

COMPRESSORIZED PRODUCTS



- Refrigeration monoblock units
- Condensing units and split-systems

- Encased outdoor condensing units
 - 1 or 2 compressors
 - Multi-compressors
- Compressor racks

- Other racks

- Chillers (Glycol water production rack)
- Combined recovery system

EUROMON

**CLIMACAVE - MINI - MINIPLUS
VANGUARD - SPLIT VANGUARD
MAXI - MAXICLIMA**

DUO CU - MEGA - MONOHAVANE

**MULTIWAVE - MULTIHAVANE
DUO - eCO2Gen - eCO / eMR
COMPACT - MOPSH / MOSC - MOVSH
CARROSSÉS - DUPLEX
BOOSTER - MONOSH ...
PEG - NEOSYS
SRC**

Chill range

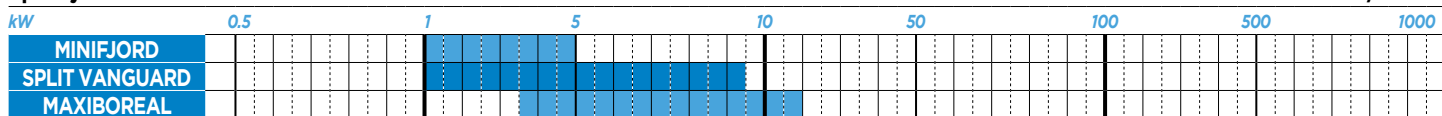
Refrigeration monoblock units

ti = 0°C / +32°C



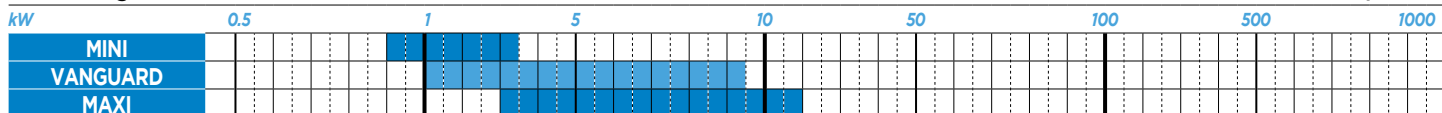
Split systems

ti = 0°C / +32°C



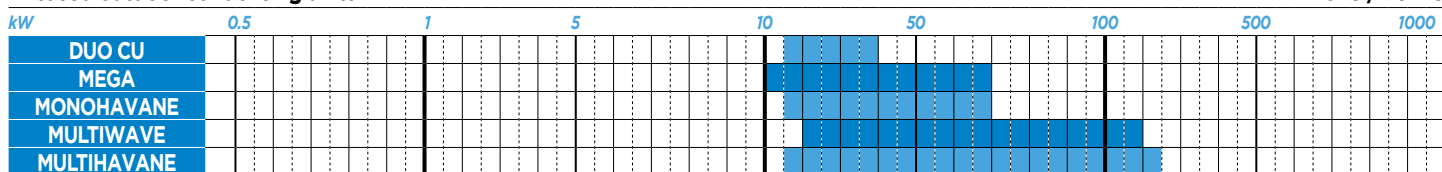
Condensing units

-10°C / +32°C



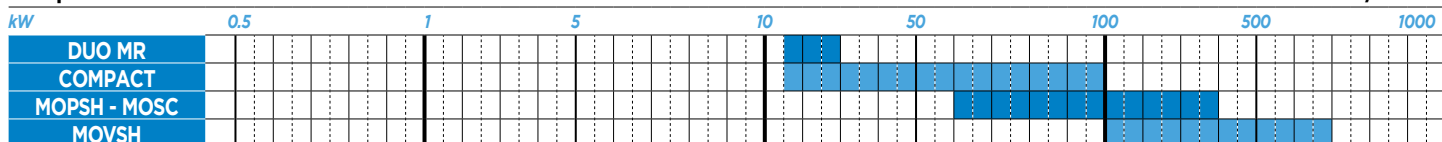
Encased outdoor condensing units

-10°C / +32°C



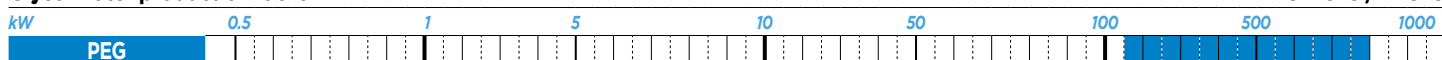
Compressor racks

-10°C / +45°C



Glycol water production racks

-4°C | -8°C / +45°C



Low temperature range

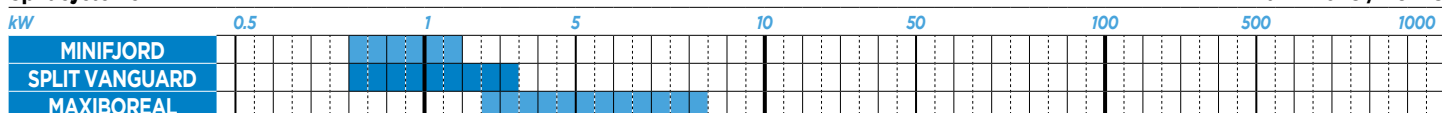
Refrigeration monoblock units

ti = -20°C / +32°C



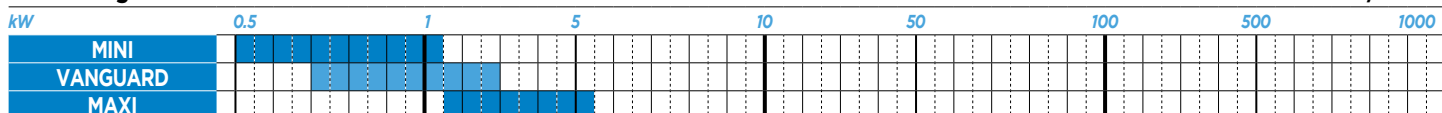
Split systems

ti = -20°C / +32°C



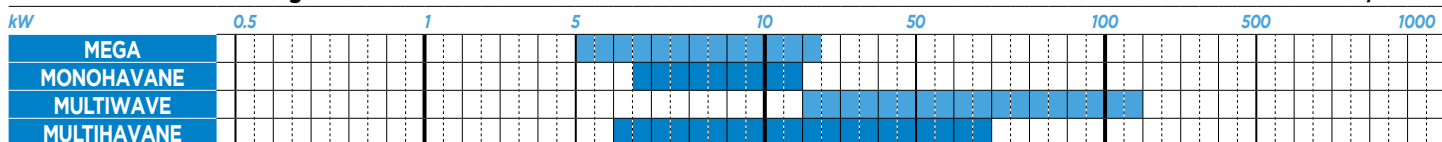
Condensing units

-35°C / +32°C



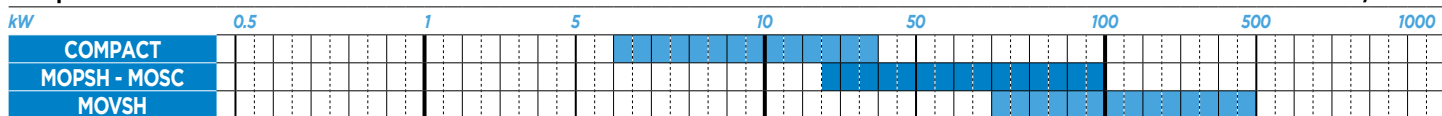
Encased outdoor condensing units

-35°C / +32°C



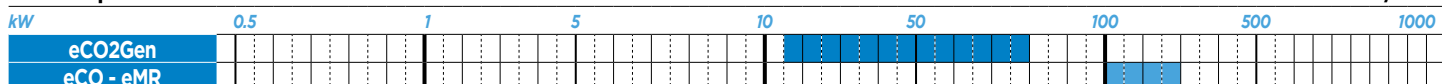
Compressor racks

-35°C / +40°C



CO₂ compressor racks

-35°C / -5°C



REFRIGERATION MONOBLOCK UNIT SINGLE-COMPRESSOR

Bars / Restaurants
Corner shops - Mini-markets



HFC

0.7 > 4.5 kW

EUROMON

- Complete "turnkey" monoblock unit designed for use in small cold rooms from 4 to 54 m³.
- Mounted across the cold room panel; extremely compact unit cooler for optimum use of space in the cold room.
- Fast, easy and safe installation.
- Products assembled, tested and factory-preset according to the application.

DESCRIPTION

The genuine technical advantages offered by EUROMON monoblock generation earn it a place as leader in its market.

Fast installation

- The installation method for this unit is extremely simple. Simply slot the monoblock unit into the notches in the top panel of the cold room and secure it. Once in place, the unit is ready for use as soon as it is plugged into an electrical power point.
- Furthermore, the various control parameters are all factory-preset according to the application.

Total accessibility

- The front cover is designed in two parts rendering access to condensing unit components, in particular the compressor, condenser fans and re-evaporation heater, easier.
- The controller is equipped with a plug-in terminal rail for easy maintenance.

Energy saving

- The unit cooler electric defrost mode is approximately three times more economical than the hot gas defrost in terms of power consumption.
- Furthermore, it is independent of compressor operation which extends the operating life of this element.

Evaporation of condensation

- An electric immersion heater is used for this function which, contrary to the discharge gas solution, does not require the compressor and protects the piping against corrosion.
- Power consumption is minimized thanks to the self-adapting property of the heater.

Optimum use of room space

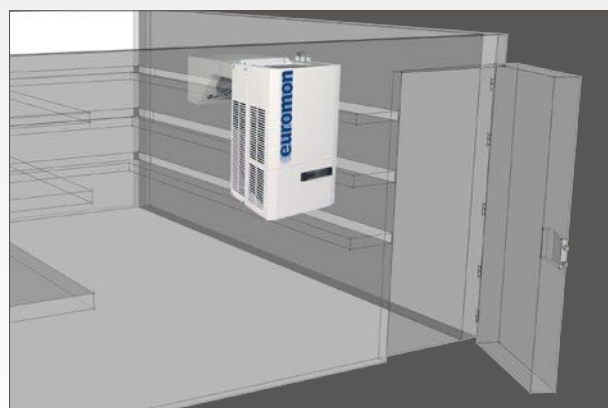
- The "ceiling unit" design form of the unit cooler not only guarantees better air distribution, but also provides more storage space for products in the cold room.

DESIGNATION

EUMOP⁽¹⁾ 21A⁽²⁾ D⁽³⁾

- (1) **EUMOP** = Chill range
EUMON = Low temperature range
- (2) Model
- (3) Electric defrost

CERTIFICATIONS



EUMOP

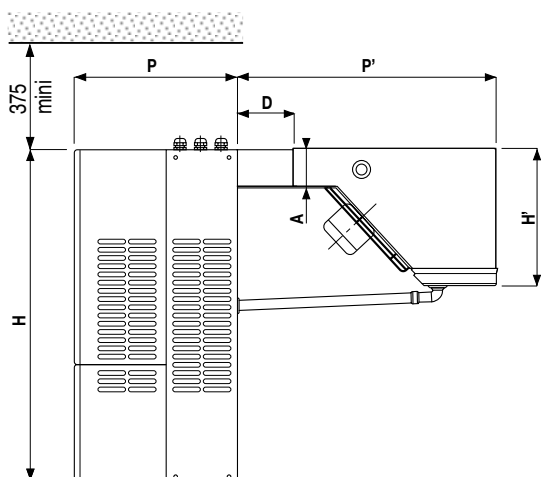
Chill range

Room temperature +4 °C - Outside temperature +32 °C								
	EUMOP	3A	5A	7A	10A	13A	21A	25A
Capacity R404A (1)	kW	1,04	1,28	1,63	2,21	2,72	3,72	4,53
Input power (1)	kW	0,62	0,72	0,97	1,10	1,35	1,53	1,90
Compressor	CV	3/8	1/2	7/8	1	1 3/8	1,8	2,3
Room volume (indication)	m ³	4	7	11	17	23	29	46
Max. input current	230V/1/50Hz+T	A	5,2	5,8	6,1	7,8	9,7	-
	400V/3+N/50Hz	A	-	-	-	-	-	5,9
Unit cooler air flow	m ³ /h	600	600	600	1160	1160	1700	2260

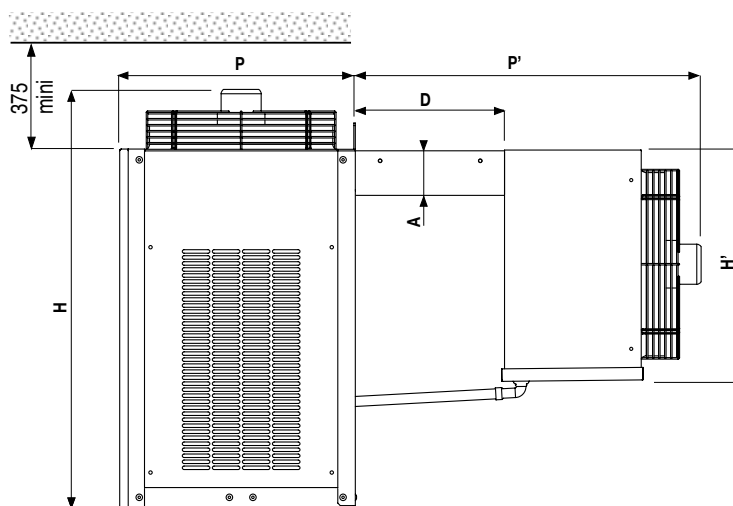
Room temperature 0 °C - Outside temperature +32 °C - D = Electric defrost								
	EUMOP	3AD	5AD	7AD	10AD	13AD	21AD	25AD
Capacity R404A (1)	kW	0,93	1,17	1,47	1,98	2,44	3,30	4,03
Input power (1)	kW	0,59	0,69	0,92	1,05	1,28	1,42	1,79
Compressor	CV	3/8	1/2	7/8	1	1 3/8	1,8	2,3
Room volume (indication)	m ³	3	5	8	12	17	20	26
Max. input current	230V/1/50Hz+T	A	5,2	5,8	6,1	7,8	9,7	-
	400V/3+N/50Hz	A	-	-	-	-	-	5,9
Unit cooler air flow	m ³ /h	600	600	600	1160	1160	1700	2260

	EUMOP	3A/AD	5A/AD	7A/AD	10A/AD	13A/AD	21A/AD	25A/AD	
Dimensions	H	mm	649	649	649	649	649	836	836
	H'	mm	278	278	278	278	278	462	462
	P	mm	320	320	320	320	320	472	472
	P'	mm	506	506	506	506	506	691	691
	L	mm	399	399	399	689	689	575	841
	A	mm	90	90	90	90	90	89	89
	B	mm	38	38	38	38	38	81	81
	C	mm	319	319	319	609	609	414	680
	D	mm	111	111	111	111	111	297	297
	Net weight	kg	46	48	52	65	71	85	100

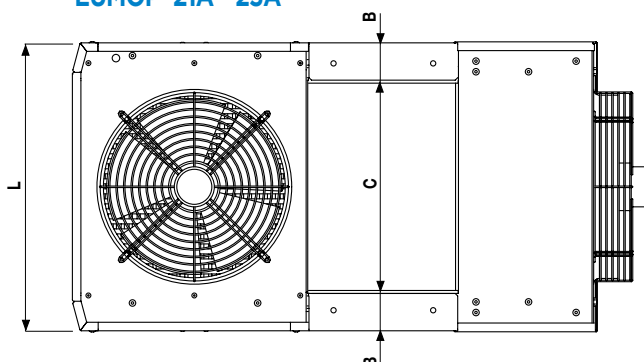
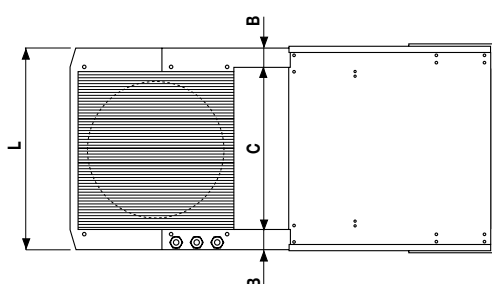
(1) Cooling capacity with : 10K superheat - 3K subcooling



EUMOP 3A - 5A - 7A - 10A - 13A



EUMOP 21A - 25A



EUMON

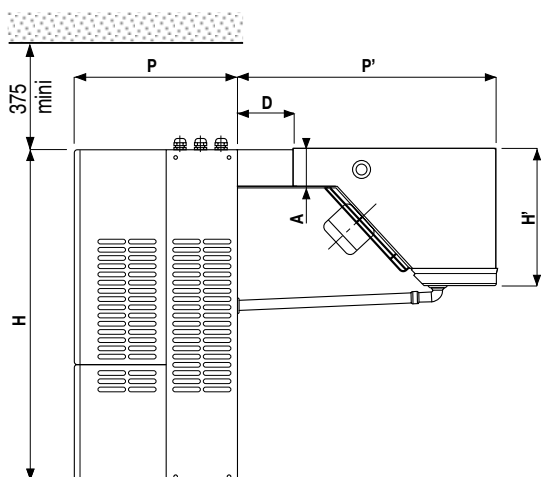
Low temperature range

Room temperature -20 °C - Outside temperature +32 °C						
	EUMON	8A	14A	20A	26A	36A
Capacity R404A (1)	kW	0,80	1,11	1,46	1,90	2,78
Input power (1)	kW	0,75	0,91	1,19	1,46	2,47
Compressor	CV	3/4	11/2	2	2,3	3,3
Room volume (indication)	m ³	5	9	15	27	54
Max. input current	230V/1/50Hz+T	A	5,2	7,2	9,0	-
	400V/3+N/50Hz	A	-	-	-	8,3
Unit cooler air flow	m ³ /h	600	1160	1160	1750	2240

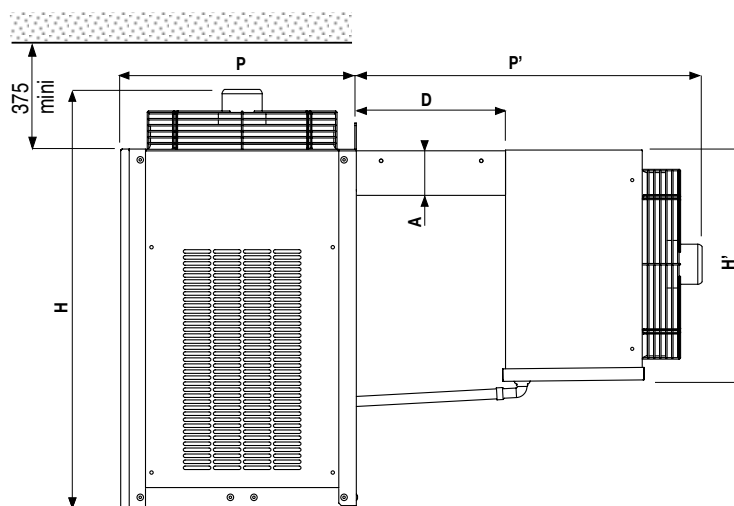
Room temperature -25 °C - Outside temperature +32 °C						
	EUMON	8A	14A	20A	26A	36A
Capacity R404A (1)	kW	0,68	0,92	1,23	1,59	2,36
Input power (1)	kW	0,69	0,83	1,09	1,30	2,23
Compressor	CV	3/4	11/2	2	2,3	3,3
Room volume (indication)	m ³	4	7	8,5	15	30
Max. input current	230V/1/50Hz+T	A	5,2	7,2	9,0	-
	400V/3+N/50Hz	A	-	-	-	8,3
Unit cooler air flow	m ³ /h	600	1160	1160	1750	2240

		EUMON	8A	14A	20A	26A	36A
Dimensions	H	mm	649	649	649	836	836
	H'	mm	278	278	278	462	462
	P	mm	320	320	320	472	472
	P'	mm	506	506	506	691	691
	L	mm	399	689	689	575	841
	A	mm	90	90	90	89	89
	B	mm	38	38	38	81	81
	C	mm	319	609	609	414	680
	D	mm	111	111	111	297	297
Net weight	kg	57	71	80	85	110	

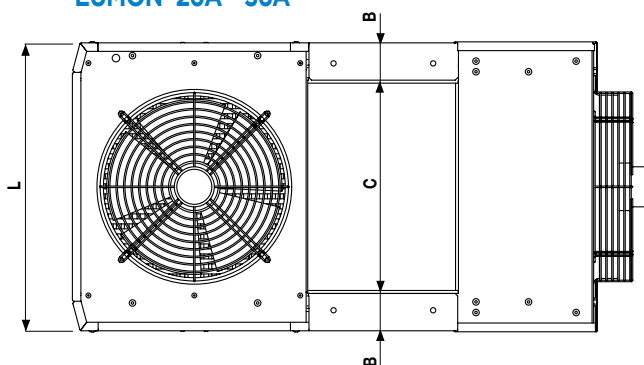
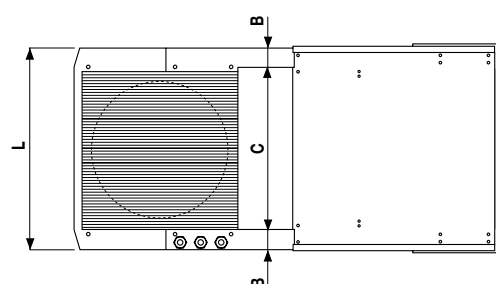
(1) Cooling capacity with : 10K superheat - 3K subcooling



EUMON 8A - 14A - 20A



EUMON 26A - 36A



SPLIT SYSTEM FOR WINE CELLAR

Bars / Restaurants
Corner shops - Mini-markets



HFC

1.3 > 3.5 kW

CLIMACAVE

- Ready-to-install refrigeration Split Systems suitable for wine cellar air conditioning: conservation at +12°C.
- Low-depth, ceiling-mounted unit cooler designed to control cellar hygrometry.



DESCRIPTION

Condensing unit

Casing

- Frame and casing made of pre-painted, sheet metal for outdoor floor or wall-mounted installation.

Condenser

- Copper/aluminium condenser coil with fan 230V/1 or 400V/3 - 1,500 rpm.

Switching cabinet

- Sealed IP 53 switching cabinet comprising: 1 switchboard to standard CEI 439-1 and APAVE approved, passage of electrical connections via packing glands, enclosure pre-wired with unit and unit cooler protection devices.

Other equipment

- Liquid line with dryer with accumulator and hygroscopic indicator.
- Operating valve with pressure tapping point (inlet/outlet on unit).
- Pre-filled with R404A.

Unit cooler

- Thick, recyclable ABS casing.
- Copper/aluminium coil, fins spaced at 4.23 mm and grooved tubes.
- Pre-fitted wide range expansion valve.
- Pre-filled with nitrogen.
- Wine cellar application with conservation at +12°C and controlled hygrometry.

Control

- Electronic control.
- Lighting control.
- Display and signalling of alarms.
- An additional programmable contact (door opening, trapped person safety...).

OPTIONS

Miscellaneous

- KHE** Magnetic port-hole lighting kit with door switch (not fitted).

CERTIFICATIONS



ADVANTAGES

Installation / Servicing / Maintenance

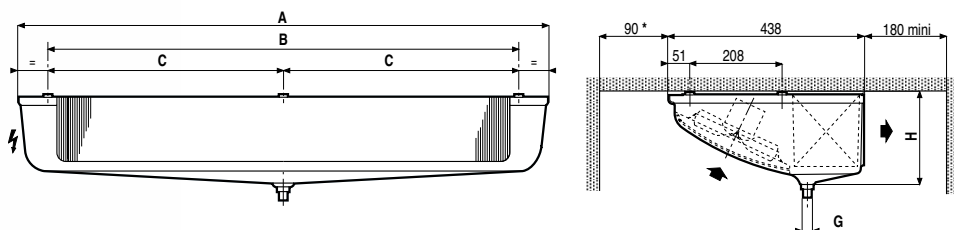
Ready-to-install units (operating valve, dryer, indicators, casing...) with user-friendly design offering easy access to components.

Compact and sturdy equipment for easy handling and installation in confined spaces.

Switching enclosure factory pre-wired and tested.

Unit cooler made of ASB with hinge-mounted casing, access to all internal components (coil, fan...) rendering setting and cleaning work easier.

Unit cooler dimensions



CLIMACAVE

$t_j = +12^\circ\text{C} - \text{DT1} = 12\text{K}$

Split system	+32°C	MIV ...	3 A	5 A	10 A	13 A
Capacity R404A (1)		kW	1,30	1,50	2,37	3,56
Input power (1)		kW	0,79	0,92	1,43	1,81

Condensing unit

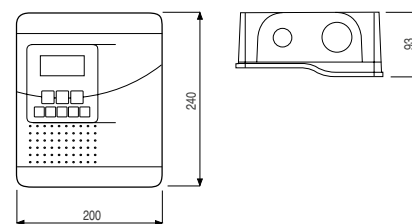
Compressor	CV	3/8	1/2	1	2.3	
Voltage	50Hz	230V/1+T	230V/1+T	230V/1+T	230V/1+T	
Air flow	m ³ /h	700	700	850	2500	
Input power	W max.	550	770	1290	1590	
Input current	A max.	5,0	5,6	6,8	9,0	
Dimensions	L	mm	790	790	790	790
	P	mm	352	352	352	460
	H	mm	370	370	370	570
	D	mm	600	600	600	750
Suction	Ø	3/8"	3/8"	1/2"	1/2"	
	Ø	1/4"	1/4"	1/4"	1/4"	
Net weight	kg	43	45	55	60	

Unit cooler

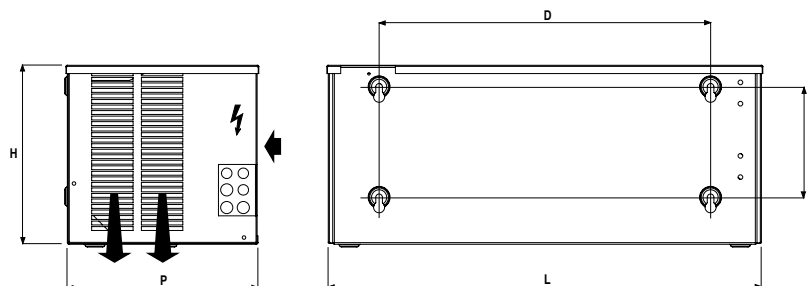
Nb x Ø	mm	2 x 200	2 x 200	3 x 200	4 x 200	
Air flow	m ³ /h	580	580	870	1160	
Input power	W max.	76	76	114	152	
Input current	A max.	0.48	0.48	0.72	0.96	
Dimensions	A	mm	784	784	1174	1504
	B	mm	596	596	-	-
	C	mm	-	-	493	658
	H	mm	227	227	227	209
	G	Ø	Ø 32	Ø 32	Ø 32	1" G
Net weight	kg	9.5	9.5	15.0	20.0	

(1) 10K superheating - 3K subcooling

Control unit dimensions



Condensing unit dimensions



CONDENSING UNIT AND SPLIT SYSTEM COMMERCIAL RANGE

Bars / Restaurants
Corner shops - Mini-markets



HFC

0.5 > 4.8 kW

MINI / MINIFJORD

MINI range

- This encased air condensing unit comprises 9 models:
 - 6 to meet chill application requirements.
 - 3 to meet low temperature application requirements.

MINIFJORD range

- The “ready-to-install” Split System model is proposed with various unit cooler types according to application requirements:
 - ceiling units (MF and MR),
 - and cubic units (3C-A).
- It covers the refrigeration requirements of cold rooms up to 35 m³.



CONDENSING UNIT

Casing

- Frame and casing made of pre-painted, sheet metal for outdoor floor or wall-mounted installation.

Compressor

- The MINI condensing unit is equipped with a hermetic compressor.

Condenser

- Copper/aluminium condenser coil with fan 230V/1 or 400V/3 - 1,500 rpm.

Switching cabinet

- Sealed IP 53 switching cabinet comprising: 1 switchboard to standard CEI 439-1 and APAVE approved, passage of electrical connections via packing glands.
- Cabinet wiring with unit and unit cooler protection devices.
- Isolator switch and solenoid valve as standard for models MIF P 25A and MIF N 26A (optional for other models).

Other equipment

- HP safety is provided with an automatic-reset cartridge pressure switched.
- Liquid line with dryer with accumulator and hygroscopic indicator.
- System pump-down with LP pressure switch and solenoid valve on MIF P 25A and MIF N 26A (optional for other models).
- Operating valve with pressure tapping point (inlet/outlet on unit).

DESIGNATION

MIB⁽¹⁾ **P**⁽²⁾ **5A**⁽³⁾

MI⁽¹⁾ **P**⁽²⁾ **3 A**⁽³⁾ / **MF 3**⁽⁴⁾

(1) Condensing units / Split systems

(2) **P** = Chill range - **N** = Low temperature range

(3) Model

(4) Unit cooler

ADVANTAGES

Installation / Servicing / Maintenance

"Turnkey" units (operating valve, dryer, indicators, casing...) with user-friendly design offering easy access to components.

Compact and sturdy equipment for easy handling and installation in confined spaces.

Switching box factory pre-wired and tested.

CERTIFICATIONS



SPLIT SYSTEM

- The unit is pre-filled with refrigerant R404A.

Unit coolers

- Extremely thick, recyclable ABS casing (up to models MIF P 13A and N 14A).
- Other models made of white enamelled sheet steel.
- Copper/aluminium coil, fins spaced at 4.23 mm and grooved tubes.
- Pre-fitted wide range expansion valve.
- Defrost heater and sensor (S2), end of defrost for low temperature models.
- Pre-filled with nitrogen.

Control

- Electronic control.
- Defrost control (air or electric).
- Lighting control.
- Display and signalling of alarms.
- An additional programmable contact (door opening, trapped person safety...).
- Forced operation incorporated for rapid cooling or deep-freezing.

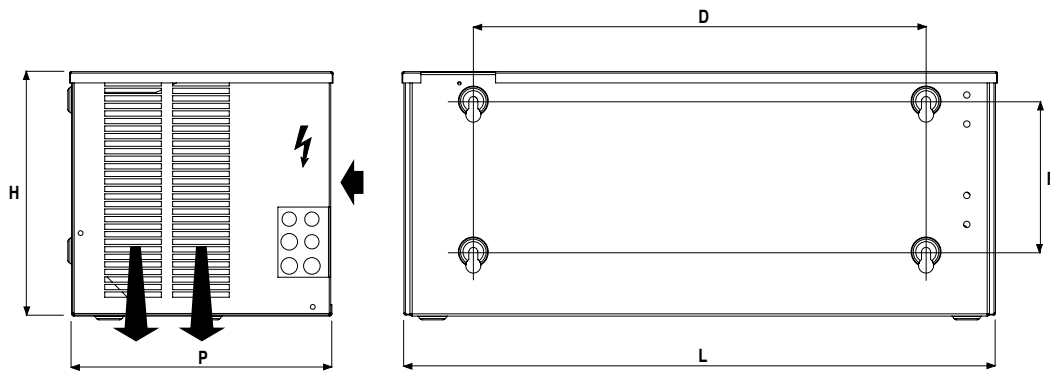
Application	MF	MR	3C-A
Application 1 Room temp. +4°C DTI = 6K	MF	MR	3C-A
Application 2 Room temp. 0°C DTI = 8K	MF + defrost EIK	MR + defrost EIK	3C-A + defrost EIK
Application 3 Room temp. -18°C DTI = 8K	-	MRE	3C-A
Application 4 Room temp. -25°C DTI = 6K	-	MRE	3C-A

Kit	Factory
	CAC
	CEV
RPC	RPE
	SEC
KHE	
KRE	
	ECC

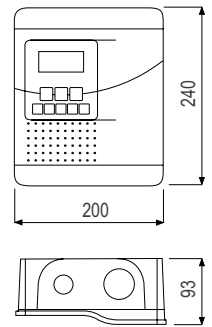
OPTIONS

- Additional casing strap.
- Water condenser + pressostatic valve for **MINI**.
- HP digital controller (not fitted).
- 2 litre receiver + LP pressure switch + solenoid valve (except P 25A - N 26A).
- 3 litre receiver (P 25A - N 26A only).
- Isolator switch.
- Magnetic port-hole lighting kit with door switch (not fitted).
- Drain line heater for **MINIFJORD** (not fitted).
- Crate packaging (for the condensing units).

CONDENSING UNIT DIMENSIONS

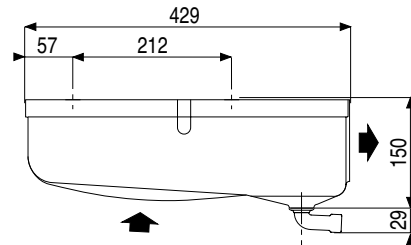
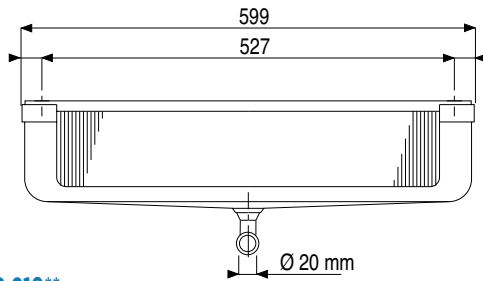


CONTROL UNIT DIMENSIONS

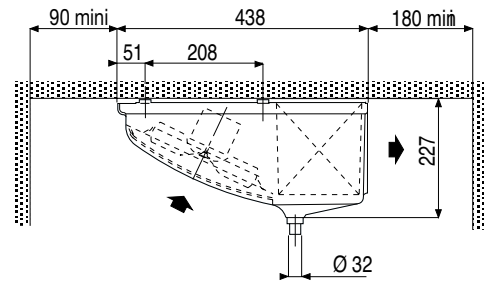
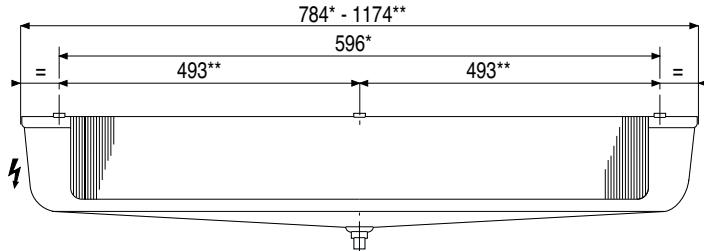


UNIT COOLER DIMENSIONS

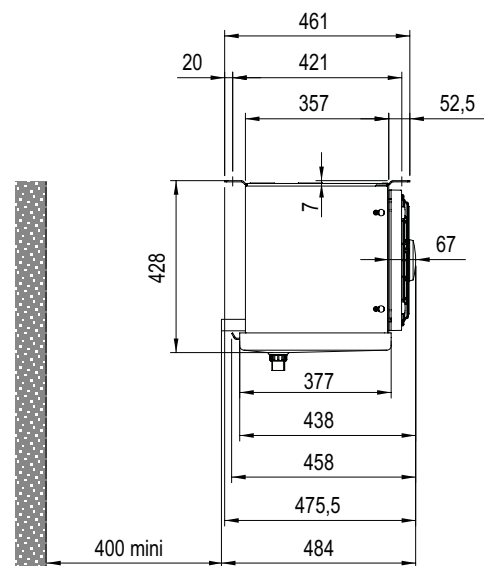
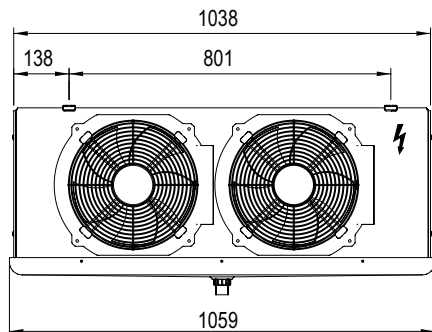
MF 3 - MF 4



MR 110* - MR 135* - MR 210** MRE 135* - MRE 210**



3CA 3243R 3CA 3243E



MINI - Condensing unit

Chill range

Condensing unit	MIB ...	P 3A	P 5A	P 7A	P 10A	P 13A	P 25A
Capacity R404A (1)	kW	0,90	1,05	1,44	1,59	2,03	3,53
Input power (1)	kW	0,62	0,73	1,01	1,11	1,37	2,06
Compressor	HP	3/8	1/2	3/4	1	1 1/4	2.3
Voltage	50Hz	230V/1+T	230V/1+T	230V/1+T	230V/1+T	230V/1+T	400V/3+N+T
Air flow	m³/h	350	350	700	700	850	2500
Max. input current	A	5,0	5,6	6,0	6,8	8,7	5,7
Dimensions	L	mm	790	790	790	790	890
	P	mm	352	352	352	352	460
	H	mm	370	370	370	370	570
	D	mm	600	600	600	600	770
	F	mm	200	200	200	200	350
Suction	Ø	3/8"	3/8"	1/2"	1/2"	1/2"	5/8"
Liquid	Ø	1/4"	1/4"	1/4"	1/4"	1/4"	3/8"
Net weight	kg	40	43	52	52	57	69

(1) Refrigeration capacity with: Evaporation temperature -10°C - Ambient temperature +32°C -10 K superheating - 3K subcooling.

MINIFJORD - Split system

t_j = +4°C - DT1 = 6K

Split system	+32°C	MIP ...	3 A	5 A	7 A	10 A	13 A	25 A
			MF 3	MF 4	MR 110	MR 135	MR 210	3CA 3243R
Capacity R404A (1)	kW	1,22	1,41	1,88	2,07	2,61	4,79	
Input power (1)	kW	0,77	0,90	1,25	1,38	1,74	2,70	
Room volume (2)	m³	3	6	9	14	22	35	

Condensing unit	MIB ...	P 3A	P 5A	P 7A	P 10A	P 13A	P 25A
Input power	W max.	540	770	1090	1230	1580	2540
Input current	A max.	5,0	5,6	6,0	6,8	8,7	5,7

Unit cooler		MF 3	MF 4	MR 110	MR 135	MR 210	3CA 3243R
Nb x Ø	mm	2 x 200	2 x 200	2 x 200	2 x 200	3 x 200	2 x 300
Air flow	m³/h	460	430	650	580	870	2950
Input power	W max.	76	76	76	76	114	144
Input current	A max.	0.66	0.66	0.48	0.48	0.72	0.64
Net weight	kg	8.3	8.6	7.5	9.5	15.0	28.0

MINIFJORD - Split system

t_j = 0°C - DT1 = 8K

Split system	+32°C	MIP ...	3 AD	5 AD	7 AD	10 AD	13 AD	25 AD
			MF 3	MF 4	MR 110	MR 135	MR 210	3CA 3243R
Capacity R404A (1)	kW	0,97	1,13	1,54	1,71	2,17	3,83	
Input power (1)	kW	0,71	0,83	1,12	1,23	1,55	2,44	
Room volume (2)	m³	2	4	7	9	17	30	

Condensing unit	MIB ...	P 3A	P 5A	P 7A	P 10A	P 13A	P 25A
Input power	W max.	490	680	980	1090	1410	2270
Input current	A max.	5,0	5,6	6,0	6,8	8,7	5,7

Unit cooler		MF 3	MF 4	MR 110	MR 135	MR 210	3CA 3243R
Nb x Ø	mm	2 x 200	2 x 200	2 x 200	2 x 200	3 x 200	2 x 300
Air flow	m³/h	460	430	650	580	870	2950
Input power	W max.	76	76	76	76	114	144
Input current	A max.	0.66	0.66	0.48	0.48	0.72	0.64
Electric defrost	+ EIK	W max.	330	330	440	730	1200
		A max.	1.44	1.44	2.0	3.3	5.5
Net weight	kg	8.3	8.6	7.5	9.5	15.0	28.0

(1) 10K superheating - 3K subcooling.

 (2) Room volume indicated for: Insulation 80 mm floor not insulated (positive) 150 mm insulated floor (negative).
 Introduction 20 kg/m³ per day at 20°C (positive) and -9°C (negative) - Operation = 18 h/day 32°C ext.

	CAC	CEV	RPC	RPE	SEC	KHE	KRE	ECC
MINI	0	0	0	0	0	0	-	0
MINIFJORD	0	-	0	0	0	0	0	0

MINI - Condensing unit

Low temperature range

Condensing unit	MIB ...	N 8A	N 14A	N 26A
Capacity R404A (1)	kW	0,50	0,67	1,40
Input power (1)	kW	0,64	0,79	1,48
Compressor	HP	3/4	1 1/2	2.3
Voltage	50Hz	230V/1+T	230V/1+T	400V/3+N+T
Air flow	m³/h	700	850	2000
Max. input current	A	5,0	6,2	5,5
Dimensions	L	mm	790	790
	P	mm	352	352
	H	mm	370	370
	D	mm	600	600
	F	mm	200	200
Suction	Ø	1/2"	1/2"	5/8"
Liquid	Ø	1/4"	1/4"	3/8"
Net weight	kg	52	57	65

(1) Refrigeration capacity with: Evaporation temperature -35°C - Ambient temperature +32°C -10 K superheating - 3K subcooling.

MINIFJORD - Split system

t_j = -18°C - DT1 = 8K

Split system	+32°C	MIN ...	8A MRE 135	14A MRE 210	26A 3CA 3243E
Capacity R404A (1)		kW	1,00	1,09	2,30
Input power (1)		kW	1,05	1,13	2,35
Room volume (2)		m³	8	16	33

Condensing unit	MIB ...	N 8A	N 14A	N 26A
Input power	W max.	960	1265	2180
Input current	A max.	5,0	6,2	5,5

Unit cooler		MRE 135	MRE 210	3CA 3243E
Nb x Ø	mm	2 x 200	3 x 200	2 x 300
Air flow	m³/h	580	870	3118
Input power	W max.	806	1314	144
Input current	A max.	3.78	6.22	0.64
Net weight	kg	9.5	15.0	28.0

MINIFJORD - Split system

t_j = -25°C - DT1 = 6K

Split system	+32°C	MIN ...	8A MRE 135	14A MRE 210	26A 3CA 3243E
Capacity R404A (1)		kW	0,78	0,83	1,74
Input power (1)		kW	0,96	0,99	2,00
Room volume (2)		m³	5	7	18

Condensing unit	MIB ...	N 8A	N 14A	N 26A
Input power	W max.	870	1080	1820
Input current	A max.	5,0	6,2	5,5

Unit cooler		MRE 135	MRE 210	3CA 3243E
Nb x Ø	mm	2 x 200	3 x 200	2 x 300
Air flow	m³/h	580	870	3118
Input power	W max.	806	1314	144
Input current	A max.	3.78	6.22	0.64
Net weight	kg	9.5	15.0	28.0

(1) 10K superheating - 3K subcooling.

(2) Room volume indicated for: Insulation 80 mm floor not insulated (positive) 150 mm insulated floor (negative).

 Introduction 20 kg/m³ per day at 20°C (positive) and -9°C (negative) - Operation = 18 h/day 32°C ext.

	CAC	CEV	RPC	RPE	SEC	KHE	KRE	ECC
MINI	0	0	0	0	0	0	-	0
MINIFJORD	0	-	0	0	0	0	0	0

CONDENSING UNIT AND SPLIT SYSTEM COMMERCIAL RANGE

Bars / Restaurants
Corner shops - Mini-markets



HFC

0.7 > 12.2 kW

VANGUARD

VANGUARD range

- This encased air condensing unit comprises 18 models:
 - 13 to meet chill application requirements,
 - 5 to meet low temperature application requirements.
- Coil using micro-channel technology:
 - made entirely of anti-corrosion treated and recyclable aluminium,
 - largely dimensioned for use at high outdoor temperatures.
 - with less internal refrigerant (30%).

SPLIT VANGUARD range

- The “ready-to-install” Split System model is proposed with various unit cooler types according to application requirements: ceiling unit (MR and MH), dual-discharge (TA), and cubic (3C-A).
- It covers the refrigeration requirements of cold rooms up to 170 m³.



VANGUARD is a "turnkey" encased condensing unit designed for outdoor use.

It may be used alone to supply refrigerated displays or cabinets or as a SPLIT VANGUARD system (with a fully fitted unit cooler + optimised control) for cold rooms or food preparation areas.

Furthermore, this "turnkey" unit also combines reliability and sturdiness with accessibility and silence. Indeed, all standard models in the VANGUARD range have a very low noise level. The power range is achieved with a small number of models, equipped with all elements required for system operation. This renders selection of a model much easier.

CONDENSING UNIT

Casing

- The casing is made of sheet steel, pre-painted in white, designed for outdoor use offering a high resistance to adverse weather conditions. For the size TB, the front and rear panels of the compressor compartment are made of sheet steel, pre-painted in black.

Compressor

- Two compressor technologies:
 - H: Hermetic piston up to 1 ½ HP chill and 1 ¼ HP low temperature.
 - Sc: Scroll. From 2 HP chill and 2 ½ HP low temperature.
- In the case of TB models, the compressor compartment is noise insulated to reduce the unit noise level.



Condenser

- The main innovative aspect of the VANGUARD condensing units resides in the use of new condenser coil technology. This aluminium, micro-channel coil technology has proven its value in the automobile sector and is now used for its numerous advantages in the refrigeration sector.
- Furthermore, the coils are largely dimensioned in order to function correctly at high ambient temperatures (+43°C).
- These coils offer greater efficiency than traditional coils (copper tubes/aluminium fins). They are much lighter and the reduced rack weight renders them easier to handle (less risk of damage or injury when installing the unit).
- Furthermore, they are extremely reliable and sturdy (high impact resistance) over a long period of time and offer an excellent corrosion resistance. An additional protection is provided with a special coating on the coils.
- As the coil is brazed in a single operation, the risk of leakage is considerably reduced and the quality inspections are stringent: 100% of the products are tested with helium.
- The coil is 100 % recyclable (a single metal) and the internal refrigerant volume is considerably reduced.
- Each model in the range is equipped with a single fan controlled with a voltage speed controller to help reduce system running noise at night.
- The three references of these fans (Ø 300 mm, Ø 400 mm Ø 600 mm) are all class F and index IP55.



Size TA

Size TB



Switching cabinet

- The switching box is made of ABS with protection rating IP66 and contains all protection and control components of the rack:
 - Protection of compressor against overloads and surge voltages.
 - Protection of fan against surge voltages.
 - Controller supply and cold station terminals.
 - Isolator switch.
 - A fault relay for three-phase models.

Other equipment

- Speed controller: All models are equipped with a speed controller to guarantee optimum control of the condensation pressure.
- Liquid receiver (2l, 3l, 5l) with shut-off valve at the receiver outlet.
- Liquid line with valve, dryer filter and hygroscopic indicator.
- LP pressure regulator and HP safety pressure switch.
- Casing heater.

CERTIFICATIONS





DESIGNATION

VG Sc P (1) (2) 051 (3) TA 2R8P (4)

(1) **H** = Hermetic compressor - **Sc** = Scroll compressor

(2) **P** = Chill range - **N** = Low temperature range

(3) Model

(4) Unit cooler

ADVANTAGES

Installation

Electrical components supplied complete and factory pre-wired for fast installation.

Reduced size, compact and sturdy for easy handling and installation in confined spaces.

Servicing / Maintenance

All sheet metal casing elements are easily removed and offer total access to all unit components.

Once the casing elements have been removed (side, front and rear panels for the size TB), the unit structure is self-supporting thus simplifying any work on the unit (refer to illustration at top of page).



SPLIT SYSTEM

The VANGUARD range is also proposed in a Split System model, with 6 standard pre-selected applications (4 at medium temperature and 2 at low temperature), each equipped with a unit cooler adapted to specific requirements (cubic, ceiling unit, dual-discharge...).

Unit coolers

- Dual-discharge, or cubic ceiling-mounted unit coolers (low nose) according to the applications, with factory-fitted expansion and solenoid valves.

- The maximum distance between the condensing unit and the unit cooler is 20 m.

For further details, refer to our commercial unit coolers documentation.



Application 1 Room temp. +8°C DT1 = 10 K	MR	-	TA	-
Application 2 Room temp. +6°C DT1 = 6 K	MR	MH	-	3C-A
Application 3 Room temp. +2°C DT1 = 8 K	MR	MH	-	3C-A
Application 4 Room temp. 0°C DT1 = 8 K	MR + defrost EIU	-	-	3C-A + defrost EIU
Application 5 Room temp. -20°C DT1 = 7 K	MRE	-	-	3C-A
Application 6 Room temp. -25°C DT1 = 6 K	MRE	-	-	3C-A



Control

- Electronic control.
- Defrost control (air or electrical).
- Lighting control.
- Display and signalling of alarms.
- An additional programmable contact (door opening, trapped person safety...).
- Forced operation incorporated for rapid cooling or deep-freezing.

VANGUARD - Condensing unit

Chill temperature

Condensing unit	VG ...	HP 012	HP 014	HP 017	HP 020	HP 024	HP 030	HP 038	ScP 043	ScP 050	ScP 065	ScP 075	ScP 086	ScP 103	
Compressor power	HP	3/8	1/2	5/8	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	
Voltage	50Hz	230V/1	230V/1	230V/1	230V/1	230V/1	230V/1	230V/1	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	
Capacity R404A (1)	kW	1,18	1,40	1,68	1,98	2,30	2,99	3,82	4,23	5,03	6,56	7,46	8,65	10,32	
Input power (1)	kW	0,65	0,76	0,95	1,05	1,15	1,41	1,99	1,79	2,20	2,63	3,07	3,51	4,53	
Input current	A max.	5,0	5,6	6,6	6,0	6,8	8,7	12,9	4,6	5,6	9,8	10,7	12,5	14,5	
Acoustic (1) (2)	Lp at 10m	dB(A)	35	36	38	39	40	38	37	37	40	40	41	42	
Ventilation	230V/1/50Hz	mm	1x 300	1x 300	1x 300	1x 300	1x 300	1x 300	1x 400	1x 400	1x 400	1x 560	1x 560	1x 560	
Liquid capacity	l.	2	2	2	2	2	2	2	3	3	3	5	5	5	
Connections	Suction	Ø	3/8"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"	7/8"	7/8"	7/8"	7/8"	1"1/8"
	Liquid	Ø	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"
Casing	Size	TA	TA	TA	TA	TA	TB	TB	TB	TB	TB	TB	TB	TB	
Net weight	kg	100	100	100	100	100	150	150	150	160	170	170	180	180	

(1) Evaporation temperature -5°C - Ambient temperature +32°C - Superheating: 10K - Subcooling: 3K.

(2) Sound pressure in dB(A) measured at 10 m, line of sight in a reflective surface, in accordance with pre-standard EN 13487 (parallelepiped reference surface).

SPLIT VANGUARD - Split system

t_j = +8°C - DT1 = 10 K

Split system	+32°C	VG...	HP 012	HP 014	HP 017	HP 020	HP 024	HP 030	HP 038	ScP 043	ScP 050	ScP 065	ScP 075	ScP 086	ScP 103	
			MR	MR	MR	MR	MR	MR	TA	TA	TA	TA	TA	TA	TA	TA
			100L	110R	135R	160R	180R	210R	1R6P	2R8P	2R6P	3R6P	4R6P	5R8P	5R6P	
Capacity R404A (1)	kW	1,33	1,57	1,88	2,21	2,57	3,34	4,24	4,71	5,57	7,30	8,30	9,62	11,44		
Input power (1)	kW	0,75	0,87	1,07	1,21	1,32	1,59	2,19	1,94	2,42	2,95	3,38	3,86	5,00		
Room volume (indication)	m ³	12	14	17	20	24	32	42	48	58	81	96	116	146		

Unit cooler		MR 100L	MR 110R	MR 135R	MR 160R	MR 180R	MR 210R	TA 1R6P	TA 2R8P	TA 2R6P	TA 3R6P	TA 4R6P	TA 5R8P	TA 5R6P	
Surface	m ²	2,5	3,7	6,1	8,0	8,0	10,1	15,2	15,2	15,2	22,8	30,4	34,3	34,3	
Circuit volume	dm ³	0,63	0,63	1,05	1,1	1,4	1,7	2,2	2,2	2,2	3,4	4,5	5,0	5,0	
Air flow	m ³ /h	660	650	580	880	880	870	1310	2100	2910	2750	2615	2975	4125	
	m	3,7	3,7	3,5	4,1	4,1	4,0	2x 7,0	2x 6,0	2x 7,0	2x 7,0	2x 7,0	2x 5,0	2x 7,0	
Fan	Nb x Ø	2x 200	2x 200	2x 200	3x 200	3x 200	3x 200	1x 350	2x 350	2x 350	2x 350	2x 350	3x 350	3x 350	
	Current	A max.	0,48 (230V/1)	0,48 (230V/1)	0,48 (230V/1)	0,72 (230V/1)	0,72 (230V/1)	0,72 (230V/1)	0,60 (230V/1)	0,80 (230V/1)	1,20 (230V/1)	1,20 (230V/1)	1,20 (230V/1)	1,20 (230V/1)	1,80 (230V/1)
Dimensions	L	mm	784	784	784	1174	1174	1174	872	1372	1372	1372	1372	1872	1872
	P	mm	438	438	438	438	438	438	800	800	800	800	800	800	
	H	mm	209	209	209	209	209	209	380,5	380,5	380,5	380,5	380,5	398	398

SPLIT VANGUARD - Split system

t_j = +6°C - DT1 = 6 K

Split system	+32°C	VG...	HP 012	HP 014	HP 017	HP 020	HP 024	HP 030	HP 038	ScP 043	ScP 050	ScP 065	ScP 075	ScP 086	ScP 103
			MR	MR	MR	MR	MH	MH	3CA	3CA	3CA	3CA	3CA	3CA	3CA
			160R	180R	210R	270R	320R	380R	3245R	3343R	3344R	3354R	3444R	4263R	4264R
Capacity R404A (1)	kW	1,43	1,69	2,03	2,37	2,75	3,59	4,53	5,04	5,94	7,83	8,90	10,29	12,21	
Input power (1)	kW	0,81	0,92	1,13	1,28	1,48	1,75	2,53	2,16	2,69	3,21	3,66	4,40	5,49	
Room volume (indication)	m ³	17	20	24	28	33	44	56	63	75	102	117	138	169	

Unit cooler		MR 160R	MR 180R	MR 210R	MR 270R	MH 320R	MH 380R	3CA 3245R	3CA 3343R	3CA 3344R	3CA 3354R	3CA 3444R	3CA 4263R	3CA 4264R	
Surface	m ²	8,0	8,0	10,1	13,4	9,7	13,0	20,5	18,4	24,6	30,7	32,8	27,6	36,9	
Circuit volume	dm ³	1,1	1,4	1,7	2,3	1,7	2,2	3,2	2,9	3,9	4,8	5,2	4,4	5,8	
Air flow	m ³ /h	880	880	870	1160	2340	2230	2534	4425	4098	4506	5464	11738	10990	
	m	4,1	4,1	4,0	4,5	16,0	16,0	15,0	20,0	19,0	21,0	22,0	32,0	31,0	
Fan	Nb x Ø	3x 200	3x 200	3x 200	4x 200	2x 300	2x 300	2x 300	3x 300	3x 300	3x 300	4x 300	2x 450	2x 450	
	Current	A max.	0,72 (230V/1)	0,72 (230V/1)	0,72 (230V/1)	0,96 (230V/1)	1,54 (230V/1)	1,54 (230V/1)	0,64 (230V/1)	0,96 (230V/1)	0,96 (230V/1)	0,96 (230V/1)	1,28 (230V/1)	2 (230- 400V/3)	2 (230- 400V/3)
Dimensions	L	mm	1174	1174	1174	1504	1531	1531	1059	1554	1554	1854	1954	1598	1598
	P	mm	438	438	438	438	607	607	428	428	428	428	428	632	632
	H	mm	209	209	209	209	228	228	438	438	438	438	438	537	537

(1) Superheating: 10K - Subcooling: 3K.

(2) Sound pressure in dB(A) measured at 10 m, line of sight in a reflective surface, in accordance with pre-standard EN 13487 (parallelepiped reference surface).

VANGUARD - Condensing unit

Chill temperature

Condensing unit	VG ...	HP 012	HP 014	HP 017	HP 020	HP 024	HP 030	HP 038	ScP 043	ScP 050	ScP 065	ScP 075	ScP 086	ScP 103
Compressor power	HP	3/8	1/2	5/8	3/4	1	11/4	11/2	2	2 1/2	3	4	5	6
Voltage	50Hz	230V/1	230V/1	230V/1	230V/1	230V/1	230V/1	230V/1	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3
Capacity R404A (1)	kW	1,18	1,40	1,68	1,98	2,30	2,99	3,82	4,23	5,03	6,56	7,46	8,65	10,32
Input power (1)	kW	0,65	0,76	0,95	1,05	1,15	1,41	1,99	1,79	2,20	2,63	3,07	3,51	4,53
Input current	A max.	5,0	5,6	6,6	6,0	6,8	8,7	12,9	4,6	5,6	9,8	10,7	12,5	14,5
Acoustic (1) (2)	Lp at 10m	dB(A)	35	36	38	39	40	38	37	37	40	40	41	42
Ventilation	230V/1/50Hz	mm	1x 300	1x 300	1x 300	1x 300	1x 300	1x 300	1x 400	1x 400	1x 400	1x 560	1x 560	1x 560
Liquid capacity	l.	2	2	2	2	2	2	2	3	3	3	5	5	5
Connections	Suction	Ø	3/8"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"	7/8"	7/8"	7/8"	7/8"
	Liquid	Ø	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"
Casing	Size	TA	TA	TA	TA	TA	TB	TB	TB	TB	TB	TB	TB	TB
Net weight	kg	100	100	100	100	100	150	150	150	160	170	170	180	180

(1) Evaporation temperature -5°C - Ambient temperature +32°C - Superheating: 10K - Subcooling: 3K.

(2) Sound pressure in dB(A) measured at 10 m, line of sight in a reflective surface, in accordance with pre-standard EN 13487 (parallelepiped reference surface).

SPLIT VANGUARD - Split system

 $t_j = +2^\circ\text{C} - \text{DT1} = 8\text{ K}$

Split system	+32°C	VG...	HP 012	HP 014	HP 017	HP 020	HP 024	HP 030	HP 038	ScP 043	ScP 050	ScP 065	ScP 075	ScP 086	ScP 103	
			MR	MR	MR	MR	MR	MR	MH	3CA	3CA	3CA	3CA	3CA	3CA	3CA
			110R	135R	160R	180R	210R	270R	380R	3243R	3245R	3343R	3344R	3354R	3444R	
Capacity R404A (1)	kW	1,13	1,35	1,62	1,91	2,22	2,88	3,69	4,08	4,86	6,33	7,19	8,34	9,98		
Input power (1)	kW	0,72	0,83	1,05	1,15	1,25	1,54	2,19	2,03	2,54	3,17	3,61	4,04	5,05		
Room volume (indication)	m ³	10	12	14	17	19	25	33	36	43	57	65	77	93		

Unit cooler		MR 110R	MR 135R	MR 160R	MR 180R	MR 210R	MR 270R	MH 380R	3CA 3243R	3CA 3245R	3CA 3343R	3CA 3344R	3CA 3354R	3CA 3444R	
Surface	m ²	3,7	6,1	8,0	8,0	10,1	13,4	13,0	12,3	20,5	18,4	24,6	30,7	32,8	
Circuit volume	dm ³	0,6	1,1	1,1	1,4	1,7	2,3	2,2	1,9	3,2	2,9	3,9	4,8	5,2	
Fan	Air flow	m ³ /h	650	580	880	880	870	1160	2230	2950	2534	4425	4098	4506	5464
	Air throw	m	3,7	3,5	4,1	4,1	4,0	4,5	16,0	17,0	15,0	20,0	19,0	21,0	22,0
	Nb x Ø	mm	2x 200	2x 200	3x 200	3x 200	3x 200	4x 200	2x 300	2x 300	2x 300	3x 300	3x 300	3x 300	4x 300
	Current	A max.	0,48 (230V/1)	0,48 (230V/1)	0,72 (230V/1)	0,72 (230V/1)	0,72 (230V/1)	0,96 (230V/1)	1,54 (230V/1)	0,64 (230V/1)	0,64 (230V/1)	0,96 (230V/1)	0,96 (230V/1)	0,96 (230V/1)	1,28 (230V/1)
Dimensions	L	mm	784	784	1174	1174	1174	1504	1531	1059	1059	1554	1554	1854	1954
	P	mm	438	438	438	438	438	438	607	428	428	428	428	428	428
	H	mm	209	209	209	209	209	209	228	438	438	438	438	438	438

SPLIT VANGUARD - Split system

 $t_j = 0^\circ\text{C} - \text{DT1} = 8\text{ K}$

Split system	+32°C	VG...	HP 012	HP 014	HP 017	HP 020	HP 024	HP 030	HP 038	ScP 043	ScP 050	ScP 065	ScP 075	ScP 086	ScP 103
			MR	MR	MR	MR	MR	MR	3CA	3CA	3CA	3CA	3CA	3CA	3CA
			110R	135R	160R	180R	210R	270R	3165R	3243R	3245R	3343R	3344R	3354R	3444R
Capacity R404A (1)	kW	1,05	1,24	1,50	1,77	2,05	2,67	3,43	3,78	4,53	5,87	6,68	7,75	9,31	
Input power (1)	kW	0,71	0,85	1,03	1,12	1,25	1,57	2,24	2,15	2,63	3,16	3,59	4,02	5,28	
Room volume (indication)	m ³	8	9	12	14	16	21	28	31	38	50	58	69	86	

Unit cooler + EIU		MR 110R	MR 135R	MR 160R	MR 180R	MR 210R	MR 270R	3CA 3165R	3CA 3243R	3CA 3245R	3CA 3343R	3CA 3344R	3CA 3354R	3CA 3444R	
Surface	m ²	3,7	6,1	8,0	8,0	10,1	13,4	15,4	12,3	20,5	18,4	24,6	30,7	32,8	
Circuit volume	dm ³	0,6	1,1	1,1	1,4	1,7	2,3	2,4	1,9	3,2	2,9	3,9	4,8	5,2	
Fan	Air flow	m ³ /h	650	580	880	880	870	1160	1527	2950	2534	4425	4098	4506	5464
	Air throw	m	3,7	3,5	4,1	4,1	4,0	4,5	15,0	17,0	15,0	20,0	19,0	21,0	22,0
	Nb x Ø	mm	2x 200	2x 200	3x 200	3x 200	3x 200	4x 200	1x 300	2x 300	2x 300	3x 300	3x 300	3x 300	4x 300
	Current	A max.	0,48 (230V/1)	0,48 (230V/1)	0,72 (230V/1)	0,72 (230V/1)	0,72 (230V/1)	0,96 (230V/1)	0,32 (230V/1)	0,64 (230V/1)	0,64 (230V/1)	0,96 (230V/1)	0,96 (230V/1)	0,96 (230V/1)	1,28 (230V/1)
Dimensions	L	mm	784	784	1174	1174	1174	1504	859	1059	1059	1554	1554	1854	1954
	P	mm	438	438	438	438	438	438	428	428	428	428	428	428	428
	H	mm	209	209	209	209	209	209	438	438	438	438	438	438	438

(1) Superheating: 10K - Subcooling: 3K.

(2) Sound pressure in dB(A) measured at 10 m, line of sight in a reflective surface, in accordance with pre-standard EN 13487 (parallelepiped reference surface).

VANGUARD - Condensing unit

Low temperature range

Condensing unit	VG ...	HN 008	HN 013	ScN 022	ScN 027	ScN 031	
Compressor power	HP	3/4	1 1/4	2 1/2	3	4	
Voltage	50Hz	230V/1	230V/1	400V/3	400V/3	400V/3	
Capacity R404A (1)	kW	0,71	1,24	2,21	2,72	3,06	
Input power (1)	kW	0,71	1,18	1,96	2,4	2,65	
Input current	A max.	5,0	7,9	6,1	6,9	7,1	
Acoustic (1) (2)	Lp at 10m	dB(A)	34	38	38	40	41
Ventilation	230V/1/50Hz	mm	1 x 300	1 x 300	1 x 400	1 x 400	1 x 400
Liquid capacity	l.	2	2	2	5	5	
Connections	Suction	Ø	1/2"	1/2"	7/8"	7/8"	7/8"
	Liquid	Ø	3/8"	3/8"	3/8"	3/8"	3/8"
Casing	Size	TA	TA	TB	TB	TB	
Net weight	kg	100	100	150	160	170	

(1) Evaporation temperature -30°C - Ambient temperature +32°C - Superheating: 10K - Subcooling: 3K.

(2) Sound pressure in dB(A) measured at 10 m, line of sight in a reflective surface, in accordance with pre-standard EN 13487 (parallelepiped reference surface).

SPLIT VANGUARD - Split system

t_i = -20°C - DT1 = 7 K

Split system	+32°C	VG...	HN 008	HN 013	ScN 022	ScN 027	ScN 031
			MRE 120C	MRE 190C	3CA 3243C	3CA 3244C	3CA 3343C
Capacity R404A (1)		kW	0,82	1,44	2,52	3,08	3,48
Input power (1)		kW	0,84	1,39	2,35	2,80	3,20
Room volume (indication)		m ³	9	18	36	46	54

Unit cooler		MRE 120C	MRE 190C	3CA 3243C	3CA 3244C	3CA 3343C	
Surface	m ²	4,2	7,0	8,5	11,3	12,7	
Circuit volume	dm ³	1,1	1,7	1,9	2,6	2,9	
Fan	Air flow	m ³ /h	620	930	3118	2936	4677
	Air throw	m	3,5	4,0	18,0	17,0	21,0
	Nb x Ø	mm	2x 200	3x 200	2x 300	2x 300	3x 300
	Current	A max.	0,48 (230V/1)	0,72 (230V/1)	0,64 (230V/1)	0,64 (230V/1)	0,96 (230V/1)
Dimensions	L	mm	1174	1504	1059	1059	1554
	P	mm	438	438	428	428	428
	H	mm	209	209	438	438	438

SPLIT VANGUARD - Split system

t_i = -25°C - DT1 = 6 K

Split system	+32°C	VG...	HN 008	HN 013	ScN 022	ScN 027	ScN 031
			MRE 120C	MRE 190C	3CA 3243C	3CA 3244C	3CA 3343C
Capacity R404A (1)		kW	0,67	1,18	2,12	2,61	2,93
Input power (1)		kW	0,77	1,27	2,30	2,73	3,09
Room volume (indication)		m ³	8	14	29	37	43

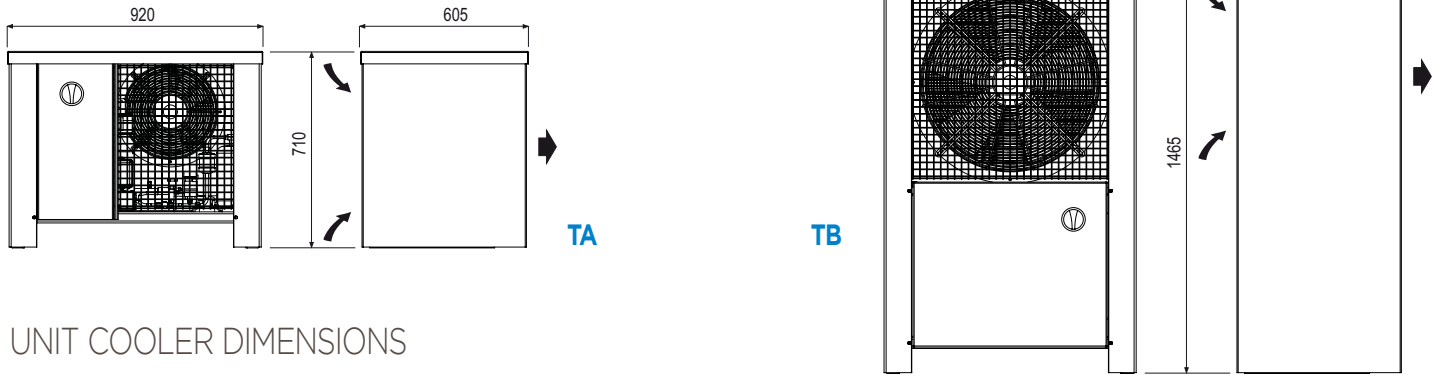
Unit cooler		MRE 120C	MRE 190C	3CA 3243C	3CA 3244C	3CA 3343C	
Surface	m ²	4,2	7,0	8,5	11,3	12,7	
Circuit volume	dm ³	1,1	1,7	1,9	2,6	2,9	
Fan	Air flow	m ³ /h	620	930	3118	2936	4677
	Air throw	m	3,5	4,0	18,0	17,0	21,0
	Nb x Ø	mm	2x 200	3x 200	2x 300	2x 300	3x 300
	Current	A max.	0,48 (230V/1)	0,72 (230V/1)	0,64 (230V/1)	0,64 (230V/1)	0,96 (230V/1)
Dimensions	L	mm	1174	1504	1059	1059	1554
	P	mm	438	438	428	428	428
	H	mm	209	209	438	438	438

(1) Superheating: 10K - Subcooling: 3K.

(2) Sound pressure in dB(A) measured at 10 m, line of sight in a reflective surface, in accordance with pre-standard EN 13487 (parallelepiped reference surface).

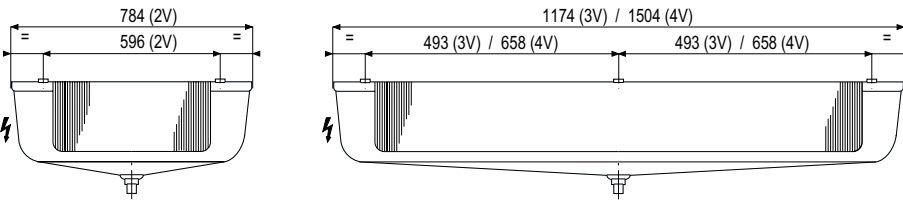
VANGUARD / SPLIT VANGUARD - Condensing unit / Split system

CONDENSING UNIT DIMENSIONS

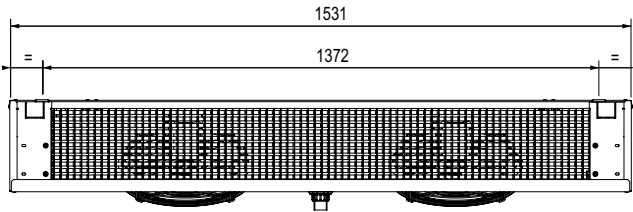


UNIT COOLER DIMENSIONS

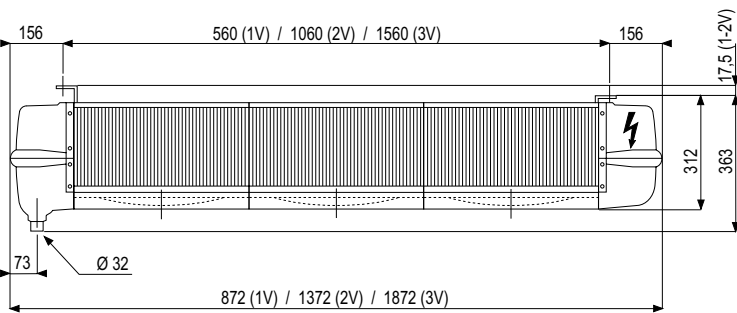
MR



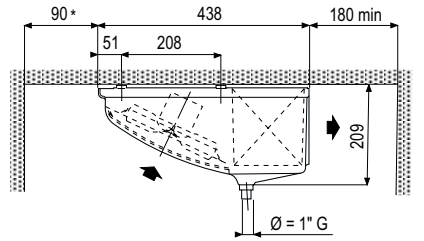
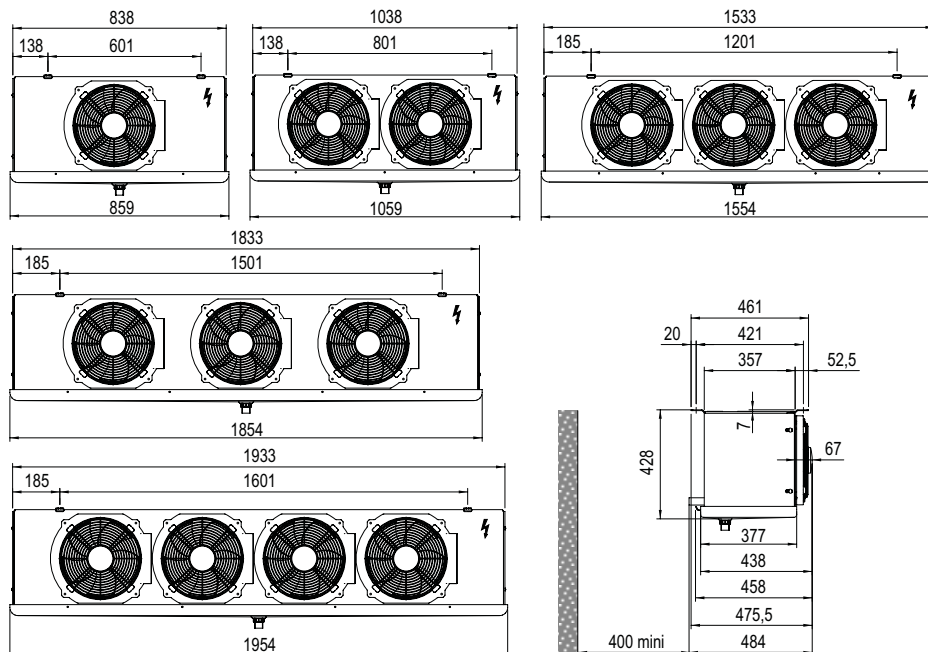
MH



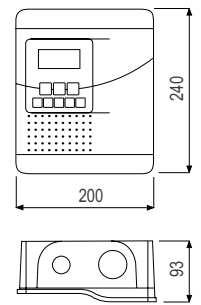
TA



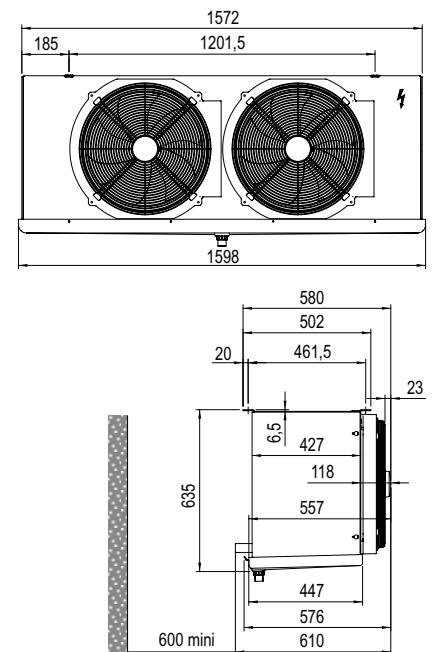
3C-A (Ø 300 mm)



CONTROL UNIT DIMENSIONS



3C-A (Ø 450 mm)



CONDENSING UNIT AND SPLIT SYSTEM COMMERCIAL RANGE

Bars / Restaurants
Corner shops - Mini-markets



HFC

1.4 > 22.5 kW

MAXI / MAXIBOREAL

MAXI range

- This encased air condensing unit model:
 - three compressor technologies,
 - a low noise model,
 - an oversized condenser model for hot climates.

MAXIBOREAL range

- The Split System model is proposed with various unit cooler types according to application requirements:
 - dual-discharge (TA),
 - cubic (3C-A).
- It covers the refrigeration requirements of cold rooms up to 400 m³.

MAXIBOREAL is a split system specifically designed to provide maximum comfort: Access to all components, low noise level option, oversized coil for hot climates.

Perfect control of the manufacturing process and numerous factory inspections guarantee optimum operation.

The 5 pre-selected applications are the following:

- Dual-discharge unit cooler = chambers at +8°C / DT 10 K.
- Cubic unit coolers = chambers at +6°C / DT 6 K, +2°C / DT 8 K, 0°C / DT 8 K and -20°C / DT 7 K.

The fin spacing and defrost mode is different for each application.

Select for each model:

- The compressor technology:
 - SH (semi-hermetic piston),
 - or Sc (Scroll).
- The condenser:
 - standard
 - or S (oversized) for high ambient temperatures up to +43 °C.
- The noise level:
 - standard
 - or LN (low noise).

DESIGNATION

MAXI⁽¹⁾ **SH**⁽²⁾ **P**⁽³⁾ **66**⁽⁴⁾ **A**⁽⁵⁾

MAXIBOREAL⁽¹⁾

SH⁽²⁾ **P**⁽³⁾ **66**⁽⁴⁾ **A**⁽⁵⁾ /

T7R6P⁽⁶⁾

- (1) Condensing units / Split systems
 (2) **SH** = Semi-hermetic compressor
 Sc = Scroll compressor
 (3) **P** = Chill range - **N** = Low temperature range
 (4) Model
 (5) **A** = Standard
 AS = Oversized
 ALN = Low noise level
 (6) Unit cooler



CONDENSING UNIT

Casing

- This unit is specifically designed for outdoor installation with its pre-painted sheet metal protection casing.

Compressor

- A choice of semi-hermetic compressor or Scroll compressor. The following are supplied in all cases: suction and delivery valves, casing heater and oil level indicator.

Condenser

- 1 to 4 fans according to the models with various rotation speeds depending on the option retained.

Switching cabinet

- The switching enclosure is totally incorporated into the casing and the main isolator switch is protected in a corner case to prevent damage during transport.

Other equipment

- The receiver is supplied with a delivery valve. The liquid line comprises as standard a dryer filter, a hygroscopic indicator and an operating valve.
- LP control is provided with an adjustable pressure switch.
- HP safety is provided with an automatic-reset cartridge pressure switched.

ADVANTAGES

Installation

Particularly suitable in case of noise restrictions, the ALN model may be installed in an urban environment.

The oversized condenser of the AS model enables installation in zones with high ambient temperatures.

Electrical components supplied complete and factory pre-wired for fast installation.

Servicing / Maintenance

All sheet metal casing elements (side panels, flaps) are easily removed and offer total access to all unit components.

SPLIT SYSTEM

- The unit is pre-filled with refrigerant R404A.

Unit coolers

- Dual-discharge, low noise or cubic unit cooler according to the applications, with factory-fitted expansion and solenoid valves.

For further details, refer to our commercial unit coolers documentation.

Control

- Electronic control.
- Defrost control (air or electric).
- Lighting control.
- Display and signalling of alarms.
- An additional programmable contact (door opening, trapped person safety...).
- Forced operation incorporated for rapid cooling or deep-freezing.

CERTIFICATIONS



Kit	Factory
CAC	Additional casing strap (Scroll).
PRG	Unit pre-filled with refrigerant (MAXI).
RPC	Control of condensation pressure (MAXI).
VFA	Valve + suction filter.
SPE	Wiring to terminal rail (without electric board) (MAXI).
GPC	Condenser protection guard.
ECC	Crate packaging (for the condensing units).

OPTIONS

Application 1 Room temperature +8°C DTI = 10 K	TA	-
Application 2 Room temperature +6°C DTI = 6 K	-	3C-A
Application 3 Room temperature +2°C DTI = 8 K	-	3C-A
Application 4 Room temperature +0°C DTI = 8 K	-	3C-A + defrost EIK
Application 5 Room temperature -20°C DTI = 7 K	-	3C-A



MAXI Chill range

Standard		MAXI SH	P23A	P26A	P33A	P41A	P53A	P66A	P83A	-
Capacity R404A (1)		kW	3,25	4,16	5,51	6,85	8,54	10,93	12,87	-
Input power (1)		kW	1,94	2,45	2,71	3,46	4,58	6,22	8,25	-
Input current	400V/3/50Hz	A max	5,15	7,00	7,80	10,20	13,20	15,20	19,86	-
Standard		MAXI Sc	P23A	P26A	P33A	P41A	P53A	P66A	P83A	P104A
Capacity R404A (1)		kW	3,10	4,06	5,05	6,92	8,20	10,00	11,36	16,34
Input power (1)		kW	2,00	2,32	2,62	3,68	4,73	5,78	8,26	10,21
Input current	400V/3/50Hz	A max	5,20	6,20	7,90	11,40	13,40	14,00	19,96	25,96
Fan	Nb x Ø	mm	1 x 355	1 x 355	2 x 355	2 x 355	2 x 355	2 x 500	2 x 500	2 x 500
		50 Hz	230V/1	230V/1	230V/1	230V/1	230V/1	400V/3	400V/3	400V/3
Air flow		m³/h	1380	2200	2640	4200	4200	9600	11540	10314
Rotation speed		rpm	1000	1500	1000	1500	1500	1000	1500	1500
Liquid volume		l.	3	3	5	5	5	11	11	11
Dimensions	L	mm	1190	1190	1350	1350	1350	1450	1450	1450
	P	mm	475	475	550	550	550	600	600	600
	H	mm	810	810	1060	1060	1060	1470	1470	1470
	A / B	mm	805	805	955	955	955	1049 / 617	1049 / 617	1049 / 617
Connections	Suction	Ø	5/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 3/8"	1 3/8"
	Liquid	Ø	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"
Net weight		kg	140	140	160	175	175	220	230	230

Oversized		MAXI SH	P23AS	P26AS	P33AS	P41AS	P53AS	P66AS	P83AS	-
Capacity R404A (1)		kW	2,85	3,55	4,74	5,47	7,51	8,91	11,09	-
Input power (1)		kW	2,16	2,55	3,08	3,66	6,30	7,47	8,55	-
Input current	400V/3/50Hz	A max	5,90	6,70	9,30	10,20	14,76	17,16	19,86	-

Oversized		MAXI Sc	P23AS	P26AS	P33AS	P41AS	P53AS	P66AS	P83AS	P104AS
Capacity R404A (1)		kW	2,63	3,54	4,41	5,61	7,27	8,29	9,85	13,98
Input power (1)		kW	2,48	2,62	3,29	4,48	6,82	7,68	9,18	11,33
Input current	400V/3/50Hz	A max	5,20	5,90	9,40	11,40	14,96	15,96	19,96	25,96
Fan	Nb x Ø	mm	1 x 355	2 x 355	2 x 355	2 x 355	2 x 500	2 x 500	2 x 500	2 x 500
		50 Hz	230V/1	230V/1	230V/1	230V/1	400V/3	400V/3	400V/3	400V/3
Air flow		m³/h	2200	2640	4200	4200	11540	11540	10314	12400
Rotation speed		rpm	1500	1000	1500	1500	1500	1500	1500	1500
Liquid volume		l.	3	3	5	5	5	11	11	11
Dimensions	L	mm	1190	1350	1350	1350	1450	1450	1450	1750
	P	mm	475	550	550	550	600	600	600	600
	H	mm	810	1060	1060	1060	1470	1470	1470	1470
	A / B	mm	805	955	955	955	1049 / 617	1049 / 617	1049 / 617	1349 / 800
Connections	Suction	Ø	5/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 3/8"	1 3/8"
	Liquid	Ø	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"
Net weight		kg	140	155	160	175	200	220	240	250

Low noise level		MAXI Sc	P23ALN	P26ALN	P33ALN	P41ALN	P53ALN	P66ALN	P83ALN	P104ALN
Capacity R404A (1)		kW	3,10	4,16	5,05	6,91	8,41	9,56	11,34	16,42
Input power (1)		kW	2,00	2,22	2,62	3,60	4,53	5,31	6,63	9,08
Input current	400V/3/50Hz	A max	5,50	5,80	7,90	9,84	11,84	12,84	17,80	26,80
Acoustic	LP at 10m (2)	dB(A)	24	24	34	36	36	37	35	42
Fan	Nb x Ø	mm	1 x 355	2 x 355	2 x 355	2 x 500	2 x 500	2 x 500	4 x 355	4 x 355
		50 Hz	230V/1	230V/1	230V/1	400V/3	400V/3	400V/3	230V/1	230V/1
Air flow		m³/h	1380	2060	2640	5116	4346	4346	5520	8800
Rotation speed		rpm	1000	750	1000	750	750	750	1000	1500
Liquid volume		l.	3	3	5	5	5	11	11	11
Dimensions	L	mm	1190	1350	1350	1450	1450	1450	1750	1750
	P	mm	475	550	550	600	600	600	600	600
	H	mm	810	1060	1060	1470	1470	1470	1470	1470
	A / B	mm	805	955	955	1049 / 617	1049 / 617	1049 / 617	1349 / 800	1349 / 800
Connections	Suction	Ø	5/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 3/8"	1 3/8"
	Liquid	Ø	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"
Net weight		kg	140	155	160	200	210	230	250	250

* **A** and **ALN**: Evaporation temperature -10°C / Ambient temperature +32°C - Superheating: 10K - Subcooling: 3K.

* **AS**: Evaporation temperature -10°C / Ambient temperature +42°C - Superheating: 10K - Subcooling: 3K.

(1) **SH**: Semi-hermetic compressor - **Sc**: Scroll compressor

(2) Sound pressure in dB(A) measured at 10 m, line of sight in a reflective surface, in accordance with pre-standard EN 13487 (parallelepiped reference surface).

(3) Motor Ø 355: 230V/1/50 Hz - Motor Ø 500: 400V/3/50 Hz

CAC*	PRG	RPC	VFA	SPE	GPC	ECC
0	0	0	0	0	0	0

MAXI Low temperature range

Standard		MAXI SH	N24A	N34A	N42A	N73A	-
Capacity R404A (1)		kW	1,76	2,47	3,18	4,48	-
Input power (1)		kW	1,68	2,48	2,97	4,33	-
Input current	400V/3/50Hz	A max	7,35	10,40	11,60	18,30	-
Standard		MAXI Sc	-	N34A	N42A	N73A	N84A
Capacity R404A (1)		kW	-	1,76	3,00	4,45	6,14
Input power (1)		kW	-	2,00	3,08	5,14	7,09
Input current	400V/3/50Hz	A max	-	8,20	11,90	19,40	25,00
Fan	Nb x Ø	mm	1 x 355	1 x 355	2 x 355	2 x 355	2 x 500
		50 Hz	230V/1	230V/1	230V/1	230V/1	400V/3
Air flow		m³/h	1380	2200	2640	4200	9600
Rotation speed		rpm	1000	1500	1000	1500	1000
Liquid volume		l.	5	5	5	5	5
Dimensions	L	mm	1190	1190	1350	1350	1450
	P	mm	475	475	550	550	600
	H	mm	810	810	1060	1060	1470
	A / B	mm	805	805	955	955	1049 / 617
Connections	Suction	Ø	7/8"	7/8"	1 1/8"	1 1/8"	1 3/8"
	Liquid	Ø	3/8"	3/8"	3/8"	1/2"	1/2"
Net weight		kg	140	140	175	175	230

Oversized		MAXI SH	N24AS	N34AS	N42AS	N73AS	-
Capacity R404A (1)		kW	1,38	1,98	2,56	3,58	-
Input power (1)		kW	1,79	2,45	3,26	4,98	-
Input current	400V/3/50Hz	A max	8,10	10,10	13,10	17,90	-
Oversized		MAXI Sc	-	N34AS	N42AS	N73AS	N84AS
Capacity R404A (1)		kW	-	1,51	2,57	3,79	4,98
Input power (1)		kW	-	2,26	3,80	6,29	8,97
Input current	400V/3/50Hz	A max	-	7,90	13,40	19,00	26,96
Fan	Nb x Ø	mm	1 x 355	2 x 355	2 x 355	2 x 500	2 x 500
		50 Hz	230V/1	230V/1	230V/1	400V/3	400V/3
Air flow		m³/h	2200	2640	4200	9600	11540
Rotation speed		rpm	1500	1000	1500	1000	1500
Liquid volume		l.	5	5	5	5	5
Dimensions	L	mm	1190	1350	1350	1450	1450
	P	mm	475	550	550	600	600
	H	mm	810	1060	1060	1470	1470
	A / B	mm	805	955	955	1049 / 617	1049 / 617
Connections	Suction	Ø	7/8"	7/8"	1 1/8"	1 1/8"	1 3/8"
	Liquid	Ø	3/8"	3/8"	3/8"	1/2"	1/2"
Net weight		kg	140	150	175	185	240

Low noise level		MAXI Sc	N24ALN	N34ALN	N42ALN	N73ALN	N84ALN
Capacity R404A (1)		kW	-	1,79	3,00	4,45	5,89
Input power (1)		kW	-	1,92	3,08	5,06	6,59
Input current	400V/3/50Hz	A max	-	7,80	11,90	17,84	23,84
Acoustic	LP at 10m (2)	dB(A)	-	25	30	37	38
Fan	Nb x Ø	mm	-	2 x 355	2 x 355	2 x 500	2 x 500
		50 Hz	-	230V/1	230V/1	400V/3	400V/3
Air flow		m³/h	-	2060	2640	5116	4346
Rotation speed		rpm	-	750	1000	750	750
Liquid volume		l.	-	5	5	5	5
Dimensions	L	mm	-	1350	1350	1450	1450
	P	mm	-	550	550	600	600
	H	mm	-	1060	1060	1470	1470
	A / B	mm	-	955	955	1049 / 617	1049 / 617
Connections	Suction	Ø	-	7/8"	1 1/8"	1 1/8"	1 3/8"
	Liquid	Ø	-	3/8"	3/8"	1/2"	1/2"
Net weight		kg	-	150	175	185	250

* **A** and **ALN**: Evaporation temperature -35 $\bar{0}$ / Ambient temperature +32 $\bar{0}$ - Superheating: 10K - Subcooling: 3K.

* **AS**: Evaporation temperature -35 $\bar{0}$ / Ambient temperature +42 $\bar{0}$ - Superheating: 10K - Subcooling: 3K.

(1) **SH**: Semi-hermetic compressor - **Sc**: Scroll compressor

(2) Sound pressure in dB(A) measured at 10 m, line of sight in a reflective surface, in accordance with pre-standard EN 13487 (parallelepiped reference surface).

(3) Motor Ø 355: 230V/1/50 Hz - Motor Ø 500: 400V/3/50 Hz

CAC*	PRG	RPC	VFA	SPE	GPC	ECC
0	0	0	0	0	0	0

* **CAC** : MAXI Sc only.

MAXIBOREAL - Standard

t_j = +8°C - DT1 = 10 K

Split system	+32°C	MAXIBOREAL SH ...	P23A T2R6P	P26A T2R6P	P33A T3R6P	P41A T5R6P	P53A T6R6P	P66A T7R6P	P83A T7R6P	-
Capacity R404A (1)		kW	4,24	5,45	7,27	9,09	11,16	14,46	16,88	-
Input power (1)		kW	2,45	3,02	3,31	4,22	5,49	7,43	9,65	-
Input current	400V/3/50Hz	A max	5,15	7,00	7,80	10,20	13,20	15,20	19,86	-
Room volume (indication)		m ³	45	55	75	110	130	200	230	-

Split system	+32°C	MAXIBOREAL Sc ...	P23A T2R6P	P26A T2R6P	P33A T3R6P	P41A T5R6P	P53A T6R6P	P66A T7R6P	P83A T7R6P	P104A 2xT5R6P
Capacity R404A (1)		kW	4,06	5,33	6,63	9,15	10,69	13,12	14,75	21,07
Input power (1)		kW	2,26	2,62	2,94	4,11	5,30	6,39	9,07	11,54
Input current	400V/3/50Hz	A max	5,20	6,20	7,90	11,40	13,40	14,00	19,96	25,96
Room volume (indication)		m ³	45	55	75	110	130	200	230	300

Condensing unit			P23A	P26A	P33A	P41A	P53A	P66A	P83A	P104A
Fan	Nb x Ø	mm	1 x 355	1 x 355	2 x 355	2 x 355	2 x 355	2 x 500	2 x 500	2 x 500
		50 Hz	230V/1	230V/1	230V/1	230V/1	230V/1	400V/3	400V/3	400V/3
Air flow		m ³ /h	1380	2200	2640	4200	4200	9600	11540	10314
Rotation speed		rpm	1000	1500	1000	1500	1500	1000	1500	1500
Liquid volume		l.	3	3	5	5	5	11	11	11
Dimensions	L	mm	1190	1190	1350	1350	1350	1450	1450	1450
	P	mm	475	475	550	550	550	600	600	600
	H	mm	810	810	1060	1060	1060	1470	1470	1470
	A	mm	805	805	955	955	955	1049	1049	1049
	B	mm	-	-	-	-	-	617	617	617
Connections	Suction	Ø	5/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 3/8"	1 3/8"
	Liquid	Ø	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"
Net weight		kg	140	140	160	175	175	220	230	230

Unit cooler - 3,63 mm			T2R6P	T2R6P	T3R6P	T5R6P	T6R6P	T7R6P	T7R6P	2xT5R6P
Surface		m ²	15,23	22,84	30,43	34,26	57,10	60,91	60,91	34,26 (x2)
Circuit volume		dm ³	2,23	3,35	4,46	5,02	8,36	8,92	8,92	5,02 (x2)
Fan	Air flow	m ³ /h	2910	2910	2750	4125	3765	5230	5230	4125 (x2)
	Air throw	m	2 x 7	2 x 7	2 x 7	2 x 7	2 x 6	2 x 7	2 x 7	2 x 7 (x2)
230V/1/50-60Hz 1,000 rpm	Nb x Ø	mm	2 x 350	2 x 350	2 x 350	3 x 350	3 x 350	4 x 350	4 x 350	3 x 350 (x2)
		W Total	240	240	240	360	360	480	480	360 (x2)
		A Total	1,20	1,20	1,20	1,80	1,80	2,40	2,40	1,80 (x2)
Dimensions	L	mm	1372	1372	1372	1872	1872	2372	2372	1872 (x2)
	P	mm	800	800	800	800	800	800	800	800
	H	mm	354	354	354	354	354	354	354	354
Connections	Inlet	Ø (2)	D 5/8"	D 5/8"	D 5/8"	D 5/8"	D 5/8"	D 5/8"	D 5/8"	D 5/8" (x2)
	Outlet	Ø ODF (3)	5/8"	5/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 1/8"	7/8" (x2)
Net weight		kg	25	25	28	36	45	55	55	36 (x2)

(1) Superheat 10 K - Subcooling 3 K.

(2) Liquid distributor: male to be brazed.

(3) ODF: female sweat type connection.

CAC*	PRG	RPC	VFA	SPE	GPC	ECC
0	-	-	0	-	0	0

MAXIBOREAL - Standard

t_j = +6°C - DT1 = 6 K

Split system	+32°C	MAXIBOREAL SH ...	P23A		P26A		P33A		P41A		P53A		P66A		P83A		-
			3CA	3245R	3CA	3343R	3CA	3344R	3CA	4263R	3CA	4264R	3CA	4265R	3CA	4364R	-
Capacity R404A (1)		kW	4,51	5,81	7,74	9,70	11,88	15,40	17,98	-	-	-	-	-	-	-	-
Input power (1)		kW	2,63	3,37	3,66	4,78	6,23	8,34	11,15	-	-	-	-	-	-	-	-
Input current	400V/3/50Hz	A max	5,15	7,00	7,80	10,20	13,20	15,20	19,86	-	-	-	-	-	-	-	-
Room volume (indication)		m ³	45	75	100	130	170	210	270	-	-	-	-	-	-	-	-

Split system	+32°C	MAXIBOREAL Sc ...	P23A		P26A		P33A		P41A		P53A		P66A		P83A		P104A
			3CA	3245R	3CA	3343R	3CA	3344R	3CA	4263R	3CA	4264R	3CA	4265R	3CA	4364R	3CA
Capacity R404A (1)		kW	4,32	5,67	7,06	9,76	11,39	13,99	15,69	22,36	-	-	-	-	-	-	-
Input power (1)		kW	2,38	2,90	3,22	4,59	5,96	7,16	10,43	12,80	-	-	-	-	-	-	-
Input current	400V/3/50Hz	A max	5,20	6,20	7,90	11,40	13,40	14,00	19,96	25,96	-	-	-	-	-	-	-
Room volume (indication)		m ³	45	75	100	130	170	210	270	360	-	-	-	-	-	-	-

Condensing unit			P23A	P26A	P33A	P41A	P53A	P66A	P83A	P104A
Fan	Nb x Ø	mm	1 x 355	1 x 355	2 x 355	2 x 355	2 x 355	2 x 500	2 x 500	2 x 500
		50 Hz	230V/1	230V/1	230V/1	230V/1	230V/1	400V/3	400V/3	400V/3
Air flow		m ³ /h	1380	2200	2640	4200	4200	9600	11540	10314
Rotation speed		rpm	1000	1500	1000	1500	1500	1000	1500	1500
Liquid volume		l.	3	3	5	5	5	11	11	11
Dimensions	L	mm	1190	1190	1350	1350	1350	1450	1450	1450
	P	mm	475	475	550	550	550	600	600	600
	H	mm	810	810	1060	1060	1060	1470	1470	1470
	A	mm	805	805	955	955	955	1049	1049	1049
	B	mm	-	-	-	-	-	617	617	617
Connections	Suction	Ø	5/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 3/8"	1 3/8"
	Liquid	Ø	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"
Net weight		kg	140	140	160	175	175	220	230	230

Unit cooler - 4 mm		3CA	3245R	3CA	3343R	3CA	3344R	3CA	4263R	3CA	4264R	3CA	4265R	3CA	4364R	3CA	4366R
Surface		m ²	20,5	18,4	24,6	27,6	36,9	46,1	55,3	82,9	-	-	-	-	-	-	-
Circuit volume		dm ³	3,2	2,9	3,9	4,4	5,8	7,3	8,7	13,1	-	-	-	-	-	-	-
Air flow		m ³ /h	2534	4425	4098	11738	10990	10310	16485	14556	-	-	-	-	-	-	-
	Air throw	m	15	20	19	32	31	30	35	33	-	-	-	-	-	-	-
Fan	Nb x Ø	mm	2 x 300	3 x 300	3 x 300	2 x 450	2 x 450	2 x 450	3 x 450	3 x 450	-	-	-	-	-	-	-
	1,000 rpm	230V/1/50-60Hz	W max	144	216	216	-	-	-	-	-	-	-	-	-	-	-
230-400V/3/50Hz		A max	0,64	0,96	0,96	-	-	-	-	-	-	-	-	-	-	-	-
		W max	-	-	-	2	2	2	3	3	-	-	-	-	-	-	-
Dimensions	L	mm	1059	1554	1554	1598	1598	1598	2198	2198	-	-	-	-	-	-	-
	P	mm	428	428	428	632	632	632	632	632	-	-	-	-	-	-	-
Connections (2)	Inlet	Ø OD	5/8	5/8	5/8	7/8	1" 1/8	1" 1/8	1" 1/8	1" 3/8	-	-	-	-	-	-	-
	Outlet	Ø OD	7/8	7/8	7/8	1" 3/8	1" 3/8	1" 3/8	1" 5/8	2" 1/8	-	-	-	-	-	-	-
Net weight		kg	32	41	43	58	62	65	84	95	-	-	-	-	-	-	-

(1) Superheat 10 K - Subcooling 3 K.

(2) OD : Male connector

CAC*	PRG	RPC	VFA	SPE	GPC	ECC
0	-	-	0	-	0	0

* CAC : MAXI Sc only.

MAXIBOREAL - Standard

t_j = +2°C - DT1 = 8 K

Split system	+32°C	MAXIBOREAL SH ...	P23A	P26A	P33A	P41A	P53A	P66A	P83A	-
			3CA 3243L	3CA 3244L	3CA 3343L	3CA 3344L	3CA 4263L	3CA 4263L	3CA 4264L	-
Capacity R404A (1)		kW	3,73	4,79	6,36	7,91	9,81	12,63	14,82	-
Input power (1)		kW	2,38	2,93	3,35	4,13	5,61	7,36	9,62	-
Input current	400V/3/50Hz	A max	5,15	7,00	7,80	10,20	13,20	15,20	19,86	-
Room volume (indication)		m ³	35	40	55	70	85	120	140	-

Split system	+32°C	MAXIBOREAL Sc ...	P23A	P26A	P33A	P41A	P53A	P66A	P83A	P104A
			3CA 3243L	3CA 3244L	3CA 3343L	3CA 3344L	3CA 4263L	3CA 4263L	3CA 4264L	3CA 4266L
Capacity R404A (1)		kW	3,56	4,67	5,80	7,98	9,40	11,51	12,99	18,61
Input power (1)		kW	2,32	2,66	3,12	4,18	5,58	6,60	9,33	12,20
Input current	400V/3/50Hz	A max	5,20	6,20	7,90	11,40	13,40	14,00	19,96	25,96
Room volume (indication)		m ³	35	40	55	70	85	120	140	180

Condensing unit			P23A	P26A	P33A	P41A	P53A	P66A	P83A	P104A
Fan	Nb x Ø	mm	1 x 355	1 x 355	2 x 355	2 x 355	2 x 355	2 x 500	2 x 500	2 x 500
		50 Hz	230V/1	230V/1	230V/1	230V/1	230V/1	400V/3	400V/3	400V/3
Air flow		m ³ /h	1380	2200	2640	4200	4200	9600	11540	10314
Rotation speed		rpm	1000	1500	1000	1500	1500	1000	1500	1500
Liquid volume		l.	3	3	5	5	5	11	11	11
Dimensions	L	mm	1190	1190	1350	1350	1350	1450	1450	1450
	P	mm	475	475	550	550	550	600	600	600
	H	mm	810	810	1060	1060	1060	1470	1470	1470
	A	mm	805	805	955	955	955	1049	1049	1049
	B	mm	-	-	-	-	-	617	617	617
Connections	Suction	Ø	5/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 3/8"	1 3/8"
	Liquid	Ø	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"
Net weight		kg	140	140	160	175	175	220	230	230

Unit cooler - 6 mm			3CA 3243L	3CA 3244L	3CA 3343L	3CA 3344L	3CA 4263L	3CA 4263L	3CA 4264L	3CA 4266L
Surface		m ²	8,5	11,3	12,7	17,0	19,1	19,1	25,5	38,2
Circuit volume		dm ³	1,9	2,6	2,9	3,9	4,4	4,4	5,8	8,7
Air flow		m ³ /h	318	2936	4677	4404	12304	12304	11692	10582
	Air throw	m	18	17	21	20	33	33	32	31
Fan	Nb x Ø	mm	2 x 300	2 x 300	3 x 300	3 x 300	2 x 450	2 x 450	2 x 450	2 x 450
	1,000 rpm	W max	144	144	216	216	-	-	-	-
230V/1/50-60Hz		A max	0,64	0,64	0,96	0,96	-	-	-	-
	230-400V/3/50Hz	W max	-	-	-	-	900	900	900	900
Dimensions		A max	-	-	-	-	2	2	2	2
	L	mm	1059	1059	1554	1554	1598	1598	1598	1598
P	mm	428	428	428	428	632	632	632	632	
	H	mm	438	438	438	438	537	537	537	537
Connections (2)	Inlet	Ø OD	5/8	5/8	5/8	5/8	7/8	7/8	1" 1/8	1" 1/8
	Outlet	Ø OD	7/8	7/8	7/8	7/8	1" 3/8	1" 3/8	1" 3/8	1" 3/8
Net weight		kg	28	29	39	41	56	56	59	65

(1) Superheat 10 K - Subcooling 3 K.

(2) OD : Male connector

CAC*	PRG	RPC	VFA	SPE	GPC	ECC
0	-	-	0	-	0	0

MAXIBOREAL - Standard

t_j = 0°C - DT1 = 8 K

Split system	+32°C	MAXIBOREAL SH ...	P23A	P26A	P33A	P41A	P53A	P66A	P83A	-
			3CA 3165R	3CA 3243R	3CA 3343R	3CA 3344R	3CA 4263R	3CA 4263R	3CA 4264R	-
Capacity R404A (1)		kW	3,49	4,47	5,93	7,37	9,16	11,77	13,82	-
Input power (1)		kW	2,30	2,83	3,25	4,01	5,45	7,15	9,37	-
Input current	400V/3/50Hz	A max	5,15	7,00	7,80	10,20	13,20	15,20	19,86	-
Room volume (indication)		m ³	25	35	50	65	75	110	130	-

Split system	+32°C	MAXIBOREAL Sc ...	P23A	P26A	P33A	P41A	P53A	P66A	P83A	P104A
			3CA 3165R	3CA 3243R	3CA 3343R	3CA 3344R	3CA 4263R	3CA 4263R	3CA 4264R	3CA 4265R
Capacity R404A (1)		kW	3,32	4,37	5,41	7,44	8,78	10,72	12,17	17,46
Input power (1)		kW	2,31	2,63	3,09	4,15	5,51	6,55	9,22	11,47
Input current	400V/3/50Hz	A max	5,20	6,20	7,90	11,40	13,40	14,00	19,96	25,96
Room volume (indication)		m ³	25	35	50	65	75	110	130	170

Condensing unit			P23A	P26A	P33A	P41A	P53A	P66A	P83A	P104A
Fan	Nb x Ø	mm	1 x 355	1 x 355	2 x 355	2 x 355	2 x 355	2 x 500	2 x 500	2 x 500
		50 Hz	230V/1	230V/1	230V/1	230V/1	230V/1	400V/3	400V/3	400V/3
Air flow		m ³ /h	1380	2200	2640	4200	4200	9600	11540	10314
Rotation speed		rpm	1000	1500	1000	1500	1500	1000	1500	1500
Liquid volume		l.	3	3	5	5	5	11	11	11
Dimensions	L	mm	1190	1190	1350	1350	1350	1450	1450	1450
	P	mm	475	475	550	550	550	600	600	600
	H	mm	810	810	1060	1060	1060	1470	1470	1470
	A	mm	805	805	955	955	955	1049	1049	1049
	B	mm	-	-	-	-	-	617	617	617
Connections	Suction	Ø	5/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 3/8"	1 3/8"
	Liquid	Ø	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"
Net weight		kg	140	140	160	175	175	220	230	230

Unit cooler - 4 mm			3CA 3165R	3CA 3243R	3CA 3343R	3CA 3344R	3CA 4263R	3CA 4263R	3CA 4264R	3CA 4265R
Surface		m ²	15,4	12,3	18,4	24,6	27,6	27,6	36,9	46,1
Circuit volume		dm ³	2,4	1,9	2,9	3,9	4,4	4,4	5,8	7,3
Air flow		m ³ /h	1527	2950	4425	4098	11738	11738	10990	10310
	Air throw	m	15	17	20	19	32	32	31	30
Fan	Nb x Ø	mm	1 x 300	2 x 300	3 x 300	3 x 300	2 x 450	2 x 450	2 x 450	2 x 450
	1,500 rpm	W max	72	144	216	216	-	-	-	-
		A max	0,32	0,64	0,96	0,96	-	-	-	-
	230-400V/3/50Hz	W max	-	-	-	-	2	2	2	2
		A max	-	-	-	-	900	900	900	900
	Dimensions	L	mm	859	1059	1554	1554	1598	1598	1598
P		mm	428	428	428	428	632	632	632	632
H		mm	438	438	438	438	537	537	537	537
Connections (2)	Inlet	Ø OD	5/8	5/8	5/8	5/8	7/8	7/8	1" 1/8	1" 1/8
	Outlet	Ø OD	5/8	7/8	7/8	7/8	1" 3/8	1" 3/8	1" 3/8	1" 3/8
Net weight		kg	24	28	41	43	58	58	62	65

(1) Superheat 10 K - Subcooling 3 K.

(2) OD : Male connector

CAC*	PRG	RPC	VFA	SPE	GPC	ECC
0	-	-	0	-	0	0

* CAC : MAXI Sc only.

MAXIBOREAL - Standard
t_j = -20°C - DT1 = 7 K

Split system	+32°C	MAXIBOREAL SH ...	N24A 3CA 3165C	N34A 3CA 3243C	N42A 3CA 3343C	N73A 3CA 4263C	-
Capacity R404A (1)		kW	2,63	3,62	4,67	6,63	-
Input power (1)		kW	2,45	3,42	4,26	6,24	-
Input current	400V/3/50Hz	A max	7,35	10,40	11,60	18,30	-
Room volume (indication)		m³	25	40	65	120	-

Split system	+32°C	MAXIBOREAL Sc ...	-	N34A 3CA 3243C	N42A 3CA 3343C	N73A 3CA 4263C	N84A 3CA 4263C
Capacity R404A (1)		kW	-	2,49	4,19	6,20	8,53
Input power (1)		kW	-	2,40	3,88	6,42	8,66
Input current	400V/3/50Hz	A max	-	8,20	11,90	19,40	25,00
Room volume (indication)		m³	-	40	65	120	200

Condensing unit			N24A	N34A	N42A	N73A	N84A
Fan	Nb x Ø	mm	1 x 355	1 x 355	2 x 355	2 x 355	2 x 500
		50 Hz	230V/1	230V/1	230V/1	230V/1	400V/3
Air flow		m³/h	1380	2200	2640	4200	9600
Rotation speed		rpm	1000	1500	1000	1500	1000
Liquid volume		l.	5	5	5	5	5
Dimensions	L	mm	1190	1190	1350	1350	1450
	P	mm	475	475	550	550	600
	H	mm	810	810	1060	1060	1470
	A	mm	805	805	955	955	1049
	B	mm	-	-	-	-	617
Connections	Suction	Ø	7/8"	7/8"	1 1/8"	1 1/8"	1 3/8"
	Liquid	Ø	3/8"	3/8"	3/8"	1/2"	1/2"
Net weight		kg	140	140	175	175	230

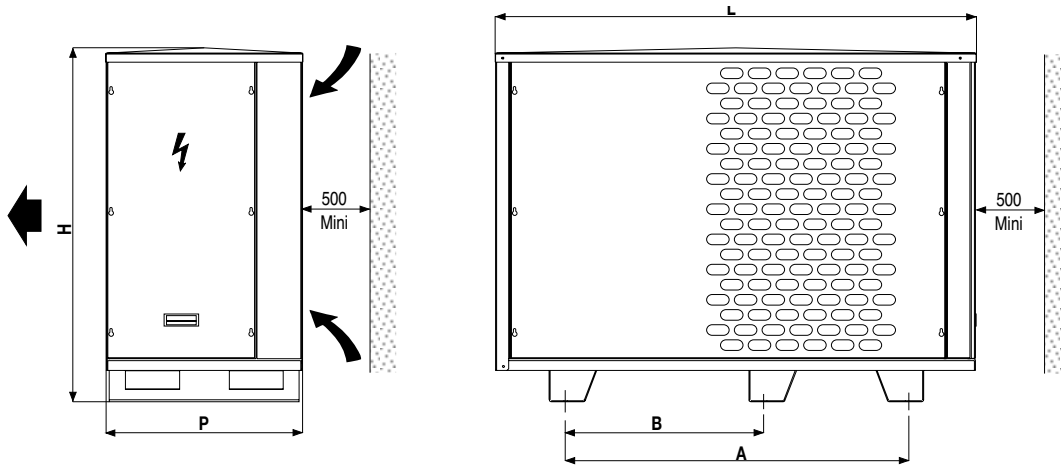
Unit cooler - 6 mm			3CA 3165C	3CA 3243C	3CA 3343C	3CA 4263C	3CA 4263C
Surface		m²	10,6	8,5	12,7	19,1	19,1
Circuit volume		dm³	2,4	1,9	2,9	4,4	4,4
Air flow		m³/h	1602	3118	4677	12304	12304
	Air throw	m	16	18	21	33	33
Fan	Nb x Ø	mm	1 x 300	2 x 300	3 x 300	2 x 450	2 x 450
	1,500 rpm	230V/1/50-60Hz	W max	72	144	216	-
			A max	0,32	0,64	0,96	-
	230-400V/3/50Hz	W max	-	-	-	900	900
		A max	-	-	-	2	2
Dimensions	L	mm	859	1059	1554	1598	1598
	P	mm	428	428	428	632	632
	H	mm	438	438	438	537	537
Connections (2)	Inlet	Ø OD	5/8	5/8	5/8	7/8	7/8
	Outlet	Ø OD	5/8	7/8	7/8	1" 3/8	1" 3/8
Net weight		kg	23	28	39	56	56

(1) Superheat 10 K - Subcooling 3 K.

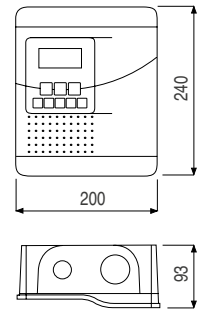
(2) OD : Male connector

CAC*	PRG	RPC	VFA	SPE	GPC	ECC
0	-	-	0	-	0	0

CONDENSING UNIT DIMENSIONS

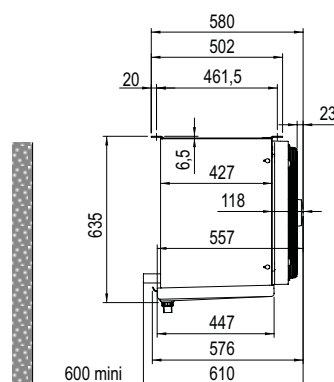
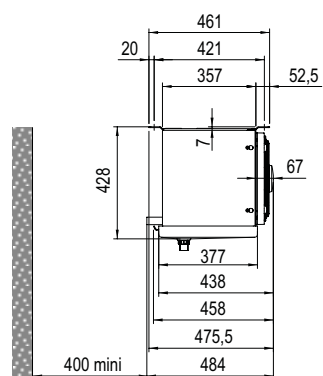
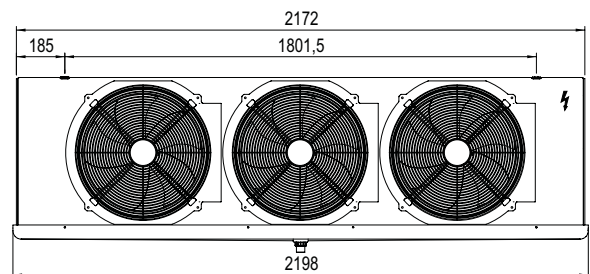
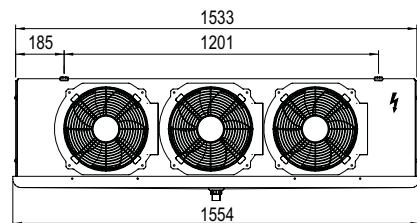
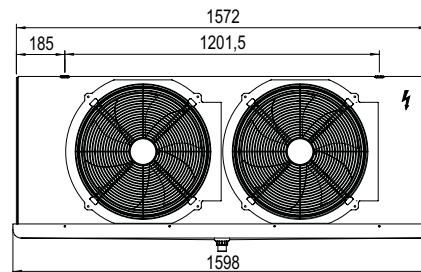
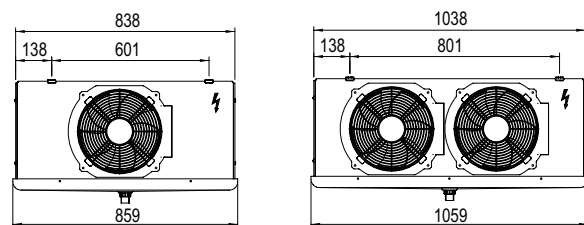
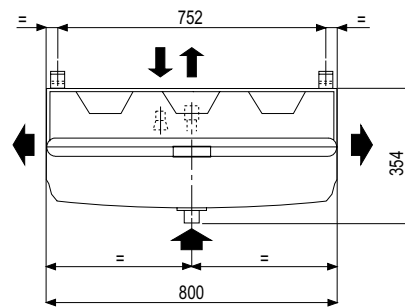
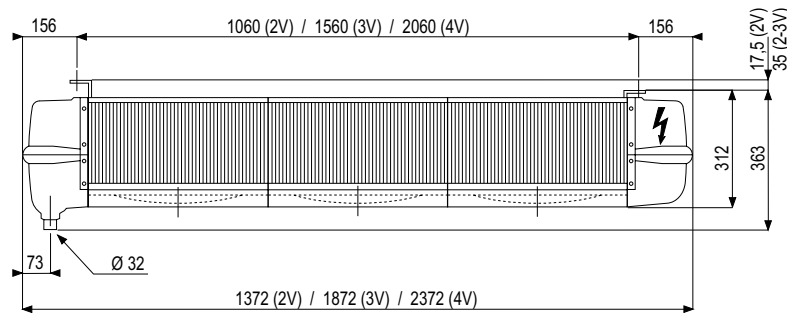


CONTROL UNIT DIMENSIONS



UNIT COOLER DIMENSIONS

TA



ENCASED OUTDOOR CONDENSING UNIT DUAL-COMPRESSORS

Corner shops
Supermarkets - Hypermarkets
Central kitchens



TIC

T1A

HFC

MT  8 > 49 kW

R404A R134a R407F R407A R448A R449A

LT  6 > 15 kW

R404A R407F R448A R449A

DUO CU MT / LT

- **Compact and low-noise**
- **Micro-channel technology:** 75% reduction in refrigerant volume
- **Two Scroll compressors**, one of which **Digital™**
- Available in fan versions **with** or **without available pressure** (indoor installation)
- **Multi-fluid:** R404A, R134a, R407F, R407A, R448A and R449A
- **Energy saving:** floating HP, heat recovery for MT models
- **Safety and reliability:**
 - Anti-corrosion treatment (according to the models)
 - Back-up operation with pressure control switch.
 - Electrical oil monitoring system.
- **Ready to install:** supplied with refrigeration and electrical systems complete
- **Easy maintenance:** total accessibility to components.



The DUO CU encased condensing units are comprised of 25 models and declined in fans with or without available pressure for medium temperature (MT) and low temperature (LT) applications.

DUO CU are compatible with the use of R404A, R134a, R407F, R407A, R448A, R449A for DUO CU MT and R404A, R407F, R448A, R449A for DUO CU LT

These units contain two Scroll compressors, one of which Digital™ providing modulation of the capacity from 10 to 100% suitable for multi-station cooling applications.

DESCRIPTION

Frame / Casing

- Thick and robust frame.
- The casing is made of painted sheet steel and Epoxy treated.
- The front and side panels may be easily removed.

Compressor

- Two Scroll compressors, one of which Digital™ (except DUO CU LT 26) enabling modulation of capacity.
- Shut-off valve on the suction and delivery sides, casing heater and rigid suspension elements.
- The compressors are equipped with a noise-insulating jacket.

Collectors

- Copper suction and delivery pipes.
- Filter on the suction side.

Oil line

- HP oil separator comprising an oil tank with high and low level indicators.
- HP oil return line with filter.
- Electrical oil monitoring system per compressor.

Condenser

- Coil with micro-channel technology (T1A / T1C - T3A / T3C - T4A / T4C) and Epoxy treated (T1A / T1C).
- Aluminium finned coil and copper tubes (T2A / T2C).
- Two axial or centrifugal condenser fans with speed controller or EC motors according to models.
- **Heat recovery system (only on DUO CU MT):**
 - Tapping with stand-by valves upstream of the condenser
 - Optional heat recovery module for production of ECS at 55°C or heating (contact us).
 - Regulation incorporated.

Liquid receiver

- Vertical receiver with a capacity of 18 or 45 l. and safety valve.
- Two inlet/outlet shut-off valves.
- Liquid outlet equipped with a dryer filter, an indicator and a liquid outlet valve.

Control and safety

- Complete electrical enclosure included.
- Electronic control with PLC and back-up operation with pressure switch
- Socalled "floating" HP regulator with exterior sensor.
- Idc 15kA
- Main isolator switch.
- Switch-over to back- up operation:
 - Automatic with LPE/HPE support pressure switches
 - Manual with a switch on the electrical enclosure door.
- 2 condenser fan protection outputs
- 4 cooling station outputs 2x10A

Monitoring devices

- 1 general LP safety pressure switch.
- 1 LPE support pressure switch (switch-over to back-up mode).
- 1 LP regulator pressure switch per compressor.
- 1 automatic-reset HP pressure switch per compressor.
- 1 HPE support pressure switch (switch-over to back-up mode).
- 1 HP and BP sensor.

DESIGNATION

DUO CU⁽¹⁾ MT⁽²⁾ 45⁽³⁾ A⁽⁴⁾

- (1) Condensing unit
- (2) **MT** = Medium Temperature range
LT = Low Temperature range
- (2) Model (compressor)
- (3) **A** = fans without available pressure
C = fans with available pressure

CERTIFICATIONS



ADVANTAGES

Installation

Unit ready to install, all components are factory pre-fitted.

Back-up operation with integrated pressure control switch.

Electrical elements supplied complete allowing rapid installation.

Regulator factory pre-set for multi-fluid use.

Maintenance

Total accessibility to main components.

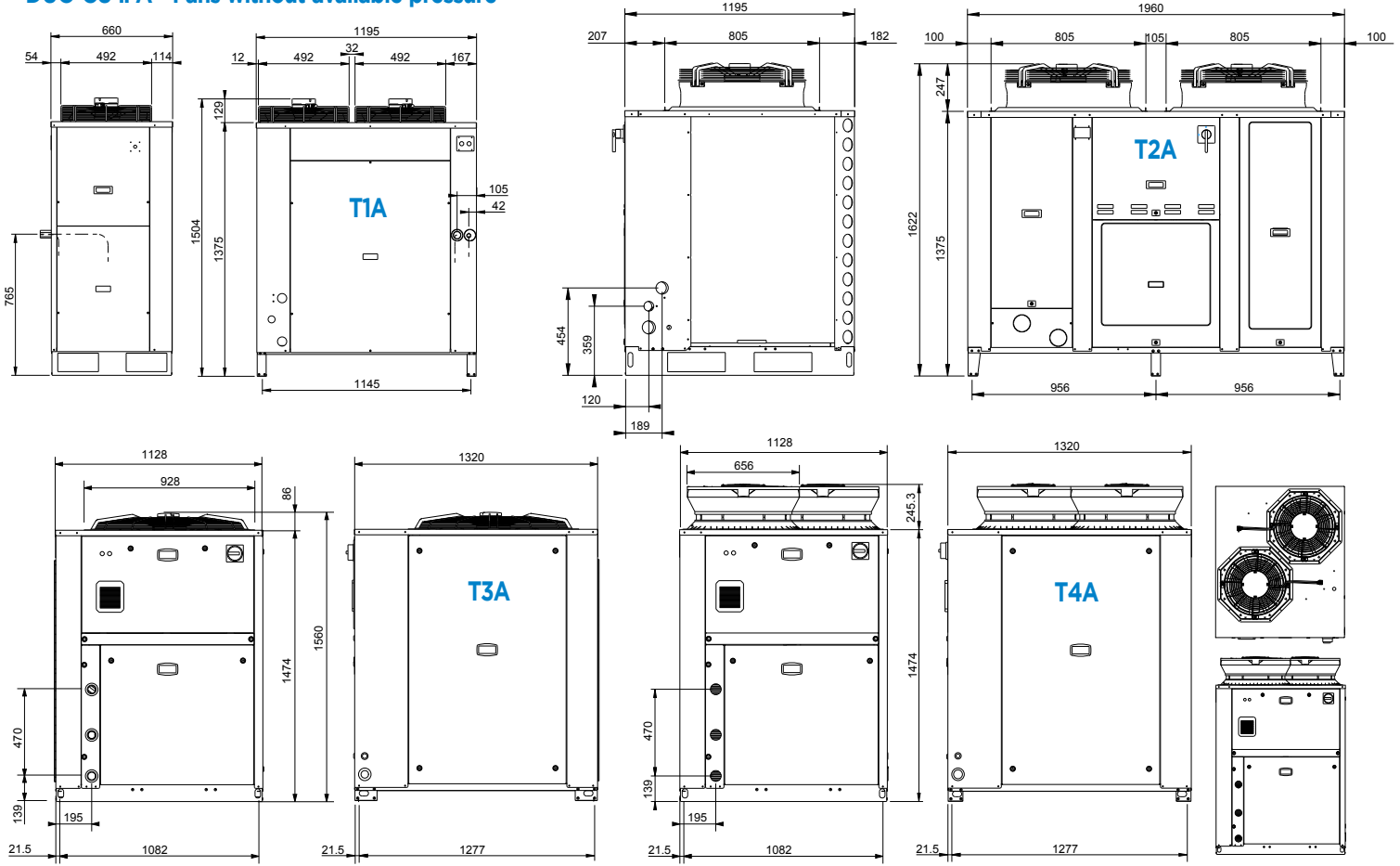
DUO CU .. A - Fans without available pressure



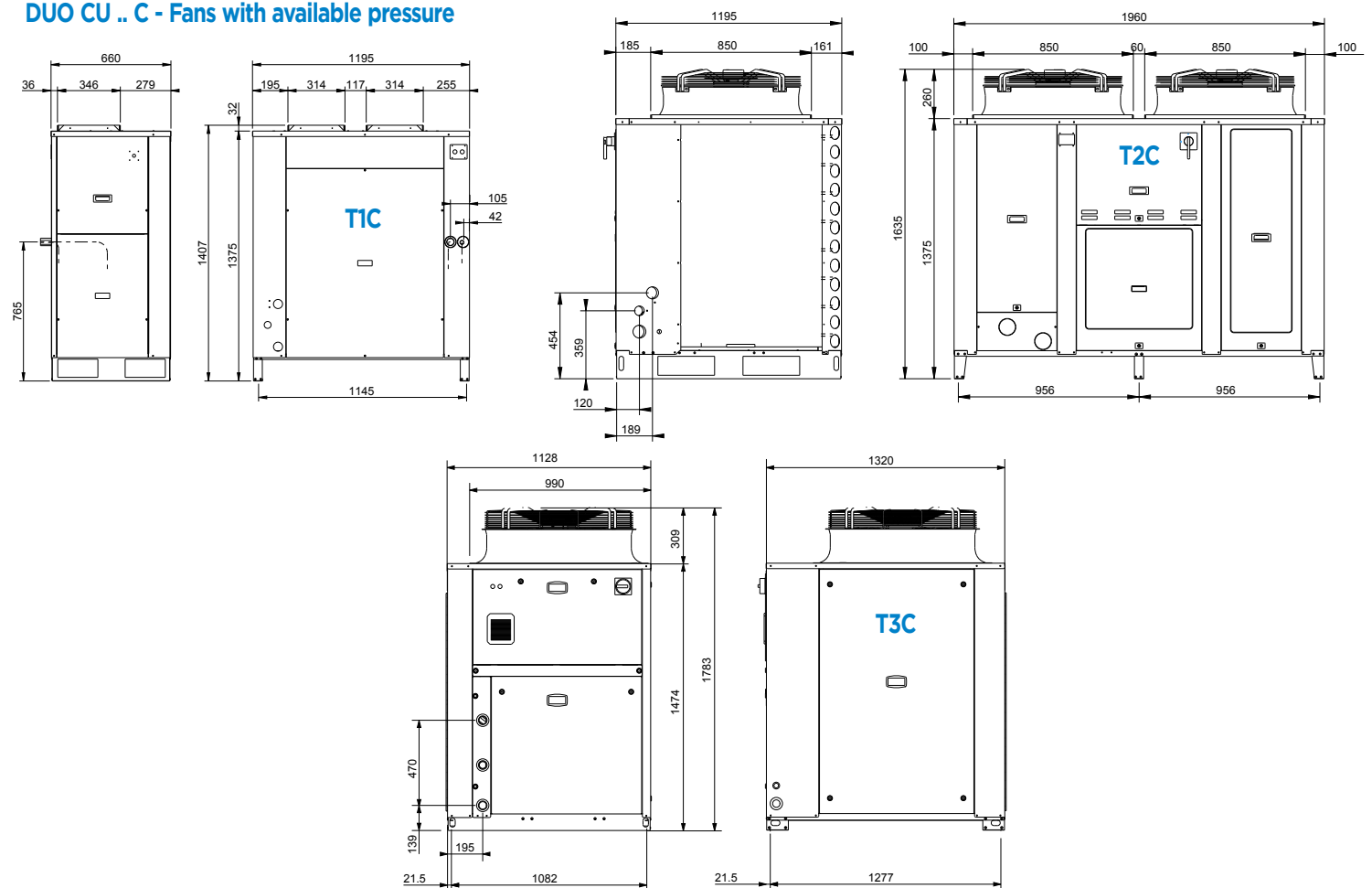
DUO CU .. C - Fans with available pressure



DUO CU .. A - Fans without available pressure



DUO CU .. C - Fans with available pressure



DUO CU MT - Fans without available pressure - Multi refrigerant

Medium temperature range

-10°C/+32°C (1)		DUO CU MT ... A		29	45	57	76	114
Capacity (1)	R404A	kW	14,6	20,6	25,3	36,9	48,1	
	R134a	kW	8,3	12,4	15,0	21,0	29,2	
	R407F	kW	14,1	20,0	-	36,3	-	
	R407A	kW	13,6	19,2	-	34,1	44,7*	
	R448A	kW	13,3	19,9	25,0*	35,0	45,6*	
	R449A	kW	13,6	19,9	25,0*	35,0	45,5*	
Input power (1)	R404A	kW	6,4	9,8	12,7	17,4	28,0	
	R134a	kW	3,8	5,6	8,1	10,5	16,2	
	R407F	kW	6,8	10,0	-	17,7	-	
	R407A	kW	6,2	9,4	-	16,7	26,1*	
	R448A	kW	6,5	9,3	11,6*	16,6	27,9*	
	R449A	kW	6,3	9,3	11,6*	16,6	27,9*	
Compressor		Nb	2	2	2	2	2	
Input current (1)		A max.	17,5	24,4	26,9	37,4	58,4	
Fan	Typ		AC	AC	AC	AC	AC	
	Nb x Ø	mm	2x 450	2x 450	2x 450	2x 710	2x 710	
Acoustic	Lp 10m (2)	dB(A)	41	42	45	44	46	
Air flow		m³/h	11500	11500	11500	26000	26000	
Liquid capacity		l.	18	18	18	45	45	
Connections	Suction	Ø	1"3/8	1"3/8	1"5/8	2"1/8	2"1/8	
	Liquid	Ø	5/8"	5/8"	7/8"	7/8"	1"1/8	
Casing	Size		T1A	T1A	T1A	T2A	T2A	
Dimensions	LxPxH	mm	1195x660x1504	1195x660x1504	1195x660x1504	1960x1195x1635	1960x1195x1635	
Net weight		kg	290	300	310	530	540	
Maximal outdoor temperature : -10°C (R449A)		°C	+43°C	+40°C	+36°C	+41°C	+37°C	
Coil (4)			()	()	()	()	()	

Use our software to get complete technical data

DUO CU MT - Fans with available pressure - Multi refrigerant

Medium temperature range

-10°C/+32°C (1)		DUO CU MT ... C		29	45	57	76	114
Capacity (1)	R404A	kW	14,6	20,6	25,3	36,9	48,4	
	R134a	kW	8,3	12,5	15,2	21,2	29,3	
	R407F	kW	14,2	20,1	-	36,6	-	
	R407A	kW	13,7	19,3	-	34,4	45,2*	
	R448A	kW	13,4	20,0	25,2*	35,3	46,3*	
	R449A	kW	13,7	20,0	25,2*	35,3	45,3*	
Input power (1)	R404A	kW	7,8	11,0	13,9	20,6	31,2	
	R134a	kW	4,5	6,3	8,8	12,1	17,9	
	R407F	kW	8,2	11,4	-	21,1	-	
	R407A	kW	7,7	10,9	-	20,1	29,3*	
	R448A	kW	8,1	10,7	13,0*	20,0	31,0*	
	R449A	kW	7,7	10,7	13,0*	20,0	31,0*	
Compressor		Nb	2	2	2	2	2	
Input current (1)		A max.	19,5	26,4	28,9	43,9	64,9	
Fan	Typ		AC	AC	AC	AC	AC	
	Nb x Ø	mm	2x 346x314	2x 346x314	2x 346x314	2x 630	2x 630	
Acoustic	Lp 10m (2)	dB(A)	56	56	56	57	57	
Air flow		m³/h	11900	11900	11900	28400	28400	
Liquid capacity		l.	18	18	18	45	45	
Connections	Suction	Ø	1"3/8	1"3/8	1"5/8	2"1/8	2"1/8	
	Liquid	Ø	5/8"	5/8"	7/8"	7/8"	1"1/8	
Casing	Size		T1C	T1C	T1C	T2C	T2C	
Dimensions	LxPxH	mm	1195x660x1407	1195x660x1407	1195x660x1407	1960x1195x1622	1960x1195x1622	
Net weight		kg	330	340	350	540	550	
Maximal outdoor temperature : -10°C (R449A)		°C	+43°C	+40°C	+37°C	+42°C	+37°C	
Coil (4)			()	()	()	()	()	

* New possibilities - Attention! Outdoor temperature limited to +34°C

(1) Evaporation temperature / Outdoor temperature - 10K total superheating and 3K subcooling.




(2) Sound pressure level in dB(A) measured at 10 m, line of sight, on a reflective parallelepiped measurement surface, given for information only.

(3) Additional pressure available in Pascals.

(4) Aluminium finned coil and copper tubes Coil with micro-channel technology () Coil with micro-channel technology and Epoxy treated








DUO CU LT - Fans without available pressure - R404A

Low temperature range

-35°C/+32°C (1)		DUO CU LT ... A	13	18	25
Capacity (1)	R404A	kW	7,8	11,9	14,8
Input power (1)	R404A	kW	6,4	9,0	10,8
Compressor		Nb	2	2	2
Input current (1)		A max.	19,6	25,2	29,2
Fan	Typ		AC	AC	AC
	Nb x Ø	mm	2x 450	2x 450	2x 450
Acoustic	Lp 10m (2)	dB(A)	42	44	46
Air flow		m³/h	8340	9650	9470
Liquid capacity		l.	18	18	18
Connections	Suction	Ø	1"1/8	1"3/8	1"3/8
	Liquid	Ø	1/2"	5/8"	5/8"
Casing	Size		T1A	T1A	T1A
Dimensions	LxPxH	mm	1195x660x1504	1195x660x1504	1195x660x1504
Net weight		kg	290	300	310
Maximal outdoor temperature : -10°C (R449A)		°C	+43°C	+43°C	+40°C
Coil (4)			()	()	()




DUO CU LT - Fans without available pressure - Multi refrigerant

Low temperature range

-35°C/+32°C (1)		DUO CU LT ... A	13 1F	18 1F	25 1F	26 1F	13 2F	18 2F	25 2F
Capacity (1)	R407F	kW	6,9	10,1	13,1	12,3	6,8	10,1	13,1
	R448A	kW	6,5	9,9	12,3	11,8	6,4	9,9	12,3
	R449A	kW	6,5	9,8	12,3	11,8	6,4	9,8	12,3
	R407F	kW	6,7	8,9	10,7	12,4	6,5	9,3	11,1
Input power (1)	R448A	kW	6,4	8,1	9,1	11,9	5,8	8,6	9,5
	R449A	kW	6,4	8,2	9,1	11,9	5,8	8,6	9,5
		Nb	2	2	2	2	2	2	2
Input current (1)		A max.	17,9	26,3	27,1	30,5	19,9	26,6	27,4
Fan	Typ		AC	AC	AC	AC	AC	EC	EC
	Nb x Ø	mm	1 x 800	1 x 800	1 x 800	1 x 800	2 x 450	2 x 500	2 x 500
Acoustic	Lp 10m (2)	dB(A)	46	45	46	49	43	56	53
Air flow		m³/h	17550	13010	10190	20000	11500	12670	9920
Liquid capacity		l.	18	18	18	18	18	18	18
Connections	Suction	Ø	1"1/8	1"3/8	1"3/8	1"3/8	1"1/8	1"3/8	1"3/8
	Liquid	Ø	1/2"	5/8"	5/8"	5/8"	1/2"	5/8"	5/8"
Casing	Size		T3A	T3A	T3A	T3A	T1A	T4A	T4A
Dimensions	LxPxH	mm		1320x1128x1560			1195x660x1504	1320x1128x1965	
Net weight		kg	320	325	325	325	320	325	325
Maximal outdoor temperature : -10°C (R449A)		°C	+42°C	+40°C	+38°C	+43°C	+41°C	+40°C	+38°C
Coil (4)			()	()	()	()	()	()	()

DUO CU LT - Fans with available pressure - Multi refrigerant

Low temperature range

-35°C/+32°C (1)		DUO CU LT ... C	13	18	25
Capacity (1) 150 Pa (3)	R407F	kW	6,9	10,1	13,1
	R448A	kW	6,5	9,9	12,3
	R449A	kW	6,5	9,8	12,3
	R407F	kW	7,4	9,6	11,3
Input power (1)	R448A	kW	7,3	8,8	9,6
	R449A	kW	7,3	8,8	9,7
		Nb	2	2	2
Input current (1)		A max.	20,2	26,9	27,7
Fan	Typ		AC	AC	AC
	Nb x Ø	mm	1 x 800	1 x 800	1 x 800
Acoustic	Lp 10m (2)	dB(A)	49	46	47
Air flow		m³/h	17090	12670	9920
Liquid capacity		l.	18	18	18
Connections	Suction	Ø	1"1/8	1"3/8	1"3/8
	Liquid	Ø	1/2"	5/8"	5/8"
Casing	Size		T3C	T3C	T3C
Dimensions	LxPxH	mm	1320x1128x1783	1320x1128x1783	1320x1128x1783
Net weight		kg	320	325	325
Maximal outdoor temperature : -10°C (R449A)		°C	+42°C	+40°C	+38°C
Coil (4)			()	()	()

(1) Evaporation temperature / Outdoor temperature - 10K total superheating and 3K subcooling.

(2) Sound pressure level in dB(A) measured at 10 m, line of sight, on a reflective parallelepiped measurement surface, given for information only.

(3) Additional pressure available in Pascals.

(4)  Aluminium finned coil and copper tubes  Coil with micro-channel technology () Coil with micro-channel technology and Epoxy treated

To help with all your choices and calculations, we propose our products software...



- Selection of all models without options.
- Thermodynamic calculations.
- Equipment dimensions on all sheets in digital format.
- Printing of data sheets for compilation of a price proposal.

Customer: FRIGA-BOHN
Date: 24/05/2017
CUSOFT V3.00-1 (05/2017)

DUO CU LT 25 Multi Ref 1F HP

TECHNICAL DATA:

Working conditions:
Refrigerant: R449A
Evaporation temperature: 20.0 °C
Ambient temperature: 35.0 °C
Superheat: 3.0 K
Subcooling: 3.0 K

Thermal characteristics:
Cooling capacity: 12.28 kW
COP Evap: 3.27
Refrigerant volume: 19.0 dm³
Compressor: ZP25K03-1FD1V1 + ZP25K03-1FD1V1

Electrical characteristics:
Voltage: 380-400V/50Hz/3N
Frequency: 50.00 Hz
Line input power: 27.66 A
Max input current: 32.00 A
Starting inrush current: 116.00 A

Aeracoustic characteristics:
Sound pressure level (Lp) @ 10m: 47.0 dB(A)
Condenser fan flow (V): 8 x 800 mm
Fan flow: 380 m³/h
Condenser air volume: 8600 m³/h

Dimensional data:
Unit dimensions (LxWxH): 1320x1226x1710 mm
Shipping dimensions: 1465x1226x1710 mm
Net weight: 305 kg
Section diameter: 1750
Liquid diameter: 50"

PRICE:
Ex. VAT unit price: 43374.24 €
Ex. VAT unit price with options: 43374.24 €

FRIGA-BOHN
42, Rue Roger SALENGRO BP 205
69741 GENAS - FRANCE
Tel: +33(0)472 471 444 - Fax: +33(0)472 471 399
Email: customer.serv@lennoxemea.com

Date: 24/05/2017
CUSOFT V3.00-1 (05/2017)

Model: DUO CU LT 25 Multi Ref 1F HP

(Picture and drawings are only indicative)

L-E1325 ; P-E1325 ; H-E1905

FRIGA-BOHN - 42, Rue Roger SALENGRO BP 205 - 69741 GENAS - FRANCE
Tel: +33(0)472 471 444 - Fax: +33(0)472 471 399 - Email: customer.serv@lennoxemea.com
All prices are unit price (2017) - All dimensions, weight and cable acceptance are subject to our general terms of sale which may be consulted at: www.lennoxemea.com

Our software is available for:

commercial and industrial unit coolers, condensers, fluid coolers, condensing units, split systems, compressor racks, encased outdoor units...

This software is updated several times a year and may be downloaded directly from our website:
www.lennoxemea.com/software/setup.exe

For further information, please do not hesitate to contact us:

42, rue Roger Salengro • BP 205 • 69741 Genas Cedex • France
Phone: +33 (0) 472 471 444 • Fax: +33 (0) 472 471 399
customer.serv@lennoxemea.com

Free multi-language software



ENCASED OUTDOOR CONDENSING UNIT SINGLE-COMPRESSOR

Hard Discount - Supermarkets - Hypermarkets
Refrigerated storage and transit stocking
Food processing - Canteen kitchens



MEGA with CAR option

HFC

3.5 > 74 kW

MEGA

- Air condensing unit with:
 - equipment "tailored to needs",
 - casing (optional) for outdoor installation,
 - horizontal air blowing,
 - two compressor technologies,
 - a standard condenser,
 - or oversized for hot climates.

Composition of models

- Select for each model:
- The compressor technology,**
 - SH (semi-hermetic piston)
 - or Sc (Scroll).
- The condenser:**
 - standard
 - or S (oversized) for high ambient temperatures up to +43°C.

DESCRIPTION

Frame / Casing

- Rigid, thick sheet metal frame limiting transmission of vibrations.
- White pre-painted, sheet metal protection casing (**CAR** option).

Compressor

- A choice of semi-hermetic compressor or Scroll compressor.
- The following are supplied in all cases: suction and delivery valves, casing heater and oil level indicator.

Condenser

- 1 to 4 fans according to the models.

Receiver

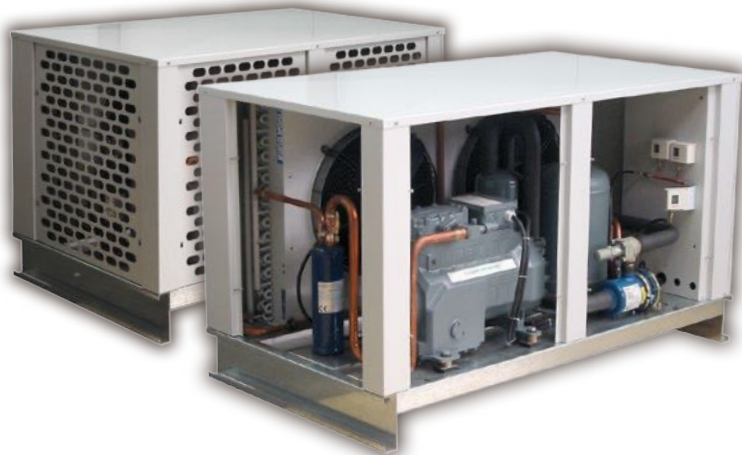
- The receiver is supplied with a delivery valve and safety valve (receiver ≥ 11 l.).

Control and safety

- The semi-hermetic compressor models are equipped with an oil differential pressure switch (except SH P100 - P170 - N85 - N105: oil presence sensor).
- LP control is provided with an adjustable pressure switch.
- HP safety is provided with 1 or 2 automatic-reset cartridge pressure switched. (compliant with standard EN 378-2:2009).

Wiring

- Wiring is provided to a junction box.



ADVANTAGES

Installation

Casing option (**CAR**) for installation of the unit outdoors.

Largely dimensioned liquid receiver: distance between the unit and the unit coolers up to 25 metres.

Oversized condenser for applications with high ambient temperatures.

Possibility of providing a wide range of factory-fitted optional extras to help reduce installation time on site.

Servicing / Maintenance

Easy maintenance and servicing thanks to unimpeded access to components.

DESIGNATION

MEGA SH⁽¹⁾ P⁽²⁾ 85⁽³⁾ AS⁽⁴⁾

- (1) **SH** = Semi-hermetic compressor
Sc = Scroll compressor
- (2) **P** = Chill range - **N** = Low temperature range
- (3) Model
- (5) **A** = Standard - **AS** = Oversized

CERTIFICATIONS

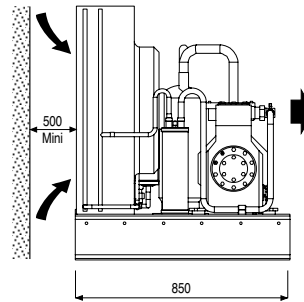
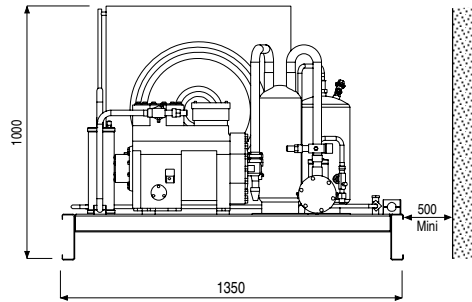


Kit Factory

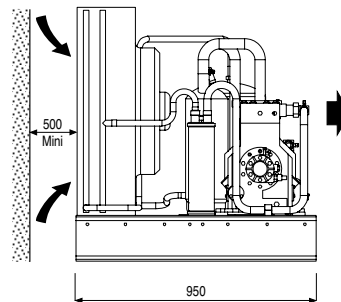
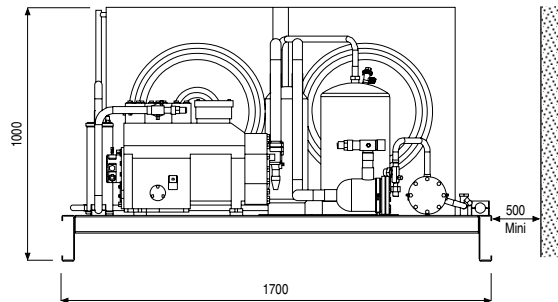
OPTIONS

CAC	Additional casing strap (Scroll).
BAC	Suction accumulator.
LIQ	Liquid line with dryer filter, hygroscopic indicator and operating valve.
MAN	HP and LP manometers.
RLS	Oversized receiver.
RPC	Control of condensation pressure.
SHU	Oil separator.
VFA	Valve + suction filter.
ARM	Switching enclosure with main isolator switch (compressor and condenser protection).
CAR	Pre-painted galvanized sheet metal casing.
EVL	Solenoid valve (not fitted).
GPC	Condenser protection guard.
ECC	Crate packaging (for the condensing units).

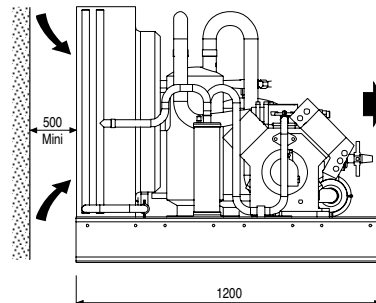
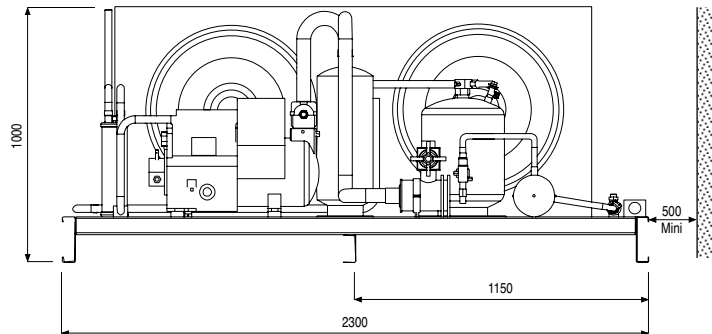
MEGA : 1 x Ø 500 mm



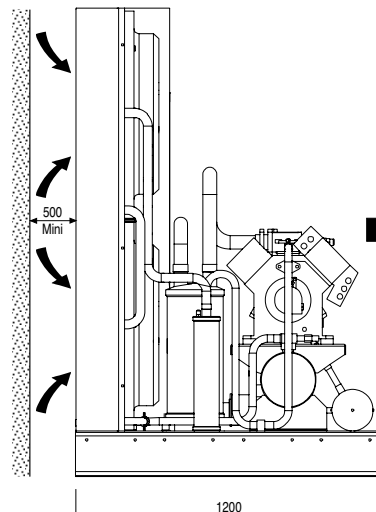
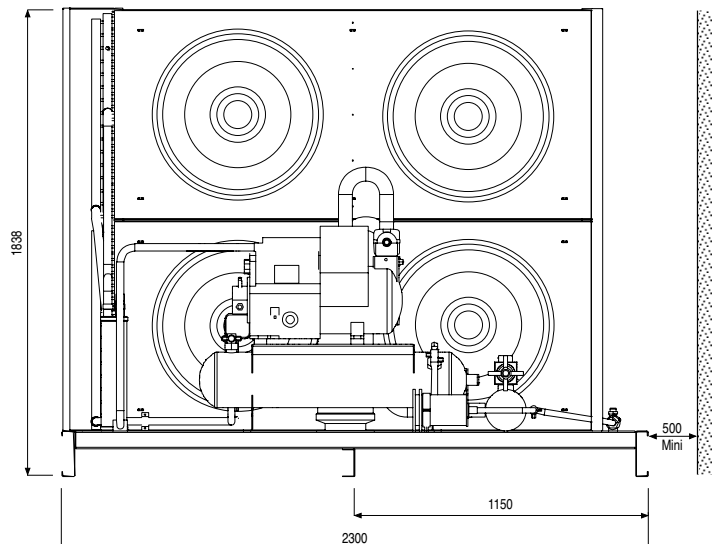
MEGA : 2 x Ø 500 mm



MEGA : 2 x Ø 630 mm



MEGA : 4 x Ø 630 mm



ENCASED OUTDOOR CONDENSING UNIT SINGLE-COMPRESSOR

Hard Discount - Supermarkets - Hypermarkets
Refrigerated storage and transit stocking
Food processing - Canteen kitchens

HFC

4 > 72 kW

MONOHAVANE

- Vertical-blowing encased air condensing units for outdoor installation on the floor or roof.
- This range offers a low noise model as well as an oversized condenser for use in hot climates.

Composition of models

- Select for each model:

The noise level,

- standard
- or LN (low noise), suitable when noise is a problem.

The condenser,

- standard
- or S and S+ (oversized) for high ambient temperatures.

DESIGNATION

MONOHV N⁽¹⁾ 75⁽²⁾ AS⁽³⁾

(1) **P** = Chill range - **N** = Low temperature range

(2) Model

(3) **A** = Standard

AS = Oversized

AS+ = Oversized "plus"

ALN = Low noise level



DESCRIPTION

Frame / Casing

- Sheet metal frame and white pre-painted casing.
- Installed outdoors on the ground or roof.

Compressor

- Semi-hermetic piston of 7.5 to 50 HP with suction and delivery valves, casing heater and head fan for low-temperature applications.

Condenser

- From 2 to 4 fans with casing protection of hairpins.

Receiver

- With service and safety valves.

Liquid line

- Composed of a dryer filter cartridge, hygroscopic indicator and operating valve.

Control and safety

- LP control is provided with an adjustable LP pressure switch.
- HP control is provided with an adjustable HP pressure switch.
- HP safety is provided with 1 or 2 automatic-reset cartridge pressure switched (in accordance with standard EN 378-2): 2009).
- Oil differential pressure switch.

Switching enclosure

- Sealed, with main isolator switch on the side and "power on" indicator.
- Outputs and unit protection devices.
- Designed to accommodate as many cooling outputs.
- The cabinet is closed with a 1/4-turn screw.

ADVANTAGES

Installation

Condensing units delivered "turnkey" with factory pre-wired switching enclosure to help reduce installation time.

Oversized condenser for the AS model for installation in zones with high ambient temperatures.

The low noise ALN model is ideal for use in an urban environment.

Outputs and unit protection devices.

Designed to accommodate as many cooling outputs as required.

Servicing / Maintenance

Side panels easily removed for unimpeded access to all components.

Possibility of placing the door in hood position for easy access during work inside the switching enclosure (see photo).

CERTIFICATIONS



OPTIONS

Low noise level

Silent condenser, noise insulated compressor compartment. Contact us for the selection.

Oversized condenser

For use with high ambient temperatures up to 42°C, as defined in the selection charts and up to 45°C after study.

Kit	Factory	OPTIONS
	BAC	Suction accumulator.
	BPS	LP safety pressure switch
	MAN	HP and LP manometers.
	RLS	Oversized receiver.
	SHU	Oil separator.
	VFA	Valve + suction filter.
ANM		Lifting rings.
EVL		Solenoid valve.
	GPC	Condenser protection guard.
PAV		Anti-vibration pads.

MONOHAVANE - Oversized condenser

Low temperature range

-35°C/+42°C		MONOHV N...	80 AS	105 AS	155 AS	205 AS	255 AS	305 AS	405 AS
Capacity R404A*		kW	4,3	5,5	8,3	9,7	12,4	15,2	18,6
Input power*		kW	5,6	7,0	9,9	11,7	16,4	20,3	25,2
Input current		A max.	15,5	19,6	26,6	30,9	43,2	52,0	66,4
Fan	Nb x Ø	mm	2 x 500	2 x 500	2 x 500	2 x 500	2 x 630	2 x 630	3 x 630
Air flow		m3/h	11948	11948	10630	10630	21300	21300	31950
Liquid capacity		l.	21	21	21	40	40	40	50
Dimensions	L	mm	2995	2995	2995	2995	3475	3475	4375
	P	mm	920	920	920	920	920	920	920
	H	mm	1190	1190	1190	1190	1190	1190	1190
Connections	Suction	Ø	1"3/8	1"3/8	1"5/8	2"1/8	2"1/8	2"1/8	2"1/8
	Liquid	Ø	5/8"	5/8"	5/8"	7/8"	7/8"	7/8"	7/8"
Net weight		kg	520	530	600	610	660	690	840

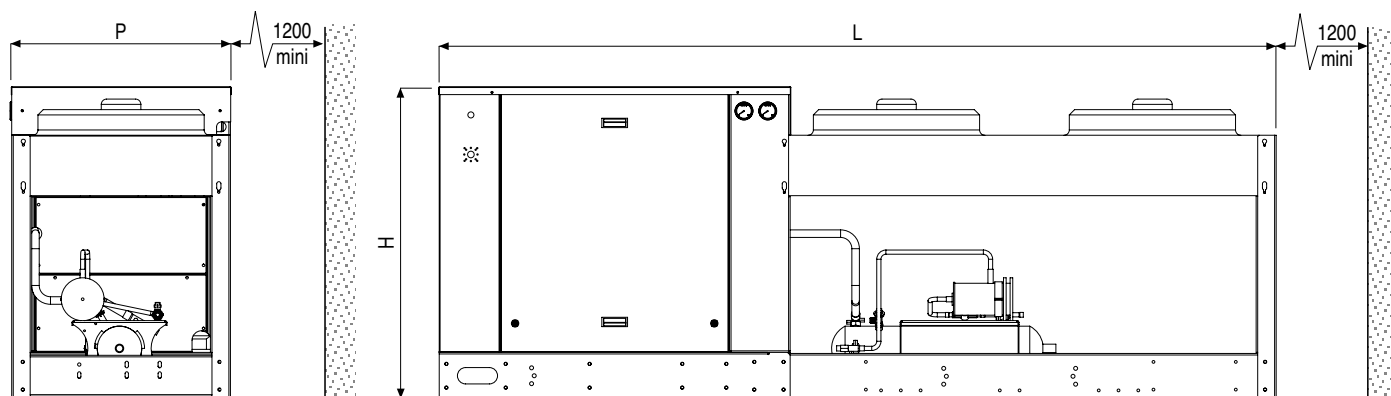
* Evaporation temperature/Ambient temperature - 10K superheating and 3K subcooling.

MONOHAVANE - Oversized "plus"

Low temperature range

-35°C/+44°C		MONOHV N...	80 AS+	105 AS+	155 AS+	205 AS+	255 AS+	305 AS+	405 AS+
Capacity R404A*		kW	4,3	5,9	8,5	10,7	12,5	15,8	17,9
Input power*		kW	5,6	9,8	12,7	16,4	18,3	21,2	24,2
Input current		A max.	15,5	24,3	31,3	39,0	46,6	57,2	68,2
Fan	Nb x Ø	mm	2 x 500	2 x 630	2 x 630	3 x 630	3 x 630	2 x 910	2 x 910
Air flow		m3/h	10630	21300	21300	31950	31950	42620	42620
Liquid capacity		l.	21	21	21	40	40	40	50
Dimensions	L	mm	2995	3475	3475	4375	4375	4700	4700
	P	mm	920	920	920	920	920	1230	1230
	H	mm	1190	1190	1190	1190	1190	1420	1420
Connections	Suction	Ø	1"3/8	1"3/8	1"5/8	2"1/8	2"1/8	2"1/8	2"1/8
	Liquid	Ø	5/8"	5/8"	5/8"	7/8"	7/8"	7/8"	7/8"
Net weight		kg	540	580	630	720	730	900	980

* Evaporation temperature/Ambient temperature - 10K superheating and 3K subcooling.



BAC	BPS	MAN	RLS	SHU	VFA	ANM	EVL	GPC	PAV
0	0	0	0	0	0	0	0	0	0



ENCASED OUTDOOR CONDENSING UNIT

MONOBLOCK UNIT FOR PRODUCTIONS
OF LOW AND CHILL TEMPERATURES

Hard Discount - Supermarkets - Hypermarkets

HFC CO₂

23 > 200 kW

MULTIWAVE

- Range with innovative design for installations where space may be a problem.
- Environmentally-friendly, natural refrigerant (CO₂) for the production of cold in supermarkets.
- "Ready-to-install" range with cooling and electrical equipment grouped and connected on a common frame.
- Low energy consumption thanks to the use of EC motors, compressor speed variation and heat recovery (optional extras)
- Micro channel technology allowing a significant reduction of refrigerant charge.
- State of the art design with hidden fans for a perfect architectural integration.

R134A CHILL TEMPERATURE CIRCUIT

Compressors

- Compressors using semi-hermetic piston technology equipped with:
 - Crankcase heater.
 - Suction and delivery shut-off valves.
 - HP and LP tapping points with Schrader connector.
- Optional 30 to 70 Hz speed controller on the first compressor.

Collectors

- A general suction filter unit with removable cartridge.
- Copper suction and delivery header for diameters of less than 3 1/8" and stainless steel for larger diameters.
- Thermal insulation of the suction header, filter and suction piping optional.

Connection pack

- 1 connection valve on the suction and liquid supply line.

Oil line

- Removable oil separator by-pass valve (option).
- Oil receiver with high and low indicator and shut-off valve.
- Oil return with filter and indicator.
- Float or electronic oil level monitoring system (optional).
- Non-adjustable, receiver degassing differential valve connected to the LP collector.
- Copper oil collector with flexible connection for each compressor.

Condenser

- Air condenser equipped with aluminium multi-channel coils positioned in "V" form offering greater compactness, long-term reliability and strength (very high impact resistance) as well as a high corrosion resistance.
- High reliability electronic switching fan motors (EC) enable optimized operation of your installation.
 - Ø 800 mm: EC1 (EC oversized motor) = up to 1020 rpm.
 - Ø 800 mm: EC2 = up to 730 rpm.

Liquid station

- Inclined horizontal liquid receiver with inlet/outlet shut-off valves equipped with liquid level indicators.
- 1 or 2 parallel dryer filters with removable filter cartridge and 3/8" SAE load valve
- 1 liquid outlet with indicator and shut-off valve.
- 1 or 2 blow-out valves on the 3-way valve to protect the receiver against pressure build-up.
- Liquid/steam exchanger with by-pass valves in suction side and liquid side.
- Refrigerant level alarm (optional).

Monitoring devices

• Per compressor:

- LP pressure switch connected to the compressor (option).
- 1 or 2 automatic reset HP cartridge pressure switch(s) per compressor (according to standard EN 378-2: 2009).
- 1 LP adjustable pressure switch for back-up pressure operation.
- Oil differential pressure switch.
- INT safety thermistor box.

• Per rack:

- General LP safety pressure switch.
- General HP safety pressure switch.
- Framing HP and LP pressure switch.
- Set of HP and LP manometers, diameter 100 mm, class 1.
- LP and HP sensors for normal operation control.
- Additional HP probe for condenser fan back-up operation.

CO2 LOW TEMPERATURE CIRCUIT

Compressors

- Compressors using semi-hermetic piston technology equipped with:
 - Crankcase heater.
 - Suction and delivery shut-off valves.
 - HP and LP tapping points with Schrader connector.
- Optional 30 to 70 Hz speed controller on the first compressor.

Collectors

- A general filter unit with tapping point and 2 maintenance valves (1/4" SAE).
- Copper suction and delivery collector.
- Liquid suction accumulator with oil return via siphon and discharge valve.
- Brazed plate liquid/steam heat-exchanger with by-pass valve on the liquid suction side.

Insulation

- Thermal insulation of the entire refrigeration circuit with the exception of delivery and oil lines.

Connection pack

- 1 connection valve on the suction and liquid supply line.

Oil line

- Removable oil separator by-pass valve (option) and discharge valve.
- Oil receiver with high and low indicator, shut-off valve and discharge valve.
- Oil return with filter and indicator.
- Electronic level controller with shut-off valve per compressor.
- Non-adjustable, receiver degassing differential valve connected to the LP collector.
- Copper oil collector with flexible connection for each compressor.

Condenser-unit cooler

- Thermally insulated brazed plate heat-exchanger.
- Electronic expansion valve with probe and sensor for control of superheating during normal operation.
- Thermostatic expansion valve coupled with a solenoid valve in parallel with an electronic expansion valve in back-up operation.
- Connection valves are included on the unit for connection of an optional air desuperheater.

Liquid station

- Inclined horizontal liquid receiver with inlet/outlet shut-off valves equipped with liquid level indicators.
- 2 blow-out valves on the 3-way valve to protect the receiver against pressure build-up.
- 1 dryer filter with removable filter cartridge with a 3/8" SAE load valve and 2 maintenance valves (1/4" SAE). Optional by-pass valve.
- Optoelectronic level alarm fitted to the liquid column in parallel with the receiver and height adjustable.
- 1 liquid outlet with indicator.
- Thermal insulation of the liquid station.

Safety unit

- Condensing unit filled with R134a with refrigerated connected to the CO2 liquid receiver via a plate unit cooler.

Monitoring devices

• Per compressor:

- LP pressure switch connected to the compressor.
- 1 or 2 automatic reset HP cartridge pressure switch(s) per compressor (according to standard EN 378-2: 2009).
- 1 LP adjustable pressure switch for back-up pressure operation.
- INT safety thermistor box.

• Per rack:

- General LP safety pressure switch.
- General HP safety pressure switch.
- Framing HP and LP pressure switch.
- Set of HP and LP manometers, diameter 100 mm, class 1.
- LP and HP sensors for normal operation control.

Electrical switching enclosure

- A dedicated switching enclosure for control of the unit.
- An optional electrical switching enclosure.

DESIGNATION

MCU⁽¹⁾-**C**⁽²⁾ **3x**⁽³⁾ **4GE23**⁽⁴⁾ /
3x⁽⁵⁾ **2JSL2**⁽⁶⁾ **A**⁽⁷⁾ **1W**⁽⁸⁾ **EC1**⁽⁹⁾



- (1) **MCU** = Encased outdoor condensing unit
MCO = Encased rack (separate condenser)
MMR = Machine room rack
- (2) Fluid: **C** = Cascade R134a / Sub-critical CO₂
- (3) Number of chill compressors
- (4) Type of chill compressors
- (5) Number of low temp. compressors
- (6) Type of low temp. compressors
- (7) Condenser version:
A = Standard
AS = Oversized condenser
LN = Low noise
LNS = Low noise with oversized condenser
- (8) Number of condensers
- (9) EC motors:
EC1 (EC oversized motor) = up to 1020 rpm.
EC2 = up to 730 rpm.

CERTIFICATIONS



ADVANTAGES

Installation

Optimisation of installation costs:

- Ready-to-install monoblock unit for productions of low and chill temperatures.
- Micro-channel technology for reduction of the coolant volume required.

Reduced size:

- Range designed to optimise the installation footprint with a combination of cutting-edge architecture and innovative technology. Use of micro-channel coils and associated layout.

Ideal for use in an urban environment:

- Use of EC motors with a low rotation speed associated with a compressor compartment with noise-proofing insulation considerably reduces noise levels.
- Added to this, the SilenTop (optional) is used to conceal the fans and serves as an acoustic enclosure.

Servicing

- The high mechanical resistance of the micro-channel coils enable fast and easy cleaning using a high-pressure cleaner.

Maintenance

- The door of the electrical switching enclosure is hinged for top opening which provides protection against rain and snow during maintenance work.
- The micro-channel coils are easily accessible and removable for easy maintenance.

Kit	Factory
	PR2
	PR3
	BPS
	CS1
	CS2
	HPG
	TXL
	DS1
	DS2
	SRL
	RHS
	BSH
	BFA
	RLHS
	ALF
	ALR
	BD1
	VAR
	ANM
	CDC
	ECO

OPTIONS

Connection

- PR2** External connection valves (1 delivery, 2 suction, 2 liquid)
- PR3** External connection valves (1 delivery, 3 suction, 3 liquid)

Control

- BPS** LP safety pressure switch per compressor
- CS1** Additional 4-20mA sensor
- CS2** Additional 1-5V ratiometric sensor
- HPG** HP general pressure switch
- TXL** Electronic compressor oil level regulator

Cooling circuit

- DS1** Air desuperheater (kit)
- DS2** Plate desuperheater
- SRL** Liquid sub-cooling
- RHS** Oversized oil receiver
- BSH** Oil separator by-pass
- BFA** By-pass Suction filter

Receiver

- RLHS** Oversized horizontal receiver

Liquid

- ALF** Electronic level alarm on the oil receiver.
- ALR** Opto-electronic refrigerant level alarm.
- BD1** Single liquid dryer by-pass

Condenser

- ACR** SilenTop
- G2F** Protection guard (2 faces)
- BXT** Blygold Polual XT coil protection (please contact us)
- VAR** Compressor speed variation

Miscellaneous

- ANM** Lifting rings
- CDC** Customer outlets cabinet module
- ECO** Container packaging

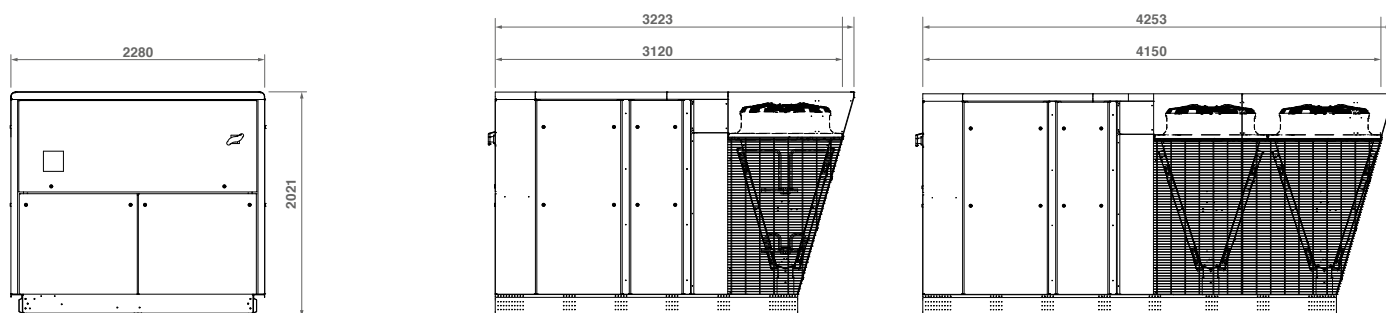


MULTIWAVE .. A ..	CHILL COMPRESSORS - R134a												
	Cascade designation		Chill compressors	Capacity MT	Rated capacity	RLH stand.	RLHS	Suction connections			Liquid outlets		
								PR1	PR2	PR3	PR1	PR2	PR3
	Nb	Ref.	kW (1)	kW (1)	l.	l.	Ø	Ø	Ø	Ø	Ø	Ø	
MCU-C 3x4TES9/2x2JSL2 A 1WEC1	3	4TES-9Y	23,2	14,3	60	90	2 1/8	2x1 5/8	3x1 3/8	1 1/8	2x7/8	3x5/8	
MCU-C 3x4PES12/2x2JSL2 A 1WEC1	3	4PES-12Y	27,9	15,9	60	90	2 1/8	2x1 5/8	3x1 3/8	1 1/8	2x7/8	3x5/8	
MCU-C 3x4JE15/2x2FSL4 A 1WEC1	3	4JE-15Y	30,6	22,3	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 4x4PES12/2x2GSL3 A 1WEC1	4	4PES-12Y	34,6	21,2	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 4x4PES12/3x2JSL2 A 1WEC1	4	4PES-12Y	34,9	21,2	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 4x4TES9/2x2JSL2 A 1WEC1	4	4TES-9Y	35,6	19,0	60	90	2 5/8	2x1 5/8	3x1 3/8	1 3/8	2x7/8	3x5/8	
MCU-C 3x4NES14/2x2JSL2 A 1WEC1	3	4NES-14Y	36,0	19,0	60	90	2 5/8	2x2 1/8	3x1 3/8	1 3/8	2x7/8	3x5/8	
MCU-C 2x4FE28/2x2FSL4 A 1WEC1	2	4FE-28Y	36,2	24,8	90	130	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 3x4JE15/2x2GSL3 A 1WEC1	3	4JE-15Y	36,7	22,3	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 3x4JE15/3x2JSL2 A 1WEC1	3	4JE-15Y	36,9	22,3	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 4x4NES14/2x2FSL4 A 1WEC1	4	4NES-14Y	39,3	25,3	90	130	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 3x4HE18/2x2FSL4 A 1WEC1	3	4HE-18Y	41,6	26,2	90	130	3 1/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 4x4PES12/2x2JSL2 A 1WEC1	4	4PES-12Y	41,9	21,2	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 3x4JE15/2x2JSL2 A 1WEC1	3	4JE-15Y	44,0	22,3	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 4x4NES14/2x2GSL3 A 1WEC1	4	4NES-14Y	45,4	25,3	90	130	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 4x4NES14/3x2JSL2 A 1WEC1	4	4NES-14Y	45,6	25,3	90	130	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 3x4HE18/2x2GSL3 A 1WEC1	3	4HE-18Y	47,6	26,2	90	130	3 1/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 3x4HE18/3x2JSL2 A 1WEC1	3	4HE-18Y	47,9	26,2	90	130	3 1/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 3x4GE23/2x2FSL4 A 1WEC1	3	4GE-23Y	48,9	30,0	90	130	3 1/8	2x2 1/8	3x1 5/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 4x4NES14/2x2JSL2 A 1WEC1	4	4NES-14Y	52,7	25,3	90	130	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 3x4FE28/3x2FSL4 A 2WEC1	3	4FE-28Y	54,4	37,1	90	130	3 1/8	2x2 5/8	3x2 1/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x4GE23/2x2GSL3 A 1WEC1	3	4GE-23Y	55,0	30,0	90	130	3 1/8	2x2 1/8	3x1 5/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x4GE23/3x2JSL2 A 1WEC1	3	4GE-23Y	55,3	30,0	90	130	3 1/8	2x2 1/8	3x1 5/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x4FE28/2x2ESL4 A 2WEC1	3	4FE-28Y	61,7	37,1	90	130	3 1/8	2x2 5/8	3x2 1/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x4FE28/3x2GSL3 A 2WEC1	3	4FE-28Y	63,5	37,1	90	130	3 1/8	2x2 5/8	3x2 1/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x6GE34/2x4FSL7 A 2WEC1	3	6GE-34Y	64,2	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	
MCU-C 3x6GE34/3x2ESL4 A 2WEC1	3	6GE-34Y	65,7	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	
MCU-C 3x4FE28/2x2FSL4 A 2WEC1	3	4FE-28Y	68,1	37,1	90	130	3 1/8	2x2 5/8	3x2 1/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x4FE28/2x2GSL3 A 2WEC1	3	4FE-28Y	74,2	37,1	90	130	3 1/8	2x2 5/8	3x2 1/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x6GE34/3x2FSL4 A 2WEC1	3	6GE-34Y	75,3	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	
MCU-C 3x6GE34/2x2ESL4 A 2WEC1	3	6GE-34Y	82,7	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	
MCU-C 3x6GE34/3x2GSL3 A 2WEC1	3	6GE-34Y	84,5	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	
MCU-C 3x6GE34/2x2FSL4 A 2WEC1	3	6GE-34Y	89,1	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	
MCU-C 3x6GE34/2x2GSL3 A 2WEC1	3	6GE-34Y	95,2	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	

(1) Evaporation temperature -10°C / Ambient temperature +32°C - Superheating: 10K - Subcooling : 3K.

(2) Evaporation temperature -35°C / Ambient temperature -5°C - Superheating: 10K - Subcooling : 3K.

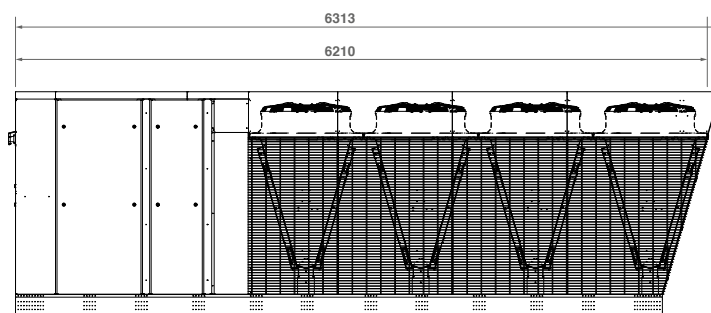
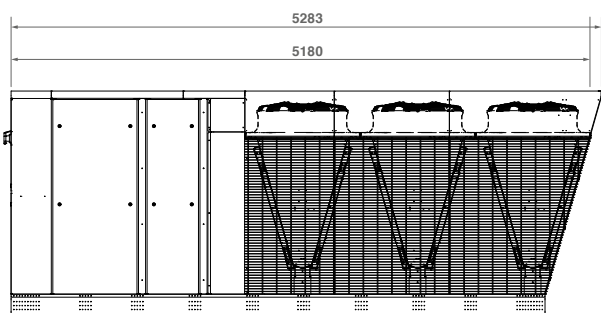
MULTIWAVE .. AS .. Oversized condenser (please contact us)



LOW-TEMP. COMPRESSORS - R744 (CO₂)

Low-temp. compressors		Capacity LT kW (2)	Rated capacity kW (2)	RLH stand. l.	Suction connections	
Nb	Ref.				PR1 Ø	PR1 Ø
2	2JSL-2K	10,5	3,2	50	5/8	5/8
2	2JSL-2K	10,5	3,2	50	5/8	5/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8
3	2JSL-2K	15,8	4,7	50	7/8	5/8
2	2JSL-2K	10,5	3,2	50	5/8	5/8
2	2JSL-2K	10,5	3,2	50	5/8	5/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8
3	2JSL-2K	15,8	4,7	50	7/8	5/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2JSL-2K	10,5	3,2	50	5/8	5/8
2	2JSL-2K	10,5	3,2	50	5/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8
3	2JSL-2K	15,8	4,7	50	7/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8
3	2JSL-2K	15,8	4,7	50	7/8	5/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2JSL-2K	10,5	3,2	50	5/8	5/8
3	2FSL-4K	31,5	8,5	90	1 1/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8
3	2JSL-2K	15,8	4,7	50	7/8	5/8
2	2ESL-4K	26,1	6,8	70	7/8	5/8
3	2GSL-3K	24,4	6,7	70	7/8	5/8
2	4FSL-7K	40,4	10,4	90	1 1/8	7/8
3	2ESL-4K	39,1	10,2	90	1 1/8	7/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8
3	2FSL-4K	31,5	8,5	90	1 1/8	5/8
2	2ESL-4K	26,1	6,8	70	7/8	5/8
3	2GSL-3K	24,4	6,7	70	7/8	5/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8

EC fan Nb	Rated capacity kW	Max. current A	Dimensions			Weight kg
			Length mm	Width mm	Height mm	
2	4,8	66,8	3120	2280	2025	2337
2	4,8	73,8	3120	2280	2025	2353
2	4,8	103,8	3120	2280	2025	2519
2	4,8	96,2	3120	2280	2025	2514
2	4,8	96,4	3120	2280	2025	2576
2	4,8	82,8	3120	2280	2025	2474
2	4,8	81,8	3120	2280	2025	2363
2	4,8	115,8	3120	2280	2025	2388
2	4,8	100,2	3120	2280	2025	2506
2	4,8	100,4	3120	2280	2025	2555
2	4,8	111,8	3120	2280	2025	2551
2	4,8	114,8	3120	2280	2025	2573
2	4,8	91,8	3120	2280	2025	2511
2	4,8	95,8	3120	2280	2025	2491
2	4,8	108,2	3120	2280	2025	2544
2	4,8	108,4	3120	2280	2025	2606
2	4,8	111,2	3120	2280	2025	2559
2	4,8	111,4	3120	2280	2025	2609
2	4,8	125,8	3120	2280	2025	2596
2	4,8	103,8	3120	2280	2025	2541
4	9,6	177,0	4150	2280	2025	3004
2	4,8	122,2	3120	2280	2025	2589
2	4,8	122,4	3120	2280	2025	2639
4	9,6	170,6	4150	2280	2025	2979
4	9,6	171,6	4150	2280	2025	2980
4	9,6	203,6	4150	2280	2025	3232
4	9,6	201,3	4150	2280	2025	3275
4	9,6	168,4	4150	2280	2025	2900
4	9,6	164,8	4150	2280	2025	2893
4	9,6	198,0	4150	2280	2025	3172
4	9,6	191,6	4150	2280	2025	3147
4	9,6	192,6	4150	2280	2025	3149
4	9,6	189,4	4150	2280	2025	3069
4	9,6	185,8	4150	2280	2025	3062



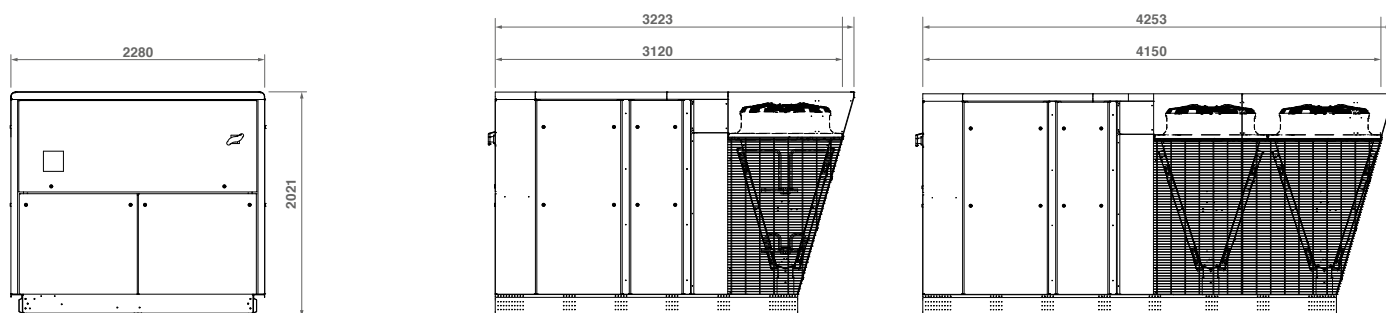
MULTIWAVE .. LN ..	CHILL COMPRESSORS - R134a												
	Cascade designation		Chill compressors	Capacity MT	Rated capacity	RLH stand.	RLHS	Suction connections			Liquid outlets		
								PR1	PR2	PR3	PR1	PR2	PR3
	Nb	Ref.	kW (1)	kW (1)	l.	l.	Ø	Ø	Ø	Ø	Ø	Ø	
MCU-C 3x4TES9/2x2JSL2 LN 1WEC2	3	4TES-9Y	23,2	14,3	60	90	2 1/8	2x1 5/8	3x1 3/8	1 1/8	2x7/8	3x5/8	
MCU-C 3x4PES12/2x2JSL2 LN 1WEC2	3	4PES-12Y	27,9	15,9	60	90	2 1/8	2x1 5/8	3x1 3/8	1 1/8	2x7/8	3x5/8	
MCU-C 3x4JE15/2x2FSL4 LN 2WEC2	3	4JE-15Y	30,6	22,3	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 4x4PES12/2x2GSL3 LN 2WEC2	4	4PES-12Y	34,6	21,2	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 4x4PES12/3x2JSL2 LN 2WEC2	4	4PES-12Y	34,9	21,2	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 4x4TES9/2x2JSL2 LN 1WEC2	4	4TES-9Y	35,6	19,0	60	90	2 5/8	2x1 5/8	3x1 3/8	1 3/8	2x7/8	3x5/8	
MCU-C 3x4NES14/2x2JSL2 LN 1WEC2	3	4NES-14Y	36,0	19,0	60	90	2 5/8	2x2 1/8	3x1 3/8	1 3/8	2x7/8	3x5/8	
MCU-C 2x4FE28/2x2FSL4 LN 2WEC2	2	4FE-28Y	36,2	24,8	90	130	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 3x4JE15/2x2GSL3 LN 2WEC2	3	4JE-15Y	36,7	22,3	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 3x4JE15/3x2JSL2 LN 2WEC2	3	4JE-15Y	36,9	22,3	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 4x4NES14/2x2FSL4 LN 2WEC2	4	4NES-14Y	39,3	25,3	90	130	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 3x4HE18/2x2FSL4 LN 2WEC2	3	4HE-18Y	41,6	26,2	90	130	3 1/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 4x4PES12/2x2JSL2 LN 2WEC2	4	4PES-12Y	41,9	21,2	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 3x4JE15/2x2JSL2 LN 2WEC2	3	4JE-15Y	44,0	22,3	60	90	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x7/8	3x5/8	
MCU-C 4x4NES14/2x2GSL3 LN 2WEC2	4	4NES-14Y	45,4	25,3	90	130	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 4x4NES14/3x2JSL2 LN 2WEC2	4	4NES-14Y	45,6	25,3	90	130	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 3x4HE18/2x2GSL3 LN 2WEC2	3	4HE-18Y	47,6	26,2	90	130	3 1/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 3x4HE18/3x2JSL2 LN 2WEC2	3	4HE-18Y	47,9	26,2	90	130	3 1/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 3x4GE23/2x2FSL4 LN 2WEC2	3	4GE-23Y	50,1	29,7	90	130	3 1/8	2x2 1/8	3x1 5/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 4x4NES14/2x2JSL2 LN 2WEC2	4	4NES-14Y	52,7	25,3	90	130	2 5/8	2x2 1/8	3x1 5/8	1 3/8	2x1 1/8	3x7/8	
MCU-C 3x4FE28/3x2FSL4 LN 3WEC2	3	4FE-28Y	54,4	37,1	90	130	3 1/8	2x2 5/8	3x2 1/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x4GE23/2x2GSL3 LN 2WEC2	3	4GE-23Y	56,2	29,7	90	130	3 1/8	2x2 1/8	3x1 5/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x4GE23/3x2JSL2 LN 2WEC2	3	4GE-23Y	56,5	29,7	90	130	3 1/8	2x2 1/8	3x1 5/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x4FE28/2x2ESL4 LN 3WEC2	3	4FE-28Y	61,7	37,1	90	130	3 1/8	2x2 5/8	3x2 1/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x4FE28/3x2GSL3 LN 3WEC2	3	4FE-28Y	63,5	37,1	90	130	3 1/8	2x2 5/8	3x2 1/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x6GE34/2x4FSL7 LN 3WEC2	3	6GE-34Y	64,2	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	
MCU-C 3x6GE34/3x2ESL4 LN 3WEC2	3	6GE-34Y	65,7	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	
MCU-C 3x4FE28/2x2FSL4 LN 3WEC2	3	4FE-28Y	68,1	37,1	90	130	3 1/8	2x2 5/8	3x2 1/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x4FE28/2x2GSL3 LN 3WEC2	3	4FE-28Y	74,2	37,1	90	130	3 1/8	2x2 5/8	3x2 1/8	1 5/8	2x1 1/8	3x7/8	
MCU-C 3x6GE34/3x2FSL4 LN 3WEC2	3	6GE-34Y	75,3	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	
MCU-C 3x6GE34/2x2ESL4 LN 3WEC2	3	6GE-34Y	82,7	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	
MCU-C 3x6GE34/3x2GSL3 LN 3WEC2	3	6GE-34Y	84,5	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	
MCU-C 3x6GE34/2x2FSL4 LN 3WEC2	3	6GE-34Y	89,1	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	
MCU-C 3x6GE34/2x2GSL3 LN 3WEC2	3	6GE-34Y	95,2	45,2	130	250	4 1/8	2x2 5/8	3x2 1/8	2 1/8	2x1 3/8	3x1 1/8	

(1) Evaporation temperature -10°C / Ambient temperature +32°C - Superheating: 10K - Subcooling : 3K.

(2) Evaporation temperature -35°C / Ambient temperature -5°C - Superheating: 10K - Subcooling : 3K.

(3) Sound pressure in dB(A) measured at 10 m, line of sight in a reflective surface, in accordance with standard EN 13487 (parallelepiped reference surface).

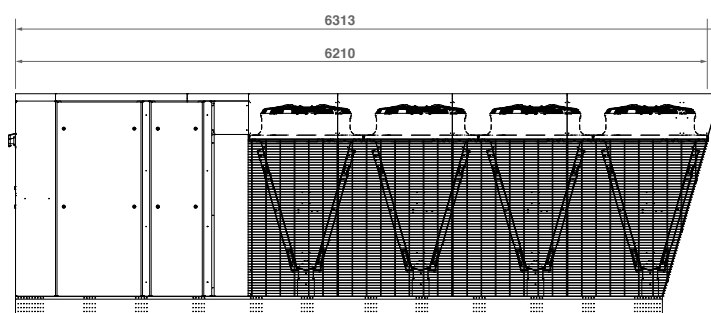
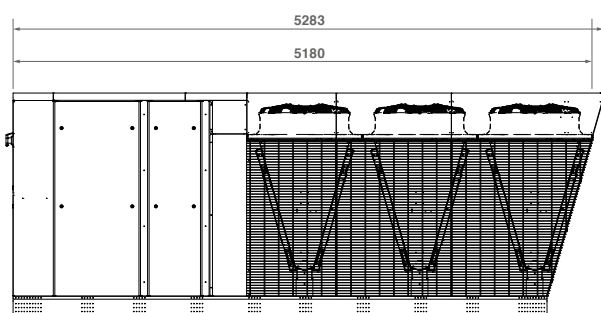
MULTIWAVE .. LNS .. Low noise with oversized condenser (please contact us)



LOW-TEMP. COMPRESSORS - R744 (CO₂)

Low-temp. compressors		Capacity LT kW (2)	Rated capacity kW (2)	RLH stand. l.	Suction connections	
Nb	Ref.				PR1 Ø	PR1 Ø
2	2JSL-2K	10,5	3,2	50	5/8	5/8
2	2JSL-2K	10,5	3,2	50	5/8	5/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8
3	2JSL-2K	15,8	4,7	50	7/8	5/8
2	2JSL-2K	10,5	3,2	50	5/8	5/8
2	2JSL-2K	10,5	3,2	50	5/8	5/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8
3	2JSL-2K	15,8	4,7	50	7/8	5/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2JSL-2K	10,5	3,2	50	5/8	5/8
2	2JSL-2K	10,5	3,2	50	5/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8
3	2JSL-2K	15,8	4,7	50	7/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8
3	2JSL-2K	15,8	4,7	50	7/8	5/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2JSL-2K	10,5	3,2	50	5/8	5/8
3	2FSL-4K	31,5	8,5	90	1 1/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8
3	2JSL-2K	15,8	4,7	50	7/8	5/8
2	2ESL-4K	26,1	6,8	70	7/8	5/8
3	2GSL-3K	24,4	6,7	70	7/8	5/8
2	4FSL-7K	40,4	10,4	90	1 1/8	7/8
3	2ESL-4K	39,1	10,2	90	1 1/8	7/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8
3	2FSL-4K	31,5	8,5	90	1 1/8	5/8
2	2ESL-4K	26,1	6,8	70	7/8	5/8
3	2GSL-3K	24,4	6,7	70	7/8	5/8
2	2FSL-4K	21,0	5,7	50	7/8	5/8
2	2GSL-3K	16,3	4,5	50	7/8	5/8

EC fan Nb	Rated capacity kW	Acoustic Lp at 10m dB(A) (3)	Max. current A	Dimensions			Weight kg
				Length mm	Width mm	Height mm	
2	1,6	40	62,0	3120	2280	2025	2417
2	1,6	43	69,0	3120	2280	2025	2433
4	3,2	40	101,8	4150	2280	2025	2885
4	3,2	40	94,2	4150	2280	2025	2880
4	3,2	41	94,4	4150	2280	2025	2941
2	1,6	47	78,0	3120	2280	2025	2554
2	1,6	48	77,0	3120	2280	2025	2443
4	3,2	43	113,8	4150	2280	2025	2753
4	3,2	40	98,2	4150	2280	2025	2871
4	3,2	40	98,4	4150	2280	2025	2921
4	3,2	43	109,8	4150	2280	2025	2916
4	3,2	42	112,8	4150	2280	2025	2938
4	3,2	40	89,8	4150	2280	2025	2876
4	3,2	40	93,8	4150	2280	2025	2856
4	3,2	43	106,2	4150	2280	2025	2909
4	3,2	43	106,4	4150	2280	2025	2971
4	3,2	42	109,2	4150	2280	2025	2924
4	3,2	42	109,4	4150	2280	2025	2974
4	3,2	46	123,8	4150	2280	2025	2961
4	3,2	43	101,8	4150	2280	2025	2906
6	4,7	45	170,2	5180	2280	2025	3369
4	3,2	46	120,2	4150	2280	2025	2954
4	3,2	46	120,4	4150	2280	2025	3004
6	4,7	45	163,8	5180	2280	2025	3344
6	4,7	45	164,8	5180	2280	2025	3345
6	4,7	48	196,8	5180	2280	2025	3597
6	4,7	48	194,5	5180	2280	2025	3640
6	4,7	45	161,6	5180	2280	2025	3265
6	4,7	45	158,0	5180	2280	2025	3258
6	4,7	48	191,2	5180	2280	2025	3538
6	4,7	48	184,8	5180	2280	2025	3512
6	4,7	48	185,8	5180	2280	2025	3514
6	4,7	48	182,6	5180	2280	2025	3434
6	4,7	48	179,0	5180	2280	2025	3427



ENCASED OUTDOOR CONDENSING UNIT MULTI-COMPRESSORS

Hard Discount - Supermarkets - Hypermarkets
Refrigerated storage and transit stocking - Dispatch centres
Food processing

HFC

5 > 290 kW

MULTIHAVANE

- Vertical-blowing, multi-compressor, encased air condensing units for outdoor installation on the floor or roof.
- This range offers a low noise model as well as an oversized condenser for use in hot climates.
- Entire unit completely pre-wired including Scroll or Semi-hermetic compressors.
- Capacity ratings of the range:
 - High-temperature application from 100 to 290 kW
 - Medium-temperature application from 15 to 235 kW
 - Low temperature application from 5 to 70 kW

Composition of models

- Select for each model:

The compressor technology,

- OCT (Octagon semi-hermetic piston),
- or Sc (Scroll),
- or SH (Semi-Hermetic piston).

The noise level,

- standard
- or LN (low noise) suitable when noise is a problem (noise isolation of the compressor compartment and condenser with up to 16 fans).

The condenser,

- standard
- or S (oversized) for high ambient temperatures.

DESCRIPTION

Frame / Casing

- The frame base is made of folded, high resistance, galvanized sheet metal.
- The casing is composed of white pre-painted sheet metal.
- The casing panels may be easily removed with the ¼-turn latches.
- The base frame is equipped with lifting rings for easy handling.

Compressors

- The compressors are filled with R404A ester oil and equipped as indicated in the table below:

	SH Octagon	Scroll	SH
Number of compressors	2-3-4	2-3-4	2-3
Casing heater	Yes	Yes	Yes
Suction and delivery valves	Yes	Yes	Yes
HP safety pressure switch	Yes	Yes	Yes
Oil pump	From 4VC	No	Yes
Head fan	Low temp. range	No	Low temp. range

Collectors

- The suction and delivery collectors are made of stainless steel 304L for SH and copper for Sc and OCT, secured with polypropylene straps on the suction side and high temperature resistant polyamide straps on the delivery side.
- A general filter unit is used on the suction side or one per compressor according to model with removable cartridge(s).

Oil line

- LP oil return with removable oil separator and tank equipped with high/low level indicator, shut-off valve and calibrated degassing valve in the LP collector with shut-off valve.
- Oil level regulator with float system and a shut-off valve per compressor.

Condenser

- The MULTIHAVANE range includes condensers of the type NEOSTAR (L or P) and WA, which are controlled with cascade shutdown.

Receiver

- Horizontal liquid receiver with 2 inlet/outlet shutoff valves.
- Single or double safety valve with 3-way valve if the capacity is > or = to 100 l.

Liquid line

- Liquid line with dryer filter with removable cartridge(s), 3/8" SAE fill valve with hydroscopic indicator and shut-off valve(s).

Connection valves

- Liquid suction valve and delivery valve according on models.

Control and safety

- The unit is controlled as follows:
 - For units with 2 Scroll or Octagon compressors: Pressure control with 1 LP pressure switch per compressor and 1 control HP pressure switch per condenser fan.
 - For the other units: Electronic control with LP/HP sensors delivering a 4/20mA signal
- A general safety LP pressure switch.
- One oil differential pressure switch per compressor (only for semi-hermetic compressors and from compressor 4VC for OCT).
- 1 or 2 automatic reset HP pressure switch(s) per compressor. (compliant with standard EN 378-2: 2009) 2009)
- Two manometers (LP+HP).
- Connection of each element with 1/4" flexible hose.

Switching enclosure

- Switching enclosure with double swing doors and latching system.
- Main isolator switch on front panel with "Power on" indicator.
- All electrical components are connected to a board containing the condensing unit protection and control elements.



ADVANTAGES

Installation

Condensing units delivered ready for installation with factory pre-wired switching enclosure to help reduce installation time.

The base frame is equipped with lifting rings for easy handling.

Oversized condenser for the AS model for installation in zones with high ambient temperatures.

The low noise ALN model is ideal for use in an urban environment.

Servicing / Maintenance

The side panels may be simply removed with 1/4 turn latches offering easy access to all components.

The electrical enclosure has double swing doors for easy access during all interventions.

MULTIHAVANE - Standard

Chill range (high temperature)

MULTIHAVANE SH	Comp.	Capacity	Input power	Casing	Input current	Receiver capacity	Suction	Liquid	Dimensions			Net weight
	Nb	kW (1)	kW (1)	Type	A max.	l.	Ø	Ø	L	P	H	kg
MHV SH 2PHT/4HE-25Y A C3 L2-D	2	115,9	41,6	C3	89,6	145	2"5/8	1"3/8	6000	1250	1900	1874
MHV SH 2PHT/4MH-25X A C3 L2-D	2	119,3	40,4	C3	88,8	145	2"5/8	1"3/8	6000	1250	1900	1860
MHV SH 2PHT/4MI-30X A C4 P4-A	2	133,0	49,0	C4	115,6	145	3"1/8	1"5/8	4400	2330	1900	2115
MHV SH 2PHT/4GE-30Y A C4 P4-A	2	135,0	52,0	C4	114,6	145	3"1/8	1"5/8	4400	2330	1900	2135
MHV SH 2PHT/4FE-35Y A C4 P6-A	2	166,8	61,9	C4	136,6	200	3"1/8	1"5/8	5600	2330	1900	2586
MHV SH 3PHT/4HE-25Y A C5 P4-A	3	171,6	65,9	C5	140,4	200	3"1/8	1"5/8	5000	2330	1900	2563
MHV SH 2PHT/4MK-35X A C4 P6-A	2	172,0	60,0	C4	131,1	200	3"1/8	1"5/8	5600	2330	1900	2544
MHV SH 3PHT/4MH-25X A C5 P4-B	3	178,4	63,1	C5	139,3	200	3"1/8	1"5/8	5600	2330	1900	2568
MHV SH 2PHT/6GE-40Y A C4 P6-A	2	197,6	73,2	C4	160,4	200	4"1/8	2"1/8	5600	2330	1900	2652
MHV SH 2PHT/6MI-40X A C4 P6-A	2	198,9	69,3	C4	138,7	200	4"1/8	2"1/8	5600	2330	1900	2618
MHV SH 3PHT/4MI-30X A C5 P6-A	3	200,0	69,7	C5	163,1	200	4"1/8	2"1/8	6200	2330	1900	2856
MHV SH 3PHT/4GE-30Y A C5 P6-A	3	203,3	74,2	C5	161,7	200	4"1/8	2"1/8	6200	2330	1900	2882
MHV SH 2PHT/6FE-50Y A C4 P6-A	2	235,8	93,4	C4	210,8	200	4"1/8	2"1/8	5600	2330	1900	2674
MHV SH 2PHT/6MK-50X A C4 P6-A	2	243,4	91,4	C4	190,9	200	4"1/8	2"1/8	5600	2330	1900	2670
MHV SH 3PHT/4FE-35Y A C5 P6-B	3	245,2	92,2	C5	202,2	200	4"1/8	2"1/8	7100	2330	1900	3025
MHV SH 3PHT/4MK-35X A C5 P6-B	3	253,1	89,5	C5	193,9	200	4"1/8	2"1/8	7100	2330	1900	3044
MHV SH 3PHT/6GE-40Y A C5 P6-B	3	289,0	109,4	C5	237,9	200	4"1/8	2"1/8	7100	2330	1900	3130
MHV SH 3PHT/6MI-40X A C5 P6-B	3	291,5	103,7	C5	205,4	200	4"1/8	2"1/8	7100	2330	1900	3142

MULTIHAVANE - Oversized condenser

Chill range (high temperature)

MHV SH 2PHT/4HE-25Y AS C4 P4-A	2	100,5	47,0	C4	94,8	145	2"5/8	1"3/8	4400	2330	1900	2154
MHV SH 2PHT/4MH-25X AS C4 P4-A	2	103,8	46,4	C4	94,0	145	2"5/8	1"3/8	4400	2330	1900	2140
MHV SH 2PHT/4MI-30X AS C4 P4-A	2	113,7	54,0	C4	115,6	145	3"1/8	1"5/8	4400	2330	1900	2166
MHV SH 2PHT/4GE-30Y AS C4 P4-B	2	115,0	55,1	C4	114,6	145	3"1/8	1"5/8	5000	2330	1900	2212
MHV SH 2PHT/4FE-35Y AS C4 P6-A	2	138,8	67,6	C4	136,6	200	3"1/8	1"5/8	5600	2330	1900	2586
MHV SH 2PHT/4MK-35X AS C4 P6-A	2	144,7	66,9	C4	131,1	200	3"1/8	1"5/8	5600	2330	1900	2544
MHV SH 3PHT/4HE-25Y AS C5 P6-A	3	150,7	70,5	C5	142,2	200	3"1/8	1"5/8	6200	2330	1900	2846
MHV SH 3PHT/4MH-25X AS C5 P6-A	3	155,8	69,5	C5	141,1	200	3"1/8	1"5/8	6200	2330	1900	2825
MHV SH 2PHT/6GE-40Y AS C4 P6-A	2	166,4	83,1	C4	170,6	200	4"1/8	2"1/8	5600	2330	1900	2664
MHV SH 2PHT/6MI-40X AS C4 P6-A	2	170,0	80,1	C4	148,9	200	4"1/8	2"1/8	5600	2330	1900	2630
MHV SH 3PHT/4MI-30X AS C5 P6-A	3	170,6	81,0	C5	173,3	200	4"1/8	2"1/8	6200	2330	1900	2868
MHV SH 3PHT/4GE-30Y AS C5 P6-A	3	171,1	83,9	C5	171,9	200	4"1/8	2"1/8	6200	2330	1900	2894
MHV SH 2PHT/6FE-50Y AS C4 P6-B	2	201,3	98,9	C4	210,8	200	4"1/8	2"1/8	6500	2330	1900	2814
MHV SH 2PHT/6MK-50X AS C4 P6-B	2	213,6	101,2	C4	201,1	200	4"1/8	2"1/8	6500	2330	1900	2822

(1) A : Evaporation temperature 0°C / Ambient temperature +32°C - Superheating: 10K - Subcooling: 3K.
 AS : Evaporation temperature 0°C / Ambient temperature +42°C - Superheating: 10K - Subcooling: 3K.

MULTIHAVANE - Octagon

	PR2	BP1	BPS	CDP	HPG	HPS	BAC	SIL	TXL	RLS	ALR	SSD < 100 l.	BAE	COQ	GPC
MHV OCT 2 ...	-	0	0	-	0	0	-	-	0	0	0	0	0	-	0
MHV OCT 3 ...	-	0	0	0	0	0	0	-	0	0	0	0	0	-	0
MHV OCT 4 ...	-	0	0	0	0	0	0	-	0	0	0	0	0	-	0

MULTIHAVANE - Scroll

	PR2	BP1	BPS	CDP	HPG	HPS	BAC	SIL	TXL	RLS	ALR	SSD < 100 l.	BAE	COQ	GPC
MHV SC 2 ...	-	0	0	-	0	-	-	-	S	0	0	0	0	0	0
MHV SC 3 ...	-	0	0	0	0	0	-	-	S	0	0	0	0	0	0
MHV SC 4 ...	-	0	0	0	0	0	-	-	S	0	0	0	0	0	0

MULTIHAVANE - Semi-Hermetic

	PR2	BP1	BPS	CDP	HPG	HPS	BAC	SIL	TXL	RLS	ALR	SSD < 100 l.	BAE	COQ	GPC
MHV SH ...	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0

S : Standard

MULTIHAVANE - Standard

Chill range

MULTIHAVANE OCT	Comp.	Capacity	Input power	Casing	Input current	Receiver capacity	Suction	Liquid	Dimensions			Net weight
	Nb	kW (1)	kW (1)	Type	A max.	l.	Ø	Ø	L	P	H	kg
MHV OCT 2P/4EES-4Y A C1 L2-5	2	21,9	11,4	C1	21,9	40	1"5/8	7/8"	2995	920	1190	789
MHV OCT 2P/4DES-5Y A C1 L2-6	2	28,0	15,1	C1	29,8	50	1"5/8	7/8"	3475	920	1190	890
MHV OCT 2P/4CES-6Y A C1 L2-6	2	32,5	17,7	C1	36,5	50	1"5/8	7/8"	3475	920	1190	910
MHV OCT 3P/4EES-4Y A C3 L2-A	3	36,4	18,5	C3	39,3	50	1"5/8	7/8"	4400	1250	1900	1516
MHV OCT 2P/4TES-9Y A C1 L3-6	2	41,5	19,7	C1	42,4	68	2"1/8	1"1/8	4375	920	1190	1006
MHV OCT 3P/4DES-5Y A C3 L2-A	3	42,1	21,6	C3	46,4	68	2"1/8	1"1/8	4400	1250	1900	1476
MHV OCT 4P/4EES-4Y A C5 P4-A	4	47,3	21,4	C5	42,9	68	2"1/8	1"1/8	5000	2330	1900	2098
MHV OCT 2P/4PES-12Y A C1 L3-6	2	47,4	24,5	C1	50,1	68	2"1/8	1"1/8	4375	920	1190	1022
MHV OCT 3P/4CES-6Y A C3 L2-A	3	51,4	25,2	C3	56,4	68	2"1/8	1"1/8	4400	1250	1900	1517
MHV OCT 4P/4DES-5Y A C5 P4-A	4	54,9	25,6	C5	53,0	68	2"1/8	1"1/8	5000	2330	1900	2110
MHV OCT 2P/4NES-14Y A C2 L2-A	2	57,4	27,9	C2	60,1	68	2"1/8	1"1/8	4100	1230	1420	1200
MHV OCT 3P/4TES-9Y A C3 L2-A	3	63,2	32,2	C3	70,6	68	2"1/8	1"1/8	4400	1250	1900	1646
MHV OCT 4P/4CES-6Y A C5 P4-A	4	68,7	32,3	C5	73,6	68	2"1/8	1"1/8	5000	2330	1900	2140
MHV OCT 3P/4PES-12Y A C3 L2-A	3	71,9	35,2	C3	76,8	98	2"5/8	1"3/8	4400	1250	1900	1725
MHV OCT 4P/4TES-9Y A C5 P4-A	4	83,2	38,8	C5	83,0	98	2"5/8	1"3/8	5000	2330	1900	2384
MHV OCT 3P/4NES-14Y A C3 L2-B	3	83,3	41,8	C3	89,3	98	2"5/8	1"3/8	5000	1250	1900	1777
MHV OCT 4P/4PES-12Y A C5 P4-A	4	99,5	46,7	C5	103,6	98	2"5/8	1"3/8	5000	2330	1900	2404
MHV OCT 4P/4NES-14Y A C5 P4-A	4	114,7	55,9	C5	120,2	98	2"5/8	1"3/8	5000	2330	1900	2414

MULTIHAVANE - Oversized condenser

Chill range

MHV OCT 2P/4EES-4Y AS C1 L2-6	2	19,6	14,0	C1	25,1	40	1"5/8	7/8"	3475	920	1190	822
MHV OCT 2P/4DES-5Y AS C1 L2-6	2	22,7	16,1	C1	29,8	50	1"5/8	7/8"	3475	920	1190	890
MHV OCT 2P/4CES-6Y AS C1 L3-6	2	28,2	17,1	C1	35,2	50	1"5/8	7/8"	4375	920	1190	968
MHV OCT 3P/4EES-4Y AS C3 L2-A	3	29,6	19,9	C3	39,3	50	1"5/8	7/8"	4400	1250	1900	1516
MHV OCT 2P/4TES-9Y AS C1 L3-6	2	34,5	23,8	C1	46,0	68	2"1/8	1"1/8	4375	920	1190	1012
MHV OCT 3P/4DES-5Y AS C3 L2-A	3	35,8	23,1	C3	46,4	68	2"1/8	1"1/8	4400	1250	1900	1497
MHV OCT 4P/4EES-4Y AS C5 P4-A	4	38,6	23,3	C5	43,6	68	2"1/8	1"1/8	5000	2330	1900	2098
MHV OCT 2P/4PES-12Y AS C2 L2-A	2	40,7	26,1	C2	55,2	68	2"1/8	1"1/8	4100	1230	1420	1190
MHV OCT 3P/4CES-6Y AS C3 L2-A	3	42,8	28,4	C3	59,8	68	2"1/8	1"1/8	4400	1250	1900	1517
MHV OCT 4P/4DES-5Y AS C5 P4-A	4	47,8	29,4	C5	60,2	68	2"1/8	1"1/8	5000	2330	1900	2110
MHV OCT 2P/4NES-14Y AS C2 L2-A	2	48,3	30,8	C2	63,5	68	2"1/8	1"1/8	4100	1230	1420	1226
MHV OCT 3P/4TES-9Y AS C3 L2-B	3	52,8	33,7	C3	70,6	68	2"1/8	1"1/8	5000	1250	1900	1712
MHV OCT 4P/4CES-6Y AS C5 P4-A	4	56,4	33,7	C5	68,6	68	2"1/8	1"1/8	5000	2330	1900	2182
MHV OCT 3P/4PES-12Y AS C3 L3-A	3	61,1	36,7	C3	82,8	98	2"5/8	1"3/8	5600	1250	1900	1880
MHV OCT 4P/4TES-9Y AS C5 P4-A	4	72,3	45,4	C5	95,4	98	2"5/8	1"3/8	5000	2330	1900	2384
MHV OCT 3P/4NES-14Y AS C3 L3-A	3	72,4	43,7	C3	95,3	98	2"5/8	1"3/8	5600	1250	1900	1923
MHV OCT 4P/4PES-12Y AS C5 P4-A	4	81,8	49,4	C5	103,6	98	2"5/8	1"3/8	5000	2330	1900	2447
MHV OCT 4P/4NES-14Y AS C5 P4-A	4	94,7	59,1	C5	120,2	98	2"5/8	1"3/8	5000	2330	1900	2457

MULTIHAVANE - Low noise

Chill range

MULTIHAVANE OCT	Comp.	Capacity	Input power	Casing	Input current	Acoustic Lp at 10 m	Receiver capacity	Suction	Liquid	Dimensions			Net weight
	Nb	kW (1)	kW (1)	Type	A max.	dB(A) (2)	l.	Ø	Ø	L	P	H	kg
MHV OCT 2P/4EES-4Y ALN C2 L2-A	2	24,3	10,6	C2	21,8	33	40	1"5/8	7/8"	4100	1230	1420	1160
MHV OCT 2P/4DES-5Y ALN C2 L2-A	2	28,2	12,6	C2	26,5	34	50	1"5/8	7/8"	4100	1230	1420	1228
MHV OCT 2P/4CES-6Y ALN C2 L2-A	2	34,3	16,1	C2	36,8	43	50	1"5/8	7/8"	4100	1230	1420	1227
MHV OCT 3P/4EES-4Y ALN C3 L2-A	3	35,4	17,1	C3	35,6	43	50	1"5/8	7/8"	4400	1250	1900	1656
MHV OCT 3P/4DES-5Y ALN C3 L2-A	3	40,8	20,3	C3	42,7	43	68	2"1/8	1"1/8	4400	1250	1900	1616
MHV OCT 2P/4TES-9Y ALN C2 L2-B	2	44,9	19,4	C2	44,0	44	68	2"1/8	1"1/8	4700	1230	1420	1356
MHV OCT 4P/4EES-4Y ALN C5 P4-A	4	47,3	21,4	C5	42,9	35	68	2"1/8	1"1/8	5000	2330	1900	2388
MHV OCT 2P/4PES-12Y ALN C2 L2-B	2	50,2	21,6	C2	48,1	44	68	2"1/8	1"1/8	4700	1230	1420	1366
MHV OCT 3P/4CES-6Y ALN C3 L3-A	3	51,5	24,2	C3	55,2	45	68	2"1/8	1"1/8	5600	1250	1900	1807
MHV OCT 4P/4DES-5Y ALN C5 P4-A	4	54,9	25,6	C5	53,0	37	68	2"1/8	1"1/8	5000	2330	1900	2400
MHV OCT 2P/4NES-14Y ALN C2 L2-B	2	58,0	26,1	C2	56,4	44	68	2"1/8	1"1/8	4700	1230	1420	1376
MHV OCT 3P/4TES-9Y ALN C3 L3-A	3	62,4	29,1	C3	62,3	41	68	2"1/8	1"1/8	5600	1250	1900	1966
MHV OCT 4P/4CES-6Y ALN C5 P4-A	4	68,7	32,3	C5	73,6	46	68	2"1/8	1"1/8	5000	2330	1900	2430
MHV OCT 3P/4PES-12Y ALN C3 L3-A	3	72,0	32,8	C3	72,2	46	98	2"5/8	1"3/8	5600	1250	1900	2020
MHV OCT 4P/4TES-9Y ALN C5 P4-A	4	83,2	38,8	C5	83,0	43	98	2"5/8	1"3/8	5000	2330	1900	2674
MHV OCT 3P/4NES-14Y ALN C3 L3-A	3	84,3	39,7	C3	84,6	46	98	2"5/8	1"3/8	5600	1250	1900	2063
MHV OCT 4P/4PES-12Y ALN C5 P6-A	4	99,7	44,6	C5	101,1	49	98	2"5/8	1"3/8	6200	2330	1900	2902
MHV OCT 4P/4NES-14Y ALN C5 P6-A	4	114,9	53,8	C5	117,7	49	98	2"5/8	1"3/8	6200	2330	1900	2912

(1) A : Evaporation temperature -10°C / Ambient temperature +32°C - Superheating: 10K - Subcooling: 3K.

AS : Evaporation temperature -10°C / Ambient temperature +42°C - Superheating: 10K - Subcooling: 3K.

ALN : Evaporation temperature -10°C / Ambient temperature +32°C - Superheating: 10K - Subcooling: 3K.

(2) Sound pressure in dB(A) measured at 10 m, line of sight in a reflective surface, in accordance with standard EN 13487 (parallelepiped reference surface).

MULTIHAVANE - Standard

Chill range

MULTIHAVANE SC	Comp.	Capacity	Input power	Casing	Input current	Receiver capacity	Suction	Liquid	Dimensions			Net weight
	Nb	kW (1)	kW (1)	Type	A max.	l.	Ø	Ø	L	P	H	kg
MHV SC 2P/ZB38 A C1 L2-5	2	17,1	8,8	C1	23,4	40	1"5/8	7/8"	2995	920	1190	701
MHV SC 2P/ZB45 A C1 L2-5	2	19,9	10,1	C1	23,8	40	1"5/8	7/8"	2995	920	1190	719
MHV SC 2P/ZB50 A C1 L2-6	2	24,2	11,8	C1	27,4	50	1"5/8	7/8"	3475	920	1190	835
MHV SC 3P/ZB38 A C3 L2-A	3	28,0	14,2	C3	41,6	50	1"5/8	7/8"	4400	1250	1900	1406
MHV SC 2P/ZB66 A C1 L2-6	2	30,3	16,5	C1	35,8	50	1"5/8	7/8"	3475	920	1190	849
MHV SC 3P/ZB45 A C3 L2-A	3	32,4	16,0	C3	42,2	50	1"5/8	7/8"	4400	1250	1900	1406
MHV SC 2P/ZB76 A C1 L2-6	2	34,7	19,2	C1	40,2	68	2"1/8	7/8"	3475	920	1190	808
MHV SC 3P/ZB50 A C3 L2-A	3	37,6	18,9	C3	46,3	68	2"1/8	1"1/8	4400	1250	1900	1404
MHV SC 2P/ZB95 A C1 L3-6	2	42,9	22,1	C1	49,6	68	2"1/8	1"1/8	4375	920	1190	866
MHV SC 3P/ZB66 A C3 L2-A	3	47,6	22,9	C3	55,4	68	2"1/8	1"1/8	4400	1250	1900	1426
MHV SC 4P/ZB50 A C5 P4-A	4	49,2	22,2	C5	52,9	68	2"1/8	1"1/8	5000	2330	1900	2028
MHV SC 2P/ZB114 A C1 L3-6	2	50,5	29,3	C1	64,6	68	2"1/8	1"1/8	4375	920	1190	882
MHV SC 3P/ZB76 A C3 L2-A	3	54,8	26,5	C3	62,0	68	2"1/8	1"1/8	4400	1250	1900	1456
MHV SC 4P/ZB66 A C5 P4-A	4	60,8	28,6	C5	67,0	68	2"1/8	1"1/8	5000	2330	1900	2028
MHV SC 3P/ZB95 A C3 L2-A	3	67,0	34,6	C3	81,5	68	2"5/8	1"1/8	4400	1250	1900	1476
MHV SC 4P/ZB76 A C5 P4-A	4	73,2	34,0	C5	81,0	68	2"5/8	1"1/8	5000	2330	1900	2058
MHV SC 3P/ZB114 A C3 L2-B	3	77,4	41,3	C3	98,6	98	2"5/8	1"3/8	5000	1250	1900	1547
MHV SC 4P/ZB95 A C5 P4-A	4	89,7	43,9	C5	102,7	98	2"5/8	1"3/8	5000	2330	1900	2124
MHV SC 4P/ZB114 A C5 P4-A	4	106,4	54,2	C5	132,7	98	2"5/8	1"3/8	5000	2330	1900	2134

MULTIHAVANE - Oversized condenser

Chill range

MHV SC 2P/ZB38 AS C1 L2-6	2	15,1	10,2	C1	24,2	40	1"5/8	7/8"	3475	920	1190	728
MHV SC 2P/ZB45 AS C1 L2-6	2	17,2	11,8	C1	24,6	40	1"5/8	7/8"	3475	920	1190	738
MHV SC 2P/ZB50 AS C1 L2-6	2	20,2	15,9	C1	29,8	50	1"5/8	7/8"	3475	920	1190	849
MHV SC 3P/ZB38 AS C3 L2-A	3	23,2	16,8	C3	41,6	50	1"5/8	7/8"	4400	1250	1900	1406
MHV SC 3P/ZB45 AS C3 L2-A	3	26,8	19,0	C3	42,2	50	1"5/8	7/8"	4400	1250	1900	1406
MHV SC 2P/ZB66 AS C1 L3-6	2	27,0	19,7	C1	38,1	50	1"5/8	7/8"	4375	920	1190	913
MHV SC 2P/ZB76 AS C1 L3-6	2	31,1	22,5	C1	42,5	68	2"1/8	7/8"	4375	920	1190	872
MHV SC 3P/ZB50 AS C3 L2-A	3	31,7	22,2	C3	46,3	68	2"1/8	1"1/8	4400	1250	1900	1426
MHV SC 2P/ZB95 AS C2 L2-A	2	38,2	28,2	C2	58,3	68	2"1/8	1"1/8	4100	1230	1420	1040
MHV SC 3P/ZB66 AS C3 L2-A	3	40,0	28,4	C3	58,8	68	2"1/8	1"1/8	4400	1250	1900	1426
MHV SC 4P/ZB50 AS C5 P4-A	4	42,3	28,3	C5	60,1	68	2"1/8	1"1/8	5000	2330	1900	2028
MHV SC 2P/ZB114 AS C2 L2-A	2	44,6	33,2	C2	69,7	68	2"1/8	1"1/8	4100	1230	1420	1072
MHV SC 3P/ZB76 AS C3 L2-A	3	47,0	32,2	C3	65,4	68	2"1/8	1"1/8	4400	1250	1900	1476
MHV SC 4P/ZB66 AS C5 P4-A	4	52,5	35,1	C5	72,2	68	2"1/8	1"1/8	5000	2330	1900	2028
MHV SC 3P/ZB95 AS C3 L3-A	3	57,3	39,8	C3	87,5	68	2"5/8	1"1/8	5600	1250	1900	1636
MHV SC 4P/ZB76 AS C5 P4-A	4	62,7	39,7	C5	81,0	68	2"5/8	1"1/8	5000	2330	1900	2100
MHV SC 3P/ZB114 AS C3 L3-A	3	66,9	47,3	C3	104,6	98	2"5/8	1"3/8	5600	1250	1900	1693
MHV SC 4P/ZB95 AS C5 P4-A	4	74,9	54,2	C5	109,9	98	2"5/8	1"3/8	5000	2330	1900	2124
MHV SC 4P/ZB114 AS C5 P4-A	4	87,5	64,6	C5	132,7	98	2"5/8	1"3/8	5000	2330	1900	2177

MULTIHAVANE - Low noise

Chill range

MULTIHAVANE SC	Comp.	Capacity	Input power	Casing	Input current	Acoustic Lp at 10 m	Receiver capacity	Suction	Liquid	Dimensions			Net weight
	Nb	kW (1)	kW (1)	Type	A max.	dB(A) (2)	l.	Ø	Ø	L	P	H	kg
MHV SC 2P/ZB38 ALN C1 L3-6	2	18,1	8,1	C1	23,0	38	40	1"5/8	7/8"	4375	920	1190	875
MHV SC 2P/ZB45 ALN C1 L3-6	2	20,7	9,5	C1	23,3	38	40	1"5/8	7/8"	4375	920	1190	885
MHV SC 2P/ZB50 ALN C2 L2-A	2	25,2	10,8	C2	26,5	36	50	1"5/8	7/8"	4100	1230	1420	1187
MHV SC 3P/ZB38 ALN C3 L2-A	3	26,6	12,1	C3	34,3	35	50	1"5/8	7/8"	4400	1250	1900	1567
MHV SC 2P/ZB66 ALN C2 L2-A	2	31,7	14,6	C2	36,1	44	50	1"5/8	7/8"	4100	1230	1420	1166
MHV SC 3P/ZB45 ALN C3 L2-A	3	31,7	14,8	C3	38,5	43	50	1"5/8	7/8"	4400	1250	1900	1546
MHV SC 2P/ZB76 ALN C2 L2-A	2	36,6	17,0	C2	40,5	44	68	2"1/8	7/8"	4100	1230	1420	1124
MHV SC 3P/ZB50 ALN C3 L2-A	3	36,6	17,8	C3	42,6	44	68	2"1/8	1"1/8	4400	1250	1900	1544
MHV SC 2P/ZB95 ALN C2 L2-B	2	46,5	20,6	C2	51,2	44	68	2"1/8	1"1/8	4700	1230	1420	1216
MHV SC 3P/ZB66 ALN C3 L3-A	3	47,6	21,8	C3	54,2	46	68	2"1/8	1"1/8	5600	1250	1900	1716
MHV SC 4P/ZB50 ALN C5 P4-A	4	49,2	22,2	C5	52,9	39	68	2"1/8	1"1/8	5000	2330	1900	2318
MHV SC 2P/ZB114 ALN C2 L2-B	2	53,7	25,2	C2	62,6	45	68	2"1/8	1"1/8	4700	1230	1420	1226
MHV SC 3P/ZB76 ALN C3 L3-A	3	54,9	25,5	C3	60,7	46	68	2"1/8	1"1/8	5600	1250	1900	1746
MHV SC 4P/ZB66 ALN C5 P4-A	4	60,8	28,6	C5	67,0	42	68	2"1/8	1"1/8	5000	2330	1900	2318
MHV SC 3P/ZB95 ALN C3 L3-A	3	67,1	32,2	C3	76,9	46	68	2"5/8	1"1/8	5600	1250	1900	1776
MHV SC 4P/ZB76 ALN C5 P4-A	4	73,2	34,0	C5	81,0	47	68	2"5/8	1"1/8	5000	2330	1900	2348
MHV SC 3P/ZB114 ALN C3 L3-A	3	78,2	39,0	C3	94,0	47	98	2"5/8	1"3/8	5600	1250	1900	1833
MHV SC 4P/ZB95 ALN C5 P4-A	4	89,4	43,0	C5	102,5	47	98	2"5/8	1"3/8	5000	2330	1900	2414
MHV SC 4P/ZB114 ALN C5 P6-A	4	106,6	52,2	C5	130,2	50	98	2"5/8	1"3/8	6200	2330	1900	2632

(1) A : Evaporation temperature -10°C / Ambient temperature +32°C - Superheating: 10K - Subcooling: 3K.

AS : Evaporation temperature -10°C / Ambient temperature +42°C - Superheating: 10K - Subcooling: 3K.

ALN : Evaporation temperature -10°C / Ambient temperature +32°C - Superheating: 10K - Subcooling: 3K.

(2) Sound pressure in dB(A) measured at 10 m, line of sight in a reflective surface, in accordance with standard EN 13487 (parallelepiped reference surface).

MULTIHAVANE - Standard

Low temperature range

MULTIHAVANE OCT	Comp.	Capacity	Input power	Casing	Input current	Receiver capacity	Suction	Liquid	Dimensions			Net weight
	Nb	kW (1)	kW (1)	Type	A max.	l.	Ø	Ø	L	P	H	kg
MHV OCT 2N/4EES-4Y A C1 L2-5	2	6,8	6,4	C1	16,6	40	1"3/8	5/8"	2995	920	1190	792
MHV OCT 2N/4DES-5Y A C1 L2-5	2	7,8	7,5	C1	20,9	40	1"3/8	5/8"	2995	920	1190	793
MHV OCT 2N/4CES-6Y A C1 L2-5	2	9,3	8,4	C1	26,8	40	1"5/8	5/8"	2995	920	1190	812
MHV OCT 3N/4EES-4Y A C3 L2-A	3	10,2	8,5	C3	23,3	40	1"5/8	5/8"	4400	1250	1900	1479
MHV OCT 2N/4TES-9Y A C1 L2-5	2	10,8	9,5	C1	28,3	50	1"5/8	5/8"	2995	920	1190	968
MHV OCT 3N/4DES-5Y A C3 L2-A	3	12,4	10,3	C3	30,5	50	1"5/8	5/8"	4400	1250	1900	1548
MHV OCT 2N/4PES-12Y A C1 L2-6	2	12,5	10,4	C1	31,3	50	1"5/8	5/8"	3475	920	1190	1005
MHV OCT 3N/4CES-6Y A C3 L2-A	3	14,2	12,0	C3	39,3	50	1"5/8	5/8"	4400	1250	1900	1568
MHV OCT 4N/4EES-4Y A C5 P4-A	4	14,4	11,4	C5	31,4	50	1"5/8	5/8"	5000	2330	1900	2179
MHV OCT 2N/4NES-14Y A C1 L2-6	2	14,9	12,9	C1	37,1	68	2"1/8	7/8"	3475	920	1190	964
MHV OCT 3N/4TES-9Y A C3 L2-A	3	16,5	13,7	C3	41,6	68	2"1/8	7/8"	4400	1250	1900	1644
MHV OCT 4N/4DES-5Y A C5 P4-A	4	16,8	13,5	C5	39,9	68	2"1/8	7/8"	5000	2330	1900	2140
MHV OCT 4N/4CES-6Y A C5 P4-A	4	19,4	15,8	C5	51,7	68	2"1/8	7/8"	5000	2330	1900	2160
MHV OCT 3N/4PES-12Y A C3 L2-A	3	19,4	17,5	C3	52,3	68	2"1/8	7/8"	4400	1250	1900	1664
MHV OCT 3N/4NES-14Y A C3 L2-A	3	23,4	21,3	C3	61,0	68	2"1/8	7/8"	4400	1250	1900	1664
MHV OCT 4N/4TES-9Y A C5 P4-A	4	23,6	18,4	C5	55,6	68	2"1/8	7/8"	5000	2330	1900	2338
MHV OCT 4N/4PES-12Y A C5 P4-A	4	25,2	19,7	C5	60,1	68	2"5/8	1"1/8	5000	2330	1900	2368
MHV OCT 4N/4NES-14Y A C5 P4-A	4	30,5	24,9	C5	72,4	68	2"5/8	1"1/8	5000	2330	1900	2368

MULTIHAVANE - Oversized condenser

Low temperature range

MHV OCT 2N/4EES-4Y AS C1 L2-5	2	5,1	6,5	C1	16,6	40	1"3/8	5/8"	2995	920	1190	792
MHV OCT 2N/4DES-5Y AS C1 L2-5	2	5,9	7,6	C1	20,9	40	1"3/8	5/8"	2995	920	1190	793
MHV OCT 2N/4CES-6Y AS C1 L2-5	2	7,0	8,5	C1	26,8	40	1"5/8	5/8"	2995	920	1190	812
MHV OCT 3N/4EES-4Y AS C3 L2-A	3	7,7	8,6	C3	23,3	40	1"5/8	5/8"	4400	1250	1900	1479
MHV OCT 2N/4TES-9Y AS C1 L2-6	2	8,6	9,8	C1	29,0	50	1"5/8	5/8"	3475	920	1190	995
MHV OCT 3N/4DES-5Y AS C3 L2-A	3	9,3	10,4	C3	30,5	50	1"5/8	5/8"	4400	1250	1900	1548
MHV OCT 2N/4PES-12Y AS C1 L2-6	2	8,9	10,0	C1	31,3	50	1"5/8	5/8"	3475	920	1190	1005
MHV OCT 3N/4CES-6Y AS C3 L2-A	3	10,6	12,1	C3	39,3	50	1"5/8	5/8"	4400	1250	1900	1568
MHV OCT 4N/4EES-4Y AS C5 P4-A	4	10,9	11,6	C5	31,4	50	1"5/8	5/8"	5000	2330	1900	2179
MHV OCT 2N/4NES-14Y AS C1 L2-6	2	10,9	12,5	C1	37,1	68	2"1/8	7/8"	3475	920	1190	964
MHV OCT 4N/4DES-5Y AS C5 P4-A	4	12,7	13,8	C5	39,9	68	2"1/8	7/8"	5000	2330	1900	2140
MHV OCT 3N/4TES-9Y AS C3 L2-A	3	13,0	15,6	C3	45,3	68	2"1/8	7/8"	4400	1250	1900	1644
MHV OCT 4N/4CES-6Y AS C5 P4-A	4	14,5	16,0	C5	51,7	68	2"1/8	7/8"	5000	2330	1900	2160
MHV OCT 3N/4PES-12Y AS C3 L2-A	3	13,9	17,0	C3	52,3	68	2"1/8	7/8"	4400	1250	1900	1664
MHV OCT 3N/4NES-14Y AS C3 L2-A	3	17,0	20,8	C3	61,0	68	2"1/8	7/8"	4400	1250	1900	1664
MHV OCT 4N/4TES-9Y AS C5 P4-A	4	17,3	18,6	C5	55,6	68	2"1/8	7/8"	5000	2330	1900	2338
MHV OCT 4N/4PES-12Y AS C5 P4-A	4	18,0	19,0	C5	60,1	68	2"5/8	1"1/8	5000	2330	1900	2368
MHV OCT 4N/4NES-14Y AS C5 P4-A	4	22,2	24,2	C5	72,4	68	2"5/8	1"1/8	5000	2330	1900	2368

MULTIHAVANE - Low noise

Low temperature range

MULTIHAVANE OCT	Comp.	Capacity	Input power	Casing	Input current	Acoustic Lp at 10 m	Receiver capacity	Suction	Liquid	Dimensions			Net weight
	Nb	kW (1)	kW (1)	Type	A max.	dB(A) (2)	l.	Ø	Ø	L	P	H	kg
MHV OCT 2N/4EES-4Y ALN C1 L2-6	2	6,9	5,8	C1	15,9	37	40	1"3/8	5/8"	3475	920	1190	913
MHV OCT 2N/4DES-5Y ALN C1 L2-6	2	8,0	6,9	C1	20,1	37	40	1"3/8	5/8"	3475	920	1190	914
MHV OCT 2N/4CES-6Y ALN C1 L2-6	2	9,2	8,0	C1	26,0	38	40	1"5/8	5/8"	3475	920	1190	924
MHV OCT 3N/4EES-4Y ALN C3 L2-A	3	10,2	8,5	C3	23,3	33	40	1"5/8	5/8"	4400	1250	1900	1619
MHV OCT 2N/4TES-9Y ALN C1 L3-6	2	11,6	9,3	C1	27,8	41	50	1"5/8	5/8"	4375	920	1190	1142
MHV OCT 2N/4PES-12Y ALN C1 L3-6	2	12,3	10,0	C1	30,1	42	50	1"5/8	5/8"	4375	920	1190	1152
MHV OCT 3N/4DES-5Y ALN C3 L2-A	3	12,4	10,3	C3	30,5	37	50	1"5/8	5/8"	4400	1250	1900	1688
MHV OCT 3N/4CES-6Y ALN C3 L2-A	3	14,2	12,0	C3	39,3	38	50	1"5/8	5/8"	4400	1250	1900	1708
MHV OCT 4N/4EES-4Y ALN C5 P4-A	4	14,4	11,4	C5	31,4	35	50	1"5/8	5/8"	5000	2330	1900	2469
MHV OCT 2N/4NES-14Y ALN C2 L2-A	2	15,7	12,5	C2	36,2	42	68	2"1/8	7/8"	4100	1230	1420	1316
MHV OCT 4N/4DES-5Y ALN C5 P4-A	4	16,8	13,5	C5	39,9	36	68	2"1/8	7/8"	5000	2330	1900	2430
MHV OCT 3N/4TES-9Y ALN C3 L2-A	3	16,9	13,7	C3	41,6	41	68	2"1/8	7/8"	4400	1250	1900	1806
MHV OCT 3N/4PES-12Y ALN C3 L2-A	3	18,9	15,9	C3	48,6	46	68	2"1/8	7/8"	4400	1250	1900	1804
MHV OCT 4N/4CES-6Y ALN C5 P4-A	4	19,4	15,8	C5	51,7	38	68	2"1/8	7/8"	5000	2330	1900	2450
MHV OCT 3N/4NES-14Y ALN C3 L2-A	3	22,7	19,7	C3	57,3	47	68	2"1/8	7/8"	4400	1250	1900	1804
MHV OCT 4N/4TES-9Y ALN C5 P4-A	4	23,6	18,4	C5	55,6	42	68	2"1/8	7/8"	5000	2330	1900	2628
MHV OCT 4N/4PES-12Y ALN C5 P4-A	4	25,2	19,7	C5	60,1	43	68	2"5/8	1"1/8	5000	2330	1900	2658
MHV OCT 4N/4NES-14Y ALN C5 P4-A	4	30,5	24,9	C5	72,4	45	68	2"5/8	1"1/8	5000	2330	1900	2658

(1) A : Evaporation temperature -35°C / Ambient temperature +32°C - Superheating: 10K - Subcooling: 3K.

AS : Evaporation temperature -35°C / Ambient temperature +42°C - Superheating: 10K - Subcooling: 3K.

ALN : Evaporation temperature -35°C / Ambient temperature +32°C - Superheating: 10K - Subcooling: 3K.

(2) Sound pressure in dB(A) measured at 10 m, line of sight in a reflective surface, in accordance with standard EN 13487 (parallelepiped reference surface).

MULTIHAVANE - Standard

Low temperature range

MULTIHAVANE SC	Comp.	Capacity	Input power	Casing	Input current	Receiver capacity	Suction	Liquid	Dimensions			Net weight
	Nb	kW (1)	kW (1)	Type	A max.	l.	Ø	Ø	L	P	H	kg
MHV SC 2N/ZF15 A C1 L2-5	2	6,3	6,4	C1	17,6	40	1"3/8	5/8"	2995	920	1190	692
MHV SC 2N/ZF24 A C1 L2-5	2	9,2	9,8	C1	26,6	40	1"5/8	5/8"	2995	920	1190	821
MHV SC 3N/ZF15 A C3 L2-A	3	9,4	8,5	C3	24,8	50	1"5/8	5/8"	4400	1250	1900	1396
MHV SC 2N/ZF33 A C1 L2-6	2	12,8	12,5	C1	34,2	50	2"1/8	5/8"	3475	920	1190	945
MHV SC 3N/ZF24 A C3 L2-A	3	13,9	13,9	C3	39,1	50	2"1/8	5/8"	4400	1250	1900	1576
MHV SC 2N/ZF40 A C1 L2-6	2	15,8	17,6	C1	42,5	68	2"1/8	7/8"	3475	920	1190	908
MHV SC 2N/ZF48 A C1 L2-6	2	18,3	22,9	C1	53,4	68	2"1/8	7/8"	3475	920	1190	918
MHV SC 4N/ZF24 A C5 P4-A	4	19,3	18,1	C5	52,3	68	2"1/8	7/8"	5000	2330	1900	2178
MHV SC 3N/ZF33 A C3 L2-A	3	19,7	20,2	C3	56,7	68	2"1/8	7/8"	4400	1250	1900	1524
MHV SC 3N/ZF40 A C3 L2-A	3	23,7	25,4	C3	65,5	68	2"5/8	7/8"	4400	1250	1900	1554
MHV SC 4N/ZF33 A C5 P4-A	4	25,8	23,8	C5	66,0	68	2"5/8	7/8"	5000	2330	1900	2188
MHV SC 3N/ZF48 A C3 L2-A	3	28,7	32,4	C3	81,8	68	2"5/8	7/8"	4400	1250	1900	1606
MHV SC 4N/ZF40 A C5 P4-A	4	31,1	30,8	C5	78,4	68	2"5/8	1"1/8	5000	2330	1900	2228
MHV SC 4N/ZF48 A C5 P4-A	4	38,3	41,8	C5	107,4	98	2"5/8	1"1/8	5000	2330	1900	2292

MULTIHAVANE - Oversized condenser

Low temperature range

MHV SC 2N/ZF15 AS C1 L2-5	2	5,1	7,6	C1	17,6	40	1"3/8	5/8"	2995	920	1190	692
MHV SC 2N/ZF24 AS C1 L2-5	2	7,4	11,2	C1	26,6	40	1"5/8	5/8"	2995	920	1190	821
MHV SC 3N/ZF15 AS C3 L2-A	3	7,7	10,2	C3	24,8	50	1"5/8	5/8"	4400	1250	1900	1396
MHV SC 2N/ZF33 AS C1 L2-6	2	10,4	14,5	C1	34,2	50	2"1/8	5/8"	3475	920	1190	945
MHV SC 3N/ZF24 AS C3 L2-A	3	11,3	16,1	C3	39,1	50	2"1/8	5/8"	4400	1250	1900	1576
MHV SC 2N/ZF40 AS C1 L2-6	2	12,8	20,3	C1	42,5	68	2"1/8	7/8"	3475	920	1190	908
MHV SC 2N/ZF48 AS C1 L3-6	2	15,6	24,0	C1	52,1	68	2"1/8	7/8"	4375	920	1190	976
MHV SC 4N/ZF24 AS C5 P4-A	4	15,9	21,0	C5	52,3	68	2"1/8	7/8"	5000	2330	1900	2178
MHV SC 3N/ZF33 AS C3 L2-A	3	16,0	23,2	C3	56,7	68	2"1/8	7/8"	4400	1250	1900	1524
MHV SC 3N/ZF40 AS C3 L2-A	3	19,2	29,4	C3	65,5	68	2"5/8	7/8"	4400	1250	1900	1554
MHV SC 4N/ZF33 AS C5 P4-A	4	21,0	27,7	C5	66,7	68	2"5/8	7/8"	5000	2330	1900	2188
MHV SC 3N/ZF48 AS C3 L2-A	3	23,3	37,5	C3	81,8	68	2"5/8	7/8"	4400	1250	1900	1606
MHV SC 4N/ZF40 AS C5 P4-A	4	25,6	36,2	C5	80,4	68	2"5/8	1"1/8	5000	2330	1900	2228
MHV SC 4N/ZF48 AS C5 P4-A	4	31,1	48,7	C5	107,4	98	2"5/8	1"1/8	5000	2330	1900	2292

MULTIHAVANE - Low noise

Low temperature range

MULTIHAVANE SC	Comp.	Capacity	Input power	Casing	Input current	Acoustic Lp at 10 m	Receiver capacity	Suction	Liquid	Dimensions			Net weight
	Nb	kW (1)	kW (1)	Type	A max.	dB(A) (2)	l.	Ø	Ø	L	P	H	kg
MHV SC 2N/ZF15 ALN C1 L2-6	2	6,4	5,8	C1	16,8	38	40	1"3/8	5/8"	3475	920	1190	813
MHV SC 2N/ZF24 ALN C1 L2-6	2	9,1	9,5	C1	25,8	43	40	1"5/8	5/8"	3475	920	1190	933
MHV SC 3N/ZF15 ALN C3 L2-A	3	9,4	8,5	C3	24,8	37	50	1"5/8	5/8"	4400	1250	1900	1536
MHV SC 2N/ZF33 ALN C1 L3-6	2	12,7	12,2	C1	33,0	43	50	2"1/8	5/8"	4375	920	1190	1092
MHV SC 3N/ZF24 ALN C3 L2-A	3	13,9	13,9	C3	39,1	44	50	2"1/8	5/8"	4400	1250	1900	1716
MHV SC 2N/ZF40 ALN C2 L2-A	2	15,8	15,2	C2	39,2	42	68	2"1/8	7/8"	4100	1230	1420	1246
MHV SC 2N/ZF48 ALN C2 L2-A	2	19,1	20,9	C2	53,7	46	68	2"1/8	7/8"	4100	1230	1420	1234
MHV SC 4N/ZF24 ALN C5 P4-A	4	19,3	18,1	C5	52,3	45	68	2"1/8	7/8"	5000	2330	1900	2468
MHV SC 3N/ZF33 ALN C3 L2-A	3	19,4	18,9	C3	53,0	47	68	2"1/8	7/8"	4400	1250	1900	1664
MHV SC 3N/ZF40 ALN C3 L2-A	3	23,9	23,7	C3	61,8	47	68	2"5/8	7/8"	4400	1250	1900	1716
MHV SC 4N/ZF33 ALN C5 P4-A	4	25,8	23,8	C5	66,0	45	68	2"5/8	7/8"	5000	2330	1900	2478
MHV SC 3N/ZF48 ALN C3 L3-A	3	28,7	31,3	C3	80,6	48	68	2"5/8	7/8"	5600	1250	1900	1896
MHV SC 4N/ZF40 ALN C5 P4-A	4	31,1	30,8	C5	78,4	45	68	2"5/8	1"1/8	5000	2330	1900	2518
MHV SC 4N/ZF48 ALN C5 P4-A	4	38,3	41,8	C5	107,4	49	98	2"5/8	1"1/8	5000	2330	1900	2582

(1) A : Evaporation temperature -35°C / Ambient temperature +32°C - Superheating: 10K - Subcooling: 3K.

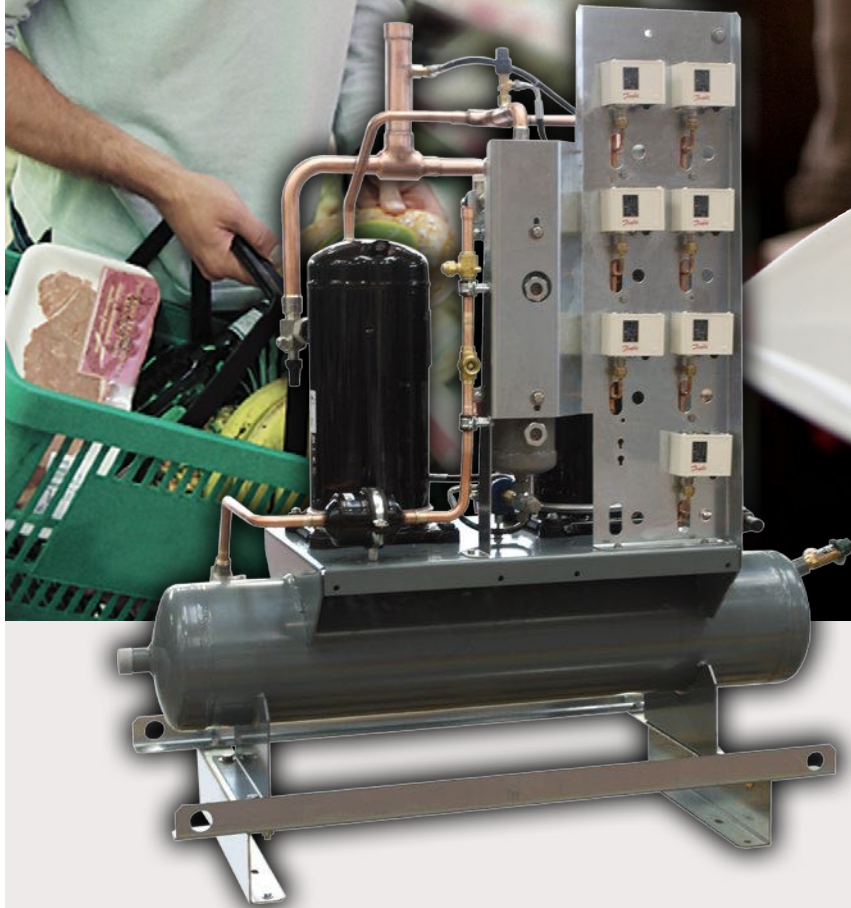
AS : Evaporation temperature -35°C / Ambient temperature +42°C - Superheating: 10K - Subcooling: 3K.

ALN : Evaporation temperature -35°C / Ambient temperature +32°C - Superheating: 10K - Subcooling: 3K.

(2) Sound pressure in dB(A) measured at 10 m, line of sight in a reflective surface, in accordance with standard EN 13487 (parallelepiped reference surface).

COMPRESSOR RECEIVER RACK SCROLL COMPRESSORS

Bars - Restaurants - Corner shops - Mini-markets



HFC

8 > 27 kW

DUO MR

- A range specially designed to meet the needs and expectations of today's market, in particular with regard to compactness, reliability and noise level.
- The unit comprises 2 Scroll compressors, one of which DIGITAL™, enabling modulation of power according to multiple-station configurations.
- Supplied complete and ready to install.



DESCRIPTION

Compressors

- 2 Scroll technology compressors, one of which equipped with a DIGITAL™ power controller.
- Equipped with shut-off valves on the suction and delivery sides, casing heater and rigid suspension elements.
- Unit factory pre-wired with a 3 m supply cable possible.

Collectors

- Copper suction and delivery pipes.

Oil line

- HP oil separator incorporated into the oil tank with high and low level indicators.
- HP oil return line with filter.
- Electronic oil level controller.

Liquid receiver

- Horizontal receiver with a capacity of 40L.
- 2 inlet/outlet shut-off valves.
- Liquid outlet equipped with a dryer filter, an indicator and a liquid outlet valve.
- Single safety valve.

Monitoring devices

- 1 general LP safety pressure switch.
- 1 LP regulator pressure switch per compressor.
- 1 automatic-reset HP pressure switch per compressor.
- 2 HP regulator pressure switches.
- 1 LPE and HPE support pressure switch (switch-over to back-up mode).
- 1 LP sensor.

Electrical enclosure (optional)

- Idc 15kA.
- Main isolator switch.
- Electronic control per PLC EC2-552.
- Pressure control value in back-up mode with anti-run cycle timer.
- Switch-over to back-up operation:
 - **Automatic** with LPE/HPE support pressure switches.
 - **Manual** with a switch on the electrical enclosure door.
- 5 cooling station outputs 2x10A
- 1 or 2 condenser fan outlets:

Type	Model	Operation	Control	
			LP	HP
AC	Three phase NEOSTAR SU 16Y L02 B2 CCT 2x12T B2	Normal	EC2-552	Pressure control switch
		Back-up	Pressure control switch	-
	Single phase CCT 2x10M B5	Normal	EC2-552	Pressure control or voltage variation
		Back-up	Pressure control switch	-
EC	CCV 1	Normal	EC2-552	EC2-552 (+ 1 CDP)
		Back-up	Pressure control switch	FCM (+ 1 CDP)



DESIGNATION

DUO MR ⁽¹⁾ 45 ⁽²⁾

- (1) Compressor receiver rack
- (2) Compressor model

CERTIFICATIONS



ADVANTAGES

Installation

- Unit ready to install, all components are factory pre-fitted.
- Back-up operation with integrated pressure control switch.
- Electrical elements supplied complete allowing rapid installation.
- Supports enabling easy handling of the unit.



Kit	Factory
CDP	
RPC	
ARM	
	DPS
COG	

OPTIONS

Control

- HP pressure sensor, signal 4-20 mA (condenser EC - CCV 1)
- Condensation pressure regulation with voltage variation (condenser CCT 2x10M B5)

Control cabinet

- Complete electrical enclosure
- 3 additional cooling station outputs 2x 10A

Miscellaneous

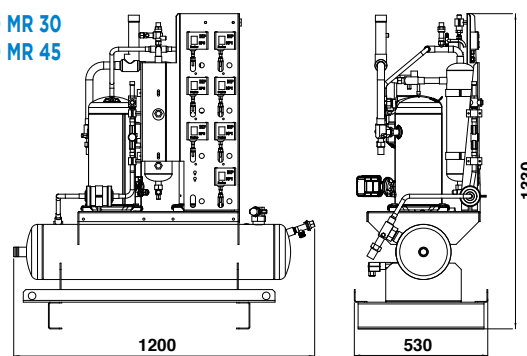
- Noise insulation casing

-10°C/+42°C *		DUO MR ...	30	45	57	
Compressor type			ZB30+ZBD30	ZB45+ZBD45	ZB57+ZBD57	
Capacity*	R134a	kW	8,4	12,5	15,7	
	R407A	kW	14,2	19,9	27,0	
	R407F	kW	14,1	20,6	27,2	
	R404A	kW	14,2	20,7	27,2	
Input power *	R134a	kW	4,6	6,1	8,1	
	R407A	kW	6,6	9,2	11,9	
	R407F	kW	7,0	9,9	11,9	
	R404A	kW	7,2	9,9	12,0	
Compressor		Nb	2	2	2	
Input current*		A max.	15,8	24,2	28,0	
Receiver volume		l.	40	40	40	
Acoustic		Lp 10m**	dB(A)	41	43	47
Connections	Suction	Ø	1"5/8	1"5/8	1"5/8	
	Discharge	Ø	7/8"	7/8"	7/8"	
	Liquid inlet	Ø	7/8"	7/8"	7/8"	
	Liquid outlet	Ø	5/8"	5/8"	5/8"	
Weight		kg	196	200	210	

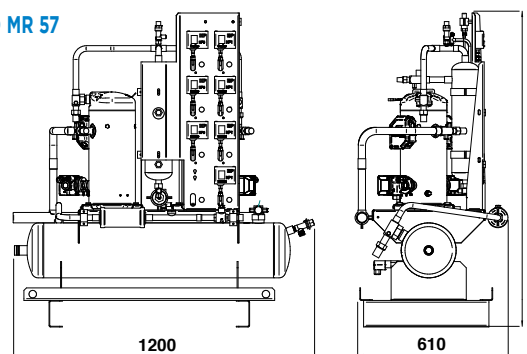
* Evaporation temperature / condensation temperature - Superheating 10K, subcooling 3K.

** Acoustic pressure level at 10 m given for information only.

DUO MR 30
DUO MR 45



DUO MR 57



A complete solution for your refrigeration installation...

COMPRESSOR RECEIVER RACK

DUO MR

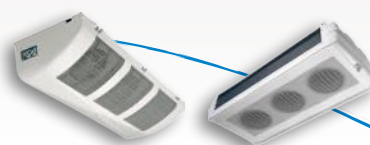
- Variation of power enabling precise adjustment of the capacity according to cooling requirement.
- Electronic oil regulation with oil separator with 2 l. receiver for safety and reliability.
- 40 l. largely dimensioned liquid receiver.
- Factory pre-wired with a 3 m cable.
- Noise insulation casing (optional) for a lower noise level: - 6 dB(A).



UNIT COOLERS

MR

- Low depth: only 209 mm enabling optimum use of storage space in the cold room.
- Robust and corrosion-resistant unit: coils totally anti-corrosion treated as standard, ABS casing and stainless steel screws.



TA

- Exceptionally low noise levels with the 6 or 8-pole versions.
- Low air speed guarantees comfort as well as precise control of temperature and hygrometry.
- Robust ABS casing with rounded corners combining hygiene and safety.

INDOOR CONDENSERS

CCT 2x12T B2

- Available air pressure up to 150 Pa.
- 8 air inlet/outlet combinations.
- The unit may be dismantled for installation in difficult access zones.
- Factory pre-wired fans.



CCV 1

- EC motors for optimised energy consumption.
- Low noise
- Available air pressure up to 200 Pa.
- The unit may be dismantled for installation in difficult access zones.
- Factory pre-wired fan.



OUTDOOR CONDENSER

NEOSTAR SU 16Y L02 B2

- Perfect incorporation in an urban environment, extremely quiet motors (Lp 22 dB(A) at 10m).
- Factory pre-wired fans.



ELECTRICAL ENCLOSURE

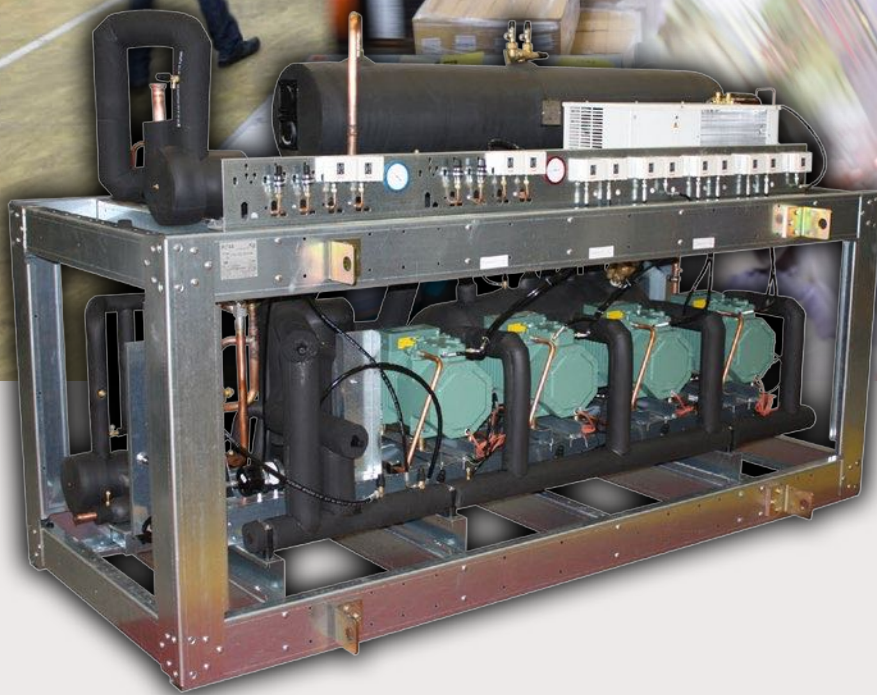
Electronic control EC2-552 with switch-over to back-up operation with automatic pressure control switch. Supplied with complete electrical system, refrigeration and condenser fan outputs are incorporated.



CO₂ COMPRESSOR RACK

INSTALLATION WITH CASCADE IN MEDIUM TEMPERATURE CIRCUIT

Hard Discount - Supermarkets - Hypermarkets
Refrigerated storage and transit stocking - Dispatch centres
Food processing



16.5 > 83 kW

eCO₂Gen

- **Sub-critical CO₂ racks** available in version direct expansion and glycol water.
- **"Turnkey" range** with equipment grouped and connected on a common frame.
- **Environmentally-friendly, natural refrigerant (CO₂)** for the production of cold in supermarkets.
- **Service pack:** Training in the use of CO₂ equipment.
- **Software selection:** CO₂ rack + chill rack with or without options.

DESCRIPTION

Frame

- Thick, folded, galvanized sheet steel monoblock unit.

Compressors

- Compressors using semi-hermetic piston technology equipped with:
 - Crankcase heater.
 - Suction and delivery shut-off valves.
 - HP and LP tapping points with Schrader connector.

Collectors

- A general filter unit with tapping point and by-pass valves and 2 maintenance valves (1/4" SAE).
- Copper suction and delivery collector.
- Liquid suction accumulator with oil return via siphon and discharge valve.

Insulation

- Thermal insulation of the entire refrigeration circuit with the exception of delivery and oil lines.

Oil line

- Removable oil separator by-pass valve and discharge valve.
- Oil receiver with high and low indicator, shut-off valve and discharge valve.
- Oil return with filter and indicator.
- Electronic level controller with shut-off valve per compressor.
- Non-adjustable, receiver degassing differential valve connected to the LP collector.
- Copper oil collector with flexible connection for each compressor.

Liquid station

- Horizontal liquid receiver with shutoff valves.
- Double safety shut-off valve with inverter switch.
- Removable cartridge dryer with by-pass valves and 2 maintenance valves (1/4" SAE).
- Optoelectronic level alarm fitted to the liquid column in parallel with the receiver and height adjustable.
- Liquid/steam exchanger with by-pass valves in suction side and liquid side.

Connection pack

- 1 connection valve on the suction and liquid supply line.

Monitoring devices

• Per compressor:

- LP pressure switch connected to the compressor.
- 1 or 2 automatic reset HP cartridge pressure switch(s) per compressor (according to standard EN 378-2: 2009).
- INT safety thermistor box.

• Per rack:

- General LP safety pressure switch.
- General HP safety pressure switch.
- Framing HP and LP pressure switch.
- Set of HP and LP manometers, diameter 100 mm, class 1.
- LP and HP sensors for normal operation control.
- LP and HP sensors for back-up operation control.

Condenser

- Multi-tube heat-exchanger with discharge valve(s).
- **Direct expansion model:**
Siemens "polycool" electronic expansion valve with probe and sensor for control of superheating during normal operation.
Thermostatic expansion valve coupled with a solenoid valve in parallel with an electronic expansion valve in back-up operation.

• Glycol water model:

Supply of a glycol water flow controller and thermostat kit.

Safety unit

- Condensing unit filled with R404A with refrigerated connected to the CO2 liquid receiver via a plate unit cooler.

DESIGNATION

eCO2Gen 24⁽¹⁾ / 4⁽²⁾ DB⁽³⁾

- (1) Direct expansion capacity
 (2) Number of compressor
 (3) **DB** = direct expansion - **EB** = Glycol water

CERTIFICATIONS



Kit	Factory
	ALR
	BP1
	CCB
	PCI
PAV	

OPTIONS

- ALR** Electronic level alarm on the oil receiver.
- BP1** LP pressure switch (automatic) per compressor.
- CCB** Control terminal rail wiring.
- PCI** Rack pre-wired with 5 m cable available.
- PAV** Anti-vibration pads.



eCO2Gen
 CO2 low temperature racks (R744)
 with CCB option

eCO2Gen - Direct expansion

Low-temperature range

-35°C / -5°C*		eCO2Gen ...	18/3 DB	24/4 DB	25/3 DB	32/3 DB	33/4 DB	40/3 DB	42/4 DB	53/4 DB	60/3 DB	80/4 DB
Capacity CO2*	kW	16,5	22,1	25,1	32,3	33,5	40,2	43,1	53,5	60,3	83,0	
Input power*	kW	4,5	6,1	6,7	8,5	8,9	10,2	11,4	13,6	15,6	20,9	
Compressor	Nb	3	4	3	3	4	3	4	4	3	4	
Max. input current	A	18	24	18	21	24	35	28	46	41	54	
Receiver capacity	l.	70	70	70	70	70	180	180	180	180	180	
Connection pack	Suction	Ø	2"1/8	2"1/8	2"1/8	2"5/8	2"5/8	2"5/8	2"5/8	3"1/8	3"1/8	114,3
	Liquid	Ø	7/8"	7/8"	7/8"	7/8"	7/8"	1"1/8	1"1/8	1"1/8	1"1/8	1"3/8
Rack weight	kg	1070	1140	1080	1110	1160	1120	1220	1350	1470	1600	
Receiver dimensions	L	mm	3000	3000	3000	3000	3000	3000	3000	3000	3000	
	P	mm	1440	1440	1440	1440	1440	1440	1440	1440	1440	
	H	mm	1990	1990	1990	1990	1990	1990	1990	1990	1990	

* Evaporation temperature/condensation temperature - Superheating total 20K, useful 10K and subcooling 3K .

Refer to the software package for a more accurate rack selection.

eCO2Gen - Glycol water

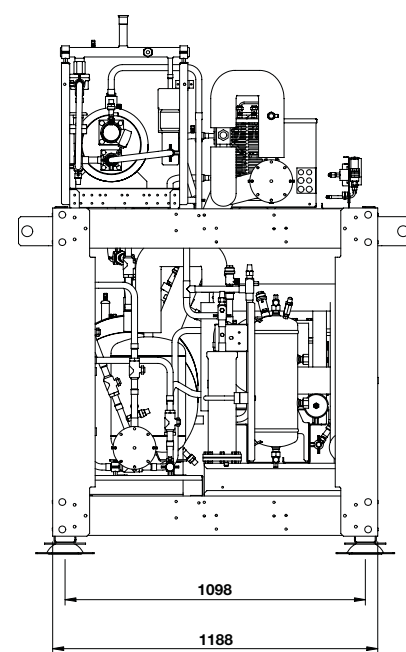
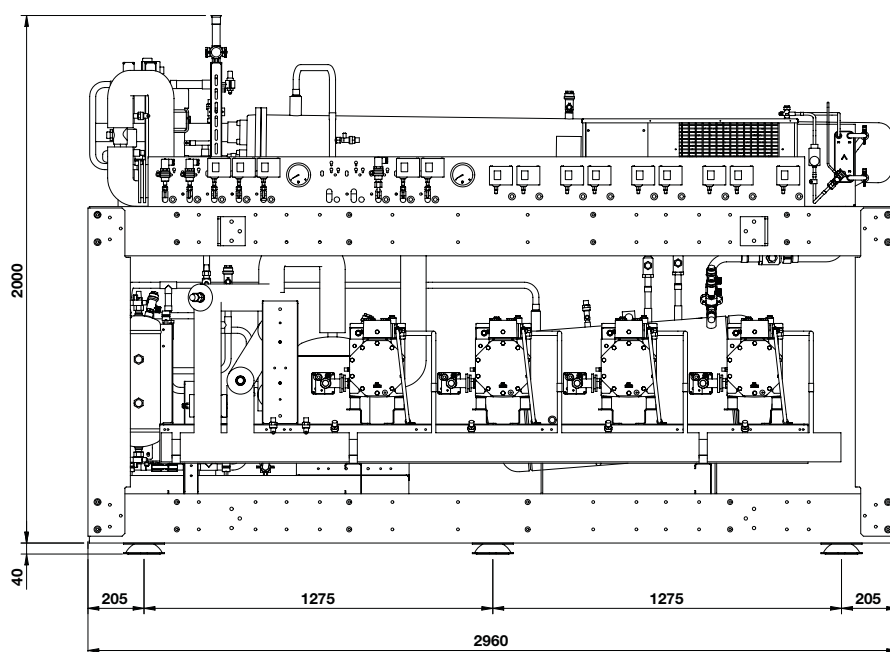
Low-temperature range

-35°C / -3°C*		eCO2Gen ...	24/4 EB	25/3 EB	32/3 EB	33/4 EB	40/3 EB	42/4 EB	53/4 EB	60/3 EB	80/4 EB
Capacity CO2*	kW	21,2	24,2	31,1	32,2	38,8	41,5	51,7	60,2	80,2	
Input power*	kW	6,3	7,0	9,0	9,4	10,7	12,0	14,3	16,4	21,9	
Compressor	Nb	4	3	3	4	3	4	4	3	4	
Max. input current	A	24	18	21	24	35	28	46	41	54	
Receiver capacity	l.	70	70	70	70	180	180	180	180	180	
Connection	DN	65	65	65	65	80	80	80	100	100	
Rack weight	kg	1140	1080	1110	1160	1120	1220	1350	1470	1600	
Receiver dimensions	L	mm	3000	3000	3000	3000	3000	3000	3000	3000	
	P	mm	1440	1440	1440	1440	1440	1440	1440	1440	
	H	mm	1990	1990	1990	1990	1990	1990	1990	1990	

* Evaporation temperature/condensation temperature - Superheating total 20K, useful 10K and subcooling 3K .

** Glycol water: Fluid: Percentage of glycol = 40% - range -8/-4°C

Refer to the software package for a more accurate rack selection.



ALR	CCB	PC1	PAV
0	0	0	0

CO₂ COMPRESSOR RACK INSTALLATION WITH CASCADE IN GLYCOL WATER CIRCUIT

Refrigerated storage and transit stocking - Dispatch centres
Food processing



108 > 341 kW

eMR with options PEI and MPI

eCO / eMR

- **Sub-critical CO₂ racks** combining **reliability** and **compactness**.
- **Two versions available:**
 - encased outdoor (**eCO**),
 - machine room (**eMR**).
- **Environmentally-friendly, natural refrigerant (CO₂)** for industrial refrigeration.
- **Service pack:** training in the use of CO₂ equipment.

DESCRIPTION

Frame

- Compressor rack: monoblock frame designed to avoid vibration-related problems.
- Liquid station:
 - Folded galvanized sheet steel monoblock unit.
 - Anti-vibration pads (kit).

Compressors

- Compressors using semi-hermetic piston technology equipped with:
 - Crankcase heater.
 - Suction and delivery shut-off valves.
 - HP and LP tapping points with Schrader connector.

Collectors

- A general filter unit or per compressor.
- Copper suction and discharge collector.
- Drip tray under suction collector.

Insulation

- Thick thermal insulation of liquid lines.

Oil line

- Removable oil separator with discharge valve.
- Oil receiver with high and low indicator, shut-off valve and discharge valve.
- Oil return with filter and indicator.
- Electronic level controller with shut-off valve per compressor.
- Non-adjustable, receiver degassing differential valve connected to the LP collector.
- Copper oil collector with flexible connection for each compressor.

Liquid station

- Horizontal liquid receiver with shutoff valves.
- Double safety shut-off valve with inverter switch.
- Removable cartridge dryer with maintenance valve (1/4" SAE).
- Optoelectronic level alarm fitted to the liquid receiver (high and low level).
- Liquid / vapor plate heat exchanger.
- Sight glass.

Connection pack

- 1 connection valve on the suction and liquid supply line.

Monitoring devices

- **Per compressor:**
 - LP pressure switch connected to the compressor.
 - 1 or 2 automatic reset HP cartridge pressure switch(s) per compressor (according to standard EN 378-2: 2009).
 - INT safety thermistor box.
- **Per rack:**
 - General LP safety pressure switch.
 - General HP safety pressure switch.
 - HP and LP pressure switch for automatic back-up operation control.
 - Set of HP and LP manometers, diameter 100 mm, class 1.
 - LP and HP sensors for normal operation control.
 - LP and HP sensors for back-up operation control.

Condenser

- Brazed plate exchanger.
- Supply of a glycol water flow controller and thermostat kit.
- Desuperheater (supplied separately) located upstream of the condenser.

Safety unit (option)

- Condensing unit filled with R134a with refrigerated connected to the CO₂ liquid receiver via a plate unit cooler.

DESIGNATION

eCO ⁽¹⁾ **341** ⁽²⁾ / **4** ⁽³⁾

(1) **eCO** = encased outdoor rack

(1) **eMR** = machine room rack

(2) Capacity

(3) Number of compressor

CERTIFICATIONS



A complete solution for your CO₂ refrigeration installation...

Industrial unit coolers

NK

- Hot glycol water defrost option.
- Defrosting hood and flexible defrost sleeve options.

GTA

- EC fans option for a very low noise level

Low temp. sub-critical CO₂ rack

eCO / eMR

- Machine room and encased outdoor versions
- Heat recovery option allowing production of hot water glycol 40/50°C



Chiller
PEG

eCO / eMR

Low-temperature range

-35/-3°C*	eCO / eMR ...	108/2	100/3	111/4	129/2	122/3	132/4	153/2	157/3	160/4	179/2	188/3	206/4	222/3	247/4	260/3	292/4	341/4	
Capacity CO ₂ *	kW	108	100	111	129	122	132	153	157	160	179	188	206	222	247	260	292	341	
Input power*	kW	25,5	24,7	27,8	30,6	30,0	32,9	36,1	38,3	40,0	42,0	45,8	51,0	54,1	61,1	63,0	72,1	84,0	
Compressor	Nb	2	3	4	2	3	4	2	3	4	2	3	4	3	4	3	4	4	
Max. input current	A	67,0	66,0	75,6	80,0	80,1	88,0	96,6	100,5	106,8	111,0	120,0	134,0	144,9	160,0	166,5	193,2	222,0	
Receiver capacity	l.	300	300	300	300	300	300	300	300	300	300	300	300	300	550	550	550	550	
Connections	Suction	Ø 1"5/8	1"5/8	1"5/8	2"1/8	2"1/8	2"1/8	2"1/8	2"1/8	2"1/8	2"1/8	2"5/8	2"5/8	2"5/8	2"5/8	2"5/8	2"5/8	2"5/8	
	Discharge	Ø 1"3/8	1"3/8	1"3/8	1"3/8	1"3/8	1"3/8	1"3/8	1"5/8	1"5/8	1"5/8	1"5/8	1"5/8	1"5/8	2"1/8	2"1/8	2"1/8	2"1/8	
	Liquid	Ø 1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"3/8	1"3/8	1"3/8	1"3/8	1"5/8	1"5/8	1"5/8	1"5/8	
Dimensions eCO		A	A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	
Weight eCO	kg	2030	2000	2120	2060	2080	2270	2170	2280	2220	2620	2730	2930	2830	3180	3080	3380	3430	
Dimensions eMR	Rack	P	850	784	784	850	784	784	850	850	784	850	850	850	850	850	850	850	850
	Hydraulic Skid		A	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B
Weight eMR	Rack	kg	400	370	490	390	410	600	460	570	510	460	570	730	630	730	630	830	830
	Hydraulic Skid	kg	710	710	710	750	750	750	790	790	790	810	810	850	850	1100	1100	1200	1250

* Evaporation temperature/condensation temperature - Superheating total 20K, useful 10K and subcooling 3K, with 60Hz leading compressor.

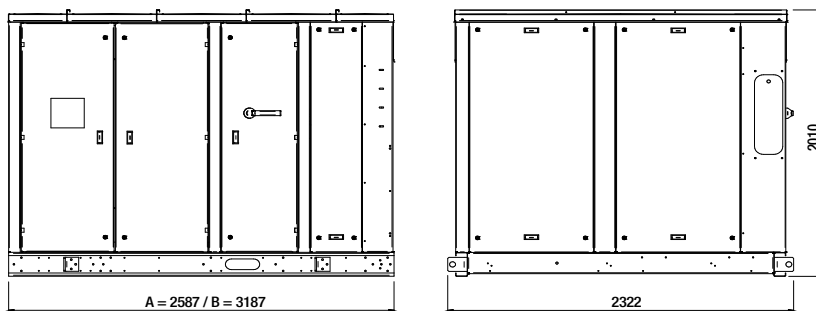
** Glycol water: Fluid: Percentage of glycol = 40% - range -8/-4°C

Kit **Factory**

- DES** Braze plate Desuperheater
- BAC** Suction accumulator
- RLS** Oversized liquid receiver
- GMP** Safety group (MINI unit delivered mounted and connected)
- BFA** By-pass Suction filter
- VFA** Suction valve and filter
- BSH** Oil separator by-pass
- BD1** Dryer by-pass
- 2CD** 2 condensers 50/50%
- PC1** Rack pre-wired with 5 m cable available
- PEI** Painted frame
- MPI** Injected polyurethane foam insulation (only for liquid receiver and condenser)

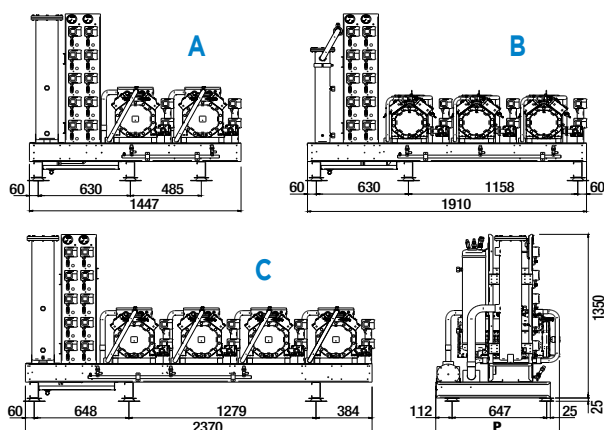
OPTIONS

eCO - Encased outdoor rack

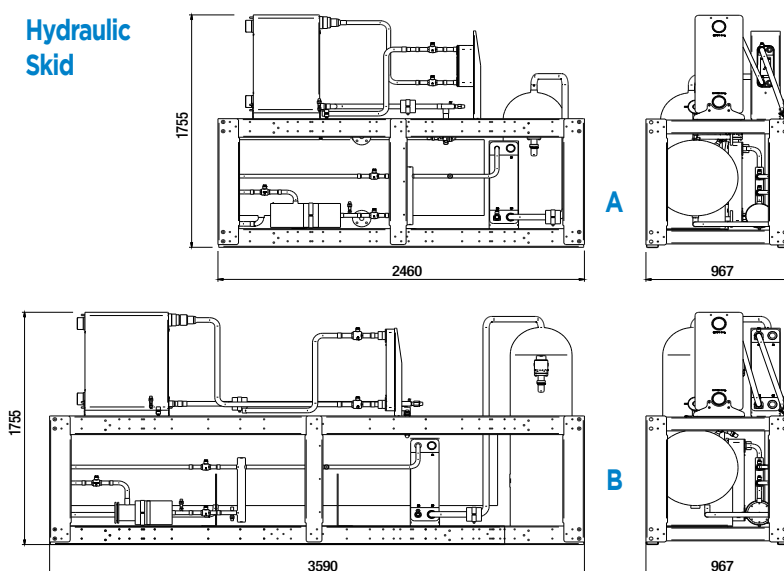


eMR - Machine room rack

Rack



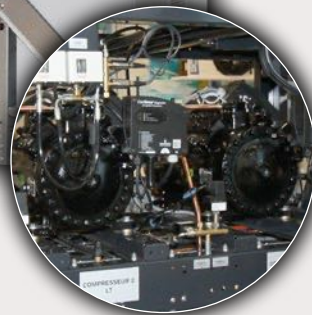
Hydraulic Skid





CO₂ TRANSCRITICAL BOOSTER RACK

SUPERMARKET AND HYPERMARKETS
ALL-IN-ONE SOLUTION



50 > 250 kW 
15 > 100 kW 

CO₂

eCO₂Boost

- **CO₂ transcritical booster system** linking the positive and negative racks.
- **"Turnkey" range** with equipment grouped and connected on a common frame.
- **Environmentally-friendly, natural refrigerant (CO₂)** for the production of cold in supermarkets.
- **Service pack:** Training in the use of CO₂ equipment.



MARKET SEGMENTS

Supermarkets and Hypermarkets



DESCRIPTION

Operating pressure

- HP circuit: 120 Bar.
- Positive rack suction circuit and liquid receiver: 45 Bar.
- Negative rack suction circuit: 30 Bar.

Frame

- Thick, folded, galvanized sheet steel monoblock unit for installation in machine room.

Compressors

- Bitzer or Copeland.
- Compressors using semi-hermetic piston technology (or scroll for negative racks with Copeland compressors) equipped with:
 - Crankcase heater.
 - Suction and delivery shut-off valves.
 - HP and LP tapping points with Schrader connector.

Collectors / Pipes

- A general filter unit on negative and positive rack suction.
- Copper or stainless steel manifold and piping depending on the diameters.
- Safety valve on:
 - negative rack suction manifold (30 Bar).
 - positive rack suction manifold (45 Bar).
 - positive rack discharge manifold (120 Bar).

Insulation

- Thermal insulation of the entire refrigeration circuit with the exception of delivery and oil lines.

Oil return system

- Removable oil separator of type combining oil level regulator and oil return electro-valve. By-pass of the oil separator.
- Oil receiver with high and low indicator, shut-off valve.
- Oil return with filter and indicator.
- INT280 KRIWAN level controller supply 230V with isolation valve.
- Copper oil collector with flexible connection for each compressor.

ADVANTAGES

Advantages of CO₂ transcritical Solution

- HP circuit: 120 Bar
- Positive rack suction circuit and liquid receiver: 45 Bar
- Negative rack suction circuit: 30 Bar

Product advantages

Solid steel galvanized bent thick plate for installation in machine room.

Liquid station

- Vertical liquid receiver with shutoff valves.
- Double safety shut-off valve with inverter switch.
- Removable cartridge dryer with by-pass valves.
- Gas cooler pressure control valve connected upstream of the liquid receiver.
- Flash gas valve for controlling liquid receiver pressure connected between liquid receiver and positive rack suction.
- Liquid sub-cooler with plate heat exchanger and equipped with an electronic thermostatic valve.

Connection pack

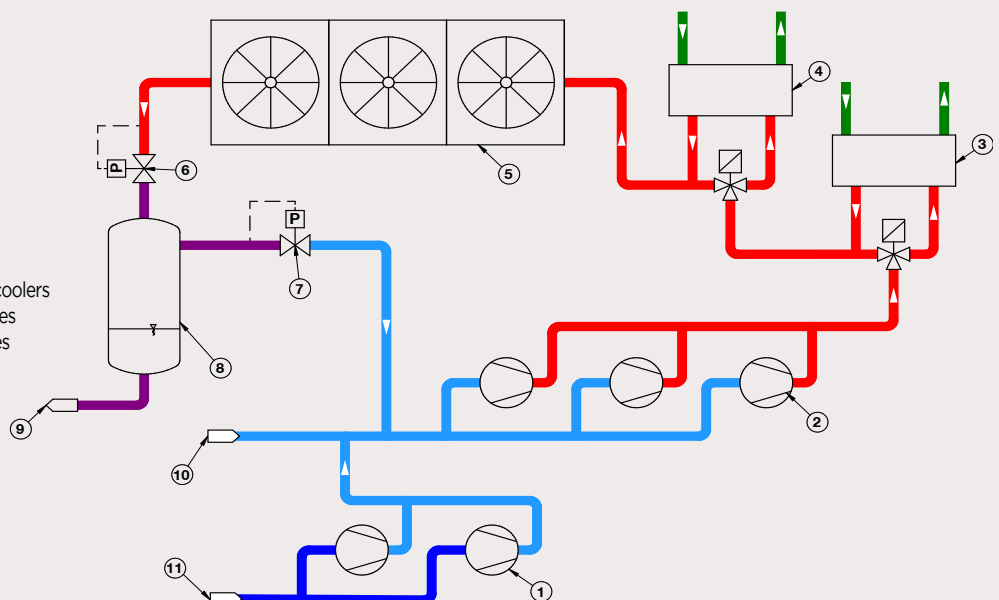
- 1 connecting valve on the suction of each rack and the general liquid discharge.

Monitoring and Security devices

- **Per compressor:**
 - 2 HP auto-reset pressure switches connected to the cylinder head.
 - INT safety thermistor case.
- **Per rack:**
 - LP general safety pressure switch.
 - LP ratiometric pressure sensor (-1/34 B) for standard operation.
 - LP pressure gauge diameter 100 mm class 1.
- **For positive rack:**
 - LP general safety pressure switch.
 - HP ratiometric pressure sensor (-1/159 B) for standard operation.
 - LP ratiometric pressure sensor (-1/59 B) for standard operation.
 - LP and HP pressure gauge diameter 100 mm class 1.
 - Frequency converter for the 1st compressor of the positive rack.

BASIC DIAGRAM

1. Low temperature rack (LT)
2. Medium temperature rack (MT)
3. Heat recovery for domestic hot water
4. Heat recovery for space heating
5. Gas cooler
6. High pressure control valve
7. Flash gas valve
8. Liquid receiver / Flash gas tank
9. Liquid line to supply display cases and unit coolers
10. Return from MT unit coolers and display cases
11. Return from LT unit coolers and display cases



Safety unit

- 1 kW refrigeration unit directly triggered by CO2 pressure via an auto-reset pressure switch and must be connected to the store's backup power supply.
- This unit functions at R134a and is delivered loaded and ready-to-use.

Electrical cabinet

- Electric cabinet mounted and electrically connected to the rack's frame.
- It houses the power for and control of the rack (outlets for cooling sites are not included).
- Management can be achieved with CAREL, DANFOSS or AOE PLCs.

CERTIFICATIONS



OPTIONS

- Anti-vibration pads.
- Frequency converter for the 1st compressor of the negative rack or Digital scroll if Copeland compressor.
- Suction accumulator with oil return by siphon for negative rack.
- Suction accumulator with oil return by siphon for positive rack.
- Optoelectronic low-level alarm for the liquid receiver.
- Optoelectronic high-level alarm for the liquid receiver.
- Optoelectronic low-level alarm for the oil receiver.
- Double liquid receiver (PSxV < 10000 bar.L).

Heat recovery

The heat produced, instead of being carried away by the gas cooler may be used to create a complete store heating and refrigeration system:

- Heat recovery for store heating system: addition of high-pressure exchanger mounted and connected to the CO2 circuit with 3-way, servo-controlled valve.
- Heat recovery for domestic hot water: high-pressure exchanger mounted and connected to the CO2 circuit with 3-way, servo-controlled valve.

Backup operations (different configurations available)

- Backup controllers mounted and electrically connected in the electric cabinet. Switching via LP monitoring pressure switches on the positive and negative racks.
- Pre-programmed backup controllers delivered separately.
- HP control and flash gas valves delivered separately.
- HP control and flash gas valves insulated and connected to refrigeration and electricity with switching:
 - automatically if backup controllers present,
 - manually by power switch located on the cabinet door.

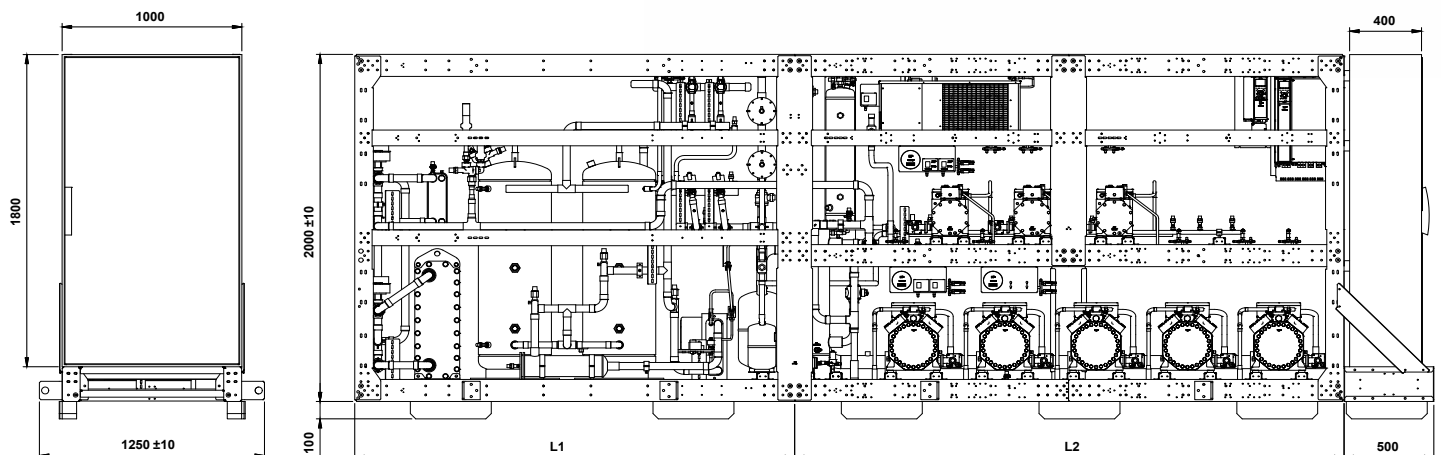
Performance enhancement and warm areas

- Parallel compression (consult us). This option consists of the addition of one or several compressors which are dedicated to the suction of flash gas vapors coming from the liquid receiver. They function as periodic replacement for the flash gas valve during warm periods of the year in order to improve the efficiency of the system.

Other options

- Ejectors, addition of cooling function upon existing the gas cooler (under additional cooling).

FEATURES

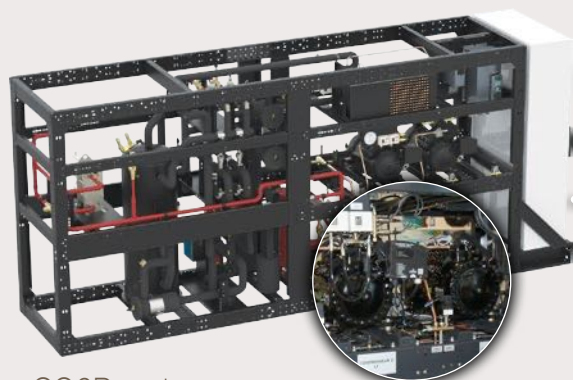


	Combinations	Power ratings
MT Compressors*	3 > 6	50 > 250KW
LT Compressors*	2 > 4	15 > 100 KW
Liquid receiver capacity	80 > 400l	

* Available brands: Copeland (semi sealed MT and scroll in LT) or Bitzer (semi sealed)

- L1 = 1533 mm > Single liquid receiver
- L1 = 2041 mm > Single liquid receiver with heat recovery
- L1 = 2041 mm > Double liquid receiver
- L1 = 2447 mm > Double liquid receiver with heat recovery

- L2 = 2041 mm > MT rack 3 compressors
- L2 = 2549 mm > MT rack 4 compressors
- L2 = 3057 mm > MT rack 5 compressors
- L2 = 3565 mm > MT rack 6 compressors



GLOBAL SOLUTION

eCO2Boost

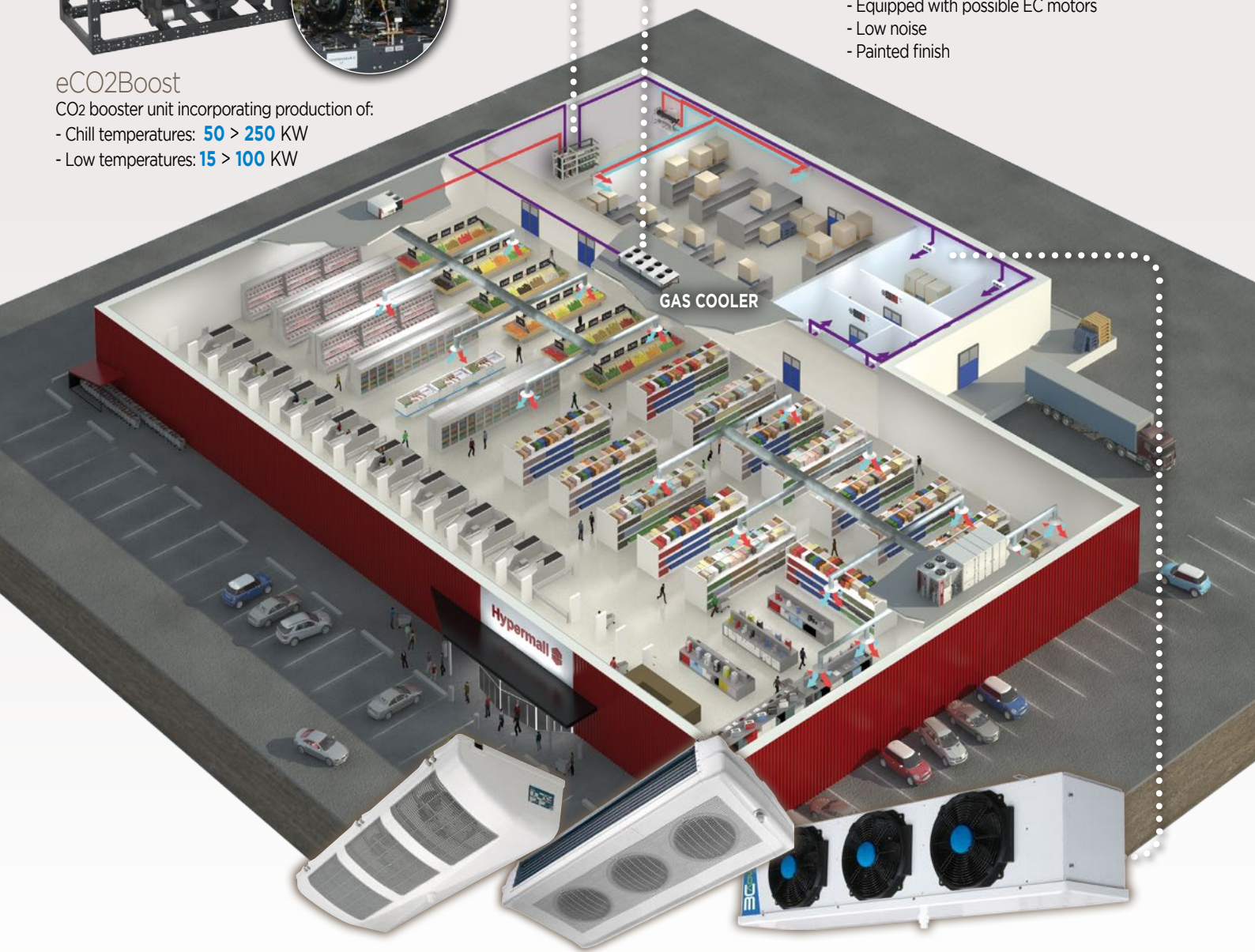
CO2 booster unit incorporating production of:

- Chill temperatures: **50 > 250 KW**
- Low temperatures: **15 > 100 KW**

Gas cooler

Provision of standard Gas cooler or fitted with the vaporization option and treatment adjusted as follows:

- Equipped with possible EC motors
- Low noise
- Painted finish



A range of CO2 unit coolers at 45 bar in the trading area for each zone

MR

Ceiling unit coolers

0.4 > 2.6 KW

- The MR range meets the requirements for small-scale cold rooms.
- Low height: Only 209 mm which enables optimal loading of the cold room.
- Robust appliance, corrosion resistant: battery fully anti-corrosion treated as standard, ABS body and stainless steel fasteners.

TA

Dual-discharge unit coolers

2.1 > 13.2 KW

- The TA range meets the requirements of laboratories, cutting and work rooms, airlocks, etc...
- Excellent level of acoustic comfort in 6 or 8 pole version.
- Low air velocity ensuring comfort and precise control of the temperature and the hygrometry.
- Optimized air projection up to 12 m.
- Robust ABS body with rounded corners combining hygiene and safety.
- Intermediate drip-trays avoiding condensation on the body.

3C-A

Cubic unit coolers

1.3 > 38 KW

- The 3C-A range is intended for commercial applications and semi-industrial refrigeration or storage at low temperatures.
- Numerous possibilities for defrosting: electric, hot water and hot gas.
- Large choice of options for applications in demanding environments (steamer, stainless steel, ...).
- Optional EC motorized fan enables noise and power consumption optimization.

COMPRESSOR RACK SEMI-HERMETIC PISTONS AND SCROLL

Hard Discount - Supermarkets - Hypermarkets
Food processing - Canteen kitchens

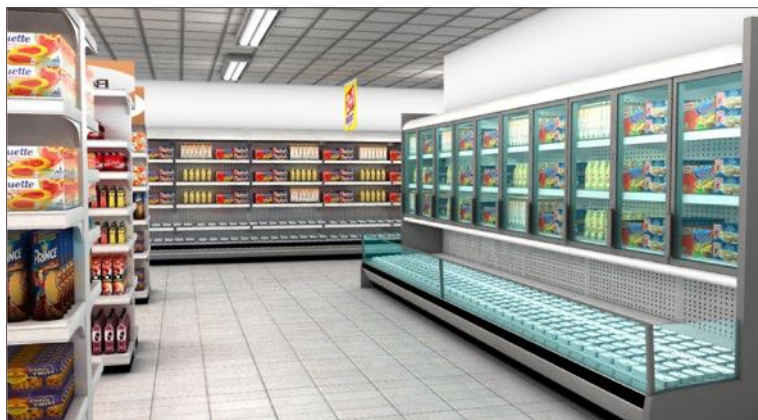
HFC

6 > 110 kW

COMPACT

- A range specially designed to meet the needs and expectations of today's market, in particular with regard to reliability and compactness.
- Racks include 2 to 4 Scroll or Octagon Semi-Hermetic compressors.
- Folded, galvanized steel monoblock frame eliminating vibrations.
- Liquid station delivered separately.
- Copper collector and oil control line.
- Supplied non-wired, wired or with a complete switching enclosure.





DESCRIPTION

Frame

- Monoblock frame designed to avoid vibration-related problems.

Compressors

- Compressor with scroll (Copeland) or semi-hermetic piston (Octagon) technology.
- Equipped with a shut-off valve on the suction and delivery sides, casing heater and rigid suspension elements.
- Head fan for semi-hermetic piston models used in low-temperature applications.

Collectors

- Copper suction and delivery pipes.
- Polypropylene fastening straps on the suction side and high-temperature resistant polyamide straps on the delivery side.
- A general filter unit on the suction side.

Oil line

- Oil separator with receiver high and low level indicator.
- Oil collector with flexible end connections.
- LP oil return line with filter and indicator.
- Oil level regulator with float system with shut-off valve per compressor for SH and electrical for Scroll.
- Degassing valve.

Liquid station

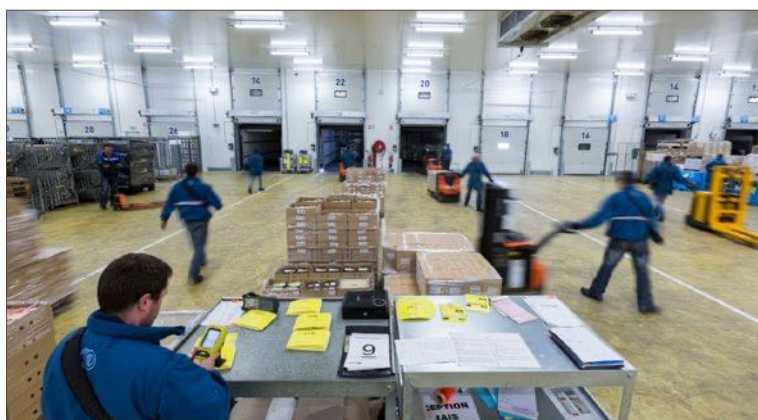
- Liquid station delivered separately.
- 2 inlet/outlet shut-off valves.
- Liquid line equipped with a removable filter dryer unit and indicator.
- Single safety valve or double (according to PED).

Connection pack

- 1 connection valve on the suction, delivery and liquid line.

Monitoring devices

- 1 general safety LP pressure switch.
- 1 or 2 automatic reset HP cartridge pressure switch(s) per compressor (according to EN 378-2: 2009).
- 2 manometers (LP+HP)
- 1 oil differential pressure switch per compressor for semi-hermetic piston compressor model 4TC to 4NC.



DESIGNATION

COM 2⁽¹⁾P⁽²⁾ / 4EES-4Y⁽³⁾

- (1) Number of compressor
 (2) **P** = Chill range - **N** = Low temperature range
 (3) Type of compressor

CERTIFICATIONS



Kit

Factory

OPTIONS

Safety pack

- BPS** LP safety pressure switch per compressor.
- HPG** General HP safety pressure switch.

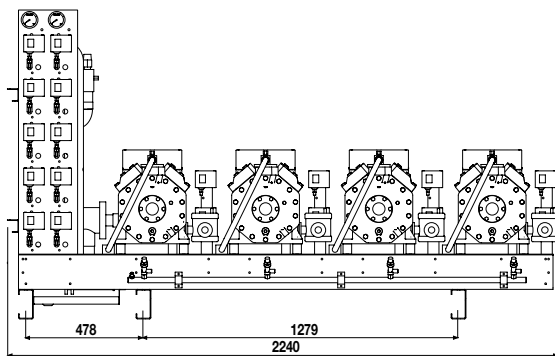
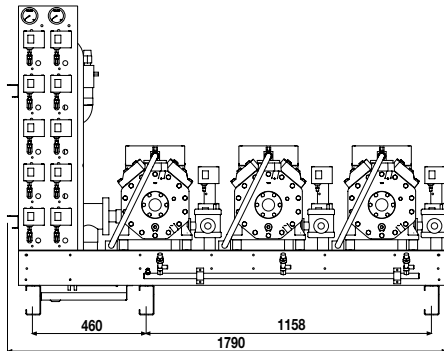
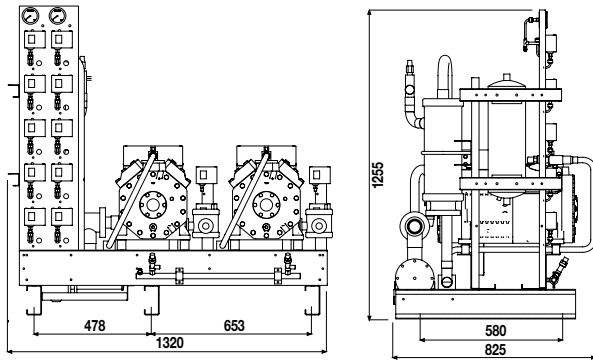
Regulator pack

- BPI** LP pressure switch (automatic reset).
- HPS** Additional HP pressure switches.
- CDP** LP/HP pressure sensors, 4-20 mA signal.

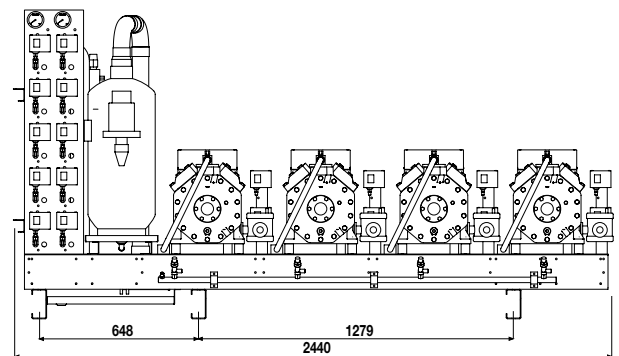
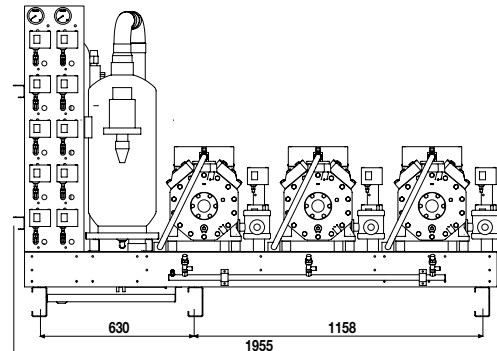
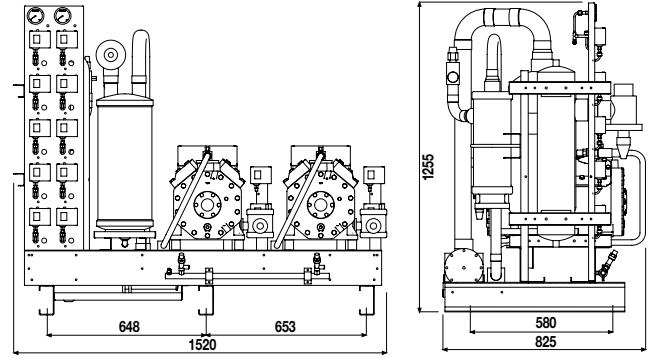
Miscellaneous

- BAC** Suction accumulator (only for semi-hermetic compressor).
- TXL** Traxoil oil regulator.
- RLS** Oversized liquid receiver.
- ALF** Height-adjustable refrigerant level alarm with float.
- ALR** Opto-electronic refrigerant level alarm.
- SSD** Double safety valve with 3-way valve (for receivers < 120 litres).
- BDR** Condensate drip tray under suction collectors.
- PAV** Anti-vibration pads.
- ARM** Switching enclosure (contact us).

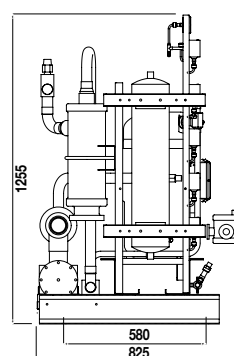
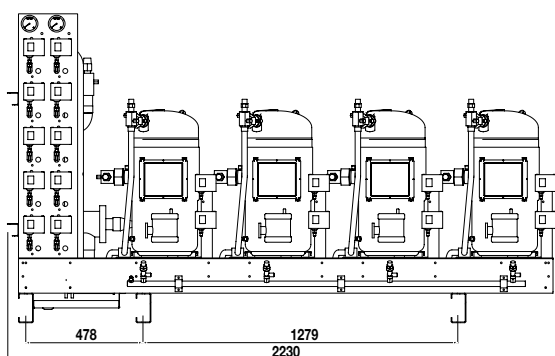
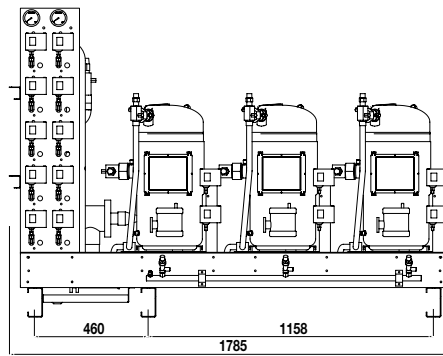
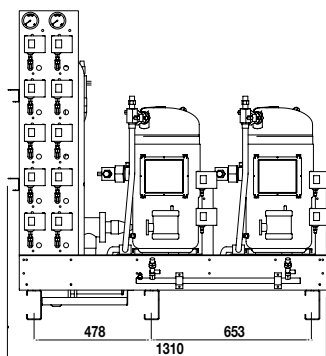
COMPACT - Octagon (without BAC option)



COMPACT - Octagon (with BAC option)

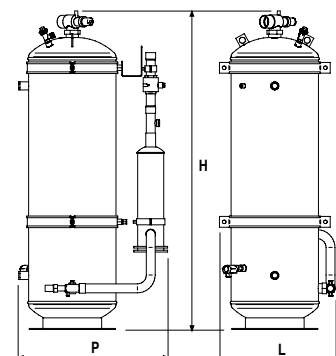


COMPACT - Scroll



Liquid station

		45 l.	60 l.	120 l.
L	mm	666	666	714
P	mm	402	402	455
H	mm	1137	1338	1834
Weight	kg	60	80	120



COMPACT - Octagon
Chill range

-10°C/+45°C *		COM ...	2P	2P	2P	3P	3P	2P	4P	2P	3P
			4EES-4Y	4DES-5Y	4CES-6Y	4EES-4Y	4DES-5Y	4TES-9Y	4EES-4Y	4PES-12Y	4CES-6Y
Capacity R404A*	kW		22,2	26,5	32,0	33,3	39,7	40,2	44,4	45,7	48,1
Input power*	kW		10,7	12,6	15,0	16,0	18,9	18,6	21,3	20,5	22,5
Compressor	Nb		2	2	2	3	3	2	4	2	3
Max. input current	A		20	25	32	31	38	39	41	43	48
Receiver volume	l.		45	45	60	60	60	60	60	60	60
Standard connection package	Discharge	Ø	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8
	Suction	Ø	1"5/8	1"5/8	1"5/8	1"5/8	2"1/8	2"1/8	2"1/8	2"1/8	2"1/8
	Liquid	Ø	7/8"	7/8"	7/8"	7/8"	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8
Rack weight	kg		374	383	390	472	482	481	573	491	498
Receiver dimensions	L	mm	666	666	666	666	666	666	666	666	666
	P	mm	402	402	402	402	402	402	402	402	402
	H	mm	1137	1137	1338	1338	1338	1338	1338	1338	1338
Receiver weight	kg		60	60	80	80	80	80	80	80	80

-10°C/+45°C *		COM ...	4P	2P	3P	4P	3P	4P	3P	4P	4P
			4DES-5Y	4NES-14Y	4TES-9Y	4CES-6Y	4PES-12Y	4TES-9Y	4NES-14Y	4PES-12Y	4NES-14Y
Capacity R404A*	kW		53,0	54,8	60,4	64,1	68,6	80,5	82,1	91,4	109,5
Input power*	kW		25,2	25,0	27,8	30,0	30,8	37,1	37,4	41,1	49,9
Compressor	Nb		4	2	3	4	3	4	3	4	4
Max. input current	A		50	52	59	64	65	78	77	86	103
Receiver volume	l.		60	60	60	60	120	120	120	120	120
Standard connection package	Discharge	Ø	1"3/8	1"3/8	1"3/8	1"3/8	1"3/8	1"5/8	1"5/8	1"5/8	1"5/8
	Suction	Ø	2"1/8	2"1/8	2"1/8	2"1/8	2"5/8	2"5/8	2"5/8	2"5/8	2"5/8
	Liquid	Ø	1"1/8	1"1/8	1"1/8	1"1/8	1"3/8	1"3/8	1"3/8	1"3/8	1"3/8
Rack weight	kg		589	504	637	608	656	794	670	815	823
Receiver dimensions	L	mm	666	666	666	666	714	714	714	714	714
	P	mm	402	402	402	402	455	455	455	455	455
	H	mm	1338	1338	1338	1338	1834	1834	1834	1834	1834
Receiver weight	kg		80	80	80	80	120	120	120	120	120

* Evaporation temperature / condensation temperature - Superheating 10K, subcooling 3K.

Refer to the software package for a more accurate rack selection.

	BPS	HPG	BP1	HPS	CDP	BAC	TXL	RLS	RLS	RLS	ALF	ALR	SSD	BDR	PAV	ARM
								60 l.	120 l.	150 l.						
COM 2P/4EES-4Y	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
COM 2P/4DES-5Y	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
COM 2P/4CES-6Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 3P/4EES-4Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 3P/4DES-5Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 2P/4TES-9Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 4P/4EES-4Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 2P/4PES-12Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 3P/4CES-6Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 4P/4DES-5Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 2P/4NES-14Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 3P/4TES-9Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 4P/4CES-6Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 3P/4PES-12Y	0	0	0	0	0	0	0	-	-	0	0	0	-	0	0	0
COM 4P/4TES-9Y	0	0	0	0	0	0	0	-	-	0	0	0	-	0	0	0
COM 3P/4NES-14Y	0	0	0	0	0	0	0	-	-	0	0	0	-	0	0	0
COM 4P/4PES-12Y	0	0	0	0	0	0	0	-	-	0	0	0	-	0	0	0
COM 4P/4NES-14Y	0	0	0	0	0	0	0	-	-	0	0	0	-	0	0	0

COMPACT - Octagon

Low temperature range

-35°C/+40°C *		COM ...	2N 4EES-4Y	2N 4DES-5Y	2N 4CES-6Y	3N 4EES-4Y	2N 4TES-9Y	3N 4DES-5Y	2N 4PES-12Y	4N 4EES-4Y	3N 4CES-6Y
Capacity R404A*	kW		6,6	7,9	9,3	9,9	11,2	11,8	12,0	13,2	13,9
Input power*	kW		5,5	6,6	7,7	8,3	8,9	9,9	9,5	11,1	11,6
Compressor	Nb		2	2	2	3	2	3	2	4	3
Max. input current	A		15	19	25	23	27	29	29	30	38
Receiver volume	l.		45	45	45	45	45	45	45	45	45
Standard connection package	Discharge	Ø	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8
	Suction	Ø	1"3/8	1"3/8	1"5/8	1"5/8	1"5/8	1"5/8	1"5/8	1"5/8	1"5/8
	Liquid	Ø	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Rack weight	kg		371	376	388	470	474	476	484	566	492
Receiver dimensions	L	mm	666	666	666	666	666	666	666	666	666
	P	mm	402	402	402	402	402	402	402	402	402
	H	mm	1137	1137	1137	1137	1137	1137	1137	1137	1137
Receiver weight	kg		60	60	60	60	60	60	60	60	60

-35°C/+40°C *		COM ...	2N 4NES-14Y	4N 4DES-5Y	3N 4TES-9Y	3N 4PES-12Y	4N 4CES-6Y	4N 4TES-9Y	3N 4NES-14Y	4N 4PES-12Y	4N 4NES-14Y
Capacity R404A*	kW		15,2	15,8	16,7	18,0	18,6	22,3	22,8	24,0	30,4
Input power*	kW		12,1	13,2	13,3	14,2	15,4	17,7	18,1	18,9	24,1
Compressor	Nb		2	4	3	3	4	4	3	4	4
Max. input current	A		35	39	40	44	51	54	52	58	70
Receiver volume	l.		60	60	60	60	60	60	60	60	60
Standard connection package	Discharge	Ø	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8
	Suction	Ø	2"1/8	2"1/8	2"1/8	2"1/8	2"1/8	2"1/8	2"1/8	2"5/8	2"5/8
	Liquid	Ø	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	1"1/8	1"1/8
Rack weight	kg		490	577	624	634	597	769	646	796	805
Receiver dimensions	L	mm	666	666	666	666	666	666	666	666	666
	P	mm	402	402	402	402	402	402	402	402	402
	H	mm	1338	1338	1338	1338	1338	1338	1338	1338	1338
Receiver weight	kg		80	80	80	80	80	80	80	80	80

* Evaporation temperature / condensation temperature - Superheating 10K, subcooling 3K.
 Refer to the software package for a more accurate rack selection.

	BPS	HPG	BP1	HPS	CDP	BAC	TXL	RLS 60 l.	RLS 120 l.	RLS 150 l.	ALF	ALR	SSD	BDR	PAV	ARM
COM 2N/4EES-4Y	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
COM 2N/4DES-5Y	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
COM 2N/4CES-6Y	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
COM 3N/4EES-4Y	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
COM 2N/4TES-9Y	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
COM 3N/4DES-5Y	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
COM 2N/4PES-12Y	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
COM 4N/4EES-4Y	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
COM 3N/4CES-6Y	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
COM 2N/4NES-14Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 4N/4DES-5Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 3N/4TES-9Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 3N/4PES-12Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 4N/4CES-6Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 4N/4TES-9Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 3N/4NES-14Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 4N/4PES-12Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0
COM 4N/4NES-14Y	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0

COMPACT - Scroll

Chill range

-10°C/+45°C *	COM ...	2P ZB38	2P ZB45	2P ZB50	3P ZB38	2P ZB66	3P ZB45	3P ZB50	2P ZB76	2P ZB95	3P ZB66
Capacity R404A*	kW	16,6	19,6	23,2	24,9	29,4	29,4	34,7	34,8	42,3	44,1
Input power*	kW	8,4	9,6	11,4	12,6	14,2	14,4	17,2	16,3	21,0	21,2
Compressor	Nb	2	2	2	3	2	3	3	2	2	3
Max. input current	A	22	22	25	33	31	34	38	36	46	47
Receiver volume	l.	45	45	45	45	45	45	60	60	60	60
Standard connection package	Discharge	Ø	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8
	Suction	Ø	1"5/8	1"5/8	1"5/8	1"5/8	1"5/8	1"5/8	2"1/8	2"1/8	2"1/8
	Liquid	Ø	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	1"1/8	7/8"	1"1/8
Rack weight	kg	287	292	328	340	334	346	403	338	348	408
Receiver dimensions	L	mm	666	666	666	666	666	666	666	666	666
	P	mm	402	402	402	402	402	402	402	402	402
	H	mm	1137	1137	1137	1137	1137	1137	1338	1338	1338
Receiver weight	kg	60	60	60	60	60	60	80	80	80	80

-10°C/+45°C *	COM ...	4P ZB50	2P ZB114	3P ZB76	4P ZB66	3P ZB95	4P ZB76	3P ZB114	4P ZB95	4P ZB114
Capacity R404A*	kW	46,3	50,2	52,2	58,8	63,5	69,6	75,3	84,7	100,4
Input power*	kW	22,9	25,2	24,4	28,3	31,5	32,6	37,8	42,0	50,4
Compressor	Nb	4	2	3	4	3	4	3	4	4
Max. input current	A	50	58	53	62	70	71	87	93	115
Receiver volume	l.	60	60	60	60	60	60	120	120	120
Standard connection package	Discharge	Ø	1"1/8	1"3/8	1"3/8	1"3/8	1"3/8	1"3/8	1"5/8	1"5/8
	Suction	Ø	2"1/8	2"1/8	2"1/8	2"1/8	2"5/8	2"5/8	2"5/8	2"5/8
	Liquid	Ø	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"3/8	1"3/8
Rack weight	kg	474	361	425	491	438	506	448	526	533
Receiver dimensions	L	mm	666	666	666	666	666	714	714	714
	P	mm	402	402	402	402	402	455	455	455
	H	mm	1338	1338	1338	1338	1338	1338	1834	1834
Receiver weight	kg	80	80	80	80	80	80	120	120	120

* Evaporation temperature / condensation temperature - Superheating 10K, subcooling 3K.
 Refer to the software package for a more accurate rack selection.

	BPS	HPG	BP1	HPS	CDP	BAC	TXL	RLS 60 l.	RLS 120 l.	RLS 150 l.	ALF	ALR	SSD	BDR	PAV	ARM
COM 2P/ZB38	0	0	0	0	0	-	0	0	-	-	0	0	0	0	0	0
COM 2P/ZB45	0	0	0	0	0	-	0	0	-	-	0	0	0	0	0	0
COM 2P/ZB50	0	0	0	0	0	-	0	0	-	-	0	0	0	0	0	0
COM 3P/ZB38	0	0	0	0	0	-	0	0	-	-	0	0	0	0	0	0
COM 2P/ZB66	0	0	0	0	0	-	0	0	-	-	0	0	0	0	0	0
COM 3P/ZB45	0	0	0	0	0	-	0	0	-	-	0	0	0	0	0	0
COM 3P/ZB50	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
COM 2P/ZB76	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
COM 2P/ZB95	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
COM 3P/ZB66	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
COM 4P/ZB50	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
COM 2P/ZB114	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
COM 3P/ZB76	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
COM 4P/ZB66	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
COM 3P/ZB95	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
COM 4P/ZB76	0	0	0	0	0	-	0	-	0	-	0	0	0	0	0	0
COM 3P/ZB114	0	0	0	0	0	-	0	-	0	-	0	0	-	0	0	0
COM 4P/ZB95	0	0	0	0	0	-	0	-	0	-	0	0	-	0	0	0
COM 4P/ZB114	0	0	0	0	0	-	0	-	0	-	0	0	-	0	0	0

COMPACT - Scroll
Low temperature range

-35°C/+40°C *		COM ...	2N ZF15	3N ZF15	2N ZF24	2N ZF33	3N ZF24	2N ZF40	4N ZF24
Capacity R404A*	kW		6,1	9,2	9,3	12,7	13,9	15,8	18,5
Input power*	kW		5,7	8,5	9,0	11,7	13,6	14,8	18,1
Compressor	Nb		2	3	2	2	3	2	4
Max. input current	A		16	24	25	32	38	38	50
Receiver volume	l.		45	45	45	45	45	60	60
Standard connection package	Discharge	Ø	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8
	Suction	Ø	1"3/8	1"5/8	1"5/8	2"1/8	2"1/8	2"1/8	2"1/8
	Liquid	Ø	5/8"	5/8"	5/8"	5/8"	5/8"	7/8"	7/8"
Rack weight	kg		289	344	414	402	530	424	641
Receiver dimensions	L	mm	666	666	666	666	666	666	666
	P	mm	402	402	402	402	402	402	402
	H	mm	1137	1137	1137	1137	1137	1338	1338
Receiver weight	kg		60	60	60	60	60	80	80

-35°C/+40°C *		COM ...	2N ZF48	3N ZF33	3N ZF40	4N ZF33	3N ZF48	4N ZF40	4N ZF48
Capacity R404A*	kW		19,0	19,1	23,6	25,5	28,5	31,5	38,0
Input power*	kW		19,4	17,5	22,2	23,3	29,1	29,6	38,8
Compressor	Nb		2	3	3	4	3	4	4
Max. input current	A		49	48	57	64	73	76	98
Receiver volume	l.		60	60	60	60	60	60	120
Standard connection package	Discharge	Ø	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"1/8	1"3/8
	Suction	Ø	2"1/8	2"1/8	2"5/8	2"5/8	2"5/8	2"5/8	2"5/8
	Liquid	Ø	7/8"	7/8"	7/8"	7/8"	7/8"	1"1/8	1"1/8
Rack weight	kg		443	510	542	617	575	661	702
Receiver dimensions	L	mm	666	666	666	666	666	666	714
	P	mm	402	402	402	402	402	402	455
	H	mm	1338	1338	1338	1338	1338	1338	1834
Receiver weight	kg		80	80	80	80	80	80	120

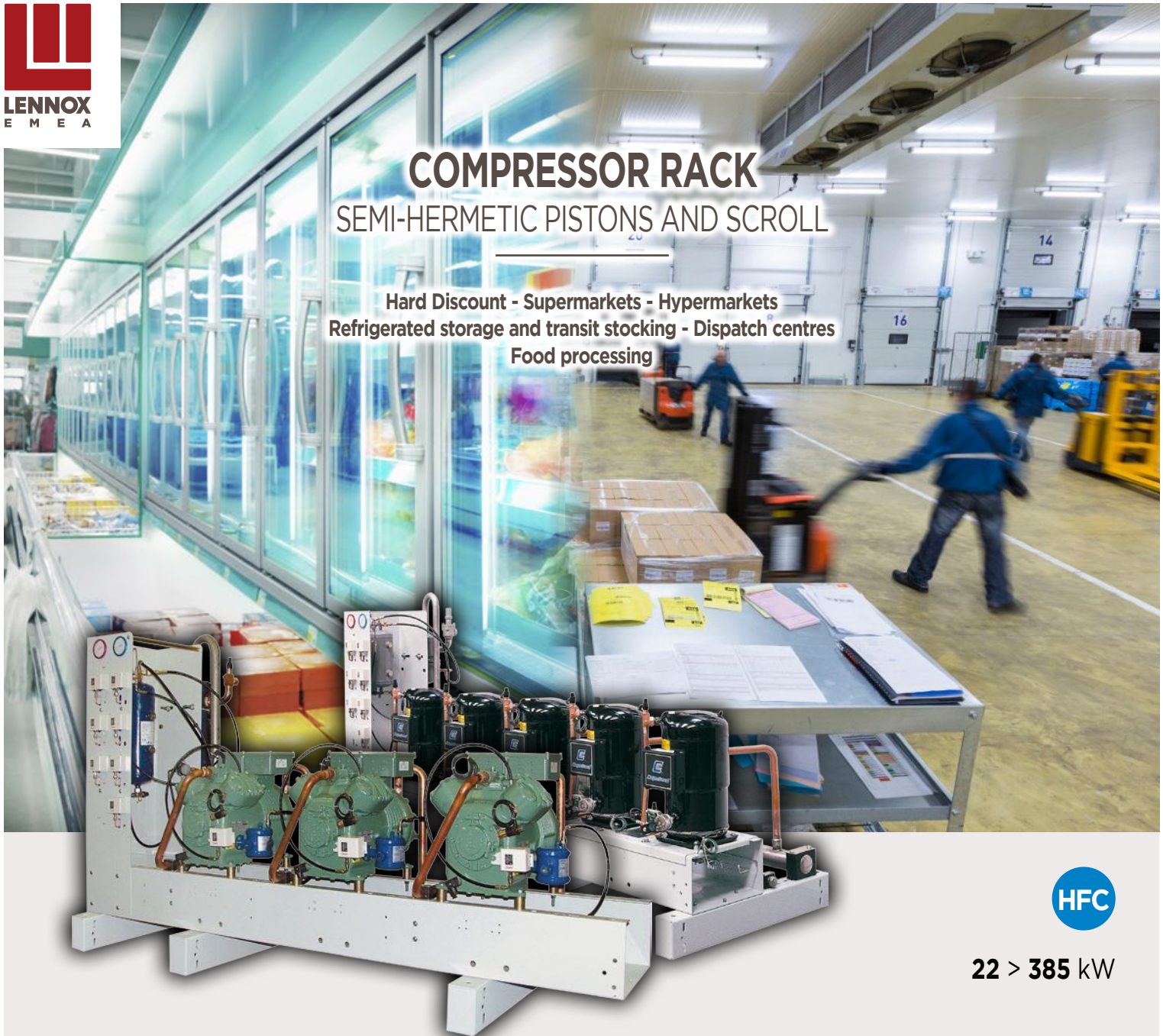
* Evaporation temperature / condensation temperature - Superheating 10K, subcooling 3K.
Refer to the software package for a more accurate rack selection.

	BPS	HPG	BP1	HPS	CDP	BAC	TXL	RLS 60 l.	RLS 120 l.	RLS 150 l.	ALF	ALR	SSD	BDR	PAV	ARM
COM 2N/ZF15	0	0	0	0	0	-	S	0	-	-	0	0	0	0	0	0
COM 3N/ZF15	0	0	0	0	0	-	S	0	-	-	0	0	0	0	0	0
COM 2N/ZF24	0	0	0	0	0	-	S	0	-	-	0	0	0	0	0	0
COM 2N/ZF33	0	0	0	0	0	-	S	0	-	-	0	0	0	0	0	0
COM 3N/ZF24	0	0	0	0	0	-	S	0	-	-	0	0	0	0	0	0
COM 2N/ZF40	0	0	0	0	0	-	S	-	0	-	0	0	0	0	0	0
COM 4N/ZF24	0	0	0	0	0	-	S	-	0	-	0	0	0	0	0	0
COM 2N/ZF48	0	0	0	0	0	-	S	-	0	-	0	0	0	0	0	0
COM 3N/ZF33	0	0	0	0	0	-	S	-	0	-	0	0	0	0	0	0
COM 3N/ZF40	0	0	0	0	0	-	S	-	0	-	0	0	0	0	0	0
COM 4N/ZF33	0	0	0	0	0	-	S	-	0	-	0	0	0	0	0	0
COM 3N/ZF48	0	0	0	0	0	-	S	-	0	-	0	0	0	0	0	0
COM 4N/ZF40	0	0	0	0	0	-	S	-	0	-	0	0	0	0	0	0
COM 4N/ZF48	0	0	0	0	0	-	S	-	-	0	0	0	-	0	0	0

COMPRESSOR RACK

SEMI-HERMETIC PISTONS AND SCROLL

Hard Discount - Supermarkets - Hypermarkets
Refrigerated storage and transit stocking - Dispatch centres
Food processing



HFC

22 > 385 kW

MOPSH / MOSC

- Racks composed in standard:
 - MOPSH model with 2 to 5 semi-hermetic compressors,
 - MOSC model with 5 and 6 Scroll compressors.
- Supplied non-wired, wired or with a complete switching enclosure.
- Rack adapted for use in sites with difficult access.
- Low width 800 to 1,000 mm.
- Liquid station delivered separately.
- Painted, U-profile, monoblock frame to eliminate vibrations.



DESCRIPTION

Frame

MOPSH - MOSC

- Monoblock, painted, 4 mm thick, U-profile, folded sheet steel.

Compressors

MOPSH

- With ROTALOCK suction and delivery valves + head fan for low temperature applications, casing heater and oil pump.

MOSC

- Equipped with ROTALOCK suctions and delivery valves, casing heater, HP safety cartridge pressure switch and rigid suspension.
- The low temperature models are also equipped with an injection system with various configurations according to the compressors used: shut-off valve, filter, solenoid valve and capillary.

Collectors

MOPSH - MOSC

- Suction and delivery pipes made of stainless steel 304 L.
- Schrader pressure tapping point with a shut-off valve per collector (connection of mano-pressure switch, etc...).
- Polypropylene fastening straps on the suction side and high-temperature resistant polyamide straps on the delivery side.

MOPSH

- A general suction filter unit with removable cartridge up to 186 kW refrigeration capacity for chill and 47 kW for low temperature. One unit per compressor for higher capacities.

MOSC

- A removable cartridge filter fitted on the suction collector.

Oil line

MOPSH - MOSC

- Removable oil separator and oil receiver with high/low level Indicator and shut-off valves.
- Oil collector with flexible end connections.
- LP oil return line with filter, indicator and shut-off valve per compressor.
- Degassing valve.

MOPSH

- Level regulator with float.

Liquid station

- Liquid station delivered separately.
- Inlet/outlet shut-off valves.
- Liquid line equipped with a removable filter dryer unit ≤ 150 l. and 2 units in parallel with shut-off valves > 150 l.
- General line indicator and shut-off valve.
- Single safety valve or double (according to PED).

Monitoring devices

MOPSH - MOSC

- 1 general safety LP pressure switch.
- 1 or 2 automatic reset HP cartridge pressure switch(es) per compressor (according to EN 378-2: 2009).
- 2 manometers (LP+HP).

MOPSH

- Oil differential pressure switch per compressor.



DESIGNATION

MOSC 5 P⁽¹⁾ / ZB50⁽³⁾

(1) Number of compressor

(2) **P** = Chill range - **N** = Low temperature range

(3) Type of compressor

CERTIFICATIONS



Kit

Factory

OPTIONS

Connection pack

- PR1** External connection valves (1 delivery, 1 suction, 1 liquid).
- PR2** External connection valves (1 delivery, 2 suction, 2 liquid).
- PR3** External connection valves (1 delivery, 3 suction, 3 liquid).

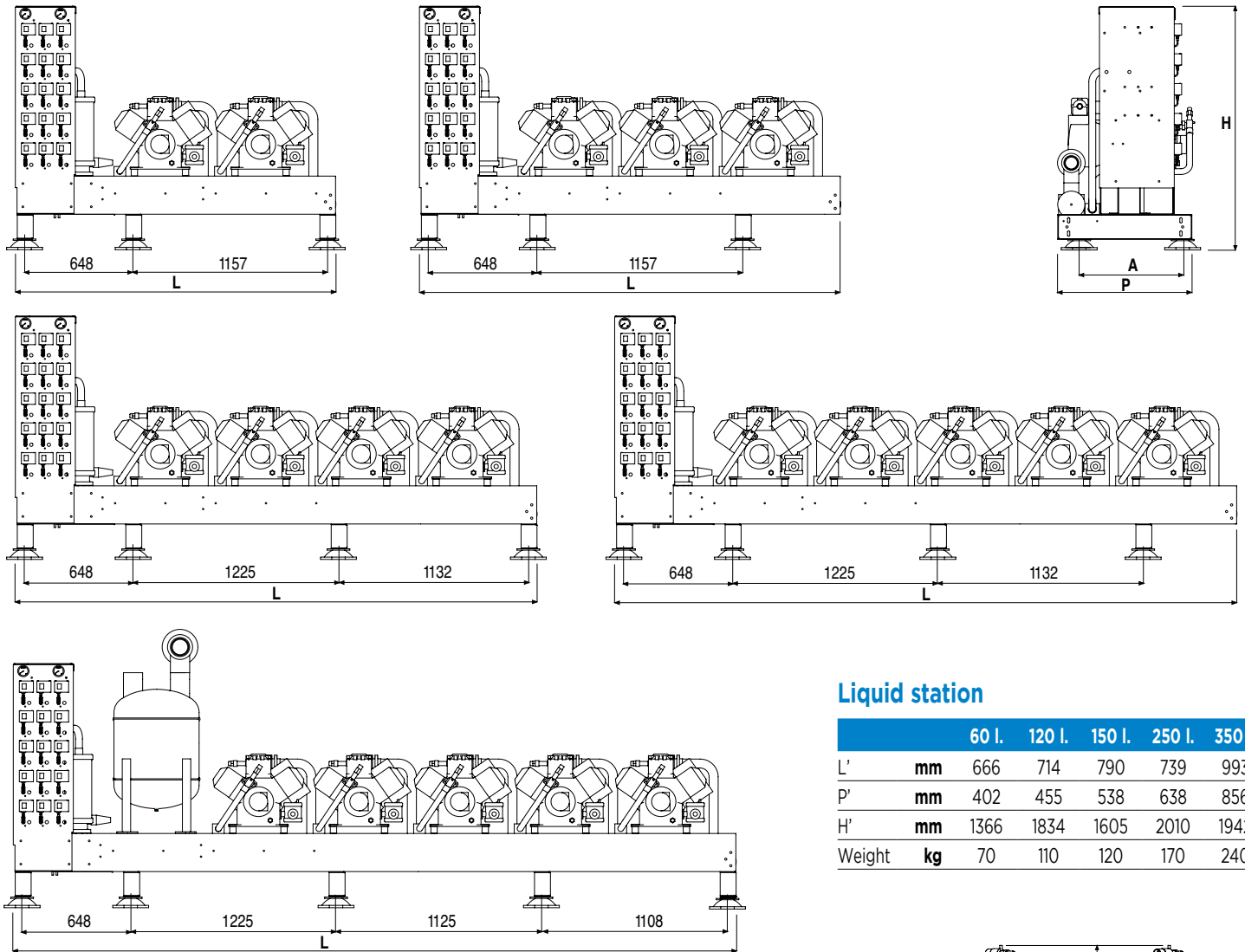
Safety pack

- BPS** LP safety pressure switch per compressor.
- HPG** HP general pressure switch (automatic).
- Regulator pack**
- BP1** LP pressure switch (automatic) per compressor.
- HPS** Additional HP pressure switches.
- CDP** LP/HP pressure sensors, 4-20 mA signal.

Miscellaneous

- TXL** Traxoil oil regulator (**MOPSH**).
- BD1** Single liquid dryer by-pass (1 filter) during operation.
- ALF** Height-adjustable refrigerant level alarm with float.
- ALR** Opto-electronic refrigerant level alarm.
- PAV** Anti-vibration pads (supplied with the rack not fitted).
- SSD** Double safety valve with 3-way valve (for receivers < 120 litres).
- RLS** Oversized liquid receiver.
- BDR** Condensate drip tray under suction collectors.
- VFA** Suction valve and filter on each compressor (**MOPSH**).
- CAR** Casing (with incorporated switching enclosure).
- SIL** Delivery muffler (1 per compressor) (**MOPSH**).
- ANM** Rack lifting rings (supplied with the rack not fitted).
- BAC** Suction accumulator (**MOPSH**).
- EVH** Oil return solenoid valve.
- CCB** Control terminal rail wiring.
- ARM** Switching enclosure (contact us).

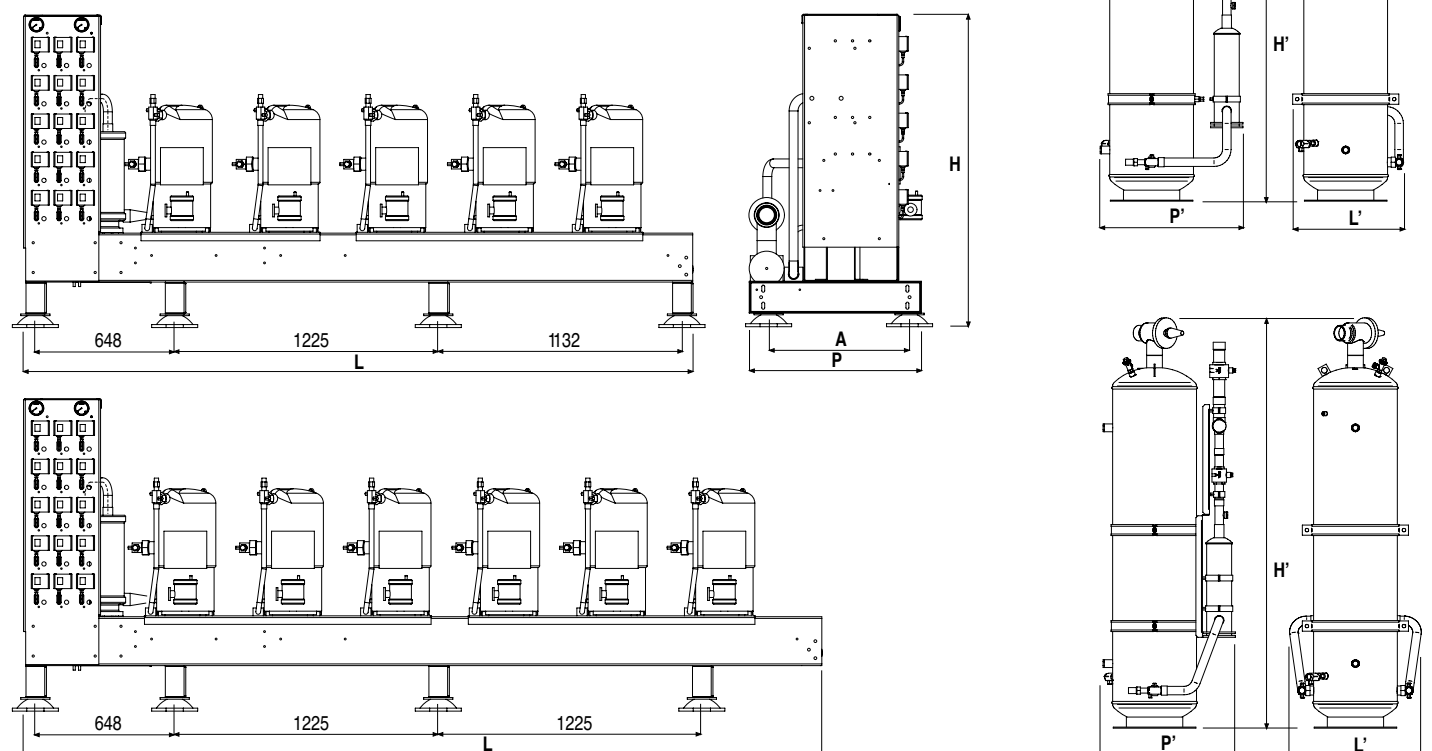
MOPSH - Semi-Hermetic



Liquid station

	60 l.	120 l.	150 l.	250 l.	350 l.
L'	mm 666	714	790	739	993
P'	mm 402	455	538	638	856
H'	mm 1366	1834	1605	2010	1942
Weight	kg 70	110	120	170	240

MOSC - Scroll



MOSC Chill range

-10°C/+45°C *		MOSC ...	5P ZB50	5P ZB76	6P ZB76	5P ZB95	5P ZB114	6P ZB95	6P ZB114
Capacity R404A*	kW		57,9	87,0	104,4	105,8	125,5	127,0	150,6
Input power*	kW		28,6	40,7	48,9	52,5	63,0	63,0	75,6
Compressor	Nb		5	5	6	5	5	6	6
Max. input current	A		73	102	122	141	167	169	200
Receiver volume	l.		60	120	120	120	150	150	150
Standard connection package	Discharge	Ø	1"5/8	1"5/8	2"1/8	2"1/8	2"1/8	2"1/8	2"5/8
	Suction	Ø	2"5/8	3"1/8	3"1/8	3"1/8	3"1/8	4"1/8	4"1/8
	Liquid	Ø	1"1/8	1"3/8	1"3/8	1"3/8	1"5/8	1"5/8	1"5/8
Rack dimensions	L	mm	3115	3115	3715	3115	3115	3715	3715
	P	mm	800	800	800	1000	1000	1000	1000
	H	mm	1500	1500	1500	1500	1500	1500	1500
	A	mm	655	655	755	755	755	755	755
Weight	kg		820	820	980	890	930	1040	1100

* Evaporation temp./Condensation temp. - Superheating 10K, subcooling 3K.

Refer to the software package for a more accurate rack selection.

MOSC ...	PR1	PR2	PR3	BPS	HPG	BP1	HPS	CDP	TXL	BD1	ALF	ALR	PAV	SSD	RLS	RLS	RLS	RLS	BDR	VFA	SIL	ANM	BAC	EVH	CCB	ARM	
															120l.	150l.	250l.	350l.									
5P / ZB50	0	0	-	0	0	0	0	0	S	0	0	0	0	0	0	-	-	-	0	-	-	0	-	0	0	0	
5P / ZB76	0	0	-	0	0	0	0	0	S	0	0	0	0	-	-	0	-	-	0	-	-	0	-	0	0	0	
6P / ZB76	0	0	0	0	0	0	0	0	S	0	0	0	0	-	-	0	-	-	0	-	-	0	-	0	0	0	
5P / ZB95	0	0	0	0	0	0	0	0	S	0	0	0	0	-	-	0	-	-	0	-	-	0	-	0	0	0	
5P / ZB114	0	0	0	0	0	0	0	0	S	0	0	0	0	-	-	-	0	-	0	-	-	0	-	0	0	0	
6P / ZB95	0	0	0	0	0	0	0	0	S	0	0	0	0	-	-	-	0	-	0	-	-	0	-	0	0	0	
6P / ZB114	0	0	0	0	0	0	0	0	S	0	0	0	0	-	-	-	0	-	0	-	-	0	-	0	0	0	

S : Standard

MOSC Low temperature range

-35°C/+40°C *		MOSC ...	5N ZF24	5N ZF33	6N ZF33	5N ZF40	6N ZF40	5N ZF48	6N ZF48
Capacity R404A*	kW		23,2	31,8	38,2	39,4	47,3	47,5	57,0
Input power*	kW		22,6	29,2	35,0	37,0	44,5	48,5	58,2
Compressor	Nb		5	5	6	5	6	5	6
Max. input current	A		81	112	134	126	151	153	184
Receiver volume	l.		60	60	120	150	150	150	150
Standard connection package	Discharge	Ø	1"3/8	1"3/8	1"3/8	1"3/8	1"5/8	1"3/8	1"5/8
	Suction	Ø	2"5/8	2"5/8	3"1/8	3"1/8	3"1/8	3"1/8	4"1/8
	Liquid	Ø	1"1/8	1"1/8	1"3/8	1"3/8	1"3/8	1"3/8	1"5/8
Rack dimensions	L	mm	3115	3115	3715	3115	3715	3115	3715
	P	mm	800	800	800	800	800	800	1000
	H	mm	1500	1500	1500	1500	1500	1500	1500
	A	mm	655	655	755	755	755	755	755
Weight	kg		820	820	980	890	1040	930	1100

* Evaporation temp./Condensation temp. - Superheating 10K, subcooling 3K.

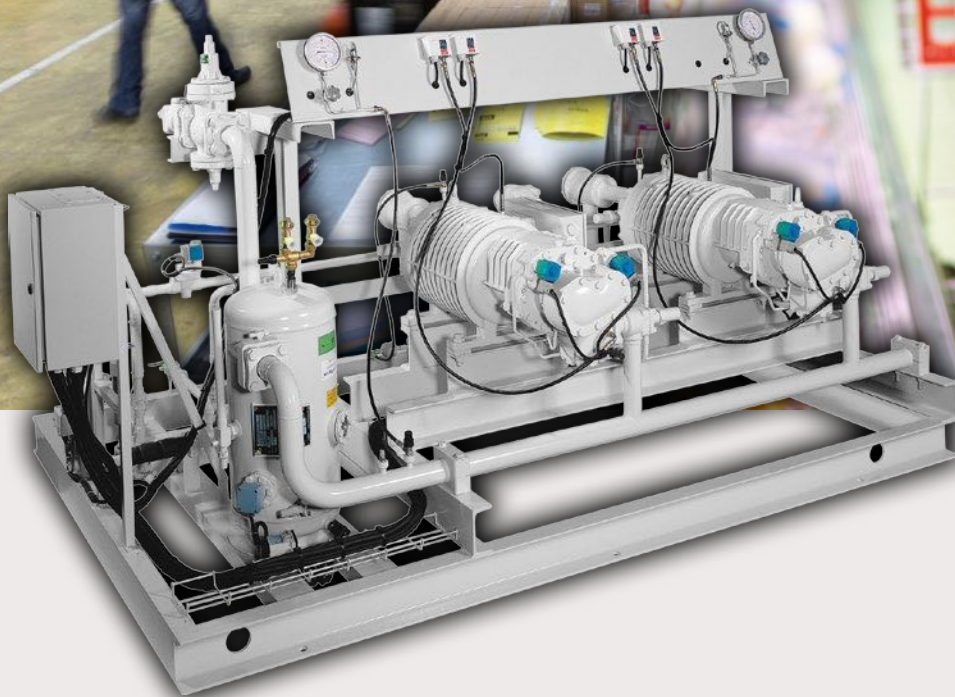
Refer to the software package for a more accurate rack selection.

MOSC ...	PR1	PR2	PR3	BPS	HPG	BP1	HPS	CDP	TXL	BD1	ALF	ALR	PAV	SSD	RLS	RLS	RLS	RLS	BDR	VFA	SIL	ANM	BAC	EVH	CCB	ARM
															120l.	150l.	250l.	350l.								
5N / ZF24	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	-	-	-	0	-	-	0	-	0	0	0
5N / ZF33	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	-	-	-	0	-	-	0	-	0	0	0
6N / ZF33	0	0	-	0	0	0	0	0	-	0	0	0	0	-	-	0	-	-	0	-	-	0	-	0	0	0
5N / ZF40	0	0	0	0	0	0	0	0	-	0	0	0	0	-	-	-	0	-	0	-	-	0	-	0	0	0
6N / ZF40	0	0	0	0	0	0	0	0	-	0	0	0	0	-	-	-	0	-	0	-	-	0	-	0	0	0
5N / ZF48	0	0	0	0	0	0	0	0	-	0	0	0	0	-	-	-	0	-	0	-	-	0	-	0	0	0
6N / ZF48	0	0	0	0	0	0	0	0	-	0	0	0	0	-	-	-	0	-	0	-	-	0	-	0	0	0

COMPRESSOR RACK

SEMI-HERMETIC SCREW COMPRESSOR

Hard Discount - Supermarkets - Hypermarkets
Refrigerated storage and transit stocking - Dispatch centres
Food processing



HFC

70 > 700 kW

MOVSH

- This range meets the needs and expectations of today's market in terms of reliability, efficiency and compactness.
- Various rack models with 2 to 6 screw compressors.
- Supplied with a complete switching enclosure.

DESCRIPTION

Compressors

- Screw compressors with part-winding start protection motors.
- Suction and delivery valves, non-return valve and capacity reduction.

Collectors

- 304L stainless steel suction collectors, low speed.
- Stainless steel delivery collectors.
- One suction filter with stainless steel sieve.
- Optional suction valve(s).

Liquid receiver

- Vertical separate from the rack.
- Inlet and outlet valves.
- Liquid indicator.
- Safety valve (double from 100 litres).

Liquid line

- Removable filter dryer.
- Operating valve.
- Liquid indicator.
- Optional liquid valve(s).

Oil circuit

- 3-way mixing valve for homogenous thermostatic oil control.
- Oil temperature max./min. safety thermostats.
- One oil indicator per compressor.
- Oil flow monitor.
- Solenoid valve.
- Manual shut-off valve.
- High-efficiency filter.

Oil separator

- Heaters.
- Control thermostat.
- Min. oil level detector.
- Indicator, safety valve, shut-off valve, non-return valve and filling valve.

Monitoring devices

- HP and LP manometers.
- 1 or 2 automatic reset HP cartridge pressure switch(s) per compressor (according to EN 378-2: 2009).
- HP pressure switch and automatic reset LP safety switch.
- Oil temperature safety and control thermostat.
- Oil temperature display thermometer.
- Delivery temperature, flow-rate and oil level protection relay.



OPTIONS

Miscellaneous

- Air or water oil cooling.
- System saver for chill racks.
- Oversized receiver.
- Water-cooled condenser fitted.
- Heat-exchanger.
- Hot-gas defrost in all its forms.
- Switching enclosure.

CERTIFICATIONS



COMPRESSOR RACK OTHER CONFIGURATIONS

Bars - Restaurants - Corner shops - Mini-markets
Hard Discount - Supermarkets - Hypermarkets



Specially adapted to suit dimensional, acoustic and energy efficiency constraints.

- Duplex "Booster" rack.
- Stand-alone, duplex low-temperature and chill rack.
- Encased rack.
- Compressor rack with superimposed centrifugal fan condenser.
- Compressor unit with liquid receiver.



DUPLEX "BOOSTER" RACK

- Semi-hermetic or Scroll compressors.
- LP stage at the top and MP stage at the bottom on a superimposed or separate frame.
- Injection expansion valve, solenoid valve and desuperheating liquid suction accumulator.
- Liquid station delivered separately with liquid subcooler exchanger (upon request).
- Regenerative heat-exchanger (upon request).
- Complete switching enclosure (not fitted).



Advantages

- Space saving in machine rooms, reduced footprint.
- 1 delivery and a single condenser for the LP and MP stages.
- Enhanced performance coefficient (COP).
- Reduced compressor size.
- Possibility to provide a removable frame to enable installation in narrow or difficult access sites (contact us for details).

STAND-ALONE, DUPLEX LOW-TEMPERATURE AND CHILL RACK

- Semi-hermetic or Scroll compressors.
- Superimposed frame with lifting rings.
- Low-temperature and chill racks with common delivery (upon request).
- Liquid station delivered separately with liquid subcooler exchanger (upon request).
- Regenerative heat-exchanger (upon request).
- Complete switching enclosure (not fitted).



Advantages

- Space saving in machine rooms, reduced footprint.
- The choice of a common delivery offers a reduction in the roof space required with the installation of a single condenser unit.
- Possibility to provide a removable frame to enable installation in narrow or difficult access sites (contact us for details).

ENCASED RACK

- Semi-hermetic, Scroll or semi-hermetic screw compressors.
- Pre-paint, sheet-metal casing with removable panels secured with a ¼-turn latches, noise insulation on 6 sides with a cooling system connected to a rack available upon request.
- Frame with lifting rings.
- Incorporated switching enclosure.



Advantages

- Designed for outdoor, floor or roof installation.
- The frame base lifting rings render handling operations easier.
- These encased racks are ideal for use in an urban environment thanks to their noise-insulated casing (upon request).
- Alternative to narrow machine rooms.

COMPRESSOR UNIT ON LIQUID RECEIVER

MONOSH

- Semi-hermetic compressor with casing heater and suction and delivery valves.
- 21 or 40-litre horizontal liquid receiver according to models with valves and safety shut-off valve.
- Optional:
 - Head line (filter dryer, indicator, solenoid valve and shut-off valve),
 - Suction line (suction accumulator and vibration dampers),
 - Delivery line with vibration damper, muffler, oil separator
 - Oil line (manual valve, indicator and solenoid valve),
 - Switching enclosure (not fitted),
 - Pre-painted sheet metal casing ideal for outdoor use (incorporated enclosure).



Advantages

- The MONOSH liquid receiver units have a reduced footprint.
- A wide choice of options enables adaptation of the unit to specific requirements.
- The units are delivered as standard with HP/LP pressure switches and oil differential switches, receiver shut-off valves, safety shut-off valve...
- Models with or without casing, the compressor is placed in the longitudinal direction on the receiver making it easier to extract and providing better access to the oil pump.

CHILLER ICE WATER PRODUCTION

Hard Discount - Supermarkets - Hypermarkets
Refrigerated storage and transit stocking - Dispatch centres - Food processing
Canteen kitchens - Conservation of fruits, vegetables, flowers...



PEG / NEOSYS®

Ice water production range PEG

- Chiller with 1, 2 or 3 circuits up to 780 kW.
- Primary fluids: R134a/MEG 35% or MPG - R404A / Secondary fluids: 35% MEG or MPG.
- Installation in the machine room.
- Independent refrigeration circuits with remote air or incorporated water condenser.
- Semi-hermetic piston, Scroll or semi-hermetic screw compressors.

Encased outdoor ice water production range PEG / NEOSYS®



PEG 300 ... 760 RANGE

Ice water production

Refrigeration capacity

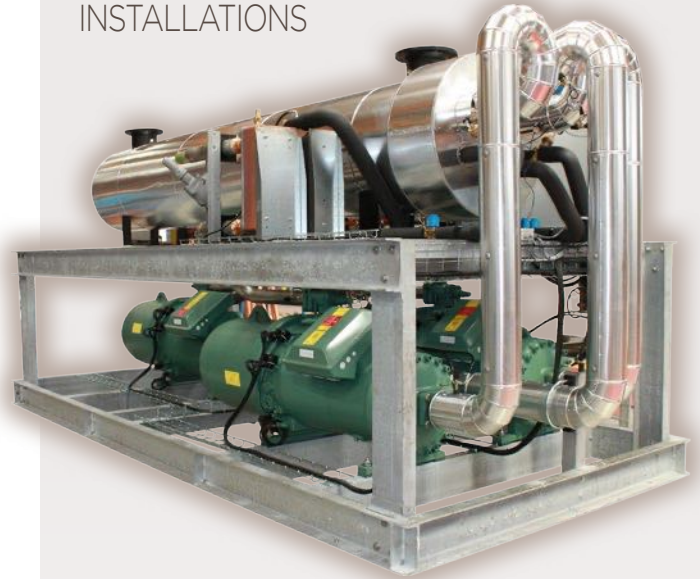
290 to 780 kW (glycol water -4°C/-8°C - +45°C condensation temperature)

280 to 690 kW (glycol water -5°C/-9°C - +45°C condensation temperature)

Characteristics

- UPN hot-dip galvanized monoblock.
- 1, 2 or 3 separate refrigeration circuits.
- Capacity control up to 3 stages: 100% / 75% / 50%.
- One delivery valve per circuit.
- One vertical liquid receiver per circuit: liquid stations delivered on separate frames.
- Multi-tube heat-exchanger (copper tube bundle and rolled steel).
- Electronic expansion valves with regulator, probes, sensors and solenoid valves.
- Screw compressors (HSK or CSH).

EXAMPLES OF INSTALLATIONS



- Screw compressors with energy-saving plate heat-exchanger.
- Stainless steel condensate drip tray under the compressor.
- Total isolation, heat-exchanger and suction collector.
- Electronic expansion valve with complete control.
- Pre-wired switching cabinet.
- **One multi-tube or plate desuperheater per circuit.**

PEG 170 ... 320 RANGE

Ice water production

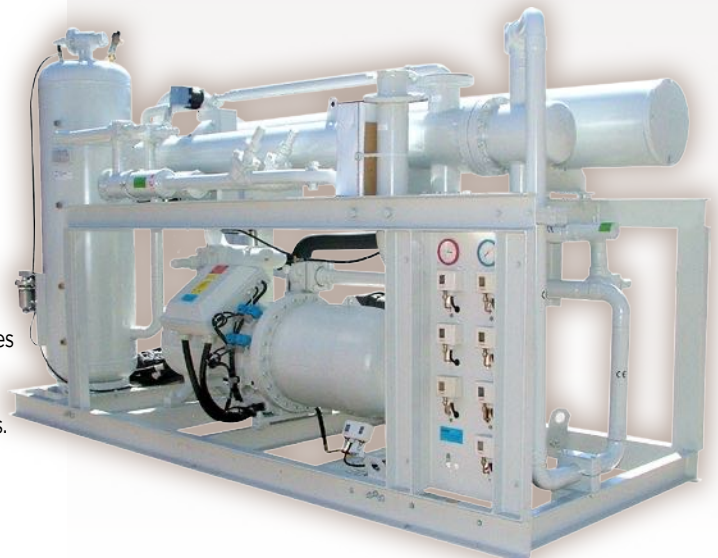
Refrigeration capacity

170 to 320 kW (glycol water -4°C/-8°C - +45°C condensation temperature)

180 to 330 kW (glycol water -3/-7°C - +45°C condensation temperature)

Characteristics

- UPN hot-dip galvanized monoblock.
- 1 or 2 separate refrigeration circuits.
- One delivery valve per circuit.
- One vertical liquid receiver per circuit: liquid stations delivered on separate frames or fitted.
- Multi-tube heat-exchanger (copper tube bundle and rolled steel).
- 2 electronic expansion valves with regulator, probes, sensors and solenoid valves.
- Semi-hermetic piston: 3/4 or 5 compressors.



- Screw compressors with energy-saving plate heat-exchanger.
- Total isolation of heat-exchanger and suction collector (option).
- Electronic expansion valve with complete control
- Liquid receiver fitted.
- Pre-wired power + control circuits (upon request).
- **Paint RAL 9002 (upon request).**
- **Complete hydraulic equipment.**

ADVANTAGES

Servicing / Maintenance

The rack design is optimized to offer easy access to all components: compressors, plate heat-exchanger, desuperheater, by-pass valve,...

The by-pass valves are used to isolate the circuit to simplify operations during maintenance on the receiver, heat-exchanger,...

A condensate drip tray is placed under each compressor as standard in order to keep the machine room clean.

CERTIFICATIONS



PEG ENCASED, OUTDOOR RANGE

Glycol water (MEG/MPG) -4°C/-8°C and -5°C/-9°C

- Pre-painted sheet-metal casing with removable panels secured with a ¼-turn latches, noise insulation on 6 sides with a cooling system connected to a rack available upon request.
- UPN galvanized frame with lifting rings.
- Multi-tube heat-exchanger with 2 refrigeration circuits.
- Total isolation of the heat-exchanger and suction collector.
- Liquid sub-cooling exchanger for screw compressor.
- Electronic expansion valve with complete control.
- Switching enclosure fitted.
- Complete hydraulic equipment and circuit (option).

Advantages

- Designed for outdoor floor or roof installation.
- Simple installation, the frame base lifting rings render handling operations easier.
- These encased units are ideal for use in an urban environment thanks to the noise-insulated casing (upon request).
- Alternative to narrow machine rooms.



CERTIFICATIONS



NEOSYS®

The ice water is produced with a compact, monoblock, liquid cooler with air condensation for discrete outdoor installation. This range is equipped with Scroll compressors filled with environmentally-friendly refrigerant R410A and variable-speed fans for optimized noise and energy efficiency.

Cold only

Nominal conditions

Water: +2°C/-2°C - 20% MEG - Air: +35°C



120 kW

780 kW



NEOSYS®

Switching enclosure with Butterfly™ door.

Protection of components and persons in case of adverse weather conditions, Multiple Compliant™

Scroll compressors, zero maintenance.

Axial and radial clearance enabling the compressor tolerate liquid hammerhead and injection of debris for an extended working life.

Technical compartment.

Compressors, water heat-exchangers, pumps, thermal and noise insulation materials, protected against outdoor weather conditions and water splashing during cleaning of coils.



OWLET™ fan with ceramic blades to considerably increase fan longevity.

High corrosion-resistant, aluminium micro-channel coils. -40% less refrigerant.

V-form coils with protection guards. Protection against hailstone and impact damage.



*3-year warranty for key components



COMBINED RECOVERY SYSTEM

COMMON PRODUCT TO AIRCONDITIONING
AND REFRIGERATION APPLICATIONS

Local shops
Small and medium supermarkets



HFC

50 > 220 kW

SRC

- A solution to achieve significant energy savings
- Two ranges for renovation and new installations
- Suitable for many types of sales area
- Several refrigerants available
- “Plug and Play” packaged solution for quick and easy installation

Common product to airconditioning and refrigeration applications

The combined energy recovery system is a "Plug and Play" solution, developed by **LENNOX EMEA**.

In most cases, buildings equipped with food refrigeration systems waste heat outside through air cooled condensers.

The **SRC** allows to recover thermal energy rejected by the commercial refrigeration to heat the sales area, thus achieving significant energy savings over the annual heating consumption.

The **SRC** unit is equipped with a multi-tubular dual circuit exchanger using the cooling capacity available due to the closure of furniture which refreshed indirectly the sales floor in open mode, to cool it.

The return on investment depends on the type of building, installation, climatic conditions and energy costs at the place of installation.

The **SRC** solution is composed of two ranges (12 models):

"REMODEL" range and **"NEW INSTALLATION"** range.

The **"REMODEL"** range is designed for existing installations: It is designed to suit new thermal loads in an existing building (installation of doors on refrigerated display cabinets).

Heat recovery provides energy saving on winter heating consumption while using the cooling capacity excess available of the cold production plant for the refreshment in summer.

The **"NEW INSTALLATION"** range is designed for new buildings, buildings undergoing complete remodel or major extension with replacement of the complete refrigeration systems : This range takes into account the cooling and heating needs (central sizing). The energy gains realized during the heating season (heat recovery) are used to finance a portion of the facility and ensure no extra cost to refresh the sales area.

DESCRIPTION

- Multi-tubular heat exchanger with an isolated bi-circuit, specifically designed for heating and cooling.
- Compact chassis (900 mm wide max.).
- Hydraulic connection with flanges.
- Complete electrical cabinet, complying with EN-60204 standard, with a programmable controller and display.
- Complete control for heating and cooling mode with electronic expansion valve, valves, and sensors.
- Complete hydraulic module with variable flow dual pump, valves, flow switch, filters, expansion vessel.

Advanced control

- 3 control modes that can be selected through a three position manual switch:
 - Summer/Cooling mode,
 - Winter/Heating mode,
 - Dead zone.
- Variable speed dual pump regulation.
- Cooling capacity priority management.
- Freeze protection and flow switch.
- Floating head pressure management.

CERTIFICATIONS





حسونة للتبريد HIRICI

Tell : 920003244 , Email : info@hrc.com.sa
Mob. 0553361417 , www.hrc.com.sa



SRC

"REMODEL" range

	SRC	50/40	85/60	110/80	145/100	165/115	190/130
R404A	Heating capacity - Condenser (1)	kW	50	85	110	145	190
	Cooling capacity - Evaporator (2)	kW	37	60	80	100	130
	Water flow rate	m ³ /h	10,8	18,7	23,9	31,5	35,8
	Internal pressure drop (heat exchanger)	kPa	11	17	15	30	29
R134a	Heating capacity - Condenser (1)	kW	50	80	105	140	180
	Cooling capacity - Evaporator (2)	kW	30	50	65	85	105
	Water flow rate	m ³ /h	10,7	17,8	22,7	30,2	34,3
	Internal pressure drop (heat exchanger)	kPa	10	16	14	28	26
Available water pressure	mCe	15	16	17	16	16	16
Pump absorbed power	kW	3	4	4	5	6	6
Pump maximum current	A	6	8	8	10	12	12

SRC

"NEW INSTALLATION" range

	SRC	80/85	105/115	115/130	160/175	195/215	220/240
R404A	Heating capacity - Condenser (1)	kW	80	105	115	160	195
	Cooling capacity - Evaporator (2)	kW	85	115	130	175	215
	Water flow rate	m ³ /h	15,5	20,8	22,9	31,2	38,4
	Internal pressure drop (heat exchanger)	kPa	9	28	17	24	26
R134a	Heating capacity - Condenser (1)	kW	65	85	95	130	160
	Cooling capacity - Evaporator (2)	kW	70	95	105	140	170
	Water flow rate	m ³ /h	12,6	16,6	18,4	24,6	30,0
	Internal pressure drop (heat exchanger)	kPa	6	18	11	15	17
Available water pressure	mCe	15	16	17	16	16	16
Pump absorbed power	kW	3	4	4	5	6	6
Pump maximum current	A	6	8	8	10	12	12

(1) Water: 38°C/42°C - Condenser : 45°C

(2) Water inlet : 12°C - Evaporator : 2°C



Hassounah Refrigeration حسونة للتبريد

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

Mob. 0553361417 , www.hrc.com.sa



HRCCOMPANY

FRIGA-BOHN **HK** REFRIGERATION