

### PRODUCT SELECTION DATA



Low environmental impact
High full and part load efficiency
Compact and simple to install
Low refrigerant charge
Superior reliability

# 30RB/30RBP 170R-950R

Nominal cooling capacity 170-940 kW

# 30RQ/30RQP 165R-1040R

Heating capacity 170-940 kW Cooling capacity 160-1040 kW

Aquasnap® heat pumps and liquid chillers are the best solution for commercial and industrial applications where installers, engineering and design departments and building owners require reduced installation costs, optimal performances and maximum quality.

The latest generation AquaSnap® is available in two new versions:

- The AquaSnap® (30RB-30RQ) version is a compact all-in-one package optimised for full-load applications where reduced investment cost (low CapEx) is required.
- The premium AquaSnap® version with Greenspeed® intelligence (30RBP-30RQP) is optimised for part load applications where a high SEER, SEPR, SCOP or IPLV value is required. This version is equipped with a variable-speed pump and fans, providing premium part load efficiency to reduce maintenance costs over the lifespan of the chiller. In addition, the sound levels achieved under the part load conditions are particularly low. Besides operating efficiently and quietly, the AquaSnap® range with Greenspeed® intelligence operates from -20 °C up to +48 °C as standard.









\* The availability of sizes and options depends on the country. Please contact your local commercial dealer for more information.

# **AQUASNAP® - CUSTOMER BENEFITS**

#### Low noise level

- Condenser with fixed-speed fans (30RB-30RQ):
  - Optional low-speed fans (700 rpm) and compressor enclosure to reduce full-load noise level by 6 to 7 dB(A)
  - Condenser coils in V-shape with an open angle, allowing quieter air flow across the coil
  - Low noise 6th generation Flying Bird <sup>™</sup> fans, made of a composite material (Carrier patent)
  - Rigid fan installation for reduced noise (Carrier patent).
- Condenser with Greenspeed® variable-speed fans (30RBP-30RQP) recommended by Carrier for even quieter operation):
  - Optional factory setting of the fan at low speed, with compressor enclosure to reduce full-load noise level by 6 to 7 dB(A)
  - Exceptional acoustic signature during part-load operation through smooth fan speed variation.
- Specific control functions or features to reduce noise level during the night or unoccupied periods:
  - Night-time sound control with cooling capacity and fan speed limitation
  - Low-noise scroll compressors with low vibration level
  - The compressor assembly is installed on an independent chassis and supported by flexible anti-vibration mountings
  - Dynamic suction and discharge piping support, minimising vibration transmission (Carrier patent)
  - Acoustic compressor enclosure, reducing radiated noise emissions (optional).



### **Quick and easy installation**

- Compact design:
  - AquaSnap® units are designed with compact dimensions for easy installation.
  - With a length of approximately 4.8 m for 550 kW and a width of 2.25 m, the units require minimal floor space.
- Built-in hydraulic module (option):
  - Low or high pressure water pump (as required)
  - Single or dual pump (as required) with operation time balancing and automatic changeover to the back-up pump if a fault develops
  - Built-in variable-speed pumps with automatic nominal water flow adjustment via electronic control on the user display.
  - Water filter protects the water pump against circulating debris
  - Pressure sensors for direct numerical display of the water flow rate and water pressures

- Thermal insulation and frost protection down to -20 °C, using a heater (optional)
- High-capacity membrane expansion tank (option).
- Built-in hydraulic module with Greenspeed® variable-speed pump (option recommended by Carrier):
  - Quick and easy electronic setting of the nominal water flow rate when the unit is commissioned, thus eliminating the need to adjust the water flow rate control valve
  - Automatic control of the pump speed based on constant speed, constant pressure difference or constant temperature difference.
- Simplified electrical connections
  - A single power connection point without neutral
  - Main disconnect switch with high trip capacity
  - 24 V control circuit using a built-in transformer.
- Simplified hydraulic connections:
  - Victaulic type couplings on the exchanger;
  - Clearly identified and practical reference marks for water outlet and inlet connections;
- Fast unit commissioning
  - Systematic factory test before shipment
  - Quick-test function for step-by-step verification of the sensors, electrical components and motors.

#### **Reduced installation costs**

- Optional Greenspeed® variable-speed pump with hydraulic module (option recommended by Carrier)
  - Cut costs relating to the water flow control valve
  - The design of the water system with variable primary flow (VPF) can provide significant installation cost savings compared with traditional constant primary systems with variable secondary circuits; elimination of the secondary distribution pump, etc.
  - Water system design with fan coil units fitted with 2-way valves instead of 3-way valves.
- No buffer tank required thanks to Carrier's advanced control algorithm
  - Minimum water loop volume reduced to 2.5 l/kW.

### **Environmentally responsible**

AquaSnap® liquid chillers with Greenspeed® intelligence are a boost for green cities and contribute to a sustainable future. Combining a refrigerant charge up to 30% lower, with R-32 refrigerant with a GWP 70% lower than that of the previous version using R410A, and exceptional energy efficiency, this chiller significantly reduces energy consumption while reducing carbon dioxide emissions throughout its life cycle.

- The AquaSnap® liquid chiller is equipped with an automatic energy meter that indicates the instantaneous and overall cooling energy at the outlet, the instantaneous and overall electrical energy consumption, the instantaneous and average seasonal energy efficiency for monitoring and a unit performance check.
- Pumping energy consumption can be reduced by up to 2/3 using Greenspeed <sup>®</sup> variable-speed pumps

# **30RB - 30RQ TECHNICAL OVERVIEW**



### **COPPER/ALUMINIUM COILS (30RQ)**

- Protective heat shrink sleeves around the distribution sections
- Coil heaters to prevent frost formation and help drain condensate during defrosting

# NOVATION™ SECOND GENERATION MICRO CHANNEL HEAT EXCHANGERS (30RB)

- Increased reliability with new aluminium alloy
- Significantly reduces the refrigerant charge (-40% compared to Cu/Al coils)
- Improved thermal performance, improved efficiency and lower pressure drops compared to Cu/Al coils
- Enviro-Shield® coating for mildly corrosive environments
- Super Enviro-Shield® coating for highly corrosive environments (industrial or marine applications)
- Easy cleaning with high pressure air or water washer



# SIXTH GENERATION FLYING BIRD™ FIXED-SPEED FANS

- Exclusive Carrier design
- Fan blade design inspired by nature
- High efficiency version with AC motor technology





**COMPRESSORS** 

**SCROLL** 



### SmartVu™ control

- 9 languages available
- 4.3" user-friendly touch screen
- All main parameters displayed on one screen
- Direct access to the unit's technical drawings and the main service documents
- Very easy online monitoring
- Easy and secure access to unit parameters
- Optional BACnet, J-Bus or LON communication interfaces

### REDUCED REFRIGERANT CHARGE





- Real time energy consumption estimation (kWh)
- Estimation of the supplied cooling/heating energy (kWh)
- Instantaneous and average energy efficiency values under real operating conditions
- Remote monitoring with "Connected service"



### HIGH-EFFICIENCY BRAZED PLATE HEAT EXCHANGER

- Latest generation asymmetrical type
- Low pressure drop

# 30RBP - 30RQP TECHNICAL OVERVIEW









# SIXTH GENERATION FLYING BIRD™ VARIABLE-SPEED FANS

- Carrier fan blade design inspired by nature
- Patented algorithm to control the fan speed
- Dedicated variator or EC type motor
- Night mode operation





# **VARIABLE-SPEED PUMP**

- Water flow electronic control and reading
- Automatic protection of the pump against low pressure
- Multiple control options:
  - Constant flow with low speed mode on standby
  - Variable flow based on pressure difference or constant temperature

### **TECHNICAL INSIGHTS**

#### SmartVu<sup>™</sup> control

The SmartVu<sup>TM</sup> control combines intelligence with operating simplicity. The control constantly monitors all machine parameters and precisely manages the operation of compressors, expansion devices, fans and the evaporator water pump for optimum energy efficiency.

The SmartVu<sup>TM</sup> control features advanced Ethernet-based communication technology (IP) and a user-friendly and intuitive user interface with 4.3-inch colour touch screen.

- Energy management configuration
  - Internal timer: Controls chiller on/off times and operation at a second setpoint
  - Setpoint offset based on the outdoor air temperature
  - Master/slave control of two chillers operating in parallel with runtime balancing and automatic changeover in case of a unit fault.
  - Innovative smart energy monitoring, providing users with smart data such as real-time electrical energy consumption and cooling capacity, and instantaneous and average energy efficiency values.
  - For further energy savings, the AquaSnap® can be monitored remotely by Carrier experts for energy consumption diagnosis and optimisation.
- Integrated features
  - Night mode: Capacity and fan speed limitation for reduced noise level
  - With hydraulic module: Water pressure display and water flow rate calculation.
- Advanced communication features
  - Easy, high-speed communication technology over Ethernet (IP) to a centralised building management system
  - Access to multiple unit parameters.
- Maintenance functions
  - F-Gas regulation leak check reminder alert
  - Maintenance alert can be configured to days, months or hours of operation
  - Storage of maintenance manual, wiring diagram and spare parts list
  - Display of trend curves for the main values
  - Management of a fault memory allowing a log of the last 50 incidents to be accessed, with operating readings taken when the fault occurs
  - Blackbox memory

■ 4"3 SmartVu TM user interface



- Intuitive and user-friendly 4"3 inch touch screen interface
- Concise and clear information is available in local languages
- Complete menu, customised for different users (end user, service personnel or Carrier engineers).

### Remote management (standard)

Units with SmartVu<sup>TM</sup> control can be easily accessed from the internet, using a PC with an Ethernet connection. This makes remote control quick and easy and offers significant advantages for service operations.

The AquaSnap® is equipped with an RS485 serial port that offers multiple remote control, monitoring and diagnostic possibilities. Carrier offers a vast choice of control products, specially designed to control, manage and supervise the operation of an air conditioning system. Please consult your Carrier representative for more information.

The AquaSnap® also communicates with other centralised building management systems via optional communication gateways.

A connection terminal allows the AquaSnap® unit to be remotely controlled by wire:

- Start/stop: Opening of this contact will shut down the unit
- Dual setpoint: closing of this contact activates a second setpoint (e.g.: unoccupied mode).
- Demand limit: Closing of this contact limits the maximum chiller capacity to a predefined value.
- Operation indication: This volt-free contact indicates that the chiller is operating (refrigeration).
- Alarm indication: this volt-free contact indicates the presence of a major fault that has led to the shut-down of one or several refrigerant circuits.

### New generation of Flying Bird VI™ fans with AC or EC motors (optional)



The 30RB-RBP/30RQ-RQP unit uses Carrier's sixth generation Flying Bird™ fan technology, engineered for maximum efficiency, super low noise, and a wide operating range. The fans use Carrier patented rotating shroud technology and back-swept blades with a wave-serration trailing edge inspired by nature.

They were designed and optimised for the air management system configuration and heat exchanger technology used in the 30RB-RBP/30RQ-RQP unit.

The fans and their impellers use Carrier's robust and proven injection moulded composite thermoplastic construction.

On the 30RBP/30RQP with option 17, the fans are driven by an EC motor, also known as brushless DC, with dedicated electronics to manage commutation. This offers high precision for fans that require higher efficiency and variable speed. The fans meet the latest European Ecodesign requirements for fan efficiency.

### EC motor (option 17)





# FREE COOLING SYSTEM (OPTION 305A - 305B)

30RBP				480B	550P	610P	670P	720P	770R	800B	970P	950P
JUNDF				4001	JJUIN	OTOR	07 UK	120K	TIVIX	OUUK	67 UK	330K
Cooling												
Standard unit	CA1	Nominal capacity	kW	512	585	652	718	767	827	852	932	994
Full load performances*		EER	kW/kW	3,16	3,15	3,23	3,22	3,12	3,14	3,10	3,06	2,96
FREE COOLING					1		1					
		Nominal capacity	kW	425	485	546	607	607	667	667	728	728
Total free cooling option (305A)	CFC1	Free cooling EER	kW/kW	-	25,96						-	
	CICI	Pressure drops	kPa	102	110	111	120	120	126	126	136	136
()		Sound power <sup>(1)</sup>	dB(A)	91,0	91,5	92,5	93,0	93,0	93,0	93,0	93,5	94,0
		Sound pressure at 10 m <sup>(2)</sup>	dB(A)	71,0	71,5	72,0	72,5	72,5	72,0	72,0	72,5	73,0
		Nominal capacity	kW	182	242	204	262	262	303	303	364	364
Partial free cooling option	CFC1	Free cooling EER	kW/kW		26,58				26,66			
(305B)	CFCT	Pressure drops	kPa	75	79	77	82	82	80	80	86	86
()		Sound power <sup>(1)</sup>	dB(A)	87,5	88,5	89,0	90,0		89,5	89,5	90,5	91,0
		Sound pressure at 10 m <sup>(2)</sup>	dB(A)	67,5	68,5	68,5	69,5	69,5	68,5	68,5	69,5	70,0
Unit + option 15LS <sup>(3)</sup> Full load performances*  CA1		Nominal capacity	kW	481	549	613	677	719	777	798	873	925
		EER	kW/kW	2,85	2,85	2,94	2,94	2,82	2,84	2,79	2,76	2,63
FREE COOLING												
		Nominal capacity	kW	345	395	444	493	493	543	543	592	592
Total free cooling option (305A)	CFC1	Free cooling EER	kW/kW	41,49	41,14	41,23	40,73	40,73	40,47	40,47	39,92	39,92
		Pressure drops	kPa	70	75	76	82	82	86	86	93	93
		Sound power <sup>(1)</sup>	dB(A)	83,0	83,5	85,0	85,0	85,0	85,5	84,5	85,5	86,0
		Sound pressure at 10 m <sup>(2)</sup>	dB(A)	63,0	63,5	64,0	64,5	64,5	64,5	63,5	64,5	65,0
Partial free cooling option (305B)	CFC1	Nominal capacity	kW	148	197	166	213	213	247	247	296	296
		Free cooling EER	kW/kW	43,24	43,63	32,85	34,02	34,02	44,19	44,19	44,26	44,26
		Pressure drops	kPa	52	55	53	56	56	56	56	59	59
		Sound power <sup>(1)</sup>	dB(A)	79,5	80,5	81,0	82,0	82,0	82,0	81,0	82,5	83,0
		Sound pressure at 10 m <sup>(2)</sup>	dB(A)	59,5	60,5	60,5	61,5	61,5	61,0	60,0	61,5	62,0
Total Free Cooling - Option 305A												
Free cooling coil					All-al	uminiu	ım mic	ro-cha	nnel co	oils (M	CHE)	
Quantity	Quantity				8	9	10	10	11	11	12	12
Hydraulic connection												
Connection			in	4"	4"	5"	5"	5"	5"	5"	5"	5"
External diameter			mm	114,3	114,3	139,7	139,7	139,7	139,7	139,7	139,7	139,7
Additional water volume			I	200	213	298	310	310	351	351	364	364
Weight <sup>(4)</sup>												
Additional weight (without water)			kg	515	556	662	700	700	814	814	851	851
Additional weight (during operation) kg			kg	724	778	972	1023	1023	1180	1180	1230	1230
Operation												
Max. operating pressure, water side bar					6	6	6	6	6	6	6	6
Partial Free Cooling - Option 305B												
Free cooling coil					All-al	uminiu	ım mic	ro-cha	nnel co	oils (M	CHE)	
Quantity					4	4	5	5	5	5	6	6
Hydraulic connection												
Connection in			4"	4"	5"	5"	5"	5"	5"	5"	5"	
External diameter mm			114,3	114,3	139,7	139,7	139,7	139,7	139,7	139,7	139,7	
Additional water volume				101	120	186	198	198	205	205	224	224
Weight <sup>(4)</sup>												
Additional weight (without water) kg					346	406	443	443	499	499	536	536
Additional weight (during operation) kg				305 410	471	600	650	650	713	713	770	770
Operation		,										
Max. operating pressure, water side bar				6	6	6	6	6	6	6	6	6
* In accordance with EN						-				_		

In accordance with EN14511-3:2018.

- Options: 15LS = Very low noise level, 116V = Variable speed high pressure single-pump hydraulic module,
- Values are guidelines only. Refer to the unit name plate.

CA1 Cooling mode conditions: evaporator water inlet/outlet temperature 17 °C/10 °C, outdoor air temperature at 35 °C, 30% Mono-Ethylene-Glycol, evaporator

Free cooling mode conditions: evaporator water inlet/outlet temperature 17 °C/10 °C, outdoor air temperature at 0 °C, 30% Mono-Ethylene-Glycol, evaporator fouling factor 0 m². k/W
In dB ref=10-12 W, (A) weighting. Declared dual-number noise emission value in accordance with ISO 4871 with an uncertainty of +/-3 dB(A). Measured in accordance with ISO 9614-1 and certified by Eurovent. CFC1

<sup>(1)</sup> 

<sup>(2)</sup> In dB ref 20 µPa, (A) weighting. Declared dual-number noise emission value in accordance with ISO 4871 with an uncertainty of +/-3 dB(A). For information, calculated from the sound power Lw(A).

# PHYSICAL PROPERTIES, SIZES 450R TO 950R

30RBP				480R	550R	610R	670R	720R	770R	800R	870R	950R
Cooling							,					
Standard unit	Nominal capacity	kW	451	484	553	616	677	726	782	807	882	944
Full load performances* CA1	EER	kW/kW	3,14	3,09	3,08	3,15	3,14	3,06	3,07	3,04	3,00	2,92
	SEER <sub>12/7°C</sub> Comfort low temp.	kWh/kWh	5,28	5,24	5,29	5,32	5,32	5,20	5,33	5,30	5,31	5,18
Seasonal energy efficiency**	ηs cool <sub>12/7°C</sub>	%	208	207	209	210	210	205	210	209	209	204
	SEER <sub>23/18°C</sub> Comfort medium temp.	kWh/kWh	6,33	6,23	6,32	6,56	6,51	6,28	6,54	6,47	6,56	6,32
	SEPR <sub>12/7°C</sub> Process high temp.	kWh/kWh	6,41	6,32	6,27	6,27	6,33	6,14	6,25	6,18	6,07	5,88
	SEPR <sub>-2/-8°C</sub> Process medium temp.	kWh/kWh	3,55	3,55	3,55	3,91	3,82	3,83	3,79	3,80	3,74	3,74
		Btu/Wh	19,38	19,24	19,21	19,65	19,48	19,04	19,58	19,45	19,35	18,94
Part Load integrated values	IPLV.SI	kW/kW	5,63	5,59	5,58	5,69	5,64	5,52	5,68	5,65	5,62	5,51
Unit + option 15LS	Nominal capacity	kW	428	458	523	586	645	688	743	765	836	890
Full load performances* CA2	EER	kW/kW	2,93	2,85	2,85	2,94	2,93	2,83	2,85	2,81	2,77	2,66
Seasonal energy efficiency**	SEER <sub>12/7°C</sub> Comfort low temp.	kWh/kWh	5,37	5,30	5,21	5,24	5,35	5,20	5,43	5,38	5,22	5,07
	ηs cool <sub>12/7°C</sub>	%	212	209	205	207	211	205	214	212	206	200
	SEER <sub>23/18°C</sub> Comfort medium temp.	kWh/kWh	6,25	6,12	6,25	6,41	6,59	6,33	6,69	6,60	6,34	6,06
	SEPR <sub>12/7°C</sub> Process high temp.	kWh/kWh	6,38	6,29	6,24	6,26	6,32	6,11	6,17	6,10	6,03	5,79
	SEPR <sub>-2/-8°C</sub> Process medium temp.	kWh/kWh	3,43	3,44	3,43	3,91	3,82	3,83	3,80	3,80	3,73	3,73
Sound levels												
Standard unit												
Sound power <sup>(1)</sup> dB(A)			94,0	94,0	94,5	97,5	97,5	98,0	98,0	98,5	98,5	99,0
Sound pressure at 10 m <sup>(2)</sup> dB(A)			61,5	61,5	62,0	65,0	65,0	66,0	65,0	66,0	66,0	66,5
Unit + option 15LS(3)												
Sound power <sup>(1)</sup> dB(A			88,5	88,5	89,0	92,5	92,5	93,0	93,0	93,5	93,5	94,5
Sound pressure at 10 m <sup>(2)</sup> dB(A)			56,0	56,5	57,0	60,5	60,0	60,5	60,0	61,0	60,5	61,5
Dimensions - standard unit												
Standard unit												
Length mm			4798	4798	4798	5992	5992	5992	7186	7186	7186	7186
Width mm			2253	2253	2253	2253	2253	2253	2253	2253	2253	2253
Height mm			2324	2324	2324	2324	2324	2324	2324	2324	2324	2324
Unit + option 307 <sup>(3)</sup>												
Length mm			5992	5992	5992	7186	7186	7186	8380	8380	8380	8380
Operating weight <sup>(4)</sup>												
Standard unit kg			2697	2722	2927	3265	3511	3511	4042	4042	4291	4291
Unit + option 15LS <sup>(3)</sup> kg			2860	2885	3108	3398	3664	3664	4216	4216	4485	4485
Unit + option 15LS + option 116W (3) kg			3094	3119	3379	3708	3974	3974	4605	4605	4874	4874
Unit + option 15LS + option 116W + option 307 (3) kg			4086	4111	4371	4715	4981	4981	5626	5626	5895	5895

In accordance with EN14511-3:2018.

In accordance with EN14825:2018, average climate conditions

Cooling mode conditions: evaporator water inlet/outlet temperature 12 °C/7 °C, outdoor air temperature 35 °C, evaporator fouling CA1

factor 0 m2. k/W

Cooling mode conditions: evaporator water inlet/outlet temperature 23 °C/18 °C, outdoor air temperature 35 °C, evaporator fouling

factor 0 m2. k/W  $\eta s \; cool_{12/7^{\circ}C} \, \& \; SEER_{\, 12/7^{\circ}C}$ 

SEER <sub>23/18 °C</sub>

Values in bold comply with Ecodesign Regulation (EU) No. 2016/2281 for Comfort applications Values in bold comply with Ecodesign Regulation (EU) No. 2016/2281 for Comfort applications Values calculated in accordance with EN 14825:2016

Values calculated in accordance with EN 14825:2016

SEPR <sub>12/7</sub> °C SEPR <sub>-2/-8</sub> °C IPLV.SI Calculated as per AHRI standard 551-591.

(1) In dB ref=10-12 W, (A) weighting. Declared dual-number noise emission value in accordance with ISO 4871 with an uncertainty

of +/-3 dB(A). Measured in accordance with ISO 9614-1 and certified by Eurovent.

(2) In dB ref 20 µPa, (A) weighting. Declared dual-number noise emission value in accordance with ISO 4871 with an uncertainty

of +/-3 dB(A). For information, calculated from the sound power Lw(A).

Options: 15LS = Very low noise level, 116W = Variable-speed high pressure dual-pump hydraulic module, 307 = Water buffer tank (3)

module

(4) Values are guidelines only. Refer to the unit name plate.



Eurovent certified values

# PHYSICAL PROPERTIES, SIZES 450R TO 950R

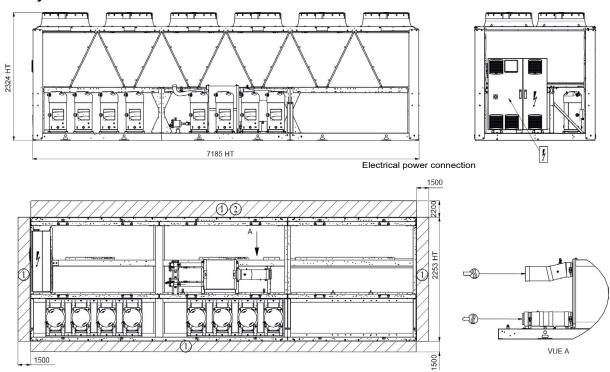
30RBP		450R	480R	550R	610R	670R	720R	770R	800R	870R	950R		
Compressors			Hermetic Scroll 48.3 r/s										
Circuit A			3	4	2	3	3	3	3	4	4		
Circuit B	,	4	4	4	3	3	3	4	4	4	4		
Number of power stages		7	7	8	5	6	6	7	7	8	8		
Unit PED category		IV	IV	IV	III	III	III	IV	IV	IV	IV		
Refrigerant <sup>(4)</sup>	R32 / A2L /GWP= 675 as per AR4												
Circuit A	kg	18,3	18,6	22,8	21,8	23,2	23,2	24,9	24,9	29,5	29,5		
- Circuit A	tCO <sub>2</sub> e	12,4	12,6	15,4	14,7	15,7	15,7	16,8	16,8	19,9	19,9		
Circuit B	kg	21,9	22,3	22,8	23,2	23,2	23,2	29,5	29,5	29,5	29,5		
	tCO <sub>2</sub> e	14,8	15,1	15,4	15,7	15,7	15,7	19,9	19,9	19,9	19,9		
Oil	,			,									
Circuit A	<u> </u>	19,8	19,8	26,4	13,2	19,8	19,8	19,8	19,8	26,4	26,4		
Circuit B		26,4	26,4	26,4	19,8	19,8	19,8	26,4	26,4	26,4	26,4		
Capacity control				1	1		tVu™						
Minimum capacity %		14	14	13	20	17	17	14	14	13	13		
Condenser			All-aluminium micro-channel coils (MCHE)										
Fans			Axial Flying Bird 6 with rotating impeller										
Standard unit													
Quantity		7	7	8	9	10	10	11	11	12	12		
Maximum total air flow	l/s r/s	560	560	640	720	800	800	880	880	960	960		
Maximum rotation speed		16	16	16	16	16	16	16	16	16	16		
Evaporator		Direct expansion brazed-plate heat exchanger											
Water volume		44	47	53	73	73	73	84	84	84	84		
Max. water-side operating pressure without hydraulic module	kPa	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000		
Hydraulic module (option)			Pump, Victaulic screen filter, relief valve, water and air vent valve, pressure sensors										
Pump	Centrifugal pump, monocell, 48.3 r/s, low or high pressure (as required), single or dual (as required)												
Expansion tank volume (option)	ı	80	80	80	80	80	80	80	80	80	80		
Buffer tank volume (option)	I	550	550	550	550	550	550	550	550	550	550		
Max. water-side operating pressure with hydraulic module		400	400	400	400	400	400	400	400	400	400		
Water connections with or without hydraulic module			Victaulic® type										
Connections inches		4	4	4	5	5	5	5	5	5	5		
External diameter mm		114,3	114,3	114,3	139,7	139,7	139,7	139,7	139,7	139,7	139,7		
Casing paintwork	Colour code RAL 7035												

<sup>(4)</sup> Values are guidelines only. Refer to the unit name plate.

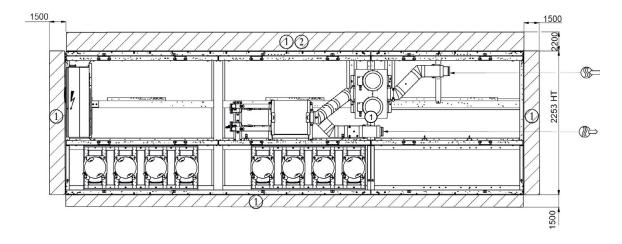


# 30RB/30RBP 770R-950R (with and without hydraulic module)

# Without hydraulic module



# With hydraulic module



# Key:

All dimensions are given in mm.

(1) Clearances required for maintenance and air flow

(2) Clearance recommended for removal of the coils

Water inlet

₩ Water outlet

Air outlet, do not obstruct

4 Electrical cabinet

**Note:** Drawings are not contractually binding. Before designing an installation, consult the certified dimensional drawings, available on request. Refer to the certified dimensional drawings for the location of fixing points, weight distribution and coordinates of the centre of gravity.