



AIRFINITY™

Rooftops
High performance,
proven reliability
and easy installation



R410A R454B

Airfinity
Airfinity AFD
Airfinity XL
Models IC/IH

TRANE
TECHNOLOGIES

Airfinity Rooftops

Comfort and economy

When it comes to installing and maintaining an HVAC system, every cent counts. From your initial capital investment to utility and maintenance expense, operating HVAC equipment can have a significant impact on your bottom line. This is why a Trane® Airfinity™ rooftop unit can be the perfect choice.

Trane delivers a product that is easy to install while providing exceptional reliability, meets stringent performance requirements and is competitively priced. Trane rooftop solutions deliver real value for you – and real comfort for your customer.

The performance you need at the lowest cost of ownership

With a strong legacy of proven reliability, Airfinity rooftops can deliver high seasonal efficiency standards capable of meeting even the most stringent European regulations. By reducing energy and maintenance costs, you can save money on HVAC expenditure and invest it where it matters most: your business.

Integrated plug & play solution

Thanks to its compact design and integrated control solution, installing and operating a rooftop has never been so easy. Every Airfinity unit can be customized to meet your exact needs, so you don't have to compromise.

Rapid, easy unit replacement

Trane plug & play solutions allow compatibility with multiple roof curbs, without the need for expensive adapters or other modifications. Maximum adaptability for faster, easier, less expensive installations makes Trane the perfect choice for replacement applications.

Key features and benefits

of the Trane Airfinity™ solution

Energy savings

- High efficiency scroll compressors operate in tandem for optimum performance under part load
- Adaptive Frequency Drive option
- Electronically Commutated (EC) supply plug fan with modulating airflow for better adaptability to the building load
- Intelligent Trane controller with embedded energy saving features
- Free cooling technology to reduce annual energy costs
- Electronic Expansion Valve for tighter system control
- Market-leading modular and fully integrated heat recovery solutions for lower energy consumption.

Easy installation, operation and maintenance:

- Light and compact for easy transportation and lifting
- Remote unit management with alarms and notifications
- EC plug fan requiring zero maintenance
- Innovative rail system for easy access to key components.

Superior Indoor Air Quality for real comfort

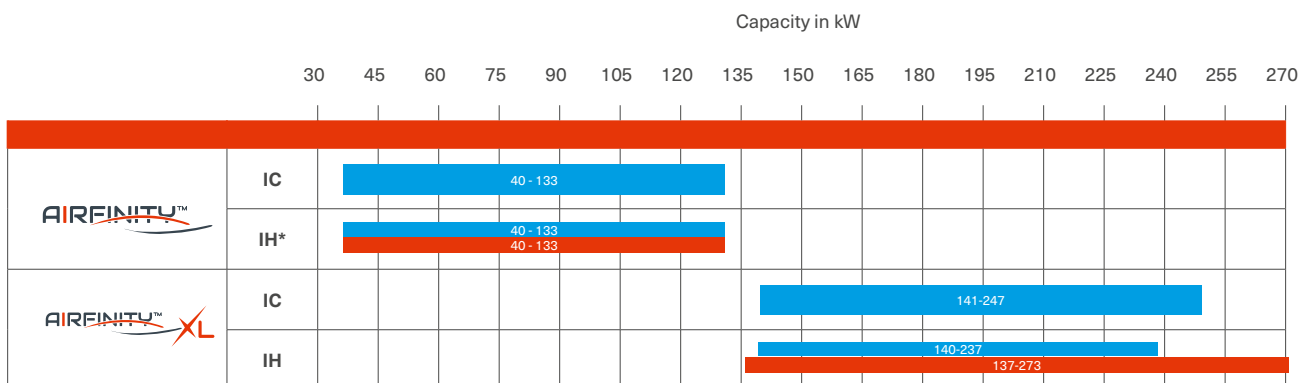
- Adaptive Frequency Drive option
- Filtration level up to F9, with easy-to-replace filters
- Double wall panel provided as standard for improved insulation and indoor air quality
- Dynamic defrost cycles to ensure comfort is never compromised
- Complete offering of exhaust options to prevent overpressure in the building
- Advanced design for up to 100% fresh air management.

Environmentally friendly

- Low-GWP R454B or R410A HFC refrigerant for zero Ozone impact
- Optimized packaging for minimal waste.



Wide capacity range



* With or without Adaptive Frequency™ Drive

Airfinity™



- 40 to 135 kW heating and cooling capacity
- 7 800 to 25 000 m³/h airflow range
- Free cooling operation in summer
- Heat recovery operation in winter and summer mode
- Heat pump operation down to -15° C
- Hybrid version available for cold climates
- Eurovent-certified and ErP-compliant
- Available in single and dual circuit configurations.



Airfinity™ AFD option

Rooftop units with Adaptive Frequency™ Drive

To run efficiently, buildings need to be capable of adapting to indoor and outdoor conditions.

That's why Trane Airfinity™ rooftop air sourced heat pumps can be equipped with variable speed technology and intelligent control that adapt cooling and heating outputs to your building's demand. It's that simple.



- 20 to 65 kW heating and cooling capacity
- 3 860 to 12 000 m³/h airflow range
- Exceeds ErP Tier 2 (2021) thresholds
- Free cooling operation in summer
- Heat recovery wheel optional
- Heat pump operation down to -15°C
- Hybrid version available for cold climates.



1. EC plug fans with variable speed technology
2. Indoor air filtration: G4+F7 (65% isoCoarse + ePM1 55%), F5+F7 (85% isoCoarse + ePM1 55%), G4+F9 (65% isoCoarse + ePM1 80%)
3. Economizer for fresh air and free cooling with optional EC exhaust fan
4. Dual skin panels with 25mm thickness insulation
5. High efficiency axial outdoor fans (EC available as an option)
6. Variable speed scroll compressor with intermediate discharge valve and permanent magnet motor (Adaptive Frequency™ Drive)
7. Embedded Trane controller, pre-wired and preconfigured from the factory for quick start-up and commissioning
8. Auxiliary heat options (not shown): gas heater, electric heater, hot water coil
9. Optimized heat exchanger to improve efficiency in heating mode
10. Heat recovery module with enthalpy wheel (including purge function to avoid dirty air mixing) and integrated exhaust fan

Energy recovery solutions

To enhance energy savings and reduce operating costs, Airfinity rooftops can be equipped with a heat recovery system. Heat recovery systems are ideal for climates in which there is a significant difference between outdoor and indoor air temperature, for example during winter months. Trane design ensures maximum efficiency with minimal impact on unit footprint and installation time.

Energy Recovery Module (ERM)

The Energy Recovery Module is a pre-packaged system that transfers both sensible and latent heat contained in the exhaust air to the fresh air introduced into the building, through use of an enthalpy wheel. The fully packaged assembly reduces total installation cost and time by avoiding the need for special roofcurbs to manage the exhaust air in applications with low to medium external static pressure. A micro-inverter also manages the rotation speed of the wheel in especially cold ambients, in order to avoid ice formation on the wheel.



Energy Recovery Module comprising:

- heat exchanger
- G4 filters
- dampers
- a fully integrated exhaust fan to avoid overpressure in the building.

ERM General data

Size		038/040	049/050	058/060	063/065	074/075	084/085	100	110	130
Dry efficiency, ϵ	%	81	80	78	77	75	73	71	76	74
Wheel diameter	(mm)	1200	1200	1200	1200	1200	1200	1200	1500	1500
Airflow through the wheel*	(m ³ /s)	2340	2740	3310	3820	4400	4850	5700	6560	7600

* Considering 30% of fresh air

Energy Recovery Circuit (ERC)

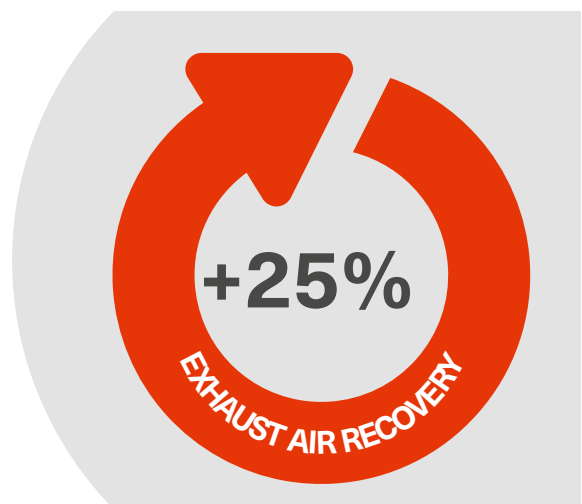
The Energy Recovery Circuit features a dedicated high efficiency refrigeration circuit which uses exhaust air to pre-heat or pre-cool the fresh air introduced into the building. By recovering the heat in the exhaust air, the overall capacity of the machine can be **increased by up to 25%** in typical working conditions, without significantly impacting power consumption*. As a result, the overall efficiency of the rooftop unit increased considerably, especially at part load conditions.

The ERC is fully integrated into the unit, therefore having zero impact on the installation footprint. Moreover, an exhaust module is provided as standard and mounted directly under the fresh air damper, avoiding the need of additional equipment to manage the exhaust air for applications with low to medium static pressure requirements.

Thanks to the additional refrigeration circuit and tighter control of the exhaust air, Trane ERC system guarantees superior performance when compared to alternative systems which utilize the outdoor coil.



Increases overall capacity **by up to 25%** thanks to thermodynamic heat recovery on the exhaust air.*



* Capacity gain with thermodynamic heat recover depends on volume of fresh air intake, outdoor and conditions and building load. For a detailed selection, please contact your Trane Sales Representative.

General data

Airfinity™



Models IC (Cooling only)		IC038	IC039	IC040	IC048	IC049	IC050	IC058	IC059	IC060
Nominal airflow	(m³/h)	7800	8300	8700	9000	10100	10600	11100	11300	12100
Net cooling capacity (1)	(kW)	44,8	44,3	46,1	53,8	53,8	55,8	63,6	59,4	63,1
Total power input (1)	(kW)	13,3	14,0	14,2	15,9	18,2	18,7	19,6	20,3	19,7
Net EER (1)		3,38	3,16	3,25	3,39	2,95	2,99	3,25	2,93	3,2
Seasonal energy efficiency (η _{s,c}) (2)	(%)	188,6	148,6	184,6	173,4	139,4	177,4	169,4	138,2	161,8
SEER (2)		4,79	3,79	4,69	4,41	3,56	4,51	4,31	3,51	4,12
Outdoor sound power level (3)	(dB(A))	81	85	84	84	85	84	85	85	85
Length	(mm)	2830	3020	3020	2830	3020	3020	2830	3020	3020
Width	(mm)	2250	2250	2250	2250	2250	2250	2250	2250	2250
Height	(mm)	1575	1575	1575	1575	1575	1575	1575	1575	1575
Operating weight (4)	(kg)	914	1020	1132	985	1037	1144	985	1048	1148

Models IC (Cooling only)		IC063	IC064	IC065	IC074	IC075	IC084	IC085	IC100	IC110	IC130
Nominal airflow	(m³/h)	12600	12700	14000	15700	16100	17100	17300	20200	22200	26000
Net cooling capacity (1)	(kW)	72,9	66,9	73,8	82,6	84,6	90,2	91,7	110,6	125,1	137,8
Total power input (1)	(kW)	23,8	24,5	23,4	26,1	26,6	30,1	29,5	34,8	42,1	49,7
Net EER (1)		3,06	2,73	3,15	3,16	3,18	3	3,11	3,18	2,97	2,77
Seasonal energy efficiency (η _{s,c}) (2)	(%)	172,2	138,2	164,2	143	167,8	143,8	169	169	160,2	152,2
SEER (2)		4,38	3,53	4,18	3,65	4,27	3,67	4,3	4,3	4,08	3,88
Outdoor sound power level (3)	(dB(A))	85	85	85	86	85	86	85	85	85	91
Length	(mm)	2830	3020	3020	3900	3900	3900	3900	3900	3900	3900
Width	(mm)	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
Height	(mm)	1575	1575	1575	1595	1595	1595	1595	1900	1900	1900
Operating weight (4)	(kg)	985	1048	1185	1333	1374	1347	1380	1598	1602	1602

Models IH (Heat pump)		IH038	IH040	IH050	IH060	IH065	IH075	IH085	IH100	IH110	IH130
Nominal airflow	(m³/h)	7800	8700	10600	12100	13700	15700	16700	19800	21600	25500
Net cooling capacity (1)	(kW)	40,2	44,5	54,3	62,6	69,7	80,9	85,3	106,2	119,3	133,8
Total power input (1)	(kW)	13,4	13,0	16,9	19,9	24,5	28,0	30,1	35,1	42,0	49,4
Net EER (1)		3	3,42	3,21	3,15	2,84	2,89	2,83	3,03	2,84	2,71
Seasonal energy efficiency (η _{s,c}) (2)	(%)	157,4	213,4	203,8	186,2	173	172,6	169,8	175,4	165,8	161
SEER (2)		4,01	5,41	5,17	4,73	4,4	4,39	4,32	4,46	4,22	4,1
Net heating capacity (1)	(kW)	37,1	42,0	53,3	59,8	68,7	76,2	80,6	102,7	114,8	131,6
Total power input (1)	(kW)	10,8	11,4	14,7	17,2	19,8	21,7	23,6	27,3	31,7	37,8
Net COP (1)		3,43	3,69	3,63	3,47	3,47	3,51	3,41	3,76	3,62	3,48
Seasonal energy efficiency (η _{s,h}) (2)	(%)	125,8	125,4	129,4	125,4	129,4	140,6	133	135,4	141	135,8
SCOP (2)		3,22	3,21	3,31	3,21	3,31	3,59	3,4	3,46	3,6	3,47
Outdoor sound power level (3)	(dB(A))	81	84	84	85	85	85	85	85	85	91
Length	(mm)	2830	3010	3010	3010	3010	3890	3890	3890	3890	3890
Width	(mm)	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
Height	(mm)	1565	1565	1565	1565	1565	1585	1585	1890	1890	1890
Operating weight (4)	(kg)	859	1102	1114	1114	1139	1305	1311	1511	1515	1515

Airfinity™ AFD

Model IH (Heat pumps with AFD option)		IH021	IH031	IH041	IH051	IH061	IH071
Nominal airflow	(m ³ /h)	3860	5790	7720	9650	11580	11966
Net cooling capacity (1)	(kW)	19,8	30,2	39,8	50,2	60,3	64,2
Total power input (1)	(kW)	4,6	8,0	10,6	14,7	20,2	23,0
Net EER (1)		4,28	3,76	3,76	3,41	2,99	2,79
Seasonal energy efficiency (η _{s,c}) (2)	(%)	205,8	211,4	190,6	199,4	177	169
SEER (2)		5,22	5,36	4,84	5,06	4,5	4,3
Net heating capacity (1)	(kW)	19,9	29,7	40,4	49,6	58,6	58,8
Total power input (1)	(kW)	5,3	7,9	11,4	14,6	18,3	18,3
Net COP (1)		3,78	3,75	3,53	3,4	3,21	3,22
Seasonal energy efficiency (η _{s,h}) (2)	(%)	125	131,8	125,4	131	126,2	125,4
SCOP (2)		3,2	3,37	3,21	3,35	3,23	3,21
Outdoor sound power level (3)	(dB(A))	81	82	85	86	88	87
Length	(mm)	2830	2830	2830	2830	2830	2830
Width	(mm)	2250	2250	2250	2250	2250	2250
Height	(mm)	1565	1565	1565	1565	1565	1565
Operating weight (4)	(kg)	858	858	926	927	937	937

(1) According to EN14511:2018 nominal conditions (cooling: outdoor 35°C DB, Indoor 27°C DB/19°C WB; heating: 7°C DB.6°C WB, indoor 20°C DB)

(2) Seasonal efficiency according to EN 14825:2018 (average climate)

(3) Sound power level according to ISO 9614

(4) Includes G4 filters, economizer and the full refrigerant charge



Airfinity™ XL

Efficient. Flexible. Reliable. Stronger.

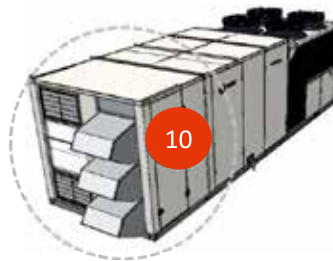
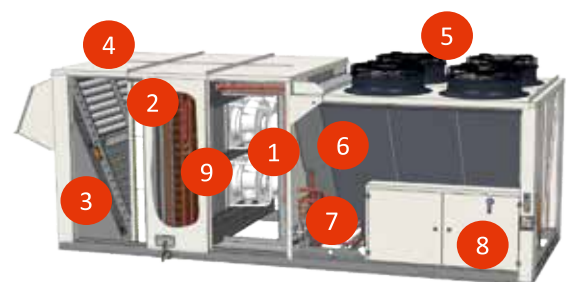
Designed for medium to large commercial and industrial buildings, Airfinity™XL rooftop units are easy and cost-effective to install, operate and maintain.

Airfinity™rooftop units integrate the latest technology available on the market to deliver high efficiency and reliability all-year around. Every model can be equipped with additional options to deliver free cooling in summer, free heating in winter and a wider operating map thanks to integrated auxiliary heat sources.



- 140 to 250 kW cooling capacity
- 140 to 270 kW heating capacity
- 24 000 to 44 000 m³/h airflow range
- Free cooling operation in summer
- Heat recovery operation in winter and summer mode
- Heat pump operation down to -15°C
- Hybrid version available for cold climates
- Eurovent certified (up to 220 size) and ErP-compliant.

1. EC plug fans with high available static pressure
2. Indoor air filtration: G4+F7 (65% isoCoarse + ePM1 55%), F5+F7 (85% isoCoarse + ePM1 55%), G4+F9 (65% isoCoarse + ePM1 80%)
3. Economizer for fresh air and free cooling with optional EC exhaust fan
4. Lightweight dual skin aluminum panels with 50mm thickness insulation
5. High efficiency axial outdoor fans (EC available as an option)
6. Trane outdoor heat exchanger designed for efficiency and shorter defrost cycles
7. Scroll compressors with intermediate discharge valves for higher seasonal efficiency
8. Embedded Trane controller, pre-wired and pre-configured from the factory for quick start-up and commissioning
9. Auxiliary heat options (not shown): gas heater, electric heater, hot water coil
10. Heat recovery module with enthalpy wheel (including purge function to avoid dirty air mixing) and integrated exhaust fan





Airfinity™ XL

Models IC XL (Cooling only)		IC140	IC150	IC170	IC190	IC 220 (5)	IC250 (5)	IC270 (5)
Nominal airflow	(m ³ /h)	24000	26000	28000	33000	36000	42000	44000
Net cooling capacity (1)	(kW)	140.0	153.9	170.5	194.1	211.6	233.3	247.2
Total power input	(kW)	41.0	47.4	53.9	65.4	76.2	82.6	89.4
Net EER		3.41	3.25	3.16	2.97	2.78	2.82	2.77
Seasonal energy efficiency (η _{s.c}) (2)	(%)	196.4	188.0	179.8	165.7	149.1	147.3	142.1
SEER (2)		4.99	4.78	4.57	4.22	3.80	3.76	3.63
Outdoor sound power level (3)	(dB(A))	85	85	86	91	91	92	92
Length	(mm)	5618	5618	5618	5618	5618	6518	6518
Width	(mm)	2250	2250	2250	2250	2250	2250	2250
Height	(mm)	2275	2275	2275	2275	2275	2275	2275
Operating weight (4)	(kg)	2393	2401	2519	2630	2703	2918	2922

Models IH XL (Heat pump)		IH140	IH150	IH170	IH190	IH220	IH250 (5)	IH270 (5)
Nominal airflow	(m ³ /h)	24000	26000	28000	33000	36000	42000	44000
Net cooling capacity (1)	(kW)	137.6	150.6	161.5	184.9	200.0	222.9	239.3
Total power input	(kW)	42.2	48.7	55.5	67.1	79.2	89.0	96.7
Net EER		3.26	3.09	2.91	2.76	2.52	2.50	2.47
Seasonal energy efficiency (η _{s.c}) (2)	(%)	187.9	182.6	170.3	160.5	145.4	142.3	138.1
SEER (2)		4.77	4.64	4.33	4.09	3.71	3.63	3.53
Net heating capacity (1)	(kW)	135.9	152.0	166.8	194.7	217.8	248.7	267.5
Total power input	(kW)	38.1	43.1	47.5	59.0	68.4	85.6	94.0
Net COP		3.57	3.52	3.51	3.30	3.18	2.91	2.84
Seasonal energy efficiency (η _{s.h}) (2)	(%)	135.1	137.0	140.1	133.8	126.6	127.2	125.1
SCOP (2)		3.45	3.50	3.58	3.42	3.24	3.26	3.20
Outdoor sound power level (3)	(dB(A))	85	85	86	91	91	92	92
Length	(mm)	5618	5618	5618	5618	5618	6518	6518
Width	(mm)	2250	2250	2250	2250	2250	2250	2250
Height	(mm)	2275	2275	2275	2275	2275	2275	2275
Operating weight (4)	(kg)	2335	2503	2561	2672	2744	2939	2942

(1) According to EN14511:2018 nominal conditions (cooling: outdoor 35°C DB, Indoor 27°C DB/19°C WB; heating: 7°C DB/6°C WB, indoor 20°C DB)
(2) Seasonal efficiency according to EN 14825:2018 (average climate)
(3) Sound power level according to ISO 9614
(4) Includes G4 filters, economizer and the full refrigerant charge
(5) Excluded from Eurovent certification scope

Airfinity™ XL



Models IC XL (Cooling only)		IC140	IC150	IC170	IC190	IC 220 (5)	IC 250 (5)	IC 270 (5)
Nominal airflow	(m³/h)	24000	26000	28000	33000	36000	42000	44000
Net cooling capacity (1)	(kW)	141.5	155.5	172.9	196.4	212.9	233.7	247.0
Total power input (1)	(kW)	42.6	49.9	57.1	69.7	81.3	87.4	94.0
Net EER (1)		3.32	3.12	3.03	2.82	2.62	2.67	2.63
Seasonal energy efficiency (ηs.c) (2)	(%)	191	181.8	175	161.4	147.2	147.2	138.2
SEER (2)		4.85	4.62	4.45	4.11	3.76	3.76	3.53
Outdoor sound power level (3)	(dB(A))	85	85	86	91	91	92	92
Length	(mm)	5618	5618	5618	5618	5618	6518	6518
Width	(mm)	2250	2250	2250	2250	2250	2250	2250
Height	(mm)	2275	2275	2275	2275	2275	2275	2275
Operating weight (4)	(kg)	2393	2401	2519	2630	2703	2918	2922

Models IH XL (Heat pump)		IH140	IH150	IH170	IH190	IH 220 (5)	IH 250 (5)	IH 270 (5)
Nominal airflow	(m³/h)	24000	26000	28000	33000	36000	42000	44000
Net cooling capacity (1)	(kW)	139.8	153.6	162.7	187.2	201.8	221.0	236.8
Total power input (1)	(kW)	42.7	50.2	57.5	69.6	82.0	90.9	98.3
Net EER (1)		3.27	3.06	2.83	2.69	2.46	2.43	2.41
Seasonal energy efficiency (ηs.c) (2)	(%)	183	182.6	171	162.6	145	142.04	138.63
SEER (2)		4.65	4.64	4.35	4.14	3.7	3.626	3.54
Net heating capacity (1)	(kW)	136.6	152.9	170.0	195.7	218.4	254.1	272.6
Total power input (1)	(kW)	38.4	44.6	49.9	61.0	71.6	92.0	100.5
Net COP (1)		3.56	3.43	3.41	3.21	3.05	2.76	2.713
Seasonal energy efficiency (ηs.h) (2)	(%)	131.8	131.8	135.8	128.2	126.2	127.1	125.6
SCOP (2)		3.37	3.37	3.47	3.28	3.18	3.22	2.98
Outdoor sound power level (3)	(dB(A))	85	85	86	91	91	92	92
Length	(mm)	5618	5618	5618	5618	5618	6518	6518
Width	(mm)	2250	2250	2250	2250	2250	2250	2250
Height	(mm)	2275	2275	2275	2275	2275	2275	2275
Operating weight (4)	(kg)	2335	2503	2561	2672	2744	2939	2942

(1) According to EN14511:2018 nominal conditions (cooling: outdoor 35°C DB, Indoor 27°C DB/19°C WB; heating: 7°C DB/6°C WB, indoor 20°C DB)

(2) Seasonal efficiency according to EN 14825:2018 (average climate)

(3) Sound power level according to ISO 9614

(4) Includes G4 filters, economizer and the full refrigerant charge

(5) Excluded from Eurovent certification scope



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.

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