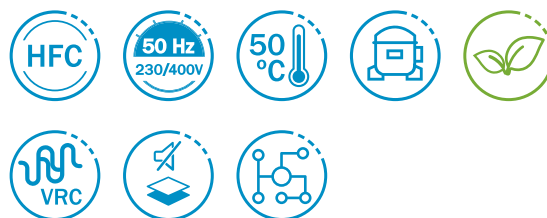


intarbox



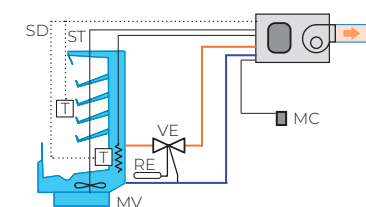
Air-cooled packaged condensing units at positive or negative temperature, in horizontal construction with an alternative hermetic compressor, and low speed axial or centrifugal motor fan.

FEATURES

Reciprocating hermetic or scroll compressor, mounted on shock absorbers, with discharge muffler, crankcase heater and internal klixon.	■
High performance condensing coil in copper pipes and aluminium fins.	■
Centrifugal motor fan with available static pressure for a ducted outlet of condenser hot air (centrifugal version).	■
Refrigeration circuit equipped with high and low pressure switches, ceramic filter, liquid receiver and sight gauge.	■
Digital control of condensation pressure with the optional electrical board, and all-nothing condensation control in condensers without electrical panel.	■
Proportional control of condensing pressure through fan speed variation (included in MDH series 4 and above).	■
Full control and power board with compressor and motor fan protection.	■
Electronic regulation with evaporator control pad (-N version with optional electrical board).	■
Liquid injection system for negative temperature models with R-449A.	■
Change to 400V 3N 50Hz power supply.	□ + 8 %
Proportional control of condensing pressure through speed variation (3 axial series, and 0 up to 3 centrifugal series).	□ + 317 €
Built-in oil separator (already included in -V version).	□ + 745 €
Crankcase heater.	□ + 77 €
Built-in solenoid valve with body and coil (except -V version).	□ + 183 €
Anti-corrosion coil coating.	□ + 8 %
Non-return damper (centrifugal version).	□ + 69 €
Adaptation of air discharge to circular duct.	□ + 127 €
Vertical discharge (centrifugal version).	□ + 0 €
Control and power panel with electronic control unit for management of condenser and evaporator.	□ + 550 €
Larger sized multifunction electronic control.	□ + 192 €
Multi-service version with VRC system (included oil separator) Table models with ^(M) .	□ + 1 274 €

■ As standard □ Optional

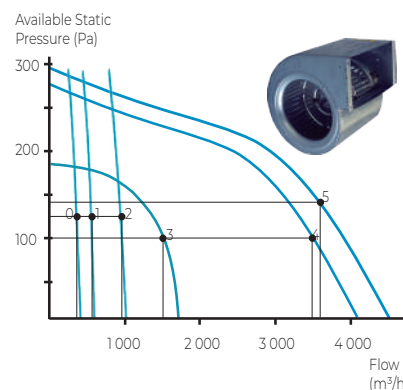
-C version with electronic control installation scheme



MC: CONTROL PAD
MV: MOTOR FAN
RE: DEFROST HEATER
ST: THERMOSTAT PROBE
SD: DEFROST PROBE
VE: EXPANSION VALVE
VS: EXPANSION VALVE

Centrifugal fan (centrifugal version)

intarbox condensing units feature centrifugal motor fans for a ducted outlet of condenser hot air.



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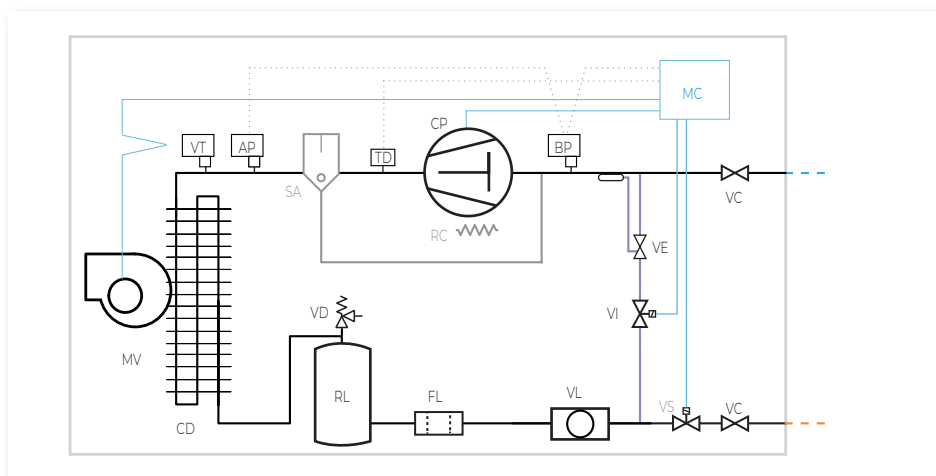


230V 50Hz / 400V 3N 50Hz | Positive temperature | Hermetic compressor | R-134a / R-449A

Refrigerant	Series / Model Axial	Compressor		Cooling capacity EN13215 (W) ⁽¹⁾ Evap. temp. -10 °C	Cooling capacity (W) ⁽²⁾ , Average evaporating temperature				Input power (W)	(COP) SEPR ⁽³⁾	Max. current (A)	Liq-Gas cooling connection	Weight (kg)	SPL dB(A) ⁽³⁾	Price without electronic control (€)	Series / Model Centrifugal	Conden. air flow (m³/h)	PED (Pa) ⁽⁴⁾	Price without electronic control (€)
		HP	Power supply		0 °C	-5 °C	-10 °C	-15 °C											
R-134a	MDH-NY-0010A	3/8	230V	575	890	715	565	430	370	(1.54)	4	1/4"-3/8"	45	29	1 616	MDH-CY-0010A	375	80	1 851
	MDH-NY-0015A	1/2	230V	800	1 215	985	785	600	510	(1.58)	5	1/4"-3/8"	47	32	1 775	MDH-CY-0015A	375	80	2 088
	MDH-NY-1015A	1/2	230V	840	1 305	1 050	825	630	500	(1.69)	5	1/4"-1/2"	50	32	1 849	MDH-CY-1015A	575	80	2 227
	MDH-NY-1026A	3/4	230V	1 225	1 910	1 530	1 200	900	720	(1.72)	9	1/4"-1/2"	58	30	2 203	MDH-CY-1026A	575	80	2 380
	MDH-NY-1033A	1	230V	1 555	2 325	1 890	1 505	1 155	830	(1.87)	9	1/4"-1/2"	60	33	2 268	MDH-CY-1033A	575	80	2 803
	MDH-NY-2053A	1 1/2	230V *	2 210	3 505	2 785	2 130	1 565	1 060	(2.08)	12	1/4"-5/8"	70	38	2 888	MDH-CY-2053A	1 000	120	3 412
	MDH-NY-3074A	2	230V *	3 045	4 855	3 845	2 940	2 140	1 360	(2.23)	16	1/4"-3/4"	90	44	3 539	MDH-CY-3074A	1 500	140	3 897
	MDH-NY-4086A ^(M)	4	400V 3N	4 160	6 660	5 270	4 065	3 040	2 020	(2.09)	14	3/8"-7/8"	97	48	4 218	MDH-CY-4086A ^(M)	3 500	100	5 344
	MDH-NY-4108A ^(M)	5	400V 3N	5 065	7 940	6 380	4 935	3 690	2 46	2.85	17	3/8"-7/8"	99	45	4 708	MDH-CY-4108A ^(M)	3 500	100	5 832
MDH-NY-4136A ^(M)	6 1/2	400V 3N	6 410	9 595	7 825	6 215	4 720	3 330	2.56	20	3/8"-1 1/8"	102	44	5 146	MDH-CY-4136A ^(M)	3 500	100	6 275	
R-449A	MDH-NG-0008A	1/3	230V	570	975	800	640	490	400	(1.50)	4	1/4"-3/8"	46	31	1 493	MDH-CG-0008A	375	80	1 702
	MDH-NG-0010A	3/8	230V	745	1 225	1 010	815	640	500	(1.57)	5	1/4"-3/8"	46	34	1 540	MDH-CG-0010A	375	80	1 889
	MDH-NG-0012A	1/2	230V	880	1 415	1 175	955	760	580	(1.61)	6	1/4"-3/8"	46	34	1 612	MDH-CG-0012A	375	80	2 019
	MDH-NG-1014A	1/2	230V	1 065	1 740	1 435	1 165	925	670	(1.69)	6	1/4"-1/2"	50	34	1 754	MDH-CG-1014A	575	80	2 099
	MDH-NG-1016A	5/8	230V	1 190	1 985	1 630	1 310	1 020	750	(1.71)	7	1/4"-1/2"	60	34	1 949	MDH-CG-1016A	575	80	2 243
	MDH-NG-1018A	3/4	230V	1 440	2 325	1 925	1 565	1 240	900	(1.73)	8	1/4"-1/2"	60	34	2 049	MDH-CG-1018A	575	80	2 461
	MDH-NG-2024A	1	230V	1 915	3 215	2 630	2 105	1 635	1 060	(1.93)	12	3/8"-5/8"	60	35	2 249	MDH-CG-2024A	1 000	120	2 822
	MDH-NG-2026A	1 1/4	230V *	2 130	3 485	2 870	2 320	1 830	1 190	(1.91)	13	3/8"-5/8"	61	36	2 284	MDH-CG-2026A	1 000	120	3 039
	MDH-NG-2034A	1 1/2	230V *	2 635	4 240	3 525	2 865	2 260	1 660	(1.72)	16	3/8"-5/8"	61	37	2 351	MDH-CG-2034A	1 000	120	3 182
	MDH-NG-3038A ^{(M)*}	1 3/4	400V 3N	2 985	4 890	4 025	3 250	2 555	1 510	(2.12)	6	3/8"-5/8"	78	39	2 970	MDH-CG-3038A ^{(M)*}	1 500	140	4 097
	MDH-NG-4048A ^(M)	2	400V 3N	3 955	6 685	5 430	4 345	3 390	2 070	(2.06)	13	3/8"-3/4"	95	36	3 632	MDH-CG-4048A ^(M)	3 500	100	4 756
	MDH-NG-4054A ^(M)	2 1/2	400V 3N	4 535	7 515	6 145	4 940	3 900	2 300	(2.13)	14	3/8"-3/4"	96	36	4 063	MDH-CG-4054A ^(M)	3 500	100	5 190
	MDH-NG-4060A ^(M)	3	400V 3N	5 220	8 435	6 980	5 655	4 505	2 740	2.97	15	3/8"-3/4"	97	36	4 564	MDH-CG-4060A ^(M)	3 500	100	5 768
	MDH-NG-4068A ^(M)	3 1/2	400V 3N	5 880	9 330	7 775	6 345	5 075	3 160	2.86	15	1/2"-3/4"	98	35	4 698	MDH-CG-4068 ^(M)	3 500	100	6 418

230V 50Hz / 400V 3N 50Hz | Negative temperature | Hermetic compressor | R-449A / R-452A

Refrigerant	Series / Model Axial	Compressor		Cooling capacity EN13215 (W) ⁽¹⁾ Evap. temp. -35 °C	Cooling capacity (W) ⁽²⁾ , Average evaporating temperature			Input power (W)	(COP) SEPR ⁽³⁾	Max. current (A)	Liq-Gas cooling connection	Weight (kg)	SPL dB(A) ⁽⁴⁾	Price without electronic control (€)	Series / Model Centrifugal	Conden. air flow (m³/h)	PED (Pa) ⁽⁴⁾	Price without electronic control (€)
		HP	Power supply		-25 °C	-30 °C	-35 °C											
R-449A	BDH-NG-1026A	3/4	230V	540	1 220	930	660	670	(0.97)	9	1/4"-1/2"	51	31	2 387	BDH-CG-1026A	575	80	2 596
	BDH-NG-1034A	1 1/4	230V	715	1 525	1 170	860	900	(0.95)	10	1/4"-1/2"	52	33	2 464	BDH-CG-1034A	575	80	2 658
	BDH-NG-2055A	1 3/4	230V *	915	2 265	1 700	1 165	1 210	(0.95)	13	3/8"-5/8"	61	41	3 143	BDH-CG-2055A	1 000	120	3 375
	BDH-NG-2075A	2 1/2	230V *	1 355	2 855	2 200	1 620	1 600	(1.02)	25	3/8"-5/8"	66	44	3 220	BDH-CG-2075A	1 000	120	3 450
R-452A	BDH-NB-3096A	3 1/2	400V 3N	1 532	3 284	2 450	1 696	1 680	(1.16)	11	3/8"-3/4"	88	49	4 657	BDH-CB-3096A	1 500	140	5 064
	BDH-NB-4108A	4	400V 3N	1 935	4 370	3 218	2 159	2 300	1.62	14	3/8"-7/8"	108	47	5 939	BDH-CB-4108A	3 500	100	6 409
	BDH-NB-5136A	5	400V 3N	2 561	5 736	4 222	2 847	2 960	1.61	16	3/8"-1 1/8"	152	42	7 968	BDH-CB-5136A	3 600	100	8 517
	BDH-NB-5215A	7 1/2	400V 3N	3 838	7 981	6 011	4 218	4 160	1.60	24	1/2"-1 1/8"	183	49	8 491	BDH-CB-5215A	3 600	100	9 062

REFRIGERATION SCHEME


EQUIPMENT LEGEND ON PAGE 74

⁽¹⁾ Conditions based on UNE-EN 13215: ambient temp. 32 °C, average evap. temp. -10 °C (PT) and -35 °C (NT), 20 °C of suction temperature.

⁽²⁾ Conditions based on UNE-EN 13215: ambient temp. 32 °C, average evap. temp. -10 °C (PT) and -35 °C (NT), overheating 10 K.

⁽³⁾ COP/SEPR: Coefficient of Performance according to Ecodesign Directive 2015/1095/EU.

	Cooling capacity	Ecodesign standard
h _a	0,2 < P ≤ 1 kW	COP ≥ 1,40
	1 < P ≤ 5 kW	COP ≥ 1,60
	5 < P ≤ 20 kW	SEPR ≥ 2,55
h _m	P ≤ 2 kW	COP ≥ 0,95
	2 < P ≤ 8 kW	SEPR ≥ 1,60

⁽⁴⁾ Sound pressure level, with directivity 1, measured at 10 m from the unit (non-binding value calculated from sound power).

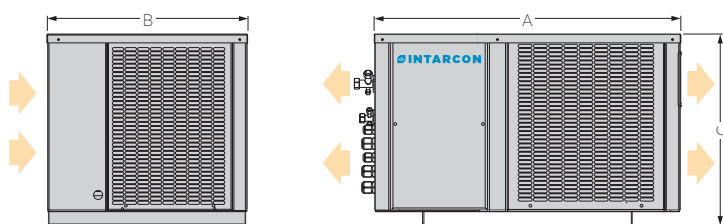
^(M) Model that allow VRC system.

* Units available with 400V 3N 50Hz power supply.

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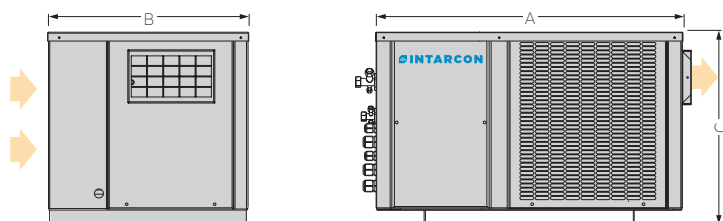
DIMENSIONS

DH - Axial series



Dimensions (mm)	A	B	C
0 series	600	396	355
1 series	665	435	416
2 series	835	435	500
3 series	925	580	515
4 series	1 000	615	585
5 series	1 289	757	657

DH - Centrifugal series



Dimensions (mm)	A	B	C	Fan outlet	Hopper (optional)
0 series	600	396	355	185 x 115	Ø 150
1 series	665	435	416	185 x 115	Ø 150
2 series	835	435	500	230 x 130	Ø 200
3 series	925	580	515	266 x 236	Ø 250
4 series	1 000	615	585	305 x 266	Ø 360
5 series	1 289	757	657	305 x 266	Ø 360

MDH-N and BDH-N (with optional electronic control)

Intarbox condensing units with the optional electronic control incorporate an advanced electronic controller XM670K for the management of the condensing unit and the evaporator, being able to optionally integrate the solenoid valve.



- ▶ Multifunction remote digital control.
- ▶ Electronic board integrated in the condensing unit for 6 control relays for: compressor, condensing fan, evaporator fan, defrost, light and alarm.
- ▶ Possibility of interconnection and synchronization of up to 8 devices by LAN, managed from a single control.

Ecodesign of condensing units

Regulation (EU) 2015/1095 establishes a series of Ecodesign requirements. For condensing units up to 5 kW and 2 kW in PT and NT respectively, a minimum value requirement is established for the coefficient of performance COP, while for higher power unit the requirement refers to a normalized seasonal performance SEPR.

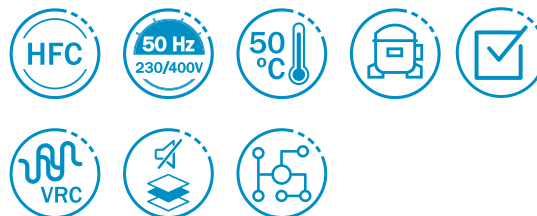
At INTARCON we have redesigned our product range to adapt to the Ecodesign directive, incorporating energy efficiency technologies, electronic motor fans and floating condensation control.

Exhaust duct

Recommended size for 20 m long steel, PVC or fibreglass ducts (each elbow at 90° equals 5 m in length). For flexible or semi-flexible ducts use a larger size:

- ▶ 0 series: 200 x 150 mm or Ø 150 mm
- ▶ 1 series: 200 x 200 mm or Ø 150 mm
- ▶ 2 series: 250 x 150 mm or Ø 200 mm
- ▶ 3 series: 300 x 200 mm or Ø 250 mm
- ▶ 4 and 5 series: 350 x 400 mm or Ø 360 mm

Variable Refrigerant Capacity | VRC

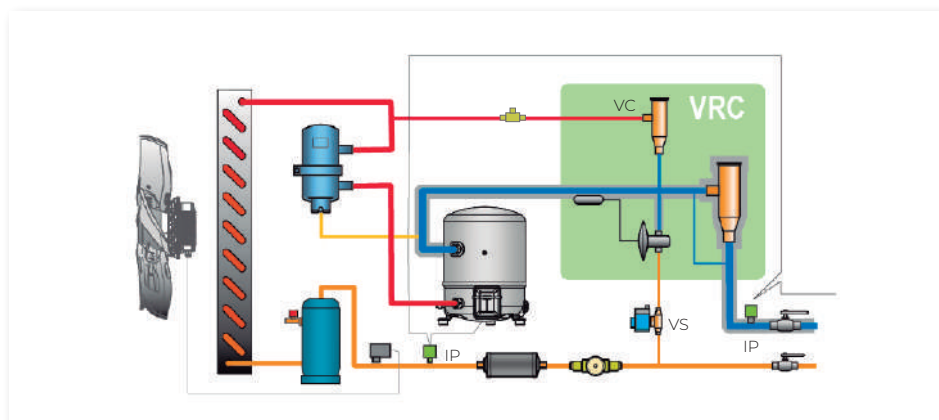


Multi-service version, featuring VRC system (Variable Refrigerant Capacity), of refrigeration capacity control. Designed to centralise the refrigeration production of a set of evaporator units. Applicable to hermetic alternative compressors, consisting of:

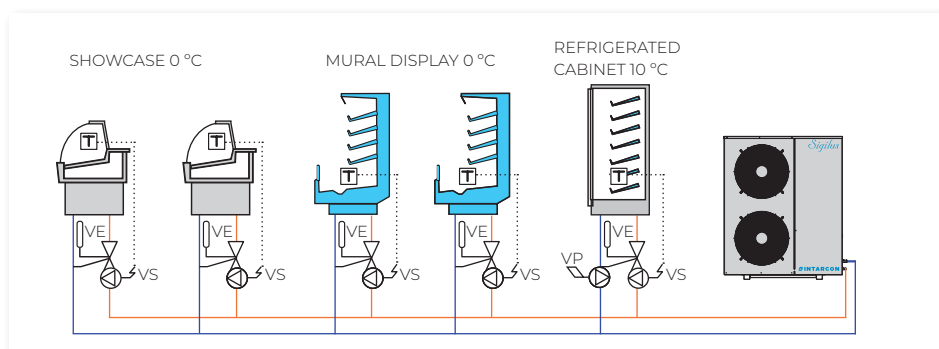
Multi-service versions of condensing units

- Horizontal axial or centrifugal multi-service version.
intarbox-multi: MDH-CV/-V series.
- Horizontal axial low-noise multi-service version.
Sigilus-multi: MDF-V series.

REFRIGERATION SCHEME



INSTALLATION SCHEME

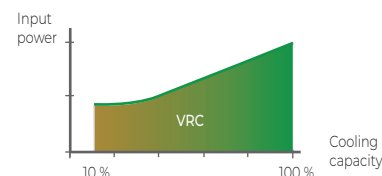


VP: ASPIRATION PRESSOSTATIC VALVE
VC: BYPASS PRESSOSTATIC VALVE
VE: THERMOSTATIC LIQUID INJECTION VALVE
IP: LIQUID INJECTION CONTROL PRESOSTAT

VRC system (Variable Refrigerant Capacity)

VRC system is composed of a set of pressure and temperature valves capable of progressive variation of a compressor's cooling capacity between 100 % and 10 % of this rated power, at the same time the system reduces electrical input power and protects the compressor, maintaining its compression ratio within security margins, eliminating the risk of overheating.

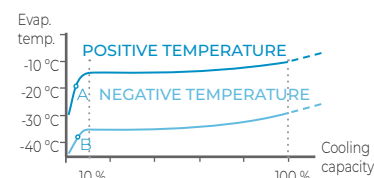
VRC system applied to a reciprocating hermetic compressor adjusts the flow of refrigerant to the evaporator unit's demand by maintaining constant pressure in the suction line.



VRC system is characterized by:

- Consisting exclusively of high reliability mechanical components.
- Keeps the evaporation pressure constant.
- Protects the compressor against the risk of engine overheating.
- Maintains the compression ratio of the compressor within the safety limits.

Condensing units equipped with VRC system allow centralizing the refrigeration production of a set of services, maintaining constant the pressure and temperature of the refrigerant in the evaporators.



VRC system can be easily regulated to set a minimum evaporation pressure. The factory setting provides the following minimum evaporation temperatures:

- Positive temperature units: -13 °C
- Negative temperature units: -35 °C

With demand below 10 % of the nominal power, the characteristic of the evaporation pressure curve falls towards the minimum value admitted by the compressor, disconnecting the low pressure switch (points A and B) and stopping the compressor.

In this way, the multi-service condensing units are designed for low-pressure stop / start control (drop down or pump down).

Alternatively, the compressor running stop can be done through an external open / closed contact.