

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 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.



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/SD

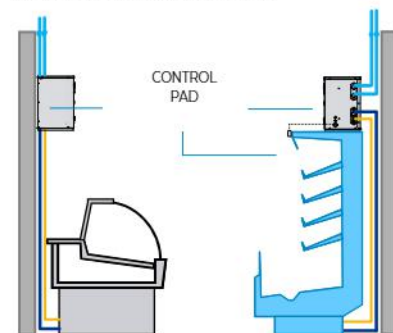
Connections on the right outside

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



Installation

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



Electronic control (optional)

DM-ND/SD units can feature XM670K electronic control.



- ▶ Remote control keyboard with digital display.
- ▶ Internal clock for programming energy saving cycles and defrosting.
- ▶ Possibility of interconnection and synchronization of up to 8 devices by LAN, managed from a single control.

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 / -10 °C	□
Built-in water solenoid valve.	□
Built-in liquid solenoid valve with body and coil.	□
Built-in thermostatic expansion valve.	□
Crankcase heater.	□
Low voltage protection (single-phase models).	□
Low voltage and phase sequence protection (three-phase models).	□

■ As standard □ Optional

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 (By demand).
- ▶ Door micro-switch.
- ▶ Cold room LED light.

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REFRIGERATION CALCULATION SOFTWARE



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

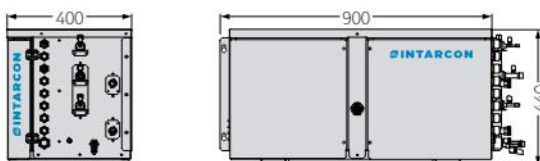
Refrigerant	Compressor	Series / Model	Compressor		Cooling capacity (W) ¹⁾ Evaporation temperature			Input power (W)	Max. current (A)	Condens. air flow (litre/hour)	Liq-Gas cooling connection	Hydraulic connection	Pressure drop (kPa) ²⁾	Refrig. charge (g) ³⁾	Weight (kg)	SPL dB(A) ⁴⁾	Price (€)
			HP	Power supply	0 °C	-5 °C	-10 °C										
R-290	Hermetic	MDM-ND-0006A	1/4	230V	583	482	391	251	5.2	110	3/16" - 3/8"	1/2"	0.34	<500	66	21	
		MDM-ND-0008A	1/4	230V	799	674	559	306	5.8	150	3/16" - 3/8"	1/2"	0.24	<500	66	25	
		MDM-ND-0015A	1/2	230V	1262	1050	871	500	6.0	235	1/4" - 1/2"	5/8"	0.74	<500	72	20	
		MDM-ND-0018A	3/4	230V	1582	1326	1094	628	6.6	295	1/4" - 1/2"	5/8"	0.70	<500	73	20	
		MDM-ND-0034A	1	230V	2985	2404	1897	1280	12.9	545	1/4" - 5/8"	7/8"	0.78	<500	81	36	
	Scroll	MDM-SD-1012A	2	400V	3906	3266	2658	1363	6.4	690	3/8" - 7/8"	7/8"	4.92	<500	92	38	
		MDM-SD-1017A	2 1/2	400V	5366	4483	3713	1814	7.4	950	3/8" - 7/8"	1 1/8"	4.46	<500	94	38	

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

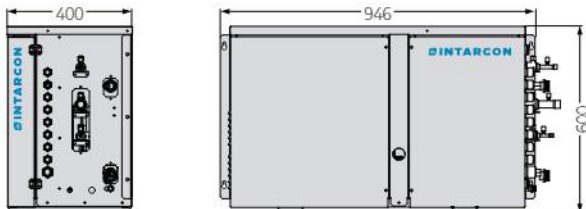
Refrigerant	Compressor	Serie / Modelo	Compressor		Cooling capacity (W) ¹⁾ Evaporation temperature				Input power (W)	Max. current (A)	Condens. air flow (litre/hour)	Liq-Gas cooling connection	Hydraulic connection	Pressure drop (kPa) ²⁾	Refrig. charge (g) ³⁾	Weight (kg)	SPL dB(A) ⁴⁾	Price (€)
			HP	Power supply	-20 °C	-25 °C	-30 °C	-35 °C										
R-290	Herm.	BDM-ND-0020A	3/4	230V	722	590	473	379	465	7.1	165	3/16" - 1/2"	1/2"	0.31	<500	70	21	
		BDM-ND-0034A	3/4	230V	1360	1078	819	576	846	10.5	285	1/4" - 5/8"	5/8"	0.16	<500	79	28	
	Scroll	BDM-SD-1017A	2 1/2	400V	2398	1912	1509	1177	1529	7.4	520	1/4" - 7/8"	7/8"	2.77	<500	94	38	
		BDM-SD-1025A	4	400V	3513	2786	2163	1600	2378	9.4	780	3/8" - 7/8"	7/8"	2.97	<500	107	42	
		BDM-SD-1037A	6	400V	5033	3988	3085	2313	3540	12.0	1135	3/8" - 1 1/8"	1 1/8"	5.94	<500	109	44	

DIMENSIONS

0 series



1 series



Dimensions in mm.

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 6 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⁾ Condenser sound pressure level, with directivity 1, measured at 10 m from the unit (non-binding value calculated from sound power).