

**Refrigerant / Coolant**

- Can be used with all HFC refrigerants. Performance data can be found with Küba Select (Product Selection Software)
- For water / brine circulation choose your Air Cooler with Küba Select
- For CO₂ operation and for NH₃ applications immediate selection with Küba Select is possible – or ask our technical staff in sales



The performance data in the Q_v Charts refer to the combination of materials: tubes, Cu / fins, Al.

Küba **Blue Line**
Aircoolers

Fresh solutions.



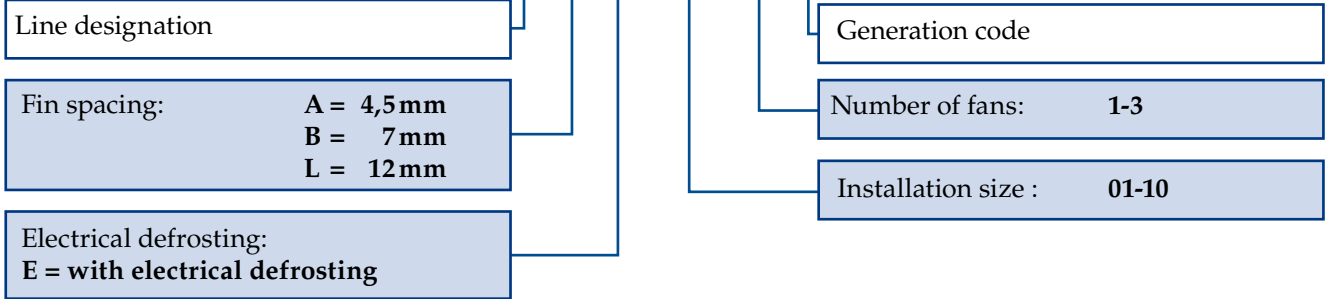
Technical Data (R404A)

SGA...C



Nomenclature

Standard

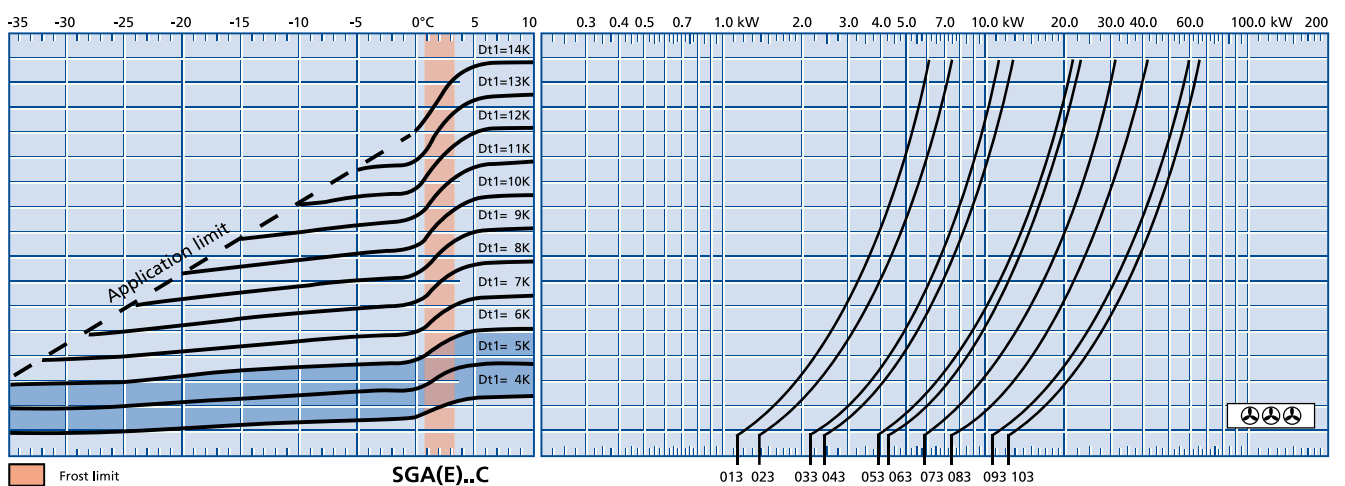
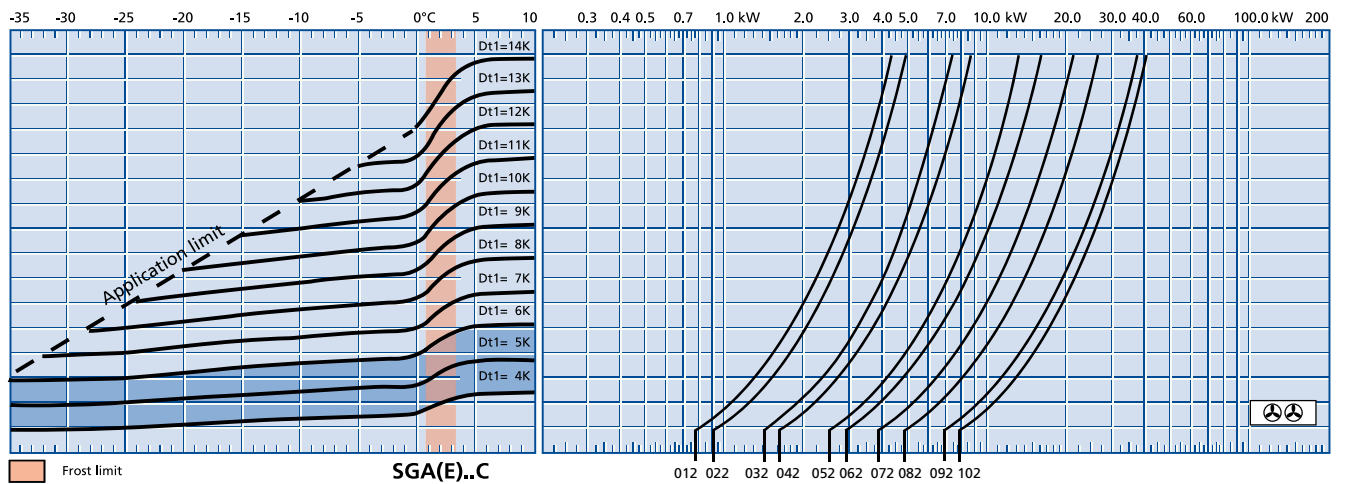
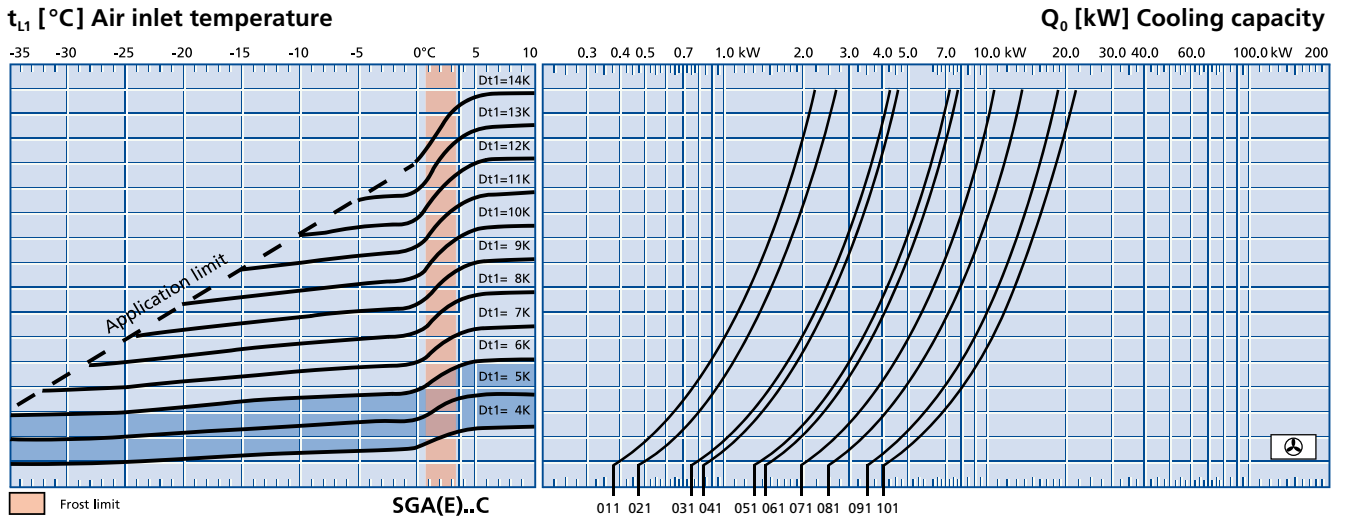


| Model | Rating Q ₀ at 50 Hz | | Surface m ² | Air flow m ³ /h | Air throw m | Tube volume dm ³ | Connections | | | Fans (operating values at 50 Hz) | | | | |
|----------|-----------------------------------|------------------------------------|---------------------------|-------------------------------|----------------|--------------------------------|---------------|----------------|---------------|-------------------------------------|---------------------------------|------|-----|------|
| | t ₁₁ ±0 °C DT1 = 8K | t ₁₁ -18 °C DT1 = 7K | | | | | Inlet Ø mm | Outlet Ø mm | Blade Ø mm | Type of current | min ⁻¹ | W | A | |
| | kW | kW | | | | | | | | | | | | |
| SGA 011C | ⊕ | 1,00 | 0,79 | 7,3 | 620 | 7 | 1,3 | 10 | 15 | 250 | 230±10% V-1~ 50/60 Hz | 1301 | 32 | 0,15 |
| SGA 021C | ⊕ | 1,23 | 0,97 | 9,7 | 520 | 7 | 1,3 | 10 | 15 | 250 | 230±10% V-1~ 50/60 Hz | 1301 | 32 | 0,15 |
| SGA 031C | ⊕ | 1,98 | 1,57 | 12,5 | 1060 | 10 | 2,1 | 10 | 15 | 300 | 230±10% V-1~ 50/60 Hz | 1295 | 86 | 0,38 |
| SGA 041C | ⊕ | 2,19 | 1,73 | 16,6 | 970 | 10 | 2,8 | 10 | 15 | 300 | 230±10% V-1~ 50/60 Hz | 1295 | 86 | 0,38 |
| SGA 051C | ⊕ | 3,45 | 2,74 | 23,1 | 1620 | 13 | 3,8 | 10 | 22 | 400 | 230±10% V-1~ 50/60 Hz | 1307 | 105 | 0,46 |
| SGA 061C | ⊕ | 3,81 | 3,03 | 28,7 | 1600 | 13 | 4,8 | 10 | 22 | 400 | 230±10% V-1~ 50/60 Hz | 1307 | 105 | 0,46 |
| SGA 071C | ⊕ | 5,69 | 4,52 | 34,5 | 2610 | 19 | 5,7 | 10* | 22 | 400 | 230±10% V-1~ 50/60 Hz | 1362 | 205 | 0,90 |
| SGA 081C | ⊕ | 6,73 | 5,34 | 51,5 | 2640 | 19 | 8,8 | 10* | 28 | 400 | 230±10% V-1~ 50/60 Hz | 1362 | 205 | 0,90 |
| SGA 091C | ⊕ | 9,42 | 7,49 | 61,8 | 4010 | 23 | 10,6 | 10* | 28 | 500 | 230/400 ±10%V-3~ 50/60 Hz | 1417 | 360 | 0,86 |
| SGA 101C | ⊕ | 10,80 | 8,57 | 82,3 | 4300 | 23 | 13,6 | 12* | 35 | 500 | 230/400 ±10%V-3~ 50/60 Hz | 1417 | 360 | 0,86 |
| SGA 012C | ⊕⊕ | 1,99 | 1,57 | 14,5 | 1240 | 11 | 2,3 | 10 | 15 | 250 | 230±10% V-1~ 50/60 Hz | 1301 | 32 | 0,15 |
| SGA 022C | ⊕⊕ | 2,45 | 1,94 | 19,2 | 1040 | 11 | 3,1 | 10 | 18 | 250 | 230±10% V-1~ 50/60 Hz | 1301 | 32 | 0,15 |
| SGA 032C | ⊕⊕ | 3,96 | 3,14 | 24,6 | 2120 | 14 | 3,9 | 10 | 18 | 300 | 230±10% V-1~ 50/60 Hz | 1295 | 86 | 0,38 |
| SGA 042C | ⊕⊕ | 4,38 | 3,47 | 33,0 | 1940 | 14 | 5,3 | 10 | 22 | 300 | 230±10% V-1~ 50/60 Hz | 1295 | 86 | 0,38 |
| SGA 052C | ⊕⊕ | 6,91 | 5,48 | 45,7 | 3240 | 18 | 7,6 | 10* | 28 | 400 | 230±10% V-1~ 50/60 Hz | 1307 | 105 | 0,46 |
| SGA 062C | ⊕⊕ | 7,62 | 6,05 | 57,1 | 3200 | 18 | 9,1 | 12* | 28 | 400 | 230±10% V-1~ 50/60 Hz | 1307 | 105 | 0,46 |
| SGA 072C | ⊕⊕ | 10,1 | 9,02 | 68,5 | 5220 | 26 | 10,8 | 12* | 35 | 400 | 230±10% V-1~ 50/60 Hz | 1362 | 205 | 0,90 |
| SGA 082C | ⊕⊕ | 12,5 | 10,68 | 103,0 | 5280 | 26 | 16,6 | 15* | 35 | 400 | 230±10% V-1~ 50/60 Hz | 1362 | 205 | 0,90 |
| SGA 092C | ⊕⊕ | 18,86 | 14,98 | 123,0 | 8020 | 33 | 19,8 | 15* | 35 | 500 | 230/400 ±10%V-3~ 50/60 Hz | 1417 | 360 | 0,86 |
| SGA 102C | ⊕⊕ | 21,60 | 17,16 | 164,0 | 8600 | 33 | 26,1 | 15* | 42 | 500 | 230/400 ±10%V-3~ 50/60 Hz | 1417 | 360 | 0,86 |
| SGA 013C | ⊕⊕⊕ | 2,99 | 2,36 | 21,5 | 1860 | 13 | 3,4 | 10 | 15 | 250 | 230±10% V-1~ 50/60 Hz | 1301 | 32 | 0,15 |
| SGA 023C | ⊕⊕⊕ | 3,68 | 2,92 | 28,7 | 1560 | 13 | 4,5 | 10 | 22 | 250 | 230±10% V-1~ 50/60 Hz | 1301 | 32 | 0,15 |
| SGA 033C | ⊕⊕⊕ | 5,94 | 4,70 | 37,0 | 3180 | 17 | 5,8 | 10 | 28 | 300 | 230±10% V-1~ 50/60 Hz | 1295 | 86 | 0,38 |
| SGA 043C | ⊕⊕⊕ | 6,57 | 5,20 | 49,2 | 2910 | 17 | 8,1 | 10* | 28 | 300 | 230±10% V-1~ 50/60 Hz | 1295 | 86 | 0,38 |
| SGA 053C | ⊕⊕⊕ | 10,35 | 8,21 | 68,3 | 4860 | 22 | 11,1 | 12* | 35 | 400 | 230±10% V-1~ 50/60 Hz | 1307 | 105 | 0,46 |
| SGA 063C | ⊕⊕⊕ | 11,42 | 9,07 | 85,5 | 4800 | 22 | 13,1 | 12* | 35 | 400 | 230±10% V-1~ 50/60 Hz | 1307 | 105 | 0,46 |
| SGA 073C | ⊕⊕⊕ | 15,2 | 12,1 | 103,0 | 7830 | 32 | 16,2 | 15* | 35 | 400 | 230±10% V-1~ 50/60 Hz | 1362 | 205 | 0,90 |
| SGA 083C | ⊕⊕⊕ | 18,9 | 14,9 | 154,0 | 7920 | 32 | 24,6 | 22* | 42 | 400 | 230±10% V-1~ 50/60 Hz | 1362 | 205 | 0,90 |
| SGA 093C | ⊕⊕⊕ | 28,29 | 22,47 | 184,0 | 12000 | 40 | 29,6 | 22* | 54 | 500 | 230/400 ±10%V-3~ 50/60 Hz | 1417 | 360 | 0,86 |
| SGA 103C | ⊕⊕⊕ | 32,41 | 25,75 | 246,0 | 12900 | 40 | 38,5 | 22* | 54 | 500 | 230/400 ±10%V-3~ 50/60 Hz | 1417 | 360 | 0,86 |

* Multiple injections with direct expansion using Küba CAL® distributors. The cooler rating at 60 Hz is 10% higher on average due to the higher speed and higher air flow.



Q_v Chart (EN328, R404A) SGA...C  **4,5 mm**



Q₀ = Cooling capacity
 t_{L1} = Air inlet temperature
 t₀ [°C] = Evaporating temperature (coil outlet)
 DT1 [K] = Temperature difference = t_{L1} - t₀ (°C)

DT1 = 4 K bis 6 K
 with electronic expansion valve

Example selection:
 For examples and explanations, please see the information section on pg. 136.



Technical Data (R404A)

SGB...C



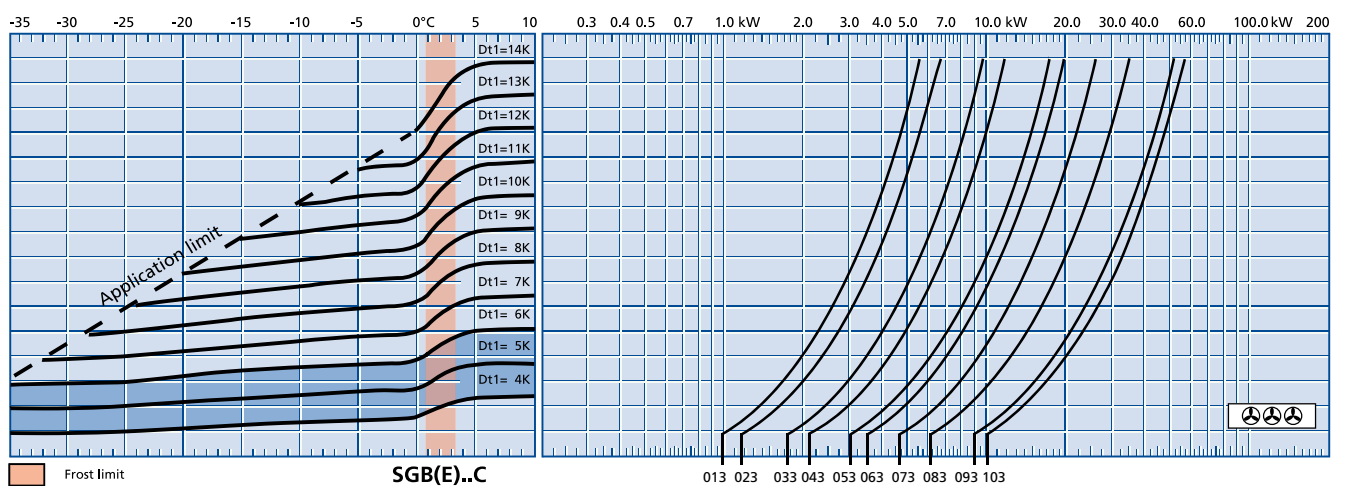
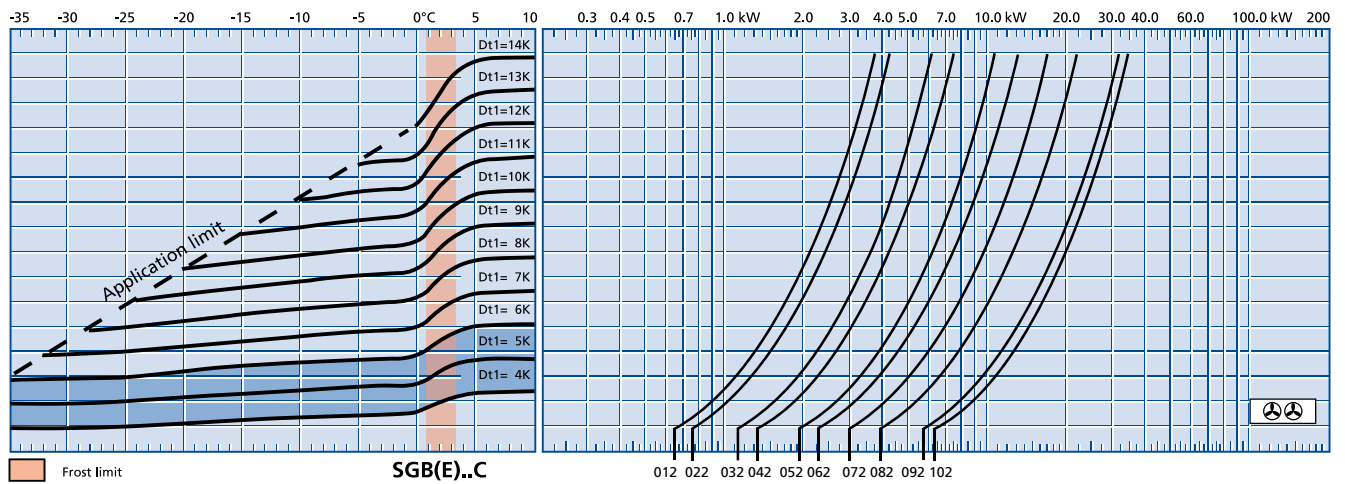
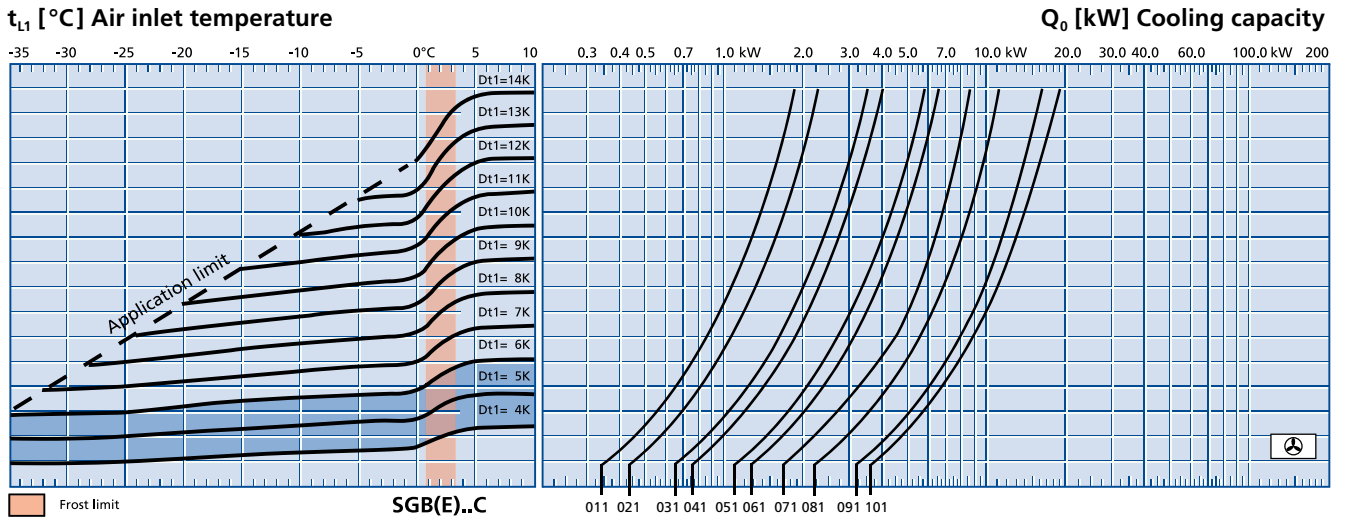
| Model | | Rating Q ₀ at 50 Hz | | Surface | Air flow | Air throw | Tube volume | Connections | | | Fans (operating values at 50 Hz) | | | |
|----------|-----|-----------------------------------|-------|---------|----------|-----------|-------------|-------------|--------|-------|-------------------------------------|-------------------|-----|------|
| | | t ₁₁ ±0 °C DT1 = 8K | | | | | | Inlet | Outlet | Blade | Type of current | min ⁻¹ | W | A |
| | | kW | kW | | | | | | | | | | | |
| SGB 011C | ⊕ | 0,91 | 0,72 | 4,9 | 700 | 8 | 1,3 | 10 | 15 | 250 | 230±10% V-1~ 50/60 Hz | 1301 | 32 | 0,15 |
| SGB 021C | ⊕ | 1,13 | 0,90 | 6,5 | 640 | 8 | 1,3 | 10 | 15 | 250 | | 1301 | 32 | 0,15 |
| SGB 031C | ⊕ | 1,74 | 1,37 | 8,2 | 1300 | 12 | 2,1 | 10 | 15 | 300 | 230±10% V-1~ 50/60 Hz | 1295 | 86 | 0,38 |
| SGB 041C | ⊕ | 2,00 | 1,59 | 11,1 | 1180 | 12 | 2,8 | 10 | 15 | 300 | | 1295 | 86 | 0,38 |
| SGB 051C | ⊕ | 2,91 | 2,31 | 15,2 | 1770 | 14 | 3,8 | 10 | 22 | 400 | 230±10% V-1~ 50/60 Hz | 1307 | 105 | 0,46 |
| SGB 061C | ⊕ | 3,34 | 2,65 | 19,1 | 1760 | 14 | 4,8 | 10 | 22 | 400 | | 1307 | 105 | 0,46 |
| SGB 071C | ⊕ | 4,3 | 3,4 | 22,8 | 2460 | 20 | 5,7 | 10* | 22 | 400 | 230/400 ±10%V-3~ 50/60 Hz | 1362 | 205 | 0,90 |
| SGB 081C | ⊕ | 5,3 | 4,3 | 34,1 | 2770 | 20 | 8,8 | 10* | 28 | 400 | | 1362 | 205 | 0,90 |
| SGB 091C | ⊕ | 8,42 | 6,69 | 41,0 | 4530 | 26 | 10,6 | 10* | 28 | 500 | 230/400 ±10%V-3~ 50/60 Hz | 1417 | 360 | 0,86 |
| SGB 101C | ⊕ | 9,50 | 7,54 | 54,5 | 4660 | 26 | 13,6 | 12* | 35 | 500 | | 1417 | 360 | 0,86 |
| SGB 012C | ⊕⊕ | 1,82 | 1,44 | 9,5 | 1400 | 12 | 2,3 | 10 | 15 | 250 | 230±10% V-1~ 50/60 Hz | 1301 | 32 | 0,15 |
| SGB 022C | ⊕⊕ | 2,27 | 1,79 | 12,7 | 1280 | 12 | 3,1 | 10 | 18 | 250 | | 1301 | 32 | 0,15 |
| SGB 032C | ⊕⊕ | 3,47 | 2,75 | 16,3 | 2600 | 17 | 3,9 | 10 | 18 | 300 | 230±10% V-1~ 50/60 Hz | 1295 | 86 | 0,38 |
| SGB 042C | ⊕⊕ | 4,00 | 3,17 | 21,7 | 2360 | 17 | 5,3 | 10 | 22 | 300 | | 1295 | 86 | 0,38 |
| SGB 052C | ⊕⊕ | 5,82 | 4,61 | 30,2 | 3540 | 19 | 7,6 | 10* | 28 | 400 | 230±10% V-1~ 50/60 Hz | 1307 | 105 | 0,46 |
| SGB 062C | ⊕⊕ | 6,68 | 5,30 | 37,7 | 3520 | 19 | 9,1 | 12* | 28 | 400 | | 1307 | 105 | 0,46 |
| SGB 072C | ⊕⊕ | 8,4 | 6,6 | 45,2 | 4920 | 28 | 10,6 | 12* | 35 | 400 | 230/400 ±10%V-3~ 50/60 Hz | 1362 | 205 | 0,90 |
| SGB 082C | ⊕⊕ | 10,6 | 8,5 | 67,7 | 5540 | 28 | 16,6 | 15* | 35 | 400 | | 1362 | 205 | 0,90 |
| SGB 092C | ⊕⊕ | 16,86 | 13,37 | 81,2 | 9060 | 37 | 19,8 | 15* | 35 | 500 | 230/400 ±10%V-3~ 50/60 Hz | 1417 | 360 | 0,86 |
| SGB 102C | ⊕⊕ | 19,01 | 15,07 | 108,0 | 9320 | 37 | 26,1 | 15* | 42 | 500 | | 1417 | 360 | 0,86 |
| SGB 013C | ⊕⊕⊕ | 2,73 | 2,16 | 14,2 | 2100 | 15 | 3,4 | 10 | 15 | 250 | 230±10% V-1~ 50/60 Hz | 1301 | 32 | 0,15 |
| SGB 023C | ⊕⊕⊕ | 3,40 | 2,69 | 19,1 | 1920 | 15 | 4,5 | 10 | 22 | 250 | | 1301 | 32 | 0,15 |
| SGB 033C | ⊕⊕⊕ | 5,21 | 4,12 | 24,3 | 3900 | 21 | 5,8 | 10 | 28 | 300 | 230±10% V-1~ 50/60 Hz | 1295 | 86 | 0,38 |
| SGB 043C | ⊕⊕⊕ | 6,00 | 4,76 | 32,5 | 3690 | 21 | 8,1 | 10* | 28 | 300 | | 1295 | 86 | 0,38 |
| SGB 053C | ⊕⊕⊕ | 8,73 | 6,92 | 45,1 | 5310 | 24 | 11,1 | 12* | 35 | 400 | 230±10% V-1~ 50/60 Hz | 1307 | 105 | 0,46 |
| SGB 063C | ⊕⊕⊕ | 10,02 | 7,95 | 56,5 | 5280 | 24 | 13,1 | 12* | 35 | 400 | | 1307 | 105 | 0,46 |
| SGB 073C | ⊕⊕⊕ | 12,6 | 10,1 | 67,6 | 7380 | 34 | 16,2 | 15* | 35 | 400 | 230/400 ±10%V-3~ 50/60 Hz | 1362 | 205 | 0,90 |
| SGB 083C | ⊕⊕⊕ | 16,1 | 12,7 | 101,0 | 8310 | 34 | 24,5 | 22* | 42 | 400 | | 1362 | 205 | 0,90 |
| SGB 093C | ⊕⊕⊕ | 25,29 | 20,07 | 122,0 | 13600 | 45 | 29,6 | 22* | 54 | 500 | 230/400 ±10%V-3~ 50/60 Hz | 1417 | 360 | 0,86 |
| SGB 103C | ⊕⊕⊕ | 28,50 | 22,61 | 162,0 | 14000 | 45 | 38,5 | 22* | 54 | 500 | | 1417 | 360 | 0,86 |

* Multiple injections with direct expansion using Küba CAL® distributors. The cooler rating at 60 Hz is 10% higher on average due to the higher speed and higher air flow.

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Q_v Chart (EN328, R404A) SGB...C  **7 mm**



Q₀ = Cooling capacity
 t_{Li} = Air inlet temperature
 t₀ [°C] = Evaporating temperature (coil outlet)
 DT1 [K] = Temperature difference = t_{Li} - t₀ (°C)

DT1 = 4 K bis 6 K
 with electronic expansion valve

Example selection:
 For examples and explanations, please see the information section on pg. 136.



Technical Data (R404A)

SGL...C

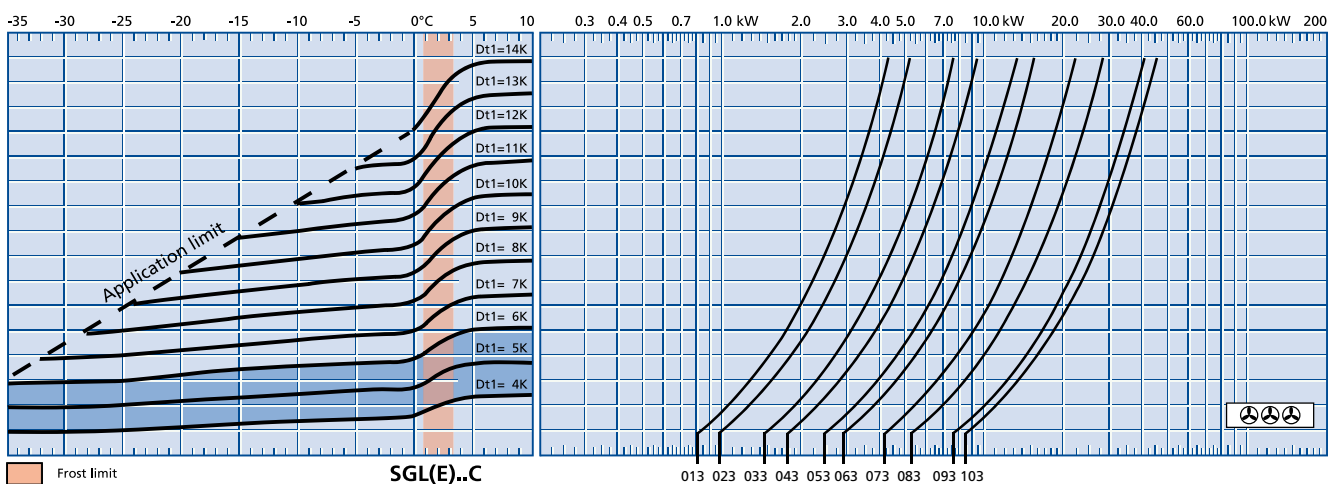
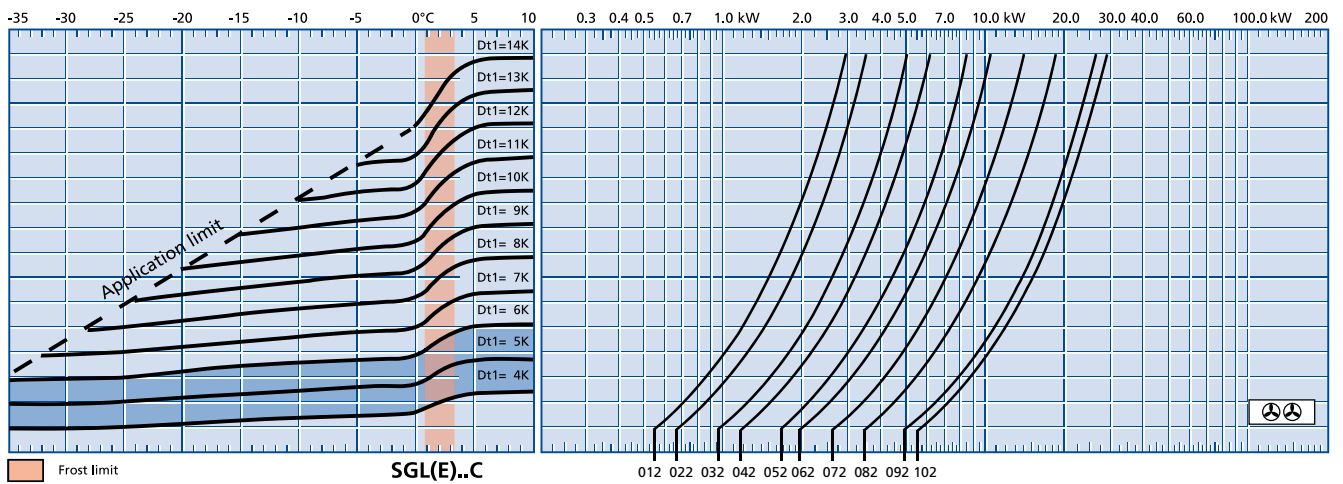
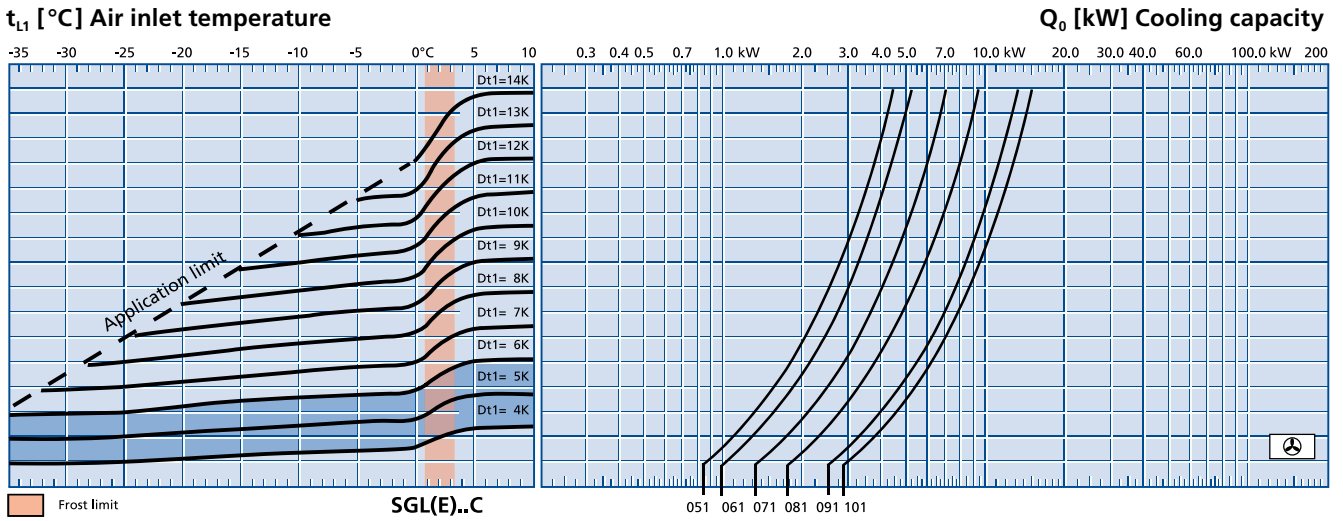


| Model | | Rating Q ₀ at 50 Hz | | Surface m ² | Air flow m ³ /h | Air throw m | Tube volume dm ³ | Connections | | | Fans (operating values at 50 Hz) | | | |
|----------|-----|------------------------------------|-------|---------------------------|-------------------------------|----------------|--------------------------------|---------------|----------------|---------------|-------------------------------------|-------------------|------|------|
| | | t ₁₁ ± 0 °C DT1 = 8K | | | | | | Inlet Ø mm | Outlet Ø mm | Blade Ø mm | Type of current | min ⁻¹ | W | A |
| | | t ₁₁ -18 °C DT1 = 7K | kW | | | | | | | | | | | |
| SGL 051C | ⊗ | 2,20 | 1,74 | 9,5 | 1910 | 15 | 3,8 | 10 | 22 | 400 | 230±10% V-1~ 50/60 Hz | 1307 | 105 | 0,46 |
| SGL 061C | ⊗ | 2,60 | 2,06 | 11,8 | 1900 | 15 | 4,8 | 10 | 22 | 400 | | 1307 | 105 | 0,46 |
| SGL 071C | ⊗ | 3,69 | 2,92 | 14,1 | 3020 | 21 | 5,7 | 10* | 22 | 400 | | 1362 | 205 | 0,90 |
| SGL 081C | ⊗ | 4,70 | 3,73 | 21,1 | 3060 | 21 | 8,8 | 10* | 28 | 400 | 1362 | 205 | 0,90 | |
| SGL 091C | ⊗ | 6,58 | 5,21 | 25,2 | 4890 | 28 | 10,6 | 10* | 28 | 500 | 230/400 ±10%V-3~ 50/60 Hz | 1417 | 360 | 0,86 |
| SGL 101C | ⊗ | 7,48 | 5,93 | 33,5 | 5020 | 28 | 13,6 | 12* | 35 | 500 | | 1417 | 360 | 0,86 |
| SGL 012C | ⊗⊗ | 1,45 | 1,15 | 5,9 | 1610 | 14 | 2,3 | 10 | 15 | 250 | 1301 | 32 | 0,15 | |
| SGL 022C | ⊗⊗ | 1,75 | 1,39 | 8,0 | 1470 | 14 | 3,1 | 10 | 18 | 250 | 1301 | 32 | 0,15 | |
| SGL 032C | ⊗⊗ | 2,55 | 2,02 | 10,1 | 2990 | 19 | 3,9 | 10 | 18 | 300 | 1295 | 86 | 0,38 | |
| SGL 042C | ⊗⊗ | 3,09 | 2,45 | 13,5 | 2710 | 19 | 5,3 | 10 | 22 | 300 | 230±10% V-1~ 50/60 Hz | 1295 | 86 | 0,38 |
| SGL 052C | ⊗⊗ | 4,40 | 3,49 | 18,5 | 3820 | 21 | 7,6 | 10* | 28 | 400 | | 1307 | 105 | 0,46 |
| SGL 062C | ⊗⊗ | 5,21 | 4,13 | 23,2 | 3800 | 21 | 9,1 | 12* | 28 | 400 | 1307 | 105 | 0,46 | |
| SGL 072C | ⊗⊗ | 7,38 | 5,84 | 27,8 | 5440 | 30 | 10,6 | 12* | 35 | 400 | 1362 | 205 | 0,90 | |
| SGL 082C | ⊗⊗ | 9,39 | 7,45 | 41,5 | 6260 | 30 | 16,2 | 15* | 35 | 400 | 1362 | 205 | 0,90 | |
| SGL 092C | ⊗⊗ | 13,14 | 10,41 | 50,0 | 9780 | 40 | 19,8 | 15* | 35 | 500 | 230/400 ±10%V-3~ 50/60 Hz | 1417 | 360 | 0,86 |
| SGL 102C | ⊗⊗ | 14,95 | 11,85 | 66,3 | 10000 | 40 | 26,1 | 15* | 42 | 500 | | 1417 | 360 | 0,86 |
| SGL 013C | ⊗⊗⊗ | 2,17 | 1,72 | 8,7 | 2410 | 17 | 3,4 | 10 | 15 | 250 | 1301 | 32 | 0,15 | |
| SGL 023C | ⊗⊗⊗ | 2,63 | 2,08 | 11,6 | 2210 | 17 | 4,5 | 10 | 22 | 250 | 1301 | 32 | 0,15 | |
| SGL 033C | ⊗⊗⊗ | 3,82 | 3,03 | 15,0 | 4490 | 24 | 5,8 | 10 | 28 | 300 | 1295 | 86 | 0,38 | |
| SGL 043C | ⊗⊗⊗ | 4,63 | 3,67 | 20,0 | 4240 | 24 | 8,1 | 10* | 28 | 300 | 230±10% V-1~ 50/60 Hz | 1295 | 86 | 0,38 |
| SGL 053C | ⊗⊗⊗ | 6,61 | 5,23 | 27,7 | 5730 | 26 | 11,0 | 12* | 35 | 400 | | 1307 | 105 | 0,46 |
| SGL 063C | ⊗⊗⊗ | 7,81 | 6,19 | 34,6 | 5700 | 26 | 13,1 | 12* | 35 | 400 | 1307 | 105 | 0,46 | |
| SGL 073C | ⊗⊗⊗ | 11,05 | 8,75 | 41,3 | 9070 | 37 | 16,2 | 15* | 35 | 400 | 1362 | 205 | 0,90 | |
| SGL 083C | ⊗⊗⊗ | 14,10 | 11,17 | 62,1 | 9400 | 37 | 24,5 | 22* | 42 | 400 | 1362 | 205 | 0,90 | |
| SGL 093C | ⊗⊗⊗ | 19,72 | 15,63 | 74,5 | 14700 | 49 | 29,6 | 22* | 54 | 500 | 230/400 ±10%V-3~ 50/60 Hz | 1417 | 360 | 0,86 |
| SGL 103C | ⊗⊗⊗ | 22,43 | 17,77 | 99,1 | 15100 | 49 | 38,5 | 22* | 54 | 500 | | 1417 | 360 | 0,86 |

* Multiple injections with direct expansion using Küba CAL® distributors. The cooler rating at 60 Hz is 10% higher on average due to the higher speed and higher air flow.



Q_v Chart (EN328, R404A) SGL...C  **12 mm**



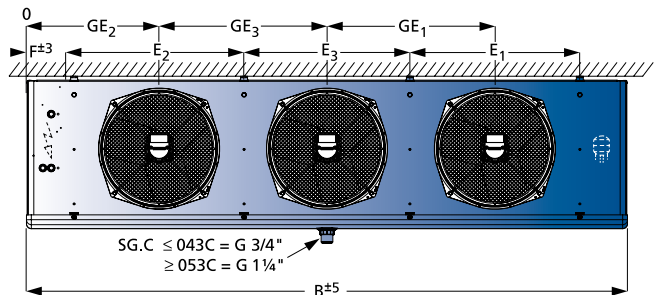
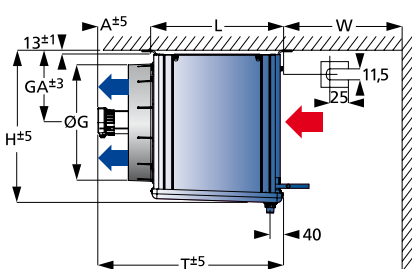
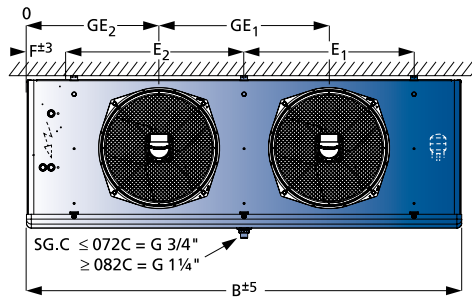
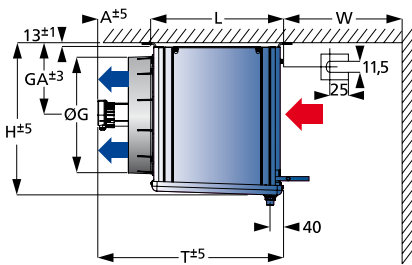
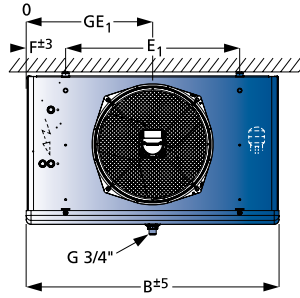
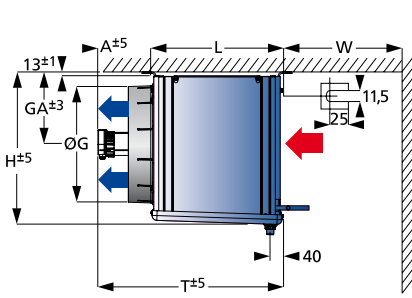
Q₀ = Cooling capacity
 t_{L1} = Air inlet temperature
 t₀ [°C] = Evaporating temperature (coil outlet)
 DT1 [K] = Temperature difference = t_{L1} - t₀ (°C)

DT1 = 4 K bis 6 K
 with electronic expansion valve

Example selection:
 For examples and explanations, please see the information section on pg. 136.



Dimensional Drawings



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With double, insulated drip trays the following dimensions are changed:

- Width B: +60 mm
- Height H: +30 mm
- Depth T: +30 mm

Sound power level L_{WA} [dB(A)]



| Größe | SGA/SGB/SGL | | |
|-------|-------------|-----|-------|
| | ⊕ | ⊕ ⊕ | ⊕ ⊕ ⊕ |
| 01 | 59 | 62 | 64 |
| 02 | 59 | 62 | 64 |
| 03 | 66 | 69 | 71 |
| 04 | 66 | 69 | 71 |
| 05 | 70 | 73 | 75 |
| 06 | 70 | 73 | 75 |
| 07 | 75 | 78 | 80 |
| 08 | 75 | 78 | 80 |
| 09 | 78 | 81 | 83 |
| 10 | 78 | 81 | 83 |



Dimensional Drawings, Electric Defrosting, Weights

| Size | Dimensions [mm] | | | | | | | | | | | | | | | | Electrical Defrosting | | | Net weight | | |
|------|-----------------|------|-----|-----|----------------|----------------|----------------|-----|-----|-----|--------|-----|-----|-----------------|-----------------|-----------------|-----------------------|------|-------|------------|-----|-----|
| | H | B | T | L | E ₁ | E ₂ | E ₃ | F | A | W | W Hood | ØG | GA | GE ₁ | GE ₂ | GE ₃ | Coil | Tray | Total | SGA | SGB | SGL |
| | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | kW | kW | kW | kg | kg |
| 011C | 360 | 565 | 420 | 345 | 380 | - | - | 93 | 80 | 200 | 290 | 265 | 160 | 283 | - | - | 0,77 | 0,35 | 1,16 | 12 | 11 | - |
| 021C | 360 | 565 | 420 | 345 | 380 | - | - | 93 | 80 | 200 | 290 | 265 | 160 | 283 | - | - | 0,77 | 0,35 | 1,16 | 13 | 12 | - |
| 031C | 460 | 665 | 440 | 345 | 480 | - | - | 93 | 100 | 200 | 340 | 321 | 210 | 333 | - | - | 0,96 | 0,42 | 1,38 | 18 | 17 | - |
| 041C | 460 | 665 | 440 | 345 | 480 | - | - | 93 | 100 | 200 | 340 | 321 | 210 | 333 | - | - | 0,96 | 0,42 | 1,38 | 20 | 19 | - |
| 051C | 560 | 815 | 570 | 415 | 530 | - | - | 143 | 160 | 300 | 430 | 419 | 260 | 408 | - | - | 1,44 | 0,24 | 1,68 | 30 | 29 | 28 |
| 061C | 560 | 815 | 570 | 415 | 530 | - | - | 143 | 160 | 300 | 430 | 419 | 260 | 408 | - | - | 1,61 | 0,24 | 1,85 | 33 | 32 | 30 |
| 071C | 560 | 915 | 640 | 495 | 630 | - | - | 143 | 150 | 300 | 430 | 419 | 260 | 458 | - | - | 1,73 | 0,29 | 2,02 | 41 | 39 | 37 |
| 081C | 560 | 1065 | 640 | 495 | 780 | - | - | 143 | 150 | 300 | 430 | 419 | 260 | 533 | - | - | 2,18 | 0,35 | 2,53 | 53 | 51 | 49 |
| 091C | 660 | 1065 | 650 | 495 | 780 | - | - | 143 | 160 | 400 | 500 | 525 | 320 | 533 | - | - | 2,90 | 0,35 | 3,25 | 62 | 59 | 56 |
| 101C | 660 | 1315 | 650 | 495 | 1030 | - | - | 143 | 160 | 400 | 500 | 525 | 320 | 658 | - | - | 3,68 | 0,44 | 4,12 | 71 | 68 | 65 |
| 012C | 360 | 1015 | 420 | 345 | 730 | 365 | - | 143 | 80 | 200 | 290 | 265 | 160 | 690 | 325 | - | 1,38 | 0,69 | 2,07 | 23 | 21 | 19 |
| 022C | 360 | 1015 | 420 | 345 | 730 | 365 | - | 143 | 80 | 200 | 290 | 265 | 160 | 690 | 325 | - | 1,38 | 0,69 | 2,07 | 24 | 22 | 20 |
| 032C | 460 | 1215 | 440 | 345 | 930 | 465 | - | 143 | 100 | 200 | 340 | 321 | 210 | 840 | 375 | - | 1,72 | 0,77 | 2,49 | 35 | 33 | 31 |
| 042C | 460 | 1215 | 440 | 345 | 930 | 465 | - | 143 | 100 | 200 | 340 | 321 | 210 | 840 | 375 | - | 1,72 | 0,77 | 2,49 | 39 | 37 | 35 |
| 052C | 560 | 1375 | 570 | 415 | 1030 | 515 | - | 173 | 160 | 300 | 430 | 419 | 260 | 945 | 430 | - | 2,64 | 0,44 | 3,08 | 58 | 55 | 53 |
| 062C | 560 | 1375 | 570 | 415 | 1030 | 515 | - | 173 | 160 | 300 | 430 | 419 | 260 | 945 | 430 | - | 2,64 | 0,44 | 3,08 | 64 | 61 | 58 |
| 072C | 560 | 1575 | 640 | 495 | 1230 | 615 | - | 173 | 150 | 300 | 430 | 419 | 260 | 1095 | 480 | - | 3,11 | 0,52 | 3,63 | 80 | 76 | 72 |
| 082C | 560 | 1875 | 640 | 495 | 1530 | 765 | - | 173 | 150 | 300 | 430 | 419 | 260 | 1320 | 555 | - | 3,90 | 0,65 | 4,55 | 104 | 100 | 96 |
| 092C | 660 | 1875 | 650 | 495 | 1530 | 765 | - | 173 | 160 | 400 | 500 | 525 | 320 | 1320 | 555 | - | 6,50 | 0,65 | 7,15 | 120 | 114 | 108 |
| 102C | 660 | 2375 | 650 | 495 | 2030 | 1015 | - | 173 | 160 | 400 | 500 | 525 | 320 | 1695 | 680 | - | 8,42 | 0,84 | 9,27 | 137 | 130 | 123 |
| 013C | 360 | 1365 | 420 | 345 | 1080 | 365 | 715 | 143 | 80 | 200 | 290 | 265 | 160 | 1040 | 325 | 683 | 1,84 | 0,92 | 2,76 | 34 | 31 | 28 |
| 023C | 360 | 1365 | 420 | 345 | 1080 | 365 | 715 | 143 | 80 | 200 | 290 | 265 | 160 | 1040 | 325 | 683 | 1,84 | 0,92 | 2,76 | 37 | 34 | 31 |
| 033C | 460 | 1665 | 440 | 345 | 1380 | 465 | 915 | 143 | 100 | 200 | 340 | 321 | 210 | 1290 | 375 | 833 | 2,42 | 1,21 | 3,63 | 51 | 48 | 45 |
| 043C | 460 | 1665 | 440 | 345 | 1380 | 465 | 915 | 143 | 100 | 200 | 340 | 321 | 210 | 1290 | 375 | 833 | 2,42 | 1,21 | 3,63 | 57 | 54 | 51 |
| 053C | 560 | 1875 | 570 | 415 | 1530 | 515 | 1015 | 173 | 160 | 300 | 430 | 419 | 260 | 1445 | 430 | 938 | 3,90 | 0,65 | 4,55 | 86 | 81 | 76 |
| 063C | 560 | 1875 | 570 | 415 | 1530 | 515 | 1015 | 173 | 160 | 300 | 430 | 419 | 260 | 1445 | 430 | 938 | 3,90 | 0,65 | 4,55 | 95 | 90 | 85 |
| 073C | 560 | 2175 | 640 | 495 | 1830 | 615 | 1215 | 173 | 150 | 300 | 430 | 419 | 260 | 1695 | 480 | 1088 | 4,47 | 0,75 | 5,22 | 118 | 111 | 104 |
| 083C | 560 | 2625 | 640 | 495 | 2280 | 765 | 1515 | 173 | 150 | 300 | 430 | 419 | 260 | 2070 | 555 | 1313 | 5,63 | 0,94 | 6,57 | 154 | 147 | 140 |
| 093C | 660 | 2625 | 650 | 495 | 2280 | 765 | 1515 | 173 | 160 | 400 | 500 | 525 | 320 | 2070 | 555 | 1313 | 9,37 | 0,94 | 10,32 | 180 | 170 | 160 |
| 103C | 660 | 3375 | 650 | 495 | 3030 | 1015 | 2015 | 173 | 160 | 400 | 500 | 525 | 320 | 2695 | 680 | 1688 | 12,09 | 1,82 | 13,92 | 240 | 228 | 216 |



The dimensions are only valid for the standard model design!
 Note the differences in dimension among versions and accessories.



Models

Motor versions

- **Version V1.33 – quiet design**
Especially suited for sales areas, etc.
- Reduced air flow rate, VL
- Lower sound power level, Lw (A)
- Fans 230 ± 10% V-1~



For alternative motor versions, see Küba Select or version overview, p. 126

Water/brine circulation

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

Casing versions

Double insulated drip tray

- **V3.09**

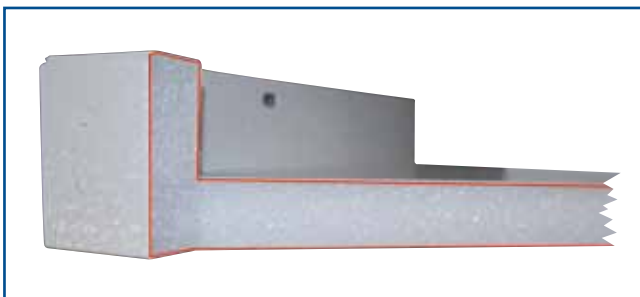


The double insulated drip tray has 25 mm of insulation.

The insulation prevents condensation water from building up on the bottom side of the tray and reduces the transfer of defrosting heat into the Cold Room.

This changes the following dimensions:

- Width B:** +60 mm
- Hight H:** +30 mm
- Depth T:** +30 mm



Hinged fans

- **V3.10**

To make the coolers easy to clean, the fans are mounted with stainless steel hinges.



Hinge-down drip tray

- **V3.11**

The hinge-down drip tray is easy to assemble and makes it easy to clean the devices from below.



Defrost versions

All GEA Küba Air Coolers are available with electric defrosting. See nomenclature, p. 48

Hot gas defrost in the drip tray

- Hot gas connection on both sides
- V4.01 Copper design
- V4.02 Stainless steel design



Hot gas in the heat exchanger

- V6.05 Hot gas connection on the heat exchanger



**Hot gas in the heat exchanger and in the drip tray, copper design
Copper with/without check valve**

- Hot gas connection on both sides
- V6.07 with check valve
- V6.08 without check valve



Upon request: additional defrosting circuit: warm brine; the circuit is integrated into the heat exchanger.

Corrosion protection

Stainless steel casing

- **V3.12**



For protection in aggressive cold storage air, i.e. in smokehouses and curing areas, all casing components are stainless steel and of industrial quality.

- **Version V6.01**

Heat exchanger:

- Tubing: Cu
- Fins: Al „goldlack“ coating
- End plates: Al protective coating on both sides



Casing:

- Al-Stucco, protective coating on both sides



Models

- **Version V6.02**



Heat exchanger:

Tubing: Stainless steel
Fins: „goldlack“ coating
End plates: Stainless steel

Casing: Al-stucco, protective coating
on both sides

Refrigerant distributor: Standard Venturi
Stainless steel CAL® distributor upon request

- **Version V6.03**



Heat exchanger:

Tubing: Stainless steel
Fins: Al
End plates: Al

Casing: Al-Stucco, protective coating
on one side

Refrigerant distributor: Standard Venturi
Stainless steel CAL® distributor upon request

- **Version V6.04**



Heat exchanger:

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

Casing: Al-Stucco, protective coating
on one side



Further information regarding
corrosion protection can be found
on pages 132 to 135

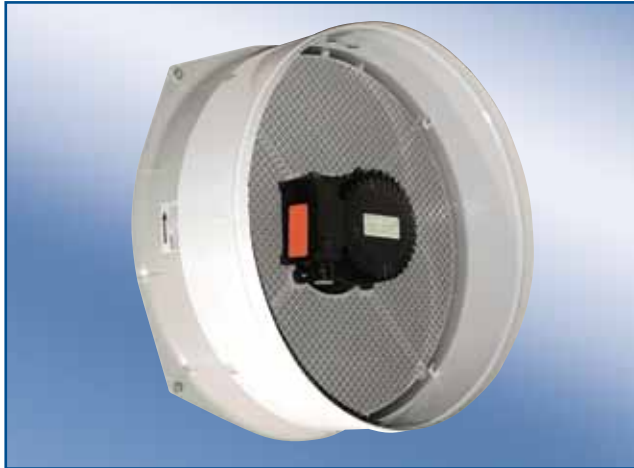


Accessories

Adapter for textile hose connection and Shut-Up®

With the Küba Shut-Up® and fitting adapter, (aluminium, powder-coated RAL 9018) mounting a PVC or textile hose is quick and easy.

Air Guiding Grid design: plastic (not suitable for fan collar heaters)



Selection table

| For Air Coolers | Adapter | | Note |
|-----------------|----------|-------|--|
| | Quantity | ØG mm | |
| SG 011-021C | 1 | 270 | |
| SG 031-041C | 1 | 325 | |
| SG 051-061C | 1 | 425 | |
| SG 071-081C | 1 | 425 | |
| SG 091-101C | 1 | 525 | |
| SG 012-022C | 2 | 270 | |
| SG 032-042C | 2 | 325 | Not assembled upon delivery (cannot be used with electric defrosting SGHR) |
| SG 052-062C | 2 | 425 | |
| SG 072-082C | 2 | 425 | |
| SG 092-102C | 2 | 525 | |
| SG 013-023C | 3 | 270 | |
| SG 033-043C | 3 | 325 | |
| SG 053-063C | 3 | 425 | |
| SG 073-083C | 3 | 425 | |
| SG 093-103C | 3 | 525 | |

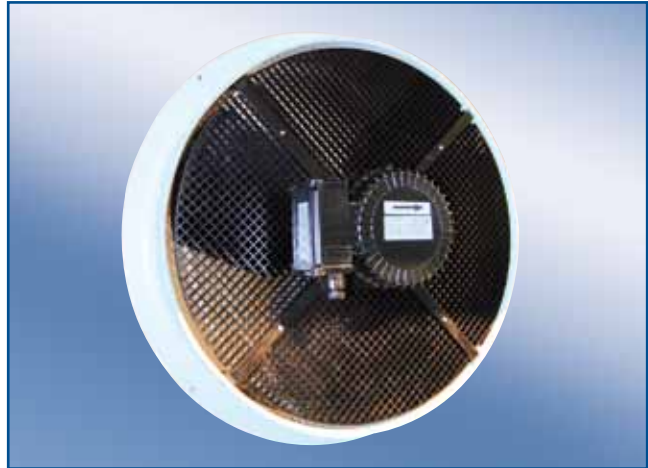


For greater pressure drops we recommend using more powerful fans. When using textile or PVC hoses, take the Ø G (mm) in the selection table into consideration. For more information, contact our sales engineers, Tel.: ++49 (0)89 / 74473-0. For more detailed information, please see the information provided by the textile or PVC hose manufacturer.

Fan unit for assembling fan collar heaters

This fan unit (collar made of aluminium, powder-coated RAL 9018) is used to assemble a fan collar heater.

Fan unit design: suitable for use with fan collar heaters



Applications

- Assembling fan collar heaters for deep-freezing starting at -18 °C

If fan collar heaters are used for a deep-freeze application, a fan with an aluminium collar must be used instead of the standard fan unit. Please note this in planning.

Scope of delivery

Complete fan unit consisting of:

- Collar: Al Stucco, white powder-coated RAL 9018, Food safe, High protection against corrosion
- Air Guiding Grid: Plastic
- Motor and blade: Standard



Accessories

Recommended for frozen storage

- Shut-Up®
- Defrost hood
- Fan collar heaters
- Double insulated drip tray
- Insulate the top panel on site

Shut-Up®

In conjunction with the accessories mentioned above, the Küba Shut-Up® optimises the defrost process, especially in deep-freeze applications.

Applications

- Frozen storage starting at -18 °C
- Alternating defrosting of the Air Coolers in one room

Advantages (in connection with the defrosting hood)

With Shut-Up® and the defrost hood, a positive accumulation of heat occurs in the Air Cooler during the defrost process. The heat remains in the cooler, which means:

- Defrost times are reduced by more than 50%
- Significant amounts of energy are saved
- No frost build-up on the ceiling of the storage room or on the goods due to minimal vapour build-up
- Defrost temperature in the cooler is $\leq 5^{\circ}\text{C}$

Calculation hint

Due to the additional external pressure, the air quantity and Air Cooler capacity change:

| Model | Change in air quantity | Change in rating |
|----------------------|------------------------|------------------|
| SG commercial | -10% | -5% |

Selection table

| for model | | Shut-Up® |
|--------------|-------|----------|
| SG... | ⊕ | 1 piece |
| SG... | ⊕ ⊕ | 2 pieces |
| SG... | ⊕ ⊕ ⊕ | 3 pieces |

Please plan to use an adapter.
Shut-Up® is not assembled upon delivery.



Cooling phase, fans switched on: Shut-Up® is inflated



Defrosting, fans switched off: Shut-Up® closes the Air Cooler



Accessories

Defrost hood

The defrosting hood optimises the defrost process, especially for deep-freeze applications.

Applications

- Frozen storage starting at -18°C
- Alternating defrosting of the Air Coolers in one room

Advantages (in connection with Shut-Up®)

With the defrost hood and Shut-Up®, a positive accumulation of heat occurs in the Air Cooler during the defrost process. The heat remains in the cooler, which means:

- Defrost times are reduced by more than 50%
- Significant amounts of energy are saved
- No frost build-up on the ceiling of the storage room or on the goods due to minimal vapour build-up
- Defrost temperature in cooler is $\leq 5^\circ\text{C}$

Construction

- The defrosting hood consists of 6 mm of thick expanded polycarbonate
- To a large extent, the insulated plastic prevents temperatures from falling below the dew point and the related formation of ice.
- The material is temperature resistant from -100°C to +140°C
- Results of endurance tests with regard to contact with foodstuffs are available.
- The defrosting hoods are delivered as a kit for every fan module and can be assembled on site according to the enclosed assembly instructions
- Please note the minimum wall clearance „ W_{min} “

Module dimensions and weight:

| Model | H mm | B mm | W_{min} mm | Weight kg |
|------------|---------|---------|------------------------|--------------|
| SG 11-23 | 600 | 352 | 290 | 1,8 |
| SG 31-14 | 700 | 452 | 360 | 2,5 |
| SG 51-63 | 800 | 502 | 430 | 3,0 |
| SG 71-73 | 800 | 602 | 430 | 3,4 |
| SG 81-83 | 800 | 752 | 430 | 4,1 |
| SG 91-93 | 900 | 752 | 500 | 4,5 |
| SG 101-103 | 900 | 1002 | 500 | 5,6 |

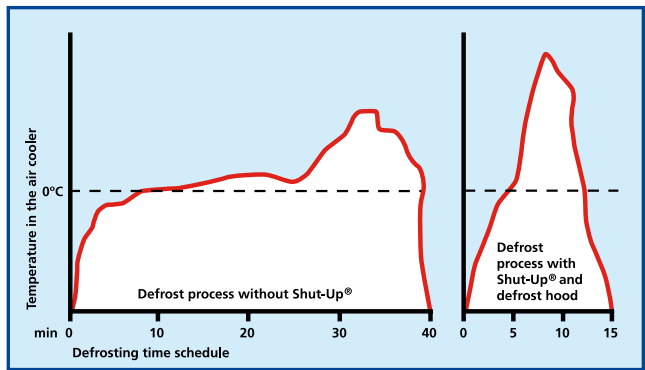
Calculation hint

Due to the additional external pressure, the air quantity and Air Cooler capacity change:

| Model | Change in air quantity | Change in rating |
|----------------------|------------------------|------------------|
| SG commercial | -10% | -5% |

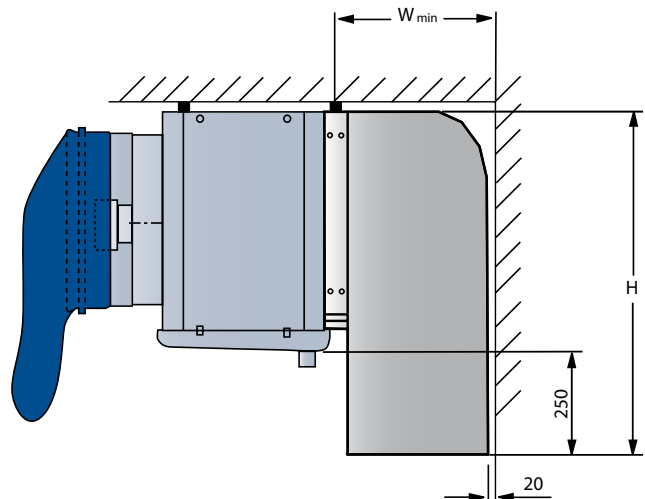
For deep-freeze applications, GEA Küba engineers recommend an insulated drip tray.

Defrosting process with Shut-Up® and defrost hood



Defrost time reduced by more than half

Defrost hood at air inlet





Accessories

Fan collar heater VRB

Benefits:

Prevents the fan blade at the collar from freezing up (in cases of extreme humidity in the freezer and frozen storage area)

Included in delivery:

Electric tubular heater with stainless steel sleeve Ø 8,5 mm

Connection ends: 1,5 x 2000 mm

Tension spring: stainless steel



Technical Data

| Model | for blade mm | Nominal rating at 230V kW | Ømm D _i | Weight kg |
|--------|-----------------|------------------------------|-----------------------|--------------|
| VRB 25 | 250 | 0,31 | 270 | 0,35 |
| VRB 30 | 300 | 0,39 | 325 | 0,40 |
| VRB 40 | 400 | 0,48 | 425 | 0,50 |
| VRB 50 | 500 | 0,27 | 525 | 0,55 |

Selection table

| For Air Coolers | VRB Quantity | Model Designation | Connection power / cooler kW |
|-----------------|-----------------|----------------------|---------------------------------|
| SG 011, 021C | 1 | VRB 25 | 0,31 |
| SG 031, 041C | 1 | VRB 30 | 0,39 |
| SG 051, 061C | 1 | VRB 40 | 0,48 |
| SG 071, 081C | 1 | VRB 40 | 0,48 |
| SG 091, 101C | 1 | VRB 50 | 0,27 |
| SG 012, 022C | 2 | VRB 25 | 0,62 |
| SG 032, 042C | 2 | VRB 30 | 0,78 |
| SG 052, 062C | 2 | VRB 40 | 0,96 |
| SG 072, 082C | 2 | VRB 40 | 0,96 |
| SG 092, 102C | 2 | VRB 50 | 0,54 |
| SG 013, 023C | 3 | VRB 25 | 0,93 |
| SG 033, 043C | 3 | VRB 30 | 1,17 |
| SG 053, 063C | 3 | VRB 40 | 1,44 |
| SG 073, 083C | 3 | VRB 40 | 1,44 |
| SG 093, 103C | 3 | VRB 50 | 0,81 |

Fan collar heater cover

Benefits:

- Contact protection
- Reduces heat radiation from the fan collar heaters into the Cold Room
- Improves heat conductivity at the collar
- Increases the efficiency of the fan collar heaters
- Protects against slipping



Only available for usage with a metal air duct; fan unit for assembling a fan collar heater VRB, see page 58!

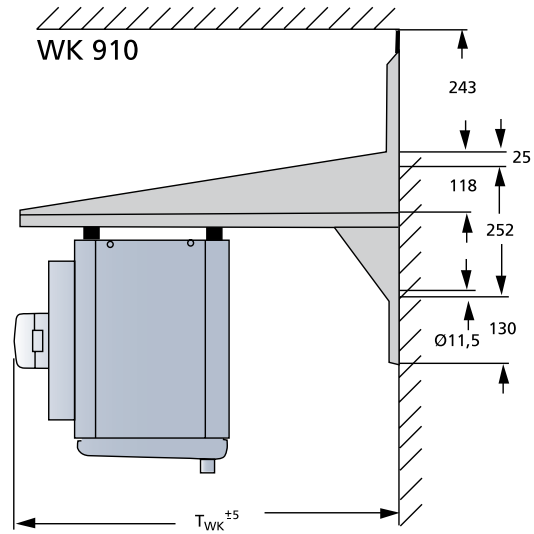
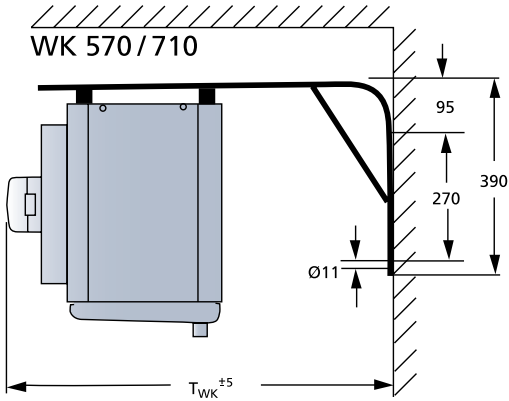




Accessories

Mounting material, wall bracket / floor bracket

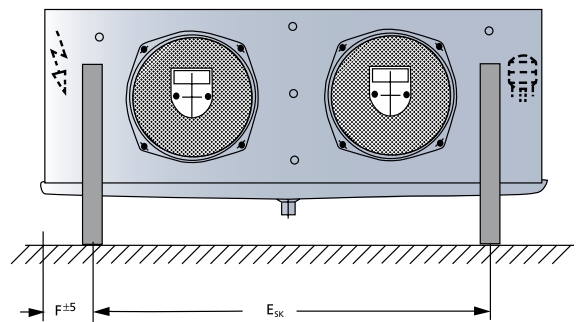
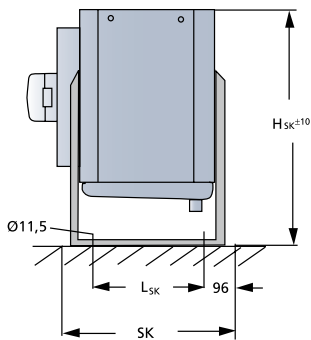
Wall bracket (WK)



Design: Galvanised steel

| SG. | 011-013C | 021-023C | 031-033C | 041-043C | 051-053C | 061-063C | 071-073C | 081-083C | 091-093C | 101-103C |
|----------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| WK | 570 | 570 | 570 | 570 | 710 | 710 | 910 | 910 | 910 | 910 |
| T _{wk} [mm] | 615 | 615 | 635 | 635 | 835 | 835 | 1000 | 1000 | 1010 | 1010 |

Floor brackets (SK)



Design: SK 460, 510 = Al

| SG. | | 051-053C | 061-063C | 071-073C | 081-083C | 091-093C | 101-103C |
|-----------------|-----------------|---|----------|----------|----------|----------|----------|
| SK | | 460 | 460 | 460 | 460 | 510 | 510 |
| Dimensions [mm] | SK | 460 | 460 | 460 | 460 | 510 | 510 |
| | H _{SK} | 685 | 685 | 785 | 785 | 785 | 785 |
| | L _{SK} | 478 | 478 | 558 | 558 | 558 | 558 |
| | E _{SK} | } ≙ E1 und F } ≙ According to dimension table p.55 | | | | | |
| | F | | | | | | |

No floor mounting brackets are available for SG. 011 - 043C.



Accessories

Finned tube heaters SGHR

Intended for Air Coolers with draw-through fans. Self assembly is required.
Suitable for air conditioning or heating in the winter.



Use only with running Air Cooler fans. Failure to do so will cause the ceiling of the cold storage room to overheat. Please observe the respective safety guidelines.

- Scope of delivery (unassembled):
- Electric finned tube heater in stainless steel with connection ends: 1,5 x 2000 mm
 - Assembly kit
 - connection box IP 54



| Normal construction version | | | | Additional heater for greater heating capacity | | |
|-----------------------------|-------------------|------------------------------|--------------|--|------------------------------|--------------|
| Model | for blade Ø mm | Nominal rating at 230V kW | Weight kg | Model | Nominal rating at 230V kW | Weight kg |
| SGHR 25 | 250 | 1,36 | 0,65 | SGHR 25 Z | 1,36 | 0,65 |
| SGHR 30 | 300 | 1,75 | 0,75 | SGHR 30 Z | 1,75 | 0,75 |
| SGHR 40 | 400 | 2,47 | 0,94 | SGHR 40 Z | 2,47 | 0,94 |
| SGHR 50 | 500 | 3,19 | 1,13 | SGHR 50 Z | 3,19 | 1,13 |

| For Air Coolers | Normal heating capacity | | Greater heating capacity | |
|-----------------|-------------------------|-----------------|--------------------------|-------------------------|
| | kW | Number to order | kW | Number to order |
| SG 011, 021C | 1,36 | 1 SGHR 25 | 2,72 | 1 SGHR 25 + 1 SGHR 25 Z |
| SG 031, 041C | 1,75 | 1 SGHR 30 | 3,50 | 1 SGHR 30 + 1 SGHR 30 Z |
| SG 051, 061C | 2,47 | 1 SGHR 40 | 4,94 | 1 SGHR 40 + 1 SGHR 40 Z |
| SG 071, 081C | 2,47 | 1 SGHR 40 | 4,94 | 1 SGHR 40 + 1 SGHR 40 Z |
| SG 091, 101C | 3,19 | 1 SGHR 50 | 6,28 | 1 SGHR 50 + 1 SGHR 50 Z |
| SG 012, 022C | 2,72 | 2 SGHR 25 | 5,44 | 2 SGHR 25 + 2 SGHR 25 Z |
| SG 032, 042C | 3,50 | 2 SGHR 30 | 7,00 | 2 SGHR 30 + 2 SGHR 30 Z |
| SG 052, 062C | 4,94 | 2 SGHR 40 | 9,88 | 2 SGHR 40 + 2 SGHR 40 Z |
| SG 072, 082C | 4,94 | 2 SGHR 40 | 9,88 | 2 SGHR 40 + 2 SGHR 40 Z |
| SG 092, 102C | 6,38 | 2 SGHR 50 | 12,76 | 2 SGHR 50 + 2 SGHR 50 Z |
| SG 013, 023C | 4,08 | 3 SGHR 25 | 8,16 | 3 SGHR 25 + 3 SGHR 25 Z |
| SG 033, 043C | 5,25 | 3 SGHR 30 | 10,50 | 3 SGHR 30 + 3 SGHR 30 Z |
| SG 053, 063C | 7,41 | 3 SGHR 40 | 14,82 | 3 SGHR 40 + 3 SGHR 40 Z |
| SG 073, 083C | 7,41 | 3 SGHR 40 | 14,82 | 3 SGHR 40 + 3 SGHR 40 Z |
| SG 093, 103C | 9,57 | 3 SGHR 50 | 19,14 | 3 SGHR 50 + 3 SGHR 50 Z |



Accessories

Air hoses (on site procurement, not available from Küba)

Ventilation can be optimised with textile / PVC air hoses.

Applications

- Applications in work and production areas
- Cooled goods that are sensitive to drafts (i.e. flowers, ripening cheeses)

Advantages

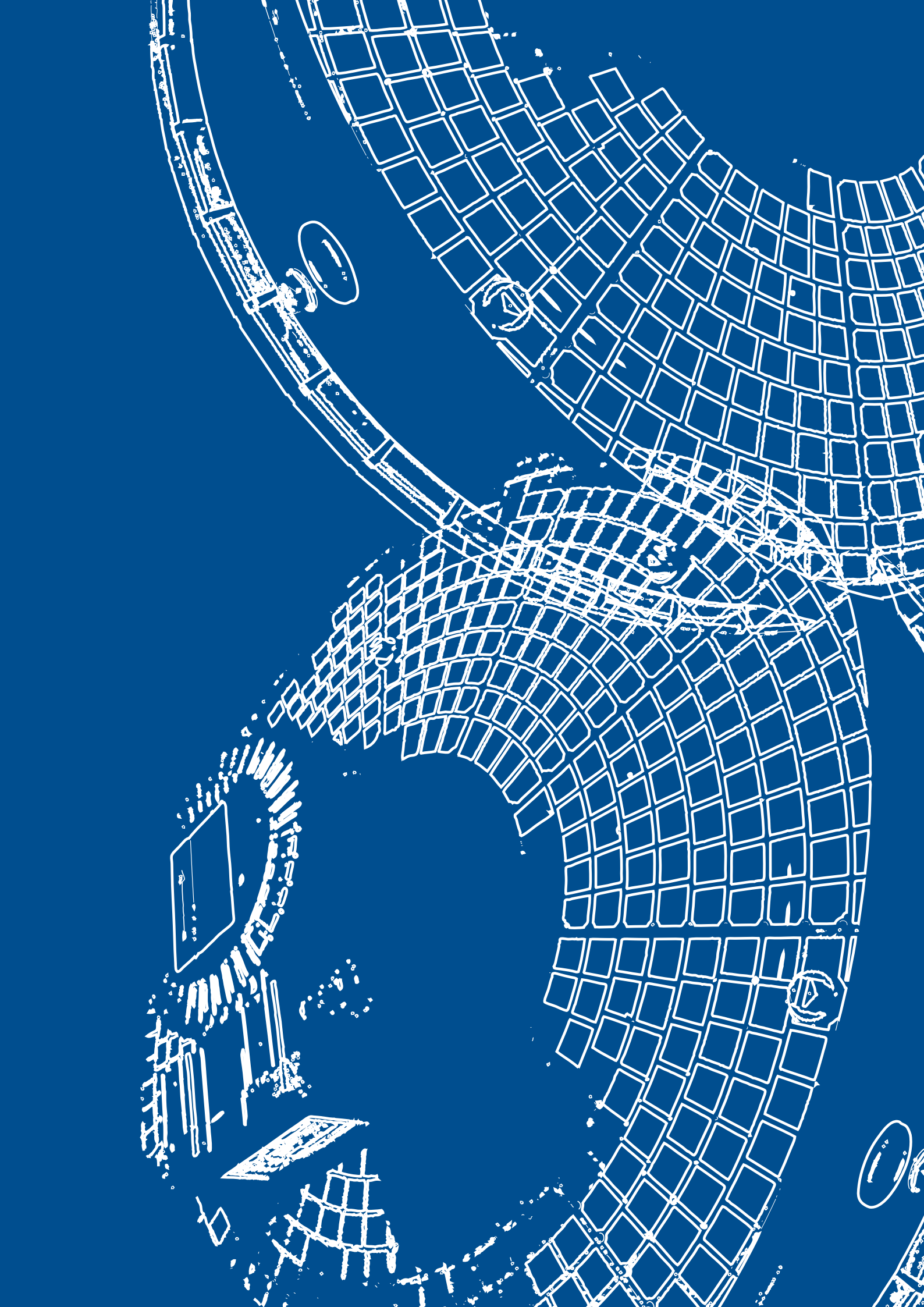
The air hoses make uniform air distribution possible at very low air speeds.

- Working in a draft-free environment yields low illness rates
- Maximum protection for sensitive cooled goods
- No condensation water: temperatures do not fall below the dew point because air can penetrate the woven material

Calculation hint

Please order the corresponding adapter (see page 58). Please take the respective pressure drop for the cooler rating into consideration.







Küba SG industrial

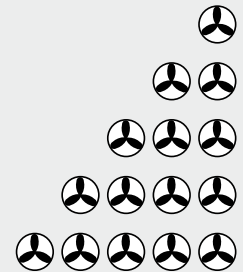




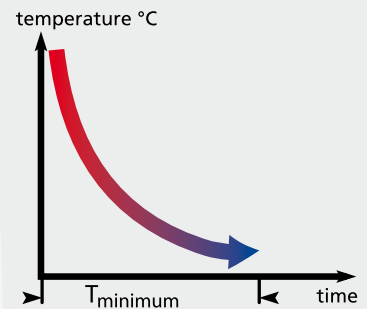
Küba SG industrial: Specific Advantages

The Küba SG *industrial* is a master of customisation. No matter how great the demand for power, the Küba SG *industrial* is the answer. Its versatility allows the Küba SG *industrial* to master the most complex refrigeration tasks.

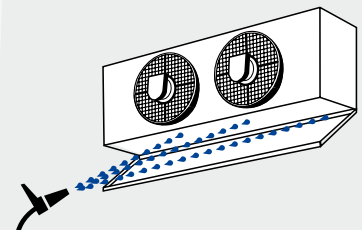
Q_0 5 — ■ ■ 170 kW



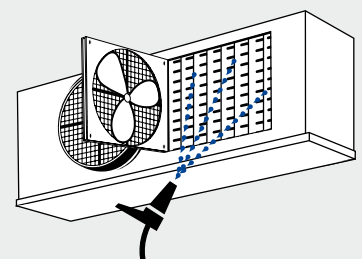
The Küba SG *industrial's* enormous air volume and directed air flow achieve maximum cooling and freezing speeds.



Even the standard design includes the hinge-down drip tray. This makes it easy to clean and assemble the cooler, to make service work simple.



To clean the heat exchanger, hinged fans are an optional accessory. This allows easy access to the heat exchanger.

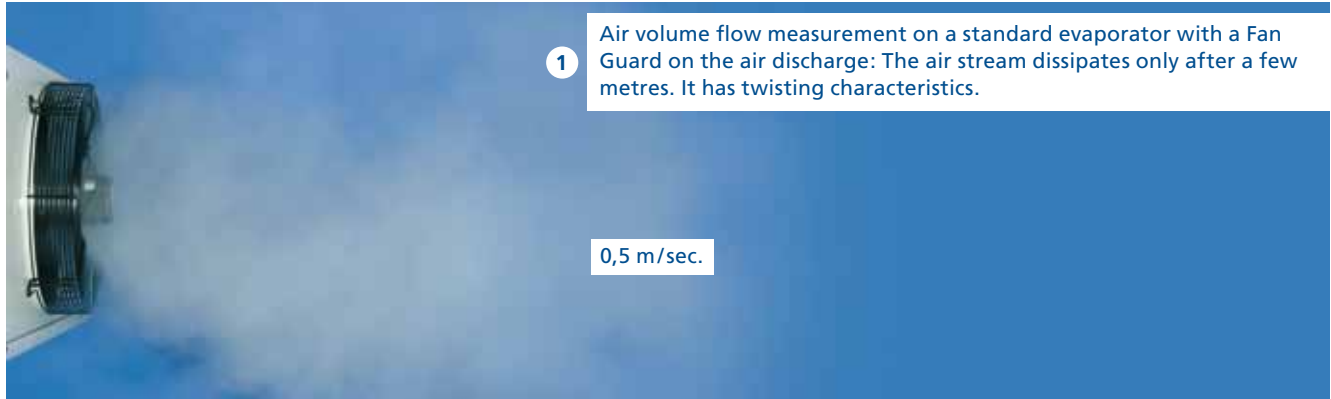




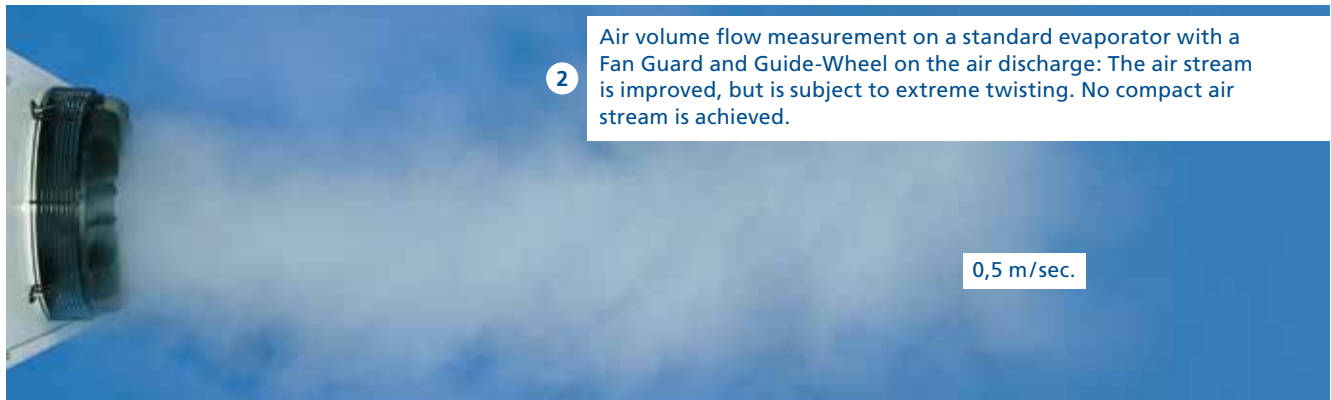
Küba SG industrial: Specific Advantages

What are the effects of a long air throw range?

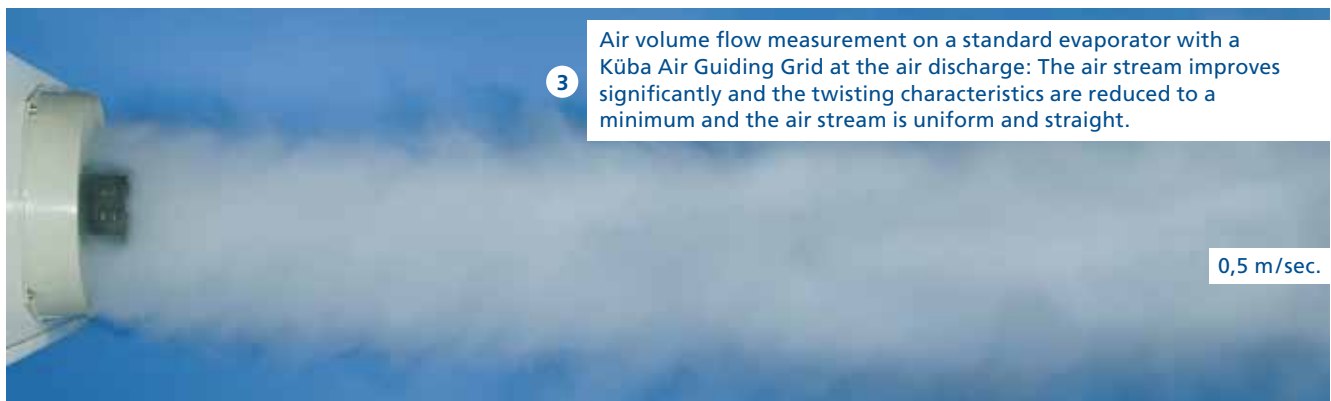
Fan Guard



Fan Guard and Guide-Wheel

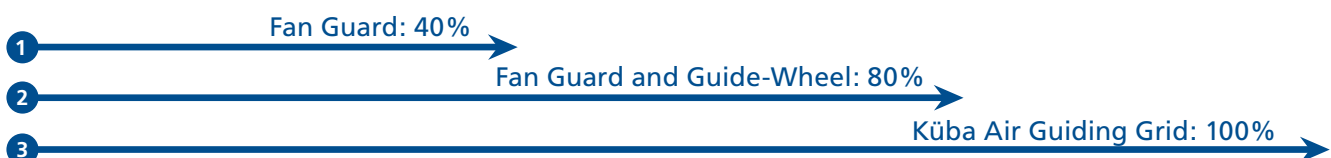


Küba Air Guiding Grid



The illustration shows the Küba SG *commercial* line.
The illustrations also apply to the Küba SG *industrial* line.

Air throw comparison at a nominal capacity of 5.95 kW





Küba SG industrial: Specific Advantages

Goods stay at a uniform temperature due to improved air distribution

Refrigeration in large, long cold storage areas can be realized with GEA Küba Air Coolers. Very long throw ranges can be achieved with the Air Guiding Grid. This allows the chilled air to reach the most remote corners of the cold storage area. When used in compliance with product specific stacking, room ventilation is trouble-free, and heat pockets are prevented.

Clear advantages are:

- Even air distribution
- Short cooling times
- Uniform product cooling
- No fluctuations in product temperatures
- Quality is retained

Küba Air Guiding Grid ➔ short cooling times

Cooling curve comparison

Küba high performance SG Air Coolers

Without Küba Air Guiding Grid

- Poor room ventilation
- Large differences in product temperatures: 6K
- Relatively long cooling times

With Küba Air Guiding Grid

- Better distribution of cooled air
- Products are cooled more evenly: 1K
- Short cooling times
- Lower temperature difference (DT1)
- Lower operational costs

Key:

- t_0 = Evaporating temperature at coil outlet
- t_{0h} = Superheated temperature at coil outlet
- t_{L1} = Air entry temperature into the Air Cooler

Küba Air Guiding Grid ➔ More uniform product temperatures

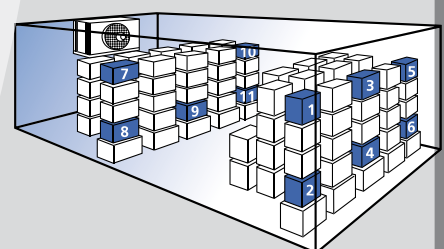
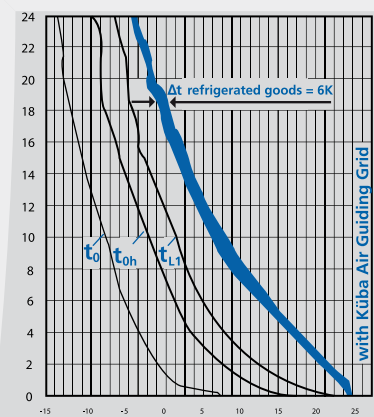
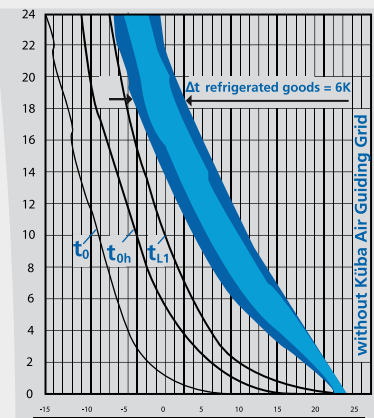
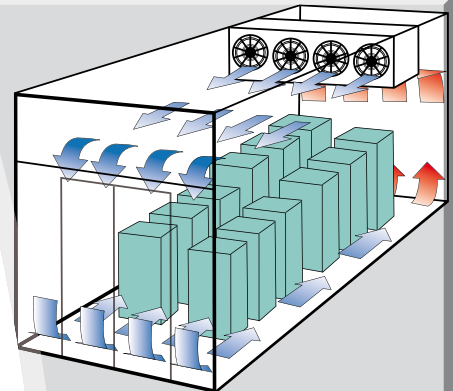
Uniform product temperatures:

As documented by the measurement series in the cold storage area

To perform the cooling curve comparison, a cold storage area was filled with stacks of goods. The measuring points 1-11 show the development of the product core temperature in relation to cooling time.

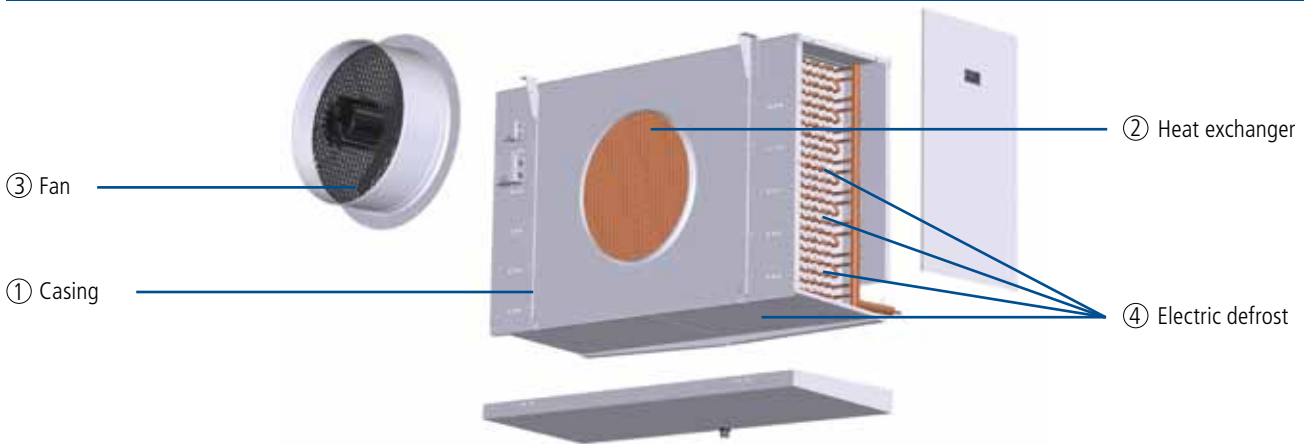
The starting conditions were identical in both trials – entry temperature 24 °C. For the cooler without an Air Guiding Grid, the temperature difference in the stack of goods after 21 hours cooling time was 6K.

The Küba SG with Air Guiding Grid achieved the outstanding result of only a 1K temperature difference.





Construction



1. Casing

- Smooth Sendzimir galvanised steel
- High-grade powder coating, papyrus white RAL 9018
 - Food safe
 - Easy to clean
 - Optimum corrosion protection
- Hinge-down drip tray and removable side panels
- Stainless steel mounting material
- Plastic drain up to 1 1/4", longer than 2", stainless steel

2. Heat exchanger

- Fin spacing
 - SGA.I: 4,5 mm
 - SGB.I: 7 mm
 - SGK.I: 12 mm
- Aligned tube arrangement, spacing 50 x 50 mm
- HFE® tube / fin system
- **SG industrial-F: HFC/CO₂**
 Küba-CAL® refrigerant distributor from the entire HFC/CO₂ line (up to 32 bar)
 - Tubing: Cu-special
 - Fins: Al
 - End plates: Al
- **SG industrial-G: Glycol**
 Distributor tubes for multiple injections
 - Tubing: Cu-special
 - Fins: Al
 - End plates: Al
- **SG industrial-N: Pump operation, NH₃**
 Distributor tubes for multiple injections
 - Tubing: VA
 - Fins: Al
 - End plates: Al

3. Fans

- Ø 500 / 560 / 630 / 710 / 800 mm
- With built-in protector to be connected on site

- Application range: -40 °C to +45 °C
- 400 ± 10% V-3~ 50Hz
- In the standard design the fans are equipped with Air Guiding Grid, air duct and contact protection.
- Protection class IP 66
- Insulation class F
- Operating data can be found with Küba Select or in the technical data.
- Optional Controller:
 - Phase control
 - Transformer
 - Delta / star
 - Frequency converter with all-pole sinusoidal filter

⚠ Please observe the manufacturer's information.

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

| | min ⁻¹ | W | A |
|-----------------------|-------------------|------|------|
| SG. 50-F41-F85 | 1400 | 800 | 1,40 |
| SG. 56-F41-F85 | 1350 | 1400 | 2,50 |
| SG. 63-F41-F85 | 880 | 680 | 1,60 |
| SG. 71-F41-F84 | 900 | 1200 | 2,30 |
| SG. 80-F41-F84 | 930 | 2200 | 3,50 |

4. Electric defrost

- 230 ± 10% V-1~ or 400 ± 10% V-3~ -Y
- Heaters with CrNi steel sleeve
- Vapour-tight connections
- Connector cable 1,5 mm² x 1000 mm
- Designed to defrost the heat exchanger quickly and evenly
- To prevent vapor build-up and to promote heat exchange with little loss, the heaters are mounted in special expanded tube sleeves
- Wired ready for connection to the connection box in accordance with VDE specifications



Refrigerant / Coolant

- Can be used with all HFC refrigerants. Performance data can be found with Küba Select (Product Selection Software)
- For water / brine circulation choose your Air Cooler with Küba Select
- For CO₂ operation and for NH₃ applications immediate selection with Küba Select is possible – or ask our technical staff in sales



The performance data in the Q_v Charts refer to the combination of materials: tubes, Cu / fins, Al.

Küba **Blue Line**
Aircoolers

Fresh solutions.



Technical Data (R404A)

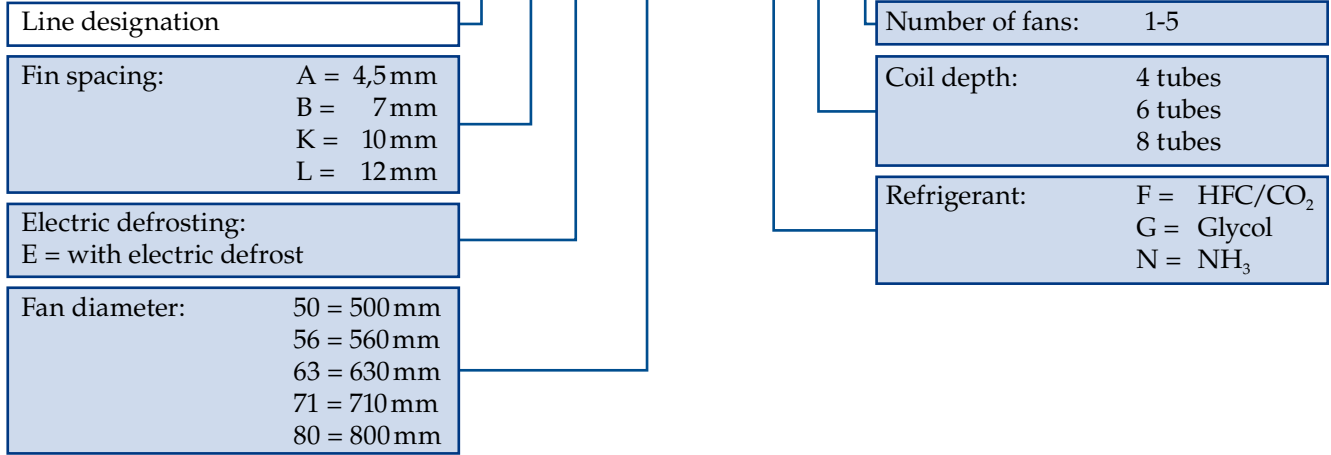
SGA-F



Nomenclature

Standard

SG A E 71 - F 6 2



SGA(E)-F

| Model | Rating Q ₀ at 50 Hz | | Surface | Air flow | | Air throw | | Tube volume | Connections | | | Per Fan 400 ± 10% V-3~ 50Hz (operating values at 50 Hz) | | |
|--------|------------------------------------|------------------------------------|---------|----------------|-------------------|-----------|----|-------------|-----------------|---------------|----------------|---|-------------------|------|
| | t _{li} ± 0 °C DT1 = 8K | t _{li} -18 °C DT1 = 7K | | m ² | m ³ /h | m | m | | dm ³ | Inlet Ø mm | Outlet Ø mm | Blade Ø mm | min ⁻¹ | W |
| 50-F41 | ⊕ | 9,8 | 7,9 | 55 | 5900 | 23 | 15 | 9 | 10 | 28 | 500 | 1390 | 657 | 1,32 |
| 50-F61 | ⊕ | 12,2 | 9,8 | 82 | 5400 | 23 | 15 | 13 | 10 | 28 | 500 | 1390 | 657 | 1,32 |
| 56-F41 | ⊕ | 12,5 | 10,1 | 73 | 7200 | 28 | 18 | 12 | 10 | 28 | 560 | 1338 | 813 | 1,78 |
| 56-F61 | ⊕ | 15,7 | 12,5 | 110 | 6750 | 28 | 18 | 17 | 15 | 35 | 560 | 1338 | 813 | 1,78 |
| 56-F81 | ⊕ | 17,6 | 14,1 | 146 | 6300 | 28 | 18 | 23 | 15 | 35 | 560 | 1338 | 813 | 1,78 |
| 63-F41 | ⊕ | 15,5 | 12,3 | 99 | 8010 | 33 | 21 | 16 | 15 | 28 | 630 | 919 | 539 | 1,38 |
| 63-F61 | ⊕ | 19,2 | 15,3 | 148 | 7650 | 33 | 21 | 23 | 22 | 35 | 630 | 919 | 539 | 1,38 |
| 63-F81 | ⊕ | 21,1 | 16,7 | 198 | 7020 | 33 | 21 | 31 | 22 | 35 | 630 | 919 | 539 | 1,38 |
| 71-F41 | ⊕ | 23,1 | 18,5 | 154 | 11700 | 43 | 26 | 24 | 15 | 35 | 710 | 940 | 1140 | 2,39 |
| 71-F61 | ⊕ | 28,3 | 22,6 | 231 | 11000 | 43 | 26 | 36 | 22 | 35 | 710 | 940 | 1140 | 2,39 |
| 71-F81 | ⊕ | 31,6 | 25,2 | 308 | 10400 | 43 | 26 | 48 | 22 | 42 | 710 | 940 | 1140 | 2,39 |
| 80-F41 | ⊕ | 31,8 | 25,5 | 179 | 18450 | 48 | - | 28 | 15 | 42 | 800 | 940 | 1630 | 3,46 |
| 80-F61 | ⊕ | 39,5 | 31,5 | 269 | 17460 | 48 | - | 42 | 22 | 42 | 800 | 940 | 1630 | 3,46 |
| 80-F81 | ⊕ | 44,0 | 35,1 | 359 | 16200 | 48 | - | 56 | 22 | 42 | 800 | 940 | 1630 | 3,46 |
| 50-F42 | ⊕⊕ | 19,6 | 15,6 | 110 | 11800 | 33 | 21 | 17 | 15 | 35 | 500 | 1390 | 657 | 1,32 |
| 50-F62 | ⊕⊕ | 24,6 | 19,6 | 164 | 10800 | 33 | 21 | 25 | 15 | 35 | 500 | 1390 | 657 | 1,32 |
| 56-F42 | ⊕⊕ | 25,1 | 20,1 | 146 | 14400 | 39 | 25 | 22 | 15 | 35 | 560 | 1338 | 813 | 1,78 |
| 56-F62 | ⊕⊕ | 31,6 | 25,2 | 220 | 13500 | 39 | 25 | 34 | 22 | 42 | 560 | 1338 | 813 | 1,78 |
| 56-F82 | ⊕⊕ | 35,3 | 28,2 | 292 | 12600 | 39 | 25 | 45 | 22 | 42 | 560 | 1338 | 813 | 1,78 |
| 63-F42 | ⊕⊕ | 30,8 | 24,6 | 198 | 16020 | 45 | 29 | 30 | 22 | 42 | 630 | 919 | 539 | 1,38 |
| 63-F62 | ⊕⊕ | 38,6 | 30,8 | 296 | 15300 | 45 | 29 | 45 | 22 | 42 | 630 | 919 | 539 | 1,38 |
| 63-F82 | ⊕⊕ | 42,1 | 33,6 | 396 | 14040 | 45 | 29 | 60 | 22 | 42 | 630 | 919 | 539 | 1,38 |
| 71-F42 | ⊕⊕ | 46,3 | 37,1 | 308 | 23400 | 58 | 35 | 46 | 22 | 42 | 710 | 940 | 1140 | 2,39 |
| 71-F62 | ⊕⊕ | 56,8 | 45,3 | 462 | 22000 | 58 | 35 | 70 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 71-F82 | ⊕⊕ | 63,2 | 50,5 | 616 | 20800 | 58 | 35 | 93 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 80-F42 | ⊕⊕ | 63,7 | 51,0 | 358 | 36900 | 63 | - | 54 | 22 | 54 | 800 | 940 | 1630 | 3,46 |
| 80-F62 | ⊕⊕ | 79,0 | 63,1 | 538 | 34920 | 63 | - | 82 | 2x22 | 2x42 | 800 | 940 | 1630 | 3,46 |
| 80-F82 | ⊕⊕ | 88,0 | 70,2 | 718 | 32400 | 63 | - | 108 | 2x22 | 2x42 | 800 | 940 | 1630 | 3,46 |
| 50-F43 | ⊕⊕⊕ | 29,5 | 23,5 | 165 | 17700 | 40 | 26 | 25 | 15 | 42 | 500 | 1390 | 657 | 1,32 |
| 50-F63 | ⊕⊕⊕ | 37,0 | 29,5 | 246 | 16200 | 40 | 26 | 37 | 22 | 42 | 500 | 1390 | 657 | 1,32 |
| 56-F43 | ⊕⊕⊕ | 37,7 | 30,1 | 220 | 21600 | 49 | 32 | 33 | 15 | 42 | 560 | 1338 | 813 | 1,78 |
| 56-F63 | ⊕⊕⊕ | 47,5 | 37,8 | 330 | 20250 | 49 | 32 | 50 | 22 | 42 | 560 | 1338 | 813 | 1,78 |



Technical Data (R404A)

SGA-F



SGA(E)-F

| Model | Rating Q _e at 50 Hz | Surface | | Air flow | | Air throw | | Tube volume | Connections | | | Per Fan 400 ± 10% V-3 ~ 50Hz (operating values at 50 Hz) | | |
|--------|--------------------------------|-----------------------------------|-----------------------------------|----------------|-------------------|-----------|----|-------------|-------------|--------|-------|--|------|------|
| | | ε ₁ ± 0 °C DT1 = 8K | ε ₁ -18 °C DT1 = 7K | m ² | m ³ /h | m | m | | Inlet | Outlet | Blade | min ⁻¹ | W | A |
| 56-F83 | ⊗⊗⊗ | 53,1 | 42,3 | 438 | 18900 | 49 | 32 | 66 | 22 | 54 | 560 | 1338 | 813 | 1,78 |
| 63-F43 | ⊗⊗⊗ | 46,3 | 37,1 | 297 | 24030 | 58 | 38 | 45 | 22 | 42 | 630 | 919 | 539 | 1,38 |
| 63-F63 | ⊗⊗⊗ | 58,0 | 46,2 | 444 | 22950 | 58 | 38 | 67 | 22 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F83 | ⊗⊗⊗ | 63,1 | 50,5 | 594 | 21060 | 58 | 38 | 89 | 28 | 54 | 630 | 919 | 539 | 1,38 |
| 71-F43 | ⊗⊗⊗ | 69,5 | 55,5 | 462 | 35100 | 68 | 41 | 69 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 71-F63 | ⊗⊗⊗ | 85,2 | 68,1 | 693 | 33000 | 68 | 41 | 104 | 2x22 | 2x42 | 710 | 940 | 1140 | 2,39 |
| 71-F83 | ⊗⊗⊗ | 95,0 | 75,8 | 924 | 31200 | 68 | 41 | 138 | 2x28 | 2x42 | 710 | 940 | 1140 | 2,39 |
| 80-F43 | ⊗⊗⊗ | 95,7 | 76,5 | 537 | 55350 | 72 | - | 81 | 28 | 54 | 800 | 940 | 1630 | 3,46 |
| 80-F63 | ⊗⊗⊗ | 118,5 | 94,6 | 807 | 52380 | 72 | - | 121 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 80-F83 | ⊗⊗⊗ | 132,0 | 105,5 | 1077 | 48600 | 72 | - | 161 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 50-F44 | ⊗⊗⊗⊗ | 39,3 | 31,5 | 220 | 23600 | 42 | 27 | 33 | 15 | 42 | 500 | 1390 | 657 | 1,32 |
| 50-F64 | ⊗⊗⊗⊗ | 49,3 | 39,3 | 328 | 21600 | 42 | 27 | 50 | 22 | 54 | 500 | 1390 | 657 | 1,32 |
| 56-F44 | ⊗⊗⊗⊗ | 50,3 | 40,1 | 293 | 28800 | 51 | 33 | 44 | 22 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F64 | ⊗⊗⊗⊗ | 63,2 | 50,5 | 440 | 27000 | 51 | 33 | 66 | 28 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F84 | ⊗⊗⊗⊗ | 70,7 | 56,5 | 584 | 25200 | 51 | 33 | 88 | 2x22 | 2x42 | 560 | 1338 | 813 | 1,78 |
| 63-F44 | ⊗⊗⊗⊗ | 61,7 | 49,3 | 396 | 32040 | 60 | 39 | 59 | 22 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F64 | ⊗⊗⊗⊗ | 77,2 | 61,7 | 592 | 30600 | 60 | 39 | 89 | 28 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F84 | ⊗⊗⊗⊗ | 84,2 | 67,2 | 792 | 28080 | 60 | 39 | 118 | 2x22 | 2x42 | 630 | 919 | 539 | 1,38 |
| 71-F44 | ⊗⊗⊗⊗ | 92,7 | 74,1 | 616 | 46800 | 73 | 44 | 92 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 71-F64 | ⊗⊗⊗⊗ | 113,6 | 90,7 | 924 | 44000 | 73 | 44 | 138 | 2x22 | 2x54 | 710 | 940 | 1140 | 2,39 |
| 71-F84 | ⊗⊗⊗⊗ | 126,6 | 101,1 | 1232 | 41600 | 73 | 44 | 184 | 2x28 | 2x54 | 710 | 940 | 1140 | 2,39 |
| 80-F44 | ⊗⊗⊗⊗ | 127,6 | 102,0 | 716 | 73800 | 74 | - | 107 | 28 | 64 | 800 | 940 | 1630 | 3,46 |
| 80-F64 | ⊗⊗⊗⊗ | 158,1 | 126,2 | 1076 | 69840 | 74 | - | 161 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 80-F84 | ⊗⊗⊗⊗ | 176,0 | 140,5 | 1436 | 64800 | 74 | - | 214 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 50-F45 | ⊗⊗⊗⊗⊗ | 49,1 | 39,2 | 275 | 29500 | 47 | 31 | 41 | 22 | 54 | 500 | 1390 | 657 | 1,32 |
| 50-F65 | ⊗⊗⊗⊗⊗ | 61,6 | 49,2 | 410 | 27000 | 47 | 31 | 62 | 22 | 54 | 500 | 1390 | 657 | 1,32 |
| 56-F45 | ⊗⊗⊗⊗⊗ | 63,0 | 50,2 | 366 | 36000 | 56 | 36 | 55 | 22 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F65 | ⊗⊗⊗⊗⊗ | 79,1 | 63,1 | 550 | 33750 | 56 | 36 | 82 | 28 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F85 | ⊗⊗⊗⊗⊗ | 88,5 | 70,6 | 730 | 31500 | 56 | 36 | 109 | 2x22 | 2x42 | 560 | 1338 | 813 | 1,78 |
| 63-F45 | ⊗⊗⊗⊗⊗ | 77,2 | 61,7 | 495 | 40050 | 66 | 43 | 74 | 22 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F65 | ⊗⊗⊗⊗⊗ | 96,5 | 77,1 | 740 | 38250 | 66 | 43 | 111 | 28 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F85 | ⊗⊗⊗⊗⊗ | 105,3 | 84,1 | 990 | 35100 | 66 | 43 | 147 | 2x22 | 2x54 | 630 | 919 | 539 | 1,38 |



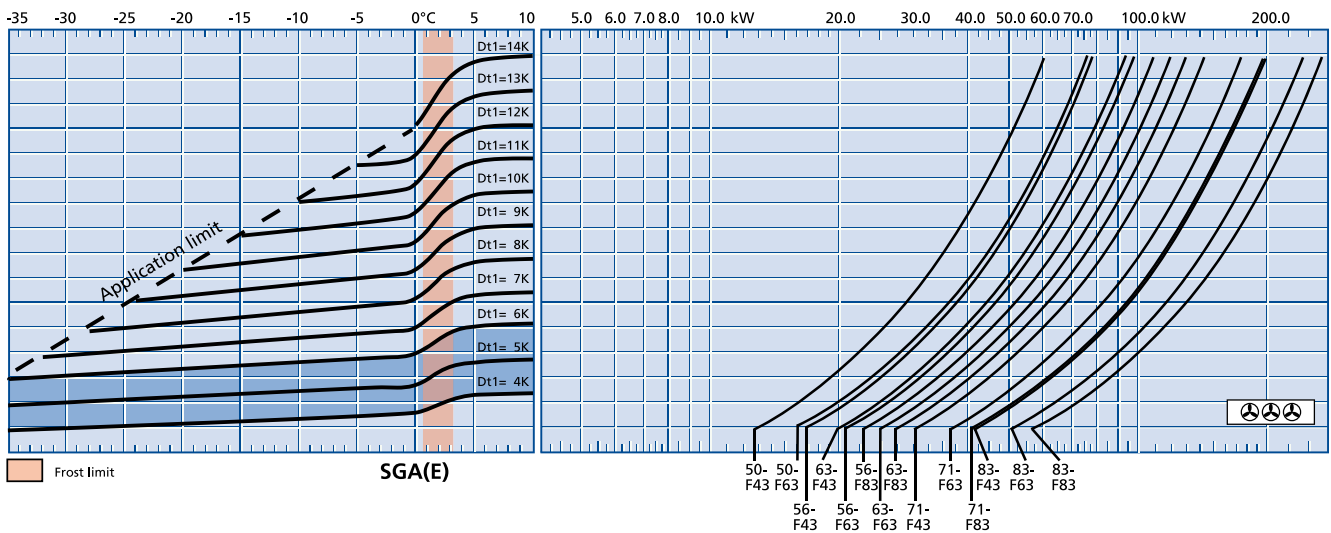
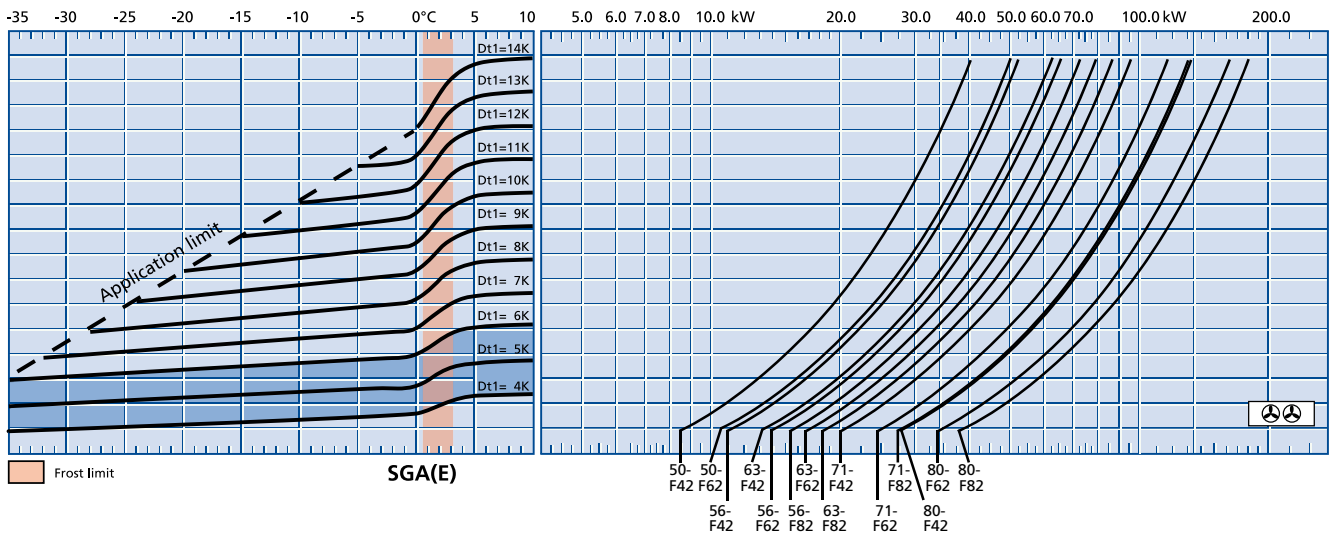
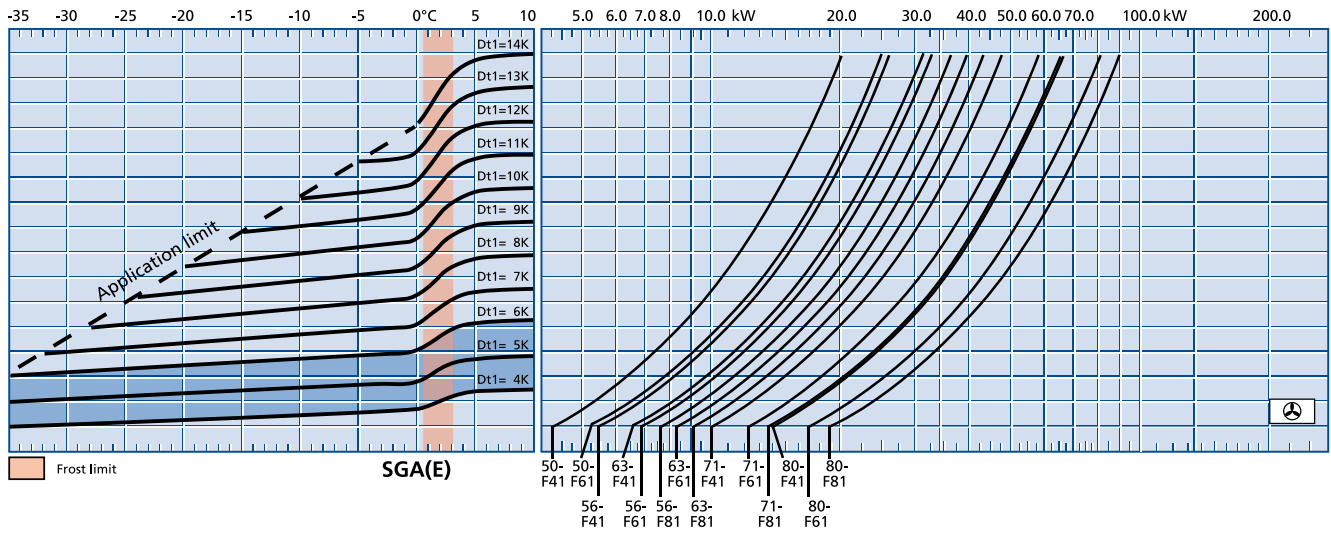
Q_v Chart (EN 328, R404A)

SGA-F



t_{l1} [°C] Air inlet temperature

Q₀ [kW] Cooling capacity



74



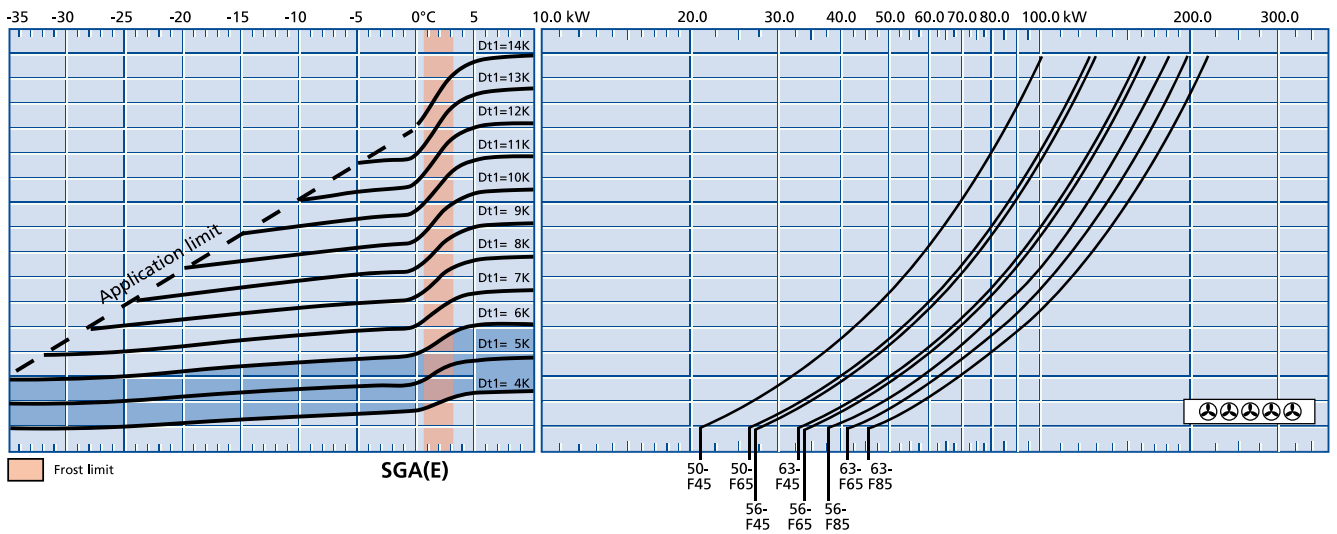
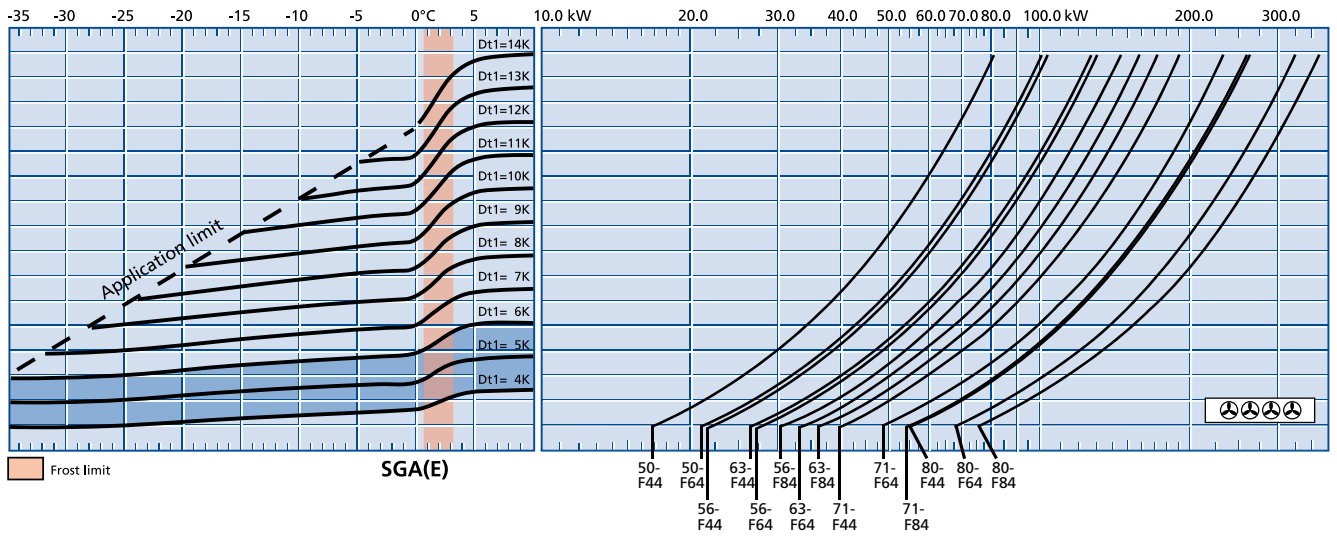
Q_v Chart (EN 328, R404A)

SGA-F



t_{L1} [°C] Air inlet temperature

Q₀ [kW] Cooling capacity



Q₀ = Cooling capacity
 t_{L1} = Air inlet temperature
 t₀ [°C] = Evaporating temperature (coil outlet)
 DT1 [K] = Temperature difference = t_{L1} - t₀ (°C)

DT1 = 4 K bis 6 K
 with electronic expansion valve

Example selection:
 For examples and explanations, please see the information section on pg. 136.



Technical Data (R404A)

SGB-F



SGB(E)-F

| Model | | Rating Q ₀ at 50 Hz | | Surface | Air flow | Air throw | | Tube volume | Connections | | | Per Fan 400 ± 10% V-3~ 50Hz (operating values at 50 Hz) | | |
|--------|-----|------------------------------------|------------------------------------|----------------|-------------------|-----------|--------|-----------------|-------------|-------------------|------|--|------|------|
| | | t _{li} ± 0 °C DT1 = 8K | t _{li} -18 °C DT1 = 7K | | | Inlet | Outlet | | Blade | min ⁻¹ | W | A | | |
| SGB(E) | | | | | | | | | | | | | | |
| | | kW | kW | m ² | m ³ /h | m | m | dm ³ | Ø mm | Ø mm | Ø mm | | | |
| 50-F41 | ⊗ | 7,9 | 6,3 | 36 | 6300 | 25 | 16 | 9 | 10 | 28 | 500 | 1390 | 657 | 1,32 |
| 50-F61 | ⊗ | 10,6 | 8,5 | 54 | 5900 | 25 | 16 | 13 | 10 | 28 | 500 | 1390 | 657 | 1,32 |
| 56-F41 | ⊗ | 10,5 | 8,5 | 48 | 7900 | 30 | 20 | 12 | 10 | 28 | 560 | 1338 | 813 | 1,78 |
| 56-F61 | ⊗ | 14,1 | 11,2 | 72 | 7500 | 30 | 20 | 17 | 15 | 35 | 560 | 1338 | 813 | 1,78 |
| 56-F81 | ⊗ | 16,5 | 13,1 | 97 | 7300 | 30 | 20 | 23 | 15 | 35 | 560 | 1338 | 813 | 1,78 |
| 63-F41 | ⊗ | 12,6 | 10,1 | 65 | 8600 | 35 | 23 | 16 | 15 | 28 | 630 | 919 | 539 | 1,38 |
| 63-F61 | ⊗ | 16,6 | 13,2 | 98 | 8400 | 35 | 23 | 23 | 22 | 35 | 630 | 919 | 539 | 1,38 |
| 63-F81 | ⊗ | 19,7 | 15,7 | 130 | 8200 | 35 | 23 | 31 | 22 | 35 | 630 | 919 | 539 | 1,38 |
| 71-F41 | ⊗ | 19,1 | 15,2 | 101 | 12300 | 45 | 27 | 24 | 15 | 35 | 710 | 940 | 1140 | 2,39 |
| 71-F61 | ⊗ | 25,1 | 20,1 | 152 | 12000 | 45 | 27 | 36 | 22 | 35 | 710 | 940 | 1140 | 2,39 |
| 71-F81 | ⊗ | 29,2 | 23,3 | 203 | 11600 | 45 | 27 | 48 | 22 | 42 | 710 | 940 | 1140 | 2,39 |
| 80-F41 | ⊗ | 26,3 | 21,1 | 118 | 20250 | 50 | - | 28 | 15 | 42 | 800 | 940 | 1630 | 3,46 |
| 80-F61 | ⊗ | 31,6 | 25,2 | 177 | 19350 | 50 | - | 42 | 22 | 42 | 800 | 940 | 1630 | 3,46 |
| 80-F81 | ⊗ | 38,6 | 30,8 | 236 | 18450 | 50 | - | 56 | 22 | 42 | 800 | 940 | 1630 | 3,46 |
| 50-F42 | ⊗⊗ | 15,8 | 12,6 | 72 | 12600 | 36 | 23 | 17 | 15 | 35 | 500 | 1390 | 657 | 1,32 |
| 50-F62 | ⊗⊗ | 21,3 | 17,1 | 109 | 11800 | 36 | 23 | 25 | 15 | 35 | 500 | 1390 | 657 | 1,32 |
| 56-F42 | ⊗⊗ | 21,1 | 16,8 | 96 | 15800 | 42 | 27 | 22 | 15 | 35 | 560 | 1338 | 813 | 1,78 |
| 56-F62 | ⊗⊗ | 28,1 | 22,5 | 145 | 15000 | 42 | 27 | 34 | 22 | 42 | 560 | 1338 | 813 | 1,78 |
| 56-F82 | ⊗⊗ | 32,8 | 26,2 | 193 | 14600 | 42 | 27 | 45 | 22 | 42 | 560 | 1338 | 813 | 1,78 |
| 63-F42 | ⊗⊗ | 25,3 | 20,2 | 130 | 17200 | 48 | 31 | 30 | 22 | 42 | 630 | 919 | 539 | 1,38 |
| 63-F62 | ⊗⊗ | 33,3 | 26,6 | 195 | 16800 | 48 | 31 | 45 | 22 | 42 | 630 | 919 | 539 | 1,38 |
| 63-F82 | ⊗⊗ | 39,5 | 31,6 | 260 | 16400 | 48 | 31 | 60 | 22 | 42 | 630 | 919 | 539 | 1,38 |
| 71-F42 | ⊗⊗ | 38,3 | 30,6 | 202 | 24600 | 61 | 37 | 46 | 22 | 42 | 710 | 940 | 1140 | 2,39 |
| 71-F62 | ⊗⊗ | 50,3 | 40,1 | 304 | 24000 | 61 | 37 | 70 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 71-F82 | ⊗⊗ | 58,5 | 46,7 | 406 | 23200 | 61 | 37 | 93 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 80-F42 | ⊗⊗ | 52,8 | 42,1 | 236 | 40500 | 66 | - | 54 | 22 | 54 | 800 | 940 | 1630 | 3,46 |
| 80-F62 | ⊗⊗ | 63,2 | 50,5 | 354 | 38700 | 66 | - | 82 | 2x22 | 2x42 | 800 | 940 | 1630 | 3,46 |
| 80-F82 | ⊗⊗ | 77,2 | 61,7 | 472 | 36900 | 66 | - | 108 | 2x22 | 2x42 | 800 | 940 | 1630 | 3,46 |
| 50-F43 | ⊗⊗⊗ | 23,7 | 19,0 | 109 | 18900 | 44 | 29 | 25 | 15 | 42 | 500 | 1390 | 657 | 1,32 |
| 50-F63 | ⊗⊗⊗ | 32,1 | 25,6 | 163 | 17700 | 44 | 29 | 37 | 22 | 42 | 500 | 1390 | 657 | 1,32 |
| 56-F43 | ⊗⊗⊗ | 31,7 | 25,3 | 145 | 23700 | 53 | 34 | 33 | 15 | 42 | 560 | 1338 | 813 | 1,78 |
| 56-F63 | ⊗⊗⊗ | 42,2 | 33,7 | 217 | 22500 | 53 | 34 | 50 | 22 | 42 | 560 | 1338 | 813 | 1,78 |

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Technical Data (R404A) SGB-F 

SGB(E)-F

| Model | Rating Q ₀ at 50 Hz | | Surface m ² | Air flow m ³ /h | Air throw m | | Tube volume dm ³ | Connections | | | Per Fan 400 ± 10% V-3 ~ 50Hz (operating values at 50 Hz) | | | |
|--------|-----------------------------------|-----------------------------------|---------------------------|-------------------------------|----------------|----------------|-----------------------------------|---------------|-------------------|------|---|------|------|------|
| | t ₁ ± 0 °C DT1 = 8K | t ₁ -18 °C DT1 = 7K | | | Inlet Ø mm | Outlet Ø mm | | Blade Ø mm | min ⁻¹ | W | A | | | |
| SGB(E) | kW | kW | | | | | | | | | | | | |
| 56-F83 | ⊗⊗⊗ | 49,3 | 39,3 | 290 | 21900 | 53 | 34 | 66 | 22 | 54 | 560 | 1338 | 813 | 1,78 |
| 63-F43 | ⊗⊗⊗ | 38,1 | 30,5 | 195 | 25800 | 62 | 40 | 45 | 22 | 42 | 630 | 919 | 539 | 1,38 |
| 63-F63 | ⊗⊗⊗ | 50,1 | 40,0 | 293 | 25200 | 62 | 40 | 67 | 22 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F83 | ⊗⊗⊗ | 59,5 | 47,5 | 390 | 24600 | 62 | 40 | 89 | 28 | 54 | 630 | 919 | 539 | 1,38 |
| 71-F43 | ⊗⊗⊗ | 57,5 | 46,0 | 303 | 36900 | 72 | 43 | 69 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 71-F63 | ⊗⊗⊗ | 75,5 | 60,3 | 456 | 36000 | 72 | 43 | 104 | 2x22 | 2x42 | 710 | 940 | 1140 | 2,39 |
| 71-F83 | ⊗⊗⊗ | 87,8 | 70,1 | 609 | 34800 | 72 | 43 | 138 | 2x28 | 2x42 | 710 | 940 | 1140 | 2,39 |
| 80-F43 | ⊗⊗⊗ | 79,2 | 63,2 | 354 | 60750 | 76 | - | 81 | 28 | 54 | 800 | 940 | 1630 | 3,46 |
| 80-F63 | ⊗⊗⊗ | 95,0 | 75,8 | 531 | 58050 | 76 | - | 121 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 80-F83 | ⊗⊗⊗ | 116,0 | 92,5 | 708 | 55350 | 76 | - | 161 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 50-F44 | ⊗⊗⊗⊗ | 31,6 | 25,2 | 145 | 25200 | 46 | 30 | 33 | 15 | 42 | 500 | 1390 | 657 | 1,32 |
| 50-F64 | ⊗⊗⊗⊗ | 42,8 | 34,2 | 217 | 23600 | 46 | 30 | 50 | 22 | 54 | 500 | 1390 | 657 | 1,32 |
| 56-F44 | ⊗⊗⊗⊗ | 42,3 | 33,8 | 193 | 31600 | 55 | 36 | 44 | 22 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F64 | ⊗⊗⊗⊗ | 56,3 | 45,0 | 289 | 30000 | 55 | 36 | 66 | 28 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F84 | ⊗⊗⊗⊗ | 65,7 | 52,5 | 386 | 29200 | 55 | 36 | 88 | 2x22 | 2x42 | 560 | 1338 | 813 | 1,78 |
| 63-F44 | ⊗⊗⊗⊗ | 50,8 | 40,5 | 260 | 34400 | 64 | 42 | 59 | 22 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F64 | ⊗⊗⊗⊗ | 66,7 | 53,3 | 391 | 33600 | 64 | 42 | 89 | 28 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F84 | ⊗⊗⊗⊗ | 79,2 | 63,2 | 520 | 32800 | 64 | 42 | 118 | 2x22 | 2x42 | 630 | 919 | 539 | 1,38 |
| 71-F44 | ⊗⊗⊗⊗ | 76,7 | 61,3 | 404 | 49200 | 77 | 46 | 92 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 71-F64 | ⊗⊗⊗⊗ | 100,6 | 80,5 | 608 | 48000 | 77 | 46 | 138 | 2x28 | 2x54 | 710 | 940 | 1140 | 2,39 |
| 71-F84 | ⊗⊗⊗⊗ | 117,1 | 93,5 | 812 | 46400 | 77 | 46 | 184 | 2x28 | 2x54 | 710 | 940 | 1140 | 2,39 |
| 80-F44 | ⊗⊗⊗⊗ | 105,6 | 84,5 | 472 | 81000 | 78 | - | 107 | 28 | 64 | 800 | 940 | 1630 | 3,46 |
| 80-F64 | ⊗⊗⊗⊗ | 126,6 | 101,1 | 708 | 77400 | 78 | - | 161 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 80-F84 | ⊗⊗⊗⊗ | 154,5 | 123,5 | 944 | 73800 | 78 | - | 214 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 50-F45 | ⊗⊗⊗⊗⊗ | 39,5 | 31,6 | 181 | 31500 | 51 | 33 | 41 | 22 | 54 | 500 | 1390 | 657 | 1,32 |
| 50-F65 | ⊗⊗⊗⊗⊗ | 53,5 | 42,7 | 272 | 29500 | 51 | 33 | 62 | 22 | 54 | 500 | 1390 | 657 | 1,32 |
| 56-F45 | ⊗⊗⊗⊗⊗ | 53,0 | 42,2 | 241 | 39500 | 60 | 39 | 55 | 22 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F65 | ⊗⊗⊗⊗⊗ | 70,3 | 56,2 | 362 | 37500 | 60 | 39 | 82 | 28 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F85 | ⊗⊗⊗⊗⊗ | 82,2 | 65,6 | 483 | 36500 | 60 | 39 | 109 | 2x22 | 2x42 | 560 | 1338 | 813 | 1,78 |
| 63-F45 | ⊗⊗⊗⊗⊗ | 63,5 | 50,7 | 326 | 43000 | 70 | 46 | 74 | 22 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F65 | ⊗⊗⊗⊗⊗ | 83,5 | 66,6 | 489 | 42000 | 70 | 46 | 111 | 28 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F85 | ⊗⊗⊗⊗⊗ | 99,1 | 79,1 | 650 | 41000 | 70 | 46 | 147 | 2x22 | 2x54 | 630 | 919 | 539 | 1,38 |



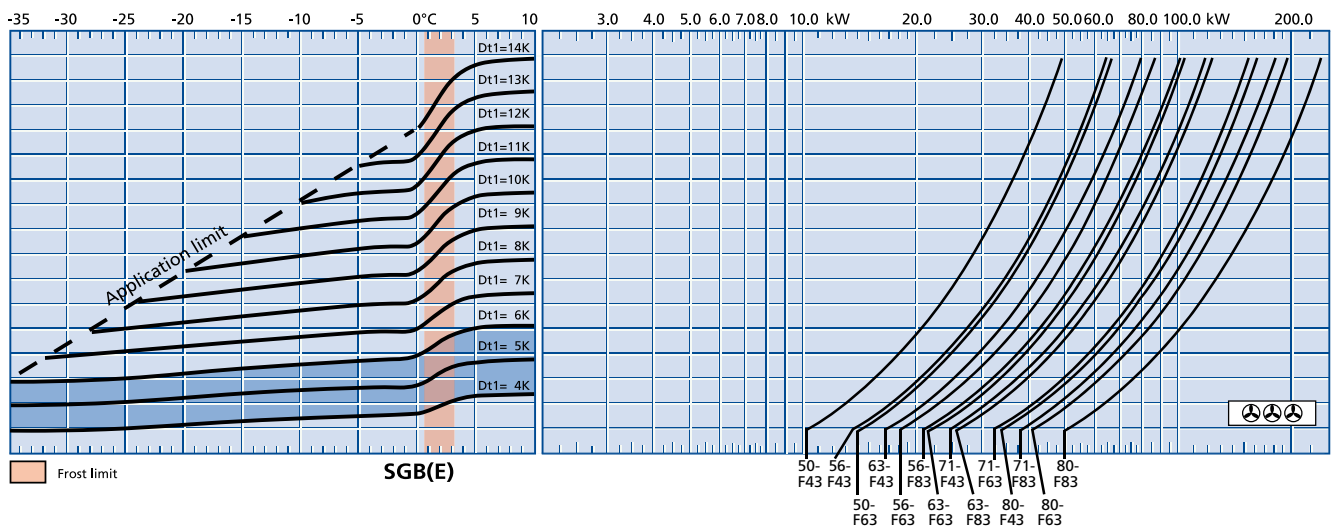
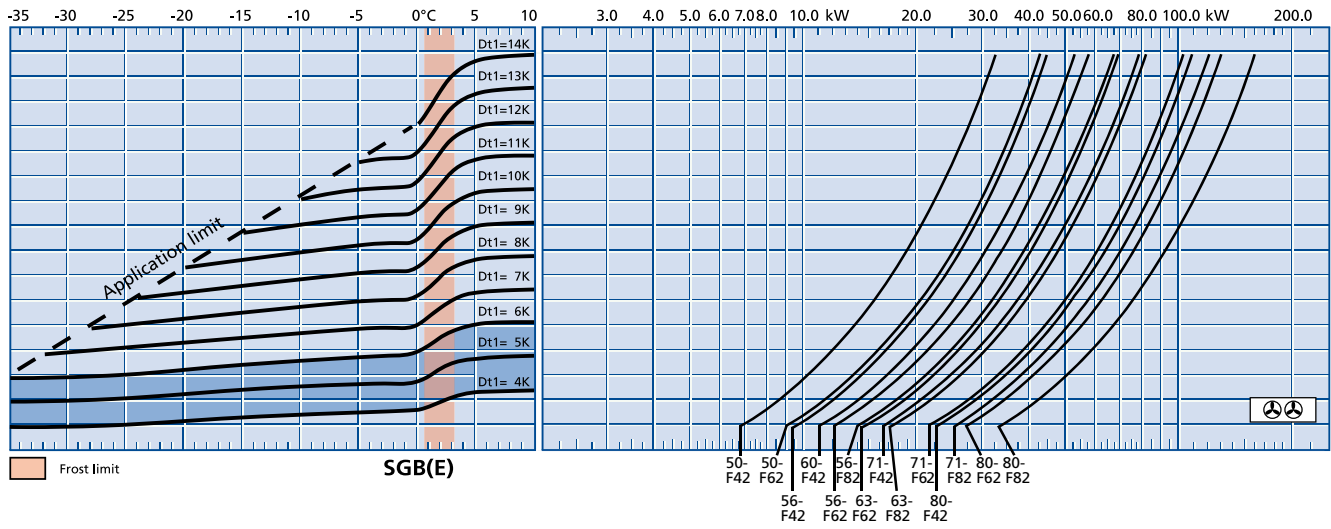
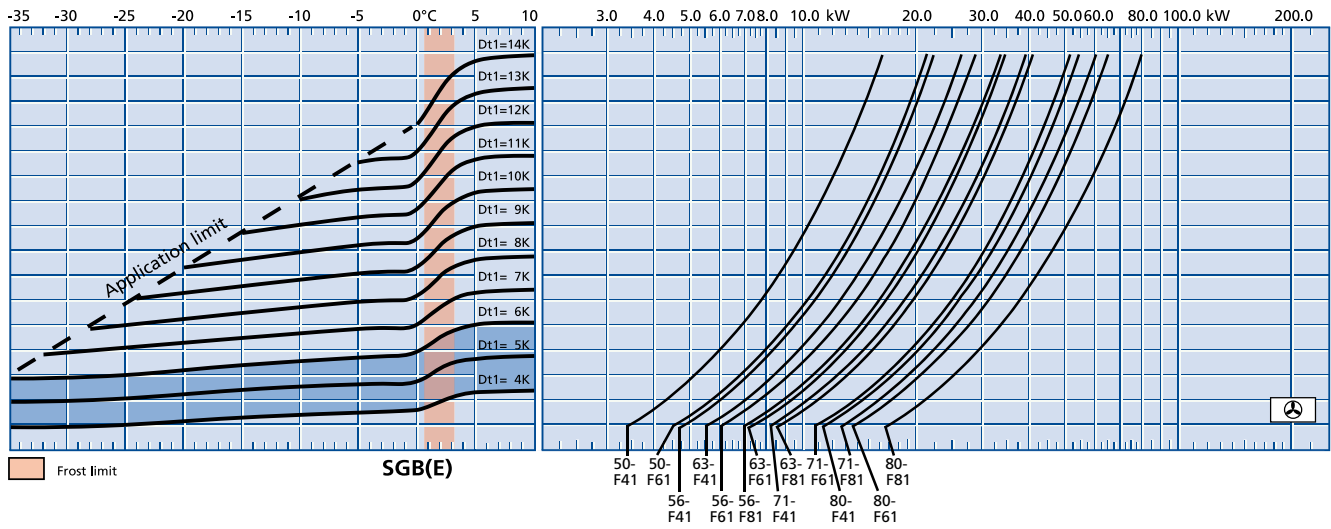
Q_v Chart (EN 328, R404A)

SGB-F



t_{l1} [°C] Air inlet temperature

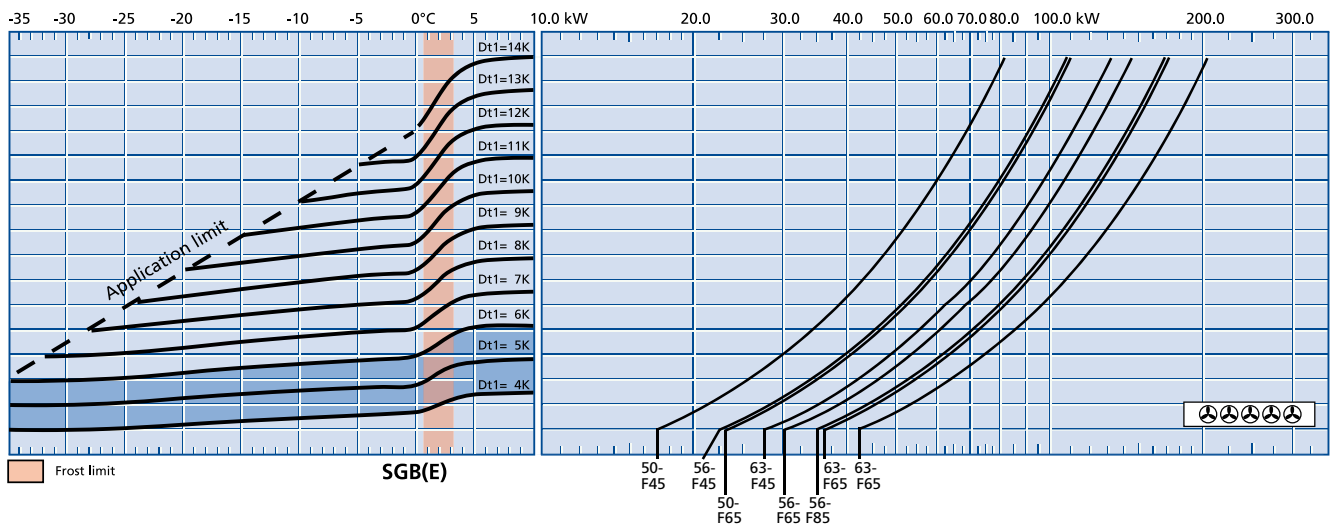
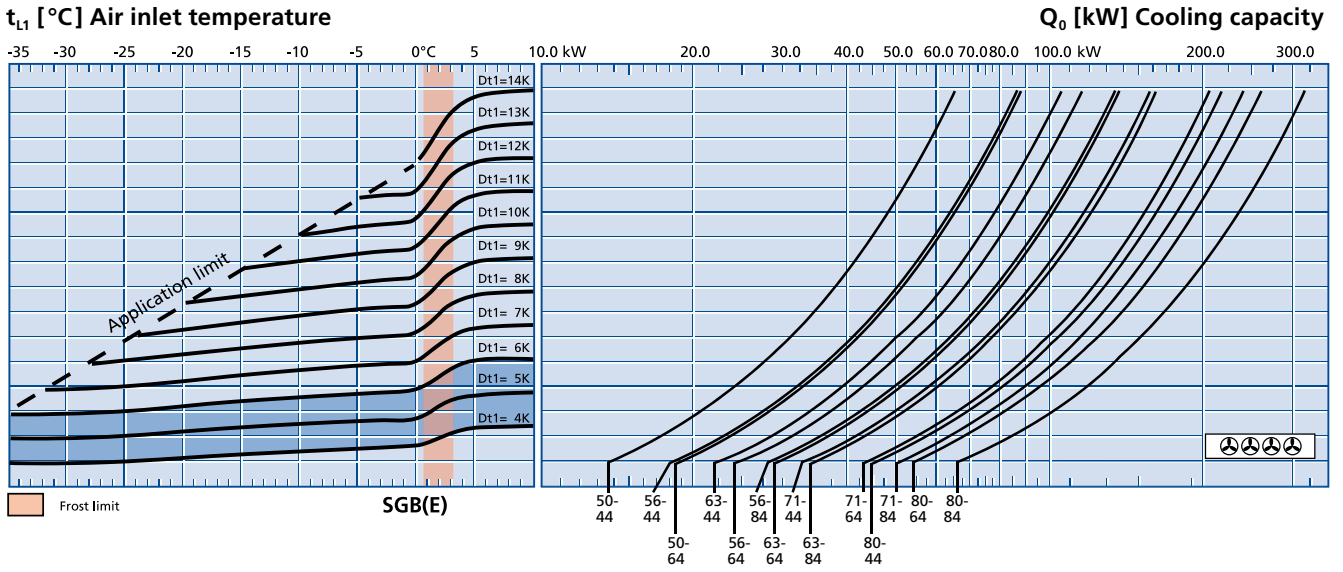
Q_o [kW] Cooling capacity



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Q_v Chart (EN 328, R404A) SGB-F  **7 mm**



Q₀ = Cooling capacity
 t_{L1} = Air inlet temperature
 t₀ [°C] = Evaporating temperature (coil outlet)
 DT1 [K] = Temperature difference = t_{L1} - t₀ (°C)

DT1 = 4 K bis 6 K
 with electronic expansion valve

Example selection:
 For examples and explanations, please see the information section on pg. 136.



Technical Data (R404A)

SGK-F



SGK(E)-F

| Model | | Rating Q ₀ at 50 Hz | | Surface | Air flow | | Air throw | | Tube volume | Connections | | | Per Fan 400 ± 10% V-3~ 50Hz (operating values at 50 Hz) | | |
|--------|-----|------------------------------------|------------------------------------|----------------|-------------------|-------------------|-----------|-----------------|-------------|-----------------|---------------|-------------------|--|-------------------|---|
| | | t _{li} ± 0 °C DT1 = 8K | t _{li} -18 °C DT1 = 7K | | m ² | m ³ /h | m | m | | dm ³ | Inlet Ø mm | Outlet Ø mm | Blade Ø mm | min ⁻¹ | W |
| SGK(E) | | kW | kW | m ² | m ³ /h | m | m | dm ³ | Ø mm | Ø mm | Ø mm | min ⁻¹ | W | A | |
| 50-F41 | ⊕ | 6,6 | 5,3 | 26 | 6500 | 26 | 17 | 9 | 10 | 28 | 500 | 1390 | 657 | 1,32 | |
| 50-F61 | ⊕ | 9,3 | 7,5 | 39 | 6300 | 26 | 17 | 13 | 10 | 28 | 500 | 1390 | 657 | 1,32 | |
| 56-F41 | ⊕ | 8,6 | 7,0 | 35 | 8000 | 31 | 20 | 12 | 10 | 28 | 560 | 1338 | 813 | 1,78 | |
| 56-F61 | ⊕ | 11,7 | 9,5 | 52 | 7600 | 31 | 20 | 17 | 15 | 35 | 560 | 1338 | 813 | 1,78 | |
| 56-F81 | ⊕ | 14,1 | 11,3 | 69 | 7400 | 31 | 20 | 23 | 15 | 35 | 560 | 1338 | 813 | 1,78 | |
| 63-F41 | ⊕ | 11,0 | 8,7 | 47 | 9100 | 36 | 23 | 16 | 15 | 28 | 630 | 919 | 539 | 1,38 | |
| 63-F61 | ⊕ | 14,5 | 11,5 | 70 | 8800 | 36 | 23 | 23 | 22 | 35 | 630 | 919 | 539 | 1,38 | |
| 63-F81 | ⊕ | 17,2 | 13,7 | 94 | 8500 | 36 | 23 | 31 | 22 | 35 | 630 | 919 | 539 | 1,38 | |
| 71-F41 | ⊕ | 15,6 | 12,5 | 73 | 12800 | 46 | 28 | 24 | 15 | 35 | 710 | 940 | 1140 | 2,39 | |
| 71-F61 | ⊕ | 21,6 | 17,2 | 109 | 12400 | 46 | 28 | 36 | 22 | 35 | 710 | 940 | 1140 | 2,39 | |
| 71-F81 | ⊕ | 26,1 | 20,7 | 146 | 12150 | 46 | 28 | 48 | 22 | 42 | 710 | 940 | 1140 | 2,39 | |
| 80-F41 | ⊕ | 22,3 | 17,8 | 85 | 21150 | 51 | - | 28 | 15 | 42 | 800 | 940 | 1630 | 3,46 | |
| 80-F61 | ⊕ | 27,8 | 22,2 | 128 | 20520 | 51 | - | 42 | 22 | 42 | 800 | 940 | 1630 | 3,46 | |
| 80-F81 | ⊕ | 34,6 | 27,6 | 170 | 19800 | 51 | - | 56 | 22 | 42 | 800 | 940 | 1630 | 3,46 | |
| 50-F42 | ⊕⊕ | 13,1 | 10,5 | 52 | 13000 | 37 | 24 | 17 | 15 | 35 | 500 | 1390 | 657 | 1,32 | |
| 50-F62 | ⊕⊕ | 18,6 | 14,8 | 78 | 12600 | 37 | 24 | 25 | 15 | 35 | 500 | 1390 | 657 | 1,32 | |
| 56-F42 | ⊕⊕ | 17,5 | 13,8 | 69 | 16000 | 43 | 28 | 22 | 15 | 35 | 560 | 1338 | 813 | 1,78 | |
| 56-F62 | ⊕⊕ | 23,6 | 18,8 | 104 | 15200 | 43 | 28 | 34 | 22 | 42 | 560 | 1338 | 813 | 1,78 | |
| 56-F82 | ⊕⊕ | 28,3 | 22,6 | 139 | 14800 | 43 | 28 | 45 | 22 | 42 | 560 | 1338 | 813 | 1,78 | |
| 63-F42 | ⊕⊕ | 21,8 | 17,5 | 94 | 18200 | 49 | 32 | 30 | 22 | 42 | 630 | 919 | 539 | 1,38 | |
| 63-F62 | ⊕⊕ | 28,8 | 23,1 | 141 | 17600 | 49 | 32 | 45 | 22 | 42 | 630 | 919 | 539 | 1,38 | |
| 63-F82 | ⊕⊕ | 34,6 | 27,6 | 187 | 17000 | 49 | 32 | 60 | 22 | 42 | 630 | 919 | 539 | 1,38 | |
| 71-F42 | ⊕⊕ | 31,3 | 25,1 | 146 | 25600 | 62 | 37 | 46 | 22 | 42 | 710 | 940 | 1140 | 2,39 | |
| 71-F62 | ⊕⊕ | 43,3 | 34,6 | 218 | 24800 | 62 | 37 | 70 | 28 | 54 | 710 | 940 | 1140 | 2,39 | |
| 71-F82 | ⊕⊕ | 52,1 | 41,5 | 292 | 24300 | 62 | 37 | 93 | 28 | 54 | 710 | 940 | 1140 | 2,39 | |
| 80-F42 | ⊕⊕ | 44,8 | 35,8 | 170 | 42300 | 67 | - | 54 | 22 | 54 | 800 | 940 | 1630 | 3,46 | |
| 80-F62 | ⊕⊕ | 55,8 | 44,5 | 256 | 41040 | 67 | - | 82 | 2x22 | 2x42 | 800 | 940 | 1630 | 3,46 | |
| 80-F82 | ⊕⊕ | 69,2 | 55,3 | 340 | 39600 | 67 | - | 108 | 2x22 | 2x42 | 800 | 940 | 1630 | 3,46 | |
| 50-F43 | ⊕⊕⊕ | 19,7 | 15,7 | 78 | 19500 | 45 | 29 | 25 | 15 | 42 | 500 | 1390 | 657 | 1,32 | |
| 50-F63 | ⊕⊕⊕ | 28,1 | 22,3 | 117 | 18900 | 45 | 29 | 37 | 22 | 42 | 500 | 1390 | 657 | 1,32 | |
| 56-F43 | ⊕⊕⊕ | 26,1 | 20,8 | 104 | 24000 | 54 | 35 | 33 | 15 | 42 | 560 | 1338 | 813 | 1,78 | |
| 56-F63 | ⊕⊕⊕ | 35,5 | 28,3 | 156 | 22800 | 54 | 35 | 50 | 22 | 42 | 560 | 1338 | 813 | 1,78 | |



Technical Data (R404A) SGK-F 10 mm

SGK(E)-F

| Model | Rating Q ₀ at 50 Hz | | Surface m ² | Air flow m ³ /h | | Air throw m | | Tube volume dm ³ | Connections | | | Per Fan 400 ± 10% V-3 ~ 50Hz (operating values at 50 Hz) | | |
|--------|-----------------------------------|-----------------------------------|---------------------------|-------------------------------|-------|----------------|------|-----------------------------------|-------------|-------------------|-----|---|------|------|
| | t ₁ ± 0 °C DT1 = 8K | t ₁ -18 °C DT1 = 7K | | kW | kW | Ø mm | Ø mm | | Ø mm | min ⁻¹ | W | A | | |
| SGK(E) | | | | | | | | | | | | | | |
| 56-F83 | ⊗⊗⊗ | 42,5 | 34,1 | 208 | 22200 | 54 | 35 | 66 | 22 | 54 | 560 | 1338 | 813 | 1,78 |
| 63-F43 | ⊗⊗⊗ | 32,8 | 26,2 | 141 | 27300 | 63 | 41 | 45 | 22 | 42 | 630 | 919 | 539 | 1,38 |
| 63-F63 | ⊗⊗⊗ | 43,3 | 34,6 | 211 | 26400 | 63 | 41 | 67 | 22 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F83 | ⊗⊗⊗ | 52,0 | 41,5 | 281 | 25500 | 63 | 41 | 89 | 28 | 54 | 630 | 919 | 539 | 1,38 |
| 71-F43 | ⊗⊗⊗ | 47,1 | 37,6 | 219 | 38400 | 73 | 44 | 69 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 71-F63 | ⊗⊗⊗ | 65,1 | 52,0 | 327 | 37200 | 73 | 44 | 104 | 2x22 | 2x42 | 710 | 940 | 1140 | 2,39 |
| 71-F83 | ⊗⊗⊗ | 78,1 | 62,5 | 438 | 36450 | 73 | 44 | 138 | 2x28 | 2x42 | 710 | 940 | 1140 | 2,39 |
| 80-F43 | ⊗⊗⊗ | 67,2 | 53,7 | 255 | 63450 | 77 | - | 81 | 28 | 54 | 800 | 940 | 1630 | 3,46 |
| 80-F63 | ⊗⊗⊗ | 83,7 | 66,8 | 384 | 61560 | 77 | - | 121 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 80-F83 | ⊗⊗⊗ | 104,0 | 83,1 | 510 | 59400 | 77 | - | 161 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 50-F44 | ⊗⊗⊗⊗ | 26,3 | 21,1 | 104 | 26000 | 47 | 31 | 33 | 15 | 42 | 500 | 1390 | 657 | 1,32 |
| 50-F64 | ⊗⊗⊗⊗ | 37,3 | 29,8 | 156 | 25200 | 47 | 31 | 50 | 22 | 54 | 500 | 1390 | 657 | 1,32 |
| 56-F44 | ⊗⊗⊗⊗ | 34,8 | 27,8 | 139 | 32000 | 56 | 36 | 44 | 22 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F64 | ⊗⊗⊗⊗ | 47,3 | 37,7 | 208 | 30400 | 56 | 36 | 66 | 28 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F84 | ⊗⊗⊗⊗ | 56,8 | 45,3 | 278 | 29600 | 56 | 36 | 88 | 2x22 | 2x42 | 560 | 1338 | 813 | 1,78 |
| 63-F44 | ⊗⊗⊗⊗ | 43,8 | 35,1 | 188 | 36400 | 65 | 42 | 59 | 22 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F64 | ⊗⊗⊗⊗ | 57,8 | 46,1 | 281 | 35200 | 65 | 42 | 89 | 28 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F84 | ⊗⊗⊗⊗ | 69,2 | 55,3 | 375 | 34000 | 65 | 42 | 118 | 2x22 | 2x42 | 630 | 919 | 539 | 1,38 |
| 71-F44 | ⊗⊗⊗⊗ | 62,7 | 50,1 | 292 | 51200 | 78 | 47 | 92 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 71-F64 | ⊗⊗⊗⊗ | 86,7 | 69,2 | 436 | 49600 | 78 | 47 | 138 | 2x22 | 2x54 | 710 | 940 | 1140 | 2,39 |
| 71-F84 | ⊗⊗⊗⊗ | 104,1 | 83,2 | 584 | 48600 | 78 | 47 | 184 | 2x28 | 2x54 | 710 | 940 | 1140 | 2,39 |
| 80-F44 | ⊗⊗⊗⊗ | 89,7 | 71,6 | 340 | 84600 | 79 | - | 107 | 28 | 64 | 800 | 940 | 1630 | 3,46 |
| 80-F64 | ⊗⊗⊗⊗ | 111,6 | 89,1 | 512 | 82080 | 79 | - | 161 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 80-F84 | ⊗⊗⊗⊗ | 138,5 | 110,7 | 680 | 79200 | 79 | - | 214 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 50-F45 | ⊗⊗⊗⊗⊗ | 33,0 | 26,3 | 130 | 32500 | 52 | 34 | 41 | 22 | 54 | 500 | 1390 | 657 | 1,32 |
| 50-F65 | ⊗⊗⊗⊗⊗ | 46,7 | 37,3 | 196 | 31500 | 52 | 34 | 62 | 22 | 54 | 500 | 1390 | 657 | 1,32 |
| 56-F45 | ⊗⊗⊗⊗⊗ | 43,5 | 34,8 | 174 | 40000 | 61 | 40 | 55 | 22 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F65 | ⊗⊗⊗⊗⊗ | 59,1 | 47,2 | 261 | 38000 | 61 | 40 | 82 | 28 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F85 | ⊗⊗⊗⊗⊗ | 71,1 | 56,7 | 347 | 37000 | 61 | 40 | 109 | 2x22 | 2x42 | 560 | 1338 | 813 | 1,78 |
| 63-F45 | ⊗⊗⊗⊗⊗ | 54,8 | 43,7 | 235 | 45500 | 71 | 46 | 74 | 22 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F65 | ⊗⊗⊗⊗⊗ | 72,2 | 57,7 | 352 | 44000 | 71 | 46 | 111 | 28 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F85 | ⊗⊗⊗⊗⊗ | 86,6 | 69,1 | 469 | 42500 | 71 | 46 | 147 | 2x22 | 2x54 | 630 | 919 | 539 | 1,38 |



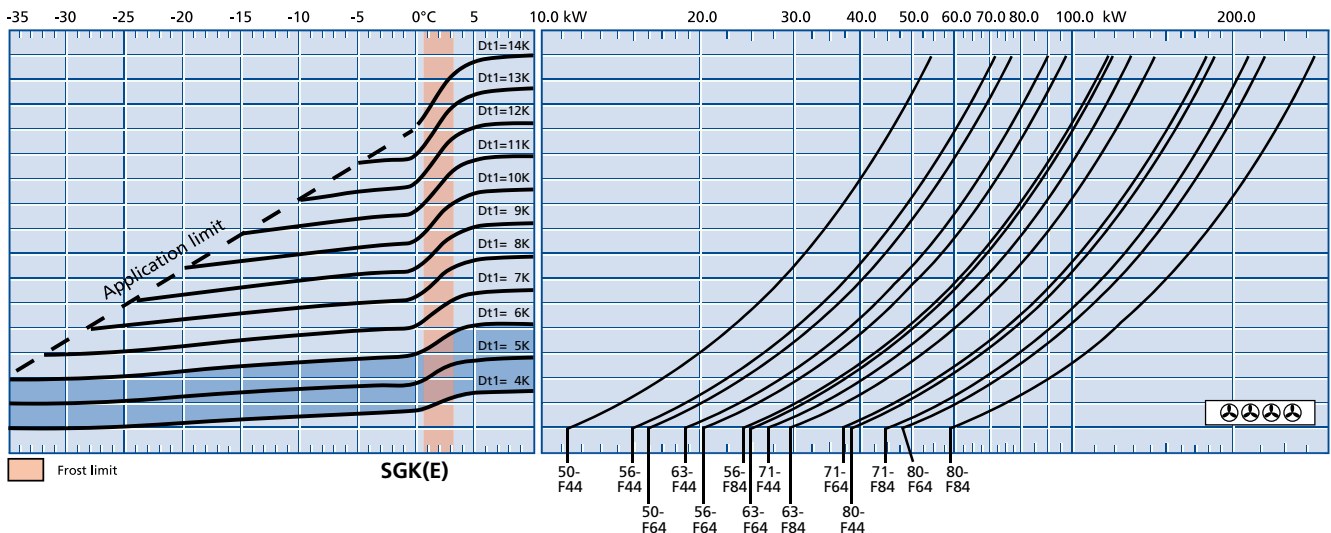
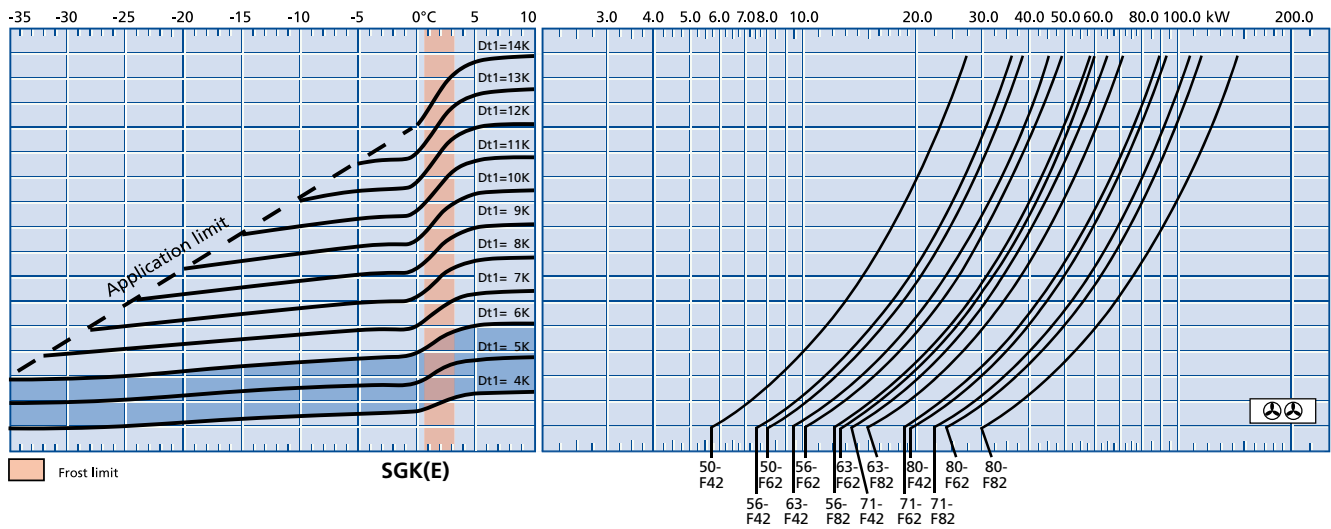
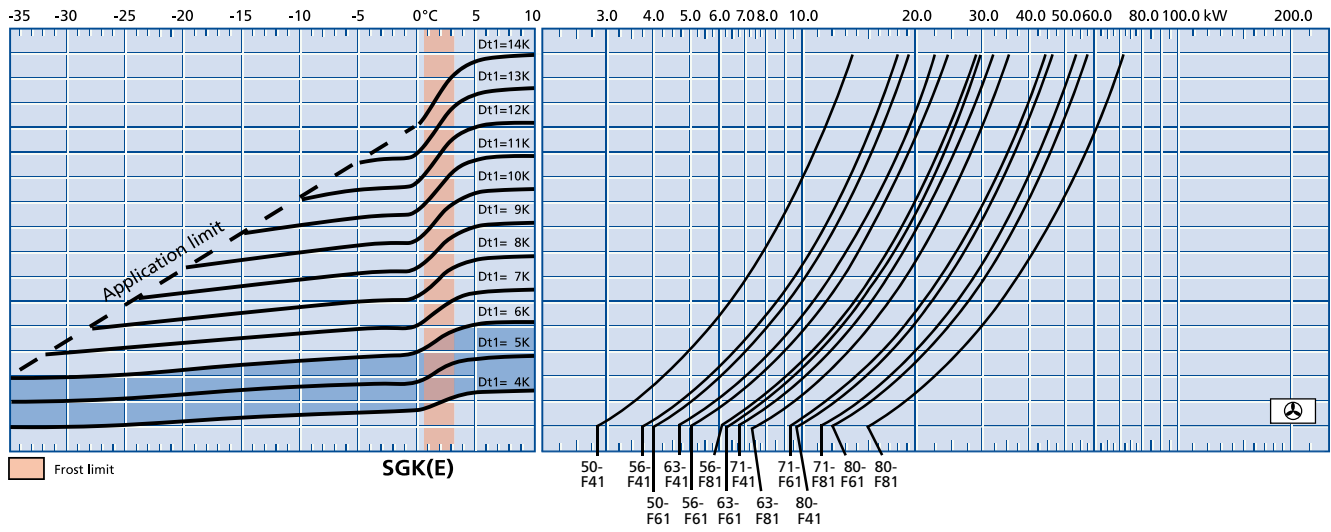
Q_v Chart (EN 328, R404A)

SGK-F



t_{l1} [°C] Air inlet temperature

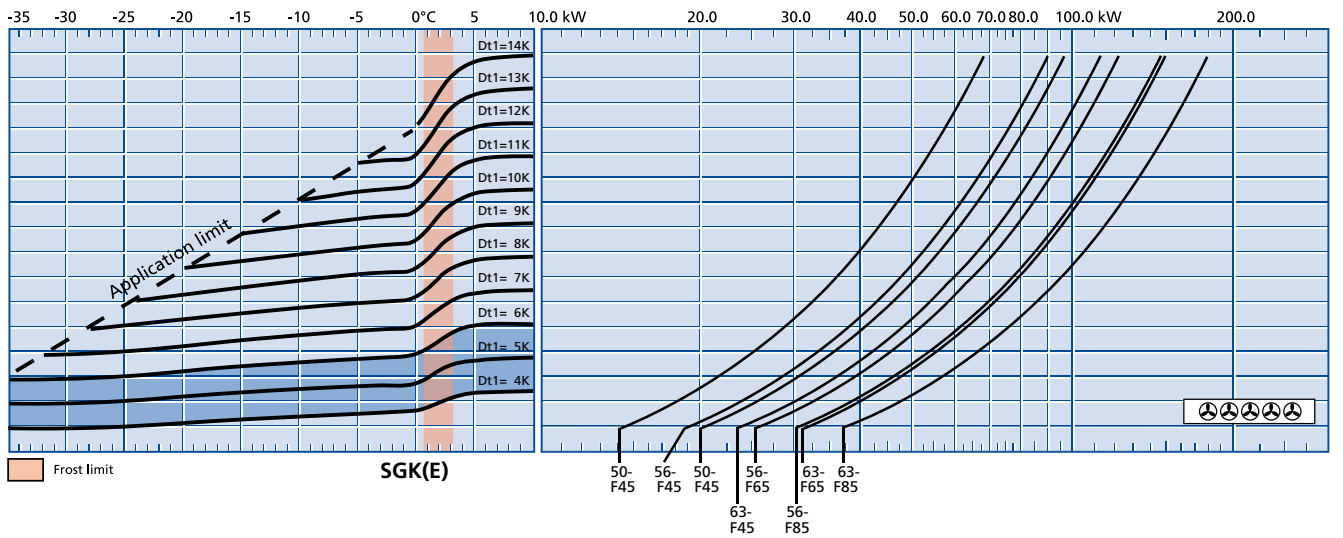
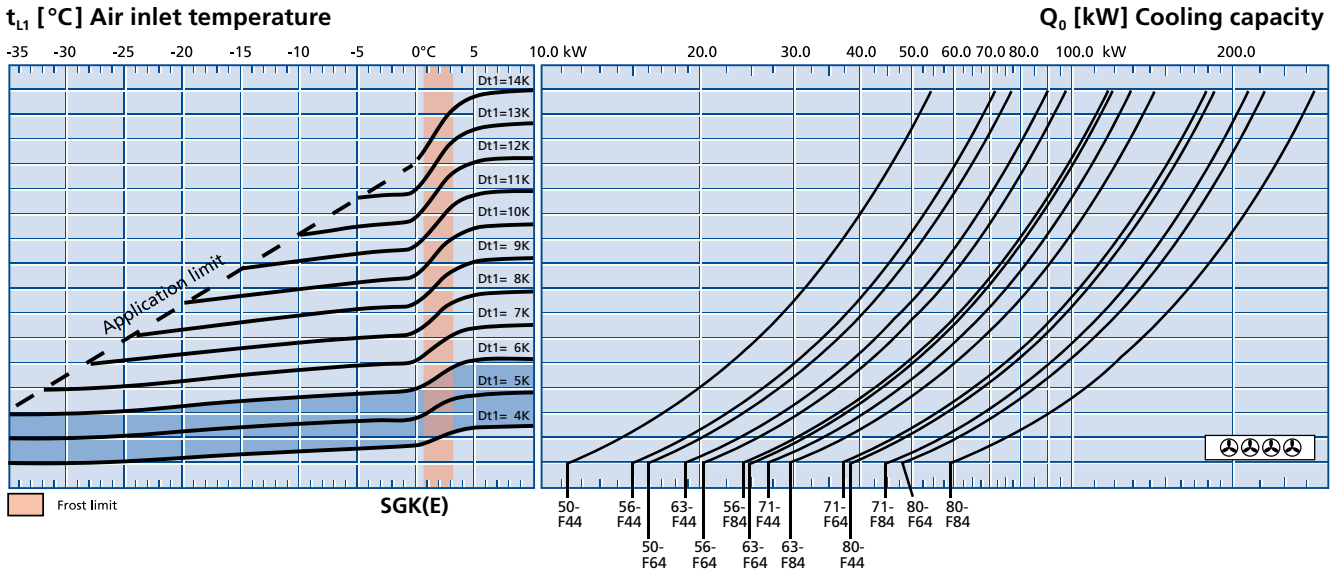
Q₀ [kW] Cooling capacity



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Q_v Chart (EN 328, R404A) SGK-F 10 mm



Q₀ = Cooling capacity
 t_{L1} = Air inlet temperature
 t₀ [°C] = Evaporating temperature (coil outlet)
 DT1 [K] = Temperature difference = t_{L1} - t₀ (°C)

DT1 = 4 K bis 6 K
 with electronic expansion valve

Example selection:
 For examples and explanations, please see the information section on pg. 136.



Technical Data (R404A)

SGL-F



SGL(E)-F

| Model | | Rating Q ₀ at 50 Hz | | Surface | Air flow | Air throw | | Tube volume | Connections | | | Per Fan 400 ± 10% V-3~ 50Hz (operating values at 50 Hz) | | |
|--------|-----|------------------------------------|------------------------------------|----------------|-------------------|-----------|--------|-----------------|-------------|-------------------|------|--|------|------|
| | | t _{li} ± 0 °C DT1 = 8K | t _{li} -18 °C DT1 = 7K | | | Inlet | Outlet | | Blade | min ⁻¹ | W | A | | |
| SGL(E) | | | | | | | | | | | | | | |
| | | kW | kW | m ² | m ³ /h | m | m | dm ³ | Ø mm | Ø mm | Ø mm | | | |
| 50-F41 | ⊕ | 6,2 | 4,9 | 22 | 6700 | 27 | 18 | 9 | 10 | 28 | 500 | 1390 | 657 | 1,32 |
| 50-F61 | ⊕ | 8,5 | 6,8 | 33 | 6500 | 27 | 18 | 13 | 10 | 28 | 500 | 1390 | 657 | 1,32 |
| 56-F41 | ⊕ | 7,9 | 6,3 | 30 | 8100 | 32 | 21 | 12 | 10 | 28 | 560 | 1338 | 813 | 1,78 |
| 56-F61 | ⊕ | 11,0 | 8,8 | 44 | 7900 | 32 | 21 | 17 | 15 | 35 | 560 | 1338 | 813 | 1,78 |
| 56-F81 | ⊕ | 13,3 | 10,7 | 59 | 7700 | 32 | 21 | 23 | 15 | 35 | 560 | 1338 | 813 | 1,78 |
| 63-F41 | ⊕ | 9,7 | 7,8 | 40 | 9200 | 37 | 24 | 16 | 15 | 28 | 630 | 919 | 539 | 1,38 |
| 63-F61 | ⊕ | 13,5 | 10,8 | 60 | 9000 | 37 | 24 | 23 | 22 | 35 | 630 | 919 | 539 | 1,38 |
| 63-F81 | ⊕ | 16,0 | 12,7 | 80 | 8700 | 37 | 24 | 31 | 22 | 35 | 630 | 919 | 539 | 1,38 |
| 71-F41 | ⊕ | 14,2 | 11,4 | 62 | 12800 | 47 | 28 | 24 | 15 | 35 | 710 | 940 | 1140 | 2,39 |
| 71-F61 | ⊕ | 19,9 | 15,9 | 93 | 12600 | 47 | 28 | 36 | 22 | 35 | 710 | 940 | 1140 | 2,39 |
| 71-F81 | ⊕ | 24,2 | 19,3 | 124 | 12400 | 47 | 28 | 48 | 22 | 42 | 710 | 940 | 1140 | 2,39 |
| 80-F41 | ⊕ | 20,2 | 16,1 | 72 | 21600 | 52 | - | 28 | 15 | 42 | 800 | 940 | 1630 | 3,46 |
| 80-F61 | ⊕ | 24,8 | 19,8 | 108 | 20880 | 52 | - | 42 | 22 | 42 | 800 | 940 | 1630 | 3,46 |
| 80-F81 | ⊕ | 31,9 | 25,5 | 144 | 20520 | 52 | - | 56 | 22 | 42 | 800 | 940 | 1630 | 3,46 |
| 50-F42 | ⊕⊕ | 12,4 | 9,9 | 44 | 13400 | 37 | 24 | 17 | 15 | 35 | 500 | 1390 | 657 | 1,32 |
| 50-F62 | ⊕⊕ | 17,0 | 13,5 | 66 | 13000 | 37 | 24 | 25 | 15 | 35 | 500 | 1390 | 657 | 1,32 |
| 56-F42 | ⊕⊕ | 15,7 | 12,6 | 59 | 16200 | 43 | 28 | 22 | 15 | 35 | 560 | 1338 | 813 | 1,78 |
| 56-F62 | ⊕⊕ | 21,9 | 17,5 | 88 | 15800 | 43 | 28 | 34 | 22 | 42 | 560 | 1338 | 813 | 1,78 |
| 56-F82 | ⊕⊕ | 26,7 | 21,3 | 118 | 15400 | 43 | 28 | 45 | 22 | 42 | 560 | 1338 | 813 | 1,78 |
| 63-F42 | ⊕⊕ | 19,5 | 15,5 | 80 | 18400 | 49 | 32 | 30 | 22 | 42 | 630 | 919 | 539 | 1,38 |
| 63-F62 | ⊕⊕ | 26,9 | 21,5 | 119 | 18000 | 49 | 32 | 45 | 22 | 42 | 630 | 919 | 539 | 1,38 |
| 63-F82 | ⊕⊕ | 31,9 | 25,5 | 159 | 17400 | 49 | 32 | 60 | 22 | 42 | 630 | 919 | 539 | 1,38 |
| 71-F42 | ⊕⊕ | 28,4 | 22,7 | 124 | 25600 | 62 | 37 | 46 | 22 | 42 | 710 | 940 | 1140 | 2,39 |
| 71-F62 | ⊕⊕ | 39,9 | 31,9 | 186 | 25200 | 62 | 37 | 70 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 71-F82 | ⊕⊕ | 48,4 | 38,6 | 248 | 24800 | 62 | 37 | 93 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 80-F42 | ⊕⊕ | 40,4 | 32,3 | 144 | 43200 | 67 | - | 54 | 22 | 54 | 800 | 940 | 1630 | 3,46 |
| 80-F62 | ⊕⊕ | 49,6 | 39,6 | 216 | 41760 | 67 | - | 82 | 2x22 | 2x42 | 800 | 940 | 1630 | 3,46 |
| 80-F82 | ⊕⊕ | 63,8 | 51,0 | 288 | 41040 | 67 | - | 108 | 2x22 | 2x42 | 800 | 940 | 1630 | 3,46 |
| 50-F43 | ⊕⊕⊕ | 18,6 | 14,8 | 66 | 20100 | 45 | 29 | 25 | 15 | 42 | 500 | 1390 | 657 | 1,32 |
| 50-F63 | ⊕⊕⊕ | 25,4 | 20,3 | 99 | 19500 | 45 | 29 | 37 | 22 | 42 | 500 | 1390 | 657 | 1,32 |
| 56-F43 | ⊕⊕⊕ | 23,6 | 18,8 | 89 | 24300 | 54 | 35 | 33 | 15 | 42 | 560 | 1338 | 813 | 1,78 |
| 56-F63 | ⊕⊕⊕ | 32,9 | 26,3 | 133 | 23700 | 54 | 35 | 50 | 22 | 42 | 560 | 1338 | 813 | 1,78 |

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Technical Data (R404A) SGL-F 

SGL(E)-F

| Model | Rating Q ₀ at 50 Hz | | Surface | Air flow | Air throw | | Tube volume | Connections | | | Per Fan 400 ± 10% V-3~ 50Hz (operating values at 50 Hz) | | | |
|--------|------------------------------------|------------------------------------|----------------|-------------------|-----------|--------|-----------------|-------------|-------------------|------|--|------|------|------|
| | t ₁₁ ± 0 °C DT1 = 8K | t ₁₁ -18 °C DT1 = 7K | | | Inlet | Outlet | | Blade | min ⁻¹ | W | A | | | |
| SGL(E) | kW | kW | m ² | m ³ /h | m | m | dm ³ | Ø mm | Ø mm | Ø mm | | | | |
| 56-F83 | ⊗⊗⊗ | 40,0 | 32,0 | 177 | 23100 | 54 | 35 | 66 | 22 | 54 | 560 | 1338 | 813 | 1,78 |
| 63-F43 | ⊗⊗⊗ | 29,2 | 23,3 | 119 | 27600 | 63 | 41 | 45 | 22 | 42 | 630 | 919 | 539 | 1,38 |
| 63-F63 | ⊗⊗⊗ | 40,4 | 32,3 | 179 | 27000 | 63 | 41 | 67 | 22 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F83 | ⊗⊗⊗ | 47,9 | 38,2 | 239 | 26100 | 63 | 41 | 89 | 28 | 54 | 630 | 919 | 539 | 1,38 |
| 71-F43 | ⊗⊗⊗ | 42,6 | 34,1 | 186 | 38400 | 73 | 44 | 69 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 71-F63 | ⊗⊗⊗ | 59,8 | 47,8 | 278 | 37800 | 73 | 44 | 104 | 2x22 | 2x42 | 710 | 940 | 1140 | 2,39 |
| 71-F83 | ⊗⊗⊗ | 72,6 | 58,0 | 372 | 37200 | 73 | 44 | 138 | 2x28 | 2x42 | 710 | 940 | 1140 | 2,39 |
| 80-F43 | ⊗⊗⊗ | 60,6 | 48,4 | 217 | 64800 | 77 | - | 81 | 28 | 54 | 800 | 940 | 1630 | 3,46 |
| 80-F63 | ⊗⊗⊗ | 74,4 | 59,5 | 324 | 62640 | 77 | - | 121 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 80-F83 | ⊗⊗⊗ | 95,8 | 76,5 | 432 | 61560 | 77 | - | 161 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 50-F44 | ⊗⊗⊗⊗ | 24,7 | 19,8 | 88 | 26800 | 47 | 31 | 33 | 15 | 42 | 500 | 1390 | 657 | 1,32 |
| 50-F64 | ⊗⊗⊗⊗ | 33,9 | 27,1 | 132 | 26000 | 47 | 31 | 50 | 22 | 54 | 500 | 1390 | 657 | 1,32 |
| 56-F44 | ⊗⊗⊗⊗ | 31,4 | 25,1 | 118 | 32400 | 56 | 36 | 44 | 22 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F64 | ⊗⊗⊗⊗ | 43,9 | 35,1 | 177 | 31600 | 56 | 36 | 66 | 28 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F84 | ⊗⊗⊗⊗ | 53,4 | 42,6 | 236 | 30800 | 56 | 36 | 88 | 2x22 | 2x42 | 560 | 1338 | 813 | 1,78 |
| 63-F44 | ⊗⊗⊗⊗ | 38,9 | 31,1 | 159 | 36800 | 65 | 42 | 59 | 22 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F64 | ⊗⊗⊗⊗ | 53,9 | 43,0 | 239 | 36000 | 65 | 42 | 89 | 28 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F84 | ⊗⊗⊗⊗ | 63,8 | 51,0 | 318 | 34800 | 65 | 42 | 118 | 2x22 | 2x42 | 630 | 919 | 539 | 1,38 |
| 71-F44 | ⊗⊗⊗⊗ | 56,9 | 45,4 | 248 | 51200 | 78 | 47 | 92 | 28 | 54 | 710 | 940 | 1140 | 2,39 |
| 71-F64 | ⊗⊗⊗⊗ | 79,8 | 63,7 | 371 | 50400 | 78 | 47 | 138 | 2x28 | 2x54 | 710 | 940 | 1140 | 2,39 |
| 71-F84 | ⊗⊗⊗⊗ | 96,8 | 77,3 | 496 | 49600 | 78 | 47 | 184 | 2x28 | 2x54 | 710 | 940 | 1140 | 2,39 |
| 80-F44 | ⊗⊗⊗⊗ | 80,8 | 64,5 | 289 | 86400 | 79 | - | 107 | 28 | 64 | 800 | 940 | 1630 | 3,46 |
| 80-F64 | ⊗⊗⊗⊗ | 99,2 | 79,3 | 432 | 83520 | 79 | - | 161 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 80-F84 | ⊗⊗⊗⊗ | 127,7 | 102,0 | 576 | 82080 | 79 | - | 214 | 2x28 | 2x54 | 800 | 940 | 1630 | 3,46 |
| 50-F45 | ⊗⊗⊗⊗⊗ | 30,9 | 24,7 | 110 | 33500 | 52 | 34 | 41 | 22 | 54 | 500 | 1390 | 657 | 1,32 |
| 50-F65 | ⊗⊗⊗⊗⊗ | 42,4 | 33,9 | 165 | 32500 | 52 | 34 | 62 | 22 | 54 | 500 | 1390 | 657 | 1,32 |
| 56-F45 | ⊗⊗⊗⊗⊗ | 39,3 | 31,4 | 148 | 40500 | 61 | 40 | 55 | 22 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F65 | ⊗⊗⊗⊗⊗ | 54,9 | 43,8 | 221 | 39500 | 61 | 40 | 82 | 28 | 54 | 560 | 1338 | 813 | 1,78 |
| 56-F85 | ⊗⊗⊗⊗⊗ | 66,7 | 53,3 | 295 | 38500 | 61 | 40 | 109 | 2x22 | 2x42 | 560 | 1338 | 813 | 1,78 |
| 63-F45 | ⊗⊗⊗⊗⊗ | 48,6 | 38,8 | 199 | 46000 | 71 | 46 | 74 | 22 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F65 | ⊗⊗⊗⊗⊗ | 67,3 | 53,8 | 299 | 45000 | 71 | 46 | 111 | 28 | 54 | 630 | 919 | 539 | 1,38 |
| 63-F85 | ⊗⊗⊗⊗⊗ | 79,8 | 63,7 | 398 | 43500 | 71 | 46 | 147 | 2x22 | 2x54 | 630 | 919 | 539 | 1,38 |



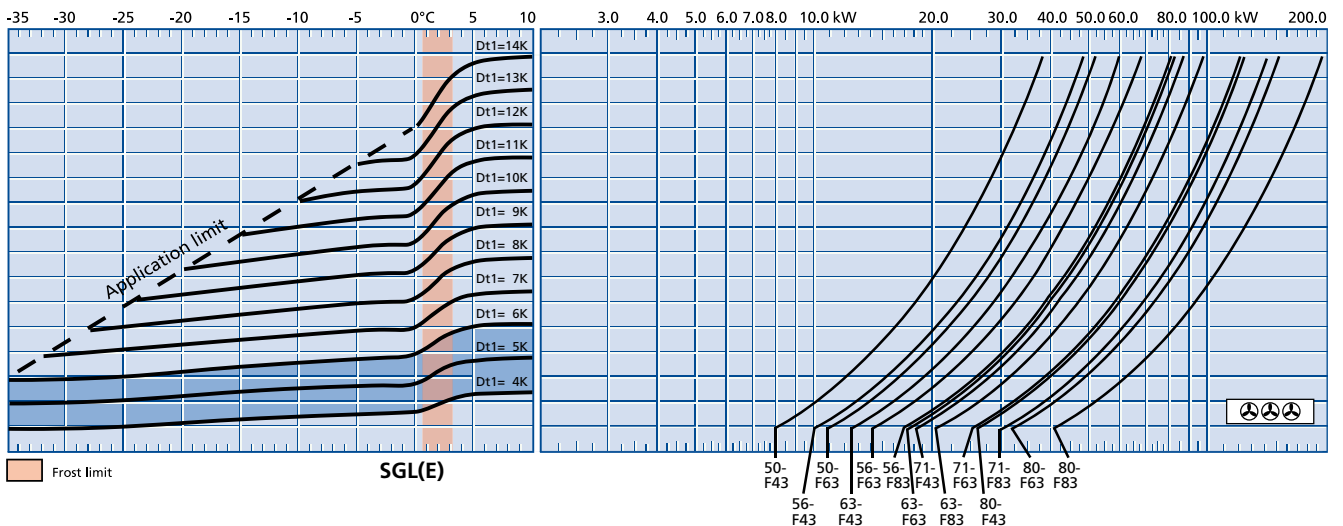
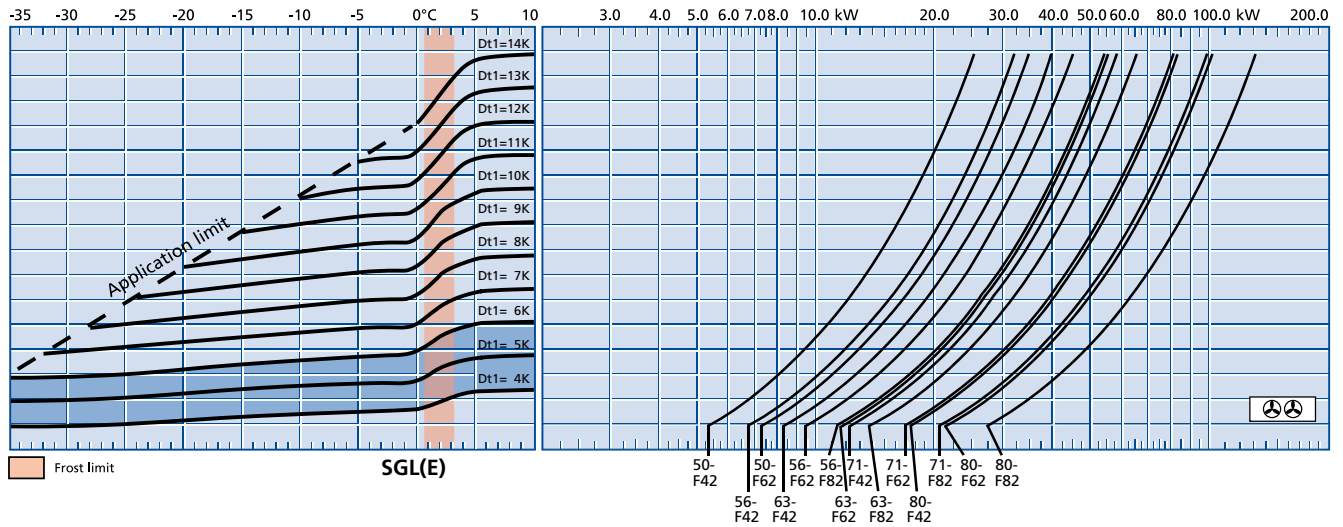
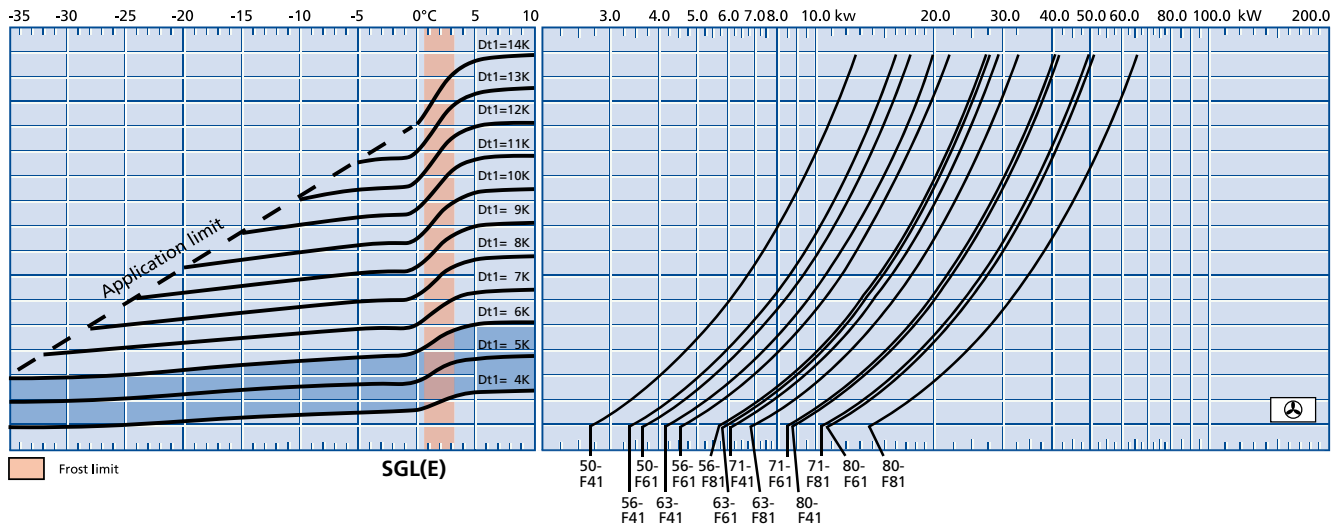
Q_v Chart (EN328, R404A)

SGL-F



t_{L1} [°C] Air inlet temperature

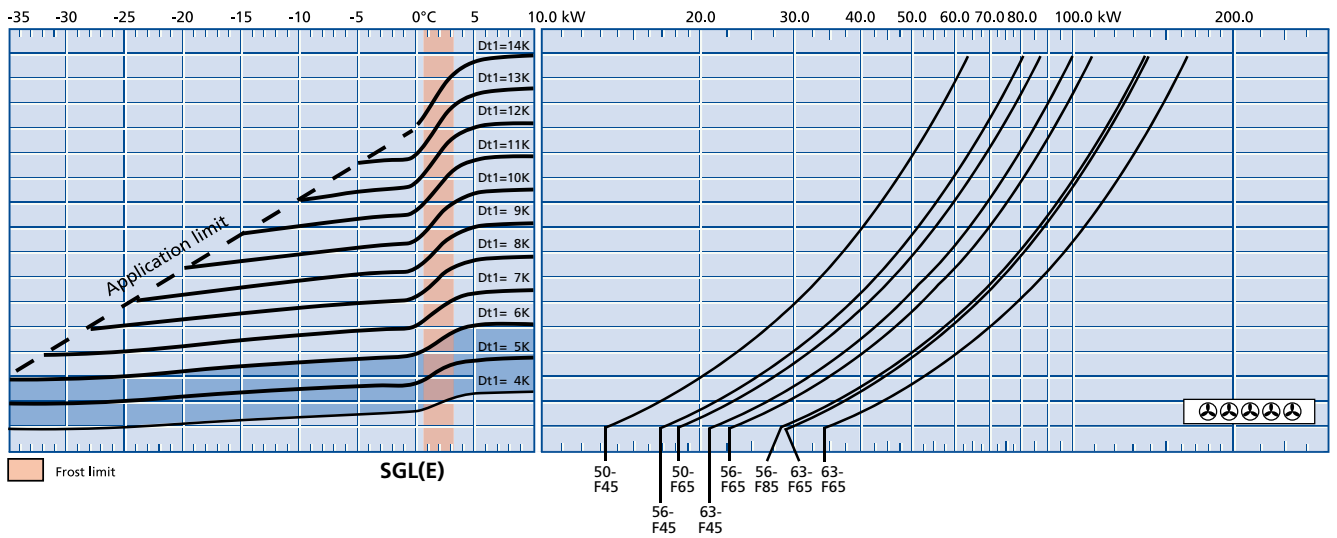
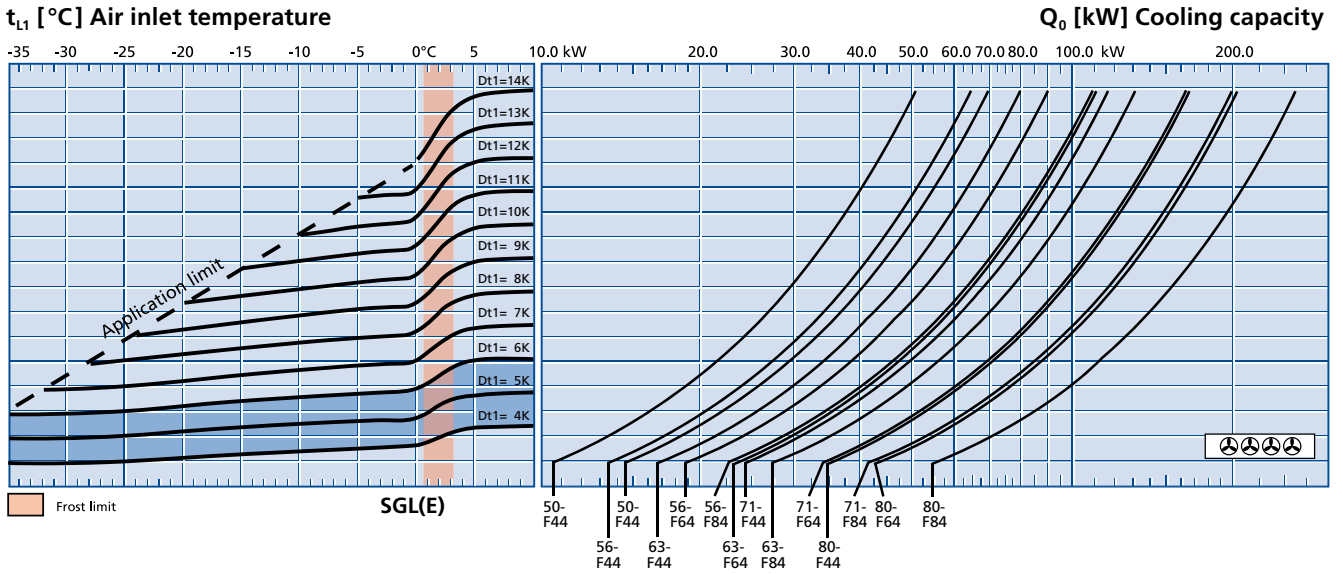
Q₀ [kW] Cooling capacity



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Q_v Chart (EN328, R404A) SGL-F  **12 mm**



Q₀ = Cooling capacity
 t_{L1} = Air inlet temperature
 t₀ [°C] = Evaporating temperature (coil outlet)
 DT1 [K] = Temperature difference = t_{L1} - t₀ (°C)

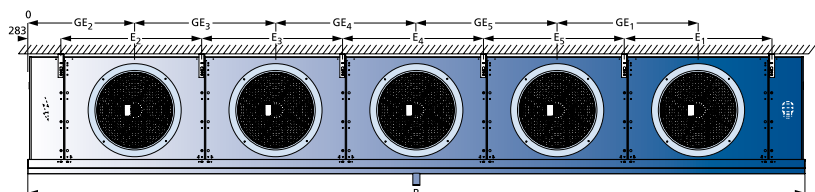
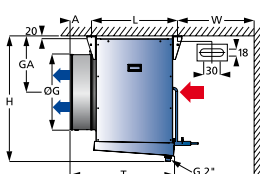
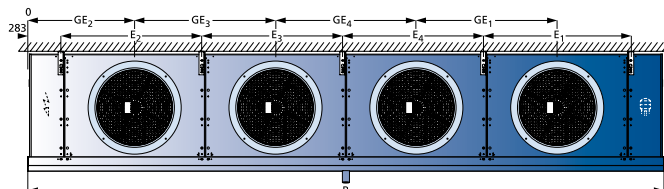
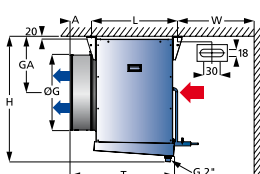
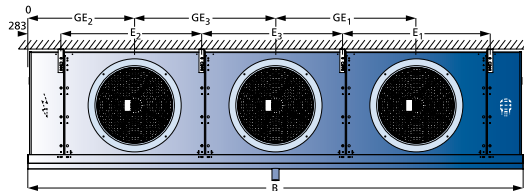
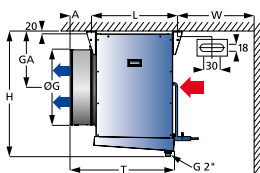
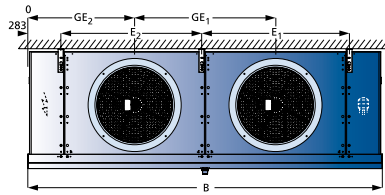
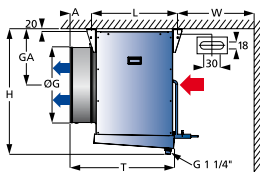
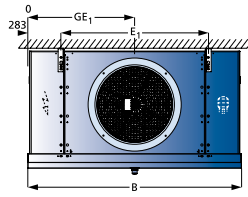
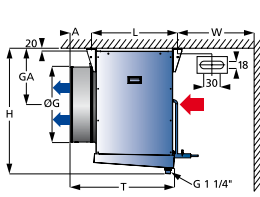
DT1 = 4 K bis 6 K
 with electronic expansion valve

For examples and explanations, please see the information section on pg. 136.

Example selection:



Dimensional Drawings



* Note the differences in dimension for accessories!

The dimensions are only valid for the standard model design! When installing fans other than those listed in the „Technical data“, dimensions T and A are larger.

Sound power level L_{WA} [dB(A)]



| Model | ☺ | ☺ ☺ | ☺ ☺ ☺ | ☺ ☺ ☺ ☺ | ☺ ☺ ☺ ☺ ☺ |
|-------|----|-----|-------|---------|-----------|
| SG 50 | 78 | 81 | 83 | 84 | 85 |
| SG 56 | 85 | 88 | 90 | 91 | 92 |
| SG 63 | 75 | 78 | 80 | 81 | 82 |
| SG 70 | 87 | 90 | 92 | 93 | – |
| SG 80 | 85 | 88 | 90 | 91 | – |



Dimensional Drawings, Electric Defrost, Weights

| Size | Dimensions [mm] | | | | | | | | | | | | | | | | Electrical defrost | | | Net weight | | | | | | |
|-------|-----------------|------|------|-----|----------------|----------------|----------------|----------------|----------------|-----|-----|------------------|-----|-----|-----------------|-----------------|--------------------|-----------------|-----------------|------------|------|---------|------|------|------|-----|
| | H | B | T | L | E ₁ | E ₂ | E ₃ | E ₄ | E ₅ | A | W | W _{min} | ØG | GA | GE ₁ | GE ₂ | GE ₃ | GE ₄ | GE ₅ | Coil | Tray | Total | SGA | SGB | SGK | SGL |
| | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | kW | kW | kW / * | kg | kg | kg | kg |
| 50-41 | 720 | 1620 | 870 | 704 | 1054 | - | - | - | - | 190 | 500 | 860 | 518 | 329 | 783 | - | - | - | - | 4,78 | 2,29 | 7,07/1 | 130 | 122 | 119 | 117 |
| 50-61 | 720 | 1620 | 870 | 704 | 1054 | - | - | - | - | 190 | 500 | 860 | 518 | 329 | 783 | - | - | - | - | 5,97 | 2,29 | 8,26/1 | 146 | 139 | 130 | 127 |
| 56-41 | 920 | 1620 | 870 | 704 | 1054 | - | - | - | - | 190 | 550 | 860 | 576 | 429 | 783 | - | - | - | - | 6,69 | 2,29 | 8,98/1 | 163 | 152 | 149 | 146 |
| 56-61 | 920 | 1620 | 870 | 704 | 1054 | - | - | - | - | 190 | 550 | 860 | 576 | 429 | 783 | - | - | - | - | 7,96 | 2,29 | 10,25/2 | 185 | 164 | 165 | 163 |
| 56-81 | 920 | 1620 | 870 | 704 | 1054 | - | - | - | - | 190 | 550 | 860 | 576 | 429 | 783 | - | - | - | - | 10,51 | 2,29 | 12,8/2 | 214 | 192 | 184 | 180 |
| 63-41 | 1020 | 1820 | 895 | 729 | 1254 | - | - | - | - | 190 | 600 | 960 | 639 | 479 | 883 | - | - | - | - | 9,16 | 2,60 | 11,76/2 | 205 | 192 | 186 | 182 |
| 63-61 | 1020 | 1820 | 895 | 729 | 1254 | - | - | - | - | 190 | 600 | 960 | 639 | 479 | 883 | - | - | - | - | 10,31 | 2,60 | 12,91/2 | 236 | 215 | 208 | 203 |
| 63-81 | 1020 | 1820 | 895 | 729 | 1254 | - | - | - | - | 190 | 600 | 960 | 639 | 479 | 883 | - | - | - | - | 13,74 | 2,60 | 16,34/2 | 269 | 241 | 232 | 225 |
| 71-41 | 1325 | 2020 | 1040 | 757 | 1454 | - | - | - | - | 310 | 700 | 1340 | 734 | 629 | 983 | - | - | - | - | 14,30 | 2,87 | 17,17/2 | 286 | 264 | 257 | 251 |
| 71-61 | 1325 | 2020 | 1040 | 757 | 1454 | - | - | - | - | 310 | 700 | 1340 | 734 | 629 | 983 | - | - | - | - | 15,60 | 2,87 | 18,47/2 | 334 | 301 | 290 | 281 |
| 71-81 | 1325 | 2020 | 1040 | 757 | 1454 | - | - | - | - | 310 | 700 | 1340 | 734 | 629 | 983 | - | - | - | - | 22,10 | 2,87 | 24,97/2 | 387 | 343 | 328 | 317 |
| 80-41 | 1535 | 2020 | 1130 | 757 | 1454 | - | - | - | - | 400 | 800 | 1340 | 804 | 729 | 983 | - | - | - | - | 16,90 | 2,87 | 19,77/2 | 352 | 309 | 301 | 295 |
| 80-61 | 1535 | 2020 | 1130 | 757 | 1454 | - | - | - | - | 400 | 800 | 1340 | 804 | 729 | 983 | - | - | - | - | 18,20 | 2,87 | 21,07/2 | 401 | 353 | 341 | 331 |
| 80-81 | 1535 | 2020 | 1130 | 757 | 1454 | - | - | - | - | 400 | 800 | 1340 | 804 | 729 | 983 | - | - | - | - | 26,00 | 2,87 | 28,87/2 | 452 | 400 | 384 | 370 |
| 50-42 | 720 | 2620 | 870 | 704 | 2054 | 1000 | - | - | - | 190 | 500 | 860 | 518 | 329 | 1783 | 783 | - | - | - | 8,60 | 3,75 | 12,35/2 | 214 | 199 | 193 | 189 |
| 50-62 | 720 | 2620 | 870 | 704 | 2054 | 1000 | - | - | - | 190 | 500 | 860 | 518 | 329 | 1783 | 783 | - | - | - | 10,80 | 3,75 | 14,55/2 | 247 | 223 | 216 | 210 |
| 56-42 | 920 | 2620 | 870 | 704 | 2054 | 1000 | - | - | - | 190 | 550 | 860 | 576 | 429 | 1783 | 783 | - | - | - | 12,04 | 3,75 | 15,79/2 | 268 | 247 | 241 | 235 |
| 56-62 | 920 | 2620 | 870 | 704 | 2054 | 1000 | - | - | - | 190 | 550 | 860 | 576 | 429 | 1783 | 783 | - | - | - | 14,40 | 3,75 | 18,15/2 | 313 | 282 | 271 | 268 |
| 56-82 | 920 | 2620 | 870 | 704 | 2054 | 1000 | - | - | - | 190 | 550 | 860 | 576 | 429 | 1783 | 783 | - | - | - | 18,92 | 3,75 | 22,67/2 | 363 | 321 | 307 | 296 |
| 63-42 | 1020 | 3020 | 895 | 729 | 2454 | 1200 | - | - | - | 190 | 600 | 960 | 639 | 479 | 2083 | 883 | - | - | - | 16,00 | 4,33 | 20,33/2 | 347 | 319 | 310 | 302 |
| 63-62 | 1020 | 3020 | 895 | 729 | 2454 | 1200 | - | - | - | 190 | 600 | 960 | 639 | 479 | 2083 | 883 | - | - | - | 18,00 | 4,33 | 22,33/2 | 410 | 367 | 353 | 342 |
| 63-82 | 1020 | 3020 | 895 | 729 | 2454 | 1200 | - | - | - | 190 | 600 | 960 | 639 | 479 | 2083 | 883 | - | - | - | 24,00 | 4,33 | 28,33/2 | 473 | 416 | 398 | 384 |
| 71-42 | 1325 | 3420 | 1040 | 757 | 2854 | 1400 | - | - | - | 310 | 700 | 1340 | 734 | 629 | 2383 | 983 | - | - | - | 24,75 | 4,84 | 29,59/2 | 486 | 441 | 427 | 416 |
| 71-62 | 1325 | 3420 | 1040 | 757 | 2854 | 1400 | - | - | - | 310 | 700 | 1340 | 734 | 629 | 2383 | 983 | - | - | - | 27,00 | 4,84 | 31,84/2 | 584 | 516 | 494 | 478 |
| 71-82 | 1325 | 3420 | 1040 | 757 | 2854 | 1400 | - | - | - | 310 | 700 | 1340 | 734 | 629 | 2383 | 983 | - | - | - | 38,25 | 4,84 | 43,09/3 | 680 | 592 | 562 | 540 |
| 80-42 | 1535 | 3420 | 1130 | 757 | 2854 | 1400 | - | - | - | 400 | 800 | 1340 | 804 | 729 | 2383 | 983 | - | - | - | 29,25 | 4,84 | 34,09/2 | 610 | 523 | 508 | 495 |
| 80-62 | 1535 | 3420 | 1130 | 757 | 2854 | 1400 | - | - | - | 400 | 800 | 1340 | 804 | 729 | 2383 | 983 | - | - | - | 31,50 | 4,84 | 36,34/2 | 687 | 608 | 584 | 565 |
| 80-82 | 1535 | 3420 | 1130 | 757 | 2854 | 1400 | - | - | - | 400 | 800 | 1340 | 804 | 729 | 2383 | 983 | - | - | - | 45,00 | 4,84 | 49,84/3 | 802 | 696 | 664 | 638 |
| 50-43 | 720 | 3620 | 870 | 704 | 3054 | 1000 | 2000 | - | - | 190 | 500 | 860 | 518 | 329 | 2783 | 783 | 1783 | - | - | 13,00 | 5,20 | 18,2/2 | 302 | 278 | 270 | 264 |
| 50-63 | 720 | 3620 | 870 | 704 | 3054 | 1000 | 2000 | - | - | 190 | 500 | 860 | 518 | 329 | 2783 | 783 | 1783 | - | - | 15,60 | 5,20 | 20,8/2 | 353 | 317 | 306 | 297 |
| 56-43 | 920 | 3620 | 870 | 704 | 3054 | 1000 | 2000 | - | - | 190 | 550 | 860 | 576 | 429 | 2783 | 783 | 1783 | - | - | 18,20 | 5,20 | 23,4/2 | 377 | 345 | 335 | 327 |
| 56-63 | 920 | 3620 | 870 | 704 | 3054 | 1000 | 2000 | - | - | 190 | 550 | 860 | 576 | 429 | 2783 | 783 | 1783 | - | - | 20,80 | 5,20 | 26/2 | 446 | 399 | 383 | 379 |
| 56-83 | 920 | 3620 | 870 | 704 | 3054 | 1000 | 2000 | - | - | 190 | 550 | 860 | 576 | 429 | 2783 | 783 | 1783 | - | - | 28,60 | 5,20 | 33,8/3 | 519 | 454 | 433 | 417 |
| 63-43 | 1020 | 4220 | 895 | 729 | 3654 | 1200 | 2400 | - | - | 190 | 600 | 960 | 639 | 479 | 3283 | 883 | 2083 | - | - | 23,84 | 5,96 | 29,8/2 | 490 | 447 | 490 | 422 |
| 63-63 | 1020 | 4220 | 895 | 729 | 3654 | 1200 | 2400 | - | - | 190 | 600 | 960 | 639 | 479 | 3283 | 883 | 2083 | - | - | 26,82 | 5,96 | 32,78/2 | 583 | 517 | 583 | 481 |
| 63-83 | 1020 | 4220 | 895 | 729 | 3654 | 1200 | 2400 | - | - | 190 | 600 | 960 | 639 | 479 | 3283 | 883 | 2083 | - | - | 35,76 | 5,96 | 41,72/3 | 679 | 594 | 680 | 544 |
| 71-43 | 1325 | 4820 | 1040 | 757 | 4254 | 1400 | 2800 | - | - | 310 | 700 | 1340 | 734 | 629 | 3783 | 983 | 2383 | - | - | 37,84 | 6,88 | 44,27/3 | 704 | 637 | 701 | 599 |
| 71-63 | 1325 | 4820 | 1040 | 757 | 4254 | 1400 | 2800 | - | - | 310 | 700 | 1340 | 734 | 629 | 3783 | 983 | 2383 | - | - | 41,28 | 6,88 | 47,64/3 | 847 | 746 | 710 | 688 |
| 71-83 | 1325 | 4820 | 1040 | 757 | 4254 | 1400 | 2800 | - | - | 310 | 700 | 1340 | 734 | 629 | 3783 | 983 | 2383 | - | - | 58,48 | 6,88 | 64,49/4 | 999 | 866 | 997 | 790 |
| 80-43 | 1535 | 4820 | 1130 | 757 | 4254 | 1400 | 2800 | - | - | 400 | 800 | 1340 | 804 | 729 | 3783 | 983 | 2383 | - | - | 44,72 | 6,88 | 51,01/3 | 886 | 755 | 732 | 712 |
| 80-63 | 1535 | 4820 | 1130 | 757 | 4254 | 1400 | 2800 | - | - | 400 | 800 | 1340 | 804 | 729 | 3783 | 983 | 2383 | - | - | 48,16 | 6,88 | 54,38/3 | 999 | 880 | 844 | 815 |
| 80-83 | 1535 | 4820 | 1130 | 757 | 4254 | 1400 | 2800 | - | - | 400 | 800 | 1340 | 804 | 729 | 3783 | 983 | 2383 | - | - | 68,80 | 6,88 | 74,6/4 | 1179 | 1021 | 973 | 933 |
| 50-44 | 720 | 4620 | 870 | 704 | 4054 | 1000 | 2000 | 3000 | - | 190 | 500 | 860 | 518 | 329 | 3783 | 783 | 1783 | 2783 | - | 16,85 | 6,74 | 22,64/2 | 375 | 343 | 333 | 325 |
| 50-64 | 720 | 4620 | 870 | 704 | 4054 | 1000 | 2000 | 3000 | - | 190 | 500 | 860 | 518 | 329 | 3783 | 783 | 1783 | 2783 | - | 20,22 | 6,74 | 25,82/2 | 441 | 393 | 378 | 366 |
| 56-44 | 920 | 4620 | 870 | 704 | 4054 | 1000 | 2000 | 3000 | - | 190 | 550 | 860 | 576 | 429 | 3783 | 783 | 1783 | 2783 | - | 23,59 | 6,74 | 29/2 | 470 | 428 | 414 | 404 |
| 56-64 | 920 | 4620 | 870 | 704 | 4054 | 1000 | 2000 | 3000 | - | 190 | 550 | 860 | 576 | 429 | 3783 | 783 | 1783 | 2783 | - | 26,96 | 6,74 | 32,18/2 | 560 | 497 | 476 | 470 |
| 56-84 | 920 | 4620 | 870 | 704 | 4054 | 1000 | 2000 | 3000 | - | 190 | 550 | 860 | 576 | 429 | 3783 | 783 | 1783 | 2783 | - | 37,07 | 6,74 | 41,72/3 | 648 | 564 | 536 | 515 |
| 63-44 | 1020 | 5420 | 895 | 729 | 4854 | 1200 | 2400 | 3600 | - | 190 | 600 | 960 | 639 | 479 | 4483 | 883 | 2083 | 3283 | - | 31,20 | 7,80 | 39/3 | 633 | 576 | 558 | 543 |
| 63-64 | 1020 | 5420 | 895 | 729 | 4854 | 1200 | 2400 | 3600 | - | 190 | 600 | 960 | 639 | 479 | 4483 | 883 | 2083 | 3283 | - | 35,10 | 7,80 | 42,9/3 | 755 | 670 | 642 | 621 |
| 63-84 | 1020 | 5420 | 895 | 729 | 4854 | 1200 | 2400 | 3600 | - | 190 | 600 | 960 | 639 | 479 | 4483 | 883 | 2083 | 3283 | - | 46,80 | 7,80 | 54,6/4 | 883 | 768 | 731 | 703 |
| 71-44 | 1325 | 6220 | 1040 | 757 | 5654 | 1400 | 2800 | 4200 | - | 310 | 700 | 1340 | 734 | 629 | 5183 | 983 | 2383 | 3783 | - | 47,92 | 8,71 | 57,2/3 | 895 | 806 | 777 | 755 |
| 71-64 | 1325 | 6220 | 1040 | 757 | 5654 | 1400 | 2800 | 4200 | - | 310 | 700 | 1340 | 734 | 629 | 5183 | 983 | 2383 | 3783 | - | 52,27 | 8,71 | 61,6/4 | 1084 | 949 | 905 | 872 |
| 71-84 | 1325 | 6220 | 1040 | 757 | 5654 | 1400 | 2800 | 4200 | - | 310 | 700 | 1340 | 734 | 629 | 5183 | 983 | 2383 | 3783 | - | 74,05 | 8,71 | 83,6/4 | 1280 | 1101 | 1043 | 999 |
| 80-44 | 1535 | 6220 | 1130 | | | | | | | | | | | | | | | | | | | | | | | |



Versions

Motor versions

Normal refrigeration fan guard
 • V1.07

For certain applications, i.e. in small spaces and quick cooling rooms, the fan guard version is the right solution.

In this version, the design of the fan unit includes a contact safety grille without the Air Guiding Grid and air duct.




For alternative motor versions, see Küba Select or version overview, pg. 130

Water/brine circulation

• V2...
 Tube circuitry and connections for water and brine are available.

Alternative casing versions

Double insulated, hinge-down drip tray 
 • V3.09

The double-shelled drip tray has 25 mm of insulation. The insulation prevents condensation water from building up on the bottom side of the tray and reduces the transfer of defrosting heat into the cold storage area.

This changes the following dimensions:

- Width B: +60 mm
- Height H: +30 mm
- Depth T: +30 mm

Hinged fans

• V3.10



To make the coolers easy to clean, the fans are mounted with stainless steel hinges.

Defrost versions

All GEA Küba Air Coolers are available with electric defrosting. See nomenclature, p. 72

Hot gas defrost in the drip tray

- Hot gas connection on both sides
- V4.01 Copper
- V4.02 Stainless steel



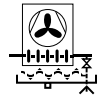
Hot gas in the heat exchanger

- V6.05 Hot gas connection on the heat exchanger

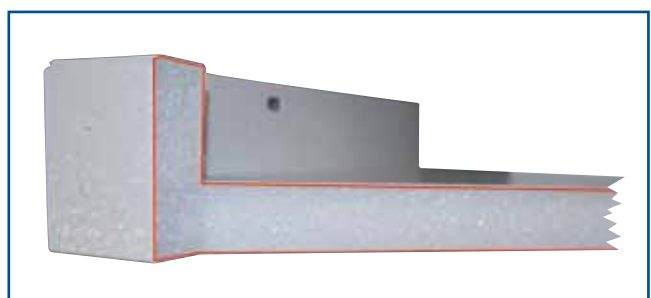


Hot gas in the heat exchanger and in the drip tray, copper design with/without check valve

- Hot gas connection on both sides
- V6.07 with check valve
- V6.08 without check valve



Upon request: additional defrosting circuit: for defrosting with hot gas. A separate circuit for the hot gas is integrated into the heat exchanger.





Versions

Protection against corrosion

Stainless steel casing

- V3.12



For protection in aggressive cold storage air, i.e. in smokehouses and curing areas. All casing components are composed of stainless steel and are of industrial quality.

- V6.01



Heat exchanger:

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

Casing: Sendzimir galvanised steel,
 protective coating on both sides

- V6.02



Heat exchanger:

Tubing: Stainless steel
 Fins: Al „goldlack“ coating
 End plates: Stainless steel

Casing: Sendzimir galvanised steel,
 protective coating on both sides

Refrigerant distributor: Standard Venturi

Stainless steel CAL® distributor upon request

- V6.03



Heat exchanger:

Tubing: Stainless steel
 Fins: Al
 End plates: Al

Casing: Sendzimir galvanised steel,
 protective coating on one side

Refrigerant distributor: Standard Venturi

Stainless steel CAL® distributor upon request

- V6.04



Heat exchanger:

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

Casing: Sendzimir galvanised steel,
 protective coating on one side



Further information regarding corrosion protection can be found on pages 132 to 135



Accessories

Recommended for frozen storage

- Shut-Up®
- Defrosting hood
- Fan collar heaters
- Duct at 5° incline
- Double insulated drip tray
- Insulate the top panel on site

Shut-Up®

The Küba Shut-Up® optimises the defrosting procedure, especially in deep-freeze applications.

Applications

- Frozen storage starting at -18°C
- Alternating defrosting of the Air Coolers in one room

Advantages (in connection with the defrosting hood)

With Shut-Up® and the defrost hood, a positive accumulation of heat occurs in the Air Cooler during the defrost process. The heat remains in the cooler, which means:

- Defrost times are reduced by more than 50%
- Significant amounts of energy are saved
- No frost build up on the ceiling of the storage room or on the goods due to minimal vapour build-up
- Defrost temperature in the cooler is $\leq 5^{\circ}\text{C}$

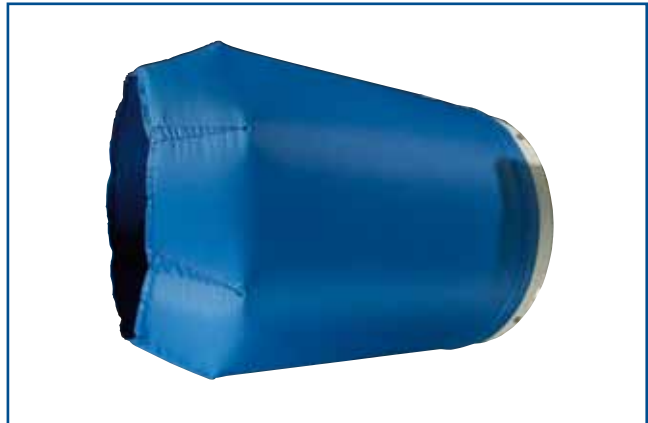
Calculation hint

Due to the additional external pressure, the air quantity and Air Cooler capacity change:

| Model | Change in air quantity | Change in rating |
|---------------------------|------------------------|------------------|
| Küba SG industrial | -10% | -5% |

Selection table

| for model | Shut-Up® |
|-----------------|----------|
| SG... ☺ | 1 piece |
| SG... ☺ ☺ | 2 pieces |
| SG... ☺ ☺ ☺ | 3 pieces |
| SG... ☺ ☺ ☺ ☺ | 4 pieces |
| SG... ☺ ☺ ☺ ☺ ☺ | 5 pieces |



Cooling phase, fans switched on: Shut-Up® is inflated



Defrosting, fans switched off: Shut-Up® closes the Air Cooler

92



Accessories

Defrost Hood

In conjunction with the accessories mentioned on page 92, the defrost hood optimises the defrost process, especially in deep-freeze applications.

Applications

- Frozen storage starting at -18 °C
- Alternating defrosting of the Air Coolers in one room

Advantages (in connection with Shut-Up®)

With the defrost hood and Shut-Up®, a positive accumulation of heat occurs in the Air Cooler during the defrost process. The heat remains in the cooler, which means:

- Defrost times are reduced by more than 50%
- Significant amounts of energy are saved
- No frost build up on the ceiling of the storage room or on the goods due to minimal vapour build-up
- Defrost temperature in the cooler is $\leq 5^{\circ}\text{C}$

Construction

- The double wall drip tray has 12mm of insulation
- The casing is made of aluminium, coated (RAL 9018)
- The construction is modular, i.e. 1 module per fan
- Unassembled upon delivery, so the hoods must be mounted on the Air Cooler on site

Module dimensions and weight:


| Model | H mm | B mm | T mm | Weight kg | W _{min.} mm |
|------------|------|------|------|-----------|----------------------|
| SG 50..1-5 | 1080 | 945 | 800 | 33 | 860 |
| SG 56..1-5 | 1280 | 945 | 800 | 36 | 860 |
| SG 63..1-5 | 1380 | 1145 | 900 | 45 | 960 |
| SG 71..1-4 | 1680 | 1345 | 1280 | 61 | 1340 |
| SG 80..1-4 | 1880 | 1345 | 1280 | 60 | 1340 |

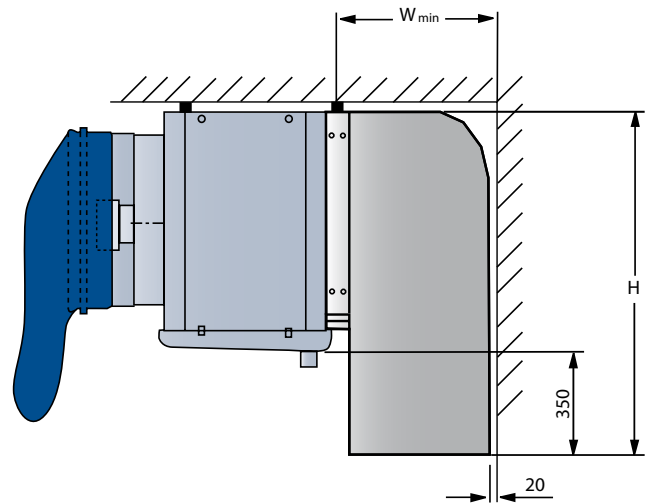
Calculation hint

Due to the additional external pressure, the air quantity and Air Cooler capacity change:

| Model | Change in air quantity | Change in cooler rating |
|---------------|------------------------|-------------------------|
| SG industrial | -10% | -5% |

For deep-freeze applications, GEA Küba engineers recommend an insulated drip tray.

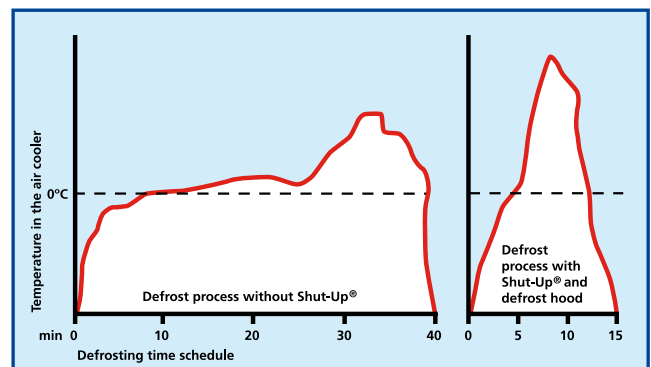
 When using floor brackets, please make sure that you have the correct „defrost hood“.



Mode of operation during defrosting: Shut-Up® is suspended over the fan unit, closing the Air Cooler. Hot air cannot escape. The cold air from the room forms a blocking layer on the outside of the defrosting hood.

- Hot air cannot escape
- A chimney effect is prevented

Defrosting process with Shut-Up® and defrost hood



With our deep-freeze package (Shut-Up® and defrosting hood) you will reduce defrosting time by more than half

Fan collar heater VRB

To prevent the fan blade from freezing up at the fan nozzle of the air coolers in extreme humidity conditions in the freezer and frozen storage area.



The standard Küba SG industrial line is suitable for use with fan collar heaters. We recommend using fan collar heaters for applications below 0 °C for version V1 .60 to prevent temperatures from falling below the dew point.



Accessories

Included in delivery:

- Electric tubular heater with stainless steel sleeve
Ø 8.5 mm
- Connection ends: 1.5 x 2000 mm
- Tension spring: stainless steel



Technical Data

| Model | For blade Ø mm | P at 230V kW | Weight kg |
|--------|-------------------|-----------------|--------------|
| VRB 50 | 500 | 0,27 | 0,55 |
| VRB 56 | 560 | 0,30 | 0,60 |
| VRB 63 | 630 | 0,39 | 0,65 |
| VRB 71 | 710 | 0,38 | 0,70 |
| VRB 80 | 800 | 0,40 | 0,80 |

Selection table

| for model | VRB |
|-----------------|-----|
| SG... ☺ | 1 |
| SG... ☺ ☺ | 2 |
| SG... ☺ ☺ ☺ | 3 |
| SG... ☺ ☺ ☺ ☺ | 4 |
| SG... ☺ ☺ ☺ ☺ ☺ | 5 |

Fan Collar Heater Cover

Benefits:

- Contact protection
- Reduces heat radiation from the fan collar heaters into the Cold Room
- Improves heat conductivity at the collar
- Increases the efficiency of the fan collar heaters
- Protects against slipping



Can only be used with a metal air duct.



Duct at 5° incline

For complex deep-freeze applications, the duct has a 5° incline to ensure trouble-free operation.

Applications

- Deep-freeze applications at high humidity
- Deep-freeze applications with high-availability, sensitive products (e.g. pharmaceuticals) with few redundant coolers

Advantages

Ventilation ducts with a 5° incline ensures that condensation water runs out of the duct into the drip tray.

- Reduced risk of fan blades at the collar freezing up
- Prevents ice formation on the Air Guiding Grid

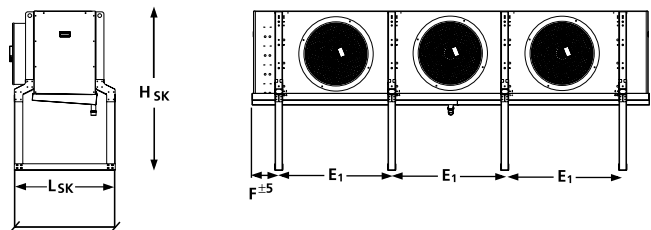
Construction

- Ventilation ducts have a 5° inclination toward the casing as well as an integrated air guiding grid
- Ventilation duct is made of Sendzimir galvanised steel plate, coated (RAL 9018)
- Suitable for installation with the Küba Shut-Up® – with no additional accessories necessary

Calculation hint

The ducts positioned at a 5° incline should always be used along with the Shut-Up®, defrosting hoods, fan collar heaters and insulated drip trays.

Floor Mounting Brackets SK



| Küba SG | | 50 | 56 | 63 | 71 | 80 |
|----------------------|-----------------|-----------------|-----------------------------|------|------|------|
| Dimensions mm | SK | 1048 | 1048 | 1073 | 1101 | 1101 |
| | H _{SK} | 1384 | 1584 | 1684 | 1984 | 2184 |
| | L _{SK} | 782 | 782 | 807 | 835 | 835 |
| | E _{SK} | =E ¹ | According Küba SG dimension | | | |
| | F | =F | page 89 | | | |



Accessories

Finned Tube Heaters SGHR

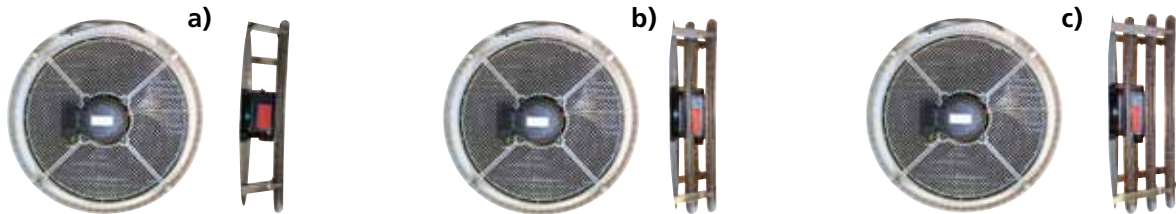
For Air Coolers with draw through fans, self assembly is required. Air Coolers are suitable for air conditioning or heating in the winter.



Use only with running Air Cooler fans. Failure to do so can cause the ceiling of the cold storage room to overheat. Please observe the respective safety guidelines.

Scope of delivery (unassembled):

- Electric finned tube heater in stainless steel with connection ends: 1,5 x 2000 mm
- Assembly kit including bracket for heater with clamp, connection box IP 54, mounting material



| Model | for blade Ø mm | Nominal rating at 230V kW | Weight kg | Model | for blade Ø mm | Nominal rating at 230V kW | Weight kg |
|---------|-------------------|------------------------------|--------------|-----------|-------------------|------------------------------|--------------|
| SGHR 50 | 500 | 3,19 | 1,13 | SGHR 50 Z | 500 | 3,19 | 1,13 |
| SGHR 56 | 560 | 3,51 | 1,27 | SGHR 56 Z | 560 | 3,51 | 1,27 |
| SGHR 63 | 630 | 8,08 | 2,68 | SGHR 63 Z | 630 | 4,04 | 1,34 |
| SGHR 71 | 710 | 9,48 | 3,23 | SGHR 71 Z | 710 | 4,74 | 1,51 |
| SGHR 80 | 800 | 10,5 | 3,40 | SGHR 80 Z | 800 | 5,24 | 1,70 |

Selection table

| For Air Coolers | Normal heating capacity | | Greater heating capacity | |
|-----------------|-------------------------|-----------------|--------------------------|---------------------------|
| | kW | Number to order | kW | Number to order |
| SG 50-1 | 3,19 | a) 1 SGHR 50 | 6,38 | b) 1 SGHR 50 + 1 SGHR 50Z |
| SG 56-1 | 3,51 | a) 1 SGHR 56 | 7,02 | b) 1 SGHR 56 + 1 SGHR 56Z |
| SG 63-1 | 8,08 | b) 1 SGHR 63 | 12,1 | c) 1 SGHR 63 + 1 SGHR 63Z |
| SG 71-1 | 9,48 | b) 1 SGHR 71 | 14,2 | c) 1 SGHR 71 + 1 SGHR 71Z |
| SG 80-1 | 10,5 | b) 1 SGHR 80 | 15,8 | c) 1 SGHR 80 + 1 SGHR 80Z |
| SG 50-2 | 6,38 | a) 2 SGHR 50 | 12,8 | b) 2 SGHR 50 + 2 SGHR 50Z |
| SG 56-2 | 7,02 | a) 2 SGHR 56 | 14,0 | b) 2 SGHR 56 + 2 SGHR 56Z |
| SG 63-2 | 16,2 | b) 2 SGHR 63 | 24,2 | c) 2 SGHR 63 + 2 SGHR 63Z |
| SG 71-2 | 19,0 | b) 2 SGHR 71 | 28,4 | c) 2 SGHR 71 + 2 SGHR 71Z |
| SG 80-2 | 21,0 | b) 2 SGHR 80 | 31,6 | c) 2 SGHR 80 + 2 SGHR 80Z |
| SG 50-3 | 9,57 | a) 3 SGHR 50 | 19,1 | b) 3 SGHR 50 + 3 SGHR 50Z |
| SG 56-3 | 10,5 | a) 3 SGHR 56 | 21,1 | b) 3 SGHR 56 + 3 SGHR 56Z |
| SG 63-3 | 24,3 | b) 3 SGHR 63 | 36,3 | c) 3 SGHR 63 + 3 SGHR 63Z |
| SG 71-3 | 28,5 | b) 3 SGHR 71 | 42,6 | c) 3 SGHR 71 + 3 SGHR 71Z |
| SG 80-3 | 31,5 | b) 3 SGHR 80 | 47,4 | c) 3 SGHR 80 + 3 SGHR 80Z |
| SG 50-4 | 12,8 | a) 4 SGHR 50 | 25,5 | b) 4 SGHR 50 + 4 SGHR 50Z |
| SG 56-4 | 14,1 | a) 4 SGHR 56 | 28,1 | b) 4 SGHR 56 + 4 SGHR 56Z |
| SG 63-4 | 32,2 | b) 4 SGHR 63 | 48,4 | c) 4 SGHR 63 + 4 SGHR 63Z |
| SG 71-4 | 38,0 | b) 4 SGHR 71 | 56,8 | c) 4 SGHR 71 + 4 SGHR 71Z |
| SG 80-4 | 42,0 | b) 4 SGHR 80 | 63,2 | c) 4 SGHR 80 + 4 SGHR 80Z |
| SG 50-5 | 15,9 | a) 5 SGHR 50 | 31,9 | b) 5 SGHR 50 + 5 SGHR 50Z |
| SG 56-5 | 17,6 | a) 5 SGHR 56 | 35,1 | b) 5 SGHR 56 + SGHR 56Z |
| SG 63-5 | 40,4 | b) 5 SGHR 63 | 60,5 | c) 5 SGHR 63 + SGHR 63Z |



Accessories

Air Hoses (on site procurement, not available from Küba)

Ventilation can be optimised with textile / PVC air hoses.

Applications

- Applications in work rooms and production areas
- Cooled goods that are sensitive to drafts (i.e. flowers, ripening cheeses)

Advantages

The air hoses make uniform air distribution possible at very low air speeds.

- Working in a draft-free environment yields low illness rates
- Maximum protection for sensitive cooled goods
- No condensation water: temperatures do not fall below the dew point because air can penetrate the woven material

Calculation hints

Please take the respective pressure drop for the cooler design into consideration.

