



Sintesis eXcellent GVAF Air-Cooled Chiller

Cooling capacity: 400-1600 kW



TRANE
TECHNOLOGIES

At a Glance:

- Best certified seasonal efficiency of the industry according to Eurovent
- New GVAF XSE and XSS series optimized for low GWP HFO refrigerant R1234
- GVAF XSE and XSS series enable wide operating map and extra compact footprint (XSS version)
- HFO optimized, high-speed, oil-free centrifugal compressors using magnetic bearings with integrated variable frequency drives
- Trane-patented flooded evaporator CHIL (Compact - High Performance - Integrated design - Low charge) design
- Entire new GVAF XSE and XSS range available as a data center special version



Best-in-class performance, market leading efficiency

The new air-cooled Sintesis™ eXcellent maglev compressor GVAF chillers are optimized for near-zero GWP R1234ze refrigerants and offer market leading full and part load efficiencies. Seasonal energy efficient ratio (SEER) up to 6.55 and Ecodesign compliant (ErP 2021) by +35% above the threshold.

The R1234ze GWP value of 1 exceeds current F-Gas legislation requirements and helps customers to reduce their carbon dioxide (CO₂) emissions.

This together with a wide capacity range (400 - 1600kW) and strong operating maps (max full load ambient up to +46°C) make the GVAF ideal for hospitals, office buildings, industrial process applications and data centers.



Superior reliability, compact footprint

Trane GVAF air-cooled chillers are built on the Sintesis™ platform, which means they share many of the same components and technologies, all with a proven reliability record creating product development efficiencies that can be offered to customers.

The new GVAF XSS smaller version of the Sintesis™ eXcellent is up to 3375 mm shorter than the standard frame of similar capacity making it perfectly suited for replacement of old generation chillers or where more efficiency is needed within a smaller space.

Innovative technology and connectiveness

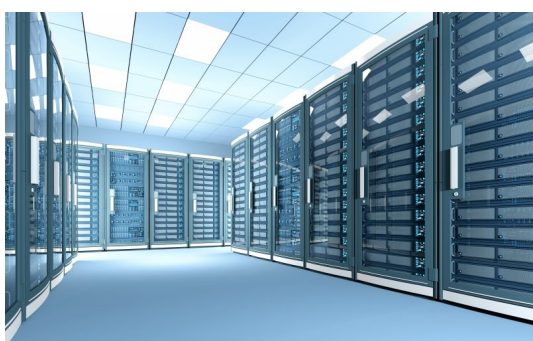
The upgraded Trane Sintesis™ eXcellent GVAF air-cooled chillers feature the latest Trane Symbio™ 800 controller for flexible installation, greater energy efficiency, proven reliability and secure system integration and building connectivity. Operation is easy thanks to smart controls and the user-friendly TD7 touchscreen interface.



Ideal for data centers

The GVAF has been also developed to support highly critical data center applications.

- Numerous options ensure a continuous cooling capacity such as: Automatic Transfer Switch, Rapid Restart, UPS connected controls and much more.
- Free cooling further reduces energy consumption and make the GVAF even more sustainable.
- Hydraulic options facilitate the installation and connection of the unit in every setting.



Range description

- The new upgraded Sintesis eXcellent GVAF platform introduces two new efficiency levels XSE and XSS optimized for R1234ze. Three original efficiency levels: X and XP with two refrigerant alternatives R134 and R513a, and XPG with R1234ze.
- GVAF XSE packaged chiller R1234ze: 380 - 1400kW
GVAF XSS packaged chiller R1234ze: 465 - 1500 kW
GVAF X packaged chiller R134a/R513a: 579 - 1571 kW
GVAF XP packaged chiller R134a/R513a: 726 - 1239 kW
GVAF XPG packaged chiller R1234ze: 456 - 1237 kW

Technical specifications

Unit type	Air-to-water
Operating mode	Cooling only
Cooling capacity	400-1600 kW
Heating capacity	-----
Eurovent certification	
ErP Certification	
Refrigerants	R1234ze R513A R134a
Energy saving	Free cooling Adaptive Frequency™ Drive
Compressor	High speed centrifugal with magnetic bearing
Data protocols	Lonmark Bacnet Modbus

GVAF XSE - LN Low Noise - R1234ze

	P _c (1) kW	EER (1)	SEER (2)	η _{sc} (2) %	LwO (3) dB(A)	L (4) mm	W (4) mm	H (4) mm	OW (4) kg
GVAF 105 XSE-LN	380,7	3,21	5,73	226,2	91	4530	2200	2584	2540
GVAF 140 XSE-LN	480,0	3,26	5,93	234,1	94	5650	2200	2584	2875
GVAF 210 XSE-LN	772,2	3,00	5,89	232,7	94	7900	2200	2584	4782
GVAF 285 XSE-LN	959,5	3,27	6,17	243,9	97	11287	2200	2584	5500
GVAF 330 XSE-LN	1127,5	3,18	5,76	227,6	95	11287	2200	2584	7161
GVAF 420 XSE-LN	1418,6	3,34	6,16	243,4	99	13518	2200	2584	7913

P_c: Cooling capacity

η_{sc}: Seasonal space cooling energy efficiency

W: Width

EER: Energy Efficiency Ratio (cooling)

LwO: A-weighted sound power level outside

H: Height

SEER: Seasonal Energy Efficiency Ratio

L: Length

OW : Operating Weight

(1): Cooling: outdoor air temperature 35°C and chilled water temperature 12°C/7°C. (EN 14511:2022)

(2): Ecodesign rating for comfort chiller - Fan coil application. Outdoor air temperature 35°C and chilled water temperature in/ out: 12°C/7°C. η_{s,c}/SEER as defined in Ecodesign requirements for Comfort Chillers with 2000 kW maximum capacity - REGULATION (EU) N° 2016/2281 of 20 December 2016.

(3): According ISO 9614:2009. Eurovent conditions, with 1pW reference sound power (without accessories)

(4): Basic unit without accessories

GVAF XSE - SN Standard Noise - R1234ze

	P _c (1) kW	EER (1)	SEER (2)	η _{sc} (2) %	LwO (3) dB(A)	L (4) mm	W (4) mm	H (4) mm	OW (4) kg
GVAF 105 XSE-SN	380,7	3,21	5,73	226,2	94	4530	2200	2584	2540
GVAF 140 XSE-SN	480,0	3,26	5,93	234,1	95	5650	2200	2584	2875
GVAF 210 XSE-SN	772,2	3,00	5,89	232,7	97	7900	2200	2584	4782
GVAF 285 XSE-SN	959,5	3,27	6,17	243,9	98	11287	2200	2584	5500
GVAF 330 XSE-LN	1127,5	3,18	5,76	227,6	99	11287	2200	2584	7161

P_c: Cooling capacity

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GVAF XSS - LN Low Noise - R1234ze

	P _c (1) kW	EER (1)	SEER (2)	η _{sc} (2) %	LwO (3) dB(A)	L (4) mm	W (4) mm	H (4) mm	OW (4) kg
GVAF 140 XSS-LN	468,1	3,23	5,65	223,1	93	4530	2200	2584	2568
GVAF 210 XSS-LN	759,4	2,91	5,64	222,6	93	6780	2200	2584	4219
GVAF 285 XSS-LN	935,8	3,24	5,84	230,7	97	9415	2200	2584	4908
GVAF 455 XSS-LN	1480,9	3,12	5,68	224,3	96	13540	2200	2584	7913

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GVAF XSS - SN Standard Noise - R1234ze

	P _c (1) kW	EER (1)	SEER (2)	η _{sc} (2) %	LwO (3) dB(A)	L (4) mm	W (4) mm	H (4) mm	OW (4) kg
GVAF 140 XSS-SN	468,1	3,23	5,65	223,1	94	4530	2200	2584	2568
GVAF 210 XSS-SN	759,4	2,91	5,64	222,6	96	6780	2200	2584	4219
GVAF 285 XSS-SN	935,8	3,24	5,84	230,7	97	9415	2200	2584	4908
GVAF 455 XSS-SN	1480,9	3,12	5,68	224,3	99	13540	2200	2584	7913

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(4): Basic unit without accessories

GVAF XPG - XLN Extra Low Noise - R1234ze

	P _c (1) kW	EER (1)	SEER (2)	η _{sc} (2) %	LwO (3) dB(A)	L (4) mm	W (4) mm	H (4) mm	OW (4) kg
GVAF 125 XPG-XLN	456,0	4,15	5,78	228,1	87	7895	2200	2584	4515
GVAF 145 XPG-XLN	539,9	4,04	5,87	231,7	88	7895	2200	2584	4515
GVAF 155 XPG-XLN	581,1	3,92	5,98	236,0	89	7895	2200	2584	4515
GVAF 175 XPG-XLN	643,8	3,56	5,95	235,0	90	7895	2200	2584	4515

GVAF 190 XPG-XLN	696,8	4,13	6,28	248,2	89	11268	2200	2584	6311
GVAF 205 XPG-XLN	758,2	4,06	6,28	248,0	90	11268	2200	2584	6311
GVAF 245 XPG-XLN	878,4	3,74	6,19	244,6	91	11268	2200	2584	6311
GVAF 250 XPG-XLN	957,5	3,48	6,06	239,6	92	11268	2200	2584	6311
GVAF 280 XPG-XLN	998,6	4,05	6,55	258,9	91	13518	2200	2584	7781
GVAF 310 XPG-XLN	1117,2	3,85	6,41	253,5	92	13518	2200	2584	7781
GVAF 350 XPG-XLN	1238,0	3,54	6,26	247,6	93	13518	2200	2584	7781

Pc: Cooling capacity

ηsc: Seasonal space cooling energy efficiency

W: Width

EER: Energy Efficiency Ratio (cooling)

LwO: A-weighted sound power level outside

H: Height

SEER: Seasonal Energy Efficiency Ratio

L: Length

OW : Operating Weight

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(3): According ISO 9614:2009. Eurovent conditions, with 1pW reference sound power (without accessories)

(4): Basic unit without accessories

GVAF XPG - LN Low Noise - R1234ze

	Pc (1) kW	EER (1)	SEER (2)	ηsc (2) %	LwO (3) dB(A)	L (4) mm	W (4) mm	H (4) mm	OW (4) kg
GVAF 125 XPG-LN	456,0	4,15	5,77	227,6	88	7895	2200	2584	4515
GVAF 145 XPG-LN	539,9	4,05	5,85	231,2	88	7895	2200	2584	4515
GVAF 155 XPG-LN	581,1	3,92	5,96	235,4	90	7895	2200	2584	4515
GVAF 175 XPG-LN	643,8	3,55	5,90	233,2	91	7895	2200	2584	4515
GVAF 190 XPG-LN	696,8	4,12	6,27	247,7	90	11268	2200	2584	6311
GVAF 205 XPG-LN	758,2	4,07	6,26	247,6	91	11268	2200	2584	6311
GVAF 245 XPG-LN	878,4	3,74	6,16	243,3	92	11268	2200	2584	6311
GVAF 250 XPG-LN	957,5	3,48	6,06	239,4	93	11268	2200	2584	6311
GVAF 280 XPG-LN	998,6	4,06	6,54	258,6	92	13518	2200	2584	7781
GVAF 310 XPG-LN	1117,2	3,87	6,40	253,1	93	13518	2200	2584	7781
GVAF 350 XPG-LN	1226,6	3,57	6,27	247,9	94	13518	2200	2584	7781

Pc: Cooling capacity

ηsc: Seasonal space cooling energy efficiency

W: Width

EER: Energy Efficiency Ratio (cooling)

LwO: A-weighted sound power level outside

H: Height

SEER: Seasonal Energy Efficiency Ratio

L: Length

OW : Operating Weight

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(3): According ISO 9614:2009. Eurovent conditions, with 1pW reference sound power (without accessories)

(4): Basic unit without accessories

GVAF XP - XLN Extra Low Noise - R134a

	P _c (1) kW	EER (1)	SEER (2)	η _{sc} (2) %	LwO (3) dB(A)	L (4) mm	W (4) mm	H (4) mm	OW (4) kg
GVAF 190 XP-XLN	726,3	3,73	6,07	239,6	92	11268	2200	2584	6311
GVAF 205 XP-XLN	765,7	3,74	6,06	239,5	92	11268	2200	2584	6311
GVAF 245 XP-XLN	879,9	3,77	5,81	229,3	92	11268	2200	2584	6311
GVAF 310 XP-XLN	1113,3	3,66	6,11	241,5	94	13518	2200	2584	7781
GVAF 350 XP-XLN	1238,8	3,64	6,03	238,2	94	13518	2200	2584	7781

P_c: Cooling capacity

η_{sc}: Seasonal space cooling energy efficiency

W: Width

EER: Energy Efficiency Ratio (cooling)

LwO: A-weighted sound power level outside

H: Height

SEER: Seasonal Energy Efficiency Ratio

L: Length

OW : Operating Weight

(1): Cooling: outdoor air temperature 35°C and chilled water temperature 12°C/7°C. (EN 14511:2022)

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(3): According ISO 9614:2009. Eurovent conditions, with 1pW reference sound power (without accessories)

(4): Basic unit without accessories

GVAF XP - LN Low Noise - R134a

	P _c (1) kW	EER (1)	SEER (2)	η _{sc} (2) %	LwO (3) dB(A)	L (4) mm	W (4) mm	H (4) mm	OW (4) kg
GVAF 190 XP-LN	726,3	3,73	6,07	239,6	94	11268	2200	2584	6311
GVAF 205 XP-LN	765,7	3,74	6,06	239,5	94	11268	2200	2584	6311
GVAF 245 XP-LN	879,9	3,78	5,71	225,4	94	11268	2200	2584	6311
GVAF 310 XP-LN	1113,3	3,66	6,11	241,3	96	13518	2200	2584	7781
GVAF 350 XP-LN	1238,8	3,63	6,02	237,8	96	13518	2200	2584	7781

P_c: Cooling capacity

η_{sc}: Seasonal space cooling energy efficiency

W: Width

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LwO: A-weighted sound power level outside

H: Height

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L: Length

OW : Operating Weight

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(3): According ISO 9614:2009. Eurovent conditions, with 1pW reference sound power (without accessories)

(4): Basic unit without accessories

GVAF X - XLN Extra Low Noise - R134a

	P _c (1) kW	EER (1)	SEER (2)	η _{sc} (2) %	LwO (3) dB(A)	L (4) mm	W (4) mm	H (4) mm	OW (4) kg
GVAF 155 X-XLN	579,1	3,76	5,37	211,7	90	7895	2200	2584	4515
GVAF 175 X-XLN	640,1	3,76	5,32	209,8	91	7895	2200	2584	4515

GVAF 205 X-XLN	755,7	3,59	5,48	216,2	91	7895	2200	2584	4515
GVAF 245 X-XLN	844,0	3,61	5,54	218,8	92	7895	2200	2584	4515
GVAF 250 X-XLN	882,1	3,76	5,81	229,3	93	11268	2200	2584	6311
GVAF 280 X-XLN	997,0	3,70	5,84	230,8	93	11268	2200	2584	6311
GVAF 310 X-XLN	1113,5	3,52	5,84	230,6	93	11268	2200	2584	6311
GVAF 350 X-XLN	1230,6	3,22	5,70	225,1	94	11268	2200	2584	6311
GVAF 380 X-XLN	1369,9	3,59	5,95	235,1	94	13518	2200	2584	7781
GVAF 410 X-XLN	1468,1	3,39	5,82	229,9	94	13518	2200	2584	7781
GVAF 450 X-XLN	1571,5	3,24	5,72	225,8	95	13518	2200	2584	7781

Pc: Cooling capacity

ηsc: Seasonal space cooling energy efficiency

W: Width

EER: Energy Efficiency Ratio (cooling)

LwO: A-weighted sound power level outside

H: Height

SEER: Seasonal Energy Efficiency Ratio

L: Length

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GVAF X - LN Low Noise - R134a

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GVAF 175 X-LN	640,1	3,76	5,32	209,7	93	7895	2200	2584	4515
GVAF 205 X-LN	755,7	3,58	5,47	215,9	93	7895	2200	2584	4515
GVAF 245 X-LN	839,2	3,25	5,48	216,1	94	7895	2200	2584	4515
GVAF 250 X-LN	882,1	3,78	5,76	227,5	95	11268	2200	2584	6311
GVAF 280 X-LN	997,0	3,71	5,81	229,5	95	11268	2200	2584	6311
GVAF 310 X-LN	1113,5	3,52	5,85	231,0	95	11268	2200	2584	6311
GVAF 350 X-LN	1230,6	3,22	5,73	226,2	96	11268	2200	2584	6311
GVAF 380 X-LN	1369,9	3,60	5,96	235,3	96	13518	2200	2584	7781
GVAF 410 X-LN	1468,1	3,42	6,02	237,6	96	13518	2200	2584	7781
GVAF 450 X-LN	1571,5	3,23	5,77	227,7	97	13518	2200	2584	7781

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Trane, leaders in HVAC technology, services and energy solutions.

Our mission is to get it right for our customers and the climate.

Innovative thermal management systems

For all commercial and industrial applications, we offer a broad portfolio of HVAC solutions including heat pumps, chillers, multi-pipe units, packaged rooftops, air handling units and water terminals.

Partner with Trane



Lifecycle Management

From start-up services to full turn-key solutions, all the way to disposal and recycling.



Modernize and optimize

A wide array of solutions to ensure your HVAC equipment is always running at its peak performance, including technology upgrades.



Digital Services

Avoid unexpected cost and downtime thanks to Trane's connected service agreements.



Rental Services

An extensive and modern fleet, for short and long-term rental. Contact our experts for a quote:
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Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.



TRANE

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