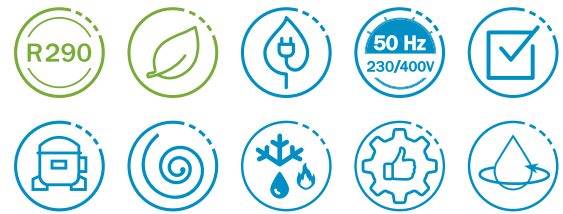


R-290 evaporator with built-in compressor



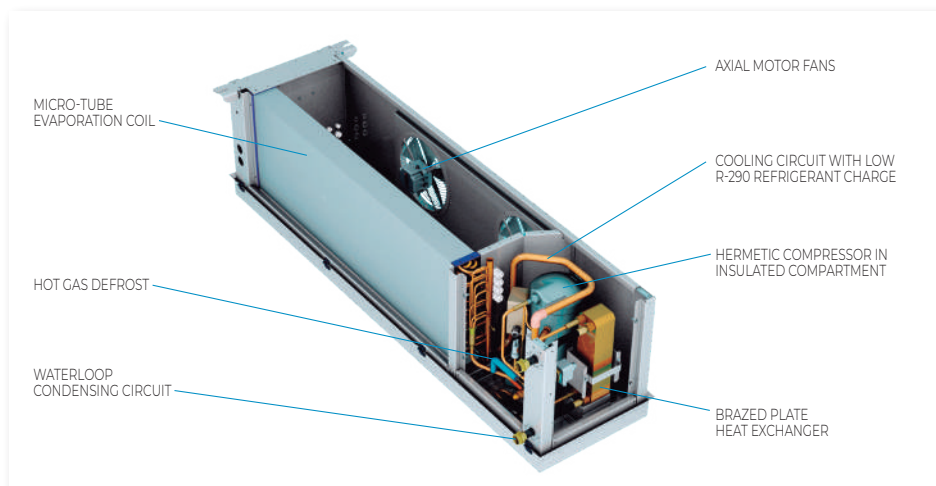
Waterloop evaporator units with compressor are compact units for installation inside small coldrooms, designed with natural refrigerant R-290 and waterloop condensed.

FEATURES

R-290 refrigerant charge.	<input checked="" type="checkbox"/>
Bodywork in aluminium sheet and structure in galvanised steel lacquered in polyester paint.	<input checked="" type="checkbox"/>
Alternative hermetic or scroll compressor integrated in thermally insulated compartment, with crankcase heater.	<input checked="" type="checkbox"/>
Refrigeration circuit in annealed copper tube, with high and low pressure switches, filter drier and charge valve.	<input checked="" type="checkbox"/>
Evaporation coil in copper pipes and aluminium fins, thermostatic expansion valve and hot gas defrost.	<input checked="" type="checkbox"/>
Axial motor fans.	<input checked="" type="checkbox"/>
Stainless steel brazed plates heat exchanger.	<input checked="" type="checkbox"/>
Threaded hydraulic connections.	<input checked="" type="checkbox"/>
Control panel in white lacquered sheet metal cabinet, with MCB protection and multifunction electronic control. RS485 Modbus communication connector. Interconnection cables (3 m).	<input checked="" type="checkbox"/>
Water solenoid valve for multi-equipment waterloop installation (without assembly).	<input checked="" type="checkbox"/>
Evaporator coil epoxy anti-corrosion treatment	<input type="checkbox"/> + 6 %

☒ As standard ☐ Optional

COOLING DETAIL



Installation example



Compact R-290 system

The waterloop evaporator units are hermetically sealed compact systems with a minimum charge of R-290.

They have a minimum R-290 refrigerant charge lower than the practical limit of the refrigerated volume.

Electrical board

Electrical power and control board for outside installation.

- ▶ MCB protection of compressor and manoeuvre
- ▶ Temperature control with maximum and minimum temperature value recording
- ▶ Quick cooling function Jet Cool.
- ▶ Energy saving function
- ▶ Optional air condenser management with waterloop temperature control and frost protection.

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 REFRIGERATION CALCULATION SOFTWARE



230V 50Hz / 400V 3N 50Hz | **Positive temperature** | Hermetic or scroll compressor | **R-290**

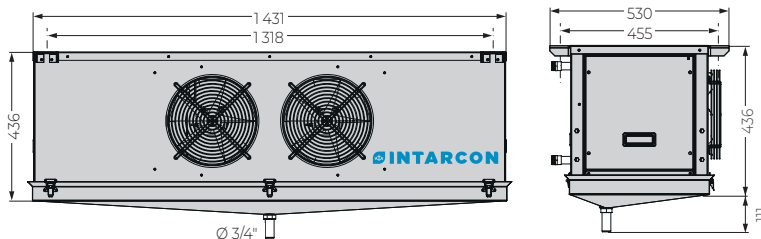
Refrigerant	Compressor	Series / Model	Compressor		Cooling capacity (W) ⁽¹⁾ Cold room temperature	Input power (W)	Max. current (A)	Evap. air flow (m³/h)	Conden. water flow (litre/hour)	Pressure drop (kPa) ⁽²⁾	Hydraulic connection	Refrig. charge (g)	Weight (kg)	Price (€)
			HP	Power supply										
R-290	Herm.	MCC-ND-1017A	3/4	230V	1 430	572	7.7	1 600	350	3	3/4"	210	50	4 333
		MCC-ND-1034A	1 1/2	230V	2 640	1 060	16.4	1 600	650	3	3/4"	170	59	4 847
	Scroll	MCC-SD-1012A	1 1/2	400V 3N	3 410	860	7.7	1 600	750	5	3/4"	265	62	6 324
		MCC-SD-2017A	2	400V 3N	3 930	1 070	9.0	1 700	875	5	1"	240	72	7 477
		MCC-SD-2020A	3 1/2	400V 3N	5 172	1 510	10.7	2 400	1 175	5	1"	280	72	7 667

230V 50Hz / 400V 3N 50Hz | **Negative temperature** | Hermetic or scroll compressor | **R-290**

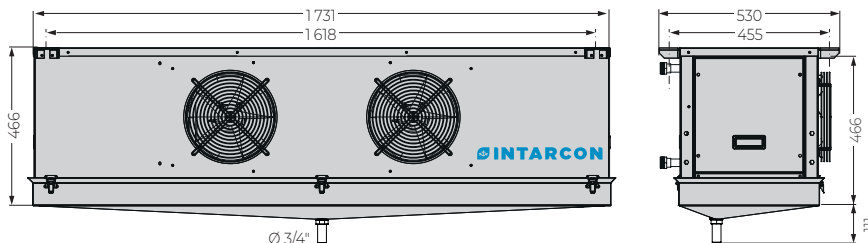
Refrigerant	Compressor	Series / Model	Compressor		Cooling capacity (W) ⁽¹⁾ Cold room temperature	Input power (W)	Max. current (A)	Evap. air flow (m³/h)	Conden. water flow (litre/hour)	Pressure drop (kPa) ⁽²⁾	Hydraulic connection	Refrig. charge (g)	Weight (kg)	Price (€)
			HP	Power supply										
R-290	H.	BCC-ND-1034A	1	230V	847	800	11.0	1 600	300	3	3/4"	150	59	4 813
	Scroll	BCC-SD-1012A	1 1/2	400V 3N	1 480	770	7.6	1 600	400	3	3/4"	160	68	6 268
		BCC-SD-2017A	2	400V 3N	1 980	1 000	8.9	1 700	525	3	1"	180	72	7 287
		BCC-SD-2020A	3 1/2	400V 3N	2 130	1 370	10.9	2 400	650	3	1"	220	73	7 667

DIMENSIONS

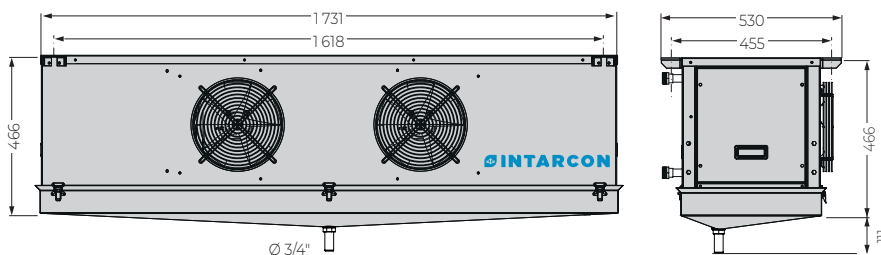
1 series



2 series



2 020 series



Dimensions in mm.

⁽¹⁾ Nominal performances refer to operation with cold room temperatures of 0 °C (PT) and -20 °C (NT) and water inlet condensation temperature of 7 °C. Estimated cold room volume according to conditions of the calculation bases (page 12).

⁽²⁾ Condenser pressure drop in the water circuit.

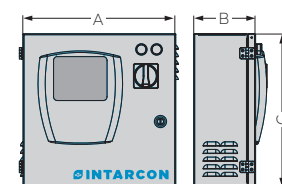
⁽³⁾ Recommended air cooler model to combine with the evaporator unit.

Electrical interconnections

For the electrical interconnection from the electrical panel to the unit and to the air condenser (optional), the following interconnection cables must be provided:

Cabinet - Evaporator	Connection
Compressor for single-phase units (except MCC-ND-1 034)*	3 x 1,5 mm² + T
Compressor for three-phase units and MCC-ND-1 034	3 x 2,5 mm² + T
Manoeuvre	7 x 1 mm²
Probes	5 x 1 mm²
Cabinet - Dry-cooler	Connexion
Pump (l+l system)	2 x 1,5 mm² + T
Fan (l+l system)	3 x 1 mm²
Probes (l+l system)	3 x 1 mm²
Pumping permit (multi system)	2 x 1 mm²

Electrical board dimensions



Dimensions (mm)	A	B	C
Electrical board CC-ND	600	162	400
Electrical board CC-SD	400	162	400