

UTN high pressure fan coil units

The new range of UTN high pressure fan coil units was implemented for conditioning rooms that require the installation of ducted units. Proposed in 12 models with air flows from 600 to 3000 m³/h, cooling capacity from 2,8 to 18,3 kW and heating capacity from 7,2 to 45 kW the UTN units are characterized by a wide applicative flexibility thanks to the special constructive solutions:

- possibility of installation both in horizontal and vertical position thanks to the special conformation of the condensate discharge system;
- Unit that can be connected to circular flexible ducts (Φ 200mm) or to rectangular section ducts
- the air intake direction may be modified during installation;
- reduced height (280 mm up to model 16A);
- pre-sheared element for the recycle of external air, standard on all models (Φ 100 mm);
- wide range of accessories for effectively meeting any installation requirement
 - electromechanical and microprocessor control panels for wall installation
 - air suction modules with filters
 - accessories for the connection to air ducts: air inlet and outlet box, air inlet and outlet grilles, dampers
 - motor driven 3 way ON/OFF valves
 - additional electric heaters

VERSIONS

- UTN** high pressure fan coils setup for 2-pipe systems
UTNDF high pressure fan coils setup for 4-pipe systems (2 heat exchangers)

Both versions may be manufactured, on request, with pre-painted panels.



MAIN TECHNICAL FEATURES

- > **Load-bearing structure** made of galvanized steel sheet of suitable thickness, duly insulated with noise-proof/anticondensing material, self-extinguishing in Class 1; the insulating material is characterized by a thickness of 10 mm and a density of 90 kg/m³.
The unit is completed by the following:
 - inspection panels
 - setup for external air inlet
 - fast-coupling slots.
- > Dual intake **centrifugal fans** made of aluminium, with statically and dynamically balanced impellers, coupled directly to the electric motor.
- > 3-speed **electric motor**, equipped with permanently fit condenser and thermal safety device, installed on vibration-damping supports.
- > **Heat exchanger**: high-efficiency, made of copper tube and aluminium fins secured to the tubes by mechanical expansion. It is fitted with brass manifolds and air valves. The heat exchanger, normally supplied with left-hand attachments, may be turned 180°.
- > **System for collecting and discharging condensate** setup either for horizontal or vertical installation.
- > **Terminal strip** for fast-on electrical connection.

RATED TECHNICAL DATA

UTN		0 6	0 6A	0 8	08A	12	12A	16	16A	22	22A	30	30A	
Air flow	High	m ³ /h	600	600	800	800	1250	1250	1600	1600	2200	2200	3000	3000
Available static pressure	High	Pa	80	75	90	85	88	82	100	95	130	110	185	175
Total cooling capacity		kW	2,80	3,20	3,90	4,80	6,20	7,00	7,80	8,82	11,90	13,70	16,40	18,30
Sensible cooling capacity		kW	2,15	2,46	3,08	3,71	4,65	5,36	6,52	7,16	9,36	10,50	12,80	14,10
Water flow		l/h	484	553	674	829	1071	1209	1339	1514	2056	2367	2833	3140
Water pressure drop		kPa	10	8	17	15	24	20	24	16	26	22	34	45
Heating capacity	High	kW	7,20	8,30	10,10	12,10	16,10	18,50	19,60	22,40	30,00	33,70	40,90	45,00
Water flow		l/h	634	731	890	1066	1418	1630	1726	1974	2642	2970	3603	3695
Water pressure drop		kPa	12	10	20	17	29	26	28	19	30	24	38	50
DF heating capacity (4 pipes)	High	kW	4,01	4,01	5,63	5,63	8,24	8,24	11,50	11,50	19,70	19,70	26,20	26,20
Water flow		l/h	353	353	496	496	726	726	1013	1013	1735	1735	2309	2309
Water pressure drop		kPa	10	10	13	13	21	21	19	19	17	17	22	22
Standard heat exchanger - rows		n°	3	4	3	4	3	4	3	4	3	4	4	5
Standard heat exchanger - hydraulic connections		in	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"	1"	1"
Standard heat exchanger - water content		l	1,06	1,41	1,06	1,41	1,42	1,90	1,79	2,38	2,50	3,34	4,02	5,03
DF heat exchanger - rows		n°	1	1	1	1	1	1	1	1	2	2	2	2
DF heat exchanger - hydraulic connection		in	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"	1"	1"
DF heat exchanger - water content		l	0,35	0,35	0,47	0,47	0,59	0,59	1,42	1,42	1,42	1,42	1,72	1,72
Power supply		V/ph/Hz	230 / 1 / 50											
Maximum current absorption		A	0,718	0,718	0,954	0,954	1,575	1,575	1,971	1,971	3,210	3,210	5,370	5,370
Maximum power input		W	175	175	234	234	349	349	443	443	714	714	1197	1197
Sound power		dB(A)	63	63	66	66	69	69	72	72	74	74	78	78
Sound power - air outlet component		dB(A)	59,3	59,3	62,5	62,5	65,2	65,2	68,9	68,9	70,7	70,7	74,5	74,5
Sound power - transmitted component		dB(A)	54,7	54,7	58,0	58,0	60,3	60,3	64,0	64,0	65,7	65,7	69,4	69,4
Sound power - air inlet component		dB(A)	59,3	59,3	62,5	62,5	65,2	65,2	68,9	68,9	70,7	70,7	74,5	74,5
Weight 2 pipe models (UTN)		Kg	31,5	32,5	32,5	33,3	40,6	41,7	47,3	48,7	65,3	67,2	77,0	79,5
Weight 4 pipe models (UTN DF)		Kg	33,7	34,7	34,7	35,5	43,2	44,3	50,3	51,7	70,9	72,8	83,4	85,9

AIR FLOW: related to the rated usable static pressure, at max. speed, COOLING: rated air flow, water inlet temperature 7°C, water outlet temperature 12°C, air temperature with dry bulb 27°C, air temperature with moist bulb 19°C (47% relative humidity), HEATING: rated air flow, water inlet temperature 80°C, water outlet temperature 70°C, air temperature 20°C, Sound power read conforming to ISO 3741 and ISO 3742.

Accessories	
CONTROL PANELS AND THERMOSTATS	
CD	Recess wall-mounted speed switch
CDE	Wall-mounted speed selector
TD	Wall-mounted control with speed selector, electromechanical thermostat and summer/winter selector
TDC	Wall-mounted control with speed selector and electromechanical thermostat
TD4T	Wall-mounted control with speed selector, electromechanical thermostat and summer winter selector for 2/4 pipe systems with valves
MCB	MYCOMFORT BASE
MCM	MYCOMFORT MEDIUM
MCL	MYCOMFORT LARGE
MCSW	WATER PROBE for versions BASE, MEDIUM and LARGE on board
TC	Fan stop thermostat: electromechanical thermostat for minimum water temperature during heating mode
KP	Power interface for connecting in parallel up to 4 units to one control
IPM	Power interface for UTN30 and UTN 30A connection
TA	Electromechanical room thermostat
TA 2	Electromechanical room thermostat with summer/winter selection
CSD	Wall-mounted control for proportional opening and closing of the motor driven air intake louver
AIR SUCTION MODULES WITH FILTERS	
MAF	Air suction module with flat filter G2
MAFO	Air suction module with waved filter G4
CONNECTION PANELS	
PCOC	Connecting panel to rectangular ducts
PCOF	Connecting panel to flexible ducts ϕ 200
G90	Air intake and outlet 90° union elbow
3-WAY VALVES AND DRIP TRAYS	
V	3 way valve (possibility of motor driven)
M	Electrothermal motor for motor driven valve
R	Hydraulic connection mounting kit
VRCV	Auxiliary drip tray for vertical installation units
VRCH	Auxiliary drip tray for horizontal installation units
KSC1	Condensate removal kit
HOT WATER POST HEATING COIL	
BP - BC	Hot water post heating coil module
ELECTRIC HEATERS	
RE	Electric heater, with safety thermostat and power relay
MOTOR-DRIVEN EXTERNAL AIR INTAKE	
PA90	Motor-driven external air intake louver with transformer
MOTOR DRIVIBRATION DAMPERS	
GA	PVC vibration damper
GAT	Silicone cloth heat proof vibration dampers
FLEXIBLE DUCTS - CAPS	
TFA	Not insulated flexible ducts, ϕ 200
TFM	Insulated flexible ducts, ϕ 200
TP	Plastic caps ϕ 200
AIR INLET AND OUTLET PLENUM BOX	
CA	Air inlet plenum box with double row grille
CAF	Air inlet plenum box with double row grille and filter G2
CM	Insulated air outlet plenum box with 2 way grille
AIR INLET AND OUTLET GRILLES	
GM	Aluminium air outlet grille with counterframe
GR	Air suction aluminium grille with counterframe

REKO HEAT RECOVERY UNITS

The heat recovery units making up the series **REKO** have been designed and built to solve the problems tied to the high energy consumption of systems that use outdoor air.

A high-efficiency heat exchanger makes it possible to recover up to 50% of the thermal energy that would otherwise be expelled into the atmosphere as exhaust.

Available in 7 different sizes with a nominal air flow rate ranging from 600 to 4000 m³/h, reko heat recuperators complete traditional systems comprising fan coil units and air-conditioning units which work both in summer and winter.

The reko units are especially suitable for false-ceiling installation and can be ducted to allow air to be drawn from and discharged directly into the room.

BEARING STRUCTURE

Reko units have a structure built from **ALUZINK**, with single or dual panelling with polyethylene and polyester heat and sound insulation, thickness 10mm for sizes 06 - 10 and 20 mm for sizes 14 - 19 - 25 - 30 and 40.

The panels are secured to the structure with cadmium-plated steel screws.

All internal components are accessible for inspection and may be very easily removed from below if necessary.

FAN MOTORS

The fan-drive assemblies comprise a **dual suction** fan with forward-curved blades mounted on vibration-damping supports. They are sized in order to work at maximum speed while generating as little noise as possible.

The electric motor is a single-phase 230 V - 50 Hz motor with one or more speeds that may be adjusted from the control panel. It is **directly coupled with the fan**.

HEAT EXCHANGER

The **plate heat exchanger is of the cross-flow static type** and can guarantee a **high yield** in all operating conditions.



The plates are made of aluminium and the flows are separated by special seals. A stainless steel drip tray with a circular drain pipe is situated beneath the heat exchanger.

AIR FILTER

The filters have flat cells with a corrugated partition; they can be removed from below and are washable, with class G3 synthetic fibre filtering media (efficiency 85% by weight).

ACCESSORIES

- BAP** hot water coil
- REP** electrical heating element
- CDE** wall-mounted speed switch
- TDV** wall-mounted control panel complete with thermostat
- SAF** chilled water coil
- TEG** anti-freeze thermostat
- TATM** Covering panels for outdoor unstation

CONFIGURATION

Available in stock in the A configuration, the position of air suction and delivery for both fresh and indoor air can be adjusted during the installation job as shown in the pictures below

