

# YUKON SERIES

## CO<sub>2</sub> CHILLER, 4-PIPES & HEAT PUMP WITH REMOTE GAS COOLER

Cooling capacities from 35 to 920 KW  
Heating capacities from 35 to 570 KW



Enex presents YUKON, the innovative series of Chillers with transcritical cycle cooled by air, dedicated to cooling water and water/glycol mixtures. Heat Pump and 4 Pipes versions are available. Its use is particularly suitable in all environments that require a significant quantity of hot water, such as hotels and hospitals, beside the production of cold water to different temperatures for both technical, process and comfort applications.

The series was conceived to facilitate and exploit heat recovery in a particularly efficient way. Enex has been the first company ever to develop CO<sub>2</sub> only solutions since 2004. CO<sub>2</sub> (R744) is a natural fluid with zero OPD, GWP = 1. Neutral refrigerant by excellence, CO<sub>2</sub> is neither toxic nor flammable: among natural gases it is in fact the one with fewer contraindications so that represents the perfect choice for the future, not subject to the F-gas regulation on fluorinated gases.

## 4 VERSIONS FOR A FUTURE PROOF SOLUTION FOR HEATING, COOLING AND SIMULTANEOUS HEATING & COOLING

YUKON is Enex's innovative CO<sub>2</sub> transcritical air or water-cooled chiller, 4-pipe and heat pump series for cooling and heating of water or brine mixtures.

The well-known advantages of CO<sub>2</sub> as a refrigerant are further exploited in all applications requiring simultaneous production of chilled water, for space cooling or process, and hot water, even at high temperatures, for space heating, process and domestic hot water usage. Cooling and heating can be produced simultaneously or independently. Examples include hotels and hospitals, ice rinks, food processing plants and industrial facilities.

Enex was a pioneer in the development of transcritical CO<sub>2</sub> solutions since 2004. CO<sub>2</sub> (R744) is a natural refrigerant with ODP=0 (Ozone Depletion Potential) and GWP=1 (Global Warming Potential). It is not, and will never be, subjected to the restrictions imposed by the European F-gas regulation to fluorinated refrigerants. It is not toxic, non-flammable therefore extremely safe. It represents the ideal candidate as refrigerant of the future.

### 4 VERSIONS

**YUKON C (COMFORT):** Cooling only



**YUKON B (Brine):** Cooling only



**YUKON R (4-pipe reversible):** Reversible unit



**YUKON D (HEAT PUMP):** Heating only



## MAIN FEATURES

### REFRIGERANT

Natural refrigerant CO<sub>2</sub> (R744) with ODP=0, GWP=1, non toxic, non flammable.

### FRAME

Welded steel frame painted with epoxy powder RAL5008 (other colours on request).

### EVAPORATOR

Gravity fed flooded plate evaporator ensuring simple construction, extreme control stability, small temperature approach and high efficiency.

### COMPRESSOR

Semi hermetic type, designed for CO<sub>2</sub> transcritical applications; reciprocating compressors with separate discharge headers thanks to a special casting to reduce oil temperature; robust mechanical design especially piston pin and connecting rod. The first compressor is driven by a frequency inverter for a continuous and accurate capacity control.

### EXPANSION VALVE

Back pressure electronic expansion valve for high pressure value fine tuning.

### TANKS

In painted carbon steel. Cold vessels insulated with Armaflex or closed cell equivalent material, combined with fat bandage protection and vapor barrier.

### HEAT EXCHANGERS

Stainless steel AISI316L brazed plate type. Regenerative heat exchanger shell and tube type with high pressure on tube side and external service bypass; designed for each specific application (space heating, DHW production).

**OIL SEPARATOR**

High efficiency coalescing type with service flange for periodical filter replacement.

**OIL MANAGEMENT**

Oil level regulator for each compressor with supply line from oil receiver.

**CLADDING (OPTION)**

Painted galvanized steel or aluminium insulated with profiled foam sheet and elastomeric barrier (RAL 7001).

**PIPING**

TIG welded AISI304L stainless steel. Fittings in cast stainless steel. All cold pipes (with heat recovery also hot pipes) thermally insulated and fixed to the frame with industrial-type brackets.

**VALVES**

Stainless steel step-motor regulation valve, mounted with shut-off cocks and with optional mechanical backup valve. Alternatively, step-motor valve combined with ejector and second evaporator in series.

**INSULATION OF PRESSURE VESSELS**

Coating with greasy bandage, vapor barrier and closed cell rubber insulation.

**ELECTRICAL PANEL**

IP54 protection degree (galvanized sheet painted orange peel RAL 7035) with programmable controller and Enex proprietary software for operation and performance optimization. Complete with disconnecter, contactors with thermal protection, automatic switches, inverter on first compressor.

**CONTROL PANEL**

LCD / touch screen display on the electrical panel of the unit.

**STANDARD REMOTE INTERFACE**

via Modbus TCP/IP protocol with graphic interface on the web server.

**EJECTOR**

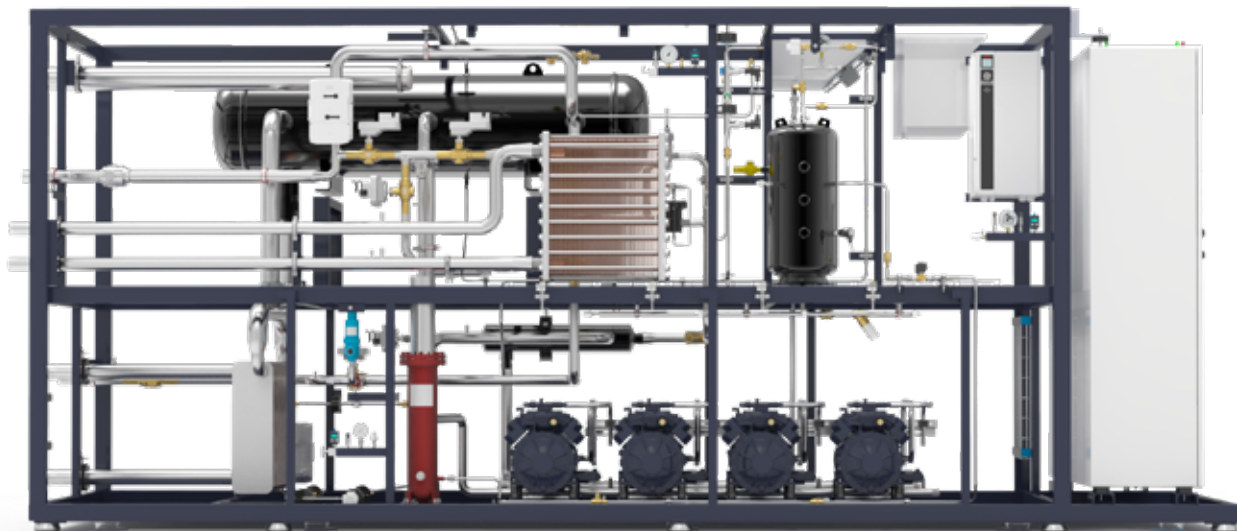
Patented ejector circuit with two evaporator in series to increase cooling efficiency. Ejector modular block in aluminium with serviceable individual ejectors and strainers.

**STANDARD DESIGN PRESSURES**

80 bar LP - 130 HP.

**DUCTING OF RELIEF VALVES**

Safety valves ducted together in a single inox pipe.



YUKON B - Image for illustrative purpose only

## ENEX TECHNOLOGICAL DISTINCTIVE ADVANTAGES

- Extreme control stability;
- High efficiency;
- Patented ejector circuit (optional) with two evaporators in series;
- Efficient heat recovery even at high temperatures;
- No current or future F-gas restrictions;
- Unique 4 pipe version with remote reversible gas cooler (2 pipes connection);
- Robust welded steel frame;
- Stainless steel pipes;
- Easily accessible components;
- Enex remote monitoring system and serial port Modbus TCP/IP for external supervisor.
- Maintenance control panel gauges for pressure monitoring;
- Remote gas cooler;
- Noise reduction: the split system design (source side air exchanger separated from the main unit) together with the full housing paneling of the unit (panels with soundproofing polyurethane foam) always guarantees the lowest noise levels when it is required.

## THE OPERATING PRINCIPLE OF THE EJECTOR

The operating principle of standard version YUKON is with gravity-fed flooded evaporator which allows better temperature control and lower energy consumption. Alternatively, the EJECTOR version guarantees superior energy efficiency levels of over 12% per year, thanks to the use of the ejector (Enex patent) and its innovative principle.

The ejector is a device capable of recovering the expansion energy of a gas flow and convert it to a pressure lift of a secondary flow. In general, it can be used as a liquid pump or a gas compressor. In the Yukon range, the ejector is used in combination with two evaporators arranged in series, leading to an increase in the compressor suction pressure, for a given operating condition. This method of application guarantees that the ejector works properly even in intermediate seasons. The solution has been patented.

For chilled water production, Enex has adopted a gravity fed flooded evaporator system, which ensures simple construction, extreme control stability, small temperature approach and high efficiency.

For some models the Ejector option is also available, which guarantees seasonal energy efficiency 12% higher thanks to the application of the ejector according to an innovative principle patented by Enex. The ejector is the key element of this Chiller range.

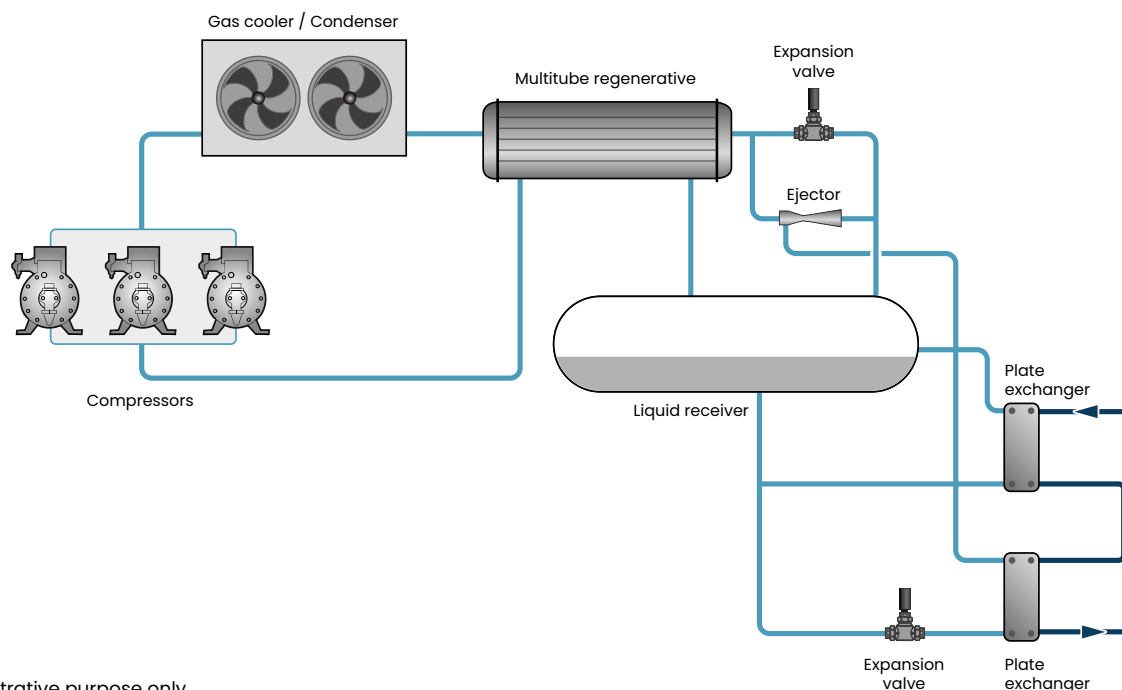


Image for illustrative purpose only

## TECHNICAL DATA



### YUKON C – COMFORT VERSION

Water chiller with remote gas cooler for outlet water temperatures from 5° to 15°C, with optional heat recovery. Hot water production is possible only if there is a request for cooling.

YUKON C		0111	0241	0392	0512	0693	0874	1024	1215
Cooling capacity <sup>(1) (2)</sup>	kW	33,9	74,7	120,3	154,8	209,5	264,2	306,8	366,0
Power consumption <sup>(1) (2)</sup>	kW	14,8	32,5	51,4	68,8	92,2	115,6	137,7	162,6
EER <sup>(1) (2)</sup>	–	2,3	2,3	2,3	2,3	2,3	2,3	2,2	2,3
Water flow rate <sup>(1) (2)</sup>	Kg/s	1,6	3,6	5,7	7,4	10,0	12,6	14,7	17,5
Water pressure drop <sup>(1) (2)</sup>	kPa	17,9	36,3	17,6	26,5	27,2	33,2	41,9	39,9
Water connections	"	1.1/2" ISO	2" ISO	2.1/2" ISO	3" Flanged	4" Flanged	4" Flanged	4" Flanged	5" Flanged
No. of compressors		1	1	2	2	3	4	4	5
No. of circuits		1	1	1	1	1	1	1	1
Lenght <sup>(7)</sup>	mm	1500	1500	3000	3000	4000	4500	4500	5700
Width <sup>(7)</sup>	mm	1060	1060	1150	1150	1250	1400	1400	1450
Height <sup>(7)</sup>	mm	1900	1900	2500	2500	2500	2500	2500	2500
Weight <sup>(7)</sup>	Kg	900	950	2700	2700	3400	4000	4000	5200
Sound power	dB(A)	75	78	80	81	82	84	84	85
Sound pressure <sup>(8)</sup>	dB(A)	47	50	52	53	54	56	56	57
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50

YUKON C		1385	1586	1826	1904	2224	2605	3015
Cooling capacity <sup>(1) (2)</sup>	kW	414,3	475,4	555,5	624,8	731,7	855,0	922,0
Power consumption <sup>(1) (2)</sup>	kW	190,0	216,0	254,3	272,2	320,2	373,5	426,0
EER <sup>(1) (2)</sup>	–	2,2	2,2	2,2	2,3	2,3	2,3	2,2
Water flow rate <sup>(1) (2)</sup>	Kg/s	19,8	22,7	26,5	29,8	35,0	40,9	46,3
Water pressure drop <sup>(1) (2)</sup>	kPa	48,5	30,5	40,5	44,0	58,5	42,6	53,5
Water connections	"	5" Flanged	6" Flanged	6" Flanged	6" Flanged	7" Flanged	7" Flanged	7" Flanged
No. of compressors		5	6	6	4	4	5	5
No. of circuits		1	1	1	1	1	1	1
Lenght <sup>(7)</sup>	mm	5700	5800	5800	6700	6700	7500	7500
Width <sup>(7)</sup>	mm	1450	1550	1550	1750	1750	1750	1750
Height <sup>(7)</sup>	mm	2500	2500	2500	2500	2500	2500	2500
Weight <sup>(7)</sup>	Kg	5500	7000	7000	7500	7500	8500	8500
Sound power	dB(A)	86	86	88	92	93	94	95
Sound pressure <sup>(8)</sup>	dB(A)	58	58	60	64	65	66	67
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50

(1) Water temperature in/out: 12°C / 7°C. Outdoor air temperature: 35°C

(2) Performances according to EN 14511

(3) Water temperature in/out: -4°C / -8°C with 35% ethylene glycol. Outdoor air temperature: 35°C

(4) Water temperature in/out: 35°C / 50°C. Outdoor air temperature: -5°C

(5) Water temperature in/out: 30°C / 35°C. Outdoor air temperature: -5°C

(6) Water temperature in/out: 35°C / 65°C. Outdoor air temperature: -5°C

(7) With cladding

(8) Sound pressure level 10m with directivity factor Q=2

## TECHNICAL DATA



### YUKON B – BRINE VERSION

Brine chiller with remote gas cooler for outlet water temperatures from +4°C to -15°C, with optional heat recovery. The operating principle is equivalent to the Comfort version.

YUKON B		0111	0241	0392	0512	0693	0874	1024	1215
Cooling capacity <sup>(2) (3)</sup>	kW	20	45	72	93	126	159	185	221
Power consumption <sup>(2) (3)</sup>	kW	14	31	50	66	88	111	130	155
EER <sup>(2) (3)</sup>	–	1,44	1,46	1,45	1,42	1,43	1,44	1,42	1,42
Water flow rate <sup>(2) (3)</sup>	Kg/s	1,21	2,69	4,31	5,58	7,53	9,49	11,05	13,18
Water pressure drop <sup>(2) (3)</sup>	kPa	16,0	32,1	17,6	24,4	24,3	28,1	35,2	23,8
Water connections	"	1.1/4" ISO	1.1/2" ISO	2" ISO	2.1/2" ISO	2.1/2" ISO	3" Flanged	3" Flanged	4" Flanged
No. of compressors		1	1	2	2	3	4	4	5
No. of circuits		1	1	1	1	1	1	1	1
Lenght <sup>(7)</sup>	mm	1500	1500	3000	3000	4000	4500	4500	5700
Width <sup>(7)</sup>	mm	1060	1060	1150	1150	1250	1400	1400	1450
Height <sup>(7)</sup>	mm	1900	1900	2500	2500	2500	2500	2500	2500
Weight <sup>(7)</sup>	Kg	900	950	2700	2700	3400	4000	4000	5200
Sound power	dB(A)	75	78	80	81	82	84	84	85
Sound pressure <sup>(6)</sup>	dB(A)	47	50	52	53	54	56	56	57
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50

YUKON B		1385	1586	1826	1904	2224	2605	3015
Cooling capacity <sup>(2) (3)</sup>	kW	250	287	331	356	417	488	560
Power consumption <sup>(2) (3)</sup>	kW	175	201	230	241	283	330	387
EER <sup>(2) (3)</sup>	–	1,43	1,43	1,44	1,48	1,47	1,48	1,45
Water flow rate <sup>(2) (3)</sup>	Kg/s	14,91	17,12	19,80	21,28	24,92	29,12	33,44
Water pressure drop <sup>(2) (3)</sup>	kPa	28,4	24,1	29,8	33,1	42,1	29,0	35,5
Water connections	"	4" Flanged	4" Flanged	5" Flanged	5" Flanged	5" Flanged	6" Flanged	6" Flanged
No. of compressors		5	6	6	4	4	5	5
No. of circuits		1	1	1	1	1	1	1
Lenght <sup>(7)</sup>	mm	5700	5800	5800	6700	6700	7500	7500
Width <sup>(7)</sup>	mm	1450	1550	1550	1750	1750	1750	1750
Height <sup>(7)</sup>	mm	2500	2500	2500	2500	2500	2500	2500
Weight <sup>(7)</sup>	Kg	5500	7000	7000	7500	7500	8500	8500
Sound power	dB(A)	86	86	88	92	93	94	95
Sound pressure <sup>(6)</sup>	dB(A)	58	58	60	64	65	66	67
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50

(1) Water temperature in/out: 12°C / 7°C. Outdoor air temperature: 35°C

(2) Performances according to EN 14511

(3) Water temperature in/out: -4°C / -8°C with 35% ethylene glycol. Outdoor air temperature: 35°C

(4) Water temperature in/out: 35°C / 50°C. Outdoor air temperature: -5°C

(5) Water temperature in/out: 30°C / 35°C. Outdoor air temperature: -5°C

(6) Water temperature in/out: 35°C / 65°C. Outdoor air temperature: -5°C

(7) With cladding

(8) Sound pressure level 10m with directivity factor Q=2



## TECHNICAL DATA



### YUKON D – HEAT PUMP VERSION

Heating only unit with remote evaporator.

YUKON D		0111	0241	0302	0402	0533	0643	0754
Heating capacity <sup>(2) (6)</sup>	kW	36	79	98	130	172	206	243
Power consumption <sup>(2) (6)</sup>	kW	15	32	40	53	70	84	99
COP <sup>(2) (6)</sup>	-	2,45	2,46	2,45	2,45	2,45	2,44	2,46
Water flow rate <sup>(2) (6)</sup>	Kg/s	0,28	0,63	0,78	1,03	1,37	1,64	1,93
Water pressure drop <sup>(2) (6)</sup>	kPa	2,8	8,0	12,0	15,6	26,7	21,1	28,8
Water connections	"	1" ISO	1" ISO	1" ISO	1" ISO	1.1/4" ISO	1.1/4" ISO	1.1/4" ISO
No. of compressors		1	1	2	2	3	3	4
No. of circuits		1	1	1	1	1	1	1
Lenght <sup>(7)</sup>	mm	1500	1500	2750	2750	3700	3700	4100
Width <sup>(7)</sup>	mm	1060	1060	1150	1150	1250	1250	1400
Height <sup>(7)</sup>	mm	1900	1900	2500	2500	2500	2500	2500
Weight <sup>(7)</sup>	Kg	900	950	2500	2500	3400	3400	4000
Sound power	dB(A)	75	78	79	80	81	82	83
Sound pressure <sup>(8)</sup>	dB(A)	47	50	51	52	53	54	55
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50

YUKON D		0884	1055	1215	1386	1586	1744
Heating capacity <sup>(2) (6)</sup>	kW	275	315	362	415	470	527
Power consumption <sup>(2) (6)</sup>	kW	114	139	162	185	210	224
COP <sup>(2) (6)</sup>	-	2,45	2,44	2,42	2,43	2,43	2,44
Water flow rate <sup>(2) (6)</sup>	Kg/s	2,20	2,50	2,90	3,30	3,70	4,20
Water pressure drop <sup>(2) (6)</sup>	kPa	21,7	29,1	27,1	24,7	16,8	15,1
Water connections	"	1.1/2" ISO	1.1/2" ISO	2" ISO	2" ISO	2" ISO	2" ISO
No. of compressors		4	5	5	6	6	4
No. of circuits		1	1	1	1	1	1
Lenght <sup>(7)</sup>	mm	4100	5700	5700	5800	5800	6700
Width <sup>(7)</sup>	mm	1400	1450	1450	1550	1550	1750
Height <sup>(7)</sup>	mm	2500	2500	2500	2500	2500	2500
Weight <sup>(7)</sup>	Kg	4000	5200	5200	6000	6000	7500
Sound power	dB(A)	84	84	85	86	86	91
Sound pressure <sup>(8)</sup>	dB(A)	56	56	57	58	58	63
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50

(1) Water temperature in/out: 12°C / 7°C. Outdoor air temperature: 35°C

(2) Performances according to EN 14511

(3) Water temperature in/out: -4°C / -8°C with 35% ethylene glycol. Outdoor air temperature: 35°C

(4) Water temperature in/out: 35°C / 50°C. Outdoor air temperature: -5°C

(5) Water temperature in/out: 30°C / 35°C. Outdoor air temperature: -5°C

(6) Water temperature in/out: 35°C / 65°C. Outdoor air temperature: -5°C

(7) With cladding

(8) Sound pressure level 10m with directivity factor Q=2

## TECHNICAL DATA



### YUKON R – 4-PIPE REVERSIBLE VERSION

Multi-purpose 4-pipe unit (cooling and heating) with remote gas cooler/evaporator.

The unit is equipped with two separate heat exchangers for the production of chilled and hot water simultaneously or independently, ensuring the maximum operating flexibility and energy efficiency. The unit can also be equipped with an additional heat exchanger for Domestic Hot Water (6-pipe version). The remote gas cooler is reversible, that is it can also work as evaporator; it is connected to the unit through 2 pipes only, greatly simplifying the installation. For the bigger models, the unit is coupled to two reversible gas cooler in parallel.

YUKON R		0111	0241	0302	0402	0533	0643	0754
Cooling capacity <sup>(1) (2)</sup>	kW	34	75	93	122	162	194	230
Power consumption <sup>(1) (2)</sup>	kW	15	33	40	53	70	84	98
EER <sup>(1) (2)</sup>	-	2,29	2,30	2,33	2,30	2,34	2,30	2,34
Water flow rate <sup>(1) (2)</sup>	Kg/s	2,02	4,46	5,54	7,30	9,70	11,57	13,71
Water pressure drop <sup>(1) (2)</sup>	kPa	17,9	36,3	10,9	18,1	30,1	23,6	39,7
Water connections	"	1.1/2" ISO	2" ISO	2.1/2" ISO	2.1/2" ISO	3" Flanged	4" Flanged	4" Flanged
Heating capacity 35/50 <sup>(2) (4)</sup>	kW	34	76	93	123	163	196	231
Power consumption <sup>(2) (4)</sup>	kW	14	30	38	50	66	79	93
COP <sup>(2) (4)</sup>	-	2,50	2,50	2,50	2,50	2,50	2,50	2,50
Water flow rate <sup>(2) (4)</sup>	Kg/s	0,54	1,20	1,49	1,97	2,60	3,12	3,67
Water pressure drop <sup>(2) (4)</sup>	kPa	3,7	6,0	9,1	11,0	18,7	13,8	18,9
Water connections	"	1" ISO	1.1/4" ISO	1.1/4" ISO	1.1/4" ISO	1.1/2" ISO	2" ISO	2" ISO
Heating capacity 30/35 <sup>(2) (5)</sup>	kW	35	78	96	127	168	201	237
Power consumption <sup>(2) (5)</sup>	kW	12	27	34	45	59	71	84
COP <sup>(2) (5)</sup>	-	2,81	2,84	2,83	2,83	2,84	2,82	2,84
Water flow rate <sup>(2) (5)</sup>	Kg/s	1,67	3,71	4,58	6,06	8,02	9,61	11,33
Water pressure drop <sup>(2) (5)</sup>	kPa	34,9	9,8	14,5	12,9	17,9	18,7	21,8
Water connections	"	1.1/4" ISO	2" ISO	2" ISO	2.1/2" ISO	2.1/2" ISO	3" Flanged	4" Flanged
No. of compressors		1	1	2	2	3	3	4
No. of circuits		1	1	1	1	1	1	1
Length <sup>(7)</sup>	mm	1500	1500	3000	3000	4000	4000	4500
Width <sup>(7)</sup>	mm	1060	1060	1150	1150	1250	1250	1400
Height <sup>(7)</sup>	mm	1900	1900	2500	2500	2500	2500	2500
Weight <sup>(7)</sup>	Kg	900	950	2700	2700	3400	3400	4000
Sound power	dB(A)	75	78	79	80	81	82	83
Sound pressure <sup>(8)</sup>	dB(A)	47	50	51	52	53	54	55
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50

(1) Water temperature in/out: 12°C / 7°C. Outdoor air temperature: 35°C

(2) Performances according to EN 14511

(3) Water temperature in/out: -4°C / -8°C with 35% ethylene glycol. Outdoor air temperature: 35°C

(4) Water temperature in/out: 35°C / 50°C. Outdoor air temperature: -5°C

(5) Water temperature in/out: 30°C / 35°C. Outdoor air temperature: -5°C

(6) Water temperature in/out: 35°C / 65°C. Outdoor air temperature: -5°C

(7) With cladding

(8) Sound pressure level 10m with directivity factor Q=2



YUKON R		0844	1055	1215	1386	1586	1744
Cooling capacity <sup>(1) (2)</sup>	kW	271	319	366	420	475	531
Power consumption <sup>(1) (2)</sup>	kW	119	139	163	186	216	250
EER <sup>(1) (2)</sup>	-	2,28	2,29	2,25	2,26	2,20	2,12
Water flow rate <sup>(1) (2)</sup>	Kg/s	16,20	19,04	21,86	25,10	28,39	34,09
Water pressure drop <sup>(1) (2)</sup>	kPa	39,8	31,1	39,9	24,9	30,5	37,3
Water connections	"	4" Flanged	5" Flanged	5" Flanged	5" Flanged	6" Flanged	6" Flanged
Heating capacity 35/50 <sup>(2) (4)</sup>	kW	275	322	373	427	484	544
Power consumption <sup>(2) (4)</sup>	kW	111	131	152	174	197	216
COP <sup>(2) (4)</sup>	-	2,50	2,50	2,50	2,50	2,50	2,50
Water flow rate <sup>(2) (4)</sup>	Kg/s	4,38	5,14	5,94	6,80	7,71	8,66
Water pressure drop <sup>(2) (4)</sup>	kPa	20,8	14,7	19,4	16,3	16,3	10,2
Water connections	"	2" ISO	2.1/2" ISO	2.1/2" ISO	2.1/2" ISO	2.1/2" ISO	3" Flanged
Heating capacity 30/35 <sup>(2) (5)</sup>	kW	283	331	383	438	497	571
Power consumption <sup>(2) (5)</sup>	kW	100	117	136	156	177	200
COP <sup>(2) (5)</sup>	-	2,83	2,82	2,81	2,82	2,81	2,86
Water flow rate <sup>(2) (5)</sup>	Kg/s	13,50	15,82	18,28	20,95	23,75	27,27
Water pressure drop <sup>(2) (5)</sup>	kPa	28,3	16,9	14,4	25,9	22,1	22,2
Water connections	"	4" Flanged	4" Flanged	4" Flanged	5" Flanged	5" Flanged	5" Flanged
No. of compressors		4	5	5	6	6	4
No. of circuits		1	1	1	1	1	1
Length <sup>(7)</sup>	mm	4500	5700	5700	5800	5800	6700
Width <sup>(7)</sup>	mm	1400	1450	1450	1550	1550	1750
Height <sup>(7)</sup>	mm	2500	2500	2500	2500	2500	2500
Weight <sup>(7)</sup>	Kg	4000	5200	5200	7000	7000	8000
Sound power	dB(A)	84	84	85	86	86	91
Sound pressure <sup>(8)</sup>	dB(A)	56	56	57	58	58	63
Power supply	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50

(1) Water temperature in/out: 12°C / 7°C. Outdoor air temperature: 35°C

(2) Performances according to EN 14511

(3) Water temperature in/out: -4°C / -8°C with 35% ethylene glycol. Outdoor air temperature: 35°C

(4) Water temperature in/out: 35°C / 50°C. Outdoor air temperature: -5°C

(5) Water temperature in/out: 30°C / 35°C. Outdoor air temperature: -5°C

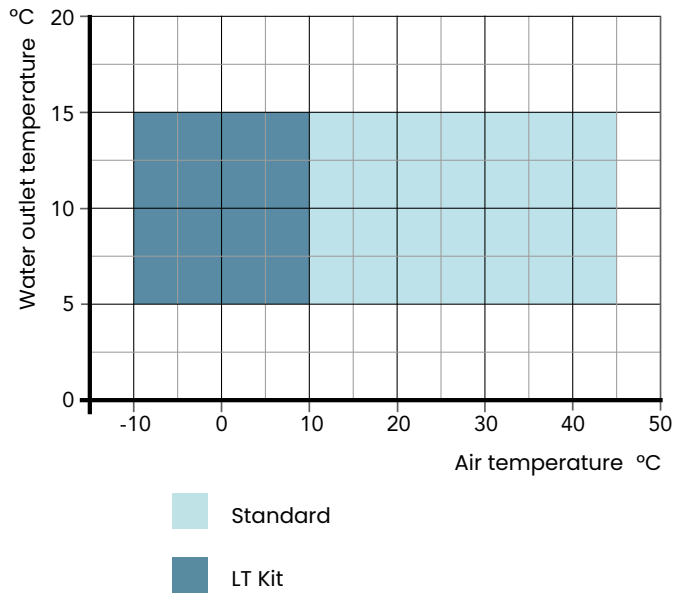
(6) Water temperature in/out: 35°C / 65°C. Outdoor air temperature: -5°C

(7) With cladding

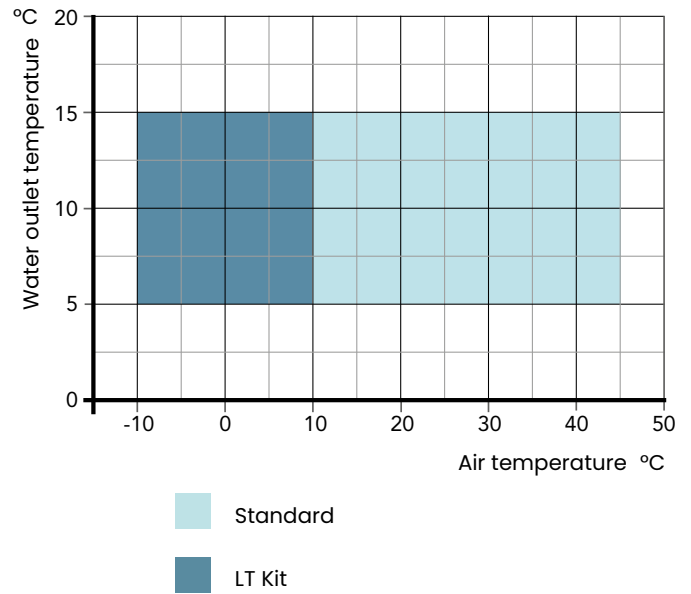
(8) Sound pressure level 10m with directivity factor Q=2

## OPERATING LIMITS

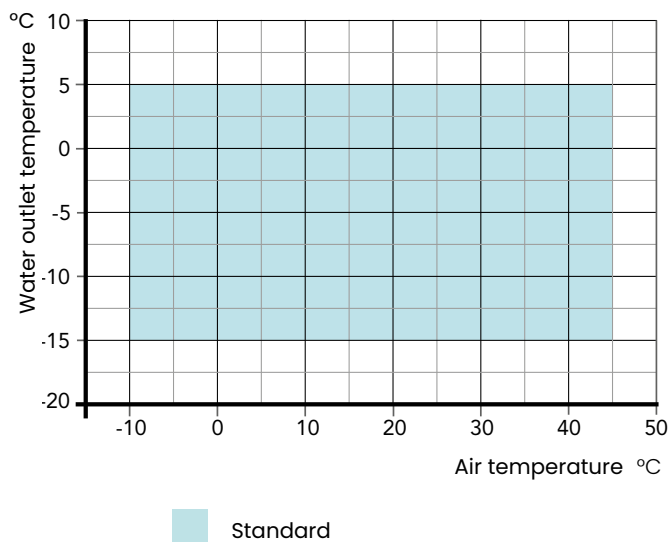
**YUKON C** - Comfort version



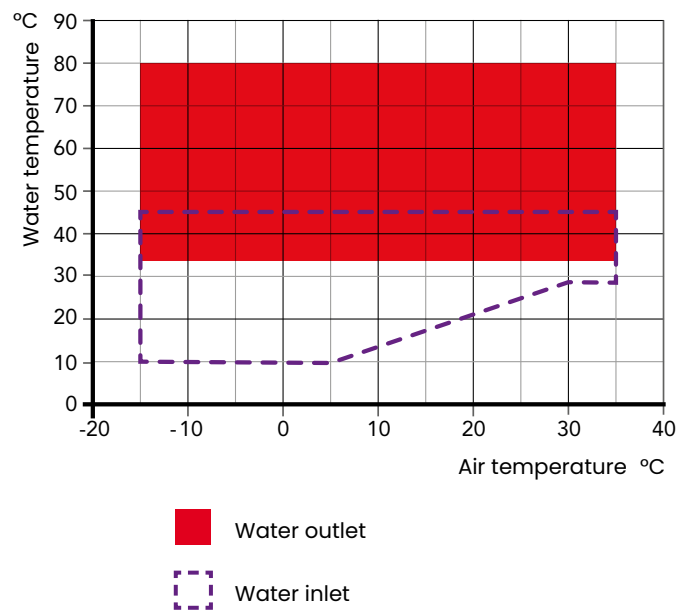
**YUKON R** - 4-pipe reversible cooling version



**YUKON B** - Brine version



**YUKON D** - Heat pump version  
**YUKON R** - 4-pipe reversible heating version

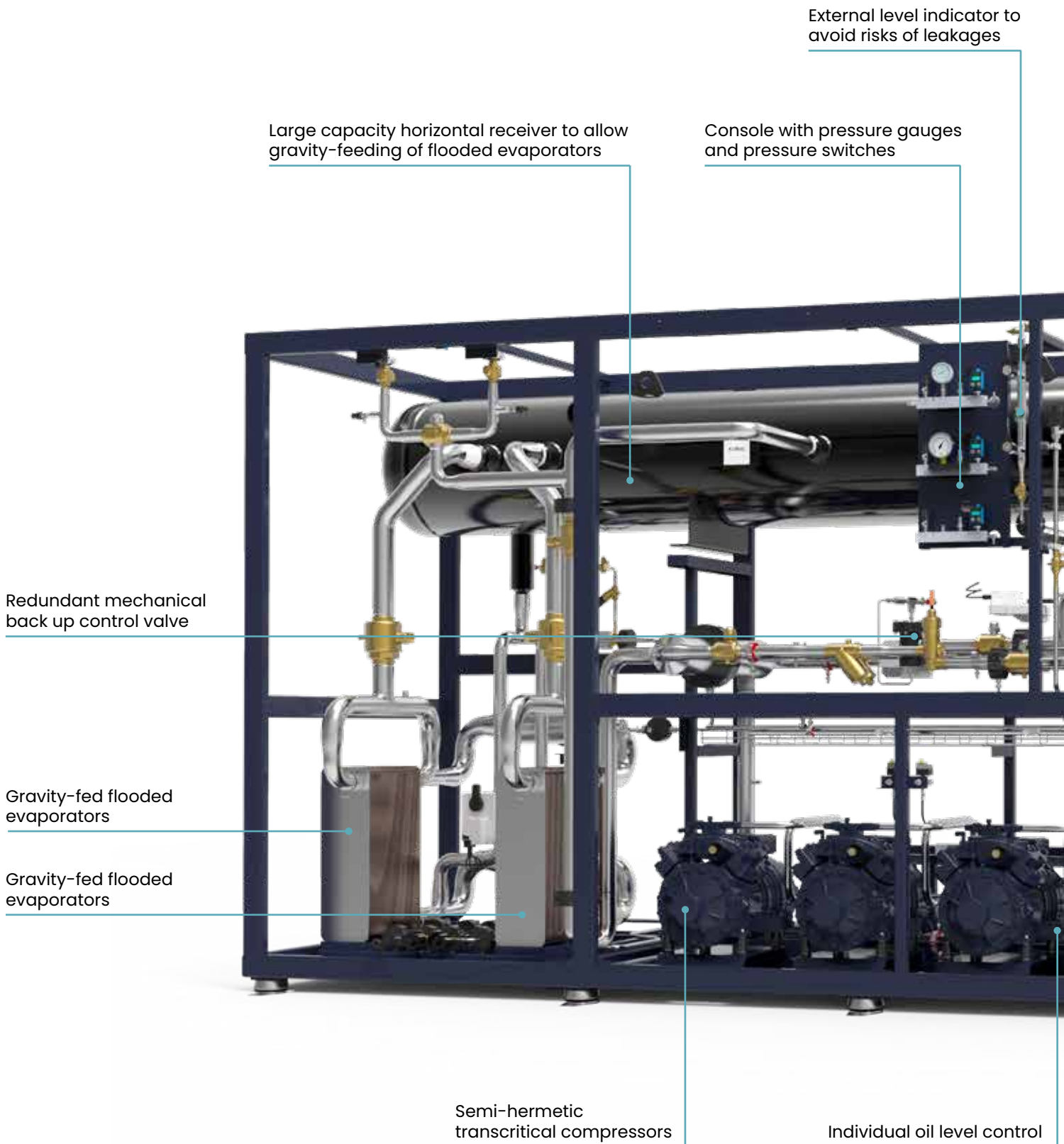


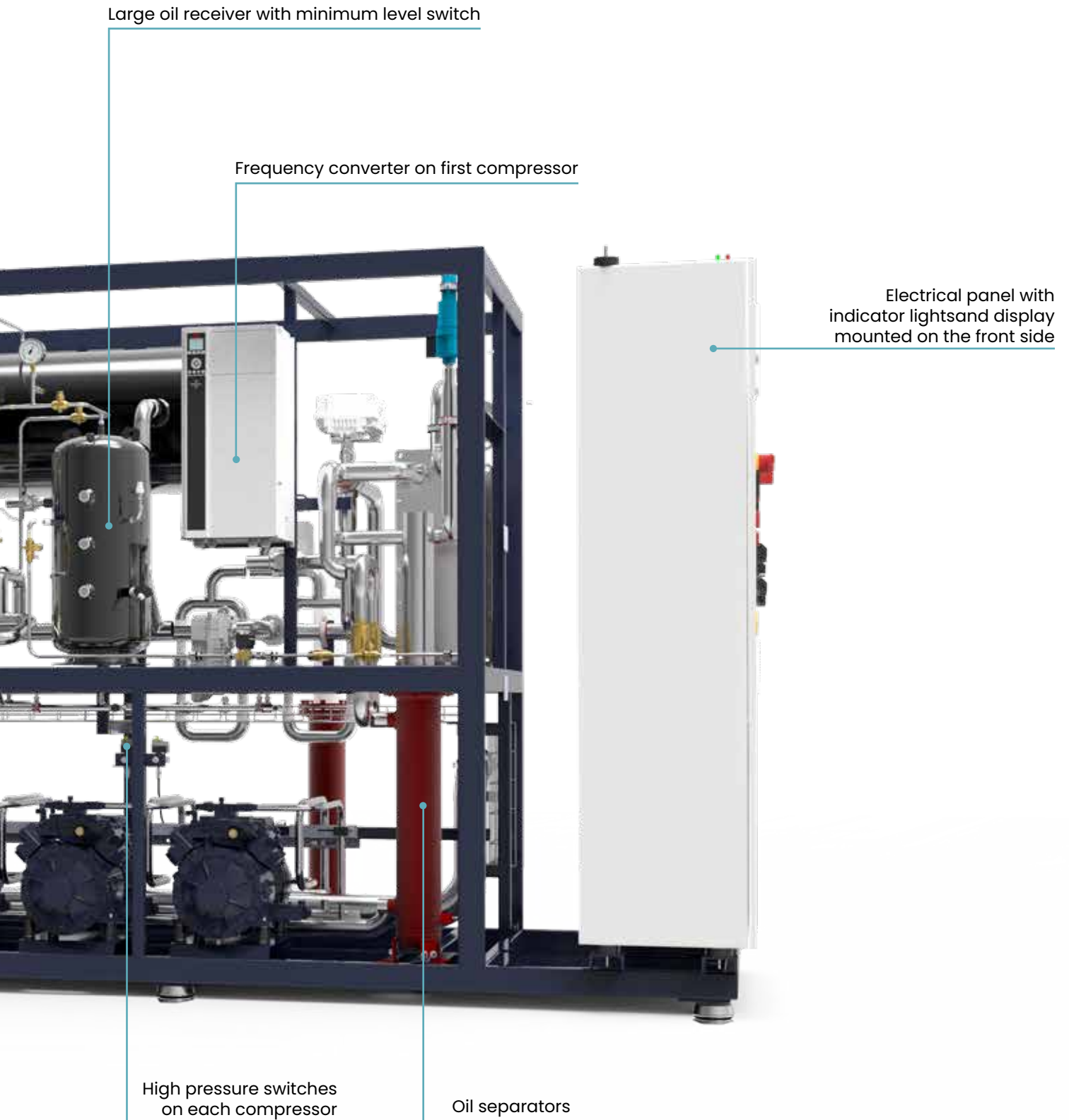
## UNIT IDENTIFICATION & NOMENCLATURE

The simplest way to define in a clear way & in all details the yukon units for your plant

	Y	B	102	4	A	N	X	H	X	X	V
<b>Family</b>											
Y = Yukon											
<b>Version</b>											
B = Brine											
C = Comfort											
D = Heat pump (only heating)											
R = 4-pipe reversible chiller											
<b>Displacement</b>											
from 010 to 310											
<b>N. of compressors</b>											
from 1 to 6											
<b>Source / Sink</b>											
A = Air											
W = Water											
<b>Power Supply</b>											
N = 400/3/50											
<b>Cladding</b>											
X = Not installed											
C = Installed											
<b>Heat recovery 1</b>											
X = Not installed											
L = $\Delta T = 5K$											
M = $\Delta T = 15K$											
H = $\Delta T = 30K$											
<b>Heat recovery 2 (STD in R version)</b>											
X = Not installed											
L = $\Delta T = 5K$											
M = $\Delta T = 15K$											
H = $\Delta T = 30K$											
<b>Ejector pack</b>											
X = Not installed											
V = Installed											
<b>Low temperature kit (GC bypass)</b>											
X = Not installed											
V = Installed											

## DISTINCTIVE TECHNOLOGICAL CHOICES OF THE RANGE





## OPTION COMPATIBILITY

YUKON C	0111	0241	0392	0512	0693	0874	1024	1215	1385	1586	1826	1940	2224	2605	3015
Flooded evaporator	--	--	•	•	•	•	•	•	•	•	•	•	•	•	•
2nd heat recovery hx	--	--	o	o	o	o	o	o	o	o	o	o	o	o	o
Soft starter	--	--	--	--	--	--	--	--	--	--	--	--	--	o	o
Inverter	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Low noise opt./cladding	•	•	o	o	o	o	o	o	o	o	o	o	o	o	o
Ejector	--	--	o	o	o	o	--	--	--	--	--	--	--	--	--
Heat recovery 5K	o	o	o	o	o	o	o	o	o	o	o	o	o	o	--
Heat recovery 15K	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Heat recovery 30K	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Low temp.kit *	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Gas cooler	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Gas cooler LN	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Modbus TCP/IP	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Remote monitoring	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

• Standard, o Optional, -- Not available, □ On request

\* Mandatory below 10°C of external operating temperature in chiller mode  
LN = Low Noise

YUKON B	0111	0241	0392	0512	0693	0874	1024	1215	1385	1586	1826	1904	2224	2605	3015
Flooded evaporator	--	--	•	•	•	•	•	•	•	•	•	•	•	•	•
2nd heat recovery hx	--	--	o	o	o	o	o	o	o	o	o	o	o	o	o
Soft starter	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Inverter	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Low noise opt./cladding	•	•	o	o	o	o	o	o	o	o	o	o	o	o	o
Ejector **	--	--	o	o	o	o	--	--	--	--	--	--	--	--	--
Heat recovery 5K	o	o	o	o	o	o	o	o	o	o	o	o	o	o	--
Heat recovery 15K	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Heat recovery 30K	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Low temp.kit *	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Gas cooler	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Gas cooler LN	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Modbus TCP/IP	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Remote monitoring	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

• Standard, o Optional, -- Not available, □ On request

\* Mandatory below 10°C of external operating temperature in chiller mode  
LN = Low Noise

\*\* Up to -5°C glycol temperature



YUKON D	0111	0241	0302	0402	0533	0643	0754	0884	1055	1215	1386	1586	1744
Flooded evaporator	--	--	--	--	--	--	--	--	--	--	--	--	--
2nd heat recovery hx	--	--	o	o	o	o	o	o	o	o	o	o	o
Soft starter	--	--	--	--	--	--	--	--	--	--	--	--	--
Inverter	•	•	•	•	•	•	•	•	•	•	•	•	•
Low noise opt./cladding	•	•	o	o	o	o	o	o	o	o	o	o	o
Ejector	--	--	--	--	--	--	--	--	--	--	--	--	--
Heat recovery 5K	o	o	o	o	o	o	o	o	o	o	o	o	o
Heat recovery 15K	o	o	o	o	o	o	o	o	o	o	o	o	o
Heat recovery 30K	•	•	•	•	•	•	•	•	•	•	•	•	•
Low temp.kit *	--	--	--	--	--	--	--	--	--	--	--	--	--
Gas cooler	o	o	o	o	o	o	o	o	o	o	o	o	o
Gas cooler LN	□	□	□	□	□	□	□	□	□	□	□	□	□
Modbus TCP/IP	•	•	•	•	•	•	•	•	•	•	•	•	•
Remote monitoring	•	•	•	•	•	•	•	•	•	•	•	•	•

• Standard, o Optional, -- Not available, □ On request

\* Mandatory below 10°C of external operating temperature in chiller mode  
LN = Low Noise

YUKON R	0111	0241	0302	0402	0533	0643	0754	0884	1055	1215	1386	1586	1744
Flooded evaporator	--	--	•	•	•	•	•	•	•	•	•	•	•
2nd heat recovery hx	--	--	o	o	o	o	o	o	o	o	o	o	o
Soft starter	--	--	--	--	--	--	--	--	--	--	--	--	--
Inverter	•	•	•	•	•	•	•	•	•	•	•	•	•
Low noise opt./cladding	•	•	o	o	o	o	o	o	o	o	o	o	o
Ejector	--	--	o	o	o	o	--	--	--	--	--	--	--
Heat recovery 5K	o	o	o	o	o	o	o	o	o	o	o	o	o
Heat recovery 15K	•	•	•	•	•	•	•	•	•	•	•	•	•
Heat recovery 30K	o	o	o	o	o	o	o	o	o	o	o	o	o
Low temp.kit *	o	o	o	o	o	o	o	o	o	o	o	o	o
Gas cooler	o	o	o	o	o	o	o	o	o	o	o	o	o
Gas cooler LN	□	□	□	□	□	□	□	□	□	□	□	□	□
Modbus TCP/IP	•	•	•	•	•	•	•	•	•	•	•	•	•
Remote monitoring	•	•	•	•	•	•	•	•	•	•	•	•	•

• Standard, o Optional, -- Not available, □ On request

\* Mandatory below 10°C of external operating temperature in chiller mode  
LN = Low Noise

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