

ammolite DX

NH₃ direct expansion



- ❄️ Plug & Play.
- ❄️ Low ammonia charge.
- ❄️ No machine room.
- ❄️ No water consumption.

Direct expansion ammonia refrigeration condensing unit with low charge technology developed by INTARCON for low temperature industrial applications. Compact air-condensed construction and built in galvanised steel body and chassis with polyester paint, for outdoor installation.

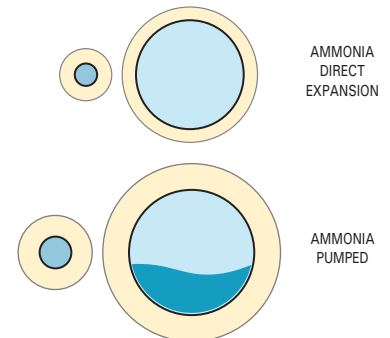
Features

- ▶ 400V 3 50Hz power supply. Available in 60Hz. Others voltages by request.
- ▶ Semihermetic screw compressors with variable speed permanent magnet motor. Suction filter, check valve, suction and discharge valves integrated in the compressor.
- ▶ Miscible oil with return through suction, no bleeding required.
- ▶ High efficiency vertical oil separator.
- ▶ Tropicalised condenser with aluminium microchannel coils, with Polyester Powder Coating treatment.
- ▶ Oil cooler with stainless steel tube coils and aluminium fins.
- ▶ Variable speed EC motor fans for condensing pressure and oil temperature control.
- ▶ Electronic liquid injection valve for compressor cooling in extreme conditions.
- ▶ Stainless steel cooling circuit with liquid vessel. Filter service valves, sight glasses, pressure switches and high and low pressure transducers.
- ▶ Closed economiser with plate heat exchanger for liquid subcooling and medium pressure injection.
- ▶ Electrical power and control panel. Frequency variator per compressor. Differential protection, magneto-thermal and individual thermal protection for compressor and fans.
- ▶ Electronic control with digital control board, cooling capacity control, condensation control, VI variation by solenoid, start and stop sequence, compressor, and fans safeties. Web interface and external communication.

Low-charge technology

Low ammonia charge technology is based on direct expansion of refrigerant as opposed to traditional pumped ammonia systems, with the following advantages:

- 90 % ammonia load reduction.
- Smaller section refrigeration lines.
- Higher energy efficiency.
- Lower pressure loss in refrigeration lines.
- Lower cooling losses.
- Direct condensation without water consumption.



Ammonia pipe comparison

Reduced maintenance

Low-load ammonia technology is low-maintenance every ten thousand operating hours, with no purging or oil replenishment required.

Hot glycol defrost (optional)

Heat recovery from the oil allows the accumulation of hot glycol, which is pumped to the evaporators during defrost cycles.

This system is the most energy efficient and reliable, as it does not subject the evaporator to sudden changes in pressure and temperature.

400V 3 50Hz | Negative temperature | Semihermetic screw compressor | R-717

Refrigerant	Compressor	Series / Model	Compressor		Cooling capacity (kW) ⁽¹⁾ Evaporating temperature -30 °C	Compressor input power (kW)	Total input power (kW)	Max. current (A)	Condenser + Oil cooler		Cooling connection Liq-Gas	Weight (kg)	SPL dB(A) ⁽²⁾
			HP	Model					Fans Ø (mm)	Air flow (m ³ /h)			
R-717	1x Semiher.	BDW-MM-3 1201	120	SRS14MM	106	75	84	288	6x Ø 800	114 000	DN15 - DN65	3 500	60,4
		BDW-MM-3 1701	170	SRS16SM	131	94	103	313	6x Ø 800	114 000	DN20 - DN80	4 300	64,5
		BDW-MM-4 1801	180	SRS16LM	157	105	118	321	8x Ø 800	182 000	DN20 - DN80	5 020	64,6
	2x Semiher.	BDW-MM-4 2402	240	2x SRS14MM	212	155	170	576	8x Ø 800	182 000	DN20 - DN100	5 400	63,0
		BDW-MM-5 3402	340	2x SRS16SM	262	186	205	619	10x Ø 800	228 000	DN20 - DN100	6 275	67,4
		BDW-MM-7 3602	360	2x SRS16LM	313	209	236	635	14x Ø 800	320 000	DN25 - DN100	8 785	67,6

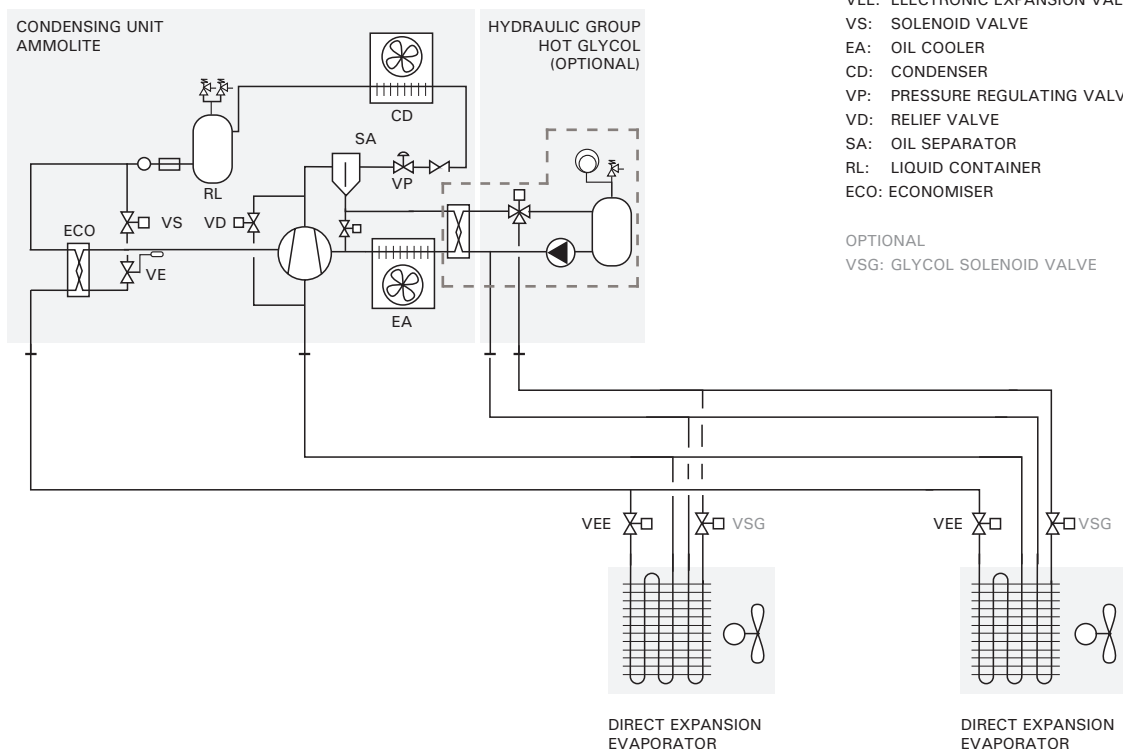
Options

- ▶ Heat recovery for production of hot defrost glycol.
- ▶ Variable glycol flow rate.
- ▶ Condensation heat recovery.
- ▶ Stainless steel tube condenser and aluminium fins.
- ▶ Hydraulic group for accumulation and pumping of hot glycol.

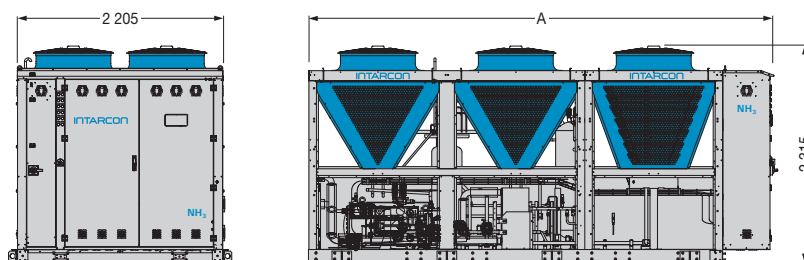
⁽¹⁾ Nominal performance for negative temperature: ambient temperature 35 °C with evaporating temperature at -30 °C.

⁽²⁾ Free field sound pressure level with compressors operating at full load (180 Hz, 3600 r.p.m.), directivity 1, measured at 10 metres from the source (non-binding value calculated from sound power).

Refrigeration scheme



Dimensions



Dimensiones (mm)	A
3 series	4 977
4 series	6 454
5 series	7 960
7 series	10 883

Dimensions in mm.