

# HTD/U/X

## INDOOR MONOBLOC UNITS FOR SHELTERS DESIGNED FOR IT EQUIPMENT

4-29 kW



SCROLL COMPRESSORS



MULTI-PROTOCOL COMMUNICATION INTERFACE



EC RADIAL FANS



HTD



HTU

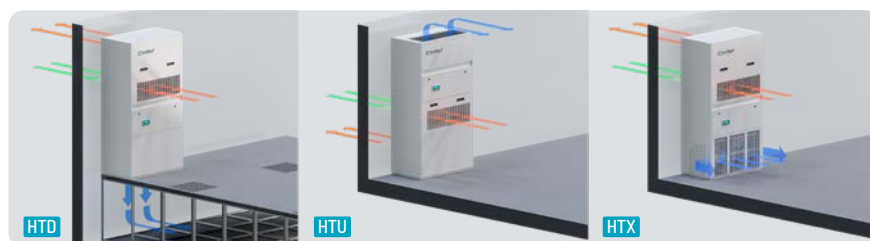


HTX

Our HTD, HTU and HTX series conditioners are indoor monobloc units designed for equipment rooms and low power telecom shelters. Thanks to their three different air flow configurations, they are suitable for installation in multiple ways. Thanks to the various configurations available, the range is **very versatile and thus suited to many system set-ups**, plus the **accurate thermodynamic and air distribution design enhances energy efficiency**.

### Simple and fast installation

The monobloc construction ensures **fast unit installation** with no need to provide on-site refrigeration piping. Thanks to the **Plug&Play** configuration, wall mounting and electrical connection of the unit are **considerably simplified**. Rain shields are available on request for installation on the external wall.



### Unit suitable for any kind of climate and environment

Different configurations and layouts are available, suitable for the setting in which the unit is to be installed.

- The high temperature version with R134a refrigerant and specific condensing fan is suitable for facilities with outside air temperature above 45°C. The unit is capable of starting even in extreme conditions (60°C indoors and 60°C outdoors).
- In the case of exposure to aggressive atmospheric agents such as sand, an epoxy powder painted condensing coil is available.

- In the case of extremely cold climates (down to -40°C) a version for low external temperatures is available. In this option, the unit is equipped with special condensing fans to be able to operate at low temperatures, an electrically heated switchboard, double compressor casing heaters, and condenser coil flooding system.

- R410A refrigerant, also available with R134a and R513a

- Version available with dual power supply for emergencies: 230/400V network and 24/48VDC backup supply

- Evaporating side fans with EC motor available on request

- Stainless steel condensate drain pan

- Dehumidification function (on request)

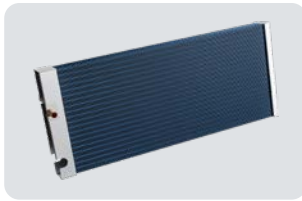
- Optional electronically controlled electric lamination valve

- Evaporating coils with hydrophilic coating supplied as standard equipment

- Epoxy powder painted structural metalwork supplied as standard

- Electric heating function (on request)

- Temperature control through heating and post-heating systems with electric heaters (on request)



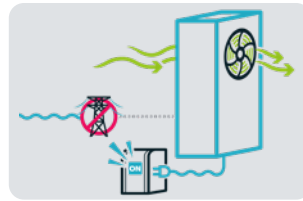
## Shelter safety

All models in the monobloc indoor range feature evaporating coils with hydrophilic coating. This special coating - together with adequate adjustment of air through-flow speeds - **helps condensate collection during the dehumidification process, preventing any dripping on the inside and outside of the unit.**



## Easier scheduled maintenance

The unit has been accurately designed to ensure **frontal access to components** even with the unit running. This aspect, combined with full extractability of filters and Free-Cooling damper (if any), **facilitates routine maintenance operations.**



## Maximised Redundancy

If **dual power supply** (mains + DC UPS) is provided, unit control and ventilation always remain active, **even in the event of a mains failure.** If the unit is configured as a Free-Cooling version (upon request), the damper will continue to operate, too, and this guarantees **operational continuity for the conditioning system.**

## Maximised energy saving with direct Free-Cooling

The units can, on request, be equipped with a **direct Free-Cooling** module. This system, which can also be retrofitted on site to a unit already in operation, reduces compressor work requirements and, under full Free-Cooling conditions, allows the compressor to be turned off, **with major benefits for the system's PUE (Power Usage Effectiveness).**

### HTD DOWNFLOW



Mechanical cooling

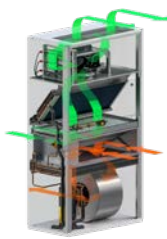


Free-Cooling

### HTU UPFLOW



Mechanical cooling



Free-Cooling

### HTX DISPLACEMENT



Mechanical cooling



Free-Cooling



HTD-HTU-HTX		0451	0561	0731	0901	1051	1201	1501	1701	1801	2001	2201	2501	
R410A - Indoor air 27°C - 40% / Outdoor air 35°C														
Cooling capacity	kW	4.4	6	7	10.7	10.9	12.7	15	16.4	18.4	22.1	24.9	27.6	
Total absorbed power	kW	1.9	2.5	3.2	4.8	4.4	6	6.4	7.6	7.1	9	10	11.4	
EER		4.26	3.54	3.26	3.28	3.71	2.81	3.39	2.93	4.71	3.79	3.84	3.5	
SHR		1	0.9	0.95	0.99	0.98	0.92	0.98	0.94	1	0.99	0.99	0.95	
R410A - Indoor air 30°C - 35% / Outdoor air 35°C														
Cooling capacity	kW	4.6	6.2	7.4	11.4	11.6	13.3	15.9	17.2	19.6	23.5	26.3	28.9	
Total absorbed power	kW	1.9	2.5	3.2	4.8	4.5	6	6.5	7.7	7.1	9.1	10	11.4	
EER		4.47	3.61	3.38	3.45	3.88	2.91	3.54	3.02	4.99	3.99	4.03	3.63	
SHR		1	0.95	1	1	1	0.96	1	0.99	1	1	1	0.99	
R513A - Indoor air 27°C - 40% / Outdoor air 35°C														
Cooling capacity	kW	5.2	6.1	7	9.4	11	12.1	14.4	15.7	21.1	23.5	25.8	27.6	
Total absorbed power	kW	2.1	2.5	3	3.7	4.4	4.9	5.7	6.5	7.9	8.8	10	11	
EER		4.11	3.62	3.41	4.38	3.88	3.66	3.87	3.52	4.48	4.18	3.97	3.65	
SHR		0.98	0.93	0.99	0.99	0.99	0.96	0.99	0.98	1	1	1	0.99	
R513A - Indoor air 30°C - 35% / Outdoor air 35°C														
Cooling capacity	kW	5.5	6.4	7.3	10	11.6	12.7	15.4	16.6	22.5	24.8	27.2	28.9	
Total absorbed power	kW	2.1	2.5	3.1	3.8	4.5	5	5.8	6.6	7.9	8.9	10.1	11.2	
EER		4.3	3.73	3.57	4.62	4.04	3.77	4.07	3.63	4.71	4.35	4.12	3.75	
SHR		1	0.95	1	1	1	1	1	1	1	1	1	1	
Rated air flow	m³/h	1450		2100		3020		3800		5500		6500		
Power supply	V/ph/Hz	230/1/50				400/3+N/50								
Dimensions [LxHxD]	mm	800x1850x550				1000x1850x550			1160x1850x550			1500x2050x800		

Performance data relating to Downflow versions. | Also available with 60 Hz power supply.