

### INSTALLATION RECOMMENDATIONS



Split System

# eCO2Boost XS

- 1. INSULATION
- 2. MAXIMUM DISTANCE BETWEEN CONDENSING UNIT AND UNIT COOLER

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- 3. DISTANCE BETWEEN WALLS AND THE CONDENSING UNIT
- 4. EXTERNAL PROTECTION FOR THE CONDENSING UNIT
- 5. INSTALLATION ON COASTAL AREAS
- 6. TUBE SIZING
- 7. START THE UNIT WITH A DRY CONTACT
- 8. ELECTRICAL FEATURES
- 9. SYSTEM LAYOUT

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#### **1. INSULATION**

Make sure to cover the entire length of both suction and discharge lines with 32 mm of insulation thickness. Do not unite the suction and discharge line with one single insulation cover.



#### 2. MAXIMUM DISTANCE BETWEEN CONDENSING UNIT AND UNIT COOLER

To ensure system performance, the piping lenght between the condensing unit and the unit cooler must be below 30 m for medium temperature application, and below 20 m for low temperature application. This maximum piping lenght will ensure the compressor lubrication and allow a low performance drop, as presented on the chart below :

PERFORMANCE DROP							
Application	Pipe length						
	10 m	20 m	30 m				
Medium Temperature (Te = -5°C)	1.2%	2.4%	3.6%				
Low Temperature (Te = -30°C)	2.3%	4.5%	-				



#### 3. DISTANCE BETWEEN WALLS AND THE CONDENSING UNIT

It is recommended to install the eCO2Boost XS with a minimum distance between walls.

For the 1 fan model, the minimum distance is 300 mm from both sides, back and front of the condensing unit. For the 2 fan models, the minimum distance is 500 mm.

It is also recommended a minimum distance from the roof to the top side of the unit, just to ease cover removal for maintenance.

#### 4. EXTERNAL PROTECTION FOR THE CONDENSING UNIT

Do not expose the condensing unit to direct sun light. The temperature sensor may be influenced by the external heat and affect the system performance.

#### 5. INSTALLATION ON COASTAL AREAS

Avoid install the condensing unit on salt affected areas. It is recommended to keep a minimum distance of 2 km from the coast.



#### 6. TUBE SIZING

The recommended tube diameter for both suction and discharge lines is 3/8". This tube must resist a minimum pressure of 80 bars.

#### 7. START THE UNIT WITH A DRY CONTACT

Compatible with all available controllers in the market.

#### 8. ELECTRICAL FEATURES

ELECTRICAL FEATURES	eCO2Boost XS 1	eCO2Boost XS 2	eCO2Boost XS 3
Voltage / Frequency	230V/1/50-60Hz	230V/1/50-60Hz	400V/3/50-60Hz
Electric consumption	1,9 kW	2,4 kW	5,5 kW
Rated current	8,4 A	10,7 A	8,5 A
Electrical power	2,2 kVA	4,2 kVA	6,9 kVA
Ground fault circuit breaker	12 A	12 A	10 A

For neutral systems requiring differential protection (TT mode for example) select a protection type:

- Class B differential switch - 300 mA, when a circuit breaker is already installed upstream.

- SI type ground fault circuit breaker - 300 mA, if no circuit breaker is installed.

#### 9. SYSTEM LAYOUT



eCO2Boost XS 3



	eCO2Boost XS 1	eCO2Boost XS 2	eCO2Boost XS 3	
Loops	Α	Α	Α	В
MT cold room(s)	MT	MT	MT <sup>(1)</sup>	MT
LT cold room(s)	-	LT	LT <sup>(1)</sup>	LT
MT / LT cold room(s)	_	_	LT <sup>(2)</sup>	MT

(1) For all MT or LT configurations, install the highest capacity unit cooler on the A loop (2) For LT/MT configuration, always install the LT unit cooler on the A loop

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