



# Cubic unit cooler



## Commercial and semi industrial 3C-A range



- The 3C-A range is designed for commercial and semi industrial refrigeration applications or low temperature storage.
- Numerous electric, hot water or hot gas defrost possibilities.
- Wide choice of options for specific environment (streamer, stainless steel, ...).
- EC motor (optional) enables optimization of noise level and power consumption.



Hassounah Refrigeration حسونة للتبريد

Tell : 920003244 , Email : info@hrc.com.sa

Mob. 0553361417 , www.hrc.com.sa



HRC COMPANY



Energy efficiency  
Natural fluids:  
Glycol water  
CO<sub>2</sub> (R744)\*



\* Operating pressure 60 bar

1 35 kW

FRIGA-BOHN



**HK**®  
REFRIGERATION

# 3C-A - Cubic commercial and semi industrial unit cooler

## Market segments



- Bars - Restaurants - Corner shops - Mini-markets
- Hard Discount - Supermarkets - Hypermarkets
- Refrigerated storage and transit stocking - Dispatch centres - Food processing

## Description

### Casing

- The aesthetic, white pre-painted galvanized sheet steel casing enables easy cleaning of the unit.
- Articulated drain pan with rounded corners to eliminate condensate retention zones and no sharp or cutting edges to guarantee total safety.
- Hinged intermediate drain pan to help limit condensation (3C-A .. E/C).

### Ventilation

- High efficiency motor fan factory wired.
- EC fans available as an option (electronic commutation).
- The 3C-A unit cooler range is equipped with axial fans, requiring no routine maintenance:
  - Ø 300 mm, 4P = 1,320 rpm, 230V/1/50-60Hz, mono-block, IP 44, class B, internal thermal overload protection.
  - Ø 450 mm, 4P = 1,500 rpm, 230-400V/3/50Hz, mono-block, IP 54, class F, independently thermal overload protections to be connected.
- The high-efficiency, profiled fan blades turn at a very low noise level.
- Fan guards are compliant with safety standards.
- The 2V5 option offers a low speed setting which is ideal for applications in which noise level is a key consideration.

### Coil

- The highly efficient and compact 3C-A range finned coils are designed with aluminium fins (fin spacing 4 or 6 mm) and internally grooved copper tubes.
- The coils are supplied via a Venturi distributor.
- Coils for using the same unit cooler in positive or negative application.
- Multi refrigerant (HFC) coil.
- CO<sub>2</sub> or water glycol as an option on the entire range.

### Defrost

- Depending on the condition in the cold room, different level of defrost capacity are available factory wired or delivered as kits (see table below).
- Shielded electric heating elements are inserted in the sleeved tubes in the finned coil.
- One of the heaters is fastened under the intermediate drain pan. This facility enables homogenous heat distribution for fast and efficient defrosting.
- 230V/1-phase, 230V/3-phase or 400V/3-phase connection possible.
- **3C-A .. E/C range:** standard, the heaters are factory wired to a terminal block in a sealed junction box and connected for 230V/1 and 400V/3.
- **3C-A .. R/L range:** optional heaters and wiring (E1U and E2U).
- The condensate is recovered in an intermediate drain pan and then drained via a large drain fitting (Ø 1" G).
- Hot gas or glycol water defrost in option.

## Designation

**3C-A**<sup>(1)</sup> **3**<sup>(2)</sup> **3**<sup>(3)</sup> **54**<sup>(4)</sup> **-R**<sup>(5)</sup>

- (1) **ADVANCED** range
- (2) Fan diameter: **3** = Ø 300 mm - **4** = Ø 450 mm
- (3) Number of fans
- (4) Model
- (5) Fin spacing: **R/E** = 4 mm - **L/C** = 6 mm

## Certifications



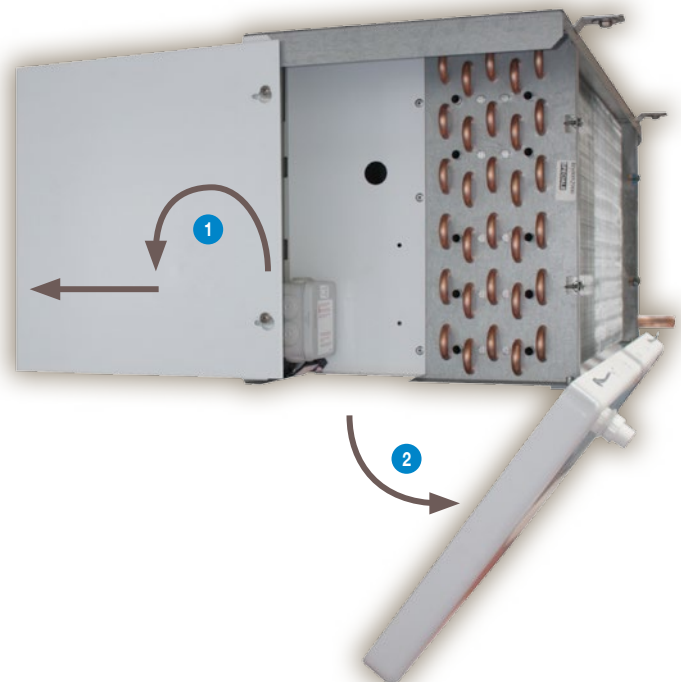
## Avantages

### Installation / Entretien / Maintenance

Large space available for easy installation of the expansion valve.

Large electrical enclosure rendering maintenance tasks easier.

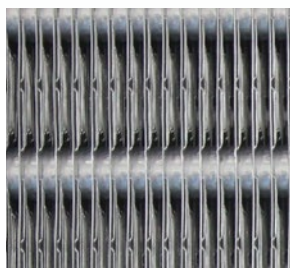
- 1 Easy removable side panels and
- 2 articulated drain pans (interior and exterior), offering fast and easy access to all unit cooler elements (coil, fans, defrost heaters, connections...).



Defrost	Models	Mounting		Number of heaters			
		Kit	Factory	Ø 300 mm		Ø 450 mm	
				Coil	Drain pan	Coil	Drain pan
Light	3C-A .. R/L	E1K option	E1U option	3*	-	3	-
Intermediate	3C-A .. R/L	E2K option	-	2	1	5	1
	3C-A .. E/C	-	E2U option				
Full	3C-A .. R/L	E3K option	-	5*	1	8	1
	3C-A .. E/C	-	Standard				

\* Except for model 3142 = 2 coil heaters

# 3C-A - Cubic commercial and semi industrial unit cooler



## Application of options

### Homogenous distribution of air flow

**RFA option - Air stream deflector (streamer)**  
Provides increased air throw, optimized air flow and efficient distribution of air in the cold room.



### Application requiring installation of a textile duct



#### VGT option - Textile duct shell

Shell used to fasten the textile duct (not supplied).

### Adapted ventilation and noise level



#### 2V5 option - Two-speed fan

The fan motor may be wired for high or low speed:

**High speed** during the charging phase requiring high capacity.

**Low speed** during a long storage period or in case of presence of employees for reduced noise level.

### Defrost for low-temperature applications



#### VPM option - Flexible defrost sleeve + shell + RFA

Avoid circulation of hot air during defrost cycles.

Reduction of defrost cycle time for energy saving.

Kit	Factory		
DPK	PEI	White painted casing.	
	CIN	Stainless steel frame.	
	EIS	Insulated drain pan.	
		Intermediate drain pan Kit (3C-A .. R/L).	
	2V5	Two-speed fan 400V/3/50Hz (Ø 450mm).	
	MM5	Fan 230V/1/50Hz (Ø 450mm).	
	M60	Fan 230-400V/3/60hz (Ø 450mm) or 230V/1/60Hz (Ø 300mm).	
	RFA	Air stream deflector (streamer).	
	VGT	Textile duct shell with guard for forced ventilation.	
	VPM	Flexible defrost sleeve + shell + RFA.	
E1K	EC3	Dual speed EC fans (electronic commutation).	
	BAE	Paint coil protection.	
	BXT	Blygold Polual XT coil protection.	
	BHE	Heresite coil protection.	
	WCO	Glycol water, coolant (please contact us for details).	
	CO2	R744 optimization DX (please contact us for details).	
	E2K	HG1	Hot gas (coil: hot gas, drain pan: electric heating elements).
		HGT	Hot gas (coil and drain pan).
		DEG	Hot glycol water defrost.
	E3K	E1U	Light electric defrost: 3 coil heaters
E2U		Intermediate electric defrost: 2 coil heaters + 1 drain pan heater + intermediate drain pan.	
RVK	E3K	Full electric defrost: 5 coil heaters + 1 drain pan heater + intermediate drain pan.	
	RVU	Shell defrost heaters.	
THS	HDA	Suction hood defrost.	
	2TH	Defrost and safety thermostats (5709L + 5708L).	
	THD	Defrost thermostat (5709L).	
	THS	Safety thermostat (5708L).	
DMP		<b>Fully equipped unit coolers</b>	
	EVL	Expansion valve fitted.	
	EEC	DMP + solenoid valve fitted.	
		EVL + copper siphon equipped with a ball valve delivered not fitted.	



## 3C-A ... R

4 mm

		3C-A .... -R	3142	3143	3145	3155	3165	3243	3245	3343	3344	3345	4165	3354	4166	
Capacity R404A (1)	DT1 = 8K - SC 2	kW	1,53	2,10	2,57	3,05	3,42	4,20	5,28	6,36	7,38	7,95	8,14	8,62	8,83	
Capacity CO <sub>2</sub> (6)	DT1 = 8K - SC 2	kW	1,59	2,16	2,77	3,22	3,56	4,38	5,57	6,64	7,68	8,21	8,81	10,29	11,10	
Capacity W (7)	DT1 = 8K	kW	1,59	2,08	3,10	3,68	3,99	3,88	5,90	6,14	7,11	8,16	8,15	7,93	9,15	
Surface		m <sup>2</sup>	4,1	6,1	10,2	12,8	15,4	12,3	20,5	18,4	24,6	30,7	23,0	30,7	27,6	
Circuit volume		dm <sup>3</sup>	0,6	1,0	1,6	2,0	2,4	1,9	3,2	2,9	3,9	4,8	3,6	4,8	4,4	
Air flow		m <sup>3</sup> /h	1596	1475	1267	1424	1527	2950	2534	4425	4098	3801	5155	4506	4852	
	Air throw (2)	m	15	14	12	14	15	17	15	20	19	18	25	21	24	
	Num. x Ø	mm	1x300	1x300	1x300	1x300	1x300	2x300	2x300	3x300	3x300	3x300	1x450	3x300	1x450	
Fan 1500 r.p.m.	230 V/1/50-60 Hz	W max	72	72	72	72	72	144	144	216	216	216	-	216	-	
		A max (3)	0,32	0,32	0,32	0,32	0,32	0,64	0,64	0,96	0,96	0,96	-	0,96	-	
	230-400 V/3/50 Hz	W max	-	-	-	-	-	-	-	-	-	-	-	450	-	450
		A max (3)	-	-	-	-	-	-	-	-	-	-	-	1	-	1
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	2580	2580	2580	1080	3240	1080	
	230 V/1/50 Hz	A Total	2,5	3,8	3,8	4,7	5,6	7,6	7,6	11,2	11,2	11,2	4,7	-	4,7	
	400 V/3/50 Hz	A Total	-	-	-	-	-	-	-	-	-	-	-	4,7	-	
Net weight		kg	17	18	20	22	24	28	32	41	43	45	41	48	43	
Dimensions	Length	mm	659	659	659	759	859	1059	1059	1554	1554	1554	998	1854	998	
	Width	mm	438	438	438	438	438	438	438	438	438	438	557	438	557	
	Height	mm	428	428	428	428	428	428	428	428	428	428	635	428	635	
Connections (5) R404A	Inlet	Ø OD	3/8 ODF	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	Ø OD	3/8 ODF	5/8	5/8	5/8	5/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	

		3C-A .... -R	3444	3445	3455	4263	3545	4264	4265	4266	4364	4366	4386	4466
Capacity R404A (1)	DT1 = 8K - SC 2	kW	9,84	10,92	12,46	12,16	13,70	14,71	16,65	18,40	22,27	27,22	33,18	35,87
Capacity CO <sub>2</sub> (6)	DT1 = 8K - SC 2	kW	12,75	13,58	8,65	9,41	12,72	15,40	17,42	18,89	23,14	27,97	34,79	37,71
Capacity W (7)	DT1 = 8K	kW	8,86	10,57	12,32	8,69	12,87	12,44	14,63	17,25	16,56	23,91	28,44	29,92
Surface		m <sup>2</sup>	32,8	41,0	51,2	27,6	51,2	36,9	46,1	55,3	55,3	82,9	110,6	110,6
Circuit volume		dm <sup>3</sup>	5,2	6,5	8,1	4,4	8,1	5,8	7,3	8,7	8,7	13,1	17,4	17,4
Air flow		m <sup>3</sup> /h	5464	5068	5696	11738	6335	10990	10310	9704	16485	14556	16782	19408
	Air throw (2)	m	22	21	23	32	24	31	30	29	35	33	35	36
	Num. x Ø	mm	4x300	4x300	4x300	2x450	5x300	2x450	2x450	2x450	3x450	3x450	3x450	4x450
Fan 1500 r.p.m.	230 V/1/50-60 Hz	W max	288	288	288	-	360	-	-	-	-	-	-	-
		A max (3)	1,28	1,28	1,28	-	1,60	-	-	-	-	-	-	-
	230-400 V/3/50 Hz	W max	-	-	-	900	-	900	900	900	1350	1350	1350	1800
		A max (3)	-	-	-	2	-	2	2	2	3	3	3	4
Electric defrost E1K (4)		Nb	3	3	3	3	3	3	3	3	3	3	3	3
		W Total	3450	3450	4320	2160	4320	2160	2160	2160	3240	3240	3960	3960
	230 V/1/50 Hz	A Total	-	-	-	9,4	-	9,4	9,4	9,4	-	-	-	-
	400 V/3/50 Hz	A Total	5,0	5,0	6,2	-	6,2	-	-	-	4,7	4,7	5,7	5,7
Net weight		kg	54	57	65	58	70	62	65	69	84	95	114	123
Dimensions	Length	mm	1954	1954	2354	1598	2354	1598	1598	1598	2198	2198	2798	2798
	Width	mm	438	438	438	557	438	557	557	557	557	557	557	557
	Height	mm	428	428	428	635	428	635	635	635	635	635	635	635
Connections (5) R404A	Inlet	Ø OD	5/8	7/8	7/8	7/8	7/8	1" 1/8	1" 1/8	1" 1/8	1" 1/8	1" 3/8	1" 3/8	1" 3/8
	Outlet	Ø OD	7/8	1" 1/8	1" 3/8	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

(1) See page 12.

(2) Residual air speed: 0.25 m/s.

(3) Setting of overload protection levels. For air temperatures "ti" other than +20 °C, multiply the currents in relation to 293/(273 + "ti") in order to obtain an approximate current value after the chamber temperature is attained.

(4) Electric defrost option.

(5) OD : Male connector - ODF: Female to receive a tube of the same diameter.

(6) Specific coil - Operating pressure 60 bar - Tube diameter to define the order.

(7) Glycol water: Fluid: Percentage of glycol = 30% - Fluid inlet temperature = -8°C - Fluid outlet temperature = -4°C - Air: Inlet dry temp. = +2°C - Relative humidity = 85%  
Other conditions: please contact us.

PEI	CIN	EIS	DPK	2V5	MM5	M60	RFA	VGT	VPM	EC3	BAE	BXT	BHE	WCO	CO <sub>2</sub>	
○	○	☺	○	○	○	○	○	☺	☺	○	○	○	☺	☺	☺	
HG1	HGT	DEG	E1K	E1U	E2K	E2U	E3K	RVK	RVU	HDA	2TH	THD	THS	DMP	EVL	EEC
-	-	-	○	○	○	-	○	-	-	-	○	○	○	○	○	☺

## 3C-A ... L

6 mm

		3C-A ... -L	3143	3144	3145	3155	3165	3243	3244	3245	3343	3344	4165	3345	3354
Capacity R404A (1)	DT1 = 8K - SC 2	kW	1,77	2,10	2,37	2,78	3,16	3,65	4,40	4,86	5,83	6,65	7,32	7,34	7,62
Capacity CO <sub>2</sub> (6)	DT1 = 8K - SC 2	kW	1,85	2,25	2,53	2,94	3,24	3,79	4,44	4,81	5,44	6,84	7,59	7,83	9,14
Capacity W (7)	DT1 = 8K	kW	1,85	2,38	2,82	3,34	3,59	3,69	4,50	5,37	5,18	6,45	7,68	7,50	7,75
Surface		m <sup>2</sup>	4,2	5,7	7,1	8,9	10,6	8,5	11,3	14,2	12,7	17,0	15,9	21,2	21,2
Circuit volume		dm <sup>3</sup>	1,0	1,3	1,6	2,0	2,4	1,9	2,6	3,2	2,9	3,9	3,6	4,8	4,8
Air flow		m <sup>3</sup> /h	1559	1468	1384	1516	1602	3118	2936	2768	4677	4404	5559	4152	4743
	Air throw (2)	m	15	14	13	15	16	18	17	16	21	20	26	19	22
	Num. x Ø	mm	1x300	1x300	1x300	1x300	1x300	2x300	2x300	2x300	3x300	3x300	1x450	3x300	3x300
Fan 1500 r.p.m.	230 V/1/50-60 Hz	W max	72	72	72	72	72	144	144	144	216	216	-	216	216
		A max (3)	0,32	0,32	0,32	0,32	0,32	0,64	0,64	0,64	0,96	0,96	-	0,96	0,96
	230-400 V/3/50 Hz	W max	-	-	-	-	-	-	-	-	-	-	450	-	-
		A max (3)	-	-	-	-	-	-	-	-	-	-	1	-	-
Electric defrost E1K (4)		Nb	3	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	2580	3240
	230 V/1/50 Hz	A Total	3,8	3,8	3,8	4,7	5,6	7,6	7,6	7,6	11,2	11,2	4,7	11,2	-
	400 V/3/50 Hz	A Total	-	-	-	-	-	-	-	-	-	-	-	-	4,7
Net weight		kg	18	19	19	21	23	28	29	30	39	41	39	43	46
Dimensions	Length	mm	659	659	659	759	859	1059	1059	1059	1554	1554	998	1554	1854
	Width	mm	438	438	438	438	438	438	438	438	438	438	557	438	438
	Height	mm	428	428	428	428	428	428	428	428	428	428	635	428	428
Connections (5) R404A	Inlet	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	5/8
	Outlet	Ø OD	5/8	5/8	5/8	5/8	5/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8

		3C-A ... -L	4166	3444	3445	4263	3455	3545	4264	4266	4364	4366	4386	4466
Capacity R404A (1)	DT1 = 8K - SC 2	kW	8,08	8,80	10,00	10,72	11,40	12,65	12,94	16,48	19,55	24,98	30,25	33,07
Capacity CO <sub>2</sub> (6)	DT1 = 8K - SC 2	kW	10,22	11,68	12,58	7,73	8,60	10,91	13,49	17,26	20,26	25,74	31,56	34,59
Capacity W (7)	DT1 = 8K	kW	8,46	8,04	9,73	7,90	11,25	11,85	12,27	15,82	16,10	22,23	26,30	27,81
Surface		m <sup>2</sup>	19,1	22,7	28,3	19,1	35,4	35,4	25,5	38,2	38,2	57,4	76,5	76,5
Circuit volume		dm <sup>3</sup>	4,4	5,2	6,5	4,4	8,1	8,1	5,8	8,7	8,7	13,1	17,4	17,4
Air flow		m <sup>3</sup> /h	5291	5872	5536	12304	6064	6920	11692	10582	17538	15873	17784	21164
	Air throw (2)	m	25	23	22	33	24	25	32	31	36	34	36	37
	Num. x Ø	mm	1x450	4x300	4x300	2x450	4x300	5x300	2x450	2x450	3x450	3x450	3x450	4x450
Fan 1500 r.p.m.	230 V/1/50-60 Hz	W max	-	288	288	-	288	360	-	-	-	-	-	-
		A max (3)	-	1,28	1,28	-	1,28	1,6	-	-	-	-	-	-
	230-400 V/3/50 Hz	W max	450	-	-	900	-	-	900	900	1350	1350	1350	1800
		A max (3)	1	-	-	2	-	-	2	2	3	3	3	4
Electric defrost E1K (4)		Nb	3	3	3	3	3	3	3	3	3	3	3	3
		W Total	1080	3450	3450	2160	4320	4320	2160	2160	3240	3240	3960	3960
	230 V/1/50 Hz	A Total	4,7	-	-	9,4	-	-	9,4	9,4	-	-	-	-
	400 V/3/50 Hz	A Total	-	5,0	5,0	-	6,2	6,2	-	-	4,7	4,7	5,7	5,7
Net weight		kg	41	52	55	56	62	66	59	65	81	90	108	117
Dimensions	Length	mm	998	1954	1954	1598	2354	2354	1598	1598	2198	2198	2798	2798
	Width	mm	557	438	438	557	438	438	557	557	557	557	557	557
	Height	mm	635	428	428	635	428	428	635	635	635	635	635	635
Connections (5) R404A	Inlet	Ø OD	7/8	5/8	7/8	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	Ø OD	7/8	7/8	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

(1) See page 12.

(2) Residual air speed: 0.25 m/s.

(3) Setting of overload protection levels. For air temperatures "ti" other than +20 °C, multiply the currents in relation to 293/(273 + "ti") in order to obtain an approximate current value after the chamber temperature is attained.

(4) Electric defrost option.

(5) OD : Male connector - ODF: Female to receive a tube of the same diameter.

(6) Specific coil - Operating pressure 60 bar - Tube diameter to define the order.

(7) Glycol water: Fluid: Percentage of glycol = 30% - Fluid inlet temperature = -8°C - Fluid outlet temperature = -4°C - Air: Inlet dry temp. = +2°C - Relative humidity = 85%  
Other conditions: please contact us.

PEI	CIN	EIS	DPK	2V5	MM5	M60	RFA	VGT	VPM	EC3	BAE	BXT	BHE	WCO	CO <sub>2</sub>	
○	○	☺+⊕	○	○	○	○	○	☺+⊕	☺+⊕	○	○	○	☺+⊕	☺+⊕	☺+⊕	
HG1	HGT	DEG	E1K	E1U	E2K	E2U	E3K	RVK	RVU	HDA	2TH	THD	THS	DMP	EVL	EEC
-	-	-	○	○	○	-	○	-	-	-	○	○	○	○	○	☺+⊕

## 3C-A ... E

4 mm

		3C-A .... -E	3142	3143	3145	3155	3165	3243	3245	3343	3344	3345	4165	3354	4166
Capacity R404A (1)	DT1 = 7K - SC 3	kW	1,14	1,54	2,01	2,32	2,60	3,25	4,19	4,95	5,82	6,15	6,30	6,82	6,85
Capacity CO <sub>2</sub> (6)	DT1 = 7K - SC 3	kW	1,33	1,81	2,28	2,61	2,86	3,50	4,59	5,45	6,22	6,56	7,01	8,43	9,00
Surface		m <sup>2</sup>	4,1	6,1	10,2	12,8	15,4	12,3	20,5	18,4	24,6	30,7	23,0	30,7	27,6
Circuit volume		dm <sup>3</sup>	0,6	1,0	1,6	2,0	2,4	1,9	3,2	2,9	3,9	4,8	3,6	4,8	4,4
Air flow		m <sup>3</sup> /h	1596	1475	1267	1424	1527	2950	2534	4425	4098	3801	5155	4506	4852
	Air throw (2)	m	15	14	12	14	15	17	15	20	19	18	25	21	24
	Num. x Ø	mm	1x300	1x300	1x300	1x300	1x300	2x300	2x300	3x300	3x300	3x300	1x450	3x300	1x450
Fan 1500 r.p.m.	230 V/1/50-60 Hz	W max	72	72	72	72	72	144	144	216	216	216	-	216	-
		A max (3)	0,32	0,32	0,32	0,32	0,32	0,64	0,64	0,96	0,96	0,96	-	0,96	-
	230-400 V/3/50 Hz	W max	-	-	-	-	-	-	-	-	-	-	200	-	200
		A max (3)	-	-	-	-	-	-	-	-	-	-	1	-	1
	Coil	Nb	2	5	5	5	5	5	5	5	5	5	8	5	8
	Drain pan	Nb	1	1	1	1	1	1	1	1	1	1	1	1	1
Electric defrost		W Total	870	1740	1740	2160	2580	3480	3480	5160	5160	5160	3240	6480	3240
	230 V/1/50 Hz	A Total	3,8	7,6	7,6	9,4	11,2	15,1	15,1	-	-	-	-	-	-
	400 V/3/50 Hz	A Total	-	-	-	-	-	-	-	7,4	7,4	7,4	4,7	9,4	4,7
Net weight		kg	17	18	20	22	24	28	32	41	43	45	41	48	43
Dimensions	Length	mm	659	659	659	759	859	1059	1059	1554	1554	1554	998	1854	998
	Width	mm	438	438	438	438	438	438	438	438	438	438	557	438	557
	Height	mm	428	428	428	428	428	428	428	428	428	428	635	428	635
Connections (5) R404A	Inlet	Ø OD	3/8 ODF	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	Ø OD	3/8 ODF	5/8	5/8	5/8	5/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8

		3C-A .... -E	3444	3445	4263	3455	3545	4264	4265	4266	4364	4366	4386	4466
Capacity R404A (1)	DT1 = 7K - SC 3	kW	7,78	8,47	9,29	9,48	10,15	11,12	12,96	13,70	17,05	21,08	25,12	27,16
Capacity CO <sub>2</sub> (6)	DT1 = 7K - SC 3	kW	10,74	10,14	7,15	7,73	10,31	12,56	14,29	15,57	18,90	22,28	28,28	30,49
Surface		m <sup>2</sup>	32,8	41,0	27,6	51,2	51,2	36,9	46,1	55,3	55,3	82,9	110,6	110,6
Circuit volume		dm <sup>3</sup>	5,2	6,5	4,4	8,1	8,1	5,8	7,3	8,7	8,7	13,1	17,4	17,4
Air flow		m <sup>3</sup> /h	5464	5068	11738	5696	6335	10990	10310	9704	16485	14556	16782	19408
	Air throw (2)	m	22	21	32	23	24	31	30	29	35	33	35	36
	Num. x Ø	mm	4x300	4x300	2x450	4x300	5x300	2x450	2x450	2x450	3x450	3x450	3x450	4x450
Fan 1500 r.p.m.	230 V/1/50-60 Hz	W max	288	288	-	288	275	-	-	-	-	-	-	-
		A max (3)	1,28	1,28	-	1,28	1,6	-	-	-	-	-	-	-
	230-400 V/3/50 Hz	W max	-	-	400	-	-	400	400	400	600	600	600	800
		A max (3)	-	-	2	-	-	2	2	2	3	3	3	4
	Coil	Nb	5	5	8	5	5	8	8	8	8	8	8	8
	Drain pan	Nb	1	1	1	1	1	1	1	1	1	1	1	1
Electric defrost		W Total	6900	6900	6480	8640	8640	6480	6480	6480	9720	9720	11880	11880
	230 V/1/50 Hz	A Total	-	-	-	-	-	-	-	-	-	-	-	-
	400 V/3/50 Hz	A Total	10,0	10,0	9,4	12,5	12,5	9,4	9,4	9,4	14,0	14,0	17,1	17,1
Net weight		kg	54	57	58	65	70	62	65	69	84	95	114	123
Dimensions	Length	mm	1954	1954	1598	2354	2354	1598	1598	1598	2198	2198	2798	2798
	Width	mm	438	438	557	438	438	557	557	557	557	557	557	557
	Height	mm	428	428	635	428	428	635	635	635	635	635	635	635
Connections (5) R404A	Inlet	Ø OD	5/8	7/8	7/8	7/8	7/8	1" 1/8	1" 1/8	1" 1/8	1" 1/8	1" 3/8	1" 3/8	1" 3/8
	Outlet	Ø OD	7/8	1" 1/8	1" 3/8	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

(1) See page 12.

(2) Residual air speed: 0.25 m/s.

(3) Setting of overload protection levels. For air temperatures "ti" other than +20 °C, multiply the currents in relation to 293/(273 + "ti") in order to obtain an approximate current value after the chamber temperature is attained.

(4) Electric defrost option.

(5) OD : Male connector - ODF: Female to receive a tube of the same diameter.

(6) Specific coil - Operating pressure 60 bar - Tube diameter to define the order.

PEI	CIN	EIS	DPK	2V5	MM5	M60	RFA	VGT	VPM	EC3	BAE	BXT	BHE	WCO	CO <sub>2</sub>	
○	○	☺+⊕	-	○	○	○	○	☺+⊕	☺+⊕	○	○	○	☺+⊕	-	☺+⊕	
HG1	HGT	DEG	E1K	E1U	E2K	E2U	E3K	RVK	RVU	HDA	2TH	THD	THS	DMP	EVL	EEC
☺+⊕	☺+⊕	☺+⊕	-	-	-	○	-	○	○	☺+⊕	○	○	○	○	○	☺+⊕

## 3C-A ... C

6 mm

		3C-A ... C	3143	3144	3145	3155	3165	3243	3244	3245	3343	3344	4165	3345	3354
Capacity R404A (1)	DT1 = 7K - SC 3	kW	1,29	1,57	1,82	2,13	2,39	2,70	3,25	3,78	4,23	5,00	5,54	5,55	5,84
Capacity CO <sub>2</sub> (6)	DT1 = 7K - SC 3	kW	1,54	1,87	2,09	2,40	2,61	3,06	3,50	3,70	4,19	5,58	6,10	6,30	7,52
Surface		m <sup>2</sup>	4,2	5,7	7,1	8,9	10,6	8,5	11,3	14,2	12,7	17,0	15,9	21,2	21,2
Circuit volume		dm <sup>3</sup>	1,0	1,3	1,6	2,0	2,4	1,9	2,6	3,2	2,9	3,9	3,6	4,8	4,8
Air flow		m <sup>3</sup> /h	1559	1468	1384	1516	1602	3118	2936	2768	4677	4404	5559	4152	4743
	Air throw (2)	m	15	14	13	15	16	18	17	16	21	20	26	19	22
	Num. x Ø	mm	1x300	1x300	1x300	1x300	1x300	2x300	2x300	2x300	3x300	3x300	1x450	3x300	3x300
Fan 1500 r.p.m.	230 V/1/50-60 Hz	W max	72	72	72	72	72	144	144	144	216	216	-	216	216
		A max (3)	0,32	0,32	0,32	0,32	0,32	0,64	0,64	0,64	0,96	0,96	-	0,96	0,96
	230-400 V/3/50 Hz	W max	-	-	-	-	-	-	-	-	-	-	450	-	-
		A max (3)	-	-	-	-	-	-	-	-	-	-	-	1	-
	Coil	Nb	5	5	5	5	5	5	5	5	5	5	8	5	5
	Drain pan	Nb	1	1	1	1	1	1	1	1	1	1	1	1	1
Electric defrost		W Total	1740	1740	1740	2160	2580	3480	3480	3480	5160	5160	3240	5160	6480
	230 V/1/50 Hz	A Total	7,6	7,6	7,6	9,4	11,2	15,1	15,1	15,1	-	-	-	-	-
	400 V/3/50 Hz	A Total	-	-	-	-	-	-	-	-	7,4	7,4	4,7	7,4	9,4
Net weight		kg	18	19	19	21	23	28	29	30	39	41	39	43	46
Dimensions	Length	mm	659	659	659	759	859	1059	1059	1059	1554	1554	998	1554	1854
	Width	mm	438	438	438	438	438	438	438	438	438	438	557	438	438
	Height	mm	428	428	428	428	428	428	428	428	428	428	635	428	428
Connections (5) R404A	Inlet	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	5/8
	Outlet	Ø OD	5/8	5/8	5/8	5/8	5/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8

		3C-A ... C	4166	3444	3445	4263	3455	3545	4264	4266	4364	4366	4386	4466
Capacity R404A (1)	DT1 = 7K - SC 3	kW	6,00	6,58	7,76	8,00	8,67	9,41	9,52	12,27	14,38	18,64	22,45	24,30
Capacity CO <sub>2</sub> (6)	DT1 = 7K - SC 3	kW	8,33	9,38	10,03	6,40	7,09	8,91	11,06	14,27	16,63	20,65	25,78	28,11
Surface		m <sup>2</sup>	19,1	22,7	28,3	19,1	35,4	35,4	25,5	38,2	38,2	57,4	76,5	76,5
Circuit volume		dm <sup>3</sup>	4,4	5,2	6,5	4,4	8,1	8,1	5,8	8,7	8,7	13,1	17,4	17,4
Air flow		m <sup>3</sup> /h	5291	5872	5536	12304	6064	6920	11692	10582	17538	15873	17784	21164
	Air throw (2)	m	25	23	22	33	24	25	32	31	36	34	36	37
	Num. x Ø	mm	1x450	4x300	4x300	2x450	4x300	5x300	2x450	2x450	3x450	3x450	3x450	4x450
Fan 1500 r.p.m.	230 V/1/50-60 Hz	W max	-	288	288	-	288	360	-	-	-	-	-	-
		A max (3)	-	1,28	1,28	-	1,28	1,6	-	-	-	-	-	-
	230-400 V/3/50 Hz	W max	450	-	-	900	-	-	900	900	1350	1350	1350	1800
		A max (3)	1	-	-	2	-	-	2	2	3	3	3	4
	Coil	Nb	8	5	5	8	5	5	8	8	8	8	8	8
	Drain pan	Nb	1	1	1	1	1	1	1	1	1	1	1	1
Electric defrost		W Total	3240	6900	6900	6480	8640	8640	6480	6480	9720	9720	11880	11880
	230 V/1/50 Hz	A Total	-	-	-	-	-	-	-	-	-	-	-	-
	400 V/3/50 Hz	A Total	4,7	10,0	10,0	9,4	12,5	12,5	9,4	9,4	14,0	14,0	17,1	17,1
Net weight		kg	41	52	55	56	62	66	59	65	81	90	108	117
Dimensions	Length	mm	998	1954	1954	1598	2354	2354	1598	1598	2198	2198	2798	2798
	Width	mm	557	438	438	557	438	438	557	557	557	557	557	557
	Height	mm	635	428	428	635	428	428	635	635	635	635	635	635
Connections (5) R404A	Inlet	Ø OD	7/8	5/8	7/8	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	Ø OD	7/8	7/8	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

(1) See page 12.

(2) Residual air speed: 0.25 m/s.

(3) Setting of overload protection levels. For air temperatures "ti" other than +20 °C, multiply the currents in relation to 293/(273 + "ti") in order to obtain an approximate current value after the chamber temperature is attained.

(4) Electric defrost option.

(5) OD : Male connector - ODF: Female to receive a tube of the same diameter.

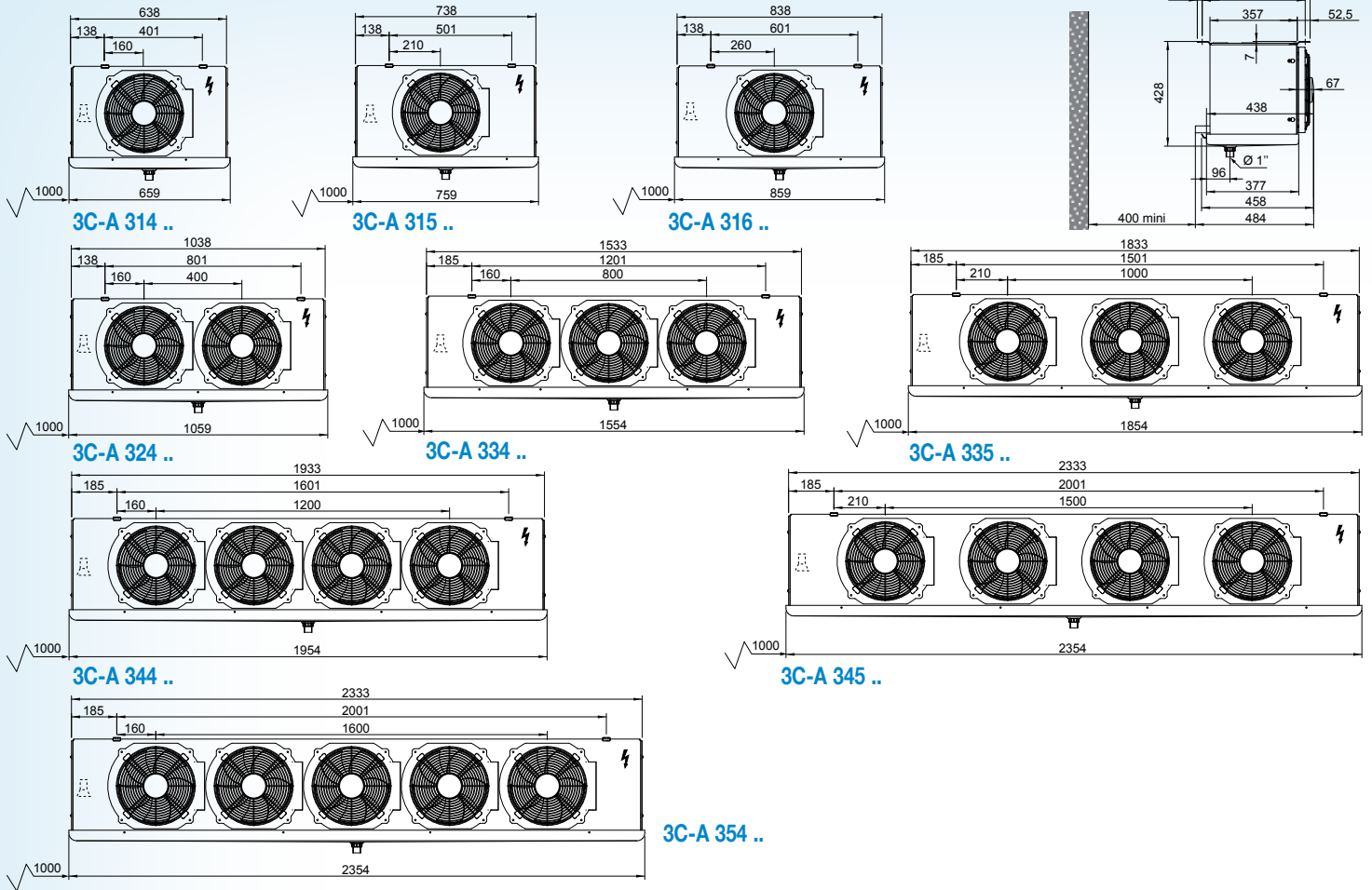
(6) Specific coil - Operating pressure 60 bar - Tube diameter to define the order.

PEI	CIN	EIS	DPK	2V5	MM5	M60	RFA	VGT	VPM	EC3	BAE	BXT	BHE	WCO	CO <sub>2</sub>	
○	○	⊕+⊕	-	○	○	○	○	⊕+⊕	⊕+⊕	○	○	○	⊕+⊕	-	⊕+⊕	
HG1	HGT	DEG	E1K	E1U	E2K	E2U	E3K	RVK	RVU	HDA	2TH	THD	THS	DMP	EVL	EEC
⊕+⊕	⊕+⊕	⊕+⊕	-	-	-	○	-	○	○	⊕+⊕	○	○	○	○	○	⊕+⊕



# 3C-A - Cubic commercial and semi industrial unit cooler

## Ø 300 mm



## Ø 450 mm

