TELECOMMUNICATIONS

HTW-HTWD

OUTDOOR MONOBLOC UNITS FOR SHELTERS DESIGNED FOR TECHNOLOGICAL EQUIPMENT

4–40 kW

Safety Class A1

R513A

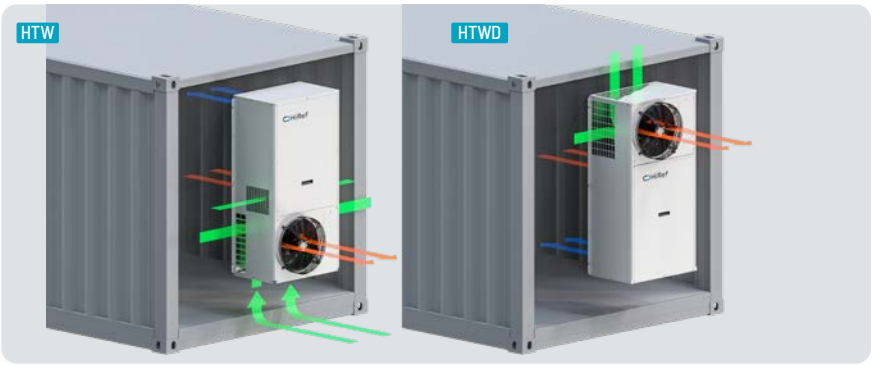
MULTI-PROTOCOL COMMUNICATION INTERFACE

SCROLL COMPRESSORS

EC RADIAL FANS

CORROSION RESISTANT MATERIAL

The conditioners of the HTW-HTWD series are monobloc units designed for the air conditioning of small- and medium-sized telephone exchange centres. Designed for **external wall mounting**, they are suitable for conditioning control centres with limited internal space or space entirely taken up by technological equipment. The rational layout of the components, combined with the wide range of accessories available, make the units **easy to install** and **suitable for different shelter configurations**; the **accuratethermodynamic and aeraulic design enhances energy efficiency**.



Maximised shelter internal space

The HTW-HTWD series units are designed to be installed **outside the shelter.** In this way it is possible to make **the most of the internal space** which can thus be used entirely for IT equipment installation.

Simple and fast installation

The monobloc construction ensures **fast installation** with no need to provide on-site refrigeration connecting 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.

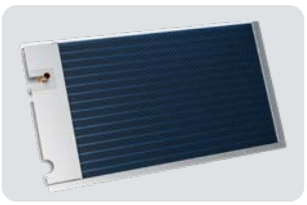
- R410A refrigerant, alternatively available with R513A and R134a
- Version available with dual power supply for emergencies: 230/400V network and 24/48VDC backup supply
- Stainless steel condensate drain pan
- Evaporating and condensing side fans available with EC motor
- Evaporating coils with hydrophilic coating supplied as standard equipment
- Epoxy powder painted structural metalwork supplied as standard on HTWD. Peraluman 5005 aluminium alloy metalwork supplied as standard with HTW
- Dehumidification function (on request)
- Electric lamination valve with optional electronic control
- 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 units running.** This aspect, combined with full extractability of filters and Free-Cooling damper (if any), **facilitates routine maintenance operations.**

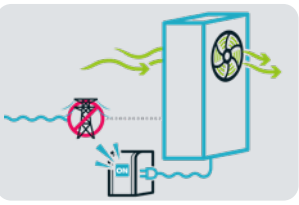
Maximised energy saving with direct Free-Cooling

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).**



Shelter safety

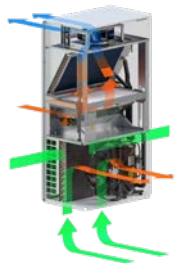
All models in the monobloc outdoor range feature standard evaporating coils with hydrophilic coating. This special coating - together with adequate adjustment of air through-flow speeds - **helps condensate collection during the dehumidification process, preventing any dripping on the inside and outside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



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.**

HTW
UPFLOW



Mechanical cooling

Free-Cooling

HTWD
DOWNFLOW

Mechanical cooling

Free-Cooling

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 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. The Free-Cooling damper heated by electric heaters and equipped with a specific servomotor is also available.
- In case of exposure to aggressive atmospheric agents such as sand or sunlight, dedicated **external metalwork can be ordered with double 160 µm paint finishing layer or in AISI 304 stainless steel alloy.** An epoxy powder painted condensing coil is also available.

HTW-HTWD		0451	0561	0731	0901	1051	1201	1451	0902	1102	1302	2302	2902	3201
R410A - Indoor air 27°C - 40% / Outdoor air 35°C														
Cooling capacity	kW	4.3	5.9	7.1	10.1	10.8	12.7	14.4	8	11.1	14.2	22.8	28.2	37.8
Total absorbed power	kW	1.3	1.9	2.4	3.2	3.9	5.2	5.1	2.4	4.2	5.1	7.4	10.3	10.3
EER		4.18	3.52	3.55	3.54	3.4	2.84	3.28	3.84	3.2	3.28	3.44	2.95	4.7
SHR		1	0.88	0.92	0.92	0.98	0.91	0.92	1	0.86	0.89	1	0.95	1
R410A - Indoor air 30°C - 35% / Outdoor air 35°C														
Cooling capacity	kW	4.6	6.1	7.5	10.5	11.5	13.3	15	8.6	11.5	14.8	24.5	29.5	40.1
Total absorbed power	kW	1.3	2	2.4	3.2	3.9	5.3	5.2	2.5	4.2	5.1	7.4	10.4	10.4
EER		4.39	3.59	3.68	3.7	3.61	2.91	3.37	4.06	3.28	3.38	3.66	3.03	4.98
SHR		1	0.93	0.98	0.97	1	0.96	0.96	1	0.9	0.94	1	0.99	1
R513A - Indoor air 27°C - 40% / Outdoor air 35°C														
Cooling capacity	kW	5.3	6.2	7.1	8.7	11.1	12.9	13.7	-	-	-	25.6	27	34.8
Total absorbed power	kW	1.5	2	2.3	2.8	3.7	4.2	4.8	-	-	-	8.7	10	9.4
EER		4.16	3.66	3.66	4.28	4.08	4.03	3.63	-	-	-	3.75	3.33	4.93
SHR		0.99	0.91	0.97	0.99	0.98	0.98	0.98	-	-	-	0.99	0.98	1
R513A - Indoor air 30°C - 35% / Outdoor air 35°C														
Cooling capacity	kW	5.6	6.4	7.5	9.3	11.8	13.6	14.3	-	-	-	27.1	28.5	37.2
Total absorbed power	kW	1.5	2	2.4	2.8	3.7	4.2	4.8	-	-	-	8.8	10.1	9.5
EER		4.38	3.78	3.85	4.51	4.27	4.2	3.76	-	-	-	3.92	3.46	5.18
SHR		1	0.93	1	1	1	1	1	-	-	-	0.99	1	1
Rated air flow	m^3/h	1450		2150	3020				2800			6500		10000
Power supply	V/ph/Hz	230/1/50			400/3+N/50				230/1/50	400/3+N/50				
Dimensions [LxHxD]	mm	804x1580x498			999x1630x596		999x1790x596					1600x2100x600		2530 x2260 x975

Performance data relating to HTW versions. | Also available with 60 Hz power supply. | Units also available in HTWD models except sizes 0902-1102-1302-2302-2902-3201.

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