



Sintesis Advantage CGAF Air-Cooled Chiller



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Cooling capacity: 137-670 kW

Heating capacity: -----

- 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

Cooling capacity	137-670 kW
Heating capacity	-----
Eurovent certification	●
ErP Certification	●
Refrigerants	R454B R410A
Operating mode	Cooling only
Energy saving	Heat recovery Free cooling Adaptive Frequency™ Drive
Compressor	Scroll

Product data

CGAF Extra High Efficiency

	Pc (1) kW	Pec (1) kW	EER (1)	SEER (2)	η_{sc} (2) %	LwO (3) dB(A)	Refrigerant	L (4) mm	W (4) mm	H (4) mm	OW (4) kg
CGAF 080 XE SN EC HESP R454B	289,3	80,4	3,60	5,67	224,0	90	R454B	3395	2200	2530	2085
CGAF 090 XE SN EC HESP R454B	323,7	90,9	3,56	5,70	225,0	92	R454B	4520	2200	2530	2485
CGAF 100 XE SN EC HESP R454B	358,1	102,3	3,50	5,60	221,0	94	R454B	4520	2200	2530	2615
CGAF 110 XE SN EC HESP R454B	407,6	116,8	3,49	5,61	221,0	95	R454B	4520	2200	2530	2700
CGAF 130 XE SN EC HESP R454B	457,1	131,7	3,47	5,58	220,0	96	R454B	4520	2200	2530	2770
CGAF 140 XE SN EC HESP R454B	501,3	143,2	3,50	5,76	227,0	95	R454B	5645	2200	2530	3310
CGAF 150 XE SN EC HESP R454B	535,6	156,6	3,42	5,66	223,0	96	R454B	5645	2200	2530	3490
CGAF 165 XE SN EC HESP R454B	581,8	171,6	3,39	5,65	223,0	97	R454B	5645	2200	2530	3530
CGAF 180 XE SN EC HESP R454B	631,4	182,0	3,47	5,80	229,0	97	R454B	6770	2200	2530	3900
CGAF 190 XE SN EC HESP R454B	678,8	197,3	3,44	5,76	227,0	98	R454B	6770	2200	2530	3970

Pc: Cooling capacity

SEER: Seasonal Energy Efficiency Ratio

Refrigerant: Refrigerant type

H: Height

Pec: Total power input in cooling

η_{sc} : Seasonal space cooling energy efficiency

L: Length

OW : Operating Weight

EER: Energy Efficiency Ratio (cooling)

LwO: A-weighted sound power level outside

W: Width

(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_{sc} /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	Pec (1) kW	EER (1)	SEER (2)	η_{sc} (2) %	LwO (3) dB(A)	Refrigerant	L (4) mm	W (4) mm	H (4) mm	OW (4) kg
CGAF 042 SE SN AC R454B	136,6	43,9	3,11	4,79	188,4	87	R454B	2505	1997	2412	945
CGAF 050 SE SN AC R454B	156,2	54,2	2,88	4,56	179,6	88	R454B	2505	1997	2412	959
CGAF 052 SE SN AC R454B	184,9	55,5	3,33	4,70	184,8	90	R454B	2505	1997	2412	1122
CGAF 055 SE SN AC R454B	198,3	60,5	3,28	4,73	186,1	90	R454B	2505	1997	2412	1160
CGAF 060 SE SN AC R454B	223,3	71,4	3,13	4,56	179,5	91	R454B	2505	1997	2412	1237
CGAF 065 SE SN AC R454B	236,2	75,9	3,11	4,55	178,8	91	R454B	2505	1997	2412	1279
CGAF 070 SE SN AC R454B	246,3	80,5	3,06	4,53	178,0	91	R454B	2505	1997	2412	1282
CGAF 075 SE SN AC R454B	265,8	89,8	2,96	4,50	176,9	91	R454B	2505	1997	2412	1288

CGAF 085 SE SN AC R454B	309,3	92,9	3,33	4,96	195,4	93	R454B	3255	2232	2531	1856
CGAF 095 SE SN AC R454B	336,8	105,9	3,18	4,77	187,8	95	R454B	3255	2232	2531	1958
CGAF 105 SE SN AC R454B	376,8	121,6	3,10	4,78	188,0	97	R454B	3255	2232	2531	1999
CGAF 125 SE SN AC R454B	418,9	138,3	3,03	4,73	186,4	97	R454B	3255	2232	2531	2066
CGAF 140 SE SN AC R454B	471,2	152,0	3,10	4,95	195,0	95	R454B	4520	2200	2530	2910
CGAF 150 SE SN AC R454B	502,9	166,5	3,02	4,98	196,0	95	R454B	4520	2200	2530	3095
CGAF 165 SE SN AC R454B	545,9	183,8	2,97	5,04	199,0	96	R454B	4520	2200	2530	3170
CGAF 180 SE SN AC R454B	605,9	191,7	3,16	5,08	200,0	97	R454B	5645	2200	2530	3540
CGAF 190 SE SN AC R454B	649,2	208,1	3,12	5,15	203,0	97	R454B	5645	2200	2530	3625

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(4): Basic unit without accessories

CGAF High Efficiency

	Pc (1) kW	Pec (1) kW	EER (1)	SEER (2)	η_{sc} (2) %	LwO (3) dB(A)	Refrigerant	L (4) mm	W (4) mm	H (4) mm	OW (4) kg
CGAF 042 HE SN EC R454B	137,1	43,5	3,15	4,95	195,0	88	R454B	2505	1997	2412	945
CGAF 050 HE SN EC R454B	156,8	53,7	2,92	4,65	183,0	88	R454B	2505	1997	2412	959
CGAF 052 HE SN EC R454B	185,2	55,1	3,36	4,98	196,3	91	R454B	2505	1997	2412	1122
CGAF 055 HE SN EC R454B	198,6	60,0	3,31	5,03	198,3	91	R454B	2505	1997	2412	1160
CGAF 060 HE SN EC R454B	223,7	71,0	3,15	4,79	188,6	91	R454B	2505	1997	2412	1237
CGAF 065 HE SN EC R454B	236,7	75,4	3,14	4,75	186,8	92	R454B	2505	1997	2412	1279
CGAF 070 HE SN EC R454B	246,8	79,9	3,09	4,73	186,1	92	R454B	2505	1997	2412	1282
CGAF 075 HE SN EC R454B	266,4	89,4	2,98	4,66	183,6	92	R454B	2505	1997	2412	1288
CGAF 080 HE SN AC R454B	285,7	82,3	3,47	5,27	208,0	90	R454B	3395	2200	2530	2085
CGAF 085 HE SN EC R454B	309,7	92,2	3,36	5,14	202,8	94	R454B	3255	2232	2531	1856
CGAF 090 HE SN AC R454B	321,4	92,6	3,47	5,12	202,0	92	R454B	4520	2200	2530	2485
CGAF 095 HE SN EC R454B	337,3	105,1	3,21	4,99	196,7	95	R454B	3255	2232	2531	1958
CGAF 100 HE SN AC R454B	354,6	104,6	3,39	5,16	203,0	94	R454B	4520	2200	2530	2615
CGAF 105 HE SN EC R454B	377,5	120,6	3,13	4,95	195,0	97	R454B	3255	2232	2531	1999
CGAF 110 HE SN AC R454B	401,3	119,4	3,36	5,20	205,0	95	R454B	4520	2200	2530	2700
CGAF 125 HE SN EC R454B	419,9	137,2	3,06	4,84	190,5	97	R454B	3255	2232	2531	2066

CGAF 130 HE SN AC R454B	446,2	135,2	3,30	5,30	209,0	96	R454B	4520	2200	2530	2770
CGAF 140 HE SN AC R454B	494,3	147,1	3,36	5,15	203,0	94	R454B	5645	2200	2530	3310
CGAF 150 HE SN AC R454B	525,0	160,6	3,27	5,15	203,0	95	R454B	5645	2200	2530	3490
CGAF 165 HE SN AC R454B	566,7	176,5	3,21	5,19	205,0	96	R454B	5645	2200	2530	3530
CGAF 180 HE SN AC R454B	620,0	186,8	3,32	5,24	207,0	97	R454B	6770	2200	2530	3900
CGAF 190 HE SN AC R454B	661,1	202,2	3,27	5,28	208,0	97	R454B	6770	2200	2530	3970

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Improve Operations

Technology is continuously evolving and Trane Engineering is ahead of the curve in bringing innovation into product development. Our sustainable solutions deliver enhancements to the Trane installed base to make your chillers and heat pumps even "better than before". That's Trane Building Advantage - TBA.

Trane Rental Services

Cooling and heating are services, not products. A process or a building does not need a chiller or a boiler sitting on a roof, but a reliable and efficiency supply of cold or hot water, cold or warm air. This is the essence of what we do at Trane Rental Services. Let us take care of it for you.



Read more <https://trane.eu/rental>

Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.



Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit trane.eu or tranetechnologies.com.