TRANE®

UniTrane™ Harmony Cabinet Fan Coils

Breathing Silence

Ingersoll Rand®

Breathing silence

UniTrane™ Harmony fan coil units are available as both cabinet and concealed versions, with a wide array of options. The result is an extremely configurable product delivering the optimum combination of performance, acoustic comfort and operating costs.

Ease of integration

The main advantage of Trane's cabinet fan coil is its capability to be integrated simply and quickly into existing rooms. This resides in the fact that no ductwork, ceiling modification or wall thermostat installation are necessary.

The UniTrane™ Harmony cabinet fan coil can be mounted either in a vertical or horizontal position for wall or ceiling installation. Its graceful cabinet design fits into any room's style.

In order to simplify installation even further, Trane proposes several factory-mounted features such as:

- unit support feet
- return air grille
- water valve kit
- thermostat interface

A full range of accessories is available for mounting on the job site:

- adjustment valves
- unit support feet
- rear panel for installations against glass
- electric heater
- auxiliary condensate pump
- fresh air intake louvers grille
- inlet/outlet grilles for concealed installations

See page 12 for a complete list and details.

Ease of use

Trane offers controls solutions ranging from simple mechanical thermostats to sophisticated Building Management Systems.

The IR wireless remote control , either handheld or wall-mounted, allows room occupants to choose from "Manual" or "Auto" mode to manage fan speeds and cooling/heating changeover.

For ultimate convenience and comfort, individual units or groups of units can be connected via a serial link.

Comfort

UniTrane™ Harmony is the perfect choice to ensure both thermal and acoustical comfort for room occupants.

On the EC motor version (FVAE, FCAE and FKAE models), the unit controller is able to continuously modulate the airflow to adapt to a room's changing thermal load resulting in an extremely stable room temperature.

The continuous modulation of the fan also improves the acoustic comfort in the room by eliminating brutal fan speed transitions.

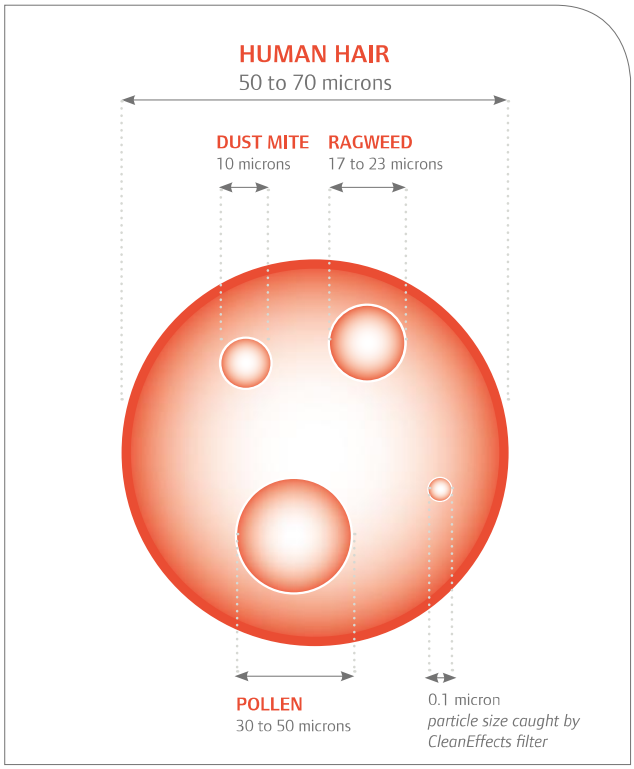
The unit's overall low sound levels make it ideal for installation in quiet environments such as offices and hotel rooms.

The Trane advantage

- **All units come with factory-installed controls, valves, support feet and grilles, saving time and money on the jobsite**
- **Ultimate filtration, high efficiency, and reduced pressure drop: CleanEffects™ electrostatic filters capture even the finest micrometric particles without compromising unit performance**
- **The integrated Trane Tracer™ control system combines with the entire range to deliver efficient performance, optimal comfort and cost-effective building management**

Breathe easy with CleanEffects™ filtration technology

CleanEffects' technology increases your air quality by substantially reducing the presence of dust, pollen, pet hair and dander, dust mites, mildew, lint, fungus, most tobacco smoke, and even bacteria.



Trane's no-compromise solution

Trane's CleanEffects™ electrostatic filtration technology succeeds by minimizing pressure drop and maximises the volume of clean air delivered to your living space. It does this while by capturing particles as small as 0.1 micron, making it 100 times more effective than a conventional EU3 filter.

Particles like dust, smoke and bacteria are too small to be effectively filtered by your nose and throat as you inhale them. Reaching deep into your lungs, they can trigger distressing allergy attacks. Conventional air filters (G0 and EU3 filters) used on fan coils do not catch fine particles.

And the particles caught by the conventional filters result in increased pressure drop reducing airflow if the unit. So less air is filtered, the system is rendered inefficient and your comfort and health are compromised

CleanEffects™ Filter Features:

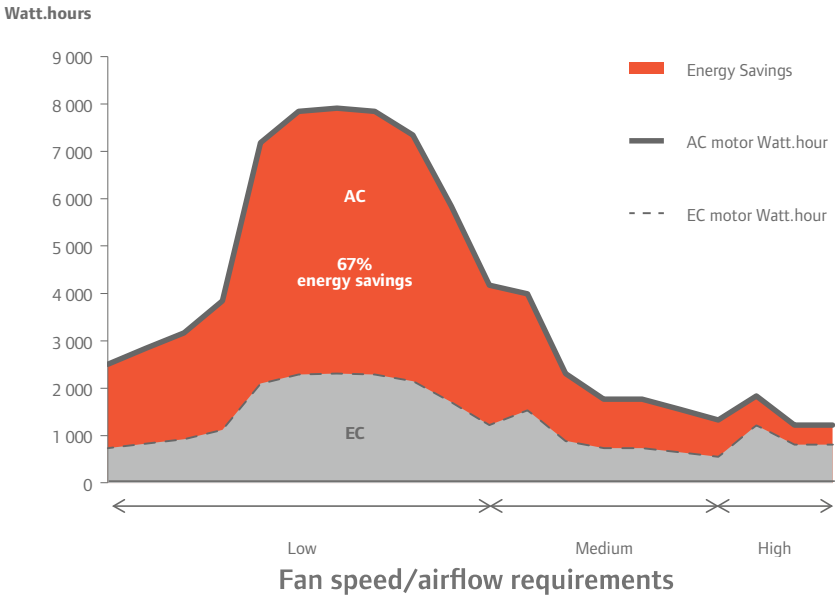
- Removal of up to 99.98% of particles and allergens from your filtered indoor air. It removes particles as small as 0.1 micron: 1/1,000th the diameter of a human hair
- Low operating costs, with no replacement filters to buy. Easy to clean filters. Just rinse once every 3 to 9 months (depending on usage)
- Minimal pressure drop. Delivering constant air volume to the living space.

Eco Design for a comfortable life

EC fan motor boosts savings and comfort

The EC fan motor found in UniTrane™ models FVAE/ FCAE/FKAE delivers significant savings by reducing power consumption by an average of 67%.
Thanks to continuously variable fan speed, noisy switching is eliminated and sound emissions are minimized.

Comfort is optimized by the motor's capability to deliver a rapid response when conditions demand it and to maintain a steady ambient temperature.
The EC fan motor technology makes a significant contribution to lower the energy consumption of any building.



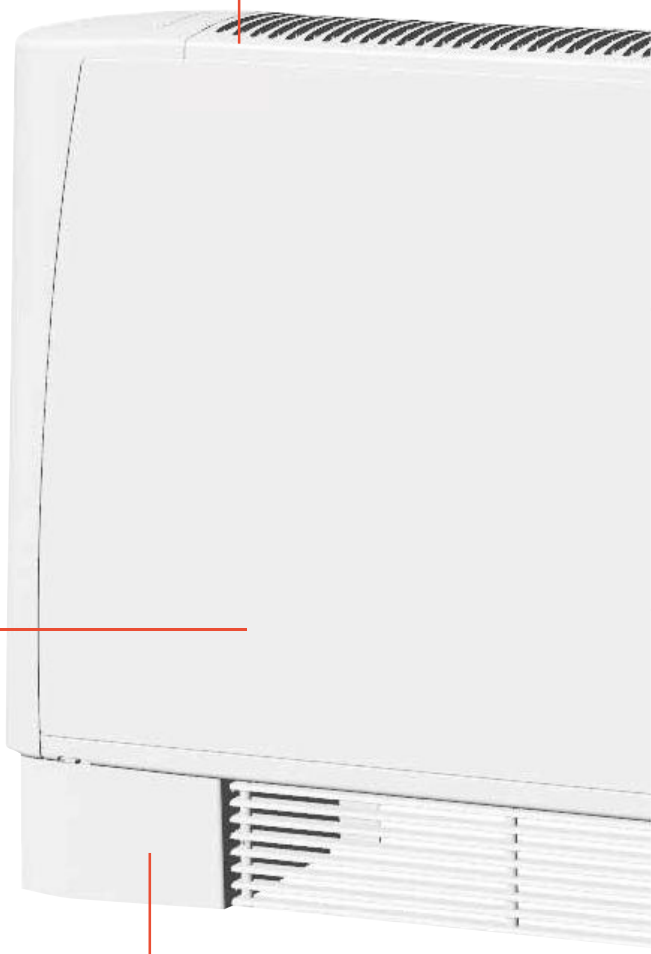
Typical fan motor loads of a Paris office building

UniTrane™ Harmony fan coils

The UniTrane™ Harmony fan coil is an extremely configurable product. It can be integrated simply and quickly into your rooms, and offers a full range of options and accessories.

Integrated Trane Tracer™ control system
is provided factory-mounted, configured and tested.

Trane Tracer™ control system



Graceful cabinet design
RAL9003 white satin cabinet makes the UniTrane fan coil easy to include into any room environment.
The high-quality unit cabinet casing is made of a combination of resilient plastic and robust metal resulting in an extremely durable unit construction.

Robust factory-mounted support feet

Robust resilient air grille diffuser

The grille can be unclipped and reversed to change the direction of the air stream from front to back.

Factory-installed water valve kit

Superior indoor air quality

CleanEffects electrostatic filter delivers the filtration needed to avoid dust, bacteria and allergens carried by the fine particles in the air.

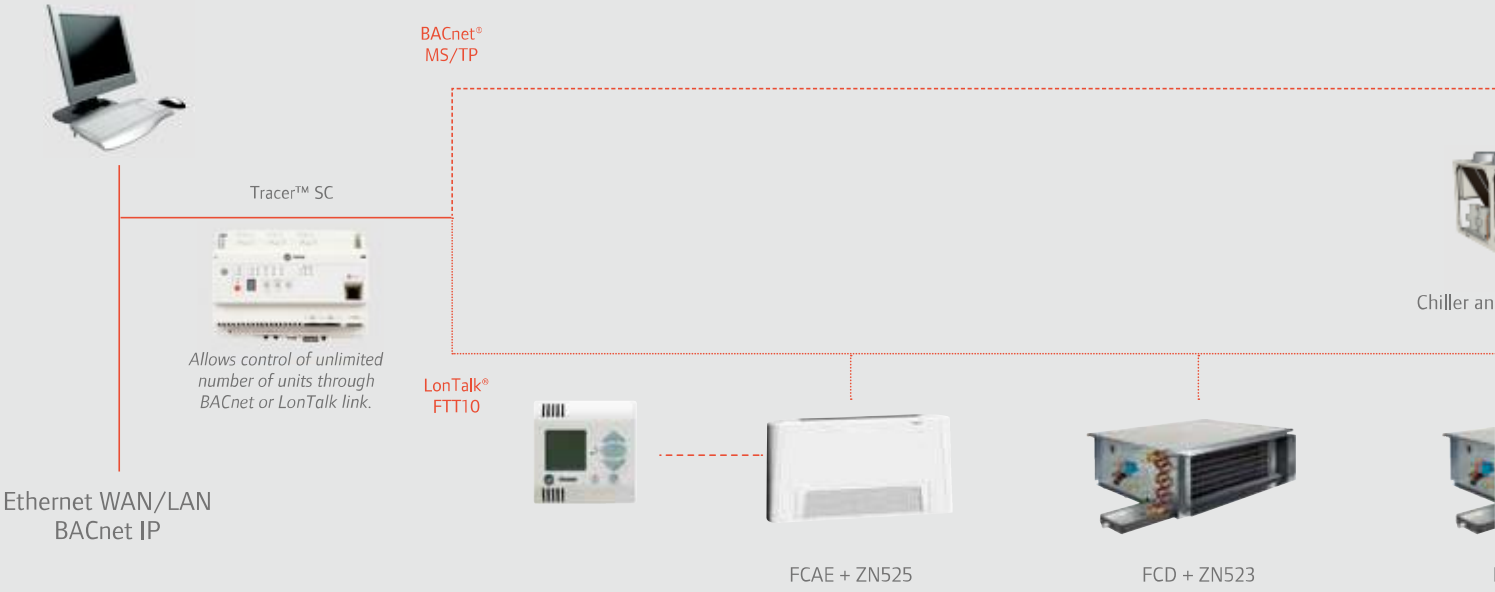
Fan coil performance data certified by Eurovent

The entire UniTrane™ range is Eurovent-certified by an independent and external laboratory. Eurovent certification means the assurance of accurate performance data and common comparison criteria.

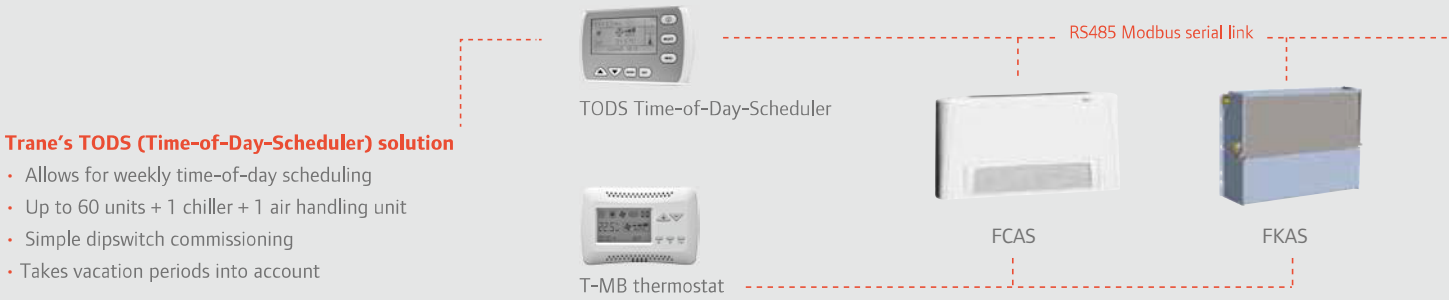
From simple to sophisticated: Building Management Systems

Trane's fan coil solution can be easily integrated into a BMS, no matter what the size. The entire range of Trane water terminals features control based on LonTalk® and Modbus protocols.

Integration into a sophisticated BMS



Integration into local group control/simple BMS



Trane's TODS (Time-of-Day-Scheduler) solution

- Allows for weekly time-of-day scheduling
- Up to 60 units + 1 chiller + 1 air handling unit
- Simple dipswitch commissioning
- Takes vacation periods into account

Unlimited number of other BACnet™ devices

d chiller plant BCI-C

Multipurpose
Tracer UC400 + XM30

AHU
Tracer UC400/UC600

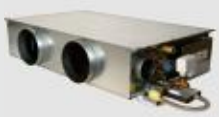
Unlimited number of other Modbus devices

FED + ZN525

Multipurpose
Tracer MP581

Chiller and chiller plant LCI-C

RS485 Modbus serial link



FCD*

CFAS / CFAE
1-way cassette

CWS/CWE
4-way cassette

Infrared remote
controller RT03

* Modbus available upon request

Trane air-cooled heat pump

ECC card (1 per network)

Up to
8 external
devices

AHU
Tracer UC400/UC600

Specifications: AC fan motor units

FVAS / FCAS / FKAS		11	12	21	22	31	32
Total cooling capacity (1)	(kW)	0.9	1.0	1.3	1.4	1.8	1.9
Sensible cooling capacity (1)	(kW)	0.7	0.8	1.0	1.1	1.3	1.4
Water flow (cooling) (1)	(l/h)	148	176	215	246	307	326
Water pressure drop (cooling) (1)	(kPa)	5	4	4	9	12	7
Heating capacity (2)	(kW)	1.2	1.3	1.6	1.7	2.2	2.2
Electric heater capacity	(W)	650	650	400-600-1000	400-600-1000	600-900-1500	600-900-1500
Airflow at 0Pa (1)	(m^3/h)	175	175	220	220	270	270
Fan power input (1)	(W)	25	25	22	22	25	25
Sound power level (3)	(dB(A))	32 / 39 / 45	32 / 39 / 45	30 / 40 / 47	30 / 40 / 47	36 / 40 / 49	36 / 40 / 49
Cabinet unit dimensions (lxwxh) (5)	(mm)	694x225x530	694x225x530	794x225x530	794x225x530	1009x225x530	1009x225x530
Weight (6)	(kg)	13	13	14	16	18	21
Concealed units dimensions (lxwxh) (7)	(mm)	415x218x511	415x218x511	515x218x511	515x218x511	730x218x511	730x218x511
Weight (6)	(kg)	9	10	13	15	18	20

FVAS / FCAS / FKAS		33	34	41	42	43	44
Total cooling capacity (1)	(kW)	2.1	2.3	2.9	3.3	3.4	3.9
Sensible cooling capacity (1)	(kW)	1.6	1.7	2.2	2.4	2.6	2.9
Water flow (cooling) (1)	(l/h)	369	393	506	560	580	665
Water pressure drop (cooling) (1)	(kPa)	16	9	11	21	14	25
Heating capacity (2)	(kW)	2.6	2.7	3.6	3.8	4.1	4.7
Electric heater capacity	(W)	600-900-1500	600-900-1500	750-1250-2000	750-1250-2000	750-1250-2000	750-1250-2000
Airflow	(m^3/h)	335	335	495	495	590	590
Fan power input (1)	(W)	28	28	39	39	55	55
Sound power level (3)	(dB(A))	33 / 39 / 47	33 / 39 / 47	31 / 41 / 43	31 / 41 / 43	37 / 46 / 52	37 / 46 / 52
Cabinet unit dimensions (lxwxh) (5)	(mm)	1009x225x530	1009x225x530	1224x225x530	1224x225x530	1224x225x530	1224x225x530
Weight (6)	(kg)	19	22	21	24	22	25
Concealed units dimensions (lxwxh) (7)	(mm)	730x218x511	730x218x511	945x218x511	945x218x511	945x218x511	945x218x511
Weight (6)	(kg)	19	21	21	23	22	24

FVAS / FCAS / FKAS		51	52	61	62	63	64
Total cooling capacity (1)	(kW)	4.3	4.6	5.2	5.7	5.9	6.5
Sensible cooling capacity (1)	(kW)	3.3	3.5	4.1	4.4	4.7	5.1
Water flow (cooling) (1)	(l/h)	739	799	894	987	1011	1127
Water pressure drop (cooling) (1)	(kPa)	25	20	18	14	22	18
Heating capacity (2)	(kW)	5.2	5.6	6.7	7.4	7.7	8.5
Electric heater capacity	(W)	1000-1500-2500	1000-1500-2500	1000-1500-2500	1000-1500-2500	1000-1500-2500	1000-1500-2500
Airflow	(m^3/h)	735	735	1020	1020	1210	1210
Fan power input (1)	(W)	79	79	105	105	134	134
Sound power level (3)	(dB(A))	42 / 51 / 56	42 / 51 / 56	45 / 56 / 60	45 / 56 / 60	50 / 58 / 64	50 / 58 / 64
Cabinet unit dimensions (lxwxh) (5)	(mm)	1439x225x530	1439x225x530	1439x255x530	1439x255x530	1439x255x530	1439x255x530
Weight (6)	(kg)	26	30	35	41	36	42
Concealed units dimensions (lxwxh) (7)	(mm)	1160x218x511	1160x218x511	1160x248x511	1160x248x511	1160x248x511	1160x248x511
Weight (6)	(kg)	25	28	33	38	33	39

Specifications: EC fan motor units

FVAE / FCAE / FKAE		21	22	33	34	43	44
Total cooling capacity (1)	(kW)	1.2	1.3	2.2	2.3	2.9	3.2
Sensible cooling capacity (1)	(kW)	0.9	1.0	1.7	1.7	2.2	2.4
Water flow (cooling) (1)	(l/h)	205	229	377	393	506	551
Water pressure drop (cooling) (1)	(kPa)	4	8	17	9	11	18
Heating capacity (2)	(kW)	1.5	1.6	2.7	2.8	3.6	3.9
Electric heater capacity	(W)	400-600-1000	400-600-1000	600-900-1500	600-900-1500	750-1250-2000	750-1250-2000
Airflow	(m^3/h)	220	210	350	340	495	475
Fan power input (1)	(W)	11	11	12	12	15	15
Sound power level (3)	(dB(A))	30 / 41 / 51	30 / 41 / 51	30 / 42 / 51	30 / 42 / 51	33 / 44 / 54	33 / 44 / 54
Cabinet unit dimensions (lxwxh) (5)	(mm)	794x225x530	794x225x530	1009x225x530	1009x225x530	1224x225x530	1224x225x530
Weight (6)	(kg)	14	16	19	22	22	25
Concealed units dimensions (lxwxh) (7)	(mm)	515x218x511	515x218x511	730x218x511	730x218x511	945x218x511	945x218x511
Weight (6)	(kg)	13	15	19	21	22	24

FVAE / FCAE / FKAE		51	52	63	64
Total cooling capacity (1)	(kW)	3.7	3.8	4.9	5.3
Sensible cooling capacity (1)	(kW)	2.8	2.8	3.8	4.0
Water flow (cooling) (1)	(l/h)	637	661	837	904
Water pressure drop (cooling) (1)	(kPa)	19	14	16	12
Heating capacity (2)	(kW)	4.5	4.6	6.4	6.7
Electric heater capacity	(W)	1000-1500-2500	1000-1500-2500	1000-1500-2500	1000-1500-2500
Airflow	(m^3/h)	610	585	945	910
Fan power input (1)	(W)	19	19	41	41
Sound power level (3)	(dB(A))	37 / 48 / 57	37 / 48 / 57	44 / 55 / 64	44 / 55 / 64
Cabinet unit dimensions (lxwxh) (5)	(mm)	1439x225x530	1439x225x530	1439x255x530	1439x255x530
Weight (6)	(kg)	26	30	36	42
Concealed units dimensions (lxwxh) (7)	(mm)	1160x218x511	1160x218x511	1160x248x511	1160x248x511
Weight (6)	(kg)	25	28	33	39

Power supply: 230V/50Hz/1Ph

(1) 2-pipe, air: 27°C/19°C, water: 7/12°C, high speed

(2) 2-pipe, air: 20°C, water inlet: 50°C, cooling water flow, high speed

(3) Levels according to Eurovent specification 8/2 (ISO 3741/88) and Eurovent Certification, standard motor

(4) Values calculated from sound power levels with a hypothetical acoustic attenuation of 9dB

(5) Vertical Cabinet (FVA) model

(6) Without water content, options, or accessories

(7) Horizontal Cabinet (FCA, FKA) models

Range description

Cabinet model, vertical installation, with return air grille
FCAS: AC fan motor
FCAE: EC fan motor

Concealed model, horizontal or vertical installation
FKAS: AC fan motor
FKAE: EC fan motor

Cabinet model, vertical installation
FVAS: AC fan motor
FVAE: EC fan motor

With support feet

With support feet + return air grille

Options and accessories offering

	Factory-mounted options	Field-mounted accessories
2 pipes: Cooling-only or Cooling + Heating	●	
4 pipes: Cooling + Heating	●	
Enhanced heating coil (4-pipe unit)	●	
Left hand / right hand valve installation	●	
Standard / Upper fan speed setup	●	
G0 / G3 air filters	●	●
CleanEffects™ electrostatic air filter	●	
Electric heater (Low / Medium / High capacity)	●	●
Trane Tracer™ ZN unit controller	●	
Modbus group unit controller	●	
Unit mounted thermostat / controller interface	●	●
Wall mounted thermostat / controller interface		●
Master / Slave relay kit		●
Water valves: 2-way / 3-way	●	●
Micrometric adjustment / shut off valve kit	●	●
Auxiliary condensate drain pan	●	●
Condensate pump	●	●
Unit support feet		●
Return air grille		●
Unit support feet + return air grille	●	●
Fresh air automatic damper and spigot		●
Rear or bottom closing panel (cabinet unit)		●
Front return panel (concealed unit)		●
Straight and 90° inlet and outlet flanges (concealed unit)		●
Air inlet / outlet grille (concealed unit)		●

Ingersoll Rand (NYSE:IR) advances the quality of life by creating and sustaining safe, comfortable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane® — work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; secure homes and commercial properties; and increase industrial productivity and efficiency. We are a $14 billion global business committed to a world of sustainable progress and enduring results.

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UNT-SLB027-E4 June 2013