

# Leonardo™ TDCR-TUCR



**Chilled water units**  
Backward curved fans

### Range

From 24 to 88 kW

Leonardo Evolution™ direct expansion precision air conditioning units designed for environments where high-tech apparatus are used: web hotels, telephone exchanges, large computer rooms, data storage and transmission rooms.

The character within:

precision and reliability, high energy efficiency, versatile configurations, energy saving, compact dimensions, intelligent heart, connectivity, outstanding performance, respect for the environment.

## Main characteristics

- Air conditioning units characterized by high reliability and energy saving.
- Possibility to control the temperature and relative humidity of the environment. Uniguard microprocessor control system for either local or remote control management.
- Selection of the fan speed according to the EPS required by the aeraulic system.
- Total front access for unit maintenance.
- Downflow and upflow versions.
- Integrated ModBus on RS485 serial card Built-in LAN card.
- Wide connectivity.
- Compact dimensions.



- Modbus
- TREND
- BACnet
- LonWorks
- SNMP-TCP/IP
- METASYS



## Technical Data

Chilled water units with backward curved blades fans

Model TDCR-TUCR		600B	700B	600A	700A	1000A
Height	mm	1960	1960	1960	1960	1960
Width	mm	1010	1010	1010	1010	1310
Depth	mm	750	750	750	750	865
Weight	kg	210	220	210	220	306
Airflow	m <sup>3</sup> /h	5990	6060	5990	6060	10200
External static pressure	Pa	20	20	20	20	20
Total cooling capacity	kW*	23.7	27.0	23.7	27.0	33.9
Sensible cooling capacity	kW*	22.7	25.4	22.7	25.4	33.2
Chilled water flow	l/h*	4080	4646	4080	4646	5850
Total cooling capacity	kW**	16.4	18.8	16.4	18.8	26.0
Sensible cooling capacity	kw**	16.4	18.6	16.4	18.6	25.5
Chilled water flow	l/h**	2830	3240	2830	3240	4480
Electric supply voltage	V	230 V / 1 ph / 50 Hz		400 V / 3 ph + N / 50 Hz		

Model TDCR-TUCR		1200A	1700A	2000A	2500A
Height	mm	1960	1960	1960	1960
Width	mm	1310	1721	2172	2172
Depth	mm	865	865	865	865
Weight	kg	314	395	443	458
Airflow	m <sup>3</sup> /h	10420	14920	18680	18680
External static pressure	Pa	20	20	20	20
Total cooling capacity	kW*	43.6	57.2	69.3	87.6
Sensible cooling capacity	kW*	41.4	55.1	67.0	81.5
Chilled water flow	l/h*	7510	9660	11950	15090
Total cooling capacity	kW**	31.2	36.8	47.8	61.8
Sensible cooling capacity	kW**	30.6	36.8	47.8	60.3
Chilled water flow	l/h**	5370	6340	8240	10650
Electric supply voltage	V	400 V / 3 ph + N / 50 Hz			

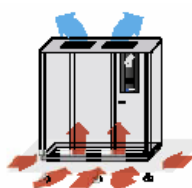
(\*) Based on 24°C @ 50%, ESP=20 Pa, water temperature = 7/12° C, ethylen glycol 0%

(\*\*) Based on 24°C @ 50%, ESP=20 Pa, water temperature = 10/15° C, ethylen glycol 0%

## Applications



Upflow unit with discharge on the top.  
Uniti Upflow con scarico verso l'alto.



Upflow unit with suction from the base.  
Uniti Upflow con aspirazione dal basso.



Downflow unit with enhanced rear and front discharge.  
Uniti Downflow con scarico di mandata frontale.



Upflow unit with front discharge plenum.  
Uniti Upflow con plenum di mandata frontale.



Upflow unit with suction from the rear.  
Uniti Upflow con aspirazione dal retro.



Downflow unit installed on floor stand.  
Uniti Downflow installati su piedistalli regolabili.

## Versions

The direct expansion range is available for downflow and upflow versions with the following principal accessories:

- standard and enhanced electrical reheat
- hot water reheat
- high ESP (external static pressure) available with standard backward curved fans
- condensate drain pump
- immersed-electrode humidifier
- humidifier with cleanable electrodes
- air filter installed inside the unit up to EU5 efficiency
- air filter installed outside the unit with additional plenum or floor stand up to EU8 efficiency
- fresh air module
- microprocessor semi-graphic display control
- uniguard UG40
- upflow version available with air suction from the front, the rear or the base