

FRIGA-BOHN®

AZUR

Ceiling unit cooler

Commercial range - Medium and Low Temperature

R290

CO2 80bar

A2L

WG

HFC



|||| 270 - 4350 W



- # **Compact and streamlined design** for perfect integration in small spaces and optimization of the storage area.
- # **Easy installation/maintenance:**
 - Quick access to individual components thanks to hinged casing and quarter-turn fastening ventilation grid.
 - Simple, intuitive electrical connection using Wago terminals and cable identification.
- # The complete redesign of the defrosting system introduces significant improvements that increase **efficiency and reliability**.
- # **Robust unit** with polyester coil protection (standard).
- # Robust EC motor with full aluminium propeller to ensure low energy consumption while providing high aeraulic and cooling performance.

VENTILATION

- # High performance EC Motor 230V/1/50-60Hz.
- # Full Aluminium propeller D230 & D254mm.
- # Round ventilation grille with quarter-turn fastening.



CASING

Modern casing design in Recyclable ABS or in Pre-painted steel (optional) which guarantees:

- # High resistance to thermal and mechanical shocks.
- # Perfect hygiene as a result of the rounded corners that eliminate retention zones.
- # No sharp edges for increased safety.
- # Easy access to all components thanks to an hinged casing.

OPTIONS

CME Metal casing (pre-painted white galvanized steel).

OPTIONS

DMP Expansion valve fitted

EEC

Unit cooler completely assembled in the factory with:

- Expansion valve
- Solenoid valve
- Pipework equipped with a ball valve (role of the siphon performed by the manifold).

Save time during installation by choosing these additional options.

DEFROST

- # Bent electrical heater in a notch under the coil, for effective defrosting of expansion valve, distributor and manifold.
- # Defrosting of the condensate pan thanks to a low temperature electrical heater under the intermediate drain pan.
- # Color coding for easy identification of electrical heaters connections.
- # Recovery of condensate through an intermediate drain pan before evacuation to the large condensate connection (Ø 1" G).

OPTIONS

2TH	Defrost and safety thermostats (5709L + 5708L).
THD	Defrost thermostat (5709L).
E1U	Light electric defrost.
E1K	Light electric defrost. KIT TO INSTALL

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



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

COILS

- # Aluminium fins with 4 or 6mm spacing and sinusoidal profile.
- # Combined with copper tubes with a grooved internal structure, the coils are very efficient and compact.
- # Completely covered with polyester protection as standard (positif models).
- # Versions available:
 - CO₂ (80 bar).
 - Multi-refrigerant HFCs/A2L,
 - WCO (glycol water, coolant).
 - Propane (on demand).

AZUR M_(A) 75_(B) R_(C)

(A) Refrigerant type: **M** = Multifluides (HFC/A2L) - **C** = CO2 80 bar - **D** = R290 - **W** = Glycol Water
 (B) Model
 (C) Fin spacing: **R** = 4 mm (positive) **E** = 4 mm (negative)
L = 6 mm (positive) **C** = 6 mm (negative)

The AZUR is available with CO₂, A2Ls, HFCs, propane and glycol water. For more information, please consult our software.

AZUR

 4 mm

CONDITIONS	REFRIGERANTS	AZUR ... R	75	110	120	135	160	180	210	270	380	460
SC1 (1)	R404A	kW	1,12	1,58	1,76	1,97	2,45	3,17	3,42	4,52	5,24	6,06
	R454C (R455A*)	kW	0,95	1,25	1,47	1,82	2,16	2,76	3,13	4,02	5,14	5,96
	R449A (R448A*)	kW	1,09	1,45	1,67	2,07	2,57	3,13	3,54	4,5	5,52	6,38
	R134A (R513A*)	kW	1,01	1,44	1,6	1,79	2,23	2,89	3,11	4,11	4,77	5,52
	CO ₂ - 80 bar (2)	kW	1,19	1,64	1,89	2,3	2,96	3,48	3,82	4,92	5,69	7,09
SC2 (1)	R404A	kW	0,76	1,08	1,2	1,34	1,67	2,16	2,33	3,08	3,57	4,13
	R454C (R455A*)	kW	0,65	0,85	1	1,24	1,47	1,88	2,13	2,74	3,5	4,06
	R449A (R448A*)	kW	0,74	0,99	1,14	1,41	1,75	2,13	2,41	3,07	3,76	4,35
	R134A (R513A*)	kW	0,69	0,98	1,09	1,22	1,52	1,97	2,12	2,8	3,25	3,76
	CO ₂ - 80 bar (2)	kW	0,81	1,12	1,29	1,57	2,02	2,37	2,6	3,35	3,88	4,83
SC3 (1)	R404A	kW	0,58	0,79	0,88	0,94	1,14	1,62	1,84	2,32	2,64	3
	R454C (R455A*)	kW	0,45	0,57	0,67	0,8	0,93	1,31	1,51	1,91	2,35	2,68
	R449A (R448A*)	kW	0,53	0,7	0,8	0,97	1,16	1,55	1,74	2,24	2,75	3,14
	CO ₂ - 80 bar (2)	kW	0,65	0,88	1,01	1,28	1,61	1,92	2,09	2,67	3,15	3,96
	SC4 (1)	R404A	kW	0,45	0,63	0,69	0,72	0,87	1,26	1,45	1,82	2,04
R454C (R455A*)		kW	0,32	0,41	0,47	0,57	0,67	0,95	1,11	1,39	1,72	1,93
R449A (R448A*)		kW	0,41	0,52	0,61	0,72	0,86	1,18	1,34	1,71	2,09	2,37
CO ₂ - 80 bar (2)		kW	0,51	0,69	0,81	1,04	1,3	1,55	1,74	2,18	2,52	3,22

* Capacity close to the indicated refrigerant; to determine the exact capacity with the second refrigerant, please use the selection software.

		75	110	120	135	160	180	210	270	380	460
Surface area	m ²	3,5	3,1	3,8	6,4	6,4	8,6	10,7	13,6	20,3	23,1
Circuit volume	dm ³	0,6	0,5	0,6	1	1	1,4	1,7	2,2	3,3	3,8
Airflow	m ³ /h	410	880	880	760	1360	1290	1220	1890	1680	1820
Air throw (3)	m	7	8	8	8	9	9	9	19	16	15
Fan 1,450 rpm	Nb	1	2	2	2	3	3	3	3	3	3
	Ø	230	230	230	230	230	230	230	254	254	254
	W max total	32	64	64	64	96	96	96	96	96	96
Electric defr. AZUR R > E1K	230 V/1/50 Hz	A max total (4)	0,5	1	1	1	1,5	1,5	1,5	1,5	1,5
	Nb	2	2	2	2	2	2	2	2	2	2
	W	550	710	860	1030	1180	1430	1680	2200	3000	3480
Electric defr. AZUR E > standard	230 V/1/50 Hz	A	3	3	4	5	5	7	8	10	14
	Nb	2	2	2	2	2	2	2	2	2	2
	W	550	710	860	1030	1180	1430	1680	2200	3000	3480
Connections HFCs/A2L	Inlet (2)	Ø OD	1/2"	1/2"	1/2"	1/2"	1/2"	D 1/2"	D 1/2"	D 1/2"	D 1/2"
	Outlet (2)	Ø OD	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"	5/8"	5/8"	5/8"
Connections CO ₂	Inlet (2)	Ø OD	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	D 1/2"
	Outlet (2)	Ø OD	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	5/8"
Net weight	kg	6	10	12	15	23	23	23	29	31	34

(1) Standard conditions:
 SC1 : +10 °C (air inlet temp.) / 0 °C (evaporating temp.) / DT1 = 10K
 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) OD : male to be brazed / O : distributor
 (3) Residual air speed: 0.25 m/s.

(4) 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.
 * Distributor: Ø 1/2" male to solder. Connecting piece supplied for solder expansion valve Ø 12 mm.

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

AZUR M_(A) 65_(B) C_(C)

(A) Refrigerant type: **M** = Multifluides (HFC/A2L) - **C** = CO2 80 bar - **D** = R290 - **W** = Glycol Water

(B) Model

(C) Fin spacing: **R** = 4 mm (positive) **E** = 4 mm (negative)
L = 6 mm (positive) **C** = 6 mm (negative)

The AZUR is available with CO₂, A2Ls, HFCs, propane and glycol water. For more information, please consult our software.

AZUR

 6 mm

CONDITIONS	REFRIGERANTS	AZUR ... L	65	85	105	120	140	170	190	250	310	370
SC1 (1)	R404A	kW	0,95	1,38	1,58	1,75	2,03	2,6	2,93	3,93	4,48	5,02
	R454C (R455A*)	kW	0,79	1,12	1,35	1,56	1,78	2,25	2,61	3,42	4,18	4,74
	R449A (R448A*)	kW	0,9	1,28	1,56	1,78	2,04	2,49	2,91	3,82	4,65	5,28
	R134A (R513A*)	kW	0,87	1,26	1,44	1,58	1,85	2,36	2,67	3,58	4,08	4,56
	CO2 - 80 bar (2)	kW	1	1,44	1,72	2,07	2,3	2,83	3,21	4,26	4,83	5,69
SC2 (1)	R404A	kW	0,65	0,94	1,08	1,19	1,38	1,77	2	2,68	3,05	3,42
	R454C (R455A*)	kW	0,54	0,76	0,92	1,06	1,21	1,53	1,78	2,33	2,85	3,23
	R449A (R448A*)	kW	0,61	0,87	1,06	1,21	1,39	1,7	1,98	2,6	3,17	3,6
	R134A (R513A*)	kW	0,59	0,86	0,98	1,08	1,26	1,61	1,82	2,44	2,78	3,11
	CO2 - 80 bar (2)	kW	0,68	0,98	1,17	1,41	1,57	1,93	2,19	2,9	3,29	3,88
SC3 (1)	R404A	kW	0,5	0,7	0,81	0,86	0,99	1,35	1,57	2,06	2,28	2,52
	R454C (R455A*)	kW	0,38	0,53	0,64	0,7	0,81	1,08	1,26	1,68	1,95	2,21
	R449A (R448A*)	kW	0,45	0,63	0,76	0,85	0,97	1,25	1,43	1,92	2,31	2,59
	CO2 - 80 bar (2)	kW	0,53	0,77	0,93	1,14	1,26	1,55	1,77	2,33	2,62	3,17
	SC4 (1)	R404A	kW	0,38	0,55	0,63	0,66	0,76	1,07	1,24	1,62	1,78
R454C (R455A*)		kW	0,27	0,39	0,46	0,51	0,57	0,79	0,93	1,23	1,44	1,61
R449A (R448A*)		kW	0,34	0,47	0,58	0,64	0,73	0,96	1,11	1,48	1,76	1,98
CO2 - 80 bar (2)		kW	0,42	0,63	0,75	0,93	1,02	1,25	1,44	1,9	2,13	2,59

* Capacity close to the indicated refrigerant; to determine the exact capacity with the second refrigerant, please use the selection software.

			65	85	105	120	140	170	190	250	310	370
Surface area		m ²	2,4	2,7	3,5	4,4	4,4	5,9	7,4	9,4	14	16
Circuit volume		dm ³	0,6	0,6	0,8	1	1	1,4	1,7	2,2	3,3	3,8
Airflow		m ³ /h	440	920	880	830	1420	1360	1310	1990	1840	1940
Air throw (3)		m	7	8	8	8	9	9	9	20	17	16
		Nb	1	2	2	2	3	3	3	3	3	3
Fan		Ø	230	230	230	230	230	230	230	254	254	254
1,450 rpm		W max total	32	64	64	64	96	96	96	96	96	96
	230 V/1/50 Hz	A max total (4)	0,5	1	1	1	1,5	1,5	1,5	1,5	1,5	1,5
		Nb	2	2	2	2	2	2	2	2	2	2
Electric defr.	230 V/1/50 Hz	W	550	710	860	1030	1180	1430	1680	2200	3000	3480
AZUR L > E1K		A	3	3	4	5	5	7	8	10	14	16
		Nb	2	2	2	2	2	2	2	2	2	2
Electric defr.	230 V/1/50 Hz	W	550	710	860	1030	1180	1430	1680	2200	3000	3480
AZUR C > standard		A	3	3	4	5	5	7	8	10	14	16
Connections	Inlet (2)	Ø OD	1/2"	1/2"	1/2"	1/2"	1/2"	D 1/2"				
HFCs/A2L	Outlet (2)	Ø OD	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"	5/8"	5/8"	5/8"	3/4"
Connections	Inlet (2)	Ø OD	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	D 1/2"
CO ₂	Outlet (2)	Ø OD	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"
Net weight		kg	6	10	12	15	23	23	23	29	31	34

(1) Standard conditions:

SC1 : +10 °C (air inlet temp.) / 0 °C (evaporating temp.) / DT1 = 10K

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SC4 / -25 °C (air inlet temp.) / -31 °C (evaporating temp.) / DT1 = 6K

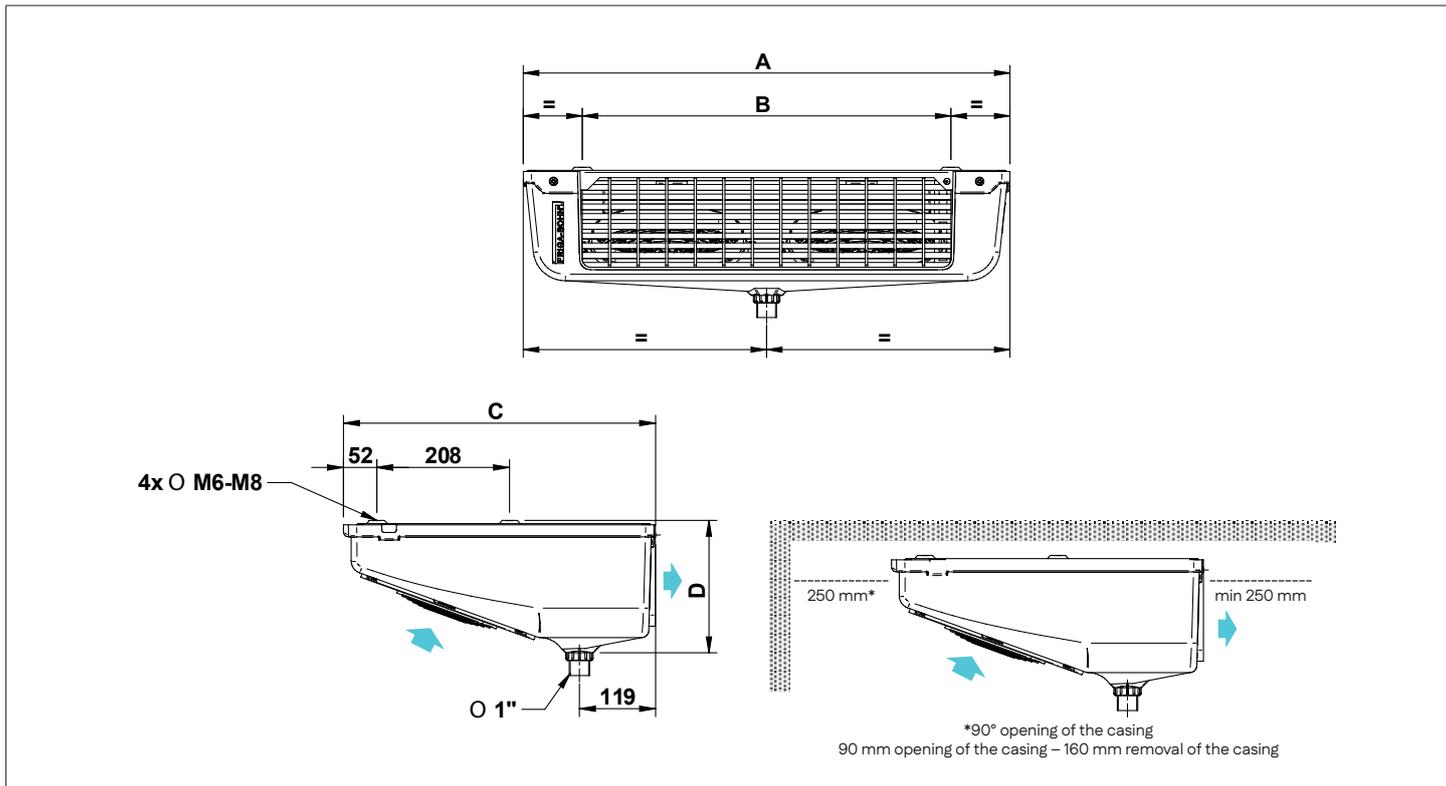
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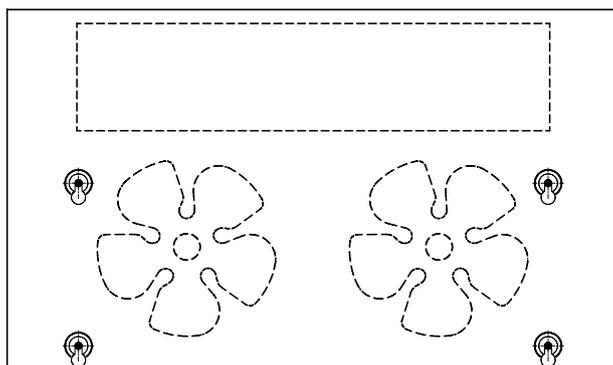


AZUR - ABS & Métal

AZUR

		A	B	C	D
65 - 75	mm	517	326	489	209
85 - 135	mm	787	596	489	209
140 - 210	mm	1187	986	489	209
250 - 380	mm	1507	1316	539	234
370 - 460	mm	1687	1316	539	234

INSTALLATION



Drilling template for installation available under the product's packaging carton.