

# NTD/U/X

## INDOOR MONOBLOC MODULATING UNITS FOR SHELTERS DESIGNED FOR IT EQUIPMENT

9-28 kW



MULTI-PROTOCOL  
COMMUNICATION  
INTERFACE



SCROLL COMPRESSORS



EC RADIAL FANS



INVERTER DRIVEN  
COMPRESSORS



NTD



NTU



NTX

Our NTD, NTU and NTX series conditioners are indoor monobloc units designed for small 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.

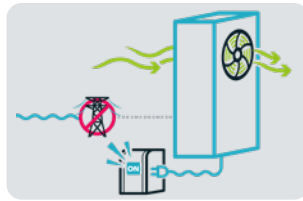
- In the case of extremely cold climates (down to  $-40^{\circ}\text{C}$ ) **a version for low external temperatures is available**. In this option, the unit is equipped with special condensing fans to be able to operate at low temperatures, an electrically heated switchboard, double compressor casing heaters, and condenser coil flooding system.
- In the case of **exposure to aggressive atmospheric agents** such as sand, an epoxy powder painted condensing coil is available.

- Refrigerant R410A
- Version available with dual power supply for emergencies: 230/400V network and 24/48VDC backup supply
- Fans on evaporating side with standard EC motor
- Modulating brushless DC compressors
- Evaporating coils with hydrophilic coating supplied as standard equipment
- Stainless steel condensate drain pan
- Dehumidification function (on request)
- Electric lamination valve with optional electronic control
- 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)



## 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**.

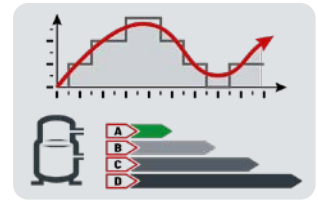


## Maximised Redundancy

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**.

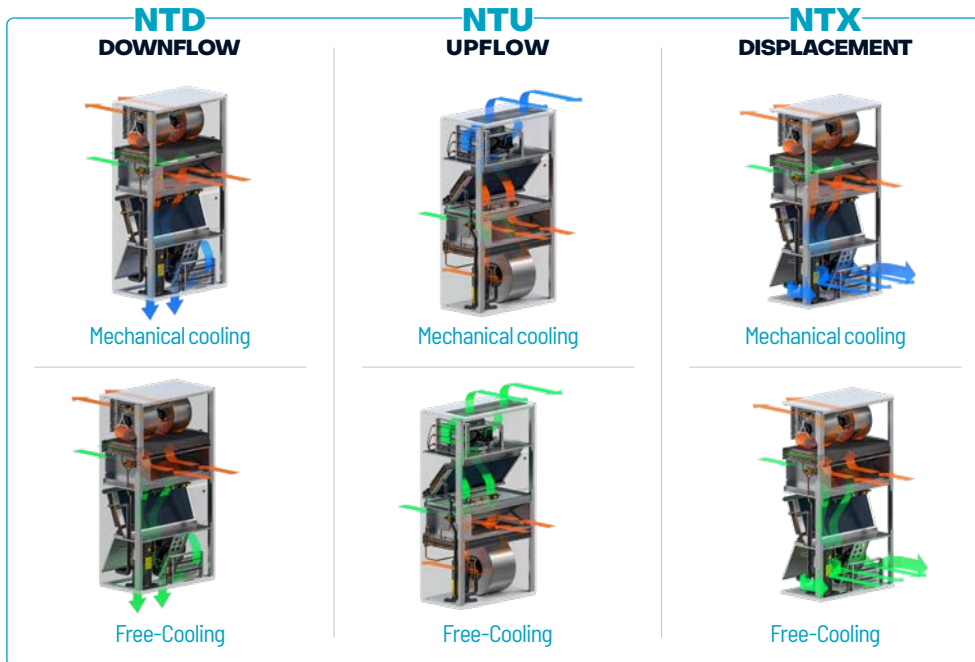
## Maximised energy saving with direct Free-Cooling

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)**.



## Efficiency and precision

The range includes compressors with Brushless DC motors. As the thermal load changes, the integrated microprocessor allows combined modulation of air flow - via control of the EC fans and cooling capacity, by managing the speed of the DC inverter compressors (supplied as standard). This ensures **not only accurate adjustment of environmental hygrothermal parameters, but also maximised energy savings at partial loads, particularly if in combination with direct Free-Cooling**.



NTD-NTU-NTX		0851	1101	1701	2501
R410A - Indoor air 27°C - 40% / Outdoor air 35°C					
Cooling capacity	kW	8.5	11.2	16.1	26.4
Total absorbed power	kW	3.2	4.5	6.2	9
EER		3.1	3.15	3.23	3.66
SHR		0.92	1	1	1
R410A - Indoor air 30°C - 35% / Outdoor air 35°C					
Cooling capacity	kW	8.9	11.8	17.1	27.9
Total absorbed power	kW	3.2	4.6	6.2	9.1
EER		3.17	3.28	3.38	3.81
SHR		0.99	1	1	1
Rated air flow	m³/h	1800	3020	4000	6500
Power supply	V/ph/Hz	230/1/50		400/3+N/50	
Dimensions [LxHxD]	mm	598x1850x550	1008x1850x550	1158x1850x551	1500x2050x805

Performance data relating to Downflow versions. | Also available with 60 Hz power supply. | Units also available in Upflow models except sizes 0851-1701.