

A2L intarCUBE semi-hermetic



Refrigeration packs with semi-hermetic compressors and compact axial condenser, for medium and low temperature applications. Designed for centralised commercial refrigeration applications up to 40 kW, with the possibility of operating with R-455A, R-454C or R-449A.

FEATURES

Bodywork made of painted galvanised sheet steel, with acoustically insulated panels and access doors.	■
Bitzer Ecoline semi-hermetic compressors, with Rotalock service valves, mounted on anti-vibration mounts, and crankcase heater.	■
Electrical panel independent from the refrigeration compartment.	■
Compressor compartment with ATEX extraction fans to prevent the risk of explosive atmospheres.	■
Safety valve in the liquid receiver and in the low-pressure section.	■
Aluminium microchannel condenser coil with Polyester Powder Coating treatment.	■
Electronic oil injection system in CR11 version and in ON/OFF version with tandem compressors.	■
Pressure gauges with R-455A, R-454C or R-449A scales. Dew pressure indication on the low-pressure side and bubble pressure indication on the liquid line.	■
Oil separator as standard in both CR11 and ON/OFF versions.	■
Independent differential and circuit breaker for each compressor and fan, and thermal relay (with automatic reset).	■
Emergency operation as standard.	■
High-performance axial fans.	□
Horizontal discharge electronic radial fan with casing.	□
Vertical discharge electronic radial fan integrated into the chassis.	□
Hot gas defrost (except for BDV-ZN-70362A and BDV-ZN-70562A models).	□
CR11 capacity control on compressor (except for MDV-ZN-60062A model).	□
Voltage and phase failure control.	□
Microchannel coil with Aqua Aero treatment.	□
Copper microtube coil with aluminium fins.	□
Aluminium tube and fin coil with magnesium alloy.	□
Aluminium tube and fin coil with polyurethane treatment.	□
Aluminium tube and fin coil with Aqua Aero treatment.	□
Stainless steel screws.	□
20% or 80% heat recovery (except for MDV-ZN-70424A and BDV-ZN with two compressor models).	□
Kiconex supervision system with multiple configurations.	□

■ As standard □ Optional

Bitzer semi-hermetic compressors

The Bitzer Ecoline series combines high performance, a wide application range, flexibility in refrigerant selection, robust design and high reliability.



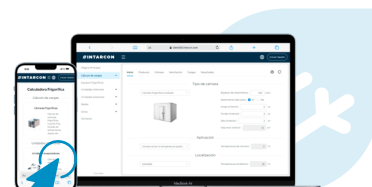
Operating limits

	Min. value	Max. value
Outdoor temp.	-10 °C	45 °C
Evaporation temp. (PT)	-15 °C	5 °C
Evaporation temp. (NT)	-35 °C	-20 °C

DV-ZN series accessories

- ▶ Spare electronic regulation.
- ▶ Silentblock kit.
- ▶ Suction filter supplied loose.
- ▶ ADR configuration.

CLIENT360
client360.intarcon.com
 SOFTWARE REFRIGERATION CALCULATION



400V 3N 50 Hz | Positive temperature | Semi-hermetic compressor | R-455A

Refrigerant	Series / Model	Compressor		Cooling capacity (kW) Average evaporating temperature ⁽¹⁾				Input power (kW)	Max. current (A)	Condenser		Liq-Gas cooling connection	Weight (kg)	SPL dB(A) ⁽²⁾
		HP	Model	-15 °C	-10 °C	-5 °C	0 °C			Fan Ø (mm)	Conden. air flow (m³/h)			
R-455A	MDV-ZN-60091A	9	4CES-9Y	12.9	16.6	20.9	26.0	7.2	25	2x Ø 500	15,000	1/2" - 1 3/8"	301	51
	MDV-ZN-60121A	12	4TES-12Y	15.4	20.0	25.5	32.1	8.5	30	2x Ø 500	15,000	5/8" - 1 3/8"	337	51
	MDV-ZN-60062A	6	2x 2DES-3Y	10.2	13.1	16.6	20.4	5.9	31	2x Ø 500	15,000	1/2" - 1 1/8"	344	52
	MDV-ZN-60102A	10	2x 4FES-5Y	14.2	18.2	23.0	28.6	8.0	32	2x Ø 500	15,000	1/2" - 1 3/8"	380	52
	MDV-ZN-70142A	14	2x 4DES-7Y	20.2	26.1	32.8	41.2	11.1	38	2x Ø 500	15,000	5/8" - 1 5/8"	390	52
	MDV-ZN-70182A	18	2x 4CES-9Y	25.9	33.2	41.8	52.0	14.4	49	3x Ø 500	22,500	7/8" - 1 5/8"	483	53
MDV-ZN-70242A	24	2x 4TES-12Y	30.8	40.0	51.0	64.2	17.0	57	3x Ø 500	22,500	7/8" - 2 1/8"	579	54	

400V 3N 50 Hz | Negative temperature | Semi-hermetic compressor | R-455A

Refrigerant	Series / Model	Compressor		Cooling capacity (kW) Average evaporating temperature ⁽¹⁾			Input power (kW)	Max. current (A)	Condenser		Liq-Gas cooling connection	Weight (kg)	SPL dB(A) ⁽²⁾
		HP	Model	-35 °C	-30 °C	-25 °C			Fan Ø (mm)	Conden. air flow (m³/h)			
R-455A	BDV-ZN-60181A	18	4HE-18Y	8.7	12.4	16.4	9.1	41	2x Ø 500	15,000	1/2" - 1 5/8"	381	50
	BDV-ZN-60281A	28	4FE-28Y	12.5	17.6	23.7	13.0	58	2x Ø 500	15,000	1/2" - 2 1/8"	397	51
	BDV-ZN-60182A	2x 9	2x 4TES-9Y	8.6	12.6	17.6	9.8	45	2x Ø 500	15,000	1/2" - 1 5/8"	476	51
	BDV-ZN-60282A	2x 14	2x 4NES-14Y	11.7	17.0	23.8	12.9	58	2x Ø 500	22,500	1/2" - 2 1/8"	482	51
	BDV-ZN-70362A	2x 18	2x 4HE-18Y	17.4	24.8	32.8	18.5	80	3x Ø 500	22,500	5/8" - 2 1/8"	667	53
	BDV-ZN-70562A	2x 28	2x 4FE-28Y	25.0	35.0	47.4	26.5	113	3x Ø 500	22,500	5/8" - 2 5/8"	699	54

460V 3N 60 Hz | Positive temperature | Semi-hermetic compressor | R-455A

Refrigerant	Series / Model	Compressor		Cooling capacity (kW) Average evaporating temperature ⁽¹⁾				Input power (kW)	Max. current (A)	Condenser		Liq-Gas cooling connection	Weight (kg)	SPL dB(A) ⁽²⁾
		HP	Model	-15 °C	-10 °C	-5 °C	0 °C			Fan Ø (mm)	Conden. air flow (m³/h)			
R-455A	MDV-ZN-60071B*	7	4DES-7Y	12.2	15.7	19.8	24.8	7.1	21	2x Ø 500	15,000	1/2" - 1 3/8"	300	51
	MDV-ZN-60091B*	9	4CES-9Y	15.7	20.0	25.2	31.4	8.9	26	2x Ø 500	15,000	1/2" - 1 3/8"	301	51
	MDV-ZN-60062B*	2x 3	2x 2DES-3Y	12.4	14.6	19.8	24.8	7.2	31	2x Ø 500	15,000	1/2" - 1 3/8"	344	52
	MDV-ZN-60102B*	2x 5	2x 4FES-5Y	17.2	22.0	27.8	34.6	10.5	32	2x Ø 500	22,500	1/2" - 1 3/8"	380	52
	MDV-ZN-70142B*	2x 7	2x 4DES-7Y	24.5	31.4	39.7	44.6	14.2	40	3x Ø 500	22,500	7/8" - 1 5/8"	480	53
	MDV-ZN-70182B*	2x 9	2x 4CES-9Y	30.2	40.0	50.4	62.8	17.2	44	3x Ø 500	22,500	7/8" - 2 1/8"	579	54

460V 3N 60 Hz | Negative temperature | Semi-hermetic compressor | R-455A

Refrigerant	Series / Model	Compressor		Cooling capacity (kW) Average evaporating temperature ⁽¹⁾			Input power (kW)	Max. current (A)	Condenser		Liq-Gas cooling connection	Weight (kg)	SPL dB(A) ⁽²⁾
		HP	Model	-35 °C	-30 °C	-25 °C			Fan Ø (mm)	Conden. air flow (m³/h)			
R-455A	BDV-ZN-60141B*	14	4NES-14Y	7.1	10.3	14.4	7.9	32	2x Ø 500	15,000	1/2" - 1 5/8"	380	50
	BDV-ZN-60181B*	18	4HE-18Y	10.5	14.9	20.4	13.0	41	2x Ø 500	15,000	1/2" - 1 5/8"	390	51
	BDV-ZN-60182B	2x 9	2x 4TES-9Y	11.0	15.2	21.2	13.1	45	2x Ø 500	15,000	1/2" - 1 5/8"	476	52
	BDV-ZN-70282B*	2x 14	2x 4NES-14Y	14.1	20.6	28.6	17.1	62	3x Ø 500	22,500	1/2" - 2 1/8"	660	53
	BDV-ZN-70362B*	2x 18	2x 4HE-18Y	21.1	29.9	40.8	26.2	80	3x Ø 500	22,500	5/8" - 2 1/8"	699	54

REFRIGERATION DETAIL



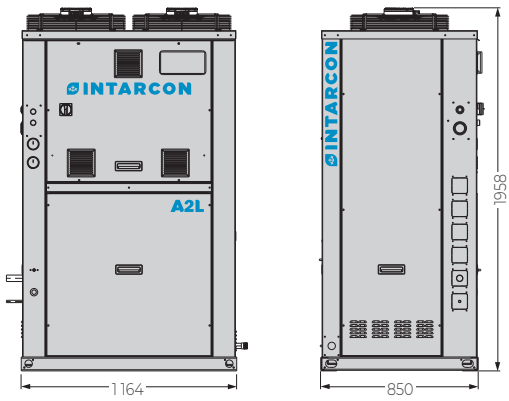
⁽¹⁾ Nominal conditions: Ambient temp. 35 °C, mean evaporation temp. of -10 °C (MT) and -30 °C (LT), SH=10 K.

⁽²⁾ Sound pressure level in free field, with directivity 1, measured at 10 m from the source (non-binding value calculated from sound power).

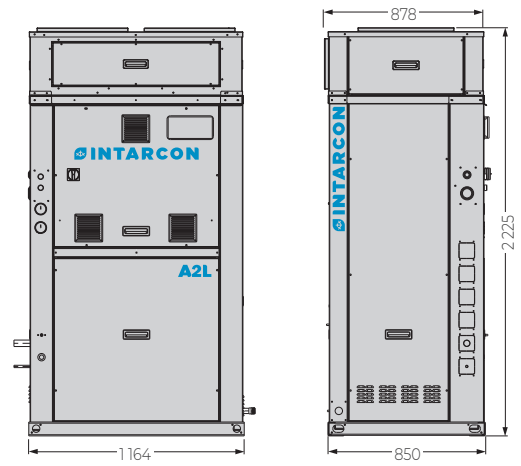
* Units available in 230 3N 60 Hz.

DIMENSIONS

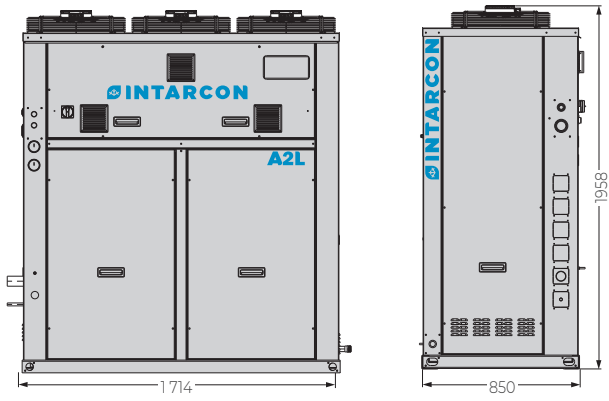
6 series - axial



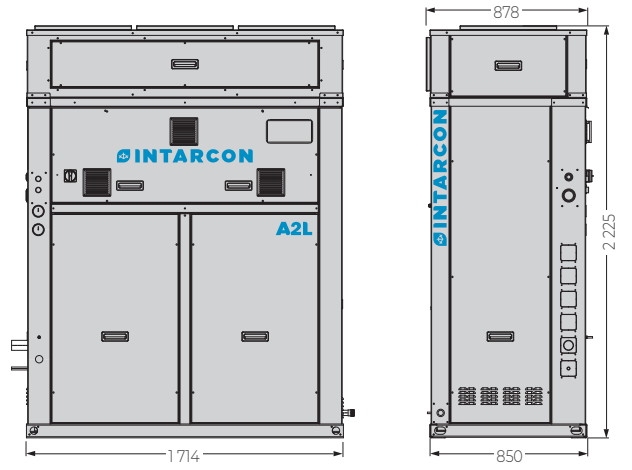
6 series - radial



7 series - axial



7 series - radial



Dimensions in mm.