BerlinerLuft.

Air conditioning.
DataCond®

The right climate for everyone.
BerlinerLuft. ventilation and central air handling units feature efficient air conditioning and serve the objectives of environmental and climate protection.

Energy-efficient.
Hygienic.
Climate-friendly.

THE OPTIMAL INDOOR CLIMATE FOR YOU.

Not least for cost and efficiency reasons, the challenges of modern ventilation and air handling units in the new millennium are energy efficiency, resource conservation, and climate and environmental compatibility. Tailored to these requirements and the needs of our customers, BerlinerLuft. today produces ventilation and air handling units worldwide that meet the highest functional and aesthetic demands in the field of air conditioning.

THE BEST ENVIRONMENTAL CLIMATE FOR ALL.

Whether pharmaceutical production, exhibition hall or data centre: Each process and each environment requires its own climatic conditions. We make them a reality. With innovative technology, decades of expertise and the highest quality standards for an optimal climate.

With this claim, we are today developing high-performance components that we manufacture as complete system solutions tailored to your individual requirements.

Qualified. Certified. Gentle.

The DataCond® product range of precision air conditioners features a complete portfolio of units for active cooling.

DataCond® ETOS

FLEXIBLE. MODULAR. EXPANDABLE.

With the DataCond® product range, BerlinerLuft. is responding to increasing demand for energy-efficient data-centre air-conditioning units which can be precisely and reliably adapted to the climatic conditions in data centres due to their mode of operation. DataCond® is based on many years of experience in air conditioning rooms with high thermal loads.

Thanks to its modular structure, this precision air-conditioning unit is available in six versions. Custom technical design and flexible production processes enable specific adaptation to local conditions.

HIGH PERFORMANCE – INCLUDING IN HYGIENE.

DataCond® is a highly efficient and environmentally friendly variant for cooling using indirect evaporative cooling.

All products in the DataCond® series correspond to the new VDI 6022 2017-01 and VDI 2047 in terms of hygiene.

The DataCond® device generation combines maximum hygiene standards with thermal, acoustic and mechanical housing properties.

DataCond®

DataCond® precision air-conditioning units for maximum cooling performance using very few resources. The DataCond product range consists of five different unit types.

Highly airtight

Direct free cooling optionally integrated

Optionally with integrated cooling and MSR control cabinet

Hygienic housing design

Precision Air Conditioners DataCond®

DataCond® precision air-conditioning units for energy-efficient air conditioning of rooms with high thermal loads. Modular design according to custom cost-efficiency calculations with all necessary components, including switchgear and control devices. DataCond® is available in five different unit types, ranging up to an air volume of 65,000 m³/h.

FEATURES

- Applied measurement, control and regulation technology to meet customer requirements
- Housing properties as per VDI 3803 and DIN EN 1886
- Meets VDI 6022 requirements
- Direct and indirect free cooling
- Version in cold water or with integrated refrigeration technology
- Good COP and EER values
- Maintenance- and service-friendly: All system components are accessible from the front.
- Compact design for optimum utilisation of the available space
- Pressure losses on the water and air side optimised for extremely low energy consumption

COWA

DEEX

Precision Air Conditioners DataCond®

STRUCTURAL FEATURES AND DESIGN

All DataCond® air-conditioning units are modular and have all air-handling features, including switchgear and control devices. Their modular structure enables both universal technical air-conditioning solutions and flexible installation that saves space. The choice of air-handling components facilitates optimum adaptation to requirements and cost-efficiency.

Service & quality

We accompany your project from the very beginning. After an analysis of the existing situation and the requirements, BerlinerLuft. consultants draft tailored air-conditioning models based on individual performance calculations. Our consultants support you and your project from the planning phase through to commissioning in a professional and expert manner.

The precise design, as well as selection and configuration of components supported by IT, guarantees reliable and economical operation of your air-conditioning system.

All air-handling components used are exclusively tested series products of well-known manufacturers subject to regular quality controls.

Our air-conditioning units meet the European quality standards and undergo several internal quality controls.

BerlinerLuft. CompetenceCenter Air-Conditioning Technology is an active member of BITKOM and the RLT Manufacturers' Association Raumlufttechnische Geräte e.V. BerlinerLuft. Technik GmbH is certified in accordance with DIN ISO 9001.

Precision Air Conditioners DataCond® portfolio

DataCond® ETOS	DataCond® DEEX	DataCond® RECA
ETOS ≙ Eta Optima System	DEEX ≙ direct expansion	RECA ≙ recirculation air
Air-conditioning unit for air conditioning large data centres and server rooms	Air-conditioning unit for air conditioning large data centres and server rooms	Circulating-air cooling unit for air conditioning small data centres and server rooms
Combined air-conditioning unit with indirect evaporative cooling and direct free-cooling option	**Combined air-conditioning unit with integrated power-controlled refrigeration system and direct free cooling**	**Circulating-air cooling unit as a compact device**
Available in 5 sizes	Available in 7 sizes	Available in 11 sizes
Air volumes of 11,000 to 65,000 m³/h	Air volumes of 3,750 to 20,000 m³/h	Air volumes of 1,500 to 25,000 m³/h

DataCond® COWA	DataCond® COMPACT
COWA ≙ cold water	COMPACT line for air conditioning small data centres and server rooms
Air-conditioning unit for air conditioning large data centres and server rooms	**Compact air-conditioning unit with integrated refrigeration system and direct free cooling**
Combined air-conditioning unit with integrated heat exchanger for central cold water supply	Available in 3 sizes
Available in 7 sizes	Air volumes of 1,700 to 3,200 m³/h
Air volumes of 3,750 to 20,000 m³/h	

Device construction

1 | Fan with direct drive
2 | Air filters
3 | Heat exchanger (air cooler)
4 | Integrated refrigeration technology
5 | MSR technology and control cabinet
6 | Operating unit

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Housing design

DOORS

- Arranged across the entire operating side
- With continuous foamed and non-ageing PU seal
- Maintenance-free hinges, adjustable
- Sight glasses to monitor the operating conditions
- Doors in the fan area with high-quality screw caps, lockable with locking system

FAN UNIT WITH DIRECT DRIVE

- Fan impeller mounted on the motor shaft
- Fan unit with EC technology
- Speed control without frequency converter

AIR FILTERS

- Bag filters with standard dimensions
- Large effective filter area and high dust-holding capacity

HEAT EXCHANGER (AIR COOLER)

- From seamlessly drawn copper pipes
- Aluminium louvres
- Surrounding frame made of aluminium or stainless steel with side panels for sealing the housing
- Condensate tub made of stainless steel (1.4301)

COOLING SYSTEM

- Compressor mounted on a mounting frame with an oil pan
- Power regulation with suction throttle control, optionally also through speed control of the compressor
- TUV-approved pressure switch
- Sight glasses for inspection of the refrigerant visible from the outside
- Refrigerant filters with low pressure loss
- Individual barriers for maintenance as well as supply and disposal
- High- and low-pressure manometer visible from the outside

CONTROL CABINET

- Structure and wiring in accordance with EN and VDE regulations
- With DDC regulation and control
- Optionally available with emergency manual operation
- Lockable Plexiglas cover for operating elements in addition to the main switch available as an option

OPERATING UNIT

- Touchscreen with colour display

ELECTRICAL WIRING

- Cable installation in cable ducts or plastic protective tubes
- Wall bushings with PG cable glands

Type declaration

TYPE CODES

RECA - Up – DX - B - 5 to 28

Air volumes

W – Rotary heat exchanger
B – Humidifier
E – Electric heater

Cooling supply
DX – Direct evaporation
CW – Cold water
FC – Free cooling

Air direction
Up – Upflow
Dw – Downflow

Version
DEEX
COWA
COMPACT
RECA
ETOS

ETOS

For decentralised data centre cooling by indirect evaporative cooling, direct free cooling optionally possible.

DEEX

For decentralised cooling with direct evaporator and air-cooled condenser, variable fresh-air proportion for direct free cooling.

COWA

For decentralised cooling with cold water heat exchanger, variable fresh-air proportion for direct free cooling.

COMPACT

For decentralised cooling with direct evaporator, air-cooled condenser, variable fresh-air proportion for direct free cooling.

RECA

For decentralised cooling with direct evaporator and external air-cooled condenser. Pure circulating-air cooling unit.

DataCond® ETOS

DataCond®ETOS

DataCond®ETOS is a model from the DataCond® product range for air conditioning rooms with high thermal loads and is the most efficient in this series in its operation.

The housing design is an evolution of the successful HygCond series, whose use has proven successful in the building services sector.

The mode of operation of DataCond®ETOS is based on the principle of indirect evaporative cooling. In this way high energy efficiency can be achieved with low energy input. On the WhiteSpace side, the ETOS unit needs only evaporative cooling to come within 1.5K of the wet-bulb temperature of the fresh air. This makes it possible to do without an additional mechanical compression refrigeration system throughout the year.

The integrated double-plate heat exchanger separates the fresh air and room air, ensuring that no adverse climatic conditions, such as excessive humidity, can affect the space. This type of air conditioning is ideal for rooms with a high thermal load, such as data centres and server rooms.

DataCond® ETOS is available in five sizes with up to 250 kW of sensitive cooling capacity and is customised to the specific project requirements through its modular structure.

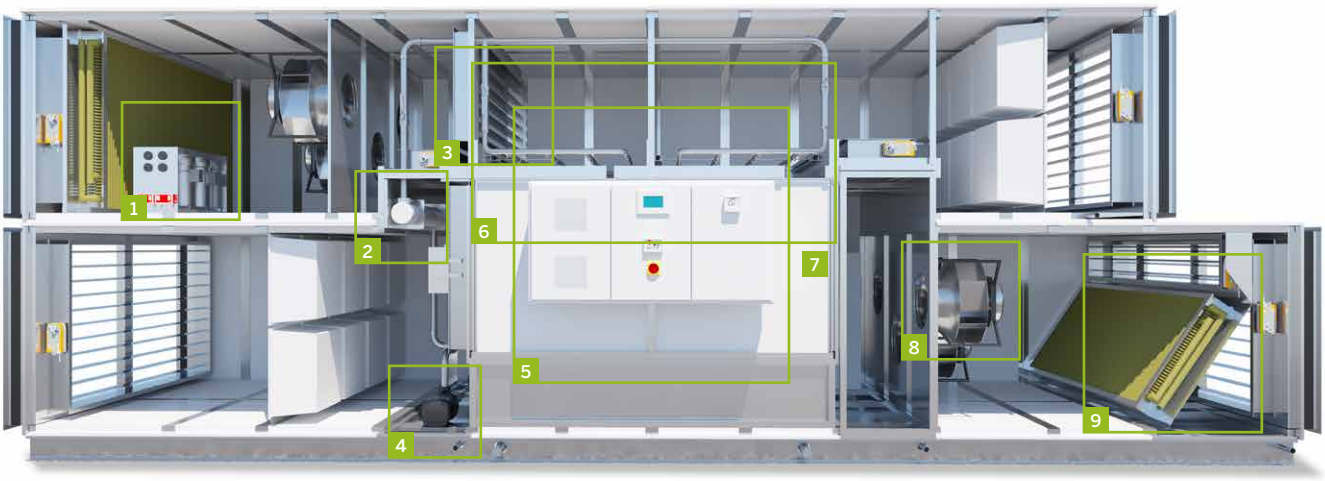
All products in the DataCond® series correspond to the new VDI 6022 2017-01 and VDI 2047 in terms of hygiene.

FEATURES

- Housing characteristics as per VDI 3803 and DIN EN 1886
- Applied and integrated measurement, control and regulation technology for adaptation to the project requirements
- Maintenance- and service-friendly: System components accessible from the front
- Pressure losses on the water and air side optimised for extremely low energy consumption
- Compact footprint
- Lots of power with minimal space requirements

Device construction

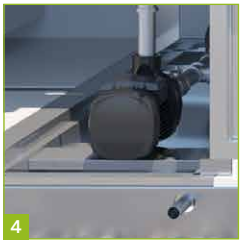
Functional principle of free indirect evaporative cooling



Optional power-controlled mechanical refrigeration for redundancy or peak-load cooling

Water treatment as per VDI 6022

Optional: integrated option for direct free cooling



Rotary pump in redundant design

Integrated MSR concept

2-fold jetting as continuous water system for utilising the potential in the fresh air

Highly efficient water-tight double-plate heat exchanger

Highly efficient EC fans in redundant design

Optional heat exchanger for redundancy or peak-load cooling

Device version

FEATURES AND INSTALLATION PARTS

EC fans run as FanWall

Integrated water softener and UV-C lamp for water disinfection

Meets hygiene requirements as per VDI 6022 and VDI 2047

Outdoor and indoor installation, and left and right versions

Direct free cooling via integrated louvred dampers optionally possible

Additional cold water cooler or direct evaporator for peak load or redundancy

Available integrated power-controlled refrigeration system with environmentally friendly refrigerants (R407C or R410A) as a backup for peak load or redundancy

MODEL SIZES (VERSION WITHOUT OPTIONS)

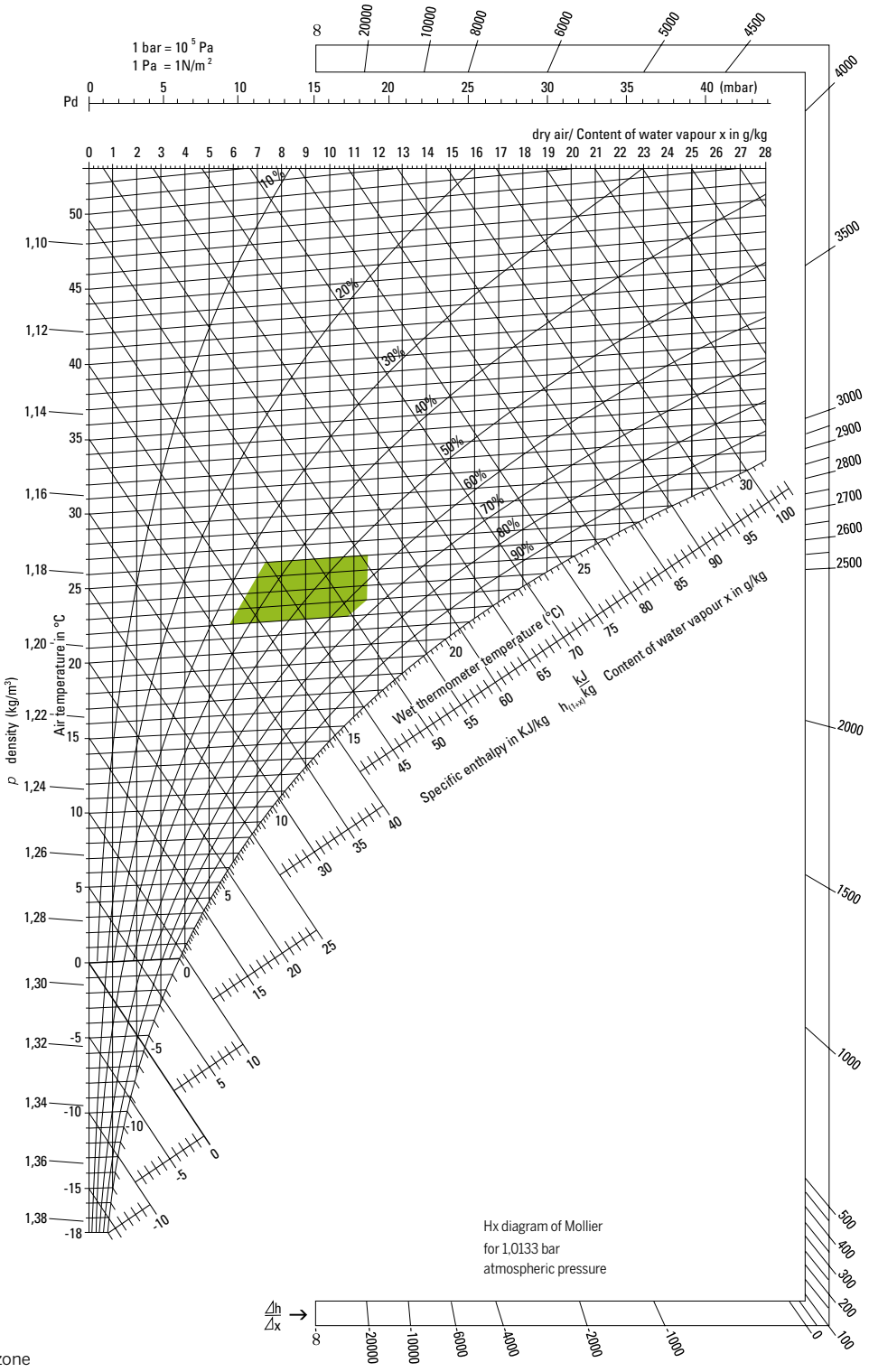
Frame size	Air volume flow	Rooftop unit	Unit size H x W x L [mm]	Adiabatic cooling capacity Rated operation in kW	Power consumption in kW	PPUE rated
50 kW	10,000 m³/h	HC30/9	2430 x 1920 x 5510	55	3.3	1.06
100 kW	25,000 m³/h	HC56/16	2940 x 2530 x 6360	120	6.0	1.05
150 kW	33,000 m³/h	HC72/36	4160 x 2882 x 6500	165	11.5	1.07
200 kW	40,000 m³/h	HC90/36	4160 x 3188 x 6600	210	11.9	1.06
250 kW	50,000 m³/h	HC110/36	4160 x 3800 x 6800	250	17.5	1.07

* Power specified with exhaust air 40 °C 20% RH, supply air ΔT 15K; 100 Pa external pressure loss; fresh air 35 °C dry bulb 21 °C wet bulb; based on pPUE weather data Frankfurt 2015

FUNCTIONAL DIAGRAM OF INDIRECT EVAPORATIVE COOLING

Technical parameters

HX DIAGRAM

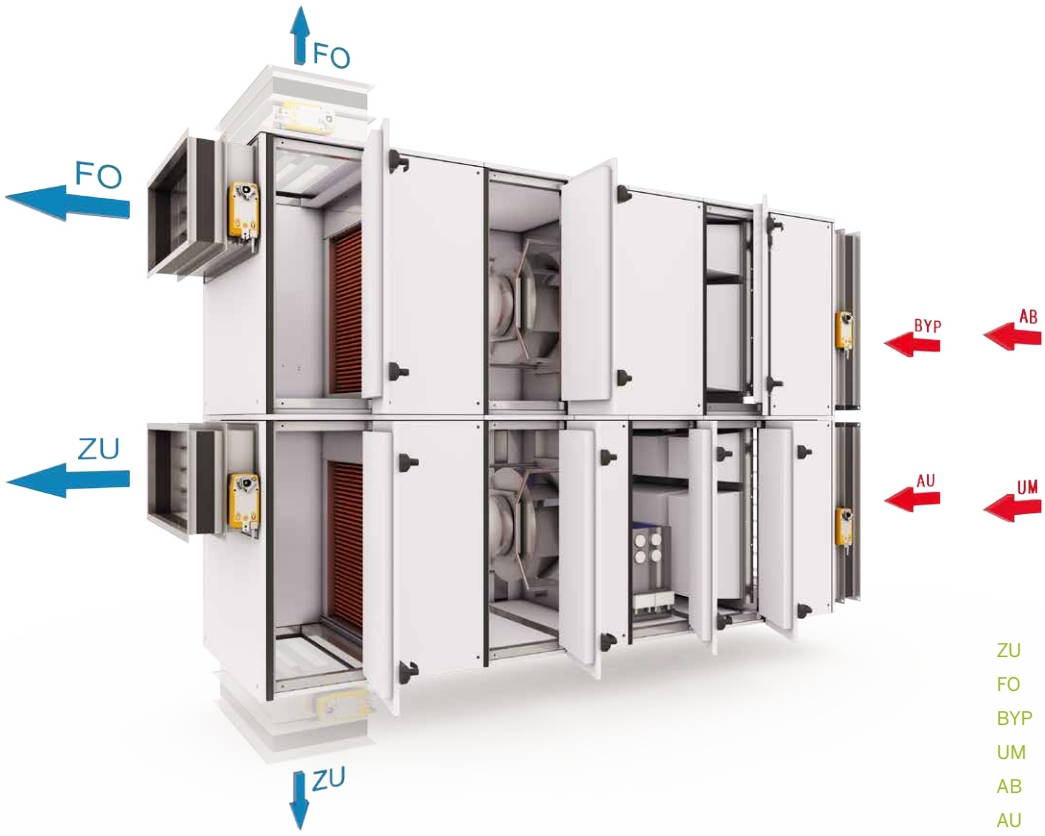


DataCond® DEEX

DataCond® DEEX

DataCond® DEEX stands for combined air-conditioning units with decentralised cooling supply for air conditioning of server and telecommunications rooms. The series has a modular design and is available in 7 sizes.

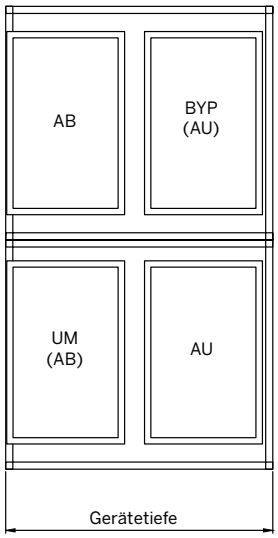
- Feasible air volumes of 3,750 to 20,000 m³/h
- Direct free cooling possible with fresh air via integrated dampers
- EC fan technology for infinitely variable air volume flow regulation
- Scroll compressor
- Power control of the refrigeration system using suction throttle valve or speed control of the compressor
- Refrigeration technology using environmentally friendly refrigerant R407C
- Evaporator and condenser in a single unit
- Filter class M5 – F7
- DDC control of all components, even for installations in composite circuits
- Design in conformity with VDI 6022 possible



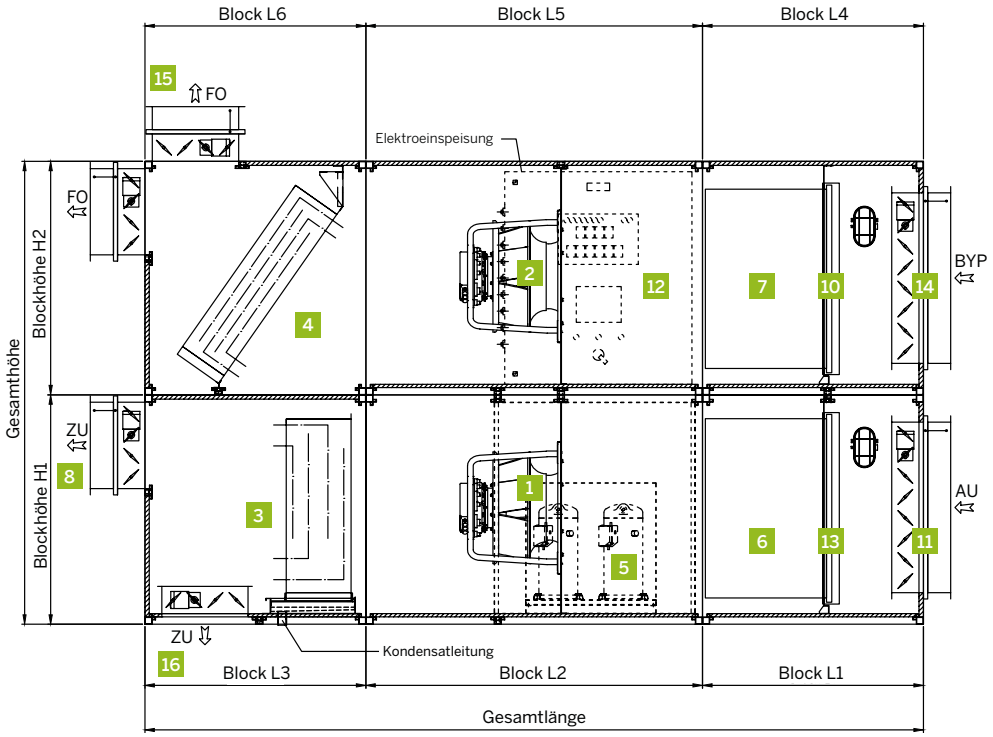
ZU = Supply air
FO = Outgoing air
BYP = Bypass
UM = Circulating air
AB = Exhaust air
AU = Fresh air

Unit structure

SIDE VIEW



FRONT VIEW



1 | Supply-air fan EC
2 | Outgoing-air fan EC
3 | Evaporator
4 | Condenser
5 | Chiller
6 | Fresh-air filter
7 | Exhaust-air filter
8 | Supply-air shut-off damper
9 | Outgoing-air shut-off damper
10 | Exhaust-air shut-off damper
11 | Fresh-air shut-off damper
12 | Control cabinet
13 | Circulating-air shut-off damper
14 | Bypass shut-off damper
15 | Optional outgoing-air shut-off damper
16 | Optional supply-air shut-off damper

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Technical parameters

Model	Unit	DEEX						
		DEEX 37	DEEX 50	DEEX 75	DEEX 100	DEEX 125	DEEX 150	DEEX 200
Power grid		400V 3Ph 50Hz						
Heat dissipation capacity [1]	kW	12.5	16.6	25	33.3	41.6	50	66.6
Heat dissipation capacity [2]	kW	17.5	23.3	35	46.6	58.3	70	93.3
Cooling capacity [1]	kW	14.79	19.72	29.58	39.45	49.31	59.17	81.28
Cooling capacity [2]	kW	18.52	24.70	37.04	49.38	61.73	74.07	99.6
Condenser capacity [1]	kW	20.19	27.16	42	54	66.41	82	107.28
Condenser capacity [1]	kW	25.8	32.7	52	68	82.41	98.79	137
Compressor		DC scroll compressor R407C						
Type								
Power consumption [1]	A	9.1	9.38	18.2	24	28.6	34	46
Current consumption [2]	A	17.5	14.8	35	31.8	38.2	43.2	63.6
Power consumption [1]	kW	5.4	7.44	10.8	13.74	17.1	20.24	26
Power consumption [2]	kW	7.17	9.38	14.34	17.5	20.7	24.72	35
Fan		EC fan						
Type								
Power consumption	kW	1.46	1.98	3.27	4.3	5.9	7	10.9
Air volume flow	m³/h	3750	5000	7500	10000	12500	15000	20000
Total power consumption	kW	9.61	13.1	20.6	24.3	30.9	53.4	58.2
Max. starting current	A	75	64	75	80	96	96	160
Air filters		F7 filters						
Overall length	mm	3200	3700	3700	4000	4300	4450	4450
Overall height	mm	2200	2200	2200	2200	2320	2920	2920
Block depth	mm	1070	1170	1270	1570	1810	1910	2110

[1] ΔT = 10 K and 18 °C supply air, fresh air 36 °C 40% RH, air inlet evaporator 28 °C 60% RH

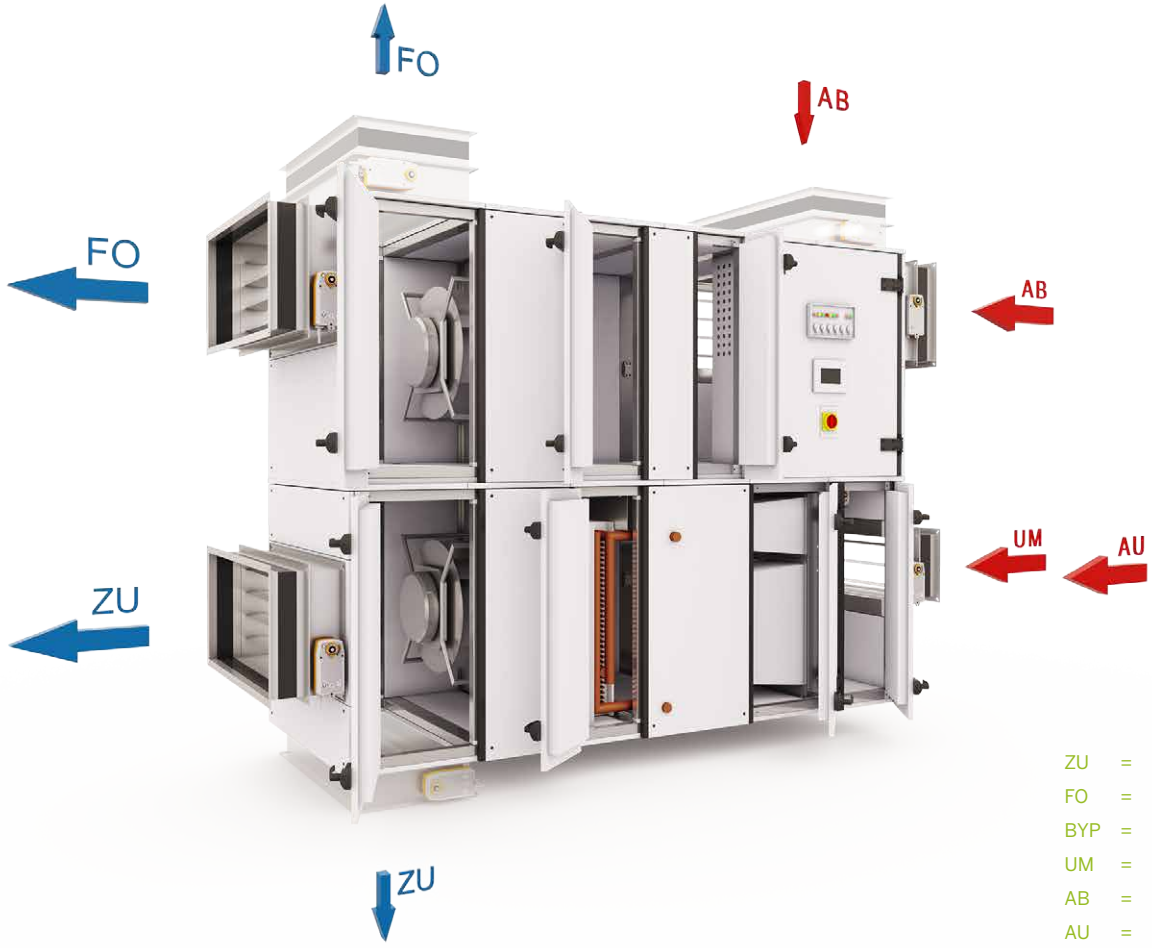
[2] ΔT = 14 K and 21 °C supply air, fresh air 35 °C 32% RH, air inlet evaporator 36 °C 30% RH

DataCond® COWA

DataCond® COWA

DataCond® COWA are combined air-conditioning units with centralised cooling supply for air conditioning server and telecommunications rooms. The series has a modular design and is available in 7 sizes.

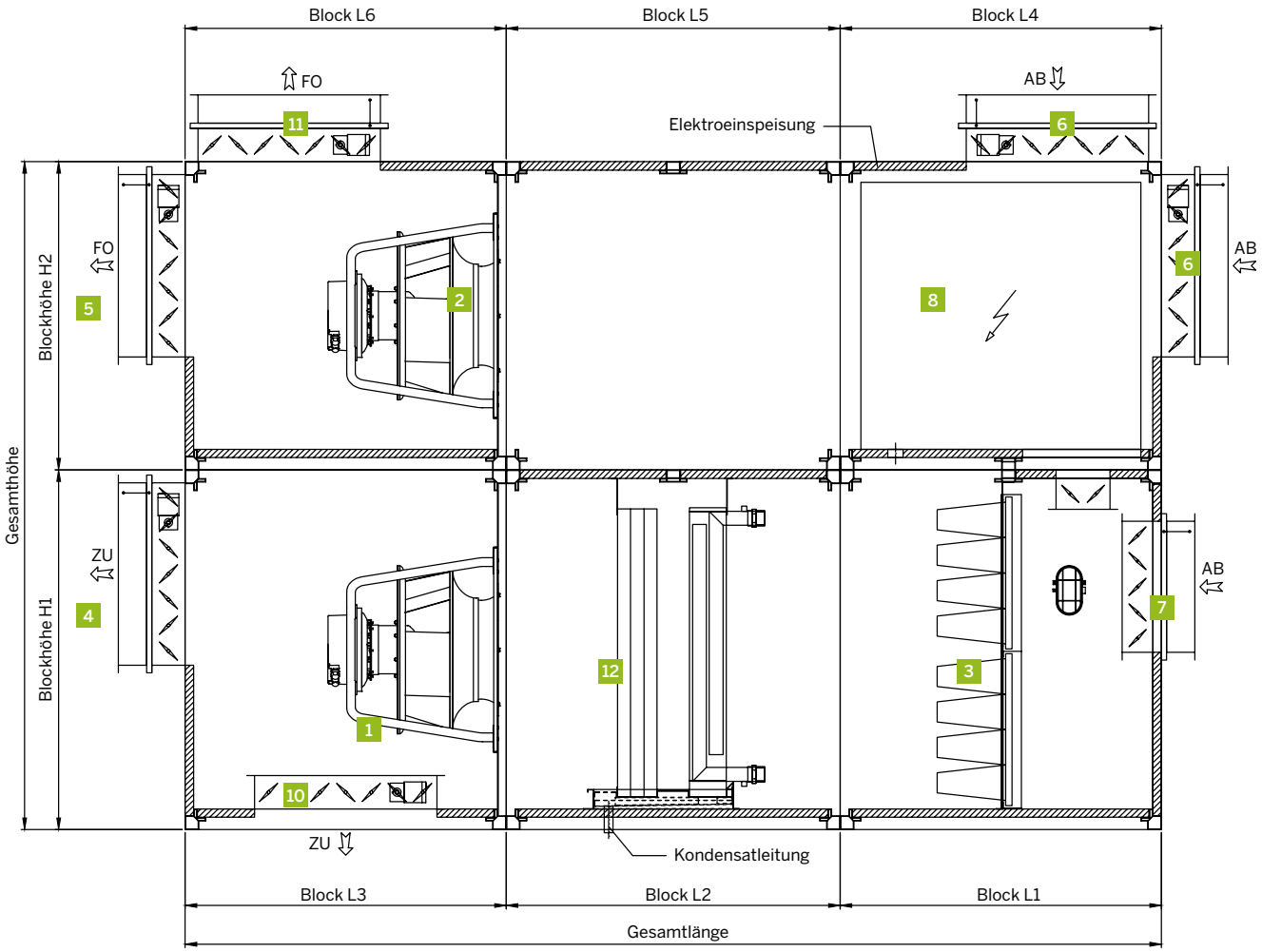
- Feasible air volumes of 3750 to 20,000 m³/h
- Direct free cooling possible with fresh air via integrated dampers
- EC fan technology for infinitely variable air volume flow regulation
- Cooling via integrated cold water coil
- 2-way control valve optionally available
- Filter class M5 – F7
- DDC control of all components, even for installations in composite circuits
- Design in conformity with VDI 6022 possible
- Chiller can optionally also be offered



ZU = Supply air
FO = Outgoing air
BYP = Bypass
UM = Circulating air
AB = Exhaust air
AU = Fresh air

DataCond® COWA

FRONT VIEW



1 | Supply-air fan EC
2 | Outgoing-air fan EC
3 | Fresh-air filter
4 | Supply-air shut-off damper
5 | Outgoing-air shut-off damper
6 | Exhaust-air shut-off damper
7 | Fresh-air shut-off damper
8 | Control cabinet
9 | Circulating-air shut-off damper
10 | Optional supply-air shut-off damper
11 | Optional outgoing-air shut-off damper
12 | Cold-water heat exchanger

Technical parameters

Model	Unit	COWA						
		COWA 37	COWA 50	COWA 75	COWA 100	COWA 125	COWA 150	COWA 200
Power grid		400V 3Ph 50Hz						
Heat dissipation capacity [1]	kW	12.5	16.6	25	33.3	41.6	50	66.6
Heat dissipation capacity [2]	kW	17.5	23.3	35	46.6	58.3	70	93.3
Cooling capacity [1]	kW	19.3	25.70	38.6	51.5	64.3	77.2	102.9
Cooling capacity [2]	kW	19.8	26.39	39.59	52.78	65.98	79.17	105.96
Fan		EC fan						
Type								
Power consumption	kW	1.12	1.74	3.03	3.3	5	5	7.5
Air volume flow	m³/h	3750	5000	7500	10000	12500	15000	20000
Pressure loss WT air-side	Pa	41	57	67	79	94	69	34.9
Total power consumption	kW	2.5	3.55	6.7	6.8	10.2	10.2	23.9
Max. rated current	A	4	5.8	9.8	10.6	15.8	15.8	36.0
Air filters		F7 filters						
Water flow rate	m³/h	2.84	3.78	5.67	7.57	9.46	11.35	15.13
Pressure loss water-side (with valve)	kPa	27	34.8	16.6	31.6	20.8	18.2	34.9
Overall length	mm	2750	2900	3250	3250	3600	3800	4400
Overall height	mm	1960	1960	2200	2200	2200	2600	2600
Block depth	mm	870	970	1200	1400	1620	1800	2000

[1] ΔT = 10 K and 18 °C supply air, air inlet air cooler 36 °C 30% RH, cold water 10/16 °C

[2] ΔT = 14 K and 21 °C supply air 36 °C 30% RH, cold water 10/16 °C

DataCond® RECA

DataCond® RECA

The RECA series is designed as a compact device and is intended for circulating-air cooling of rooms subject to high thermal stress.

Feasible air volumes of 1,500 to 25,000 m³/h

Refrigeration technology using environmentally friendly refrigerant R410A

EC fan technology for continuous regulation of air volume flow

Filter class G4 – F7

DDC control of all components, even for installations in composite circuits

Models:

- Air direction down-flow and up-flow
- External condenser
- Internal condenser water cooled
- Dual-cooling via cold-water and direct evaporation
- Direct and indirect free cooling possible
- Installation of fans in double floor possible
- Cold water
- Direct evaporation
- High-density
- Optional: MSR technology
- Optional: integrated e-heater and humidifier
- Design in conformity with VDI 6022 possible

1

2

3

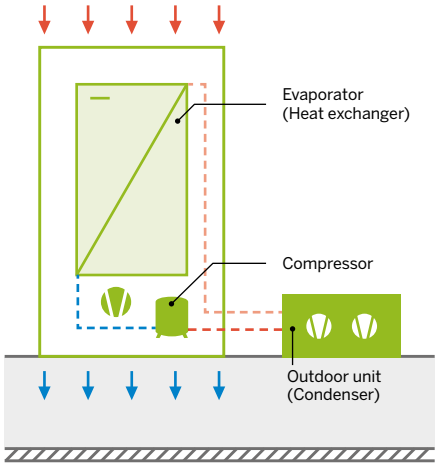
1 | DataCond® RECA INV DXA 110E2A5

2 | DataCond® RECA INV DXA 110E2A5 open

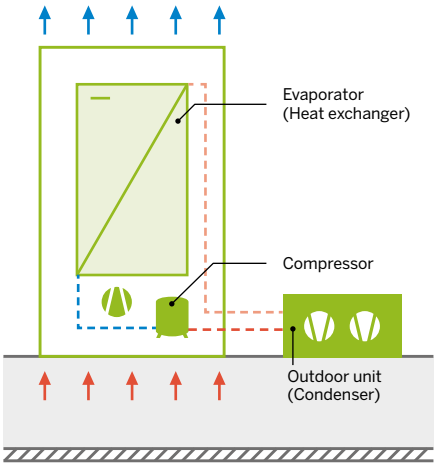
3 | External condenser unit for DataCond® RECA DXA

DataCond® RECA
Technical parameters

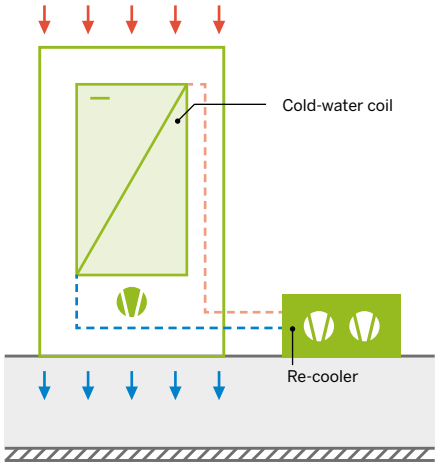
1.1
RECA DX



1.2
RECA DX



2.1
RECA CW



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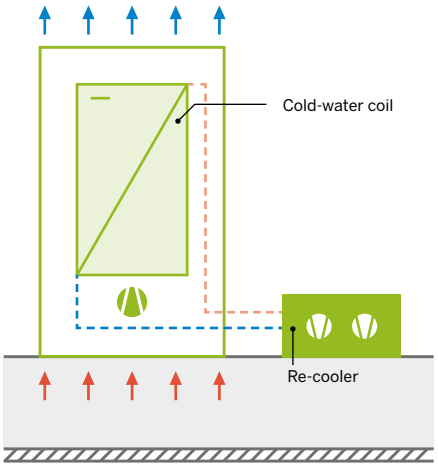
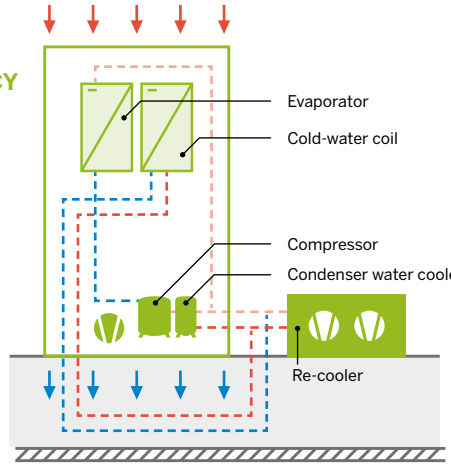
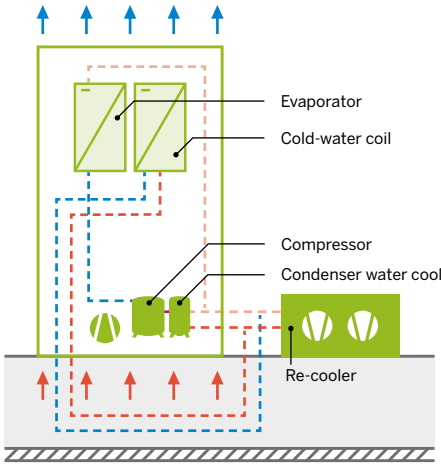
RECA CW



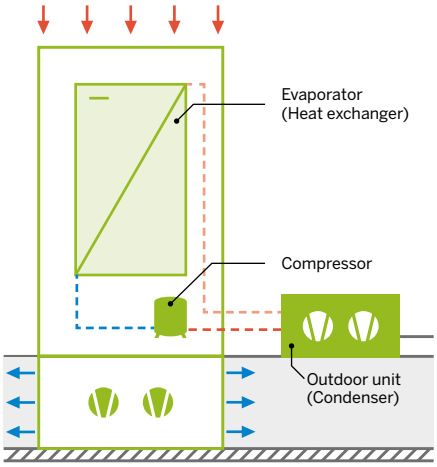
3.1
RECA DX +
REDUNDANCY
CW



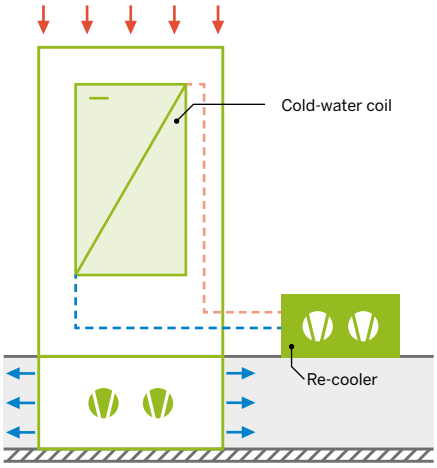
3.2
RECA DX +
REDUNDAN-
CY
CW



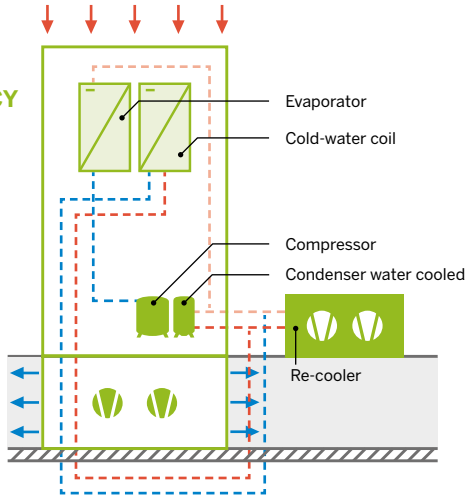
1.3 RECA DX



2.3 RECA CW



3.3 RECA DX + REDUNDANCY CW



DataCond® RECA

Direct evaporation and free cooling

RECA FC INV DXW/DXA

	Unit	RECA direct evaporation			
Unit model		16E1A1	22E1A2	30E1A2	35E2A3
Air direction		U/D			
Power grid		380V/3Ph/50HZ			
Air volume flow	m³/h	5750	8900	9600	12600
Cooling capacity					
Total (DXA)[1]	kW	16.30	22.30	30.2	36.9
Total (DXW)[1]	kW	17.20	23.50	32.10	36.8
Compressor					
Type		DC inverter scroll compressor R410A			
Power input[2]	kW	3.80	5.10	7.10	8.80
Supply air fan					
Type		EC fans			
Number of fans		1	1	2	2
Power input	kW	1	1.4	1.6	2.1
Free cooling heat exchanger					
Total[2]	kW	17.10	23.50	34.50	37.8
Sensitive[2]	kW	15.60	21.40	31.40	35.5
Water flow rate	m³/h	3.2	5.7	7.3	7.8
Pressure drop	kPa	26.20	42.1	37.7	68.3
Air filters		F7 filters			
Electric heater					
Type		Stainless steel electric heater			
Heating power	kW	6	9	9	13.50
Humidifiers					
Type		Steam humidifier			
Humidification capacity	kg/h	3	5	5	8
Power input	kW	2.3	3.8	3.8	5.9
Unit internal dimensions and weight					
Width	mm	875	1480	1480	1750
Depth	mm	890	890	890	890
Height	mm	1960	1960	1960	1960
Weight of internal unit DXA	kg	348	440	475	710
Weight of internal unit DXW	kg	395	490	510	750
Air-cooled condenser (for DXA unit)[3]					
Model*number		AMAE6*1	AMAE8*1	AMAE10*1	AMAE6*2
Air volume flow	m³/h	11600	11800	11500	23200
Condenser power	kW	0.00	0.00	0.00	0.00
Power input	kW	0.63	0.63	0.63	1.26
Width	mm	1365	1365	1665	2*1365
Depth	mm	620	620	620	620
Height	mm	1080	1080	1080	1080
Weight of AMAE	kg	116	135	152	232
Water-cooled condenser (for DXW unit)[3]					
Model*number of external re-coolers		CMEH20*1	CMEH30*1	CMEH40*1	CMEH50*1
Water flow rate	m³/h	3.9	6.2	7.3	9.6
Pressure drop	kPa	27	28.60	26	41.3
Pressure loss (with valve)	kPa	33.5	44.6	47.5	56.3
Water volume	l	1.1	1.8	2.2	3.2
Width	mm	1350	1350	1980	2700
Depth	mm	620	620	620	620
Height	mm	1070	1070	1120	1120
Weight of CMEH	kg	95	115	145	175

[1] Exhaust-air dry-bulb temperature 24 °C, 50% RH, condensation temperature 45 °C, compressor with variable speed operating efficiently
[2] Exhaust-air dry-bulb temperature 24 °C, 50% RH, fresh-air dry-bulb temperature 2 °C, standard volume of water
[3] Condenser at ambient temperatures ≤ 40 °C

RECA direct evaporation						
45E2A3	55E2A3	60E2A4	70E2A4	80E2A4	90E2A5	110E2A5
U/D						
380V/3Ph/50HZ						
12600	13600	17800	19200	21000	24600	27900
47.2	55.2	61.6	70.8	80.3	92.3	112.8
48.1	56.4	63.5	73.5	82.3	93.7	115.4
DC inverter scroll compressor R410A						
11.30	12.40	14.20	16.10	18.40	21.10	26.40
2	3	3	3	3	3	3
2.1	2.7	3.2	4.2	3.8	4.2	4.5
41.7	57.1	63.6	75.3	84.4	93.4	114.6
39.2	53.7	59.8	70.8	79.3	87.8	107.7
8.1	9.5	10.8	12.9	13.6	16.2	17.8
77.2	62.3	76.2	63.5	69.1	100.3	118.1
F7 filters						
Stainless steel electric heater						
13.50	13.50	18	18	18	18	18
8	8	8	8	8	8	8
5.9	5.9	5.9	5.9	5.9	5.9	5.9
1750	1750	2490	2490	2490	3095	3095
890	890	890	890	890	890	890
1960	1960	1960	1960	1960	2050	2050
750	790	960	1010	1150	1270	1350
810	860	1080	1130	1250	1430	1540
AMAE8*2	AMAE8*2	AMAE10*2	AMAE12*2	AMAE15*2	AMAE18*2	AMAE20*2
23600	23600	23000	47000	44000	46800	45200
0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.26	1.26	1.26	2.52	2.52	2.52	2.52
2*1665	2*1665	2*1665	2*1985	2*1985	2*2790	2*2790
620	620	620	620	620	620	620
1080	1080	1080	1080	1080	1080	1080
270	270	304	346	364	412	440
CMEH60*1	CMEH70*1	CMEH80*1	CMEH50*2	CMEH50*2	CMEH60*2	CMEH70*2
11.7	13.6	14.1	16	18.1	20.3	23.7
47.5	45.5	44.8	46.3	48.4	34.3	36.7
64.3	63.4	58.3	61.3	69.9	51.8	55.2
4.2	4.7	5.2	5.8	6.4	7.3	8.1
2700	3580	3580	2*2700	2*2700	2*2700	2*3580
620	620	620	620	620	620	620
1120	1120	1120	1120	1120	1120	1120
195	235	255	350	350	390	470

DXW = Water-cooled condenser
DXA = Air-cooled condenser

DataCond® RECA cold water

RECA CW = RECA COLD WATER

	Unit	RECA cold water			
Model		20A1	30A1	40A2	45A2
Air direction:		upflow; downflow			
Power grid		380V 3Ph 50Hz			
Cooling capacity [1]	kW	24.8	30.30	40.8	47.7
Fan		EC fan			
Type					
Number of fans		1	1	1	1
Air volume flow	m^3/h	6750	6750	9600	9600
Power of electric heater [2]	kW	6	6	9	9
Humidifier capacity [2]	kg/h	3	3	5	5
Width	mm	875	875	1480	1480
Height	mm	1960	1960	1960	1960
Depth	mm	890	890	890	890
Weight	kg	310	335	380	410

[1] Exhaust-air dry-bulb temperature 24 °C, RH 50%, inlet and outlet cold-water temperature 7/12 °C

[2] Optional as accessory

RECA cold water					
55A3	65A3	80A4	100A4	120A5	140A5
Upflow; downflow					
380V 3Ph 50Hz					
55.8	66.5	80.5	100.2	112.1	134.5
			EC fan		
2	2	3	3	3	3
15300	15300	21600	21600	28900	28900
13.50	13.50	18	18	18	18
8	8	8	8	8	8
1750	1750	2490	2490	3095	3095
1960	1960	1960	1960	2050	2050
890	890	890	890	890	890
470	510	550	575	660	690

DataCond® RECA direct evaporation

RECA INV DXW/DXA = RECA DIRECT EVAPORATION

	Unit	RECA direct evaporation			
Unit model		16E1A1	22E1A2	30E1A2	35E2A3
Air direction		Upflow; downflow			
Power grid		380V/3Ph/50HZ			
Air volume flow	m³/h	5750	8900	9600	12600
Cooling capacity					
Total (DXA)	kW	16.30	22.30	30.2	36.9
Total (DXW)	kW	17.20	23.50	32.10	36.8
Compressor					
Type		DC inverter scroll compressor R410A			
Power input [1]	kW	3.80	5.10	7.10	8.80
Supply air fan					
Type		EC fans			
Number of fans		1	1	2	2
Power input	kW	1	1.4	1.6	2.1
Air filters		F7 filters			
Electric heater [2]					
Type		Stainless steel electric heater			
Heating power	kW	6	9	9	13.50
Humidifier [2]					
Type		Steam humidifier			
Humidification capacity	kg/h	3	5	5	8
Power input	kW	2.3	3.8	3.8	5.9
Unit internal dimensions and weight					
Width	mm	875	1480	1480	1750
Depth	mm	890	890	890	890
Height	mm	1960	1960	1960	1960
Weight of internal unit DXA [3]	kg	348	440	475	710
Weight of internal unit DXW [3]	kg	395	490	510	750
Air-cooled condenser (for DXA unit)					
Model*number		AMAE6*1	AMAE8*1	AMAE10*1	AMAE6*2
Air volume flow	m³/h	11600	11800	11500	23200
Condenser power	kW	20.10	27.40	37.30	45.70
Power input	kW	0.63	0.63	0.63	1.26
Width	mm	1365	1365	1665	2*1365
Depth	mm	620	620	620	620
Height	mm	1080	1080	1080	1080
Weight of AMAE	kg	116	135	152	232
Water-cooled condenser (for DXW unit)					
Model*number		CMEH20*1	CMEH30*1	CMEH40*1	CMEH50*1
Water flow rate	m³/h	3.9	6.2	7.3	9.6
Pressure drop	kPa	27	28.60	26	41.3
Pressure loss (with valve)	kPa	33.5	44.6	47.5	56.3
Water volume	l	1.1	1.8	2.2	3.2
Width	mm	1350	1350	1980	2700
Depth	mm	620	620	620	620
Height	mm	1070	1070	1120	1120
Weight of CMEH	kg	95	115	145	175

[1] Exhaust-air dry-bulb temperature 24 °C, RH 50%, condensation temperature 35 °C

[2] Optional as accessory

[3] DXW = water-cooled condenser, DXA = air-cooled condenser

RECA direct evaporation						
45E2A3	55E2A3	60E2A4	70E2A4	80E2A4	90E2A5	110E2A5
Upflow; downflow						
380V/3Ph/50HZ						
12600	13600	17800	19200	21000	24600	27900
47.2	55.2	61.6	70.8	80.3	92.3	112.8
48.1	56.4	63.5	73.5	82.3	93.7	115.4
DC inverter scroll compressor R410A						
11.30	12.40	14.20	16.10	18.40	21.10	26.40
EC fans						
2	3	3	3	3	3	3
2.1	2.7	3.2	4.2	3.8	4.2	4.5
Stainless steel electric heater						
13.50	13.50	18	18	18	18	18
Steam humidifier						
8	8	8	8	8	8	8
5.9	5.9	5.9	5.9	5.9	5.9	5.9
1750	1750	2490	2490	2490	3095	3095
890	890	890	890	890	890	890
1960	1960	1960	1960	1960	2050	2050
750	790	960	1010	1150	1270	1350
810	860	1080	1130	1250	1430	1540
AMAE8*2	AMAE8*2	AMAE10*2	AMAE12*2	AMAE15*2	AMAE18*2	AMAE20*2
23600	23600	23000	47000	44000	46800	45200
58.50	67.60	75.80	86.90	98.70	113.40	139.20
1.26	1.26	1.26	2.52	2.52	2.52	2.52
2*1665	2*1665	2*1665	2*1985	2*1985	2*2790	2*2790
620	620	620	620	620	620	620
1080	1080	1080	1080	1080	1080	1080
270	270	304	346	364	412	440
CMEH60*1	CMEH70*1	CMEH80*1	CMEH50*2	CMEH50*2	CMEH60*2	CMEH70*2
11.7	13.6	14.1	16	18.1	20.3	23.7
47.5	45.5	44.8	46.3	48.4	34.3	36.7
64.3	63.4	58.3	61.3	69.9	51.8	55.2
4.2	4.7	5.2	5.8	6.4	7.3	8.1
2700	3580	3580	2*2700	2*2700	2*2700	2*3580
620	620	620	620	620	620	620
1120	1120	1120	1120	1120	1120	1120
195	235	255	350	350	390	470

DataCond® COMPACT

DataCond® COMPACT

DataCond® COMPACT was developed as a compact unit for air conditioning small areas subject to high thermal stress.

- Feasible air volumes of 1500 to 3,500m³/h
- Integrated power-controlled refrigeration system with evaporator and condenser in one housing
- Air conditioning with direct free cooling
- Refrigeration technology using environmentally friendly refrigerant R407C
- EC fan technology for infinitely variable air volume flow regulation
- Filter class G4 – F7
- DDC control of all components, even for installations in composite circuits
- Easy installation and commissioning thanks to compact design

DataCond® COMPACT
Front and side view

DataCond® COMPACT
Technical parameters

Model	Unit	COMPACT		
		COMPACT 17	COMPACT 22	COMPACT 32
Power grid		400V 3Ph 50Hz		
Cooling capacity [1]	kW	7.7	12.10	15.1
Condenser capacity [1]	kW	10.5	15.9	19.8
Compressor				
Type		DC scroll compressor R407C		
Current consumption	A	4.8	6.5	8.1
Power consumption	kW	2.8	3.8	4.7
Fan		EC fan		
Type				
Air volume flow of condenser	m³/h	2300	3500	4500
Power consumption of condenser	kW	0.32	0.63	0.95
Air volume flow of evaporator	m³/h	1700	2300	3200
Power consumption of evaporator	kW	0.3	0.56	0.85
Total power consumption	kW	3.42	4.99	6.5
Total current consumption	A	8.8	9.4	11
Air filters		F7 filters		
Width	mm	840	1150	1150
Height	mm	2350	2350	2350
Depth	mm	750	820	820
Weight	kg	230	410	410

[1] ΔT = 14K and 22 °C supply air, fresh air 35 °C 32% RH, air inlet evaporator 36 °C 30% RH

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