

Uniflair LE

TDAR – TUAR



Range

Cooling capacity: 20 ÷ 100 kW

Refrigerant R-410A

Available Versions:

- Downflow (TDAR)
- Upflow (TUAR)

Standard Features

- Advanced microprocessor control system is included with local or remote user terminal.
- The units are equipped with backward-curved fans with directly-coupled asynchronous motor.
- The structure of the unit is characterized by a self-supporting frame in galvanized steel with panels. The external panels are coated with RAL9003 epoxy-polyester paint* and internally lined with heat and sound-proofing insulation.
- Electronic expansion valve is controlled by the microprocessor with a dedicated software that increases the precision of the cooling and the energy efficiency of the cooling cycle.
- The cooling coil is designed for an elevated SHR and reduced pressure drops in the air section. The coil is made from copper tubes mechanically expanded on aluminum fins, complete with a hydrophilic treatment.
- High-efficiency, EU4-pleated air filters are housed in a metal frame and equipped with a dirty filter differential pressure switch and low airflow differential pressure switch.
- Total front access is included for unit maintenance
- The electrical panel is situated in a compartment separated from the air flow and complies with the 2006/95/EC directive and related standards.
- Microprocessor control system includes:
 - Regulation logic of cooling capacity and airflow integration
 - Local user terminal with external accessibility
 - Integrated LAN card for local network connection of a group of CRACs

- Rotation and active stand-by management
- Free contact for general and two for addressable alarms
- Remote on/off switch
- Ability to interface with Modbus protocol directly on RS485 serial card (adding this option)
- Ability to interface with main external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform

*RAL5013 may be used during transition period.

Construction Options

- Immersed electrode humidifier (D/U versions)
- Low surface temperature electrical heaters with extended fans, complete with double safety thermostat and manual resetting (T/H versions)
- Hot gas and hot water reheating

Accessories

The units can be supplied with the following external accessories:

- Remote, semi-graphic user terminal
- RS485 serial adaptor to communicate with external BMS
- LON FTT10 serial adaptor to communicate with external BMS managed with LON protocol
- TCP/IP serial adaptor to communicate with external BMS managed with SNMP protocol
- AFPS (Automatic Floor Pressurization System) that permits to adapt its availability as a kit with installation instructions
- Motorized damper
- Suction from the top or front discharge plenums
- Adjustable floor stands

TECHNICAL DATA								
TDAR –TUAR MODEL		0511A	0611A	0721A	0722A	0921A	0922A	1021A
Fan type		Backward-curved centrifugal motor fan						
Power supply	V/ph/Hz	400/3/50Hz						
Fans	Nr.	1	1	1	1	1	1	1
Airflow	m3/h	5833	5833	7933	7933	7933	7933	7933
N° of compressors		1	1	2	2	2	2	2
Refrigerating Circuits		1	1	1	2	1	2	1
Gross Total Cooling Capacity(1) (2)	kW	20,4	25,0	25,8	25,6	34,1	33,9	37,1
Gross Sensible Cooling Capacity(1) (2)	kW	19,8	22,2	25,2	23,9	28,1	27,2	28,7
DIMENSIONS								
Height	mm	1960	1960	1960	1960	1960	1960	1960
Length	mm	1010	1010	1310	1310	1310	1310	1310
Depth	mm	750	750	865	865	865	865	865
TDAR –TUAR MODEL		1022A	1121A	1122A	1321A	1322A	1422A	1622A
Fans	Nr.	1	1	2	2	2	2	2
Airflow	m3/h	7933	12267	12267	12267	12267	16406	16406
N° of compressors		2	2	2	2	2	2	2
Refrigerating Circuits		2	1	2	1	2	2	2
Gross Total Cooling Capacity(1) (2)	kW	36,9	37,8	37,9	48,0	47,7	51,6	57,5
Gross Sensible Cooling Capacity(1) (2)	kW	28,0	36,8	36,2	39,3	38,0	51,0	56,8
DIMENSIONS								
Height	mm	1960	1960	1960	1960	1960	1960	1960
Length	mm	1010	1720	1720	1720	1720	2170	2170
Depth	mm	865	865	865	865	865	865	865
TDAR –TUAR MODEL		1822A	2222A(3)	2242A(3)	2522A(3)	2542A(3)	2842A(3)	3342A(3)
Fans	Nr.	2	3	3	3	3	3	3
Airflow	m3/h	16406	21656	21656	21656	22046	22055	22055
N° of compressors		2	2	4	2	4	4	4
Refrigerating Circuits		2	2	2	2	2	2	2
Gross Total Cooling Capacity(1) (2)	kW	63,9	75,1	81,2	86,7	88,1	97,4	107,6
Gross Sensible Cooling Capacity(1) (2)	kW	57,3	75,1	80,3	83,3	84,5	90,8	92,9
DIMENSIONS								
Height	mm	1960	2150	2150	2150	2150	2150	2150
Length	mm	2170	2580	2580	2580	2580	2580	2580
Depth	mm	865	865	865	865	865	865	865
TUAR MODEL		2222A	2242A	2522A	2542A	2842A	3342A	
Fans	Nr.	3	3	3	3	3	3	
Airflow	m3/h	22154	22154	23467	23467	23068	23068	
N° of compressors		2	4	2	4	4	4	
Refrigerating Circuits		2	2	2	2	2	2	
Gross Total Cooling Capacity(1) (2)	kW	75,4	82,7	86,5	87,5	97,9	108,2	
Gross Sensible Cooling Capacity(1) (2)	kW	75,4	81,8	85,5	86,4	93,8	95,6	
DIMENSIONS								
Height	mm	1960	1960	1960	1960	1960	1960	
Length	mm	2580	2580	2580	2580	2580	2580	
Depth	mm	865	865	865	865	865	865	

1. Gross Cooling capacities; fans must be deduced to obtain net cooling data.
2. Data refers to nominal conditions : room at 24°C- 50% RH, 45°C condensing temperature, and ESP = 20Pa.
3. Data refers to downflow unit.

Uniflair LE

TDAV – TUAV



Standard Features

- Advanced microprocessor control system is available with local or remote user terminal.
- The units are equipped with EC fans for efficiency maximization.
- The structure of the unit is characterized by a self-supporting frame in galvanized steel with panels. The external panels are coated with RAL9003 epoxy-polyester paint* and internally lined with heat and sound-proofing insulation.
- Electronic expansion valve is controlled by the microprocessor and a dedicated software that increases the cooling precision and the energy efficiency of the cooling cycle.
- The cooling coil is designed for an elevated SHR and reduced pressure drops in the air section. The coil is made from copper tubes mechanically expanded on aluminum fins, complete with a hydrophilic treatment.
- Uniflair LE units meet the following directives: 2006/42/EC, 2004/108/EC, 2006/95/EC, 97/23/EC, 842/2006/EC F-GAS regulation.
- High-efficiency, EU4-pleated air filters are housed in a metal frame and equipped with a dirty filter differential pressure switch and low airflow differential pressure switch.
- The Uniflair LE range offers the possibility to select units equipped with two compressors (tandem) for each circuit, granting better efficiency and regulation capacity at partial loads (models with the **21 or **42 suffix).
- Total front access is available for unit maintenance.
- The electrical panel is situated in a compartment separated from the air flow and complies with the 2006/95/EC directive and related standards.
- Microprocessor control system includes:
 - Integrated management of the EEV and refrigerating circuit parameters
 - Local user terminal with external accessibility
 - Integrated LAN card for local network connection of a group of CRACs

Range

Cooling capacity: 20 ÷ 100 kW

Refrigerant R-410A

EC Fans

Available Versions:

- Downflow (TDAV)
- Upflow (TUAV)

- Rotation and active stand-by management
- Free contact for general and two for addressable alarms
- Remote on/off switch
- Ability to interface with Modbus protocol directly on RS485 serial card
- Ability to interface with main external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform

*RAL5013 may be used during transition period.

Construction Options

- Immersed electrode humidifier (D/U versions)
- Low surface temperature electrical heaters with extended fans, complete with double safety thermostat and manual resetting (T/H versions)
- Hot gas and hot water reheating

Accessories

The units can be supplied with the following external accessories:

- Remote, semi-graphic user terminal
- RS485 serial adaptor to communicate with external BMS
- LON FTT10 serial adaptor to communicate with external BMS managed with LON protocol
- TCP/IP serial adaptor to communicate with external BMS managed with SNMP protocol
- AFPS (Automatic Floor Pressurization System) that permits to adapt its availability as a kit with installation instructions
- Motorized damper
- Condensate drain pump
- Suction from the top or front discharge plenums
- Adjustable floor stands

TECHNICAL DATA								
TDAV –TUAV MODEL		0511A	0611A	0721A	0722A	0921A	0922A	1021A
Fan type		EC Backward-curved centrifugal motor fan						
Power supply	V/ph/Hz	400/3/50Hz						
Fans	Nr.	1	1	1	1	1	1	1
Airflow	m3/h	5700	5700	8600	8600	8600	8600	8600
N° of compressors		1	1	2	2	2	2	2
Refrigerating Circuits		1	1	1	2	1	2	1
Gross Total Cooling Capacity(1) (2)	kW	20,3	24,9	25,6	25,8	34,5	34,2	37,6
Gross Sensible Cooling Capacity(1) (2)	kW	19,7	21,9	25,4	25,3	29,6	28,4	30,1
DIMENSIONS								
Height	mm	1960	1960	1960	1960	1960	1960	1960
Length	mm	1010	1010	1310	1310	1310	1310	1310
Depth	mm	750	750	865	865	865	865	865
TDAV –TUAV MODEL		1022A	1121A	1122A	1321A	1322A	1422A	1622A
Fans	Nr.	1	1	2	2	2	2	2
Airflow	m3/h	8600	12320	12320	12320	12320	16300	16500
N° of compressors		2	2	2	2	2	2	2
Refrigerating Circuits		2	1	2	1	2	2	2
Gross Total Cooling Capacity(1) (2)	kW	37,3	37,6	37,9	48,1	47,7	51,5	56,5
Gross Sensible Cooling Capacity(1) (2)	kW	29,2	36,7	36,3	39,4	38,0	50,9	55,8
DIMENSIONS								
Height	mm	1960	1960	1960	1960	1960	1960	1960
Length	mm	1010	1720	1720	1720	1720	2170	2170
Depth	mm	865	865	865	865	865	865	865
TDAV –TUAV MODEL		1822A	2222A(3)	2242A(3)	2522A(3)	2542A(3)	2842A(3)	3342A(3)
Fans	Nr.	2	3	3	3	3	3	3
Airflow	m3/h	16500	21500	21500	21500	21500	21500	21500
N° of compressors		2	2	4	2	4	4	4
Refrigerating Circuits		2	2	2	2	2	2	2
Gross Total Cooling Capacity(1) (2)	kW	64,0	75,0	82,7	86,6	87,8	94,8	104,8
Gross Sensible Cooling Capacity(1) (2)	kW	57,5	75,0	81,8	82,8	83,0	87,5	89,6
DIMENSIONS								
Height	mm	1960	2175	2175	2175	2175	2175	2175
Length	mm	2170	2580	2580	2580	2580	2580	2580
Depth	mm	865	865	865	865	865	865	865
TUAV MODEL		2222A	2242A	2522A	2542A	2842A	3342A	
Fans	Nr.	3	3	3	3	3	3	
Airflow	m3/h	22000	22000	22500	22500	23000	23000	
N° of compressors		2	4	2	4	4	4	
Refrigerating Circuits		2	2	2	2	2	2	
Gross Total Cooling Capacity(1) (2)	kW	75,3	82,6	86,8	88,3	95,6	105,6	
Gross Sensible Cooling Capacity(1) (2)	kW	75,3	81,7	85,8	85,7	91,8	93,6	
DIMENSIONS								
Height	mm	1960	1960	1960	1960	1960	1960	
Length	mm	2580	2580	2580	2580	2580	2580	
Depth	mm	865	865	865	865	865	865	

1. Gross Cooling capacities; fans must be deduced to obtain net cooling data.
2. Data refers to nominal conditions : room at 24°C- 50% RH, 45°C condensing temperature, and ESP = 20Pa.
3. Data refers to downflow unit.

Uniflair LE

TDWR – TUWR



Range

Cooling capacity: 20 ÷ 100 kW

Refrigerant R-410A

Available Versions:

- Downflow (TDWR)
- Upflow (TUWR)

Standard Features

- Advanced microprocessor control system is available with local or remote user terminal.
- The units are equipped with backward-curved fans and directly-coupled asynchronuos motor.
- The structure of the unit is characterized by a self-supporting frame in galvanized steel with panels. The external panels are coated with RAL9003 epoxy-polyester paint* and internally lined with heat and sound-proofing insulation.
- Electronic expansion valve is controlled by the microprocessor and a dedicated software that increases the precision of the cooling and the energy efficiency of the cooling cycle.
- The cooling coil is designed for an elevated SHR and reduced pressure drops in the air section. The coil is made from copper tubes mechanically expanded on aluminum fins, complete with a hydrophilic treatment.
- Internal water-cooled condenser braze is welded and made of AISI 304 stainless steel.
- Uniflair LE units meet the following directives: 2006/42/EC, 2004/108/EC, 2006/95/EC, 97/23/EC, 842/2006/EC F-GAS regulation.
- High-efficiency, EU4-pleated air filters are housed in a metal frame and equipped with a dirty filter differential pressure switch and low airflow differential pressure switch.

- The Uniflair LE range offers the possibility to select units equipped with two compressors (tandem) for each circuit, which grants better efficiency and regulation capacity at partial loads (models with the **21 or **42 suffix).
- Total front access is available for unit maintenance.
- The electrical panel is situated in a compartment separated from the air flow and complies with the 2006/95/EC directive and related standards.
- Microprocessor control system includes:
 - Integrated management of the EEV and refrigerating circuit parameters
 - Local user terminal with external accessibility
 - Integrated LAN card for local network connection of a group of CRACs
 - Rotation and ctive stand-by management
 - Free contact for general and two for addressable alarms
 - Remote on/off switch
 - Ability to interface with Modbus protocol directly on RS485 serial card
 - Ability to interface with main external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform

*RAL5013 may be used during transition period.

TECHNICAL DATA						
TDWR-TUWR MODEL		0611A	0921A	1321A	1622A	1822A
Fan type		Backward-curved centrifugal motor fan				
Power supply	V/ph/Hz	400/3/50Hz				
Fans	Nr.	1	1	2	2	2
Airflow	m3/h	5833	7933	12267	16406	16406
N° of compressors		1	2	2	2	2
Refrigerating Circuits		1	1	1	2	2
Gross Total Cooling Capacity(1) (2)	kW	24,1	32,1	45,5	56,8	62,5
Gross Sensible Cooling Capacity(1) (2)	kW	21,7	27,2	38,0	55,2	56,1
DIMENSIONS						
Height	mm	1960	1960	1960	1960	1960
Length	mm	1010	1310	1720	2170	2170
Depth	mm	750	865	865	865	750
TDWR MODEL		2242A	2542A	2842A	3342A	
Fans	Nr.	3	3	3	3	
Airflow	m3/h	21656	22046	22055	22055	
N° of compressors		4	4	4	4	
Refrigerating Circuits		2	2	2	2	
Gross Total Cooling Capacity(1) (2)	kW	85,7	92,6	99,9	111,1	
Gross Sensible Cooling Capacity(1) (2)	kW	82,1	84,2	90,3	92,2	
DIMENSIONS						
Height	mm	2150	2150	2150	2150	
Length	mm	2580	2580	2580	2580	
Depth	mm	865	865	865	865	
TUWR MODEL		2242A	2542A	2842A	3342A	
Fans	Nr.	3	3	3	3	
Airflow	m3/h	22154	23467	23068	23069	
N° of compressors		4	4	4	4	
Refrigerating Circuits		2	2	2	2	
Gross Total Cooling Capacity(1) (2)	kW	86,0	93,4	100,5	111,7	
Gross Sensible Cooling Capacity(1) (2)	kW	83,4	87,9	93,1	94,7	
DIMENSIONS						
Height	mm	1960	1960	1960	1960	
Length	mm	2580	2580	2580	2580	
Depth	mm	865	865	865	865	

1. Gross Cooling capacities; fans must be deduced to obtain net cooling data.

2. Data refers to nominal conditions : room at 24°C° -50% RH, water temperatures 30-35°C, and ESP = 20Pa.

Construction Options

- Immersed electrode humidifier (D/U versions)
- Low surface temperature electrical heaters with extended fans, complete with double safety thermostat and manual resetting (T/H versions)
- Hot gas and hot water reheating
- Condensation control on refrigerant side with constant water flow

Accessories

- The units can be supplied with the following external accessories:
- Remote, semi-graphic user terminal

- RS485 serial adaptor to communicate with external BMS
- LON FTT10 serial adaptor to communicate with external BMS managed with LON protocol
- TCP/IP serial adaptor to communicate with external BMS managed with SNMP protocol
- AFPS (Automatic Floor Pressurization System) that permits to adapt its availability as a kit with installation instructions
- Motorized damper
- Condensate drain pump
- Suction from the top or front discharge plenums
- Adjustable floor stands

[Direct Expansion water-cooled units with backward-curved fans equipped with EC motor]

Uniflair LE

TDWV – TUWV



Range

Cooling capacity: 20 ÷ 100 kW

Refrigerant R-410A

EC Fans

Available Versions:

- Downflow (TDWV)
- Upflow (TUWV)

Standard Features

- Advanced microprocessor control system with a local or remote user terminal.
- The units are equipped with EC fans for efficiency maximization.
- The structure of the unit is characterized by a self-supporting frame in galvanized steel with panels. The external panels are coated with RAL9003 epoxy-polyester paint* and internally lined with heat and sound-proofing insulation.
- Electronic expansion valve is controlled by the microprocessor and a dedicated software that increases the precision of the cooling and the energy efficiency of the cooling cycle.
- The cooling coil is designed for an elevated SHR and reduced pressure drops in the air section. The coil is made from copper tubes mechanically expanded on aluminum fins, complete with a hydrophilic treatment.
- Internal water-cooled condenser braze is welded and made of AISI 304 stainless steel.
- Uniflair LE units meet the following directives: 2006/42/EC, 2004/108/EC, 2006/95/EC, 97/23/EC, 842/2006/EC F-GAS regulation.
- High-efficiency, EU4-pleated air filters are housed in a metal frame and equipped with a dirty filter differential pressure switch and low airflow differential pressure switch.
- The Uniflair LE range offers the possibility to select units

equipped with two compressors (tandem) for each circuit, which grants better efficiency and regulation capacity at partial loads (models with the **21 or **42 suffix).

- Total front access is available for unit maintenance.
- The electrical panel is situated in a compartment separated from the air flow and complies with the 2006/95/EC directive and related standards.
- Microprocessor control system includes:
 - Integrated management of the EEV and refrigerating circuit parameters
 - Local user terminal with external accessibility
 - Integrated LAN card for local network connection of a group of CRACs
 - Rotation and active stand-by management
 - Free contact for general and two for addressable alarms
 - Remote on/off switch
 - Ability to interface with Modbus protocol directly on RS485 serial card
 - Ability to interface with main external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform

*RAL5013 may be used during transition period.

TECHNICAL DATA						
TDWV –TUWV MODEL		0611A	0921A	1321A	1622A	1822A
Fan type		EC Backward-curved centrifugal motor fan				
Power supply	V/ph/Hz	400/3/50Hz				
Fans	Nr.	1	1	2	2	2
Airflow	m3/h	5700	8600	12320	16000	16000
N° of compressors		1	2	2	2	2
Refrigerating Circuits		1	1	1	2	2
Gross Total Cooling Capacity(1) (2)	kW	24,0	32,5	45,6	56,7	62,3
Gross Sensible Cooling Capacity(1) (2)	kW	21,3	28,6	38,1	54,3	55,2
DIMENSIONS						
Height	mm	1960	1960	1960	1960	1960
Length	mm	1010	1310	1720	2170	2170
Depth	mm	750	865	865	865	750
TDWV MODEL		2242A	2542A	2842A	3342A	
Fans	Nr.	3	3	3	3	
Airflow	m3/h	21500	21500	21500	21500	
N° of compressors		4	4	4	4	
Refrigerating Circuits		2	2	2	2	
Gross Total Cooling Capacity(1) (2)	kW	85,7	92,3	99,5	110,7	
Gross Sensible Cooling Capacity(1) (2)	kW	81,6	82,8	88,8	90,8	
DIMENSIONS						
Height	mm	1960	2150	2150	2150	
Length	mm	2580	2580	2580	2580	
Depth	mm	865	865	865	865	
TUWV MODEL		2242A	2542A	2842A	3342A	
Fans	Nr.	3	3	3	3	
Airflow	m3/h	22000	22500	23000	23000	
N° of compressors		4	4	4	4	
Refrigerating Circuits		2	2	2	2	
Gross Total Cooling Capacity(1) (2)	kW	85,9	92,9	100,4	111,7	
Gross Sensible Cooling Capacity(1) (2)	kW	83,0	85,4	92,9	94,6	
DIMENSIONS						
Height	mm	1960	1960	1960	1960	
Length	mm	2580	2580	2580	2580	
Depth	mm	865	865	865	865	

1. Gross Cooling capacities; fans must be deduced to obtain net cooling data.

2. Data refers to nominal conditions : room at 24°C° -50% RH, water temperatures 30 -35°C, and ESP = 20Pa.

Construction Options

- Immersed electrode humidifier (D/U versions)
- Low surface temperature electrical heaters with extended fans, complete with double safety thermostat and manual resetting (T/H versions)
- Hot gas and hot water reheating
- Condensation control on refrigerant side with constant water flow

Accessories

The units can be supplied with the following external accessories:

- Remote, semi-graphic user terminal
- RS485 serial adaptor to communicate with external BMS
- LON FTT10 serial adaptor to communicate with external BMS managed with LON protocol
- TCP/IP serial adaptor to communicate with external BMS managed with SNMP protocol
- AFPS (Automatic Floor Pressurization System) that permits to adapt its availability as a kit with installation instructions
- Motorized damper
- Condensate drain pump
- Suction from the top or front discharge plenums
- Adjustable floor stands

Uniflair LE

TDCR – TUCR



Range

Cooling capacity: 20 ÷ 160 kW

Refrigerant Chilled Water

Available Versions:

- Downflow (TDCR)
- Upflow (TUCR)

Standard Features

- Advanced microprocessor control system is available with a local or remote user terminal.
- The units are equipped with backward-curved fans and directly-coupled asynchronuos motor.
- The structure of the unit is characterized by a self-supporting frame in galvanized steel with panels. The external panels are coated with RAL9003 epoxy-polyester paint* and internally lined with heat and sound-proofing insulation.
- The unit can be selected with a two-way or three-way valve and an actuator integrated with the microprocessor.
- The cooling coil is designed for an elevated SHR and reduced pressure drops in the air section. The coil is made from copper tubes mechanically expanded on aluminum fins, complete with a hydrophilic treatment.
- High-efficiency, EU4-pleated air filters are housed in a metal frame and equipped with a dirty filter differential pressure switch and low airflow differential pressure switch.
- Total front access is available for unit maintenance.
- The electrical panel is situated in a compartment

separated from the air flow and complies with the 2006/95/EC directive and related standards.

- Microprocessor control system includes:
 - Local user terminal with external accessibility
 - Integrated LAN card for local network connection of a group of CRACs
 - Rotation and active stand-by management
 - Free contact for general and two for addressable alarms
 - Remote on/off switch
 - Ability to interface with Modbus protocol directly on RS485 serial card
 - Ability to interface with main external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform

*RAL5013 may be used during transition period.

TECHNICAL DATA								
TDCR –TUCR MODEL		0600B	0700B	0600A	0700A	1000A	1200A	1700A
Fan type		Backward-curved centrifugal motor fan						
Power supply	V/ph/Hz	230/1/50Hz						
Fans	Nr.	1	1	1	1	1	1	2
Airflow	m3/h	5936	6193	5936	6193	10148	10723	14297
Gross Total Cooling Capacity(1) (2)	kW	23,7	26,7	23,7	26,7	33,8	42,7	56,7
Gross Sensible Cooling Capacity(1) (2)	kW	21,6	24,0	21,6	24,0	32,5	39,3	51,5
DIMENSIONS								
Height	mm	1960	1960	1960	1960	1960	1960	1960
Length	mm	1010	1010	1010	1010	1310	1310	1720
Depth	mm	750	750	750	750	865	865	865
TDCR –TUCR MODEL		2000A	2500A	2700A	3400A	4000A	4300A(3)	
Fan type		Backward-curved centrifugal motor fan						
Power supply	V/ph/Hz	400/3/50Hz						
Fans	Nr.	2	2	2	3	3	3	
Airflow	m3/h	18498	18615	19052	24422	25834	27984	
Gross Total Cooling Capacity(1) (2)	kW	70,2	86,4	90,4	110,9	126,0	161,8	
Gross Sensible Cooling Capacity(1) (2)	kW	63,5	76,1	82,7	100,4	112,6	131,9	
DIMENSIONS								
Height	mm	1960	1960	1960	1960	1960	2170	
Length	mm	2170	2170	2170	2582	2582	2582	
Depth	mm	865	865	865	865	865	865	
TDCR –TUCR DUAL COIL		0700A	1000A	1700A	2000A	4000A	4300A(3)	
Fans	Nr.	1	1	2	2	3	3	
Airflow	m3/h	5817	10073	14619	19834	26463	28226	
Gross Total Cooling Capacity(1) (2)	kW	22,3	37,9	58,8	74,3	103,3	109,0	
Gross Sensible Cooling Capacity(1) (2)	kW	22,1	37,6	56,5	72,7	98,9	103,7	
DIMENSIONS								
Height	mm	1960	1960	1960	1960	1960	2170	
Length	mm	1010	1310	1720	2170	2582	2582	
Depth	mm	865	865	865	865	865	865	

1. Data refers to nominal conditions: Room at 24°C-50% RH,water temperature 7/12°C; glycol 0% ESP ± 20Pa.
2. Gross Cooling capacities; fans must be deduced to obtain net cooling data.
3. Only Downflow version is available.

Construction Options

- Double power supply with automatic integrated management on the active line
- Immersed electrode humidifier (D/U versions)
- Low surface temperature electrical heaters with extended fans, complete with double safety thermostat and manual resetting (T/H versions)
- Discharge temperature sensor integrated with the microprocessor to allow discharge temperature control; in combination with D and U version, moisture control can be selected

Options

The units can be supplied with the following external accessories:

- Remote, semi-graphic user terminal
- RS485 serial adaptor to communicate with external BMS
- LON FTT10 serial adaptor to communicate with external BMS managed with LON protocol
- TCP/IP serial adaptor to communicate with external BMS managed with SNMP protocol
- Motorized damper
- Suction from the top or front discharge plenums
- Adjustable floor stands

[Chilled water units with backward-curved fans equipped with EC motor]

Uniflair LE

TDCV – TUCV



Standard Features

- Advanced microprocessor control system is included with local or remote user terminal.
- The units are equipped with the latest generation Radical EC Fans for efficiency maximization. Impellers are made of high-tech compound material with optimized flow control, combined with highly efficient GreenTech EC motors.
- The structure of the unit is characterized by a self-supporting frame in galvanized steel with panels. The external panels are coated with RAL9003 epoxy-polyester paint* and internally lined with heat and sound-proofing insulation.
- The unit can be selected with a two-way or three-way valve and an actuator integrated with the microprocessor.
- The cooling coil is designed for an elevated SHR and reduced pressure drops in the air section. The coil is made from copper tubes mechanically expanded on aluminum fins, complete with a hydrophilic treatment.
- High-efficiency, EU4-pleated air filters are housed in a metal frame and equipped with a dirty filter differential pressure switch and low airflow differential pressure switch.
- Total front access is available for unit maintenance.

Range

Cooling capacity: 20 ÷ 160 kW

Refrigerant Chilled Water

EC Fans

Available Versions:

- Downflow (TDCV)
- Upflow (TUCV)

- The electrical panel is situated in a compartment separated from the air flow and complies with the 2006/95/EC directive and related standards.
- Microprocessor control system includes:
 - Regulation logic of cooling capacity and airflow integration
 - Local user terminal with external accessibility
 - Integrated LAN card for local network connection of a group of CRACs
 - Rotation and active stand-by management
 - Free contact for general and two for addressable alarms
 - Remote on/off switch
 - Ability to interface with Modbus protocol directly on RS485 serial card
 - Ability to interface with main external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform

*RAL5013 may be used during transition period.

TECHNICAL DATA							
TDCV –TUCV MODEL		0600A	0700A	1000A	1200A	1700A	2000A
Fan type		EC Backward-curved centrifugal motor fan					
Power supply	V/ph/Hz	400/3/50Hz					
Fans	Nr.	1	1	1	1	2	2
Airflow	m3/h	5950	6200	10200	10700	15000	18800
Gross Total Cooling Capacity(1) (2)	kW	23,7	26,7	33,9	42,7	58,5	70,9
Gross Sensible Cooling Capacity(1) (2)	kW	21,6	24,0	32,6	39,3	53,3	64,2
DIMENSIONS							
Height	mm	1960	1960	1960	1960	1960	1960
Length	mm	1010	1010	1310	1310	1720	2170
Depth	mm	750	750	865	865	865	865
TDCR –TUCR MODEL		2500A	2700A	3400A	4000A	4300A(3)	
Fans	Nr.	2	2	3	3	3	
Airflow	m3/h	18800	18800	24800	25200	29500	
Gross Total Cooling Capacity(1) (2)	kW	86,9	89,5	112,1	123,7	168,5	
Gross Sensible Cooling Capacity(1) (2)	kW	76,7	81,8	101,6	110,4	138,0	
DIMENSIONS							
Height	mm	1960	1960	1960	1960	2170	
Length	mm	2170	2170	2582	2582	2582	
Depth	mm	865	865	865	865	865	
TDCV –TUCV DUAL COIL		0700A	1000A	1700A	2000A	4000A	4300A(3)
Fans	Nr.	1	1	2	2	3	3
Airflow	m3/h	5875	10000	14400	19000	27500	29500
Gross Total Cooling Capacity(1) (2)	kW	22,5	37,7	58,2	72,3	105,8	112,2
Gross Sensible Cooling Capacity(1) (2)	kW	22,3	37,4	55,9	70,6	101,5	107,0
DIMENSIONS							
Height	mm	1960	1960	1960	1960	1960	2170
Length	mm	1010	1310	1720	2170	2582	2582
Depth	mm	865	865	865	865	865	865

1. Data refers to nominal conditions: Room at 24°C-50% RH,water temperature 7/12°C, glycol 0%, and ESP = 20Pa

2. Gross Cooling capacities; fans must be deduced to obtain net cooling data.

3. Only Downflow version is available.

Construction Options

- Double power supply with automatic integrated management on the active line
- Immersed electrode humidifier (D/U versions)
- Low surface temperature electrical heaters with extended fans, complete with double safety thermostat and manual resetting (T/H versions)
- Discharge temperature sensor integrated with the microprocessor to allow discharge temperature control; in combination with D and U version moisture control can be selected

Accessories

The units can be supplied with the following external accessories:

- Remote, semi-graphic user terminal
- RS485 serial adaptor to communicate with external BMS
- LON FTT10 serial adaptor to communicate with external BMS managed with LON protocol
- TCP/IP serial adaptor to communicate with external BMS managed with SNMP protocol
- AFPS (Automatic Floor Pressurization System) that permits to adapt its availability as a kit with installation instructions
- Motorized damper
- Suction from the top or front discharge plenums
- Adjustable floor stands

Uniflair LE

TDER – TUER



Standard Features

- Advanced microprocessor control system is available with local or remote user terminal.
- The units are equipped with backward-curved fans with directly-coupled asynchronous motor.
- The structure of the unit is characterized by a self-supporting frame in galvanized steel with panels. The external panels are coated with RAL9003 epoxy-polyester paint* and internally lined with heat and sound-proofing insulation.
- Electronic expansion valve is controlled by the microprocessor and a dedicated software that increases the precision of the cooling and the energy efficiency of the cooling cycle.
- The cooling coil is designed for an elevated SHR and reduced pressure drops in the air section. The coil is made from copper tubes mechanically expanded on aluminum fins, complete with a hydrophilic treatment.
- The cooling coil is characterized by chilled water and direct expansion circuits interlaced to increase the efficiency of the unit in all running conditions.
- Unit is equipped with an indirect free cooling system that provides the required cooling capacity when the external temperature is lower than the internal ambient. Compressor power consumption is minimized while internal and external environments are kept separate.
- Internal water-cooled condenser braze is welded and made of AISI 304 stainless steel.
- Uniflair LE units meet the following directives: 2006/42/EC, 2004/108/EC, 2006/95/EC, 97/23/EC, 842/2006/EC F-GAS regulation.
- High-efficiency, EU4-pleated air filters are housed in a metal frame and equipped with a dirty filter differential pressure switch and low airflow differential pressure switch.
- The Uniflair LE range offers the possibility to select units equipped with two compressors (tandem) for each circuit, which grants better efficiency and regulation capacity at partial loads (models with the **21 or **42 suffix).
- Total front access is available for unit maintenance.
- The electrical panel is situated in a compartment separated from the air flow and complies with the 2006/95/EC directive and related standards.

Range

Cooling capacity: 20 ÷ 100 kW

Refrigerant R-410A

Available Versions:

- Downflow (TDER)
- Upflow (TUER)

- Microprocessor control system includes:
 - Integrated management of the EEV and refrigerating circuit parameters
 - Local user terminal with external accessibility
 - Integrated LAN card for local network connection of a group of CRACs
 - Rotation and active stand-by management
 - Free contact for general and two for addressable alarms
 - Remote on/off switch
 - Ability to interface with Modbus protocol directly on RS485 serial card
 - Ability to interface with main external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform

*RAL5013 may be used during transition period.

Construction Options

- Immersed electrode humidifier (D/U versions)
- Low surface temperature electrical heaters with extended fans, complete with double safety thermostat and manual resetting (T/H versions)
- Hot gas and hot water reheating
- Condensation control on refrigerant side with constant water flow

Accessories

- The units can be supplied with the following external accessories:
- Remote, semi-graphic user terminal
 - RS485 serial adaptor to communicate with external BMS
 - LON FTT10 serial adaptor to communicate with external BMS managed with LON protocol
 - TCP/IP serial adaptor to communicate with external BMS managed with SNMP protocol
 - AFPS (Automatic Floor Pressurization System) that permits to adapt its availability as a kit with installation instructions
 - Motorized damper
 - Condensate drain pump
 - Suction from the top or front discharge plenums
 - Adjustable floor stands

TECHNICAL DATA								
TDER –TUER MODEL		0511A	0611A	0721A	0722A	0921A	0922A	1021A
Fan type		Backward-curved centrifugal motor fan						
Power supply		V/ph/Hz	400/3/50Hz					
Fans		Nr.	1	1	1	1	1	1
Airflow		m3/h	5827	5827	8541	8541	8541	8541
N° of compressors			1	1	2	2	2	2
Refrigerating Circuits			1	1	1	2	1	2
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	19,2	23,8	27,0	28,5	30,4	32,1
	Gross Sensible Cooling Capacity(1) (2)	kW	19,2	21,1	27,0	28,5	27,9	30,3
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	20,5	20,5	28,3	28,3	28,3	28,3
	Gross Sensible Cooling Capacity(1) (3)	kW	20,4	20,4	28,2	28,2	28,2	28,2
DIMENSIONS								
Height		mm	1960	1960	1960	1960	1960	1960
Length		mm	1010	1010	1310	1310	1310	1310
Depth		mm	750	750	865	865	865	865
TDER –TUER MODEL		1022A	1121A	1122A	1321A	1322A	1422A	1622A
Fans		Nr.	1	1	2	2	2	2
Airflow		m3/h	8541	13277	13277	13277	15906	15906
N° of compressors			2	2	2	2	2	2
Refrigerating Circuits			2	1	2	1	2	2
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	37,1	37,3	39,3	47,0	50,2	49,6
	Gross Sensible Cooling Capacity(1) (2)	kW	30,3	37,3	39,3	42,3	41,5	49,6
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	28,3	41,9	41,9	41,9	41,9	54,0
	Gross Sensible Cooling Capacity(1) (3)	kW	28,2	41,7	41,7	41,7	41,7	53,7
DIMENSIONS								
Height		mm	1960	1960	1960	1960	1960	1960
Length		mm	1010	1720	1720	1720	2170	2170
Depth		mm	750	750	865	865	865	865
TDER MODEL		1822A	2222A(4)	2242A(4)	2522A(4)	2542A(4)	2842A(4)	
Fans		Nr.	2	3	3	3	3	
Airflow		m3/h	15906	21809	21809	21809	21809	
N° of compressors			2	2	4	2	4	
Refrigerating Circuits			2	2	2	2	2	
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	60,5	78,4	83,6	86,2	87,9	96,0
	Gross Sensible Cooling Capacity(1) (2)	kW	55,8	72,0	78,3	75,0	75,5	77,7
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	54,0	97,6	97,6	97,6	97,6	
	Gross Sensible Cooling Capacity(1) (3)	kW	53,7	96,7	96,7	96,7	96,7	
DIMENSIONS								
Height		mm	1960	2150	2150	2150	2150	
Length		mm	2170	2580	2580	2580	2580	
Depth		mm	750	750	865	865	865	
TUER MODEL		2222A	2242A	2522A	2542A	2842A		
Fans		Nr.	3	3	3	3		
Airflow		m3/h	22160	22160	23194	23194		
N° of compressors			2	4	2	4		
Refrigerating Circuits			2	2	2	2		
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	78,5	83,8	86,8	88,7	96,8	
	Gross Sensible Cooling Capacity(1) (2)	kW	72,7	79,2	77,8	78,3	80,4	
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	98,8	98,8	102,3	102,3		
	Gross Sensible Cooling Capacity(1) (3)	kW	97,9	97,9	101,3	101,3		
DIMENSIONS								
Height		mm	1960	1960	1960	1960		
Length		mm	2580	2580	2580	2580		
Depth		mm	750	865	865	865		

1. Gross Cooling capacities; fans must be deduced to obtain net cooling data.
2. Data refers to nominal conditions : room at 24°C° -50% RH, water temperatures 30 -35°C, and ESP = 20Pa.
3. Data refers to nominal conditions: room at 24°C-50% RH,water temperature 7/12°C; glycol 0%, and ESP = 20Pa.
4. Data refers to Downflow unit.

Uniflair LE

TDEV – TUEV



Range

Cooling capacity: 20 ÷ 100 kW

Refrigerant R-410A

EC Fans

Available Versions:

- Downflow (TDEV)

- Upflow (TUEV)

Standard Features

- Evoluted microprocessor control system is available with local or remote user terminal.
- The units are equipped with EC fans for efficiency maximization.
- The structure of the unit is characterized by a self-supporting frame in galvanized steel with panels. The external panels are coated with RAL9003 epoxy-polyester paint* and internally lined with heat and sound-proofing insulation.
- Electronic expansion valve is controlled by the microprocessor and a dedicated software that increases the precision of the cooling and the energy efficiency of the cooling cycle.
- Unit is equipped with an indirect free cooling system that provides the required cooling capacity when the external temperature is lower than the internal ambient. Compressor power consumption is minimized while internal and external environments are kept separate.
- The cooling coil is designed for an elevated SHR and reduced pressure drops in the air section. The coil is made from copper tubes mechanically expanded on aluminum fins, complete with a hydrophilic treatment.
- The cooling coil is characterized by chilled water and direct expansion circuits interlaced to increase the efficiency of the unit in all running conditions.
- Internal water-cooled condenser braze is welded and made of AISI 304 stainless steel
- Uniflair LE units meet the following directives: 2006/42/EC, 2004/108/EC, 2006/95/EC, 97/23/EC, 842/2006/EC F-GAS regulation
- High-efficiency, EU4-pleated air filters are housed in a metal frame and equipped with a dirty filter differential pressure switch and low airflow differential pressure switch
- The Uniflair LE range offers the possibility to select units equipped with two compressors (tandem) for each circuit, which grants better efficiency and regulation capacity at partial loads (models with the **21 or **42 suffix)
- Total front access is available for unit maintenance
- The electrical panel is situated in a compartment separated from the air flow and complies with the 2006/95/EC directive and related standards

- Microprocessor control system includes:
 - Integrated management of the cooling modes monitoring room temperature, external temperature and glycol circuit temperature;
 - Integrated management of the EEV and refrigerating circuit parameters
 - Local user terminal with external accessibility
 - Integrated LAN card for local network connection of a group of CRACs
 - Rotation and active stand-by management
 - Free contact for general and two for addressable alarms
 - Remote on/off switch
 - Ability to interface with Modbus protocol directly on RS485 serial card
 - Ability to interface with main external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform

*RAL5013 may be used during transition period.

Construction Options

- Immersed electrode humidifier (D/U versions)
- Low surface temperature electrical heaters with extended fans, complete with double safety thermostat and manual resetting (T/H versions)
- Hot gas and hot water reheating

Accessories

The units can be supplied with the following external accessories:

- Remote, semi-graphic user terminal
- RS485 serial adaptor to communicate with external BMS
- LON FTT10 serial adaptor to communicate with external BMS managed with LON protocol
- TCP/IP serial adaptor to communicate with external BMS managed with SNMP protocol
- AFPS (Automatic Floor Pressurization System) that permits to adapt its availability as a kit with installation instructions
- Motorized damper
- Condensate drain pump
- Suction from the top or front discharge plenums
- Adjustable floor stands

TECHNICAL DATA								
TDEV –TUEV MODEL		0511A	0611A	0721A	0722A	0921A	0922A	1021A
Fan type		EC Backward-curved centrifugal motor fan						
Power supply		V/ph/Hz	400/3/50Hz					
Fans		Nr.	1	1	1	1	1	1
Airflow		m3/h	5700	5700	8600	8600	8600	8600
N° of compressors			1	1	2	2	2	2
Refrigerating Circuits			1	1	1	2	1	2
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	19,1	23,7	27,0	28,4	30,4	32,2
	Gross Sensible Cooling Capacity(1) (2)	kW	19,1	20,8	27,0	28,4	28,7	28,0
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	20,2	20,2	28,5	28,5	28,5	28,5
	Gross Sensible Cooling Capacity(1) (3)	kW	20,1	20,1	28,3	28,3	28,3	28,3
DIMENSIONS								
Height		mm	1960	1960	1960	1960	1960	1960
Length		mm	1010	1010	1310	1310	1310	1310
Depth		mm	750	750	865	865	865	865
TDEV –TUEV MODEL		1022A	1121A	1122A	1321A	1322A	1422A	1622A
Fans		Nr.	1	1	2	2	2	2
Airflow		m3/h	8600	12320	12320	12320	12320	16000
N° of compressors			2	2	2	2	2	2
Refrigerating Circuits			2	1	2	1	2	2
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	37,1	36,9	39,2	46,6	49,7	55,9
	Gross Sensible Cooling Capacity(1) (2)	kW	30,4	36,9	37,4	40,3	39,9	49,7
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	28,5	40,1	40,1	40,1	40,1	54,1
	Gross Sensible Cooling Capacity(1) (3)	kW	28,3	39,9	39,9	39,9	39,9	53,9
DIMENSIONS								
Height		mm	1960	1960	1960	1960	1960	1960
Length		mm	1010	1720	1720	1720	1720	2170
Depth		mm	750	750	865	865	865	865
TDEV MODEL		1822A	2222A(4)	2242A(4)	2522A(4)	2542A(4)	2842A(4)	
Fans		Nr.	2	3	3	3	3	
Airflow		m3/h	16000	21500	21500	21500	21500	
N° of compressors			2	2	4	2	4	
Refrigerating Circuits			2	2	2	2	2	
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	60,5	78,2	83,5	86,1	87,7	95,8
	Gross Sensible Cooling Capacity(1) (2)	kW	56,0	71,3	77,6	74,4	74,9	77,1
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	54,1	96,6	96,6	96,6	96,6	
	Gross Sensible Cooling Capacity(1) (3)	kW	53,9	95,7	95,7	95,7	95,7	
DIMENSIONS								
Height		mm	1960	2150	2150	2150	2150	
Length		mm	2170	2580	2580	2580	2580	
Depth		mm	750	750	865	865	865	
TUEV MODEL		2222A	2242A	2522A	2542A	2842A		
Fans		Nr.	3	3	3	3		
Airflow		m3/h	22000	22000	22000	22500	22500	
N° of compressors			2	4	2	4		
Refrigerating Circuits			2	2	2	2		
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	78,4	83,7	86,3	88,3	96,4	
	Gross Sensible Cooling Capacity(1) (2)	kW	72,4	78,8	75,4	76,9	79,0	
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	98,3	98,3	98,3	100,0	100,0	
	Gross Sensible Cooling Capacity(1) (3)	kW	97,4	97,4	97,4	99,0	99,0	
DIMENSIONS								
Height		mm	1960	1960	1960	1960		
Length		mm	2580	2580	2580	2580		
Depth		mm	750	865	865	865		

1. Gross Cooling capacities; fans must be deduced to obtain net cooling data.
2. Data refers to nominal conditions : room at 24°C° -50% RH, water temperatures 30-35°C, and ESP = 20Pa.
3. Data refers to nominal conditions: room at 24°C-50% RH, water temperature 7/12°C; glycol 0%, and ESP = 20Pa.
4. Data refers to Downflow unit.

Uniflair LE

TDTR – TUTR



Range

Cooling capacity: 20 ÷ 100 kW

Refrigerant R-410A

Available Versions:

- Downflow (TDTR)
- Upflow (TUTR)

Standard Features

- Advanced microprocessor control system is available with local or remote user terminal.
- The units are equipped with Backward-curved fans and directly-coupled asynchronuos motor.
- The structure of the unit is characterized by a self-supporting frame in galvanized steel with panels. The external panels are coated with RAL9003(*)epoxy-polyester paint* and internally lined with heat and sound-proofing insulation.
- Unit is characterized by two independent cooling sources - one chilled water with related circuit and one direct expansion air cooled.
- Electronic expansion valve is controlled by the microprocessor and a dedicated software that increases the cooling precision and the energy efficiency of the cooling cycle.
- The cooling coil is designed for an elevated SHR and reduced pressure drops in the air section. The coil is made from copper tubes mechanically expanded on aluminum fins, complete with a hydrophilic treatment.
- Uniflair LE units meet the following directives: 2006/42/EC, 2004/108/EC, 2006/95/EC, 97/23/EC, 842/2006/EC F-GAS regulation.
- High-efficiency, EU4-pleated air filters are housed in a metal frame and equipped with a dirty filter differential pressure switch and low airflow differential pressure switch.

- The Uniflair LE range offers the possibility to select units equipped with two compressors (tandem) for each circuit, which grants better efficiency and regulation capacity at partial loads (models with the **21 or **42 suffix).
- Total front access is included for unit maintenance.
- The electrical panel is situated in a compartment separated from the air flow and complies with the 2006/95/EC directive and related standards.
- Microprocessor control system includes:
 - Integrated management of the EEV and refrigerating circuit parameters
 - Local user terminal with external accessibility
 - Integrated LAN card for local network connection of a group of CRACs
 - Rotation and active stand-by management
 - Free contact for general and two for addressable alarms
 - Remote on/off switch
 - Ability to interface with Modbus protocol directly on RS485 serial card
 - Ability to interface with main external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform

*RAL5013 may be used during transition period.

TECHNICAL DATA									
TDTR MODEL		0611A	0921A	1321A	1622A	1822A	2242A(4)	2542A(4)	2842A(4)
Fan type		Backward-curved centrifugal motor fan							
Power supply		V/ph/Hz 400/3/50Hz							
Fans		Nr.	1	1	2	2	2	3	3
Airflow		m3/h	5827	8541	11574	15905	15905	21809	21709
N° of compressors			1	2	2	2	4	4	4
Refrigerating Circuits			1	1	1	2	2	2	2
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	23,6	30,3	46,1	58,5	63,4	82,5	81,7
	Gross Sensible Cooling Capacity(1) (2)	kW	20,9	28,5	38,3	55,3	55,3	78,1	73,8
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	20,5	28,3	38,6	53,9	53,9	97,6	97,3
	Gross Sensible Cooling Capacity(1) (3)	kW	20,4	28,2	38,4	53,7	53,7	96,7	96,4
DIMENSIONS									
Height		mm	1960	1960	1960	1960	1960	2150	2150
Length		mm	1010	1310	1720	2170	2170	2580	2580
Depth		mm	750	865	865	865	750	865	865
TUTR MODEL			2242A	2542A	2842A				
Fans		Nr.	3	3	3				
Airflow		m3/h	22160	23194	23194				
N° of compressors			4	4	4				
Refrigerating Circuits			2	2	2				
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	82,7	82,5	91,9				
	Gross Sensible Cooling Capacity(1) (2)	kW	79,0	77,1	79,0				
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	98,8	102,3	102,3				
	Gross Sensible Cooling Capacity(1) (3)	kW	97,9	101,3	101,3				
DIMENSIONS									
Height		mm	1960	1960	1960				
Length		mm	2580	2580	2580				
Depth		mm	865	865	865				

1. Gross Cooling capacities; fans must be deduced to obtain net cooling data.
2. Data refers to nominal conditions : room at 24°C° -50% RH, water temperatures 30-35°C, and ESP = 20Pa.
3. Data refers to nominal conditions: room at 24°C-50% RH,water temperature 7/12°C; glycol 0%, and ESP = 20Pa.
4. Data refers to Downflow unit.

Construction Options

- Immersed electrode humidifier (D/U versions)
- Low surface temperature electrical heaters with extended fans, complete with double safety thermostat and manual resetting (T/H versions)
- Hot gas and hot water reheating

Accessories

- The units can be supplied with the following external accessories:
- Remote, semi-graphic user terminal
 - RS485 serial adaptor to communicate with external BMS
 - LON FTT10 serial adaptor to communicate with external BMS managed with LON protocol
 - TCP/IP serial adaptor to communicate with external BMS managed with SNMP protocol
 - AFPS (Automatic Floor Pressurization System) that permits to adapt its availability as a kit with installation instructions
 - Motorized damper
 - Condensate drain pump
 - Suction from the top or front discharge plenums
 - Adjustable floor stands

[Twin cool air-cooled units with Backward-curved fans equipped with EC motor]

Uniflair LE

TDTV – TUTV



Range

Cooling capacity: 20 ÷ 100 kW

Refrigerant R-410A

EC Fans

Available Versions:

- Downflow (TDTV)
- Upflow (TUTV)

Standard Features

- Advanced microprocessor control system is available with local or remote user terminal.
- The units are equipped with EC fans for efficiency maximization.
- The structure of the unit is characterized by a self-supporting frame in galvanized steel with panels. The external panels are coated with RAL9003(*)epoxy-polyester paint* and internally lined with heat and sound-proofing insulation.
- Electronic expansion valve is controlled by the microprocessor and a dedicated software that increases the cooling precision and the energy efficiency of the cooling cycle.
- Unit is characterized by two independent cooling sources-one chilled water with related circuit and one direct expansion air cooled.
- The cooling coil is designed for an elevated SHR and reduced pressure drops in the air section. The coil is made from copper tubes mechanically expanded on aluminum fins, complete with a hydrophilic treatment.
- The cooling coil is characterized by chilled water and direct expansion circuits interlaced to increase the efficiency of the unit in all running conditions.
- The chilled water circuit is equipped with a three-way valve and an actuator integrated with the microprocessor
- Uniflair LE units meet the following directives: 2006/42/EC, 2004/108/EC, 2006/95/EC, 97/23/EC, 842/2006/EC F-GAS regulation.
- High-efficiency, EU4-pleated air filters are housed in a metal frame and equipped with a dirty filter differential

- pressure switch and low airflow differential pressure switch.
- The Uniflair LE range offers the possibility to select units equipped with two compressors (tandem) for each circuit, which grants better efficiency and regulation capacity at partial loads (models with the **21 or **42 suffix).
 - Total front access is included for unit maintenance.
 - The electrical panel is situated in a compartment separated from the air flow and complies with the 2006/95/EC directive and related standards.
 - Microprocessor control system includes:
 - Integrated management of the EEV and refrigerating circuit parameters
 - Local user terminal with external accessibility
 - Integrated LAN card for local network connection of a group of CRACs
 - Rotation and active stand-by management
 - Free contact for general and two for addressable alarms
 - Remote on/off switch
 - Ability to interface with Modbus protocol directly on RS485 serial card
 - Ability to interface with main external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform

*RAL5013 may be used during transition period.

TECHNICAL DATA									
TDTV MODEL		0611A	0921A	1321A	1622A	1822A	2242A	2542A	2842A
Fan type		EC Backward-curved centrifugal motor fan							
Power supply		V/ph/Hz	400/3/50Hz						
Fans		Nr.	1	1	2	2	3	3	3
Airflow		m3/h	5700	8600	12320	16000	16000	21500	21500
N° of compressors			1	2	2	2	4	4	4
Refrigerating Circuits			1	1	1	2	2	2	2
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	23,5	30,3	46,5	58,5	63,4	82,4	91,0
	Gross Sensible Cooling Capacity(1) (2)	kW	20,6	28,7	39,8	55,6	55,5	77,4	75,7
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	20,2	28,5	40,1	54,1	54,1	96,6	96,6
	Gross Sensible Cooling Capacity(1) (3)	kW	20,1	28,3	39,9	53,9	53,9	95,7	95,7
DIMENSIONS									
Height		mm	1960	1960	1960	1960	1960	2150	2150
Length		mm	1010	1310	1720	2170	2170	2580	2580
Depth		mm	750	865	865	865	750	865	865
TUTV MODEL			2242A	2542A	2842A				
Fans		Nr.	3	3	3				
Airflow		m3/h	22000	22500	22500				
N° of compressors			4	4	4				
Refrigerating Circuits			2	2	2				
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	82,6	82,1	91,5				
	Gross Sensible Cooling Capacity(1) (2)	kW	78,6	75,5	77,6				
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	98,3	100,0	100,0				
	Gross Sensible Cooling Capacity(1) (3)	kW	97,4	99,0	99,0				
DIMENSIONS									
Height		mm	1960	1960	1960				
Length		mm	2580	2580	2580				
Depth		mm	865	865	865				

1. Gross Cooling capacities; fans must be deduced to obtain net cooling data.
2. Data refers to nominal conditions : room at 24°C-50% RH, 45°C condensing temperature, and ESP = 20Pa.
3. Data refer to nominal conditions: Room at 24°C-50% RH,water temperature 7/12°C; glycol 0%, and ESP = 20Pa.

Construction Options

- Immersed electrode humidifier (D/U versions)
- Low surface temperature electrical heaters with extended fans, complete with double safety thermostat and manual resetting (T/H versions)
- Hot gas and hot water reheating

Accessories

- The units can be supplied with the following external accessories:
- Remote, semi-graphic user terminal
 - RS485 serial adaptor to communicate with external BMS
 - LON FTT10 serial adaptor to communicate with external BMS managed with LON protocol
 - TCP/IP serial adaptor to communicate with external BMS managed with SNMP protocol
 - AFPS (Automatic Floor Pressurization System) that permits to adapt its availability as a kit with installation instructions
 - Motorized damper
 - Condensate drain pump
 - Suction from the top or front discharge plenums
 - Adjustable floor stands

[Twin cool water-cooled units with backward-curved fans]

Uniflair LE

TDDR – TUDR



Range

Cooling capacity: 20 ÷ 100 kW

Refrigerant R-410A

Available Versions:

- Downflow (TDDR)
- Upflow (TUDR)

Standard Features

- Advanced microprocessor control system is available with local or remote user terminal.
- The units are equipped with Backward-curved fans and directly-coupled asynchronuos motor.
- The structure of the unit is characterized by a self-supporting frame in galvanized steel with panels. The external panels are coated with RAL9003(*)epoxy-polyester paint* and internally lined with heat and sound-proofing insulation.
- Electronic expansion valve is controlled by the microprocessor and a dedicated software that increases the precision of the cooling and the energy efficiency of the cooling cycle.
- The cooling coil is designed for an elevated SHR and reduced pressure drops in the air section. The coil is made from copper tubes mechanically expanded on aluminum fins, complete with a hydrophilic treatment.
- Internal water-cooled condenser braze is welded and made of AISI 304 stainless steel.
- Uniflair LE units meet the following directives: 2006/42/EC, 2004/108/EC, 2006/95/EC, 97/23/EC, 842/2006/EC F-GAS regulation.
- High-efficiency, EU4-pleated air filters are housed in a metal frame and equipped with a dirty filter differential pressure switch and low airflow differential pressure switch.
- The Uniflair LE range offers the possibility to select units

equipped with two compressors (tandem) for each circuit, which grants better efficiency and regulation capacity at partial loads (models with the **21 or **42 suffix).

- Total front access is included for unit maintenance.
- The electrical panel is situated in a compartment separated from the air flow and complies with the 2006/95/EC directive and related standards.
- Microprocessor control system includes:
 - Integrated management of the EEV and refrigerating circuit parameters
 - Local user terminal with external accessibility
 - Integrated LAN card for local network connection of a group of CRACs
 - Rotation and active stand-by management
 - Free contact for general and two for addressable alarms
 - Remote on/off switch
 - Ability to interface with Modbus protocol directly on RS485 serial card
 - Ability to interface with main external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform

*RAL5013 may be used during transition period.

TECHNICAL DATA									
TDDR MODELS		611	921	1321	1622	1822	2242(4)	2542(4)	2842(4)
Fan type		Backward-curved centrifugal motor fan							
Power supply		V/ph/Hz	400/3/50Hz						
Fans		Nr.	1	1	2	2	2	3	3
Airflow		m3/h	5827	8541	11574	15905	15905	21809	21709
N° of compressors			1	2	2	2	2	4	4
Refrigerating Circuits			1	1	1	2	2	2	2
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	23,8	30,4	46,2	55,9	60,5	90,5	87,8
	Gross Sensible Cooling Capacity(1) (2)	kW	21,1	28,5	38,8	55,9	55,8	79,7	75,3
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	20,5	28,3	38,6	53,9	53,9	97,6	97,3
	Gross Sensible Cooling Capacity(1) (3)	kW	20,4	28,2	38,4	53,7	53,7	96,7	96,4
DIMENSIONS									
Height		mm	1960	1960	1960	1960	1960	2150	2150
Length		mm	1010	1310	1720	2170	2170	2580	2580
Depth		mm	750	865	865	865	750	865	865
TUDR MODELS		2242A	2542A	2842A					
Fans		Nr.	3	3	3				
Airflow		m3/h	22160	23194	23194				
N° of compressors			4	4	4				
Refrigerating Circuits			2	2	2				
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	90,6	88,7	96,8				
	Gross Sensible Cooling Capacity(1) (2)	kW	80,5	78,3	80,4				
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	98,8	102,3	102,3				
	Gross Sensible Cooling Capacity(1) (3)	kW	97,9	101,3	101,3				
DIMENSIONS									
Height		mm	1960	1960	1960				
Length		mm	2580	2580	2580				
Depth		mm	865	865	865				

1. Gross Cooling capacities; fans must be deduced to obtain net cooling data.
2. Data refers to nominal conditions : room at 24°C° -50% RH, water temperatures 30-35°C, and ESP = 20Pa.
3. Data refers to nominal conditions: room at 24°C-50% RH,water temperature 7/12°C; glycol 0%, and ESP = 20Pa.
4. Data refers to Downflow unit.

Construction Options

- Immersed electrode humidifier (D/U versions)
- Low surface temperature electrical heaters with extended fans, complete with double safety thermostat and manual resetting (T/H versions)
- Hot gas and hot water reheating
- Condensation control on refrigerant side with constant water flow

Accessories

- The units can be supplied with the following external accessories:
- Remote, semi-graphic user terminal
 - RS485 serial adaptor to communicate with external BMS
 - LON FTT10 serial adaptor to communicate with external BMS managed with LON protocol
 - TCP/IP serial adaptor to communicate with external BMS managed with SNMP protocol
 - AFPS (Automatic Floor Pressurization System) that permits to adapt its availability as a kit with installation instructions
 - Motorized damper
 - Condensate drain pump
 - Suction from the top or front discharge plenums
 - Adjustable floor stands

[Twin cool water-cooled units with backward-curved fans equipped with EC motor]

Uniflair LE

TDDV – TUDV



Range

Cooling capacity: 20 ÷ 100 kW

Refrigerant R-410A

EC Fans

Available Versions:

- Downflow (TDDV)
- Upflow (TUDV)

Standard Features

- Advanced microprocessor control system is available with local or remote user terminal.
- The units are equipped with EC fans for efficiency maximization.
- The structure of the unit is characterized by a self-supporting frame in galvanized steel with panels. The external panels are coated with RAL9003(*)epoxy-polyester paint* and internally lined with heat and sound-proofing insulation.
- Electronic expansion valve is controlled by the microprocessor and a dedicated software that increases the precision of the cooling and the energy efficiency of the cooling cycle.
- Unit is characterized by two independent cooling sources- one chilled water with related circuit and one direct expansion air cooled.
- The cooling coil is designed for an elevated SHR and reduced pressure drops in the air section. The coil is made from copper tubes mechanically expanded on aluminum fins, complete with a hydrophilic treatment.
- The cooling coil is characterized by chilled water and direct expansion circuits interlaced to increase the efficiency of the unit in all running conditions.
- Internal water-cooled condenser braze is welded and made of AISI 304 stainless steel.
- The chilled water circuit is equipped with a three-way valve and an actuator integrated with the microprocessor
- Uniflair LE units meet the following directives: 2006/42/EC, 2004/108/EC, 2006/95/EC, 97/23/EC, 842/2006/EC F-GAS regulation.

- High-efficiency, EU4-pleated air filters are housed in a metal frame and equipped with a dirty filter differential pressure switch and low airflow differential pressure switch.
- The Uniflair LE range offers the possibility to select units equipped with two compressors (tandem) for each circuit, which grants better efficiency and regulation capacity at partial loads (models with the **21 or **42 suffix).
- Total front access is included for unit maintenance
- The electrical panel is situated in a compartment separated from the air flow and complies with the 2006/95/EC directive and related standards.
- Microprocessor control system includes:
 - Integrated management of the EEV and refrigerating circuit parameters
 - Local user terminal with external accessibility
 - Integrated LAN card for local network connection of a group of CRACs
 - Rotation and active stand-by management
 - Free contact for general and two for addressable alarms
 - Remote on/off switch
 - Ability to interface with Modbus protocol directly on RS485 serial card
 - Ability to interface with main external communication protocols: Bacnet, Lonworks, Trend, Metasys, TCP/IP, SNMP, and StruxureWare™ platform

*RAL5013 may be used during transition period.

TECHNICAL DATA									
TDDV MODEL		0611A	0921A	1321A	1622A	1822A	2242A(4)	2542A(4)	2842A(4)
Fan type		EC Backward-curved centrifugal motor fan							
Power supply	V/ph/Hz	400/3/50Hz							
Fans	Nr.	1	1	2	2	2	3	3	3
Airflow	m3/h	5700	8600	12320	16000	16000	21500	21500	21500
N° of compressors		1	2	2	2	2	4	4	4
Refrigerating Circuits		1	1	1	2	2	2	2	2
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	23,7	30,4	46,6	55,9	60,5	90,3	87,7
	Gross Sensible Cooling Capacity(1) (2)	kW	20,8	28,7	40,3	55,9	56,0	79,0	74,9
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	20,2	28,5	40,1	54,1	54,1	96,6	96,6
	Gross Sensible Cooling Capacity(1) (3)	kW	20,1	28,3	39,9	53,9	53,9	95,7	95,7
DIMENSIONS									
Height	mm	1960	1960	1960	1960	1960	2150	2150	2150
Length	mm	1010	1310	1720	2170	2170	2580	2580	2580
Depth	mm	750	865	865	865	750	865	865	865
TUDV MODEL		2242A	2542A	2842A					
Fans	Nr.	3	3	3					
Airflow	m3/h	22000	22500	22500					
N° of compressors		4	4	4					
Refrigerating Circuits		2	2	2					
DX MODE	Gross Total Cooling Capacity(1) (2)	kW	90,6	88,3	96,4				
	Gross Sensible Cooling Capacity(1) (2)	kW	80,1	76,9	79,0				
CW MODE	Gross Total Cooling Capacity(1) (3)	kW	98,3	100,0	100,0				
	Gross Sensible Cooling Capacity(1) (3)	kW	97,4	99,0	99,0				
DIMENSIONS									
Height	mm	1960	1960	1960					
Length	mm	2580	2580	2580					
Depth	mm	865	865	865					

1. Gross Cooling capacities; fans must be deduced to obtain net cooling data.
2. Data refers to nominal conditions : room at 24°C° -50% RH, water temperatures 30-35°C, and ESP = 20Pa.
3. Data refers to nominal conditions: room at 24°C-50% RH,water temperature 7/12°C; glycol 0%, and ESP = 20Pa.
4. Data refers to Downflow unit.

Construction Options

- Immersed electrode humidifier (D/U versions)
- Low surface temperature electrical heaters with extended fans, complete with double safety thermostat and manual resetting (T/H versions)
- Hot gas and hot water reheating
- Condensation control on refrigerant side with constant water flow

Accessories

- The units can be supplied with the following external accessories:
- Remote, semi-graphic user terminal
 - RS485 serial adaptor to communicate with external BMS
 - LON FTT10 serial adaptor to communicate with external BMS managed with LON protocol
 - TCP/IP serial adaptor to communicate with external BMS managed with SNMP protocol
 - AFPS (Automatic Floor Pressurization System) that permits to adapt its availability as a kit with installation instructions
 - Motorized damper
 - Condensate drain pump
 - Suction from the top or front discharge plenums
 - Adjustable floor stands

[Chilled water units with backward-curved fans equipped with EC motor; fan module can be installed under or above raised floor]

Uniflair LE

HDCV



- Range**
- Cooling Capacity: 160 ÷ 200 kW
- Refrigerant Chilled Water**
- EC Fans**
- Available Versions:**
- Downflow Single Coil
 - Downflow Dual Coil

Standard Features

- Unit is made of two sections for installation of fan module under the raised floor and increase the coil surface for energy efficiency maximization.
- Advanced microprocessor control system UG50 is included.
- The units are equipped with the latest generation Radical EC fans for efficiency maximization. Impellers are made of high-tech compound material with optimized flow control, combined with highly efficient GreenTech EC motors.
- Large surface copper and aluminum cooling coil is provided for pressure drop minimization.
- EC fan module is equipped with a circular plug in connectors for quick and failure-free installation; the module is supplied with safety protection grills on the sides in case of underfloor installation.
- Adjustable fan speed meets energy-saving and load-sharing logics.
- Electric panel conforms to EC standards (2006/95/EC and EMC 2004/108/EC directives) .
- High-efficiency, pleated air filters are housed in a metal frame and filter differential pressure switch.
- A low airflow differential pressure alarm switch is included.
- Full frontal accessibility is available for maintenance
- Chilled water inlet temperature measurement is integrated in the microprocessor.
- Integrated Discharge Temperature Control and Room Moisture Control.

- Immersed electrode humidifier is included.
- Electrical heaters included with aluminum finned heating elements.
- Phase sequence control.
- Microprocessor control system in addition allows:
 - Integration with Uniflair Chillers for optimized management logics
 - Free contact for general and two for addressable alarms
 - Remote on/off switch
 - Integrated RS485 serial card for direct connection to external BMS (Modbus)
 - Second slot for additional serial card for BMS connection (optional)
 - Clock card integrated in the unit

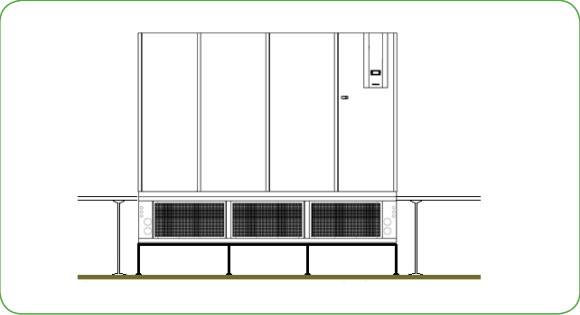
Accessories

- The units can be supplied with the following external accessories:
- Double power supply with automatic changeover and manual selection with integrated ultra capacitor
 - Intelligent dehumidification with cooling capacity limiting device
 - Automatic floor pressurization system
 - Chilled water outlet temperature measurement integrated in the microprocessor
 - Energy meter and CO₂ emissions calculator integrated in the unit
 - Ultra capacitor for single power supply units

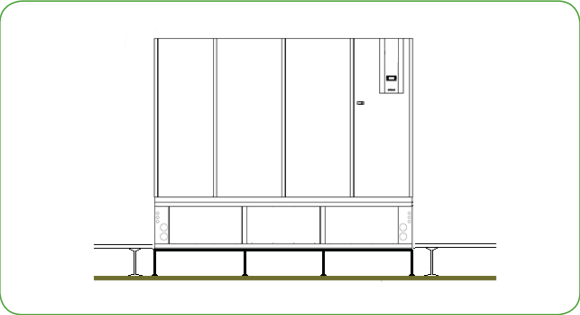
TECHNICAL DATA					
HDCV MODEL		4500A	5000A	4500A	5000A
Fan type	EC Backward-curved centrifugal motor fan				
Version		Single Coil		Dual Coil	
Power Supply	V/ph/Hz	400/3/50Hz		400/3/50Hz	
Fans	Nr.	3	4	3	4
Airflow	m3/h	30,000	40,000	30,000	40,000
Net Sensible Cooling	kW	136,1	166,5	109,6 (1)(3)	128,9 (1)(3)
DIMENSIONS					
Height (2)	mm	2510	2510	2510	2510
Length	mm	2582	3110	2582	3110
Depth	mm	865	865	865	865

1. Data refer to nominal conditions: Room at 36°C- 25%RH water temperature 18/24°C, fan module installed under a 900mm raised floor, and glycol 0%.
2. Includes fan module.
3. Cooling performance refers to one running chilled water circuit.

Construction Options



Unit with fan plenum installed under the raised floor



Unit with fan plenum installed above the raised floor