SA KLIMA & FUGTTEKNIK

CD

Condensation dehumidifiers for industrial environments or swimming pools

CD/CDP 160÷980

TFT
DRY AIR SOLUTIONS

GENERAL DESCRIPTION

CD series industrial dehumidifiers are suitable for humidity control in commercial and industrial environments. They are particularly robust and durable, easy to install and easy to maintain. They can also be placed in food storage environments or in industrial processes where moisture control is required. They have a washable air filter and must be connected to a fixed outlet. They are equipped with an edge mechanical humidistat. It is possible to connect a remote digital humidistat. The CD series fixed dehumidifiers can be equipped with an optional HOT GAS defrosting system, with electronic and thermostatic control, and can work with temperatures close to 0°C.

TECHNICAL CHARACTERISTICS							
MODEL	**CD**	**160**	**240**	**360**	**520**	**750**	**980**
Performance							
Dehumidification capacity at 32°C 90% (4)	L/24h	160	240	360	520	750	980
Dehumidification capacity at 30°C 80% (4)	L/24h	126	188	300	440	620	830
Dehumidification capacity at 27°C 80% (4)	L/24h	82	135	230	340	480	640
Dehumidification capacity at 27°C 60% (4)	L/24h	70	103	170	250	340	470
Dehumidification capacity at 25°C 80% (4)	L/24h	83	125	200	290	400	545
Dehumidification capacity at 25°C 60% (4)	L/24h	60	90	145	210	290	395
Dehumidification capacity at 20°C 80% (4)	L/24h	68	105	160	250	350	470
Dehumidification capacity at 20°C 60% (4)	L/24h	48	70	140	170	240	320
Dehumidification capacity at 15°C 80% (4)	L/24h	56	79	125	200	270	370
Dehumidification capacity at 15°C 60% (4)	L/24h	37	55	80	115	160	215
Dehumidification capacity at 10°C 80% (4)	L/24h	38	60	95	145	200	270
Dehumidification capacity at 10°C 60% (4)	L/24h	22	35	55	80	110	150
Fans							
Air Flow	m^3/h	1800÷1400	2300÷1600	3500÷3000	4600÷3800	6200÷5800	8500÷8000
Available static pressure	Pa	0÷125	0÷150	0÷125	0÷150	180÷300	180÷300
Refrigerant							
Type		R410a	R410a	R407c	R407c	R407c	R407c
Refrigerant charge	Kg						
Global Warming Potential (GWP)		2088	2088	1774	1774	1774	1774
Load equivalent CO_2	t						
Electrical characteristics							
Power Supply	Volt/Ph/Hz	230/1/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50	400/3+N/50
Total absorbed power at 27°C 60%	KW	2,2	3,7	5,2	6,7	9,3	11,9
Maximum absorbed power (1)	KW	2,5	4,3	6,0	7,7	10,7	13,7
Maximum absorbed current (1)	A	11,5	9,1	12,5	15,6	18,2	22,9
Starting current (1)	A	39	50	63	76	87	98
Integration for heating							
Supplementary electrical heater	KW	4	4	4	4	4	4
Hot water coil (2)	KW	5,0	5,0	9,0	12,0	20,0	24,0
Noise							
Sound pressure level (3)	dB (A)	54	55	61	65	67	70
Sound power level (3)	dB (A)	73	74	80	84	86	89

(1) With ambient conditions 35°C 95% without electrical resistance
(2) Ambient temperature 27°C, water temperature 70°/60°C, compressor off
(3) Sound pressure level calculated in a free field, 3 metres from the unit, directionality factor Q=2, according to ISO 9614
(4) Operating temperature limits 7°÷35°C, relative humidity 45%÷99%

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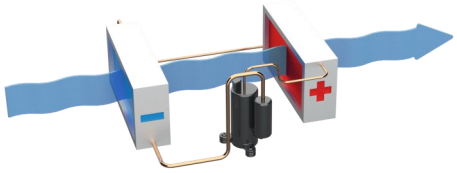
FRAME

The CD160 and CD240 models have a structure with panels in sturdy galvanized steel, painted with epoxy powders that guarantee high resistance to atmospheric agents and aggressive environments. The panels are removable to allow a quick inspection and maintenance of the internal parts.
The models from CD360 to CD980 have a structure with aluminium profiles and panels in sturdy galvanised sheet metal, painted with epoxy powders that guarantee high resistance to atmospheric agents and aggressive environments.



REFRIGERANT CIRCUIT

The refrigerant gas used in these units is R410a or R407c. The refrigerant circuit is designed in accordance with ISO 97/23 on welding procedures and PED standards. The refrigeration circuit includes: dehydrating filter, Schrader valve for maintenance and control, minimum and maximum pressure switch, capillary tube for expansion, compressor, condenser and evaporator in copper tube with aluminium fins. Defrost thermostat and solenoid valve in S version.

COMPRESSOR

Rotary compressor (CD160) or scroll compressor (CD240 - CD360 - CD520 - CD750 - CD980), mounted on vibration dampers. Equipped with resistance for oil heater where required and thermal safety.

FAN

The fans are made of galvanized steel, centrifugal type with forward blades. They are all statically and dynamically balanced. All the electric motors used are directly connected to the fans with three selectable speeds. The motors are all with IP54 protection degree.

AIR FILTER

The air filter, supplied as standard with the unit, is washable and easy to replace. It is made of high efficiency polyurethane.

MICROPROCESSORS

Controls defrost cycles, compressor timer and alarm board. The dehumidifier is equipped with step sequence control.

ELECTRICAL PANEL

Located in the side area of the machine. Degree of protection IP. Made in accordance with European standards 73/23 and 89/336.

CONDENSATE COLLECTION TRAY

The CD160 and CD240 models have a non-corrosive plastic tray, the dehumidifier must be connected to a fixed outlet, avoiding the formation of double siphons. Connect a ¾" F pipe to the welded connection of the tray. The models from CD360 to CD980 have a non-corrosive stainless steel tray, the dehumidifier must be connected to a fixed outlet, avoiding the formation of double traps. Connect a pipe with ¾" F connection to the welded connection of the tray. Condensate lifting pump (optional) on request.

HOT GAS DEFROST

Allows the dehumidifier to be used in environments with temperatures up to 3°C. It is a special hot gas injection system to accelerate the defrosting of the ice formed in the evaporator.

TEST

The tests are carried out to verify the tightness of the cooling circuit. Electrical discharge tests and functional tests are also carried out.

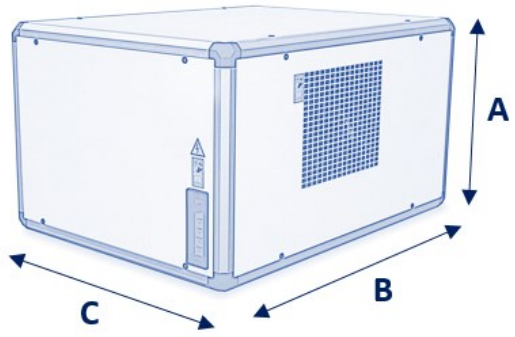
VERSION

CD…	Standard version
CD…S	Version with hot gas injection system
CD...TX	Version with 316 stainless steel structure
CDP…	Swimming pool version with cataphoresis coil treatment

Model CD	Code	160	240	360	520	750	980
Hot gas defrost	...S	○	○	○	○	○	○
Defrosting system with temperatures below 0°C	HGAS	○	○	○	○	○	○
Built-in mechanical humidistat	HYGR	●	●	●	●	●	●
Electronic wall humidistat	RGRU	○	○	○	○	○	○
Electronic wall thermostat	RGRT	○	○	○	○	○	○
Condensate drain pump	PRC	○	○	○	○	○	○
Electric heating elements	HOEL	○	○	○	○	○	○
Heating hot water coil	HOWA	○	○	○	○	○	○
3-way on/off valve for hot water coil	KIVM	○	○	○	○	○	○
Pool version		○	○	○	○	○	○
Version with 316 stainless steel structure		○	○	○	○	○	○

● *standard,* ○ *optional,* – *not available.*

Dimensions



Model	CD	160	240	360	520	750	980
A	mm	580	580	720	920	920	1330
B	mm	980	980	1180	1180	1180	1460
C	mm	685	685	900	900	900	1260
Empty weight	Kg	66	72	150	170	260	320

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