

R-290 water-cooled condensing units



Water-cooled condensing units for positive and negative temperature refrigeration with very compact size and quiet operation, designed for on-wall, floor installation or on refrigerated service.

WHAT'S NEW

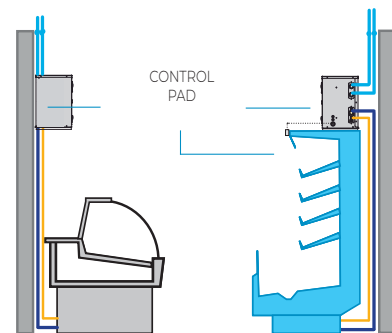
Removable front register

Front access panel for access to the main components of the unit: compressor, boiler, valves and starter kit.



Installation

Waterloop series motor condensers can be installed on the furniture or anchored at the wall.



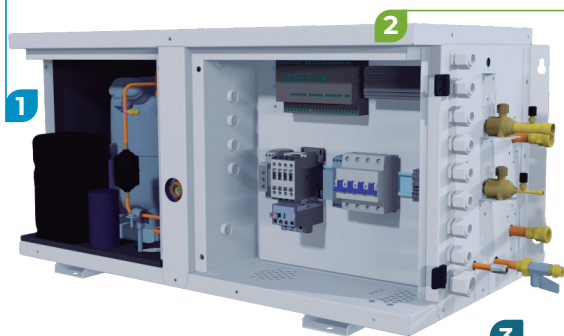
Electrical board (optional)

Integrated electrical control to manage a service depending on temperature.

- ▶ Electronic control with temperature control with maximum and minimum
- ▶ Quick cooling function "Jet Cool".
- ▶ Energy saving mode.

Independent access to the electrical panel

Electrical panel with front access. All the protection and electronic control elements are integrated. Connection terminal block.



DM-ND

Connections on the right outside

Welded connections for liquid line, suction and defrost (optional). Threaded connections for hydraulic circuit. Safety valve line.



FEATURES

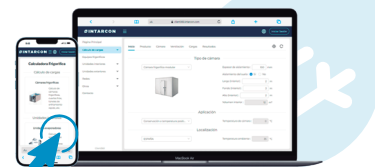
Unit supplied without refrigerant charge.	■
Acoustically insulated scroll compressor, mounted on shock absorbers.	■
Casing in pre-painted galvanized steel sheet, with noise insulation, with removable front panel for access to the compressor and the electrical panel.	■
Stainless steel brazed plates heat exchanger. Cooling circuit with recipiente, filter, sight glass, high and low pressure switches, and valves to be welded. Safety valve led to the outside.	■
Hydraulic condensation circuit made of copper pipe with threaded connections.	■
Electromechanic control panel with thermomagnetic protection.	■
Hot gas defrosting.	□
Electrical defrosting.	□
Condensation water temperature < +5 °C	□
Built-in water solenoid valve.	□
Built-in liquid solenoid valve with body and coil.	□
Thermostatic expansion valve integrated in the unit.	□
Crankcase heater.	□
Low voltage protection single-phase models.	□
Low voltage and phase sequence protection three-phase models.	□

Accessories DM-ND/SD units

The accessories are supplied a part for the unit for a better installation on site:

- ▶ Water solenoid valve supplied a part.
- ▶ Balance and control valve supplied a part.
- ▶ Door micro-switch.
- ▶ Cold room LED light.

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REFRIGERATION CALCULATION SOFTWARE



■ As standard □ Optional

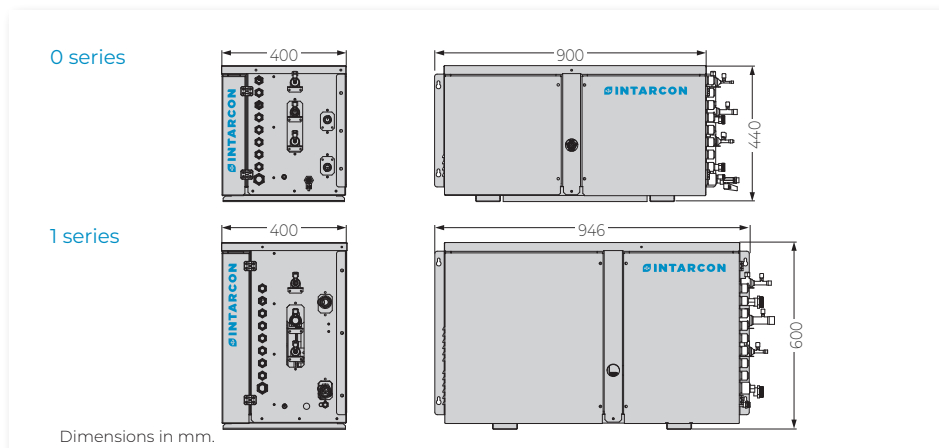
230V/400V 50Hz | Positive temperature | Hermetic or scroll compressor | R-290

Refrigerant	Compressor	Series / Model	Compressor		Cooling capacity (W) ⁽¹⁾ Evaporation temperature			Input power (W)	Max. current (A)	Conden. air flow (litre/hour)	Liq-Gas cooling connection	Hydraulic connection	Pressure drop (kPa) ⁽²⁾	Refrig. load (g) ⁽³⁾	Weight (kg)	SPL dB(A) ⁽⁴⁾	Price (€)
			HP	Power supply	0 °C	-5 °C	-10 °C										
R-290	Hermetic	MDM-ND-0006A	1/4	230V	590	480	390	250	5,0	110	3/16" - 3/8"	1/2"	0,34	< 500	66	24	
		MDM-ND-0008A	1/4	230V	760	620	500	310	5,6	140	3/16" - 3/8"	1/2"	0,24	< 500	66	28	
		MDM-ND-0015A	1/2	230V	1550	1280	1030	490	5,7	260	1/4" - 1/2"	5/8"	0,74	< 500	72	23	
		MDM-ND-0018A	3/4	230V	1730	1440	1180	620	6,4	310	1/4" - 1/2"	5/8"	0,70	< 500	73	23	
		MDM-ND-0034A	1	230V	3120	2490	1930	1270	12,7	550	1/4" - 5/8"	7/8"	0,78	< 500	81	39	
	Scroll	MDM-SD-1012A	2	400V	3990	3330	2750	1350	6,1	700	3/8" - 7/8"	7/8"	4,92	< 500	92	41	
		MDM-SD-1017A	2 1/2	400V	5500	4600	3800	1800	7,1	970	3/8" - 7/8"	1 1/8"	4,46	< 500	94	41	

230V/400V 50Hz | Negative temperature | Hermetic or scroll compressor | R-290

Refrigerant	Compressor	Series / Model	Compressor		Cooling capacity (W) ⁽¹⁾ Evaporation temperature				Input power (W)	Max. current (A)	Conden. air flow (litre/hour)	Liq-Gas cooling connection	Hydraulic connection	Pressure drop (kPa) ⁽²⁾	Refrig. load (g) ⁽³⁾	Weight (kg)	SPL dB(A) ⁽⁴⁾	Price (€)
			HP	Power supply	-20 °C	-25 °C	-30 °C	-35 °C										
R-290	Herm.	BDM-ND-0020A	3/4	230V	790	620	480	370	460	6,8	160	3/16" - 1/2"	1/2"	0,31	< 500	70	24	
		BDM-ND-0034A	3/4	230V	1400	1110	840	600	840	10,6	240	1/4" - 5/8"	5/8"	0,16	< 500	79	31	
		BDM-SD-1017A	2 1/2	400V	2460	1970	1560	1220	1460	7,1	520	1/4" - 7/8"	7/8"	2,77	< 500	94	41	
	Scroll	BDM-SD-1025A	4	400V	3380	2700	2170	1780	2350	9,1	780	3/8" - 7/8"	7/8"	2,97	< 500	107	45	
		BDM-SD-1037A	6	400V	4900	3920	3070	2330	3450	11,8	1130	3/8" - 1 1/8"	1 1/8"	5,94	< 500	109	47	

DIMENSIONS



⁽¹⁾ Cooling capacity at nominal performances refer to operation at evaporation temperature -10 °C (PT) and -30 °C (NT), water temperature of 40 °C, super-heating 10 K and 3 K sub-cooling.

⁽²⁾ Condenser pressure drop in the water circuit.

⁽³⁾ A3 refrigerant charge less than 0,5 kg, units exempt from the International Electrotechnical Committee (IEC 60335).

⁽⁴⁾ Niveau de pression acoustique en champ ouvert, avec directivité 1, à 10 m de la source valeur non contraignante calculée à partir de la puissance acoustique.