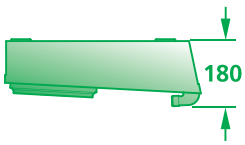
Küba *junior* DF

Ceiling Air Cooler
Hygienic version

Q_0

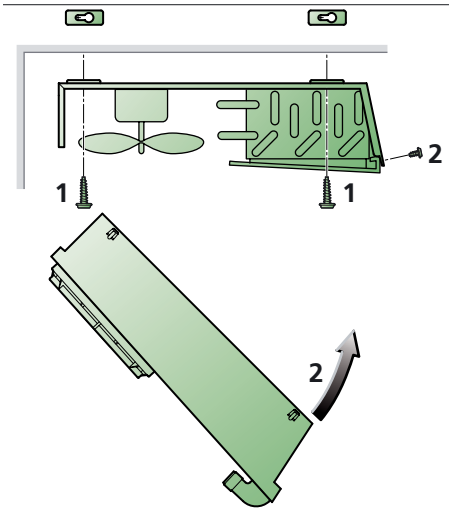
0,4 — 2,0 kW

H max.



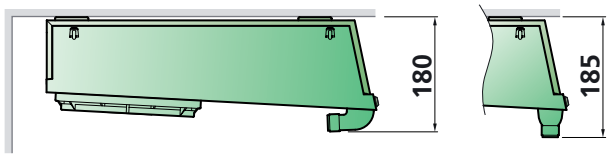
EUROVENT
CERTIFIED PERFORMANCE
"CERTIFY ALL"
Air Coolers

Application Benefits for Contractors and Operators



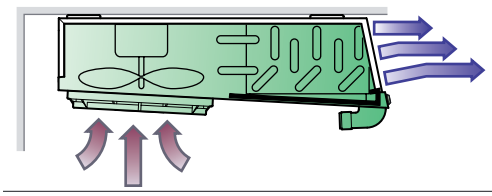
Straightforward mounting

- Removable fan plate
  ① Screw unit to ceiling
- Connect unit
  ② Re-install lower section



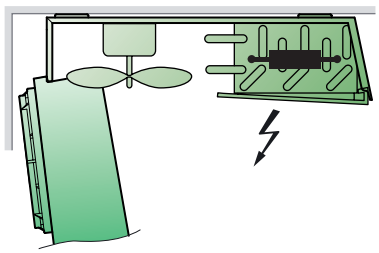
Space-saving

- Horizontal drain, horizontal and vertical endosed
- As a result the height including 90° elbow is reduced to 180 mm



Best air guidance

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



Extreme applications

- Additional heating installation possible
- In extreme applications, e.g. in deep-freeze rooms with door openings, an additional electric heater can be retrofitted for trouble-free operation

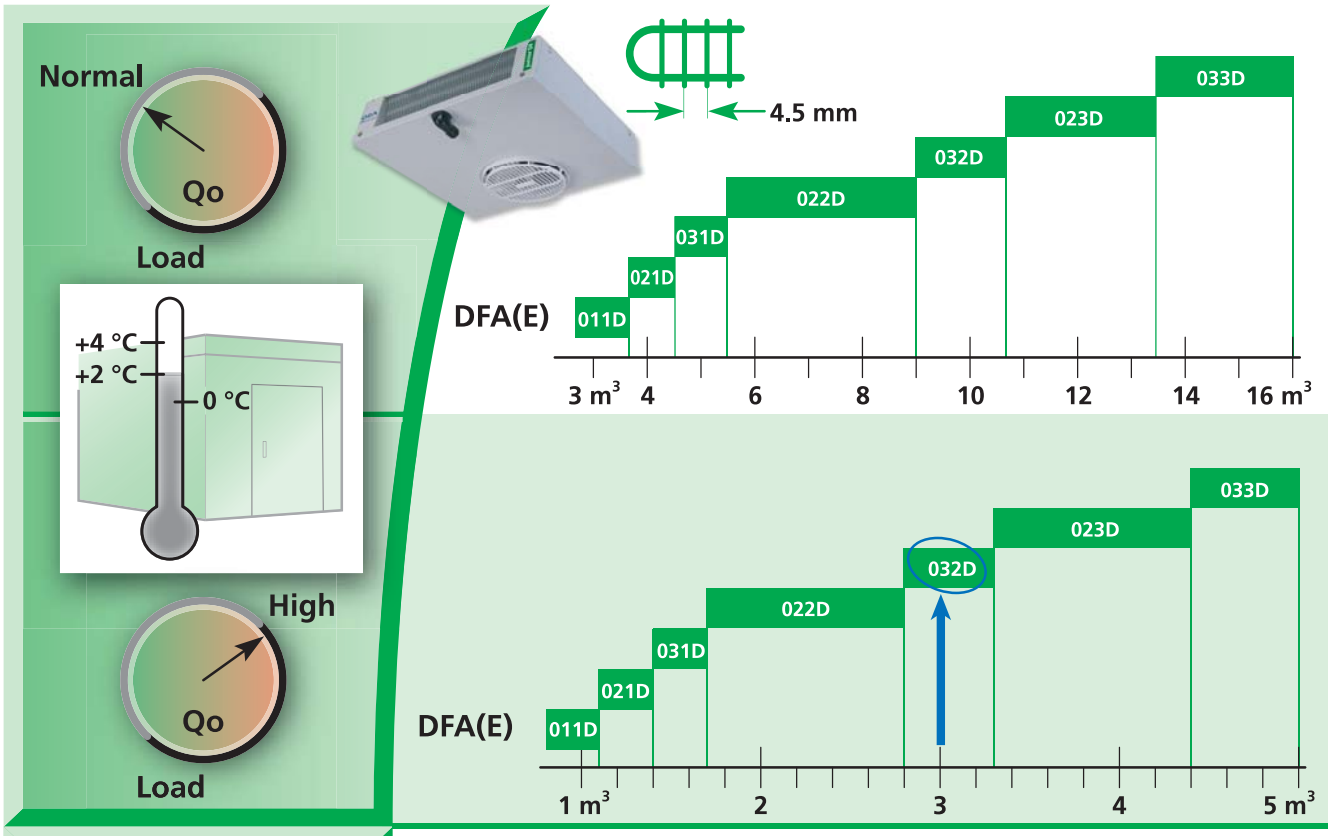
Nomenclature

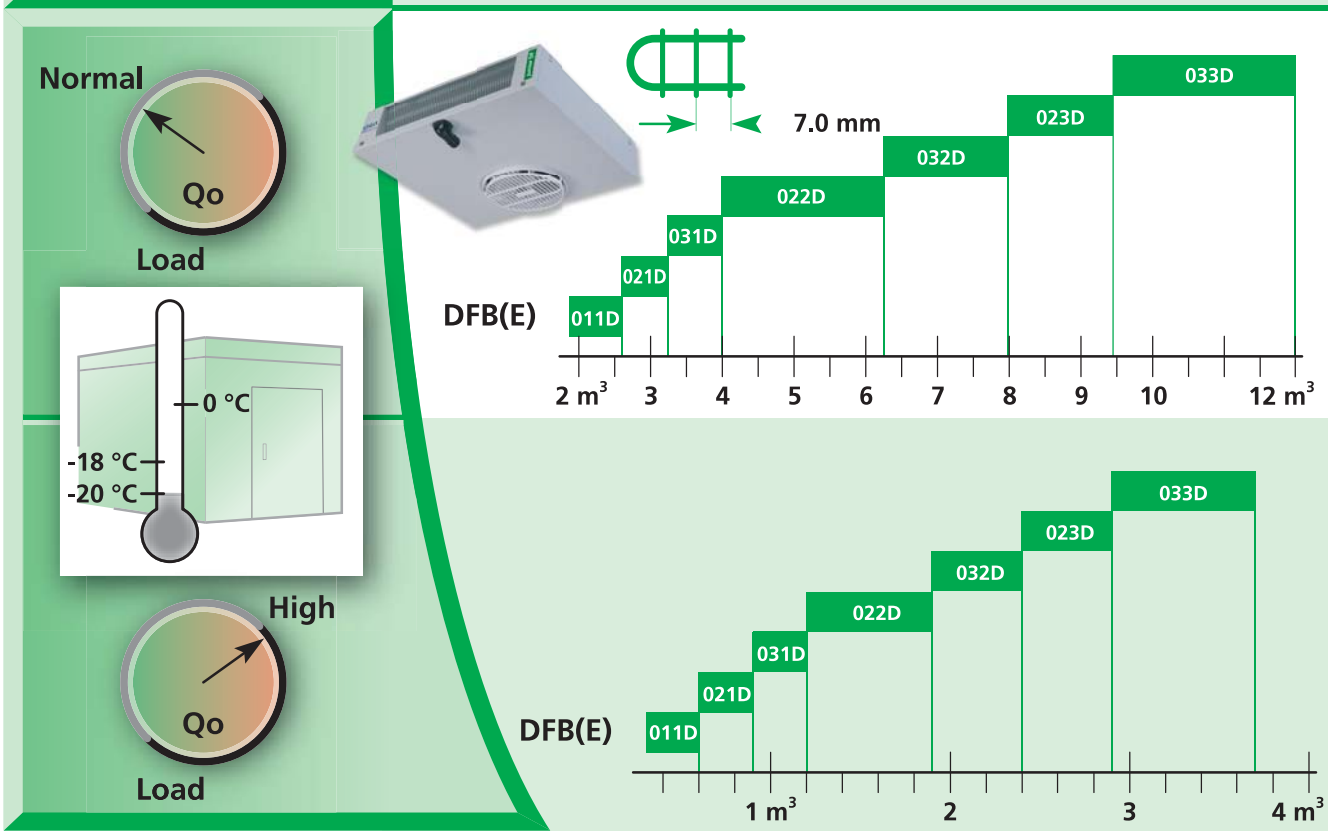
Standard

DF	B	E	02	3	D

- Line designation
- Fin spacing: A = 4,5 mm, B = 7 mm
- E = with electric defrost
- Generation code
- Number of fans: 1 - 3
- Size: 01 - 03

Quick Selection





Example:

Information: • Volume of room: 3 m³ • Temperature: +2 °C • High loading

Selection: → Küba junior DFA(E) 032D

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
- Double drip tray
- Drip tray can be folded down and unclipped
- Height of *junior* DF. only 180 mm (incl. drain)

2. Cooler

- Internal cleanliness acc. to DIN 8964
- Fin spacing: DFA.D: 4,5 mm, DFB.D: 7,0 mm
- Tubing Cu-Special, fins Al, end plates Al
- Completely powder-coated (hygienic paint)

3. Fans

- Fans wired up to a terminal box
- With built-in protector according to VDE provisions
- Application range: DF.D: RT -30 °C to +40 °C
- 230 V ±10 % V-1, adjustable
- Index of protection IP42 acc. to DIN 40050
- Insulation class B acc. to VDE 0530
- 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 at t_{Umg} +40 °C, with unobstructed air flow

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

		50 Hz			60 Hz		
	mm	min^{-1}	W	A	min^{-1}	W	A
DF. 011-033D	200	1300	31	0,2	1550	30	0,2

4. Electric defrost

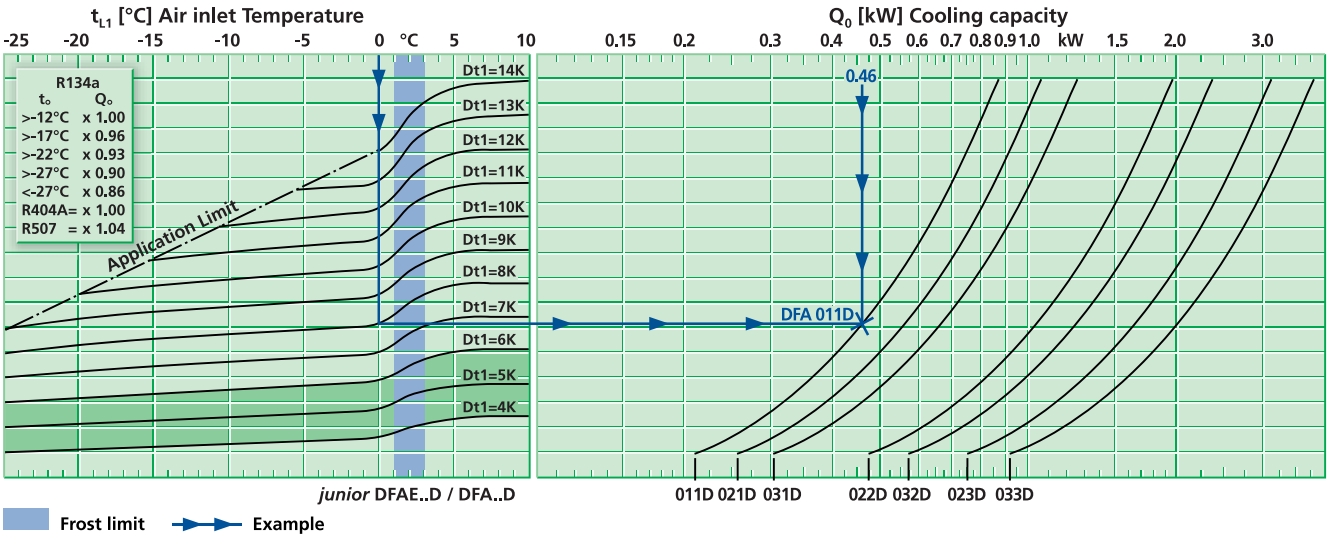
- Pre-wired, ready to connect in terminal box
- The heater rods are mounted between the coil and the tray for rapid and even defrosting
- 230 V-1

Technical data — DFA(E)...D — 4,5 mm

Model		Rating Q_0 at 50 Hz DT1, R404A t_{L1} ±0 °C DT1 = 8K	t_{L1} -18 °C DT1 = 7 K	Surface	Air flow	Air throw	Tube volume	Connections Inlet	Outlet	Sound L_{WA}*	Fans (Operating values at 50 Hz) Blade	Type of current		Per Fan		Electr. defrost
		kW	kW	m²	m³/h	m	dm³	Ø mm	Ø mm	dB(A)	St. x Ø mm	230±10% V-1 50/60Hz	min⁻¹	W	A	kW
DFA 011D	✇	0,46	0,37	2,1	250	5	0,3	10	10	62	1 x 200	230V-1	1310	29	0,21	0,35
DFA 021D	✇	0,56	0,45	2,8	290	5	0,4	10	10	62	1 x 200	230V-1	1310	29	0,21	0,42
DFA 031D	✇	0,67	0,54	4,1	260	5	0,6	10	10	62	1 x 200	230V-1	1310	29	0,21	0,42
DFA 022D	✇✇	1,12	0,89	5,6	580	6	0,8	10	10	65	2 x 200	230V-1	1310	29	0,21	0,73
DFA 032D	✇✇	1,34	1,07	8,2	520	6	1,2	10	10	65	2 x 200	230V-1	1310	29	0,21	0,73
DFA 023D	✇✇✇	1,68	1,34	8,4	870	9	1,2	10	10	67	3 x 200	230V-1	1310	29	0,21	1,04
DFA 033D	✇✇✇	2,01	1,61	12,3	780	9	1,8	10	10	67	3 x 200	230V-1	1310	29	0,21	1,04

* Modification of sound power level, see page 59

Q_V - diagram (R134a, R404A, R507)



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

Technical data — DFB(E)...D — 7 mm

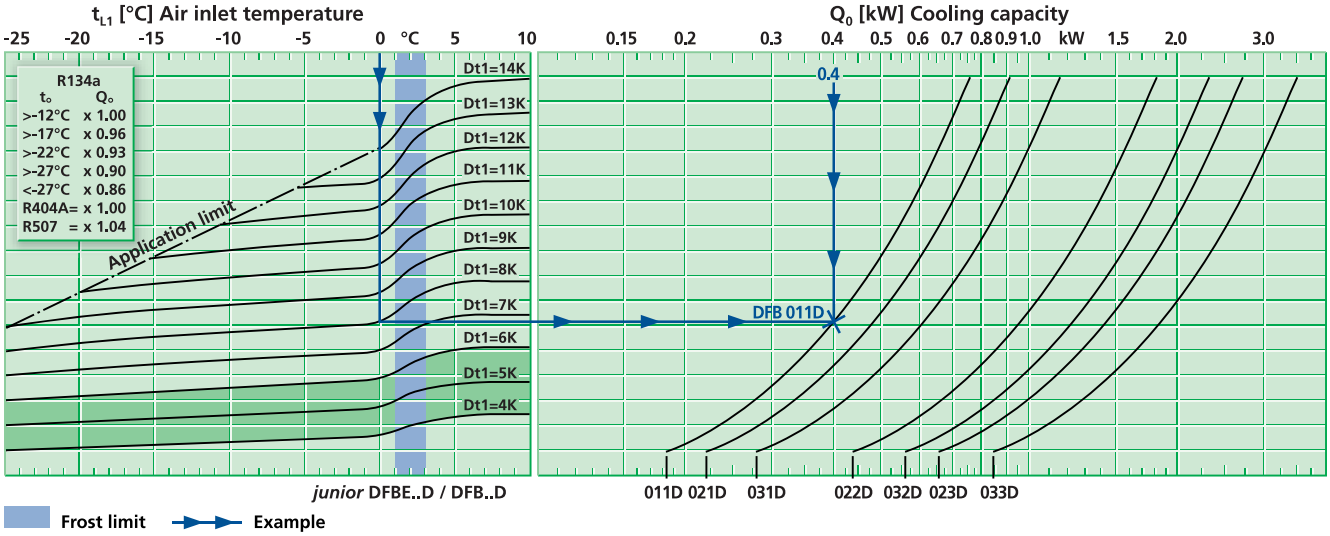
0,4 kW — 1,8 kW

t_{L1} +10 °C / -25 °C

Model		Rating Q_0 at 50 Hz DT1, R404A t_{L1} ±0 °C DT1 = 8K	t_{L1} -18 °C DT1 = 7 K	Surface	Air flow	Air throw	Tube volume	Connections Inlet	Outlet	Sound L_{WA}*	Fans (Operating values at 50 Hz) Blade	Type of current		Per Fan		Electr. defrost
		kW	kW	m²	m³/h	m	dm³	Ø mm	Ø mm	dB(A)	St. x Ø mm	230±10% V-1 50/60Hz	min⁻¹	W	A	kW
DFB 011D	✇	0,40	0,32	1,4	280	5	0,3	10	10	62	1 x 200	230V-1	1310	29	0,21	0,35
DFB 021D	✇	0,48	0,38	1,8	320	5	0,4	10	10	62	1 x 200	230V-1	1310	29	0,21	0,42
DFB 031D	✇	0,61	0,49	2,7	290	5	0,6	10	10	62	1 x 200	230V-1	1310	29	0,21	0,42
DFB 022D	✇✇	0,96	0,77	3,6	640	6	0,8	10	10	65	2 x 200	230V-1	1310	29	0,21	0,73
DFB 032D	✇✇	1,22	0,97	5,4	580	6	1,2	10	10	65	2 x 200	230V-1	1310	29	0,21	0,73
DFB 023D	✇✇✇	1,44	1,15	5,4	960	9	1,2	10	10	67	3 x 200	230V-1	1310	29	0,21	1,04
DFB 033D	✇✇✇	1,83	1,46	8,1	870	9	1,8	10	10	67	3 x 200	230V-1	1310	29	0,21	1,04

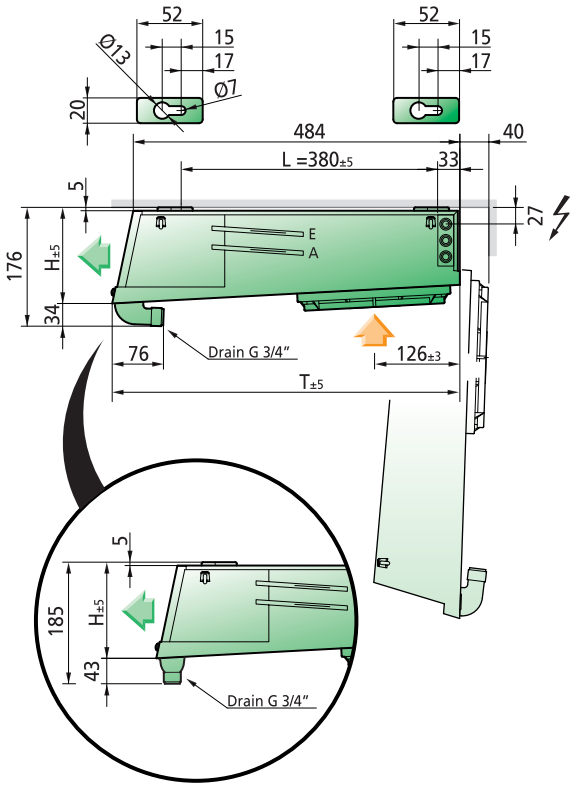
* Modification of sound power level, see page 59

Q_V - diagram (R22, R134a, R404A, R507)

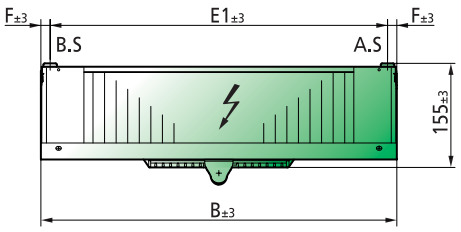


The technical data are also given in the product selection software.

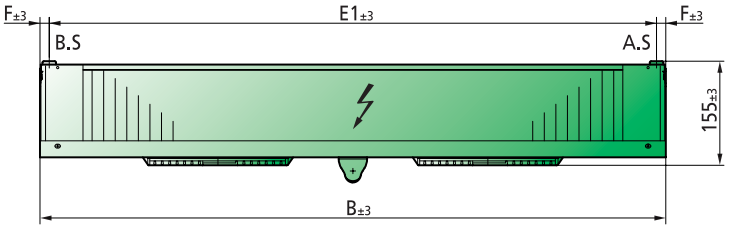
Dimensions and weights



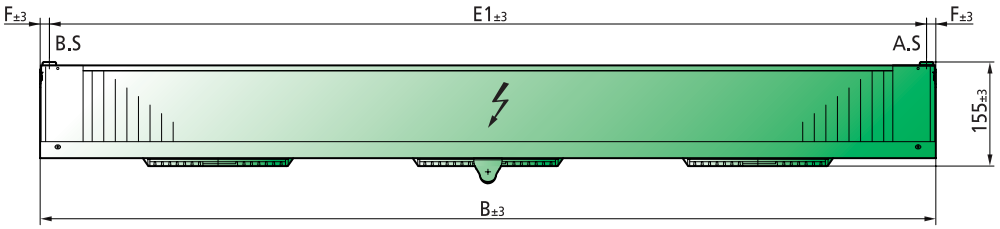
DF. (E) 011, 021, 031D



DF. (E) 022, 032D



DF. (E) 023, 033D



Model	Dimensions (mm)						Weight (net)		Weight (gross)	
							DFA.D	DFB.D	DFA.D	DFB.D
	H	B	T	L	E_1	F	kg	kg	kg	kg
DF. 011D	143	428	515	380	400	14	8	8	9	9
DF. 021D	143	528	515	380	500	14	9	9	10	10
DF. 031D	143	528	515	380	500	14	9	9	10	10
DF. 022D	143	928	515	380	900	14	14	14	16	16
DF. 032D	143	928	515	380	900	14	16	16	18	18
DF. 023D	143	1328	515	380	1300	14	21	21	23	23
DF. 033D	143	1328	515	380	1300	14	23	23	25	25