FRIGA-BOHN®

# 3C-E

Cubic unit cooler

Commercial and semi-industrial range

WG HFC

حسونة للتبريد

Hassounah Refrigeration

0.8 - 34 kW

12 652 5168 053 216 2227 www.hrc.om.sa info@hrc.com.sa

# **Easy maintenance**; the design of the 3C-E allows quick access to all components.

# Grilles with airflow straighteners provide **excellent air distribution.**

## CASING

# Easy to clean: galvanized sheet steel, fully pre-painted white.
# Pivoting, hinged drain pan with rounded corners, made from pre-painted aluminium, eliminating retention zones and ensuring complete safety through the absence of sharp corners.

| OPTIONS | |
|---|---|
| **DPK** | Intermediate drain pan kit (3C-E .. R/L). KIT TO INSTALL |

## COILS

# Made from aluminium fins with 4 or 6 mm spacing, combined with copper tubes with a grooved internal structure, the coils are very efficient and compact.
# Versions available:
- Multi-refrigerant HFCs,
- WCO (glycol water, coolant).

**Select your coil treatment to extend your unit cooler's lifespan! Contact us.**

## VENTILATION

# Plastic grilles designed with airflow straighteners
# Long-lubricated, factory-wired axial motor fans:

| | models | temp. | voltage | freq. | IP | class |
|---|---|---|---|---|---|---|
| **Ø 300 mm** 4P - 1,320 rpm | 3C-E 3XXX R/L | + | 230V/1 | 50Hz | IP42 | B |
| | 3C-E 3XXX E/C | - | 230V/1 | 50Hz | IP42 | B |
| **Ø 450 mm*** 4P/6P - 1,320/1,070 rpm | 3C-E 4XXX R/L | + | 230-400V/3 | 50Hz | 54 | F |
| | 3C-E 4XXX E/C | - | 230-400V/3 | 50Hz | 54 | F |

* Two-speed motor fans, high-speed wired (Δ) by default.

| OPTIONS | |
|---|---|
| **M60** | Motor fan 230-400V/3/60Hz (Ø 450 mm). |
| **MM5** | Motor fan 230V/1/50Hz (Ø 450 mm). |
| **2V5** | 2V5 2-speed motor fan 400V/3/50Hz (Ø 450 mm). |

## DEFROST

# Two defrost modes for the coil: electric (230V/1, 230V/3 or 400V/3) or hot gases.
# Quick defrosting of the condensate pan thanks to a heater under the intermediate drain pan.

| OPTIONS | |
|---|---|
| **HG1** | Hot gases (coil: hot gases, drain pan: electric heaters). |
| **2TH** | Defrost and safety thermostats (5709L + 5708L). KIT TO INSTALL |
| **THD** | Defrost thermostat (5709L). KIT TO INSTALL |
| **THS** | Safety thermostat (5708L). KIT TO INSTALL |
| **E1U** | Light electric defrost. |
| **E1K** | Light electric defrost. KIT TO INSTALL |
| **E3K** | Full electric defrost. KIT TO INSTALL |

| tA1 | +10 | +2 | -5 | -10 | -25°C |
|---|---|---|---|---|---|
| | 3C-E .. R/L | +E1K / E1U | | +E3K | |
| | | | | 3C-E .. E/C | |

| | | | Number of heaters | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Ø 300 mm | | | Ø 450 mm | | |
| **Electric defrost level** | **Models** | **Kit \| Option** | **Models** | **Coil** | **Drain pan** | **Models** | **Coil** | **Drain pan** |
| **Light** | **3C-E .. R/L** | **E1K \| E1U** | **3xxx** *except 3142* | **3** *2* | **-** | **All** | **3** | **-** |
| **Full** | **3C-E .. R/L** | **E3K** | **3xxx** *except 3142* *except 3143* *except 3243* *except 3343* | **5** *2* *3* *3* *3* | **1** | **4xxx** *except 4263* | **8** *5* | **1** |
| | **3C-E .. E/C** | Standard | | | | | | |

# 3C-E 3(A)1(B)42(C)-R(D)

(A) Fan diameter: **3** = Ø 300 mm - **4** = Ø 450 mm
(3) Number of fans
(C) Model
(D) Fin spacing: **R** = 4 mm (positive) **E** = 4 mm (negative)
**L** = 6 mm (positive) **C** = 6 mm (negative)

**The 3C-E is available with HFCs and glycol water. For more information, please consult our software.**

## 3C-E (1/2)

4 mm

| CONDITIONS | REFRIGERANTS | 3C-E ... -R | 3142 | 3143 | 3145 | 3155 | 3165 | 3243 | 3244 | 3245 | 3343 | 3344 | 4165 | 3354 | 4166 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SC2 (1) | R449A | kW | 1,4 | 1,8 | 2,4 | 2,8 | 3,1 | 3,9 | 4,5 | 4,9 | 5,9 | 6,8 | 7,6 | 8,0 | 8,4 |
| | R404A | kW | 1,5 | 1,8 | 2,2 | 2,6 | 3,0 | 3,8 | 4,3 | 4,6 | 5,7 | 6,5 | 7,4 | 7,6 | 8,0 |

| CONDITIONS | REFRIGERANTS | 3C-E ... -E | 3142 | 3143 | 3145 | 3155 | 3165 | 3243 | 3244 | 3245 | 3343 | 3344 | 4165 | 3354 | 4166 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SC3 (1) | R449A | kW | 1,0 | 1,3 | 1,8 | 2,0 | 2,4 | 2,7 | 3,3 | 3,7 | 4,1 | 5,1 | 5,4 | 6,0 | 6,1 |
| | R404A | kW | 1,1 | 1,4 | 1,8 | 2,0 | 2,3 | 2,9 | 3,4 | 3,7 | 4,3 | 5,2 | 5,6 | 6,0 | 6,2 |
| SC4 (1) | R449A | kW | 0,8 | 1,0 | 1,4 | 1,6 | 1,8 | 2,1 | 2,6 | 3,0 | 3,2 | 4,0 | 4,2 | 4,8 | 4,7 |
| | R404A | kW | 0,8 | 1,1 | 1,4 | 1,6 | 1,8 | 2,3 | 2,7 | 2,9 | 3,4 | 4,1 | 4,4 | 4,8 | 4,9 |

| | | | 3142 | 3143 | 3145 | 3155 | 3165 | 3243 | 3244 | 3245 | 3343 | 3344 | 4165 | 3354 | 4166 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface area | | $m^2$ | 4,1 | 6,1 | 10,2 | 12,8 | 15,3 | 12,3 | 16,4 | 20,4 | 18,4 | 24,5 | 23,0 | 30,7 | 27,6 |
| Circuit volume | | $dm^3$ | 0,7 | 1,0 | 1,7 | 2,1 | 2,5 | 2,0 | 2,7 | 3,3 | 3,0 | 4,0 | 3,8 | 5,0 | 4,5 |
| Airflow | | $m^3/h$ | 1290 | 1190 | 1010 | 1140 | 1230 | 2380 | 2190 | 2030 | 3560 | 3280 | 4250 | 3630 | 4060 |
| Air throw (2) | | m | 15 | 14 | 12 | 14 | 15 | 17 | 16 | 15 | 20 | 19 | 28 | 21 | 27 |
| Fan 1,350 rpm | | Nb | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 1 | 3 | 1 |
| | | Ø | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 450 | 300 | 450 |
| | 230V/1/50Hz | W max | 110 | 110 | 110 | 110 | 110 | 220 | 220 | 220 | 330 | 330 | - | 330 | - |
| | | A max (3) | 0,85 | 0,85 | 0,85 | 0,85 | 0,85 | 1,70 | 1,70 | 1,70 | 2,55 | 2,55 | - | 2,55 | - |
| | 230-400V/3/50Hz | W max | - | - | - | - | - | - | - | - | - | - | 450 | - | 450 |
| | | A max (3) | - | - | - | - | - | - | - | - | - | - | 1,60 | - | 1,60 |
| 3C-E ... -R Electric defrost E1K (4) | | Nb | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | W Total | 580 | 870 | 870 | 1080 | 1290 | 1740 | 1740 | 1740 | 2580 | 2580 | 1080 | 3240 | 1080 |
| | 230V/1/50Hz | A Total | 2,5 | 3,8 | 3,8 | 4,7 | 5,6 | 7,6 | 7,6 | 7,6 | 11,2 | 11,2 | 4,7 | 14,1 | 4,7 |
| | 400V/3/50Hz | A Total | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3C-E ... -E Electric defrost standard | Coil + Drain pan | Nb | 2 + 1 | 3 + 1 | 5 + 1 | 5 + 1 | 5 + 1 | 3 + 1 | 5 + 1 | 5 + 1 | 3 + 1 | 5 + 1 | 8 + 1 | 5 + 1 | 8 + 1 |
| | | W Total | 870 | 1160 | 1740 | 2160 | 2580 | 2320 | 3480 | 3480 | 3440 | 5160 | 3240 | 6480 | 3240 |
| | 230V/1/50Hz | A Total | 3,8 | 5,1 | 7,6 | 9,4 | 11,2 | 10,1 | 15,1 | 15,1 | 15,0 | - | 14,1 | - | 14,1 |
| | 400V/3/50Hz | A Total | - | - | - | - | - | - | - | - | - | 7,4 | - | 9,4 | - |
| Connections HFCs | Inlet (5) | Ø OD | 3/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 7/8" | 5/8" | 7/8" |
| | Outlet (5) | Ø ODF | 3/8" | 5/8" | 5/8" | 5/8" | 5/8" | 7/8" | 7/8" | 7/8" | 7/8" | 7/8" | 7/8" | 7/8" | 7/8" |
| Net weight | | kg | 14 | 15 | 16 | 18 | 20 | 23 | 24 | 26 | 32 | 35 | 38 | 39 | 40 |

(1) Standard conditions:
SC2 / 0 °C (air inlet temp.) / -8 °C (evaporating temp.) / DT1 = 8K
SC3 / -18 °C (air inlet temp.) / -25 °C (evaporating temp.) / DT1 = 7K
SC4 / -25 °C (air inlet temp.) / -31 °C (evaporating temp.) / DT1 = 6K
(2) Residual air speed: 0.25 m/s.
(3) Adjustment of overload protection. For air temperatures "ti" other than +20 °C, multiply the intensities by the ratio 293/(273 + "ti") to obtain the approximate value of the intensity after the room has been brought up to temperature.
(4) Electric defrost option.
(5) OD: Male connection - ODF: female to receive the tube of the same diameter

***R404A is a refrigerant only available for non-EU markets (not compatible with F-Gas).***

# 3C-E 3(A)4(B)45(C)-E(D)

(A) Fan diameter: **3** = Ø 300 mm - **4** = Ø 450 mm
(3) Number of fans
(C) Model
(D) Fin spacing: **R** = 4 mm (positive) **E** = 4 mm (negative)
**L** = 6 mm (positive) **C** = 6 mm (negative)

**The 3C-E is available with HFCs and glycol water. For more information, please consult our software.**

## 3C-E (2/2)

**4** mm

| CONDITIONS | REFRIGERANTS | 3C-E ... -R | 3444 | 3445 | 3454 | 3455 | 4263 | 3545 | 4264 | 4266 | 4364 | 4366 | 4386 | 4466 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SC2** (1) | **R449A** | **kW** | **9,1** | **9,7** | **10,7** | **11,5** | **11,3** | **12,1** | **13,6** | **17,2** | **20,9** | **25,9** | **31,7** | **34,2** |
| | **R404A** | **kW** | **8,7** | **9,2** | **10,1** | **10,9** | **11,5** | **11,5** | **13,3** | **16,3** | **20,2** | **24,6** | **30,1** | **32,5** |

| CONDITIONS | REFRIGERANTS | 3C-E ... -E | - | 3445 | 3454 | 3455 | 4263 | 3545 | 4264 | 4266 | 4364 | 4366 | 4386 | 4466 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SC3** (1) | **R449A** | **kW** | **-** | **7,3** | **7,8** | **8,7** | **7,7** | **8,9** | **9,7** | **12,6** | **15,1** | **19,1** | **23,8** | **24,0** |
| | **R404A** | **kW** | **-** | **7,2** | **7,8** | **8,5** | **8,4** | **8,7** | **10,2** | **12,7** | **15,7** | **19,2** | **23,0** | **24,1** |
| **SC4** (1) | **R449A** | **kW** | **-** | **5,9** | **6,1** | **6,9** | **5,9** | **7,1** | **7,5** | **9,9** | **11,8** | **15,0** | **18,2** | **18,7** |
| | **R404A** | **kW** | **-** | **5,8** | **6,2** | **6,8** | **6,6** | **6,9** | **8,0** | **10,1** | **12,4** | **15,3** | **18,2** | **18,9** |

| | | | 3444 | 3445 | 3454 | 3455 | 4263 | 3545 | 4264 | 4266 | 4364 | 4366 | 4386 | 4466 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface area | | **m²** | 32,7 | 40,9 | 40,9 | 51,1 | 27,6 | 51,1 | 36,8 | 55,2 | 55,2 | 82,8 | 110,4 | 110,4 |
| Circuit volume | | **dm³** | 5,4 | 6,7 | 6,7 | 8,4 | 4,5 | 8,4 | 6,0 | 9,0 | 9,0 | 13,5 | 18,1 | 18,1 |
| Airflow | | **m³/h** | 4380 | 4050 | 4840 | 4580 | 9340 | 5060 | 8910 | 8120 | 13360 | 12170 | 13540 | 16230 |
| Air throw (2) | | **m** | 22 | 21 | 24 | 23 | 35 | 24 | 34 | 33 | 38 | 36 | 38 | 39 |
| Fan 1,350 rpm | | **Nb** | 4 | 4 | 4 | 4 | 2 | 5 | 2 | 2 | 3 | 3 | 3 | 4 |
| | | **Ø** | 300 | 300 | 300 | 300 | 450 | 300 | 450 | 450 | 450 | 450 | 450 | 450 |
| | 230V/1/50Hz | **W max** | 440 | 440 | 440 | 440 | - | 550 | - | - | - | - | - | - |
| | | **A max** (3) | 3,40 | 3,40 | 3,40 | 3,40 | - | 4,25 | - | - | - | - | - | - |
| | 230-400V/3/50Hz | **W max** | - | - | - | - | 900 | - | 900 | 900 | 1350 | 1350 | 1350 | 1800 |
| | | **A max** (3) | - | - | - | - | 3,20 | - | 3,20 | 3,20 | 4,80 | 4,80 | 4,80 | 6,40 |
| **3C-E ... -R** Electric defrost **E1K** (4) | | **Nb** | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | **W Total** | 3450 | 3450 | 4320 | 4320 | 2160 | 4320 | 2160 | 2160 | 3240 | 3240 | 3960 | 3960 |
| | 230V/1/50Hz | **A Total** | 15,0 | 15,0 | - | - | 9,4 | - | 9,4 | 9,4 | 14,1 | 14,1 | - | - |
| | 400V/3/50Hz | **A Total** | - | - | 6,2 | 6,2 | - | 6,2 | - | - | - | - | 5,7 | 5,7 |
| **3C-E ... -E** Electric defrost standard | Coil + Drain pan | **Nb** | - | 5 + 1 | 5 + 1 | 5 + 1 | 5 + 1 | 5 + 1 | 8 + 1 | 8 + 1 | 8 + 1 | 8 + 1 | 8 + 1 | 8 + 1 |
| | | **W Total** | - | 6900 | 8640 | 8640 | 4320 | 8640 | 6480 | 6480 | 9720 | 9720 | 11880 | 11880 |
| | 230V/1/50Hz | **A Total** | - | - | - | - | - | - | - | - | - | - | - | - |
| | 400V/3/50Hz | **A Total** | - | 10,0 | 12,5 | 12,5 | 6,3 | 12,5 | 9,4 | 9,4 | 14,0 | 14,0 | 17,1 | 17,1 |
| Connections **HFCs** | Inlet (5) | **Ø OD** | 5/8" | 7/8" | 1"1/8 | 7/8" | 7/8" | 7/8" | 1"1/8 | 1"1/8 | 1"1/8 | 1"3/8 | 1"3/8 | 1"3/8 |
| | Outlet (5) | **Ø ODF** | 7/8" | 1"1/8 | 1"1/8 | 1"3/8 | 1"3/8 | 1"3/8 | 1"3/8 | 1"3/8 | 1"5/8 | 2"1/8 | 2"1/8 | 2"1/8 |
| Net weight | | **kg** | 44 | 47 | 50 | 54 | 52 | 57 | 56 | 63 | 76 | 87 | 105 | 113 |

(1) Standard conditions:
SC2 / 0 °C (air inlet temp.) / -8 °C (evaporating temp.) / DT1 = 8K
SC3 / -18 °C (air inlet temp.) / -25 °C (evaporating temp.) / DT1 = 7K
SC4 / -25 °C (air inlet temp.) / -31 °C (evaporating temp.) / DT1 = 6K
(2) Residual air speed: 0.25 m/s.
(3) Adjustment of overload protection. For air temperatures "ti" other than +20 °C, multiply the intensities by the ratio 293/(273 + "ti") to obtain the approximate value of the intensity after the room has been brought up to temperature.
(4) Electric defrost option.
(5) OD: Male connection - ODF: female to receive the tube of the same diameter

***R404A is a refrigerant only available for non-EU markets (not compatible with F-Gas).***

# 3C-E 3(A)1(B)43(C)-L(D)

(A) Fan diameter: **3** = Ø 300 mm - **4** = Ø 450 mm
(3) Number of fans
(C) Model
(D) Fin spacing: **R** = 4 mm (positive) **E** = 4 mm (negative)
**L** = 6 mm (positive) **C** = 6 mm (negative)

**The 3C-E is available with HFCs and glycol water. For more information, please consult our software.**

## 3C-E (1/2)

6 mm

| CONDITIONS | REFRIGERANTS | 3C-E ... -L | 3143 | 3144 | 3145 | 3155 | 3165 | 3243 | 3244 | 3245 | 3343 | 3344 | 4165 | 3354 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SC2** (1) | **R449A** | **kW** | 1,6 | 1,9 | 2,3 | 2,7 | 3,0 | 3,4 | 4,0 | 4,6 | 5,0 | 6,2 | 6,7 | 7,1 |
| | **R404A** | **kW** | 1,6 | 1,9 | 2,2 | 2,6 | 2,8 | 3,4 | 3,9 | 4,4 | 5,0 | 6,1 | 6,7 | 6,8 |

| CONDITIONS | REFRIGERANTS | 3C-E ... -C | 3143 | 3144 | 3145 | 3155 | 3165 | 3243 | 3244 | 3245 | 3343 | 3344 | 4165 | 3354 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SC3** (1) | **R449A** | **kW** | 1,1 | 1,3 | 1,6 | 1,9 | 2,2 | 2,4 | 3,0 | 3,4 | 3,6 | 4,5 | 4,6 | 5,3 |
| | **R404A** | **kW** | 1,2 | 1,4 | 1,7 | 1,9 | 2,2 | 2,6 | 3,1 | 3,4 | 3,9 | 4,6 | 4,9 | 5,4 |
| **SC4** (1) | **R449A** | **kW** | 0,8 | 1,0 | 1,3 | 1,5 | 1,8 | 1,9 | 2,3 | 2,7 | 2,9 | 3,5 | 3,6 | 4,2 |
| | **R404A** | **kW** | 0,9 | 1,1 | 1,3 | 1,6 | 1,7 | 2,0 | 2,4 | 2,7 | 3,1 | 3,7 | 3,9 | 4,3 |

| | | | 3143 | 3144 | 3145 | 3155 | 3165 | 3243 | 3244 | 3245 | 3343 | 3344 | 4165 | 3354 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface area | | **m²** | 4,2 | 5,7 | 7,1 | 8,8 | 10,6 | 8,5 | 11,3 | 14,1 | 12,7 | 17,0 | 15,9 | 21,2 |
| Circuit volume | | **dm³** | 1,0 | 1,3 | 1,7 | 2,1 | 2,5 | 2,0 | 2,7 | 3,3 | 3,0 | 4,0 | 3,8 | 5,0 |
| Airflow | | **m³/h** | 1260 | 1180 | 1110 | 1220 | 1290 | 2520 | 2360 | 2220 | 3770 | 3550 | 4490 | 3830 |
| Air throw (2) | | **m** | 15 | 14 | 13 | 15 | 16 | 18 | 17 | 16 | 21 | 20 | 29 | 22 |
| Fan 1,350 rpm | | **Nb** | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 1 | 3 |
| | | **Ø** | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 450 | 300 |
| | 230V/1/50Hz | **W max** | 110 | 110 | 110 | 110 | 110 | 220 | 220 | 220 | 330 | 330 | - | 330 |
| | | **A max** (3) | 0,85 | 0,85 | 0,85 | 0,85 | 0,85 | 1,70 | 1,70 | 1,70 | 2,55 | 2,55 | - | 2,55 |
| | 230-400V/3/50Hz | **W max** | - | - | - | - | - | - | - | - | - | - | 450 | - |
| | | **A max** (3) | - | - | - | - | - | - | - | - | - | - | 1,60 | - |
| **3C-E ... -L** Electric defrost **E1K** (4) | | **Nb** | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | **W Total** | 870 | 870 | 870 | 1080 | 1290 | 1740 | 1740 | 1740 | 2580 | 2580 | 1080 | 3240 |
| | 230V/1/50Hz | **A Total** | 3,8 | 3,8 | 3,8 | 4,7 | 5,6 | 7,6 | 7,6 | 7,6 | 11,2 | 11,2 | 4,7 | 14,1 |
| | 400V/3/50Hz | **A Total** | - | - | - | - | - | - | - | - | - | - | - | - |
| **3C-E ... -C** Standard electric defrost | Coil + Drain pan | **Nb** | 3 + 1 | 5 + 1 | 5 + 1 | 5 + 1 | 5 + 1 | 3 + 1 | 5 + 1 | 5 + 1 | 3 + 1 | 5 + 1 | 8 + 1 | 5 + 1 |
| | | **W Total** | 1160 | 1740 | 1740 | 2160 | 2580 | 2320 | 3480 | 3480 | 3440 | 5160 | 3240 | 6480 |
| | 230V/1/50Hz | **A Total** | 5,1 | 7,6 | 7,6 | 9,4 | 11,2 | 10,1 | 15,1 | 15,1 | 15,0 | - | 14,1 | - |
| | 400V/3/50Hz | **A Total** | - | - | - | - | - | - | - | - | - | 7,4 | - | 9,4 |
| Connections **HFCs** | Inlet (5) | **Ø OD** | 5/8" * | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" |
| | Outlet (5) | **Ø ODF** | 5/8" * | 5/8" | 5/8" | 5/8" | 5/8" | 7/8" | 7/8" | 7/8" | 7/8" | 7/8" | 7/8" | 7/8" |
| Net weight | | **kg** | 14 | 15 | 16 | 17 | 19 | 22 | 23 | 25 | 31 | 33 | 36 | 37 |

(1) Standard conditions:
SC2 / 0 °C (air inlet temp.) / -8 °C (evaporating temp.) / DT1 = 8K
SC3 / -18 °C (air inlet temp.) / -25 °C (evaporating temp.) / DT1 = 7K
SC4 / -25 °C (air inlet temp.) / -31 °C (evaporating temp.) / DT1 = 6K
(2) Residual air speed: 0.25 m/s.
(3) Adjustment of overload protection. For air temperatures "ti" other than +20 °C, multiply the intensities by the ratio 293/(273 + "ti") to obtain the approximate value of the intensity after the room has been brought up to temperature.
(4) Electric defrost option.
(5) OD: Male connection - ODF: female to receive the tube of the same diameter

***R404A is a refrigerant only available for non-EU markets (not compatible with F-Gas).***

# 3C-E 3(A)1(B)66(C)-C(D)

(A) Fan diameter: **3** = Ø 300 mm - **4** = Ø 450 mm
(3) Number of fans
(C) Model
(D) Fin spacing: **R** = 4 mm (positive) **E** = 4 mm (negative)
**L** = 6 mm (positive) **C** = 6 mm (negative)

**The 3C-E is available with HFCs and glycol water. For more information, please consult our software.**

## 3C-E (2/2)

6 mm

| CONDITIONS | REFRIGERANTS | 3C-E ... -L | 4166 | 3444 | 3445 | 3454 | 3545 | 4264 | 4266 | 4364 | 4366 | 4386 | 4466 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SC2 (1) | R449A | kW | 7,6 | 8,2 | 9,2 | 9,5 | 11,4 | 11,6 | 15,3 | 17,8 | 23,2 | 28,8 | 31,5 |
| | R404A | kW | 7,4 | 7,9 | 8,7 | 9,1 | 10,8 | 11,6 | 14,8 | 17,6 | 22,4 | 27,3 | 30,6 |

| CONDITIONS | REFRIGERANTS | 3C-E ... -C | 4166 | 3444 | 3445 | 3454 | 3545 | 4264 | 4266 | 4364 | 4366 | 4386 | 4466 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SC3 (1) | R449A | kW | 5,5 | 6,1 | 6,6 | 7,0 | 8,1 | 8,3 | 11,1 | 12,9 | 17,1 | 20,7 | 21,7 |
| | R404A | kW | 5,7 | 6,2 | 6,7 | 7,1 | 8,2 | 8,8 | 11,4 | 13,6 | 17,5 | 20,6 | 22,2 |
| SC4 (1) | R449A | kW | 4,3 | 4,8 | 5,3 | 5,6 | 6,5 | 6,5 | 8,8 | 10,0 | 13,5 | 16,1 | 16,9 |
| | R404A | kW | 4,5 | 4,9 | 5,4 | 5,7 | 6,5 | 7,0 | 9,1 | 10,8 | 13,9 | 16,5 | 17,6 |

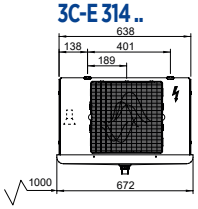
| | | | 4166 | 3444 | 3445 | 3454 | 3545 | 4264 | 4266 | 4364 | 4366 | 4386 | 4466 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface area | | $m^2$ | 19,1 | 22,6 | 28,3 | 28,3 | 35,4 | 25,5 | 38,2 | 38,2 | 57,3 | 76,4 | 76,4 |
| Circuit volume | | $dm^3$ | 4,5 | 5,4 | 6,7 | 6,7 | 8,4 | 6,0 | 9,0 | 9,0 | 13,5 | 18,1 | 18,1 |
| Airflow | | $m^3/h$ | 4330 | 4730 | 4440 | 5100 | 5560 | 9310 | 8660 | 13970 | 13000 | 14110 | 17330 |
| Air throw (2) | | m | 28 | 23 | 22 | 25 | 25 | 35 | 34 | 39 | 37 | 39 | 40 |
| Fan 1,350 rpm | | Nb | 1 | 4 | 4 | 4 | 5 | 2 | 2 | 3 | 3 | 3 | 4 |
| | | Ø | 450 | 300 | 300 | 300 | 300 | 450 | 450 | 450 | 450 | 450 | 450 |
| | 230V/1/50Hz | W max | - | 440 | 440 | 440 | 550 | - | - | - | - | - | - |
| | | A max (3) | - | 3,40 | 3,40 | 3,40 | 4,25 | - | - | - | - | - | - |
| | 230-400V/3/50Hz | W max | 450 | - | - | - | - | 900 | 900 | 1350 | 1350 | 1350 | 1800 |
| | | A max (3) | 1,60 | - | - | - | - | 3,20 | 3,20 | 4,80 | 4,80 | 4,80 | 6,40 |
| 3C-E ... -L Electric defrost E1K (4) | | Nb | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | W Total | 1080 | 3450 | 3450 | 4320 | 4320 | 2160 | 2160 | 3240 | 3240 | 3960 | 3960 |
| | 230V/1/50Hz | A Total | 4,7 | 15,0 | 15,0 | - | - | 9,4 | 9,4 | 14,1 | 14,1 | - | - |
| | 400V/3/50Hz | A Total | - | - | - | 6,2 | 6,2 | - | - | - | - | 5,7 | 5,7 |
| 3C-E ... -C Standard electric defrost | Coil + Drain pan | Nb | 8 + 1 | 5 + 1 | 5 + 1 | 5 + 1 | 5 + 1 | 8 + 1 | 8 + 1 | 8 + 1 | 8 + 1 | 8 + 1 | 8 + 1 |
| | | W Total | 3240 | 6900 | 6900 | 8640 | 8640 | 6480 | 6480 | 9720 | 9720 | 11880 | 11880 |
| | 230V/1/50Hz | A Total | 14,1 | - | - | - | - | - | - | - | - | - | - |
| | 400V/3/50Hz | A Total | - | 10,0 | 10,0 | 12,5 | 12,5 | 9,4 | 9,4 | 14,0 | 14,0 | 17,1 | 17,1 |
| Connections HFCs | Inlet (5) | Ø OD | 7/8" | 5/8" | 7/8" | 1"1/8 | 7/8" | 1"1/8 | 1"1/8 | 1"1/8 | 1"3/8 | 1"3/8 | 1"3/8 |
| | Outlet (5) | Ø ODF | 7/8" | 7/8" | 1"1/8 | 1"1/8 | 1"3/8 | 1"3/8 | 1"3/8 | 1"5/8 | 2"1/8 | 2"1/8 | 2"1/8 |
| Net weight | | kg | 38 | 42 | 44 | 47 | 54 | 54 | 60 | 73 | 82 | 99 | 106 |

(1) Standard conditions:
SC2 / 0 °C (air inlet temp.) / -8 °C (evaporating temp.) / DT1 = 8K
SC3 / -18 °C (air inlet temp.) / -25 °C (evaporating temp.) / DT1 = 7K
SC4 / -25 °C (air inlet temp.) / -31 °C (evaporating temp.) / DT1 = 6K
(2) Residual air speed: 0.25 m/s.
(3) Adjustment of overload protection. For air temperatures "ti" other than +20 °C, multiply the intensities by the ratio 293/(273 + "ti") to obtain the approximate value of the intensity after the room has been brought up to temperature.
(4) Electric defrost option.
(5) OD: Male connection - ODF: female to receive the tube of the same diameter

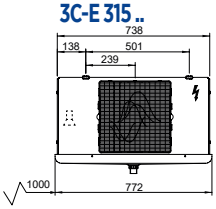
***R404A is a refrigerant only available for non-EU markets (not compatible with F-Gas).***

## 3C-E | Ø 300 mm

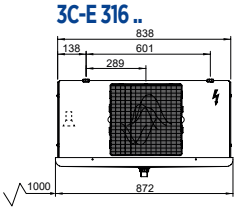
### 3C-E 314 ..



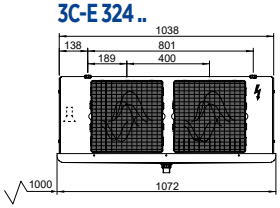

### 3C-E 315 ..



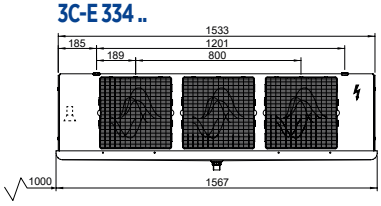

### 3C-E 316 ..



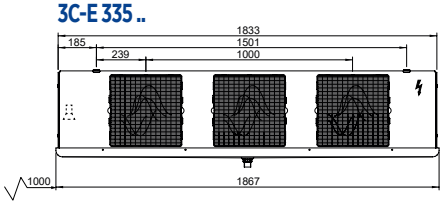

### 3C-E 324 ..



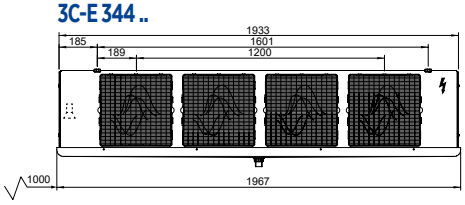

### 3C-E 334 ..



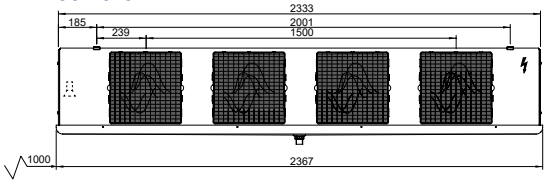

### 3C-E 335 ..



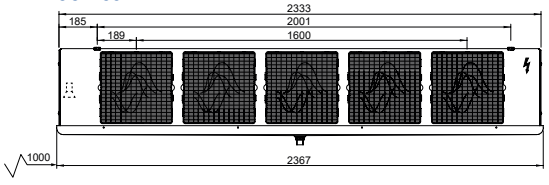

### 3C-E 344 ..




### 3C-E 345 ..

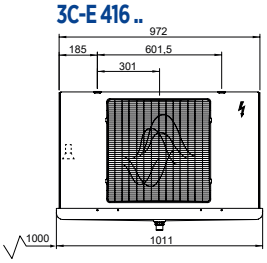



### 3C-E 354 ..

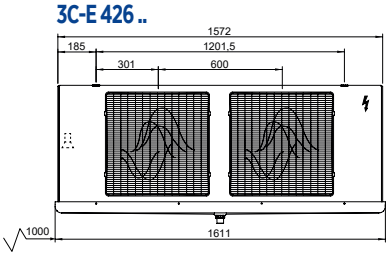



## 3C-E | Ø 450 mm

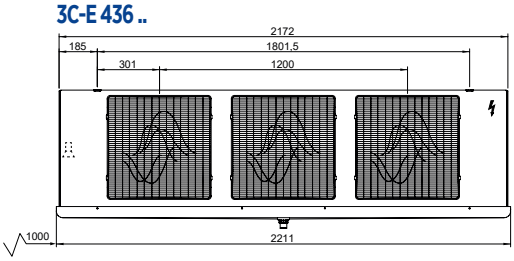
### 3C-E 416 ..



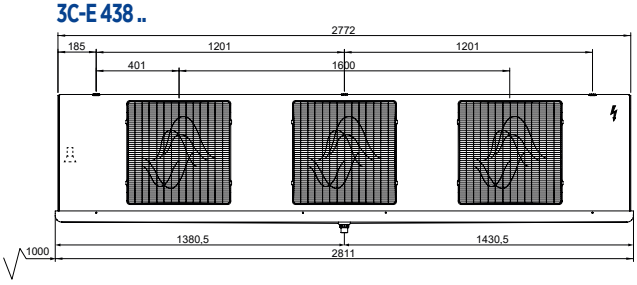

### 3C-E 426 ..




### 3C-E 436 ..




### 3C-E 438 ..




### 3C-E 446 ..