Chiller-heater, for outdoor installation, for the production of cold water down to 3 °C and simultaneously free hot water up to 75 °C.

Gas absorption chiller-heater for cooling with heat recovery for the production of hot water

GA Line ACF - RTCF Series HR Version

Advantages

- Production of hot water for free during cooling operation.
- Extremely low electricity consumption: saving up to 86% of electricity compared with a traditional electrical system, thus requiring neither additional energy nor upgrading or modification of the electrical cabin.
- Complete system flexibility and modularity, ensuring continuity of service and providing the cooling output according to seasonal demands (multiple links RTCF HR available on request).

Applications

- Cooling systems where hot water production for domestic use is required (hotels, hospitals, swimming pools, etc.).
- Post-heating circuits with A.H.U.
- On request ACF HR units can be pre-assembled as links with the same units (RTCF HR Series) or with other units (see p. 46).

Example of GA-HR application
with reversible GAHP-AR heat pump in summer operation
for fan coils and indirect DHW production.

			ACF 60-72 HR
COOLING OPERATION MODE			
Working point A35/W7 (1)	GUE (gas utilization efficiency)	%	72
	cooling capacity with heat recovery	kW	17.93
Nominal water flow rate (ΔT = 5,5 °C)		m^3/h	2.77
Nominal water capacity pressure loss		kPa	29
Minimum outlet water temperature		°C	3
Inlet water temperature	max	°C	45
	min	°C	6
Ambient operating temperature	max	°C	45
	min	°C	0
HEAT RECOVERY SYSTEM CHARACTERISTICS			
Nominal heating capacity		kW	21
Nominal water flow rate		m^3/h	1
Hot water inlet temperature	max	°C	70
	min	°C	10
BURNER CHARACTERISTICS			
Thermal input (actual)		kW	25.0
Gas consumption (actual)	natural gas G20 (2)	m^3/h	2.65
	LPG G30/G31 (3)	kg/h	1.94
ELECTRICAL CHARACTERISTICS			
Voltage		230 V – 50 Hz	
Nominal electrical power (4)(5)	standard version	kW	0.82
	low noise version	kW	0.87
INSTALLATION DETAILS			
Operational Weight	standard version	kg	370
	low noise version	kg	390
Sound pressure at 10 metres (6)	standard version	dB(A)	54
	low noise version	dB(A)	49
Connections	water	” F	1 1/4
	gas	” F	3/4
Dimensions	width	mm	850
	depth	mm	1,230
	height (standard version)	mm	1,290
	height (low noise version)	mm	1,540
Electrical degree of protection		IP	X5D

Pre-assembled model RTCF HR	Units	Heating capacity recovery kW	Cooling capacity kW	Dimensions w/d/h mm	Weight kg
RTCF 120-144 HR S SM	n. 2 ACF 60-72 HR S	42.0	35.8	2,314 x 1,245 x 1,650	970
RTCF 180-216 HR S SM	n. 3 ACF 60-72 HR S	63.0	53.7	3,610 x 1,245 x 1,650	1,435
RTCF 240-288 HR S SM	n. 4 ACF 60-72 HR S	84.0	71.7	4,936 x 1,245 x 1,650	1,920
RTCF 300-360 HR S SM	n. 5 ACF 60-72 HR S	105.0	89.6	6,490 x 1,245 x 1,650	2,395

Multiple pre-assembled links RTCF HR are available with or without circulators and in standard or low noise version. On request, ACF60-72 HR units can be pre-assembled with other units (gas heat pumps, gas chillers and gas condensing boilers), to create pre-assembled units for heating, cooling and DHW production.

(1) Operating point under nominal conditions according to EN 12309-2.
(2) PCI 34.02 MJ/m^3 (9,45 kWh/m^3) at 15 °C - 1013 mbar.
(3) PCI 46.34 MJ/kg (12,87 kWh/kg) at 15 °C - 1013 mbar.
(4) A reduction in the fan revolutions (air flow) is envisaged for ambient operating temperatures of less than 33 °C. This leads to a further reduction in electricity consumption levels.
(5) ± 10% depending on the power supply voltage and on the tolerance of the electrical motors power consumption.
(6) Free field, at the front, direction factor 2. The values refer to the maximum measured.

Note: For multiple units, please contact the Robur sales network. For any further information about heat recovery systems, please see design manual.

Chiller and chiller links, for outdoor installation,
for the production of cold water down to 3 °C.
Reduces electricity needs by up to 86%.

Gas absorption chiller and chiller links for cooling

GA Line ACF - RTCF Series

Advantages

- Extremely low electricity consumption: saving up to 86% of electricity compared with a traditional electrical system, thus requiring neither additional energy nor upgrading or modification of the electrical cabin.
- Independent and modular, it ensures constant performance for cooling only as and when needed.
- Thanks to the use of an almost static refrigeration cycle, the performance levels remain unchanged over time and regular refill and disposal of refrigerant is not required.

Applications

- Cooling for commercial, accommodation and industrial use.
- On request ACF units can be pre-assembled as links with the same units (RTCF Series) or with other units (see p. 46).

			ACF 60-00
COOLING OPERATION MODE			
Working point A35/W7 (1)	GUE (gas utilization efficiency)	%	71
	cooling capacity	kW	17.72
Nominal water flow rate (ΔT = 5,5 °C)		m³/h	2.77
Nominal water pressure loss		kPa	29
Minimum outlet water temperature		°C	3
Inlet water temperature	max	°C	45
	min	°C	6
Ambient operating temperature	max	°C	45
	min	°C	0
BURNER CHARACTERISTICS			
Thermal input (actual)		kW	25.0
Gas consumption (actual)	natural gas G20 (2)	m³/h	2.65
	LPG G30/G31 (3)	kg/h	1.94
ELECTRICAL CARACTERISTICS			
Voltage			230 V – 50 Hz
Nominal electrical power (4)(5)	standard version	kW	0.82
	low noise version	kW	0.87
INSTALLATION DETAILS			
Operational Weight	standard version	kg	340
	low noise version	kg	360
Sound pressure at 10 metres (6)	standard version	dB(A)	54
	low noise version	dB (A)	49
Connections	water	"	1 1/4 F
	gas	" F	3/4
Dimensions	width	mm	850
	depth	mm	1,230
	height (standard version)	mm	1,290
	height (low noise version)	mm	1,540
Electrical degree of protection		IP	X5D

Pre-assembled model RTCF	Units	Cooling capacity kW	Dimensions w/d/h mm	Weight kg
RTCF 120-00 S CC	n. 2 ACF 60-00 S	35.4	2,314 x 1,245 x 1,650	970
RTCF 180-00 S CC	n. 3 ACF 60-00 S	53.2	3,610 x 1,245 x 1,650	1,435
RTCF 240-00 S CC	n. 4 ACF 60-00 S	70.9	4,936 x 1,245 x 1,650	1,920
RTCF 300-00 S CC	n. 5 ACF 60-00 S	88.6	6,490 x 1,245 x 1,650	2,395

Multiple pre-assembled links RTCF are available with or without circulators and in standard or low noise version. On request, ACF60-00 units can be pre-assembled with other units (gas heat pumps, gas chillers and gas condensing boilers), to create multiple assemblies configured on demand for heating, cooling and DHW production.

(1) Operating point under nominal conditions according to EN12309-2.
(2) PCI 34.02 MJ/m³ (9,45 kWh/m³) at 15 °C - 1013 mbar.
(3) PCI 46.34 MJ/kg (12,87 kWh/kg) at 15 °C - 1013 mbar.
(4) A reduction in the fan revolutions (air flow) is envisaged for ambient operating temperatures of less than 33 °C. This leads to a further reduction in electricity consumption levels.
(5) ± 10% depending on the power supply voltage and on the tolerance of the electrical motors power consumption.
(6) Free field, at the front, direction factor 2. The values refer to the maximum measured.

Note: The data specified refer to the versions with water circulating pumps. For those versions without water circulating pumps, please contact the Robur sales network.