


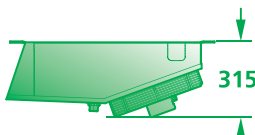


Küba Green Line



Küba compact DF

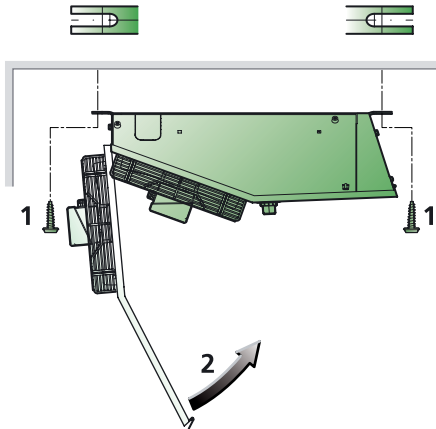


Ceiling Air Cooler

<p>Q_0</p> <p>1,5  10 kW</p>	<p>H max.</p>  <p>315</p>		<p>EUROVENT CERTIFIED PERFORMANCE</p>  <p>"CERTIFY ALL" Air Coolers</p>
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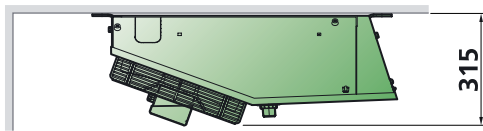


Application Benefits for Contractors and Operators



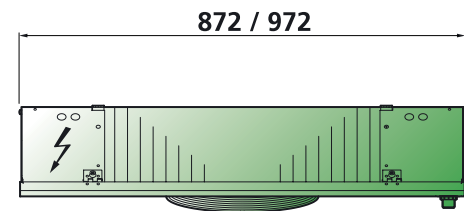
Straightforward mounting

- Hinged fan plate
- Removable side piece
 - ① Remove side piece
- Mount and install unit
- Adjust valve
 - ② Re-install side piece
- Close fan plate



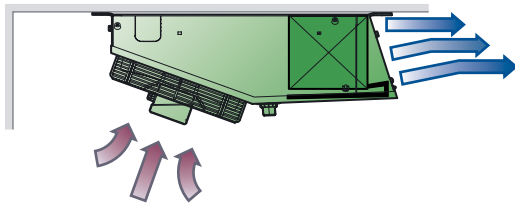
Space-saving

- Vertical drain
- Height including drain 315 mm



Saves width

- Compact design
- 872 mm / 972 mm wide thanks to compact design

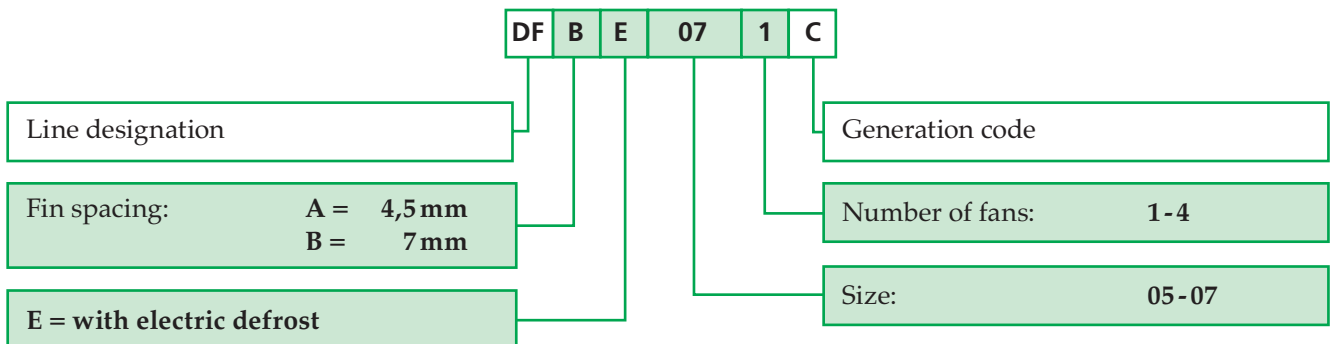


Best air guidance

- Integrated air baffle plate
- Directs the air along the ceiling of the room and therefore projects it far into the room

Nomenclature

Standard





Construction



1. Casing

- Aluminium, Sendzimir zinc-plated steel, smooth
- High-quality powder coating, papyrus white RAL 9018
 - Food-safe
 - Easy to clean
 - Best corrosion protection
- Drip tray and side pieces removable
- Low height
- Quick and easy installation

2. Cooler

- Internal cleanliness acc. to DIN 8964
- Fin spacing: DFA.C: 4,5 mm, DFB.C: 7,0 mm
- Tubing Cu-Special, Fins Al, End plates Al
- DFA.C: Flow distributor, with multiple injection
DFB.C: Küba-CAL® refrigerant distributor with multiple injection

3. Fans CE

- Fans pre-wired to an internal terminal box
- Ø 254 mm / Ø 300 mm

- With built-in protector according to VDE provisions
- Application range: RT: -30 °C to +50 °C
- Voltage 230 V ±10 %, V-1, 50/60 Hz, adjustable
- Index of protection IP44 acc. to DIN 40050
 - DF.051, 052C = IP42
 - DF.061 – 074C = IP 44
- Insulation class B acc. to VDE 0700
- Operating values are the actual values of the built-in motor at +20 °C, with unobstructed air flow and a dry surface, as required for the refrigeration load calculation

Motor label data (max. allowable value +40 °C)

	Ø mm	50 Hz			60 Hz		
		min ⁻¹	W	A	min ⁻¹	W	A
DF. 051-052C	254	1300	90	0,62	1550	80	0,2
DF. 061-074C	300	1390	73	0,32	1580	100	0,45

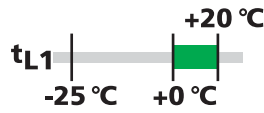
4. Electric defrost

- Wired-up, ready to connect in terminal box
- To prevent steam build-up and to accomplish heat exchange with almost no loss, the heaters are mounted in special expanded tube sleeves
- 230 V-1 / 400 V-3-Y



Technical data

DFA(E)...C

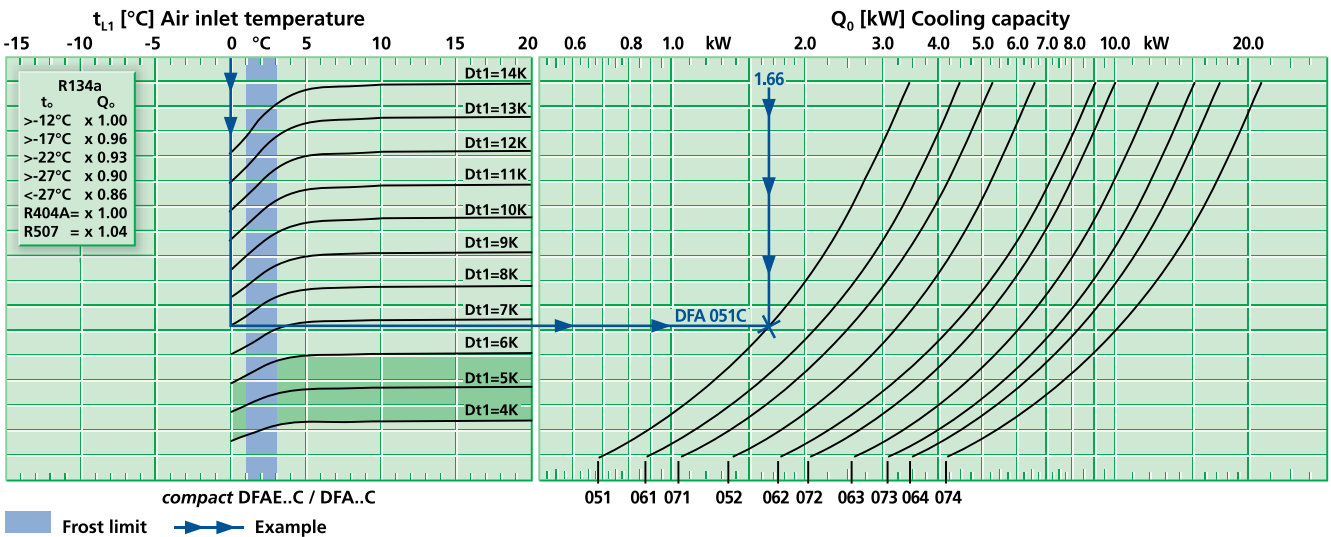


Model	Rating Q_0 at 50 Hz DT1, R404A		Surface m^2	Air flow m^3/h	Air throw m	Tube volume dm^3	Connections		Sound L_{WA}	Blade St. x \varnothing mm	Fans Φ (Operating values at 50 Hz)			Electr. defrost		
	$t_{li} \pm 0^\circ C$ DT1 = 8K	$t_{li} +10^\circ C$ DT1 = 10K					Inlet \varnothing mm	Outlet \varnothing mm			Type of current	Per Fan min^{-1}	W		A	kW
DFA 051C	Φ	1,66	2,44	10,2	630	7	2,1	10	12	62	1 x 254	230V-1	1347	85	0,59	1,07
DFA 061C	Φ	2,14	3,14	8,2	1100	9	1,7	10	12	68	1 x 300	230V-1	1357	84	0,35	1,15
DFA 071C	Φ	2,53	3,71	12,2	1035	9	2,5	10	18	68	1 x 300	230V-1	1357	84	0,35	1,15
DFA 052C	Φ	3,32	4,87	20,4	1260	9	4,2	10	18	65	2 x 254	230V-1	1357	84	0,35	1,76
DFA 062C	Φ	4,28	6,28	16,4	2200	11	3,4	12*	22	71	2 x 300	230V-1	1357	84	0,35	2,07
DFA 072C	Φ	5,06	7,43	24,4	2070	11	5,0	12*	22	71	2 x 300	230V-1	1357	84	0,35	2,07
DFA 063C	Φ	6,42	9,42	24,6	3300	12	5,1	12*	22	73	3 x 300	230V-1	1357	84	0,35	2,98
DFA 073C	Φ	7,59	11,14	36,6	3105	12	7,5	12*	28	73	3 x 300	230V-1	1357	84	0,35	2,98
DFA 065C	Φ	8,56	12,56	32,8	4400	16	6,8	12*	28	74	4 x 300	230V-1	1357	84	0,35	3,92
DFA 074C	Φ	10,12	14,85	48,8	4140	16	10,0	15*	28	74	4 x 300	230V-1	1357	84	0,35	3,92

Multiple injection via * flow distributor

** Modification of sound power level, see page 59

Q_V - diagram (R22, R134A, R404A, R507)



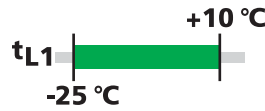
The technical data are also given in the product selection software.

**Available for
CO₂-DX
up to 54 bar**



Technical data

DFB(E)...C

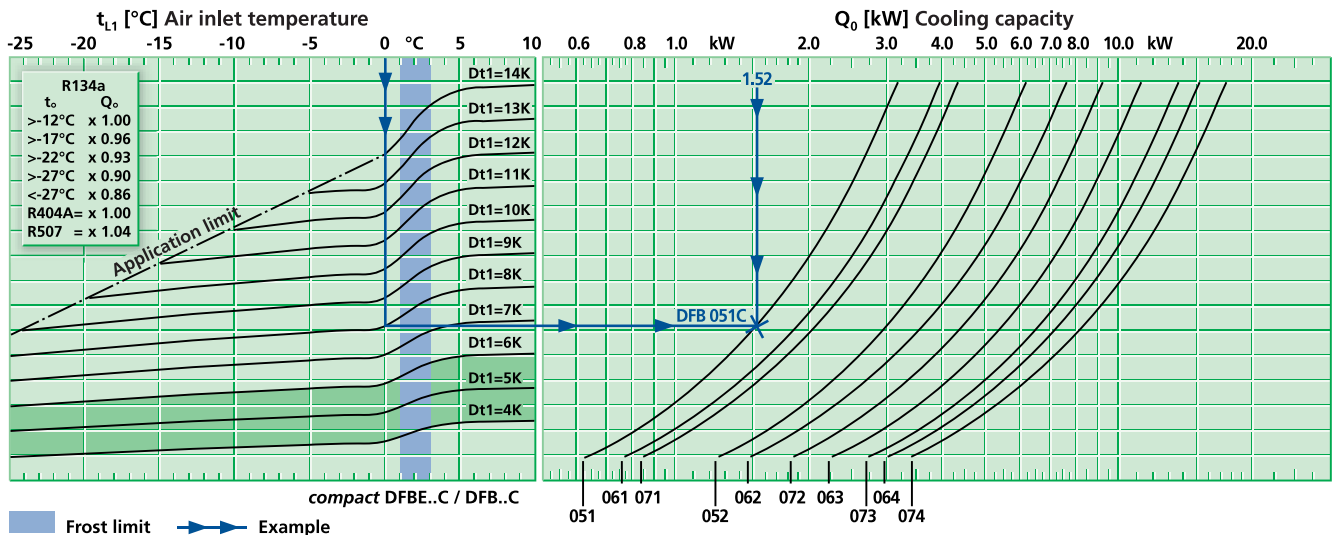


Model	Rating Q_0 at 50 Hz DT1, R404A		Surface m^2	Air flow m^3/h	Air throw m	Tube volume dm^3	Connections		Sound L_{WA}	Blade St. x \emptyset mm	Fans \oplus (Operating values at 50 Hz)				Electr. defrost \swarrow		
	$t_{L1} \pm 0^\circ C$ DT1 = 8K	$t_{L1} +10^\circ C$ DT1 = 10 K					Inlet \emptyset mm	Outlet \emptyset mm			Type of current V-1 50/60Hz	Per Fan min^{-1}	W	A		kW	
DFB 051C	\oplus	1,52	1,21	6,8	730	7	2,1	10	12	62	1 x 254	230V-1	1347	85	0,59	1,07	
DFB 061C	\oplus	1,81	1,45	5,5	1300	9	1,7	10	12	68	1 x 300	230V-1	1357	84	0,35	1,15	
DFB 071C	\oplus	2,19	1,75	8,2	1130	9	2,5	10	18	68	1 x 300	230V-1	1357	84	0,35	1,15	
DFB 052C	$\oplus\oplus$	3,04	2,43	13,6	1460	9	4,2	10	18	65	2 x 254	230V-1	1357	84	0,35	1,76	
DFB 062C	$\oplus\oplus$	3,62	2,89	11,0	2600	11	3,4	12*	22	71	2 x 300	230V-1	1357	84	0,35	2,07	
DFB 072C	$\oplus\oplus$	4,38	3,50	16,4	2260	11	5,0	12*	22	71	2 x 300	230V-1	1357	84	0,35	2,07	
DFB 063C	$\oplus\oplus\oplus$	5,43	4,34	16,5	3900	12	5,1	12*	22	73	3 x 300	230V-1	1357	84	0,35	2,98	
DFB 073C	$\oplus\oplus\oplus$	6,57	5,25	24,6	3390	12	7,5	12*	28	73	3 x 300	230V-1	1357	84	0,35	2,98	
DFB 065C	$\oplus\oplus\oplus\oplus$	7,24	5,78	22,0	5200	16	6,8	12*	28	74	4 x 300	230V-1	1357	84	0,35	3,92	
DFB 074C	$\oplus\oplus\oplus\oplus$	8,76	7,00	32,8	4520	16	10,0	15*	28	74	4 x 300	230V-1	1357	84	0,35	3,92	

Multiple injection via * flow distributor

** Modification of sound power level, see page 59

Q_v - diagram (R22, R134A, R404A, R507)

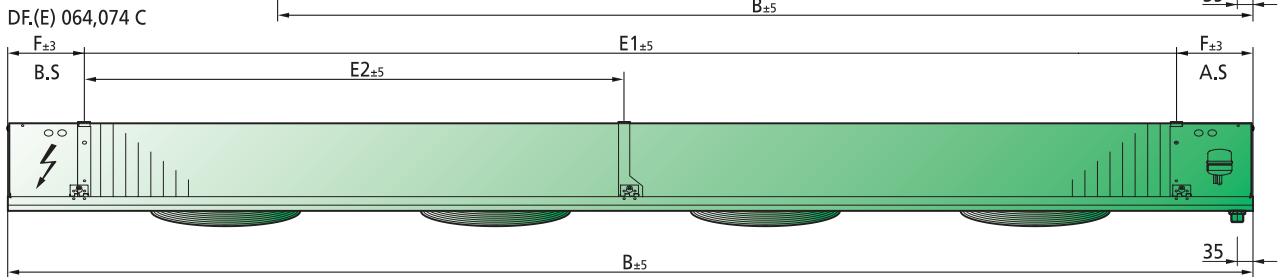
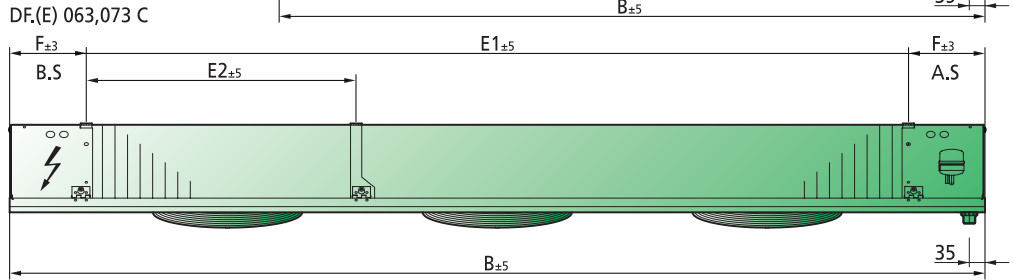
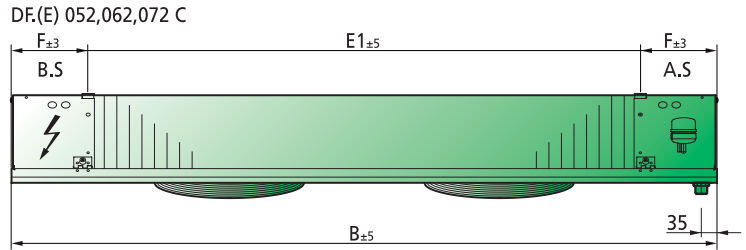
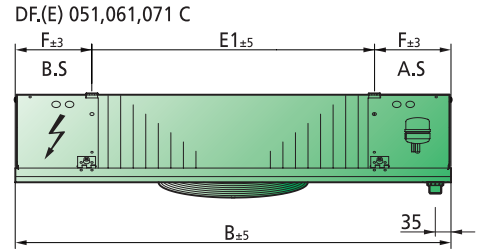
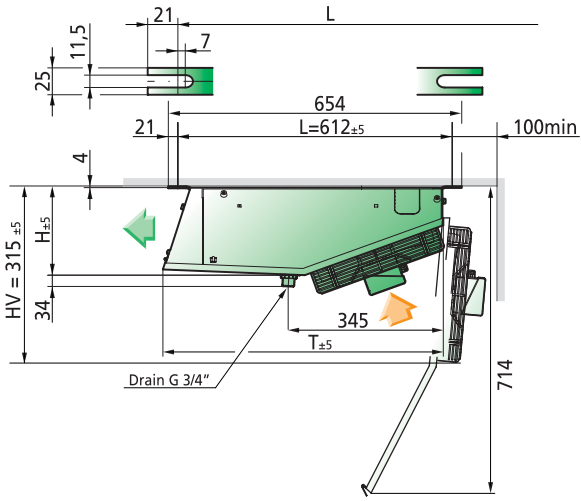


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**Available for
CO₂-DX
up to 54 bar**



Dimensions and weights



Model	Dimensions (mm)							Weight (net)		Weight (gross)	
	H	B	T	L	E ₁	E ₂	F	DFA.C kg	DFB.C kg	DFA.C kg	DFB.C kg
DF. 051C	268	872	626	612	530	-	171	19	24	21,5	26,5
DF. 061C	268	972	626	612	630	-	171	21,5	25	24,5	28
DF. 071C	268	972	626	612	630	-	171	23	23	26	26
DF. 052C	268	1372	626	612	1030	-	171	30,5	29,5	52,5	51,5
DF. 062C	268	1572	626	612	1230	-	171	34	34	57	57
DF. 072C	268	1572	626	612	1230	-	171	45	44	68	67
DF. 063C	268	2172	626	612	1830	629	171	50,5	53	86,5	89
DF. 073C	268	2172	626	612	1830	629	171	56	55	92	91
DF. 064C	268	2772	626	612	2430	1229	171	66	64	106,5	104,5
DF. 074C	268	2772	626	612	2430	1229	171	68,5	69,5	109	110



Variants and Electrical Radiators

Water / brine circulation

- Version .V2.05
Large number of distributors (small pressure drop)
- Version .V2.06
Small number of distributors (large pressure drop)

Connections for brine / water operation

Please use our Küba selection software for configuring the brine Air Coolers. Do not hesitate to contact us if you have any further questions.

Configuration

- Soldered connection

Corrosion protection

- **Version V6.01**

Cooler:

Tubing: Cu
 Fins: Al „goldlack“ coating
 End plates: Al, anti-corrosion paint coating on both sides

Casing:

Top Panel: Al or Sendzimir zinc-plated steel, anti-corrosion paint coating on both sides

- **Version V6.04**

Cooler:

Tubing: Cu
 Fins: Al „goldlack“ coating
 End plates: Al

Casing:

Top Panel: Al, anti-corrosion paint coating

Electrical radiator

Configuration

- Electrical tubular radiator with CrNi jacket
Ø 8,5 mm
- Connection impervious to water vapour,
1,0 mm² x 1000 mm acc. to VDE 0700 / part 1
- Aluminium fin
- Sendzimir zinc-plated end, middle and top plates
- Copper tube bush
- Completely powder-coated

For Cooler	Inlet and Outlet	
	.V2.05	.V2.06
DF. 051C	Ø 15	-
DF. 061C	Ø 22	Ø 15
DF. 071C	Ø 22	Ø 15
DF. 052C	Ø 22	Ø 15
DF. 062C	Ø 22	Ø 22
DF. 072C	Ø 22	Ø 22
DF. 063C	Ø 22	Ø 22
DF. 073C	Ø 22	Ø 22
DF. 064C	Ø 22	Ø 22
DF. 074C	Ø 28	Ø 22

For Air Cooler	Model	Nominal power at 230 V		Dimensions		Weight
		kW	A	H	L	kg
DF						
051C	DFHR500	0,84	3,7	210	500	1,4
061C, 071C	DFHR600	0,96	4,2	210	600	1,7
052C	DFHR1000	1,72	7,5	210	1000	2,4
062C, 072C	DFHR1200	1,91	8,3	210	1200	2,9
063C, 073C	DFHR1800	2,87	12,5	210	1800	4,2
064C, 074C	DFHR2400	3,75	16,3	210	2400	5,6