000
Sound pressure		dB(A)	51	59	59	59	56	56
Dimension	Height	mm	1990	1990	1990	1990	1990	1990
	Width	mm	750	750	750	750	860	860
	Depth	mm	600	600	600	600	880	880
Overall weight		kg	150	200	205	205	225	225
Fan								
Fan type			EC	EC	EC	EC	EC	EC
Quantity			1	1	1	1	1	1
Power supply	Voltage	V	230	400	400	400	400	400
	Phase		Single phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
Maximum power consumption		kW	0,50	1,10	1,10	1,10	1,50	1,50
Maximum volume airflow		m^3/h	2600	3500	3500	3500	8000	8000
Maximum pressure		Pa	700	570	570	570	900	900
Humidifier								
Humidifier		kg/h	3,0	3,0	3,0	3,0	3,0	8,0
Quantity			1,0	1,0	1,0	1,0	1,0	1,0
Cylinder volume		l	3,3	3,3	3,3	3,3	3,3	5,4
Instantaneous supply flow rate		l/min	0,6	0,6	0,6	0,6	0,6	0,6
Instantaneous discharge flow rate		l/min	10,0	10,0	10,0	10,0	10,0	10,0
Heater								
Maximum power		kW	6	6	6	6	9	9
Power supply	Voltage	V	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
Maximum current		A	11,3	11,3	11,3	11,3	17,0	17,0
PACi NX outdoor combination		**Single phase**	**U-71PZH4E5**	**U-100PZH4E5**	**U-125PZH4E5**	**U-140PZH4E5**	**—**	**—**
		Three phase	**U-71PZH4E8**	**U-100PZH4E8**	**U-125PZH4E8**	**U-140PZH4E8**	**U-250PZH4E8**	**U-250PZH4E8**

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	54/54	57/63
Sound power	Cool / Heat (Hi)	dB(A)	65/67	70/70	73/73	74/74	76/82
Dimension	H x W x D	mm	996 x 980 x 370	996 x 980 x 370	996 x 980 x 370	996 x 980 x 370	996 x 1140 x 460
Net weight	1ph / 3ph	kg	66/66	84/82	86/84	86/84	— / 109
Piping diameter	Liquid	Inch (mm)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	3/8 (9,52)	1/2 (12,70)
	Gas	Inch (mm)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	5/8 (15,88)	7/8 (22,22)
Pipe length range	Min ~ Max	m	5 ~ 60	5 ~ 100	5 ~ 100	5 ~ 100	5 ~ 100
Elevation difference (in / out)	Max	m	15 / 30 [3]	15 / 30 [3]	15 / 30 [3]	15 / 30 [3]	30
Pre-charged pipe length		m	30	30	30	30	30
Additional gas amount		g/m	45	45	45	45	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
Electrical information (power supply to outdoor)		**kW**	**7,1**	**10,0**	**12,5**	**14,0**	**25,0**
Recommended fuse	Single phase	A	25	35	40	40	
	Three phase	A	16	16	16	16	30
Connection in. / out.	Single phase	mm^2	4x2,5	4x2,5	4x2,5	4x2,5	
	Three phase	mm^2	4x2,5	4x2,5	4x2,5	4x2,5	—

1) Performance refers to: indoor ambient temperature 27 °C DB / 19 °C WB, outdoor ambient temperature 35 °C; R32 refrigerant; 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 the PACi NX condenser + input power of the fans and CRAC indoor unit. 3) Outdoor unit located lower / outdoor unit located higher. 4) 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 performance

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		m³/h	2200	3200	3200	7000	7000	12000	12000	12000	14000	14000	14000	14000	18000	18000	21000
Sound pressure		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	1990
	Width	mm	750	750	750	860	860	1410	1410	1410	1750	1750	1750	1750	2300	2300	2640
	Depth	mm	600	600	600	880	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			○	○	○	●	○	○	●	○	○	●	○	●	●	●	●

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		m³/h	2200	3200	3200	7000	7000	7000	12000	12000	12000	12000	14000	14000	18000
Sound pressure		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	1990
	Width	mm	750	750	750	860	860	860	1410	1410	1410	1410	1750	1750	2300
	Depth	mm	600	600	600	880	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		m³/h	2200	3200	7000	8000	12000	12000	16000	18000	24.000	36000
Sound pressure		dB(A)	51	59	56	60	67	68	61	62	62	65
Dimension	Height	mm	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990
	Width	mm	750	750	860	860	1410	1410	1750	1750	2640	3495
	Depth	mm	600	600	880	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).

G Series - Great

Perimetral and high-efficiency solution for large data centres.

Cooling capacity - chilled water: 55,5 to 265,5 kW.
Cooling capacity - direct expansion: 102,6 to 153,9 kW.

The range at a glance

In designing air conditioning systems for large data centres, the need to house electrical wires and the enormous quantities of air required to cool the servers has made it necessary to increase the height of the raised floors up to the current 550/1000 millimetres. A large space was therefore created under the air conditioner in which to install the adjustable support. It was then decided to exploit this large space to house the delivery fans without increasing the machine's footprint, making the most of the available space instead.

Advantages

- Separate air-cooling section for mounting under raised floors
- High delivered cooling capacity to footprint ratio
- Optimised air distribution in raised floor
- Reduced energy consumption of fans

Chilled water versions available in XH (extended height) and XH XS specifically for hyperscale data centres.
Free cooling and two sources models available.

Technical performance

UGA - direct expansion air conditioners with air cooled or water cooled condensers				
Sizes			932	1342
Cooling capacity [1]		kW	102,6	153,9
Sensible cooling capacity [1]		kW	102,6	153,9
EER [2]			**4,16**	**4,54**
Air flow		m³/h	18000	31500
Sound pressure		dB(A)	56	61
Dimension	Height	mm	1990	1990
	Width	mm	2390	3120
	Depth	mm	921	921
Overall weight		kg	910	1240

UGU - chilled water air conditioners									
Sizes			70	150	150 XH	230	230 XH	300	300 XH XS
Cooling capacity [1]		kW	55,5	112,6	129,7	176,6	220,7	202,8	251,0
Sensible cooling capacity [1]		kW	55,5	112,6	129,7	176,6	220,7	202,8	251,0
EER [2]			**31,17**	**36,32**	**36,94**	**36,65**	**38,86**	**33,97**	**35,46**
Air flow		m³/h	11000	23000	26000	36000	39000	45200	44000
Sound pressure		dB(A)	58	60	62	63	65	62	67
Dimension	Height	mm	1990	1990	2350	1990	2350	1990	2350
	Width	mm	1320	1840	1840	2740	2740	4020	3200
	Depth	mm	921	921	1050	921	1050	921	1090
Overall weight		kg	540	840	865	1220	1250	1630	1550

1) Performance refers to: intake air 32 °C-30%Rh; R410A refrigerant; condensing temperature 45 °C; water temperature 12/20 °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).

R Series - In-Row

In-row solution.

Cooling capacity - chilled water: 24,5 to 37,3 kW.
Cooling capacity - direct expansion: 11,4 to 36,6 kW.

The range at a glance

In air conditioning systems for large data centres, use of the following design concepts has now become a consolidated practice:

- The racks containing the servers are being increasingly positioned in accordance with the hot corridor (or hot aisle), and cold corridor (or cold aisle) layout.
- The air temperatures are left to rise up to 30 ~ 35 °C in the hot corridor, and 20 ~ 25 °C in the cold corridor, with very low humidity (never more than 30%).
- The performance of servers is continually increasing, while their size is getting smaller and smaller.

Many more servers can therefore be installed in one rack, allowing the remaining empty racks to be eliminated. At the same time, the dissipated heat rises, and more power is therefore required of the air conditioners.

Advantages

- Air flow distribution as close as possible to servers
- Rear suction from hot aisles and front delivery to cold aisles
- Front and rear access for ease of maintenance
- Hydraulic, refrigeration and electrical connections from above or below

Free cooling and two sources models available.

Technical performance

HRA - direct expansion air conditioners with air cooled or water cooled condensers						
Sizes			121	201	231	361
Cooling capacity [1]		kW	11,4	22,0	22,9	36,6
Sensible cooling capacity [1]		kW	11,4	19,9	22,6	34,7
EER [2]			**3,70**	**3,52**	**3,66**	**3,91**
Air flow		m^3/h	3200	3600	6000	6000
Sound pressure		dB(A)	51	53	54	56
Dimension	Height	mm	1970	1970	2000	2000
	Width	mm	300	300	600	600
	Depth	mm	1200	1200	1220	1220
Overall weight		kg	220	235	235	235
Water cooled free cooling			○	○	●	○
Two sources			○	○	●	○

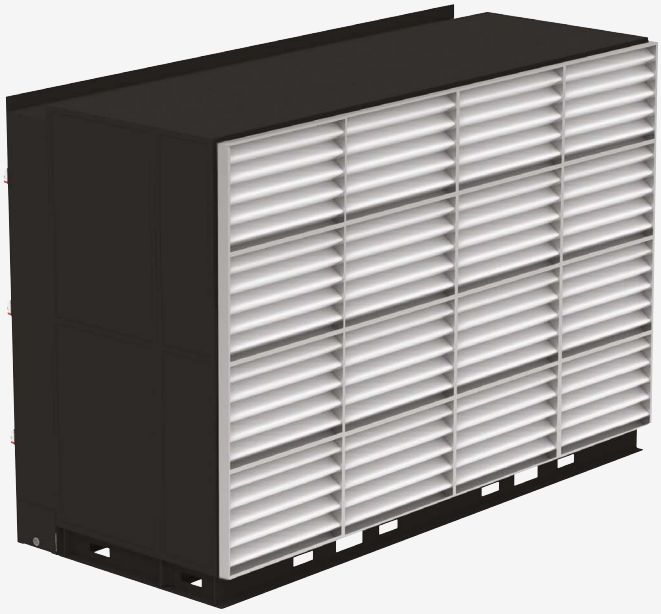
HRU - chilled water air conditioners				
Sizes			20	40
Cooling capacity [1]		kW	24,5	37,3
Sensible cooling capacity [1]		kW	24,5	37,3
EER [2]			**23,09**	**27,82**
Air flow		m^3/h	5600	9000
Sound pressure		dB(A)	53	62
Dimension	Height	mm	1970	2000
	Width	mm	300	600
	Depth	mm	1200	1220
Overall weight		kg	145	210
Two sources			○	●

1) Performance refers to: intake air 32 °C-30%Rh; R410A refrigerant; condensing temperature 45 °C; water temperature 12/20 °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).

W Series - Cold Wall

Technical corridor solution.

Cooling capacity - chilled water: 112 to 500,5 kW.



The range at a glance

The W Series units feature constructive and operational characteristics able to satisfy the design criteria of latest-generation large data centres in the presence of a technical service corridor. The units are designed to withdraw the warm air generated by the servers, coming from the warm corridor, and blow chilled air directly into the data hall.
This type of chilled water unit is specifically designed to be modular and customisable, with a range of possible custom configurations to suit the architecture of modern data centres. Its reduced footprint and installation in a service corridor means W Series units avoid occupying critical spaces, thus maximising the capacity of the data hall.

Advantages

· Technical services corridor mounting
· No space occupied in the data centre
· Very high EER (energy efficiency ratio) due to optimised air flow
· Fully customisable to data centre specifications

Technical performance

HWU - chilled water air conditioners								
Sizes			2X1	3X1	4X1	2X2	3X2	4X2
Cooling capacity [1]		kW	From 112 to 500,5					
Sensible cooling capacity [1]		kW	From 112 to 500,5					
Dimension	Height	mm	1800	1800	1800	3600	3600	3600
	Width	mm	1900	2850	3800	1900	2850	3800
	Depth	mm	1400	1400	1400	1400	1400	1400
Overall weight		kg	600	900	1200	1200	1800	2400

1) Performance refers to: intake air 40 °C-25%Rh; R410A refrigerant; condensing temperature 45 °C; water temperature 20/30 °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.

T-XAR · R407C

Vertical DX units.

Cooling capacity: 12,3 to 55,0 kW.

Operating limits

For standard unit.

T-XAR · R407C - air cooled models				
Minimum temperature	Indoor temperature	Thi	°C	+13
		Tsi	°C	+17
	Outdoor temperature	Tse	°C	+19
		Tse	°C	-10 [1]
Maximum temperature	Indoor temperature	Thi	°C	+22
		Tsi	°C	+32
	Outdoor temperature	Tse	°C	+47

1) With "All seasons kit" option.
Thi : Wet Bulb indoor temperature.
Tsi : Dry Bulb indoor temperature.
Tse : Dry Bulb outdoor temperature.

The range at a glance

- 6 sizes
- Configuration: split system. UC outdoor condensing unit available as an accessory
- Air intake: on the front grilles or on the rear with duct
- Discharge: vertical with or without duct or horizontal with a plenum
- Temperature controlled by thermostat
- 2 heating options: integrated electric or hot water coils

Equipment

- Refrigerant circuit with an hermetic type compressor and an evaporator composed of copper tubes with aluminium fins
- Panels and intake grilles made of profiled sheet steel covered with enamel finish, baked in a high temperature oven
- Electrical and refrigerant connections on the right or left side
- Thermal and acoustic insulation of the unit
- 3-speed fan motor
- Integrated unit control
- M1 filters
- Electrical, refrigeration and thermal protection devices

Advantages

- Robust unit with mechanical control
- Easy installation and maintenance
- Small footprint casing
- Different air intake and discharge configurations
- Heating systems available (options)

UC - outdoor unit (accessory).

Technical performance

Size			1200	1900	2450	3250	4650	6450
T-XAR - air cooled models			**T-X1200.AR**	**T-X1900.AR**	**T-X2450.AR**	**T-X3250.AR**	**T-X4650.AR**	**T-X6450.AR**
Cooling capacity [1]	Nominal	W	12300	16200	19800	29000	38900	55000
		BTU/hr	42000	55300	67600	99000	137000	189200
Air flow	Nominal treated air	m³/h	2000	3200	4500	5800	9000	12000
	Min / Max treated air	m³/h	1500/2500	2500/3800	3600/5400	4600/7000	7200/10800	9500/14500
Nominal fresh air (with accessory)		m³/h	180	285	420	500	1300	1650
Static pressure [2]	Standard unit	daPa	0/13	0/21	0/20	0/25	0/23	0/29
Sound pressure - indoor unit [3]	Normal speed	dB(A)	51	56	59	65	61	69
Electrical data								
Power supply	Voltage	V	400	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50	50
Voltage range		V	360/440	360/440	360/440	360/440	360/440	360/440
Total input power [1]		W	4808	8076	8900	12630	16950	24000
Input power ventilation	Min / Max - standard unit	W	260/510	380/580	500/1100	700/1800	1600/2400	3100/4600
Dimension								
Dimension	Height	mm	1540	1735	1840	1830	1970	1970
	Width	mm	430	500	600	600	790	790
	Length	mm	890	1000	1300	1530	1715	1980

UC - outdoor condensing unit (accessory)			**UC34**	**UC54**	**UC74**	**UC104**
Compatible with / number of necessary outdoor unit(s)			**X1200.AR / 1**	**X1900.AR / 1**	**X2450.AR / 1 X4650.AR / 2**	**X3250.AR / 1 X6450.AR / 2**
Air flow		m³/h	8600	7600	8550	14000
Input power		W	530	611	611	1222
Sound pressure [4]		dB(A)	52	53	56	56
Dimension						
Dimension	Height	mm	840	840	840	840
	Width	mm	825	825	885	885
	Length	mm	885	885	1141	1546

1) International standard ISO 51.51 conditions. 27 °C/19 °C (WB) - outside air : 35 °C/24 °C (WB). Wasted water: inlet +15 °C - recycled water inlet/outlet: 30 °C/35 °C. 2) Pressure in air flow range at nominal voltage, without accessories. 3) Total sound pressure dB(A) (4 m) under nominal conditions in a room of 1000 m³ (reverberation 0,83 s). 4) Total sound pressure dB(A) (4 m) under nominal conditions in free field on reflecting surface.

Accessories and options
Air distribution duct frame
Electric heaters
Fresh air intake
Front air distribution plenum
High ventilation (provided as standard for sizes 1200 and 1900)
Hot water coil
ON / OFF switch and room thermostat

Accessories and options
Pipe link 10 m - 1 circuit
Remote fault reporting
Set of female valves (mandatory)
Total rear intake duct frame
UC - outdoor condensing unit

SCROLL COMPRESSOR

T-CX and T-XAO · R407C

Vertical DX units.

Cooling capacity: 8,0 to 45,7 kW.

Operating limits

For standard unit.

T-CX and T-XAO - water cooled models			
Air temperature at evaporator inlet	WB	°C	From +15 to +23
	DB	°C	From +21 to +32
Water temperature		°C	From +10 to +34

DB : Dry Bulb.
WB : Wet Bulb.

The range at a glance

- 6 sizes
- Configuration: mono-bloc system
- Wasted or recycled water operation
- Air intake: on the front grilles or on the rear with duct
- Discharge: vertical with or without duct or horizontal with a plenum
- Temperature controlled by thermostat
- 2 heating options: integrated electric or hot water coils (hot water coil not available for CX25)

Equipment

- Complete refrigerant circuit with an hermetic type compressor, an evaporator composed of copper tubes with aluminium fins, a coaxial condenser with counter flow circulation (equipped with finned copped tube in a steel cover) and a pressostatic valve
- Panels and intake grilles made of profiled and a sheet steel covered with enamel finish, baked in a high temperature oven
- Electrical, water and refrigerant connections on the right or left side
- Thermal and acoustic insulation of the unit
- 3-speed fan motor (2-speed fan motor for CX25)
- Integrated unit control
- M1 filters
- Electrical, refrigeration and thermal protection devices

Advantages

- Robust unit with mechanical control
- Easy installation and maintenance
- Small footprint casing
- Different air intake and discharge configurations
- Heating systems available (options)

Technical performance

Size			1200	1900	2450	3250	4650
T-XA0 - water cooled models			**T-X1200.A0**	**T-X1900.A0**	**T-X2450.A0**	**T-X3250.A0**	**T-X4650.A0**
Cooling capacity [1]	Nominal	W	15005	18000	23000	32400	45700
		BTU/hr	51200	61400	78500	110550	157200
Air flow	Nominal treated air	m³/h	2000	3200	4500	5800	9000
	Min / Max treated air	m³/h	1500/2500	2500/3800	3600/5400	4600/7000	7200/10800
Nominal fresh air (with accessory)		m³/h	180	285	420	500	1300
Static pressure [2]	Standard unit	daPa	0/13	0/21	0/20	0/25	0/23
Sound pressure [3]	Normal speed	dB(A)	51	55	58	64	60
Electrical data							
Power supply	Voltage	V	400	400	400	400	400
	Phase		Three phase	Three phase	Three phase	Three phase	Three phase
	Frequency	Hz	50	50	50	50	50
Voltage range		V	360/440	360/440	360/440	360/440	360/440
Total input power [1]		W	4843	6616	7100	9800	13900
Input power ventilation	Min / Max - standard unit	W	260/510	380/580	500/1100	700/1800	1600/2400
Water circuit [1]							
Wasted water - flow		L/h	914	950	1000	1700	2800
Wasted water - pressure drop		kPa	37	30	22	35	18
Recycled water - flow		L/h	3161	3050	3500	5780	8300
Recycled water - pressure drop		kPa	80	65	45	40	56
Dimension							
Dimension	Height	mm	1540	1735	1840	1830	1970
	Width	mm	430	500	600	600	790
	Length	mm	890	1000	1300	1530	1715

T-CX - water cooled models			**CX25**	
Nominal cooling capacity (W 18 °C, A 19 °C Wet Bulb)		W	8000	
		BTU/hr	27300	
Air flow	Nominal treated air	m³/h	1500	
	Motor input power	W	245	
Electrical data				
Power supply	Voltage	V	230	400
	Phase		Single phase	Three phase
	Frequency	Hz	50	50
Cooling + ventilation				
Input	Nominal	A	12,28	5,28
	Max	A	14,85	6,38
aM fuse		A	16	8
ASE/VDE fuse		A	16	10
Electric heater + ventilation				
Input	Nominal	A	26	9,6
	Max	A	31	11,61
aM fuse		A	32	12
ASE/VDE fuse		A	35	16
Dimension				
Dimension	Height	mm	1280	
	Width	mm	407	
	Length	mm	800	

1) International standard ISO 51.51 conditions. 27 °C/19 °C (WB) - outside air : 35 °C/24 °C (WB). Wasted water: inlet +15 °C - recycled water inlet/outlet: 30 °C/35 °C. 2) Pressure in air flow range at nominal voltage, without accessories. 3) Total sound pressure dB(A) (4 m) under nominal conditions in a room of 1000 m³ (reverberation 0,83 s).

Accessories and options
Air distribution duct frame
Electric heaters
Fresh air intake
Front air distribution plenum
High ventilation (provided as standard for CX25, X1200.A0 and X1900.A0)
Hot water coil

Accessories and options
ON / OFF switch and room thermostat
Remote fault reporting
Sump heating resistance
Total rear intake duct frame

COAXIAL HEAT EXCHANGER | SCROLL COMPRESSOR