



- ❄️ 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.

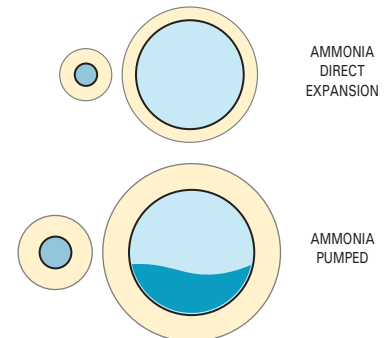
Features

- ▶ 400 V-III-50 Hz power supply. Available in 60 Hz. 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.
- ▶ Stainless steel hydraulic circuit with fill/drain valve, air vent, flow switch, inlet and outlet thermometers and pressure gauges.
- ▶ Closed economiser with plate heat exchanger for liquid subcooling and medium pressure injection.
- ▶ Electrical power and control panel. Integrated compressor variator. 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.
- ▶ Heat recovery for production of hot defrost glycol.

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

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.

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

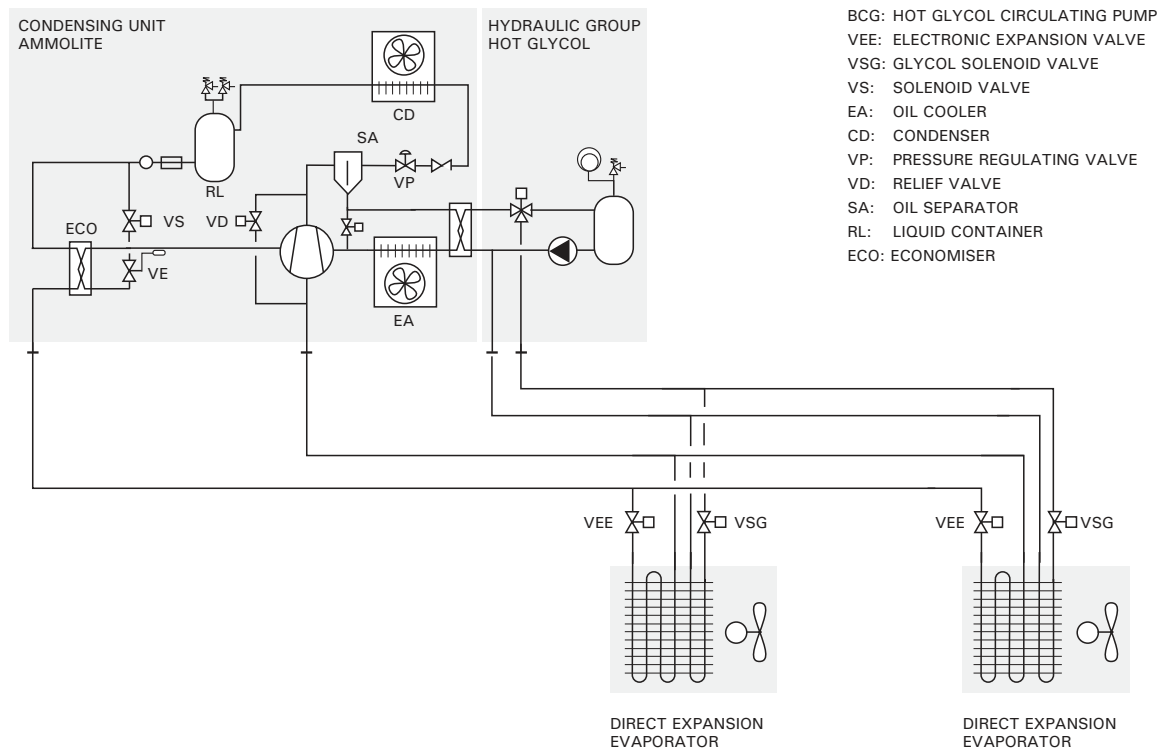
Refrigerant	Compressor	Series / Model		Compressor		Cooling capacity (kW) Evaporating temperature -30 °C ⁽¹⁾	Compressor input power (kW)	Total input power (kW)	Max. current (A)	Condenser + Oil cooler		Cooling connection Liq-Gas	Weight (kg)
		HP	Model	Fans Ø (mm)	Air flow (m ³ /h)								
R-717	1x Semiher.	BDW-MM-3 1201	SRS14MM	120		108.1	84.4	93.5	306	6x Ø 800	114 000	DN15 - DN65	3 500
		BDW-MM-3 1701	SRS16SM	170		129.8	107.2	116.3	324	6x Ø 800	114 000	DN20 - DN80	4 300
	BDW-MM-4 1801	SRS16LM	180		165.8	121.0	133.9	333	8x Ø 800	182 000	DN20 - DN80	4 500	
	BDW-MM-4 2402	2x SRS14MM	240		212.8	176.1	191.5	588	8x Ø 800	182 000	DN20 - DN100	5 400	
	BDW-MM-5 3402	2x SRS16SM	340		259.6	214.3	233.5	632	10x Ø 800	228 000	DN20 - DN100	7 200	
	BDW-MM-7 3602	2x SRS16LM	360		331.6	242.0	268.8	650	14x Ø 800	320 000	DN25 - DN100	7 200	

Options

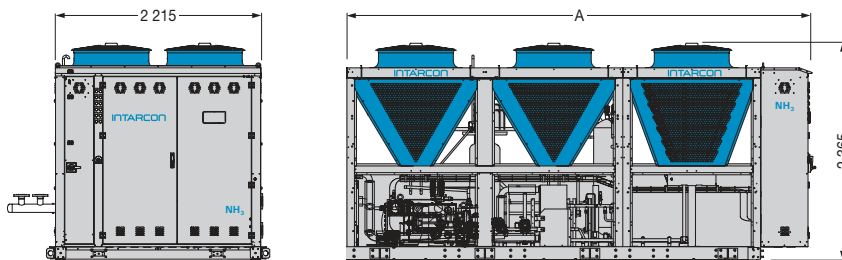
- ▶ Total heat recovery.
- ▶ Stainless steel tube condenser and aluminium fins.
- ▶ Hydraulic group for accumulation and pumping of hot glycol.

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

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.