CDP 40 SWIMMING POOL DEHUMIDIFIER

Function

The CDP 40 is an energy efficient and quiet pool dehumidifier. It works in accordance with the condensation principle. A fan draws the humid air into the dehumidifier and through an evaporator coil. When passing through the evaporator the air is cooled down to below its dew point temperature, and its content of water vapour is condensed into water, which falls into the drip tray and then is led from the drip tray to a drain. The cold, dry air is then passed over the condenser coil where it is re-heated, before leaving the unit at a temperature, which is approx. 5°C higher than at the inlet.

Applications

- Indoor swimming pools, private or hotels
- Therapy pools
- Spas
- Gymnasias

FEATURES

Dehumidifier

- Built into a strong and robust powder coated hot galvanized sheet metal cabinet
- Evaporator and condenser coils are epoxy-coated for high corrosion resistance
- Fixed to the wall by means of a wall mounting strip supplied with the unit
- Condensate outlet located at the bottom. Outlet stub can be connected to a ¾" hose
- Outside connection to mains

Control

- Built in electronic hygrostat and thermostat
- Integrated ON/OFF control of humidity and temperature (electric or water heating coils as accessories)
- 0-VOLT connection for alarm
- 230 V for control valve, exhaust fan and pump/boiler
- RS 485 gate for BMS (Modbus)

Diodes

BLUE: Power connected, standby mode
GREEN: Compressor ON, deicing
YELLOW: Remote pairing mode
RED: Errors

Defrosting

Active, demand-controlled defrosting is incorporated in the electronic control.

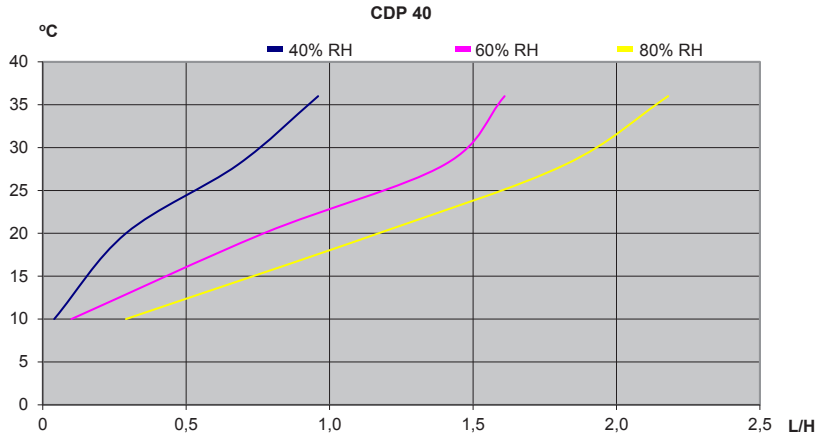
Service

For easy service the refrigerant circuit is supplied with a service valve. The PCB has a USB gate for history data logging for easy fault finding.

TECHNICAL DATA

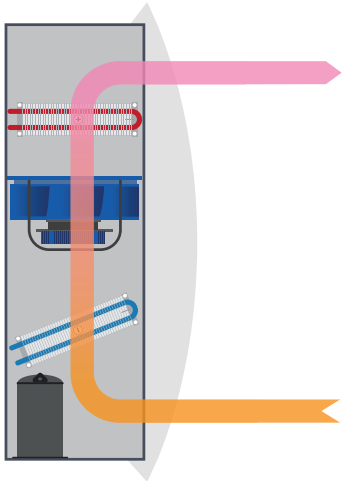
Model	CDP 40
Operating range – humidity	40 – 100 %RH
Operating range – temperature	10 – 36°C
Air volume	400 m^3/h
Power supply	1x230/50 V/Hz
Max. ampere consumption	3,8 A
Max. power consumption	0,9 kW
Refrigerant	R407C
Quantity of refrigerant	0,7 kg
Compressor	Rotary
Fan	Radial
Sound level (at 1 metre)	46 dB(A)
Weight	56,5 kg
Filter	G3 PPI 15
Colour (Cabinet/Front)	RAL 7035/9016
Protection class	IPX4
Corrosion protection in accordance with EN/ISO 12944-2	C4

CAPACITY CURVES



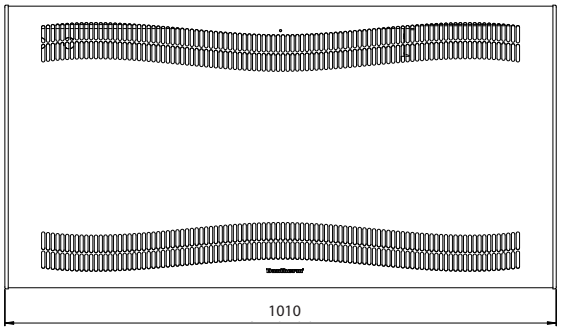
Specific energy consumption (SEC):
0,47 kWh/l at 28°C & 60% RH

INSTALLATION

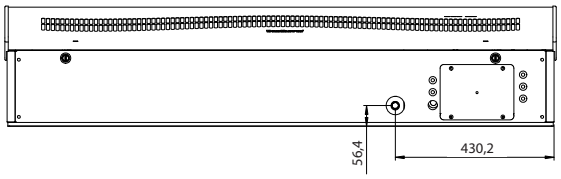


CDP 40, 50 and 70 are designed for installation in the pool hall.

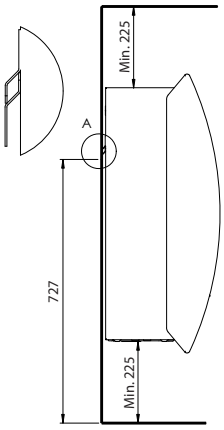
DIMENSIONS CDP 40



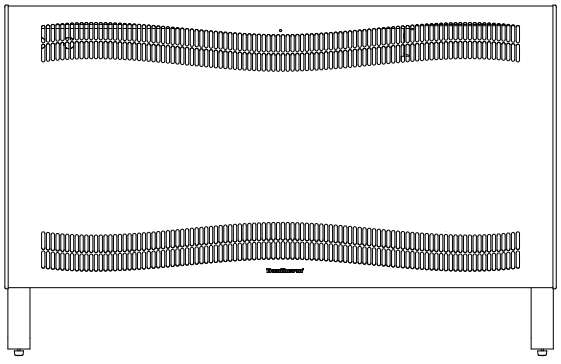
Drain outlet position



Recommended installation of CDP 40



Floor mounting kit



All dimensions are in mm.

Accessories
Wireless remote control DRC1
Floor mounting kit
Water heating coils
Control valve for water heating coils
Electric heating coils
Exhaust fans

CDP 40T SWIMMING POOL DEHUMIDIFIER

Function

The CDP 40T is an energy efficient and quiet pool dehumidifier. It works in accordance with the condensation principle. A fan draws the humid air into the dehumidifier and through an evaporator coil. When passing through the evaporator the air is cooled down to below its dew point temperature, and its content of water vapour is condensed into water, which falls into the drip tray and then is led from the drip tray to a drain. The cold, dry air is then passed over the condenser coil where it is re-heated, before leaving the unit at a temperature, which is approx. 5°C higher than at the inlet.

Applications:

- Indoor swimming pools, private or hotels
- Therapy pools
- Spas
- Gymnasias

FEATURES

Dehumidifier

- Built into a strong and robust powder coated hot galvanized sheet metal cabinet
- Evaporator and condenser coils are epoxy-coated for high corrosion resistance
- Fixed to the wall by means of a wall mounting strip supplied with the unit
- Condensate outlet located at the bottom. Outlet stub can be connected to a ¾" hose
- Outside connection to mains

Control

- Built in electronic hygrostat and thermostat
- To establish ideal ambient sensor point (RH/t) the fan(s) run 1 minute each hour
- Integrated ON/OFF control of humidity and temperature (electric or water heating coils as accessories)
- 0-VOLT connection for alarm
- 230 V for control valve, exhaust fan and pump/boiler
- RS 485 gate for BMS (Modbus)

Diodes

BLUE: Power connected, standby mode
GREEN: Compressor ON, deicing
YELLOW: Remote pairing mode
RED: Errors

Defrosting

Active, demand-controlled defrosting is incorporated into the electronic control.

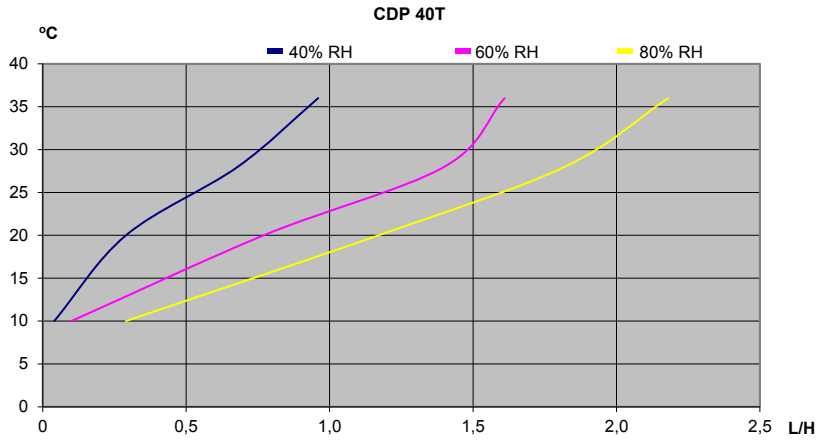
Service

For easy service the refrigerant circuit is supplied with a service valve. The PCB has a USB gate for history data logging for easy fault finding.

TECHNICAL DATA

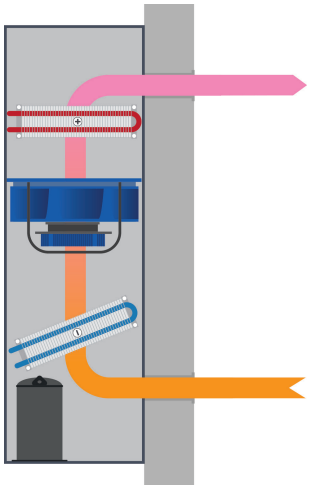
Model	CDP 40T
Operating range – humidity	40 – 100% RH
Operating range – temperature	10 – 36 °C
Air volume	400 m^3/h
Power supply	1x230/50 V/Hz
Max. ampere consumption	3,8 A
Max. power consumption	0,9 kW
Refrigerant	R407C
Quantity of refrigerant	0,7 kg
Compressor	Rotary
Fan	Radial
Sound level (in pool room 1 m from the wall)	43 dB(A)
Weight	57,5 kg
Filter	G3 PPI 15
Colour (Cabinet)	RAL 7035
Protection class	IPX4
Corrosion protection in accordance with EN/ISO 12944-2	C4

CAPACITY CURVES



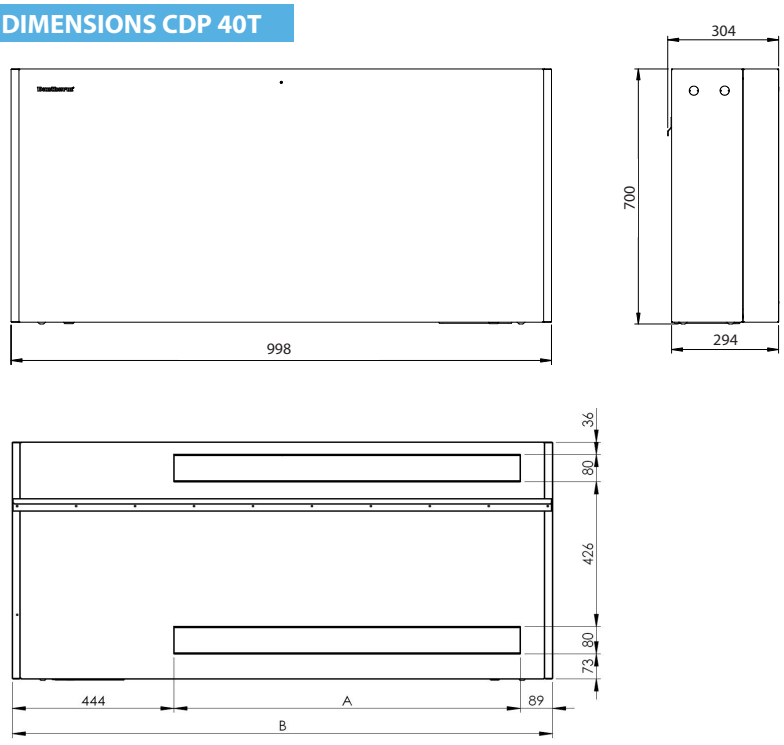
Specific energy consumption (SEC):
0,47 kWh/l at 28°C & 60% RH

INSTALLATION

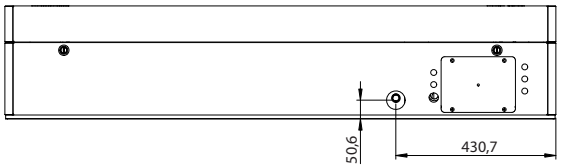


CDP 40T, 50T and 70T are designed for installation in an adjacent room and are supplied with a through-the-wall duct kit with supply and return air grills (accessory).

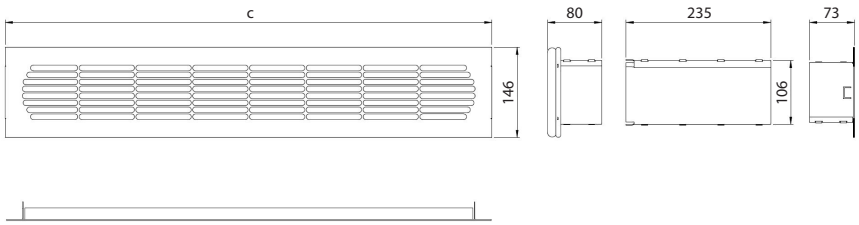
DIMENSIONS CDP 40T



Drain outlet position



Duct kits CDP 40T

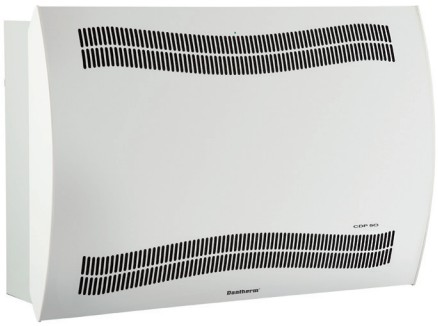


The duct kit includes an extension for wall thickness from 70 to 366 mm.

	A	B	C	Wall opening
CDP 40T	465	998	642	610 x 110

Accessories
Wireless remote control DRC1
Water heating coils
Control valve for water heating coils
Electric heating coils
Exhaust fans
Through-wall duct kit with filter, extension kit and alu grill
Duct lead-in adapter

All dimensions are in mm.



CDP 50 SWIMMING POOL DEHUMIDIFIER

Function

The CDP 50 is an energy efficient and quiet pool dehumidifier. It works in accordance with the condensation principle. A fan draws the humid air into the dehumidifier and through an evaporator coil. When passing through the evaporator the air is cooled down to below its dew point temperature, and its content of water vapour is condensed into water, which falls into the drip tray and then is led from the drip tray to a drain. The cold, dry air is then passed over the condenser coil where it is re-heated, before leaving the unit at a temperature, which is approx. 5°C higher than at the inlet.

Applications:

- Indoor swimming pools, private or hotels
- Therapy pools
- Spas
- Gymnasias

FEATURES

Dehumidifier

- Built into a strong and robust powder coated hot galvanized sheet metal cabinet
- Evaporator and condenser coils are epoxy-coated for high corrosion resistance
- Fixed to the wall by means of a wall mounting strip supplied with the unit
- Condensate outlet located at the bottom. Outlet stub can be connected to a ¾" hose
- Outside connection to mains

Control

- Built in electronic hygrostat and thermostat
- Integrated ON/OFF control of humidity and temperature (electric or water heating coils as accessories)
- 0-VOLT connection for alarm
- 230 V for control valve, exhaust fan and pump/boiler
- RS 485 gate for BMS (Modbus)

Diodes

BLUE: Power connected, standby mode
GREEN: Compressor ON, deicing
YELLOW: Remote pairing mode
RED: Errors

Defrosting

Active, demand-controlled defrosting is incorporated in the electronic control.

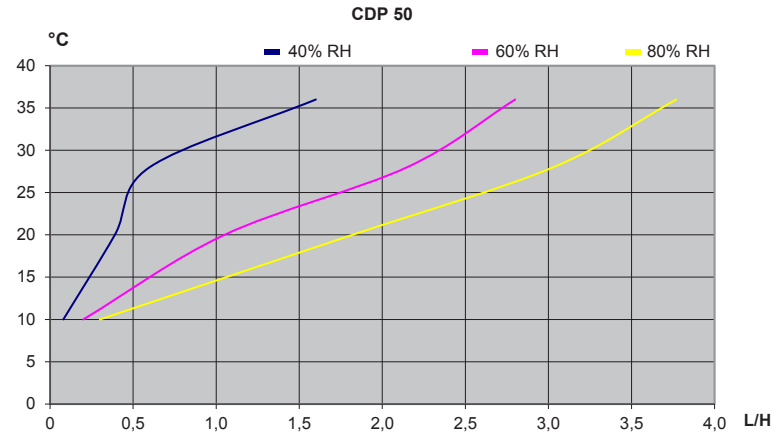
Service

For easy service the refrigerant circuit is supplied with a service valve. The PCB has a USB gate for history data logging for easy fault finding.

TECHNICAL DATA

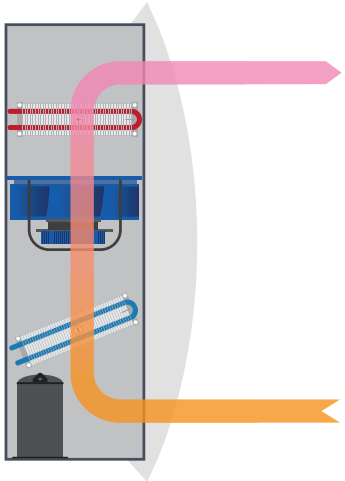
Model	CDP 50
Operating range – humidity	40 – 100 %RH
Operating range – temperature	10 – 36°C
Air volume	680 m^3/h
Power supply	1x230/50 V/Hz
Max. ampere consumption	6,6 A
Max. power consumption	1,5 kW
Refrigerant	R407C
Quantity of refrigerant	0,9 kg
Compressor	Rotary
Fan	Radial
Sound level (at 1 metre)	47 dB(A)
Weight	65 kg
Filter	G3 PPI 15
Colour (Cabinet/Front)	RAL 7035 / 9016
Protection class	IPX4
Corrosion protection in accordance with EN/ISO 12944-2	C4

CAPACITY CURVES



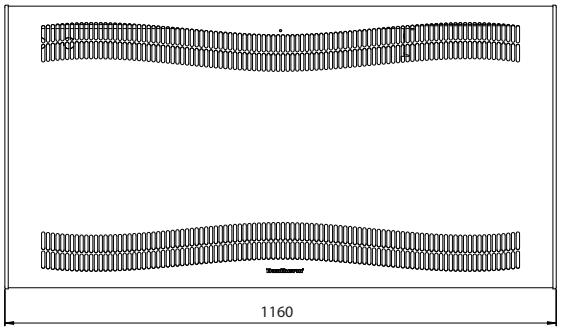
Specific energy consumption (SEC):
0,48 kWh/l at 28°C & 60% RH

INSTALLATION

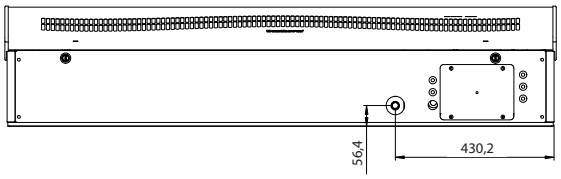


CDP 40, 50 and 70 are designed for installation in the pool hall.

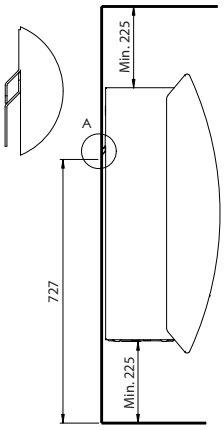
DIMENSIONS CDP 50



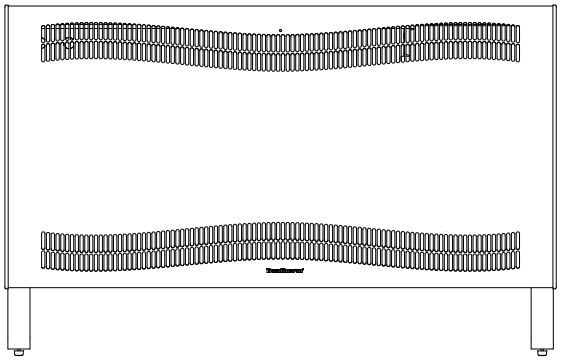
Drain outlet position



Recommended installation of CDP 50



Floor mounting kit



All dimensions are in mm.

Accessories
Wireless remote control DRC1
Floor mounting kit
Water heating coils
Control valve for water heating coils
Electric heating coils
Exhaust fans

CDP 50T SWIMMING POOL DEHUMIDIFIER

Function

The CDP 50T is an energy efficient and quiet pool dehumidifier. It works in accordance with the condensation principle. A fan draws the humid air into the dehumidifier and through an evaporator coil. When passing through the evaporator the air is cooled down to below its dew point temperature, and its content of water vapour is condensed into water, which falls into the drip tray and then is led from the drip tray to a drain. The cold, dry air is then passed over the condenser coil where it is re-heated, before leaving the unit at a temperature, which is approx. 5°C higher than at the inlet.

Applications:

- Indoor swimming pools, private or hotels
- Therapy pools
- Spas
- Gymnasias

FEATURES

Dehumidifier

- Built into a strong and robust powder coated hot galvanized sheet metal cabinet
- Evaporator and condenser coils are epoxy-coated for high corrosion resistance
- Fixed to the wall by means of a wall mounting strip supplied with the unit
- Condensate outlet located at the bottom. Outlet stub can be connected to a ¾" hose
- Outside connection to mains

Control

- Built in electronic hygrostat and thermostat
- To establish ideal ambient sensor point (RH/t) the fan(s) run 1 minute each hour
- Integrated ON/OFF control of humidity and temperature (electric or water heating coils as accessories)
- 0-VOLT connection for alarm
- 230 V for control valve, exhaust fan and pump/boiler
- RS 485 gate for BMS (Modbus)

Diodes

BLUE: Power connected, standby mode
GREEN: Compressor ON, deicing
YELLOW: Remote pairing mode
RED: Errors

Defrosting

Active, demand-controlled defrosting is incorporated into the electronic control.

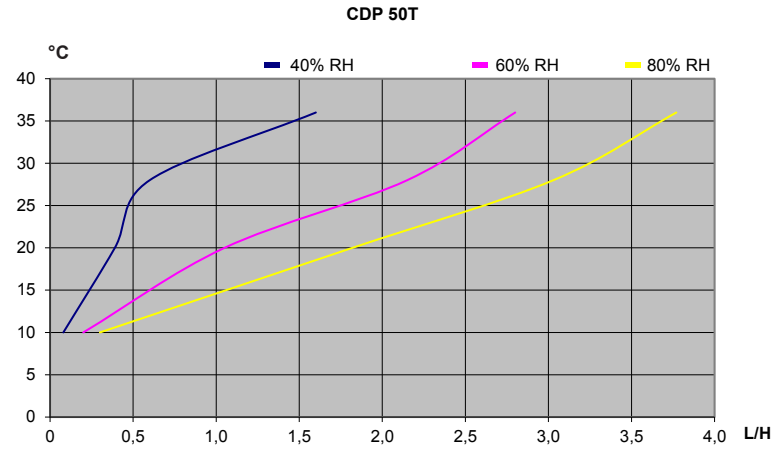
Service

For easy service the refrigerant circuit is supplied with a service valve. The PCB has a USB gate for history data logging for easy fault finding.

TECHNICAL DATA

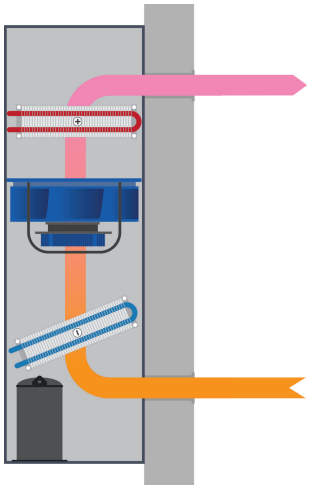
Model	CDP 50T
Operating range – humidity	40 – 100% RH
Operating range – temperature	10 – 36 °C
Air volume	680 m³/h
Power supply	1x230/50 V/Hz
Max. ampere consumption	6,6 A
Max. power consumption	1,5 kW
Refrigerant	R407C
Quantity of refrigerant	0,9 kg
Compressor	Rotary
Fan	Radial
Sound level (in pool room 1 m from the wall)	44 dB(A)
Weight	66 kg
Filter	G3 PPI 15
Colour (Cabinet)	RAL 7035
Protection class	IPX4
Corrosion protection in accordance with EN/ISO 12944-2	C4

CAPACITY CURVES



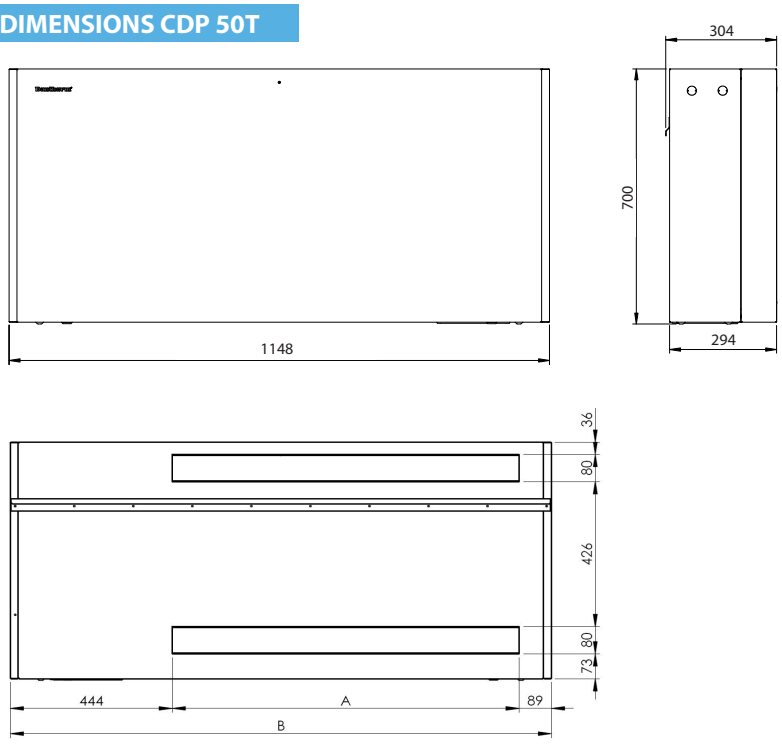
Specific energy consumption (SEC):
0,48 kWh/l at 28°C & 60% RH

INSTALLATION

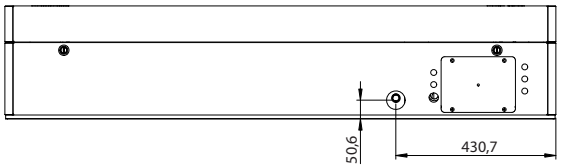


CDP 40T, 50T and 70T are designed for installation in an adjacent room and are supplied with a through-the-wall duct kit with supply and return air grills (accessory).

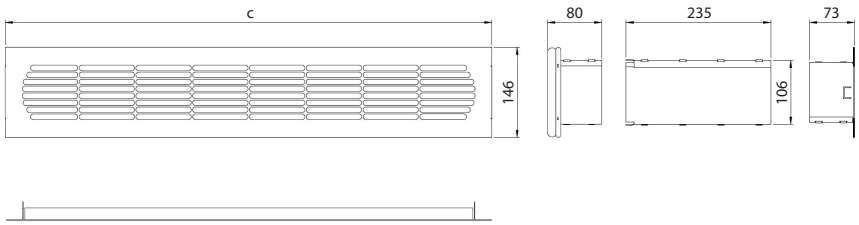
DIMENSIONS CDP 50T



Drain outlet position



Duct kits CDP 50T



The duct kit includes an extension for wall thickness from 70 to 366 mm.

	A	B	C	Wall opening
CDP 50T	616	1148	791	760 x 110

Accessories
Wireless remote control DRC1
Water heating coils
Control valve for water heating coils
Electric heating coils
Exhaust fans
Through-wall duct kit with filter, extension kit and alu grill
Duct lead-in adapter

All dimensions are in mm.

CDP 70 SWIMMING POOL DEHUMIDIFIER

Function

The CDP 70 is an energy efficient and quiet pool dehumidifier. It works in accordance with the condensation principle. A fan draws the humid air into the dehumidifier and through an evaporator coil. When passing through the evaporator the air is cooled down to below its dew point temperature, and its content of water vapour is condensed into water, which falls into the drip tray and then is led from the drip tray to a drain. The cold, dry air is then passed over the condenser coil where it is re-heated, before leaving the unit at a temperature, which is approx. 5°C higher than at the inlet.

Applications:

- Indoor swimming pools, private or hotels
- Therapy pools
- Spas
- Gymnasias

FEATURES

Dehumidifier

- Built into a strong and robust powder coated hot galvanized sheet metal cabinet
- Evaporator and condenser coils are epoxy-coated for high corrosion resistance
- Fixed to the wall by means of a wall mounting strip supplied with the unit
- Condensate outlet located at the bottom. Outlet stub can be connected to a ¾" hose
- Outside connection to mains

Control

- Built in electronic hygrostat and thermostat
- Integrated ON/OFF control of humidity and temperature (electric or water heating coils as accessories)
- 0-VOLT connection for alarm
- 230 V for control valve, exhaust fan and pump/boiler
- RS 485 gate for BMS (Modbus)

Diodes

BLUE:	Power connected, standby mode
GREEN:	Compressor ON, deicing
YELLOW:	Remote pairing mode
RED:	Errors

Defrosting

Active, demand-controlled defrosting is incorporated in the electronic control.

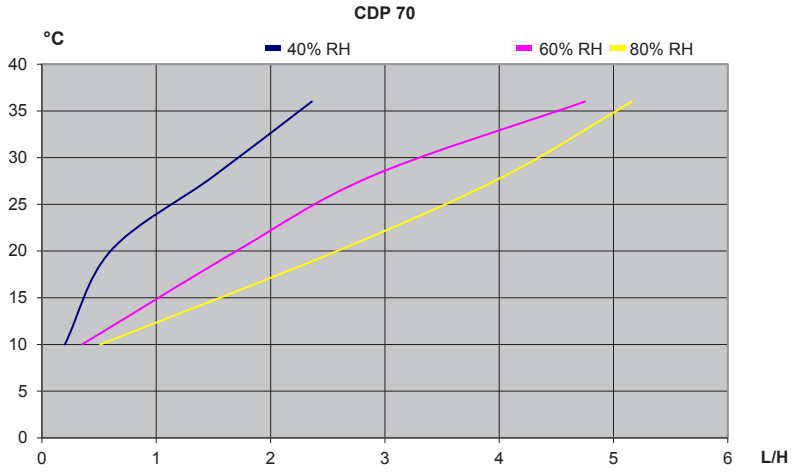
Service

For easy service the refrigerant circuit is supplied with a service valve. The PCB has a USB gate for history data logging for easy fault finding.

TECHNICAL DATA

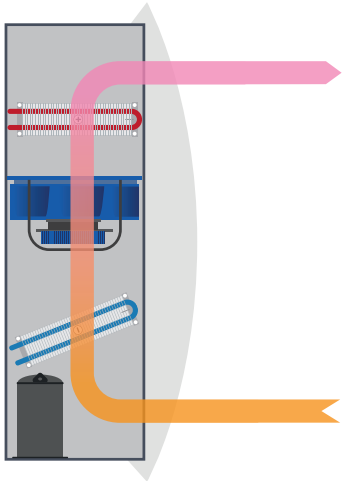
Model	**CDP 70**
Operating range – humidity	40 – 100 %RH
Operating range – temperature	10 – 36°C
Air volume	900 m^3/h
Power supply	1x230/50 V/Hz
Max. ampere consumption	8 A
Max. power consumption	1,8 kW
Refrigerant	R407C
Quantity of refrigerant	1,2 kg
Compressor	Rotary
Fan	Radial
Sound level (at 1 metre)	50 dB(A)
Weight	75,5 kg
Filter	G3 PPI 15
Colour (Cabinet/Front)	RAL 7035 / 9016
Protection class	IPX4
Corrosion protection in accordance with EN/ISO 12944-2	C4

CAPACITY CURVES



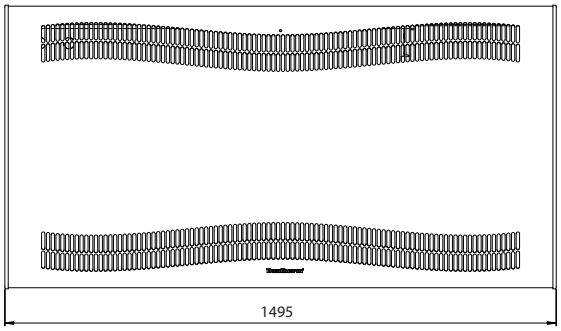
Specific energy consumption (SEC):
0,43 kWh/l at 28°C & 60% RH

INSTALLATION

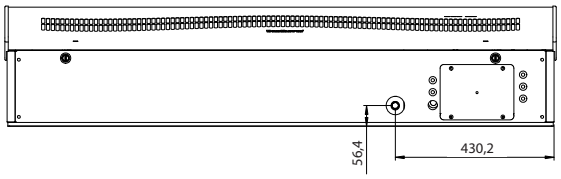


CDP 40, 50 and 70 are designed for installation in the pool hall.

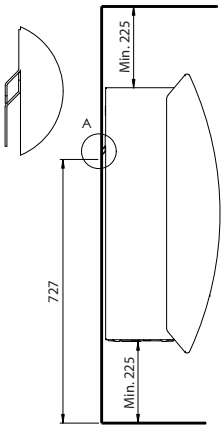
DIMENSIONS CDP 70



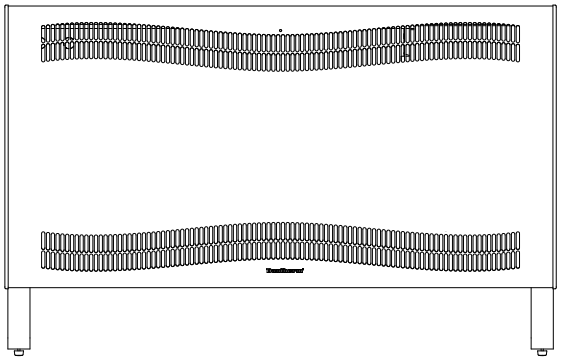
Drain outlet position



Recommended installation of CDP 70



Floor mounting kit



All dimensions are in mm.

Accessories
Wireless remote control DRC1
Floor mounting kit
Water heating coils
Control valve for water heating coils
Electric heating coils
Exhaust fans

CDP 70T SWIMMING POOL DEHUMIDIFIER

Function

The CDP 70T is an energy efficient and quiet pool dehumidifier. It works in accordance with the condensation principle. A fan draws the humid air into the dehumidifier and through an evaporator coil. When passing through the evaporator the air is cooled down to below its dew point temperature, and its content of water vapour is condensed into water, which falls into the drip tray and then is led from the drip tray to a drain. The cold, dry air is then passed over the condenser coil where it is re-heated, before leaving the unit at a temperature, which is approx. 5°C higher than at the inlet.

Applications:

- Indoor swimming pools, private or hotels
- Therapy pools
- Spas
- Gymnasias

FEATURES

Dehumidifier

- Built into a strong and robust powder coated hot galvanized sheet metal cabinet
- Evaporator and condenser coils are epoxy-coated for high corrosion resistance
- Fixed to the wall by means of a wall mounting strip supplied with the unit
- Condensate outlet located at the bottom. Outlet stub can be connected to a ¾" hose
- Outside connection to mains

Control

- Built in electronic hygrostat and thermostat
- To establish ideal ambient sensor point (RH/t) the fan(s) run 1 minute each hour
- Integrated ON/OFF control of humidity and temperature (electric or water heating coils as accessories)
- 0-VOLT connection for alarm
- 230 V for control valve, exhaust fan and pump/boiler
- RS 485 gate for BMS (Modbus)

Diodes

BLUE: Power connected, standby mode
GREEN: Compressor ON, deicing
YELLOW: Remote pairing mode
RED: Errors

Defrosting

Active, demand-controlled defrosting is incorporated into the electronic control.

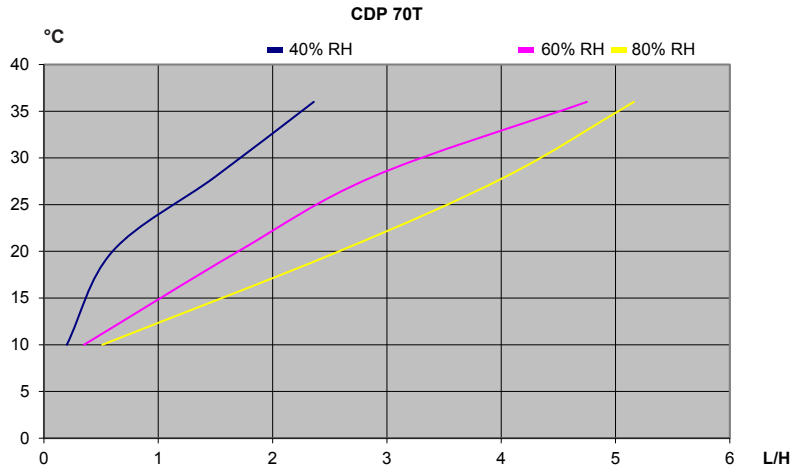
Service

For easy service the refrigerant circuit is supplied with a service valve. The PCB has a USB gate for history data logging for easy fault finding.

TECHNICAL DATA

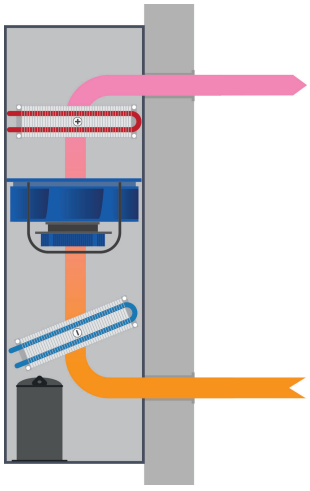
Model	CDP 70T
Operating range – humidity	40 – 100% RH
Operating range – temperature	10 – 36 °C
Air volume	900 m3/h
Power supply	1x230/50 V/Hz
Max. ampere consumption	8 A
Max. power consumption	1,8 kW
Refrigerant	R407C
Quantity of refrigerant	1,2 kg
Compressor	Rotary
Fan	Radial
Sound level (in pool room 1 m from the wall)	47 dB(A)
Weight	77,5 kg
Filter	G3 PPI 15
Colour (Cabinet)	RAL 7035
Protection class	IPX4
Corrosion protection in accordance with EN/ISO 12944-2	C4

CAPACITY CURVES



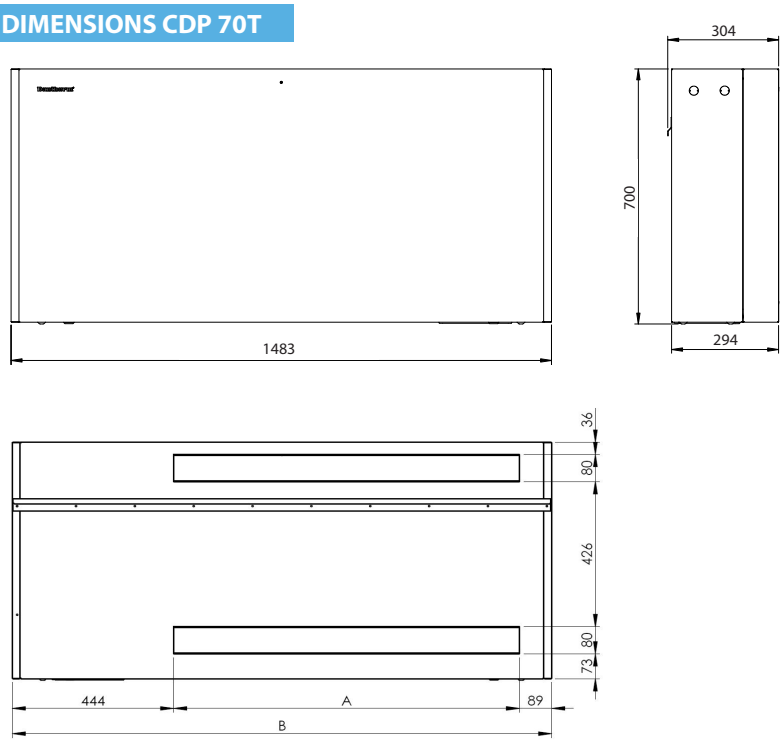
Specific energy consumption (SEC):
0,43 kWh/l at 28°C & 60% RH

INSTALLATION

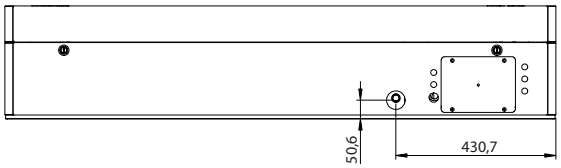


CDP 40T, 50T and 70T are designed for installation in an adjacent room and are supplied with a through-the-wall duct kit with supply and return air grills (accessory).

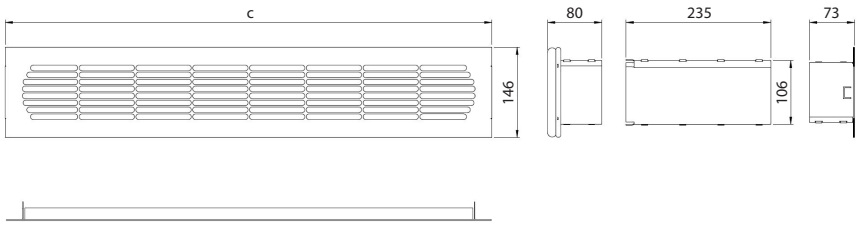
DIMENSIONS CDP 70T



Drain outlet position



Duct kits CDP 70T



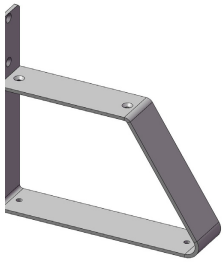
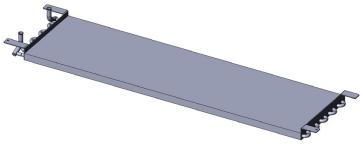
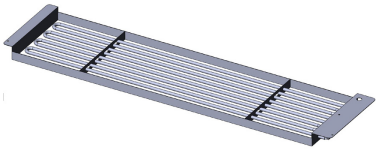
The duct kit includes an extension for wall thickness from 70 to 366 mm.

	A	B	C	Wall opening
CDP 70T	950	1483	1126	1095 x 110

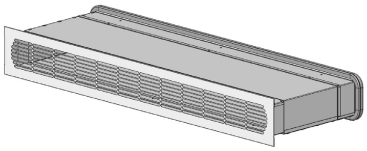
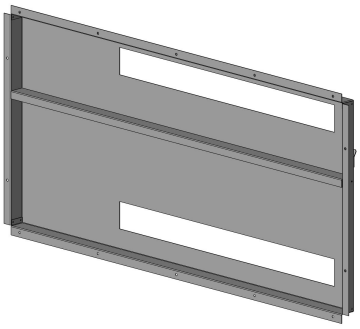
Accessories
Wireless remote control DRC1
Water heating coils
Control valve for water heating coils
Electric heating coils
Exhaust fans
Through-wall duct kit with filter, extension kit and alu grill
Duct lead-in adapter

All dimensions are in mm.

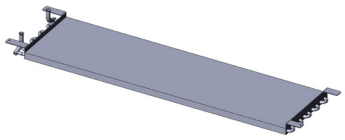
ACCESSORIES CDP 40 – CDP 50 – CDP 70 – CDP 40T – CDP 50T – CDP 70T

Illustration	Accessory	Description	CDP-type	Dantherm No.
	Remote control, DRC1	DRC1 is a wireless RH and temperature controller Frequency: 433 mhz Range up to 50 m depending on the conditions Protection class: IPX 2 **Functionalities:** • Reading and setting of RH and temperature, alarms and service information • Locking of settings	CDP 40 CDP 50 CDP 70 CDP 40T CDP 50T CDP 70T	093455
	Floor mounting kit, 2 pcs.	Each bracket to be mounted on each side of the dehumidifier	CDP 40 CDP 50 CDP 70	094322
	Water heating coil 2,6 kW*)	Comprises water heating coil, flexible hose, fittings and gasket *at 80/60° C (See technical specifications for water heating coils on separate page)	CDP 40 CDP 40T	094333
	Water heating coil 4,2 kW*)		CDP 50 CDP 50T	094334
	Water heating coil 6,2 kW*)		CDP 70 CDP 70T	094335
	DN 10 control valve and actuator for water heating coils	Comprises valve and actuator 230 V, ON/OFF (180 seconds from closed to fully open), incl. union nut for Ø 12 cu tube	CDP 40 CDP 50 CDP 70 CDP 40T CDP 50T CDP 70T	094340
	Electric heating coil 2 kW	Comprises electric heating coil, relays and electric wires	CDP 40 CDP 40T	094336
	Electric heating coil 3,5 kW		CDP 50 CDP 50T	094337
	Electric heating coil 5 kW		CDP 70 CDP 70T	094338

ACCESSORIES CDP 40 – CDP 50 – CDP 70 – CDP 40T – CDP 50T – CDP 70T

Illustration	Accessory	Description	CDP-type	Dantherm No.
	Exhaust fan, Q = 97 m3/h	The exhaust fan can be used in combination with the CDP to either increase dehumidification capacity or establish outdoor air supply	CDP 40 CDP 50 CDP 70 CDP 40T CDP 50T CDP 70T	094339
	Exhaust fan, Q = 185 m3/h		CDP 40 CDP 50 CDP 70 CDP 40T CDP 50T CDP 70T	094341
	Through-wall duct kit with filter, extension kit and alu grill	Comprises inlet and outlet section, grills, inlet filter and extension. For walls between 70 and 366 mm thickness	CDP 40T	094271
			CDP 50T	094243
			CDP 70T	093508
	Duct lead-in adapter	The adapter makes it possible to place CDP 40T-50T-70T on the wall without changing the existing wall openings.	CDP 40T	094801
			CDP 50T	094802
			CDP 70T	094804

ACCESSORIES CDP 40 - CDP 50 - CDP 70 - CDP 40T - CDP 50T - CDP 70T



Water heating coils - calculations at room temperature = 28°C; 60% RH

CDP 40 + CDP 40T	**Q = 400 m³/h**						
Water temperature	°C	82/71	80/60	70/35	90/70	60/40	55/45
Capacity	kW	3,32	2,64	0,68	3,4	1,02	1,36
Water flow rate	l/sec.	0,07	0,03	0,005	0,04	0,01	0,03
Water pressure drop	kPa	11,8	2,8	0,1	4,2	0,6	3,1
Water velocity	m/sec.	1,05	0,46	0,07	0,6	0,18	0,47
Air flow rate	m³/sec.	0,11	0,11	0,11	0,11	0,11	0,11
Inlet temperature	°C	82	80	70	90	60	55
Outlet temperature	°C	71	60	35	70	40	45
Air pressure drop	Pa	8	8	8	8	8	8
Connection tube	Ø mm	12	12	12	12	12	12

CDP 50 + CDP 50T	**Q = 680 m³/h**						
Water temperature	°C	82/71	80/60	70/35	90/70	60/40	55/45
Capacity	kW	5,28	4,27	0,99	5,45	1,82	2,2
Water flow rate	l/sec.	0,12	0,05	0,01	0,07	0,02	0,05
Water pressure drop	kPa	32,3	7,6	0,2	11,6	1,8	8,6
Water velocity	m/sec.	1,68	0,74	0,1	0,95	0,32	0,76
Air flow rate	m³/sec.	0,19	0,19	0,19	0,19	0,19	0,19
Inlet temperature	°C	82	80	70	90	60	55
Outlet temperature	°C	71	60	35	70	40	45
Air pressure drop	Pa	10	10	10	10	10	10
Connection tube	Ø mm	12	12	12	12	12	12

CDP 70 + CDP 70T	**Q = 900 m³/h**						
Water temperature	°C	82/71	80/60	70/35	90/70	60/40	55/45
Capacity	kW	7,56	6,23	2,37	7,9	2,83	3,23
Water flow rate	l/sec.	0,17	0,08	0,02	0,1	0,03	0,08
Water pressure drop	kPa	83	20,1	1,5	30,1	5,3	22,9
Water velocity	m/sec.	2,4	1,09	0,23	1,38	0,49	1,12
Air flow rate	m³/sec.	0,25	0,25	0,25	0,25	0,25	0,25
Inlet temperature	°C	82	80	70	90	60	55
Outlet temperature	°C	71	60	35	70	40	45
Air pressure drop	Pa	8	8	8	8	8	8
Connection tube	Ø mm	12	12	12	12	12	12