Sintesis Advantage CGAF Air-Cooled Chiller

Cooling capacity: 137-670 kW

R454B R410A AFD down to -12°C

TRANE TECHNOLOGIES

Sintesis Advantage CGAF Air-Cooled Chiller

At a Glance:

- Reduced footprint: ideal for retro-fit installations and new buildings
- High efficiency at full load and part load with variable volume scroll compressor technology and variable speed fans
- Reduced refrigerant charge thanks to microchannel condenser coil and optimized refrigeration circuit
- Highly configurable for comfort or process application to meet specific performance requirements and budget
- Micro-channel condenser coils
- Tracer® Symbio™ 800 controller platform ensures smooth and reliable year-round operations

Flexible, reliable and simple

Trane CGAF air-cooled chillers are built on the renowned Sintesis™ platform and share many of the same components and technologies, all with a proven reliability record.

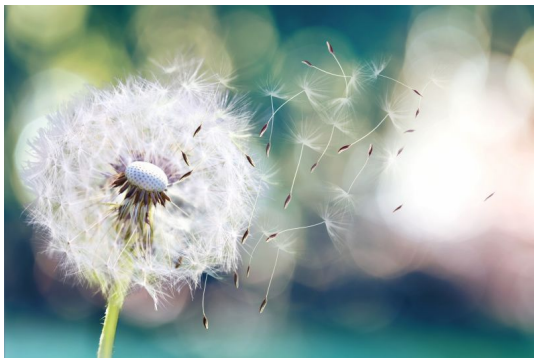
Our CGAF air-cooled chillers give you many energy saving solutions so you can choose the best equipment for your specific needs:

• Integrated free cooling system, significantly reducing operating costs and reducing wear and tear of main system components.
• Total or partial heat recovery option which reclaims waste heat generated during the cooling cycle to provide your building with hot water.

All Trane Sintesis™ chillers offer easy integration with BMS systems.

Cost effective and efficient

With optimized performance that meets and exceeds EU Ecodesign thresholds, along with features designed to reduce installation costs (such as optional integrated pump packages), the Model CGAF Sintesis™ chillers are also ideal for retrofit applications.



Quiet operation

With variable volume scroll compressors, variable speed fans and insulation options that reduce sound even further, CGAF chillers are the ideal choice for keeping your building cool - quietly and efficiently.

Range description

- With nine base configurations to choose from and many more configurable options, the Model CGAF can easily be adapted to your performance and budget requirements. The CGAF offers three efficiency versions (SE, HE and XE) which can be coupled with three low noise packages (SN, LN, XLN).
- You can also choose between AC, EC and EC Axitop fans to improve the efficiency of your system in line with your budget.

Technical specifications

Unit type	Air-to-water
Operating mode	Cooling only
Cooling capacity	137-670 kW
Heating capacity	-----
Eurovent certification	●

ErP Certification	●
Refrigerants	R454B | R410A
Energy saving	Heat recovery | Free cooling | Adaptive Frequency™ Drive
Compressor	Scroll
Data protocols	Lonmark | Bacnet | Modbus

CGAF Extra High Efficiency

	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
CGAF 080 XE SN EC HESP R454B	288,6	3,60	5,45	215,2	90	3395	2200	2530	2085
CGAF 090 XE SN EC HESP R454B	322,6	3,55	5,60	220,9	92	4520	2200	2530	2485
CGAF 100 XE SN EC HESP R454B	357,2	3,49	5,47	215,6	94	4520	2200	2530	2615
CGAF 110 XE SN EC HESP R454B	406,8	3,49	5,41	213,6	95	4520	2200	2530	2700
CGAF 130 XE SN EC HESP R454B	455,8	3,46	5,44	214,7	96	4520	2200	2530	2770
CGAF 140 XE SN EC HESP R454B	500,5	3,49	5,76	227,3	95	5645	2200	2530	3310
CGAF 150 XE SN EC HESP R454B	535,0	3,42	5,70	225,0	96	5645	2200	2530	3490
CGAF 165 XE SN EC HESP R454B	580,0	3,38	5,67	224,0	97	5645	2200	2530	3530
CGAF 180 XE SN EC HESP R454B	604,1	3,32	5,73	226,1	97	6770	2200	2530	3900
CGAF 190 XE SN EC HESP R454B	675,5	3,43	5,81	229,3	98	6770	2200	2530	3970

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

(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. ηs,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

CGAF Standard Efficiency

	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
CGAF 042 SE SN AC R454B	136,6	3,11	4,79	188,4	87	2505	1997	2412	945
CGAF 050 SE SN AC R454B	156,2	2,88	4,56	179,6	88	2505	1997	2412	959
CGAF 052 SE SN AC R454B	184,9	3,33	4,70	184,8	90	2505	1997	2412	1122
CGAF 055 SE SN AC R454B	198,3	3,28	4,73	186,1	90	2505	1997	2412	1160
CGAF 060 SE SN AC R454B	223,3	3,13	4,56	179,5	91	2505	1997	2412	1237
CGAF 065 SE SN AC R454B	236,2	3,11	4,55	178,8	91	2505	1997	2412	1279
CGAF 070 SE SN AC R454B	246,3	3,06	4,53	178,0	91	2505	1997	2412	1282
CGAF 075 SE SN AC R454B	265,8	2,96	4,50	176,9	91	2505	1997	2412	1288
CGAF 085 SE SN AC R454B	309,3	3,33	4,96	195,4	93	3255	2232	2531	1856
CGAF 095 SE SN AC R454B	336,8	3,18	4,77	187,8	95	3255	2232	2531	1958
CGAF 105 SE SN AC R454B	376,8	3,10	4,78	188,0	97	3255	2232	2531	1999
CGAF 125 SE SN AC R454B	418,9	3,03	4,73	186,4	97	3255	2232	2531	2066
CGAF 140 SE SN AC R454B	468,5	3,09	4,98	196,4	95	4520	2200	2530	2910

CGAF 150 SE SN AC R454B	500,3	3,01	4,87	191,6	95	4520	2200	2530	3095
CGAF 165 SE SN AC R454B	543,1	2,96	4,91	193,5	96	4520	2200	2530	3170
CGAF 180 SE SN AC R454B	585,1	3,06	4,92	193,7	97	5645	2200	2530	3540
CGAF 190 SE SN AC R454B	646,3	3,11	5,10	200,9	97	5645	2200	2530	3625

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

CGAF High Efficiency

	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
CGAF 042 HE SN EC R454B	137,1	3,15	4,95	195,0	88	2505	1997	2412	945
CGAF 050 HE SN EC R454B	156,8	2,92	4,65	183,0	88	2505	1997	2412	959
CGAF 052 HE SN EC R454B	185,2	3,36	4,98	196,3	91	2505	1997	2412	1122
CGAF 055 HE SN EC R454B	198,6	3,31	5,03	198,3	91	2505	1997	2412	1160
CGAF 060 HE SN EC R454B	223,7	3,15	4,79	188,6	91	2505	1997	2412	1237
CGAF 065 HE SN EC R454B	236,7	3,14	4,75	186,8	92	2505	1997	2412	1279
CGAF 070 HE SN EC R454B	246,8	3,09	4,73	186,1	92	2505	1997	2412	1282
CGAF 075 HE SN EC R454B	266,4	2,98	4,66	183,6	92	2505	1997	2412	1288
CGAF 080 HE SN AC R454B	284,7	3,46	4,99	196,7	90	3395	2200	2530	2085
CGAF 085 HE SN EC R454B	309,7	3,36	5,14	202,8	94	3255	2232	2531	1856
CGAF 090 HE SN AC R454B	320,1	3,46	4,99	196,7	92	4520	2200	2530	2485
CGAF 095 HE SN EC R454B	337,3	3,21	4,99	196,7	95	3255	2232	2531	1958
CGAF 100 HE SN AC R454B	353,5	3,38	5,00	196,9	94	4520	2200	2530	2615
CGAF 105 HE SN EC R454B	377,5	3,13	4,95	195,0	97	3255	2232	2531	1999
CGAF 110 HE SN AC R454B	399,9	3,35	5,16	203,4	95	4520	2200	2530	2700
CGAF 125 HE SN EC R454B	419,9	3,06	4,84	190,5	97	3255	2232	2531	2066
CGAF 130 HE SN AC R454B	444,5	3,29	5,09	200,8	96	4520	2200	2530	2770
CGAF 140 HE SN AC R454B	493,0	3,35	5,07	200,0	94	5645	2200	2530	3310
CGAF 150 HE SN AC R454B	523,7	3,27	4,96	195,5	95	5645	2200	2530	3490
CGAF 165 HE SN AC R454B	564,3	3,20	5,00	197,1	96	5645	2200	2530	3530
CGAF 180 HE SN AC R454B	593,2	3,19	4,88	192,0	97	6770	2200	2530	3900
CGAF 190 HE SN AC R454B	659,0	3,26	5,18	204,2	97	6770	2200	2530	3970

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L: Length
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(4): Basic unit without accessories

CGAF HE - Super Low Noise

	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
CGAF 042 HE EC XXLN R454B	132,5	3,00	4,94	194,7	82	2505	1997	2412	1128
CGAF 050 HE EC XXLN R454B	151,4	2,77	4,64	182,6	82	2505	1997	2412	1143
CGAF 052 HE EC XXLN R454B	179,8	3,26	4,95	195,1	85	2505	1997	2412	1315
CGAF 055 HE EC XXLN R454B	192,6	3,21	4,95	194,9	85	2505	1997	2412	1353
CGAF 060 HE EC XXLN R454B	216,8	3,04	4,76	187,4	86	2505	1997	2412	1430
CGAF 065 HE EC XXLN R454B	229,2	3,01	4,70	185,0	86	2505	1997	2412	1478
CGAF 070 HE EC XXLN R454B	239,0	2,96	4,76	187,6	86	2505	1997	2412	1481
CGAF 075 HE EC XXLN R454B	257,8	2,86	4,64	182,5	86	2505	1997	2412	1487
CGAF 085 HE EC XXLN R454B	295,9	3,17	5,00	197,0	86	3255	2232	2531	2042
CGAF 095 HE EC XXLN R454B	322,1	3,02	4,77	187,9	87	3255	2232	2531	2144
CGAF 105 HE EC XXLN R454B	360,1	2,93	4,75	186,8	88	3255	2232	2531	2185
CGAF 125 HE EC XXLN R454B	400,0	2,86	4,64	182,7	88	3255	2232	2531	2259

Pc: Cooling capacity
EER: Energy Efficiency Ratio (cooling)
SEER: Seasonal Energy Efficiency Ratio
ηsc: Seasonal space cooling energy efficiency
LwO: A-weighted sound power level outside
L: Length
W: Width
H: Height
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

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: rent-trane.com