Reference List

HFO 1234ze

GEOCLIMA
Smart HVAC Solutions

ABOUT US

We design and produce special units for applications in air conditioning, refrigeration and air handling systems, with low environmental impact and specifically designed to meet all specific clients' requirements in terms of size, capacity, performance and temperature. **Where the others stop, we go on.**

Our identity is founded on:

INNOVATION
We use the highest technology available in order to maximize efficiency, reduce start-up costs and guarantee a satisfactory return on investment.

CUSTOMIZATION
All types of machines can be provided and developed in non-standard version, thanks to the flexibility of our production system.

ECO-SUSTAINABILITY
We aim to develop applications with the lowest environmental impact possible, using refrigerants with a very low GWP, such as the HFO-1234ze and the R290.

Our facilities and sales offices around the world.

MAJOR PROJECTS

JLP AND WAITROSE, UK

John Lewis Partnership is the mother group of the most important companies dealing with retail sale in the UK: the supermarket chain Waitrose and John Lewis department stores. Geoclima designed and developed more than 20 projects and more than 40 units with HFO1234ze for JLP and Waitrose offices and supermarkets within the UK during the last years. Geoclima provided both Turbomiser and G-Range and V-Range air cooled units for these projects.

The use of HFO1234ze as refrigerant ensure great efficiency and at the same time very low environmental impact of the unit installed. With Turbomiser units and HFO1234ze the highest efficiency and the best performance are obtained.

For the Waitrose supermarket in Bromley, Geoclima developed in 2012 the world-first HFO chiller, awarded at National ACR Award 2012. Currently the largest Turbomiser unit with HFO us installed and running at Qinetic and provides 2.4 MW of total cooling capacity.

Reference on website:

www.geoclima.com/hfo-turbomiser-for-jlp-birmingham
www.geoclima.com/portfolio-item/john-lewis-partnership
www.geoclima.com/portfolio-item/waitrose-bromley
www.geoclima.com/national-acr-award-waitrose-bromley

HFO1234ze UNITS

Place	Model	Cooling Capacity	Description	N°	Notes
Waitrose Bromley South, UK	GFC 2W40/ZE/SP/LLN	kW 180	Air cooled chiller with free cooling for outdoor installation	2	**World's first HFO chiller** with reciprocating compressors Awarded at National ACR Award
Waitrose, Colmore row, Birmingham, UK	VFR 2V20/HFO/TP	kW 90	Free cooling chiller with reciprocating compressor and radial fans	1	
JLP, Milton Keynes, UK	TMA 1A230A EC SP LLN	kW 230	Turbomiser air cooled chiller with Turbocor compressor	2	
JLP, Exeter, UK	TMA 2B750A EC	kW 750	Turbomiser air cooled chiller with Turbocor compressor	1	
Waitrose, Ipswich, UK	TMA 1B310A EC LLN HFO	kW 310	Turbomiser air cooled chiller with Turbocor compressor	2	
JLP, High Wycombe, UK	TMA 1Z200A LN EC ZE	kW 225	Turbomiser air cooled chiller with Turbocor compressor	1	
JLP, Birmingham New Street Station retail development, UK	TMA 3Z800A EC-ZE	kW 900	Turbomiser air cooled chiller with Turbocor compressor	1	
	TMA 1Z350A EC-ZE	kW 350		1	
JLP, Ashford, UK	TMA 1Z300A EC-ZE	kW 300	Turbomiser air cooled chiller with Turbocor compressor	1	
JLP Distribution Centre, Magna Park, Milton Keynes, UK	VHA F 2Q05 ZE	kW 21.6	Water chiller with air condensation for outdoor installation	1	
	VHA F 2Q05 ZE	kW 35		5	
Waitrose, Coulsden, UK	TMA 1Z330A LN EC-ZE	kW 360	Turbomiser air cooled chiller with Turbocor compressor	1	
	VHA F 4W75/290/LN/EC	kW 450	Air cooled water chiller with R290	1	
	VHA F 4W75/290/LN/EC	kW 450	Air cooled water chiller with R290	1	

Place	Model	Cooling Capacity	Description	N°	Notes
JLP Basingview, UK	TMA 2Z530A LLN EC-ZE PU	kW 530	Turbomiser air cooled chiller with Turbocor compressor	1	
JLP, Horsham, UK	TMA 2Z450A LLN EC ZE	kW 475	Turbomiser air cooled chiller with Turbocor compressor	1	
JLP Magna Park, UK	GHA F2110 LN-EC ZE	kW 348	Air cooled chiller for outdoor installation	1	
JLP Project Barley, UK	GHA F2110A EC-ZE LN PU	kW 340	Air cooled chiller for outdoor installation	1	
JLP Magna Park, UK	GHA F2110A LN-EC ZE PU	kW 348	Air cooled chiller for outdoor installation	1	
JLP Magna Park, UK	GHA F2110A LN EC-ZE PU	kW 352	Air cooled chiller for outdoor installation	1	
JLP Magna Park Fit Out, UK	VHA F 2V25 ZE PU	kW 80	Air cooled chiller for outdoor installation	1	
JLP, Solihull Business Park, UK	VHA F 2V25 ZE PU	kW 80	Air cooled chiller for outdoor installation	1	
JLP, Project Barley, UK	GHA F2110A EC-ZE LN PU	kW 340	Air cooled chiller for outdoor installation	1	
	VHA F2S08 ZE LN PU	kW 35	Air cooled chiller for outdoor installation	1	
	VHA F2Q05 ZE PU	kW 22	Air cooled chiller for outdoor installation	3	
JLP Magna Park, Project Barley Fit-Out, UK	VHA F 2Q05 ZE PU	kW 24	Air cooled chiller for outdoor installation	2	
	VHA F 2Q05 ZE HP PU	Cooling kW 24 / Heating kW 18,4		1	
JLP, Origin Park, UK	VHA F 2V20 ZE PU	kW 80	Air cooled chiller for outdoor installation	2	

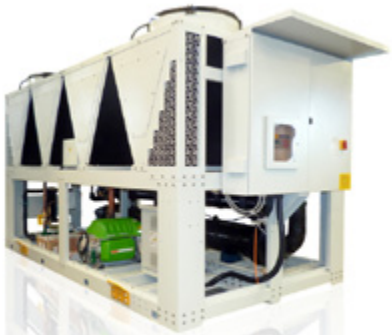
Place	Model	Cooling Capacity	Description	N°	Notes
JLP, Magna Park 3, UK	VHA F2Z30A EC-ZE PU	kW 110	Air cooled chiller for outdoor installation	1	
	VHA F2V15V EC-ZE PU	kW 62		2	
	VHA F2Q05 EC-ZE PU	kW 25		2	
Qinetiq, Farnborough, UK	TMA 4Z1200A EC ZE (dx)	kW 1200	Turbomiser air cooled chiller with Turbocor compressor	1	**2.4 MW of total cooling capacity**. The world's largest Turbomiser units with HFO1234ze (with Turbocor compressors) currently installed and running.
	TMA 4Z1200A EC ZE (sx)			1	
Nottingham University, UK	VHR F 2V15ZE	kW 60	Radial fan ducted chiller	1	Reciprocating chiller for the new Centre for Sustainable Chemistry. Unit equipped with refrigerant leak detection and an automatic pump down system, to isolate the plant from the building in the event of a leak
Bristol, UK	VHR F 2V15ZE	kW 60	Radial fan ducted chiller	1	
Wimbledon, UK	VHA F2Z30A EC-ZE PU	kW 110	Air cooled chiller	2	
TDC, Borups Alle, Denmark	TMH 1Z350DC ZE	kW 371	Water cooled chiller	1	**Technical cooling** Client is Denmark's biggest telecom provider. Replacement of old ammonia chillers
	TMH 1Z350DC ZE	kW 371	Water cooled chiller	1	
TDC Teglhomen, Denmark	TMH 1Z350 DC-ZE HR SPEC	kW 319	Water cooled chiller	1	**Technical cooling** Client is Denmark's biggest telecom provider. Replacement of old R22 chillers. Heat recovery function.
FLSmidth headquarters, Denmark	TMH 1Z200DC ZE	kW 200	Water cooled chiller	2	**Comfort cooling** Client is turnkey solution provider of cement factories worldwide. Replacement of old R22 chiller.

Place	Model	Cooling Capacity	Description	N°	Notes
Accelink, Denmark	TMA 2Z400A EC ZE	kW 400	Water chiller with air condensation for outdoor installation	1	**Comfort cooling** Client is manufacturer of electronic equipment. Replacement of old R407C chiller
Copenhagen University Amager, Denmark	TMH 1Z200 ZE	kW 200	Water cooled chiller	1	
Telia Hasselager, Denmark	VHA F 2Z40 ZE PU LLN	kW 144	Air-cooled chiller with reciprocating compressor	2	**Technical cooling** Client is big telecon company in Denmark Replacement of old R407C chiller
Denmark	TMH 1Z300DC ZE	kW 346	Water cooled chiller	1	
Denmark	TMA 1Z300A LN EC-ZE PU	kW 300	Water chiller with air condensation for outdoor installation	1	
Balerna, Switzerland The client is leader in precious metal refining	GHA F290A EC-ZE	kW 260	Air cooled chiller	1	**Comfort cooling** Air conditioning for headquarters. Air cooled chiller with screw compressor for outdoor installation.
	GHA F250A EC-ZE SPEC	kW 211	Air cooled chiller	1	**Process cooling** Cooling systmem for metal refining process. Air cooled chillers with screw compressors for outdoor installations
	GHA F2110A EC-ZE SPEC	kW 346		1	
Stabile Swisscom Bellinzona, Switzerland	GHH F2110 WT-ZE HR SPEC	kW 200 - 350	Water cooled chiller	2	**Data Center Conditioning** Water cooled chillers with double circuit for total heat recovery. Replacement of two existing chillers
Bellinzona, Switzerland	GHR F260 EC-ZE PFEC SP	kW 183	Air cooled chiller	1	**Comfort cooling** Compact air cooled chiller with screw compressors and centrifugal fans. Replacement of existing chiller.
Banca di Stato Bellinzona, Switzerland 2016	GHH F2125 DC-ZE	kW 455	Water cooled chiller	1	**Data Center Conditioning** Water cooled chillers with screw compressors and Replacement of existing units
	GHH F2125 DC-ZE	kW 455		1	
Privatklinik Schlössli, Oetwil am See	GHH F170 DC-ZE 2CC	kW 156,2	Water cooled chiller	1	
Locarno	GHA F2140 EC-ZE SP	kW 456	Air cooled chiller	1	

Place	Model	Cooling Capacity	Description	N°	Notes
Swisscom/Savoie/ Lausanne	TMH 1Z350 DC-ZE-SPEC	kW 360	Water chiller with water condensation	2	
Lumino	TMH 1Z350 DC-ZE - SPEC	kW 311	Water cooled chiller	2	
Schwerzenbach	TMH 1Z350 DC-ZE-SPEC	kW 360	Water cooled chiller	2	
Lugano	GHH F2110 DC-ZE SPEC	kW 748	Water cooled chiller	2	
Asklepios Klinik Nord, Heidberg (D)	TMH 2Z500 DC-ZE SP	kW 585	Water cooled chiller	1	
Hong Kong	TMA 1Z300A EC-ZE	kW 300	Air cooled chiller	2	Installed in HK private school. 600 kW total cooling capacity
Berlin, Germany	TMH 1Z200 WT-ZE	kW 200	Water cooled chiller	1	
	TMH 2Z400 WT-ZE	kW 400		1	
Braeside, Australia	TMA 1Z250A ES EC-ZE	kW 250	Air cooled chiller	1	
Hotel Palace Europacenter (D)	GHA F160A EC-ZE LN	kW 93	Air cooled chiller	2	
La Virgen, Spain	GHA F2110A EC-ZE HR	kW 201	Water chiller with air condensation	1	
Villena (Alicante), Spain	GHA F2160A EC-ZE-HR-SPEC	kW 318 - 289	Air cooled chiller	2	
Alicante, Spain	GHH F2110 DC-ZE SPEC	kW 260	Water cooled chiller	1	
Denmark	TMA 1Z350B EC-ZE	kW 700	Air cooled chiller	2	
Asti Hospital - Italy	TMH 6Y3000 WT-ZE SPEC	kW 3000	Water cooled chiller	1	
Astoria Wines - Italy	TMH 1Z250 WT-ZE 2CC	kW 250	Water cooled chiller	1	

Place	Model	Cooling Capacity	Description	N°	Notes
Danfoss Kolding – Denmark	TMA 2W500A LN EC-ZE CM	kW 445	Air cooled Circlemiser chiller	1	
Alicante, Spain	TMA 2Z700A EC-ZE CM	kW 580	Air cooled Circlemiser chiller	1	
Italy	TMA 1W200A EC-ZE TP	kW 250	Air cooled chiller	1	
Rockwool - Denmark	TMA 1W260B EC-ZE CM	kW 288	Air cooled Circlemiser chiller	1	

SOME PICTURES



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