

VRF multi-system  
Air Conditioners

**KXZ3**



**New Climate &  
Energy Solution**



# New Climate & Energy Solution

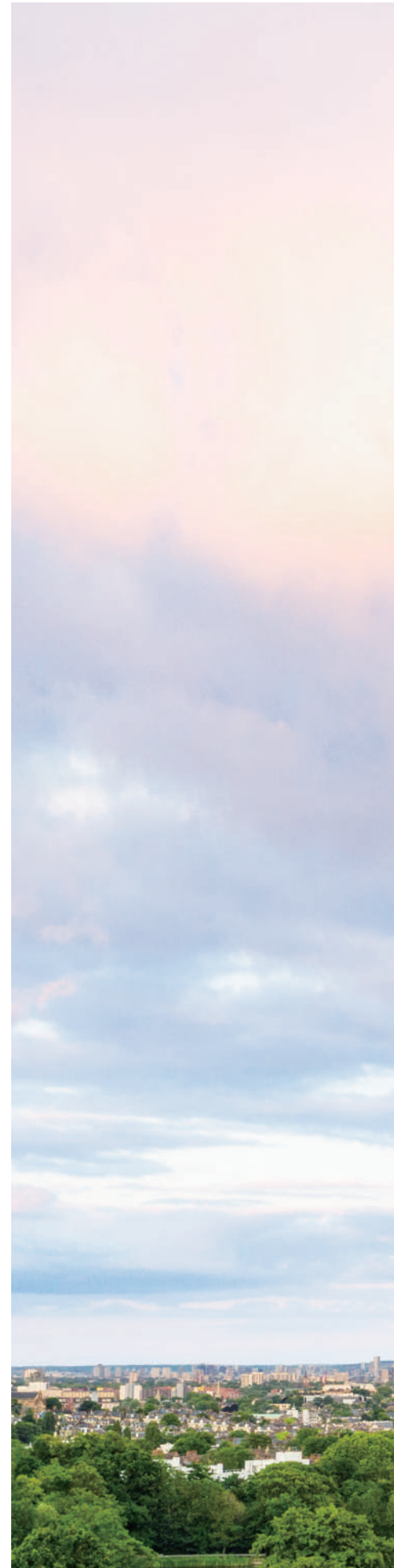
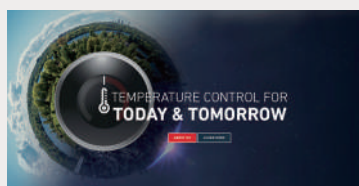
The new Mitsubishi Heavy Industries KXZ VRF series delivers high performance in cooling and heating for all commercial applications. The KXZ series provides the highest level of design flexibility, efficiency as well as operational functions.

This brochure highlights the key benefits and new and improved functions of our latest VRF technology.



## TEMPERATURE CONTROL FOR TODAY & TOMMORROW

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# Harmonize with the world

## Harmonize with the earth

- Global Environment
- Improved Energy Efficiency
- Toughness

## Harmonize with people

- Wellness & Comfort
- Serviceability

## Harmonize with buildings

- Design Flexibility

# KXZ3



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# New Design - 6 concepts -

The redesigned model with R32 refrigerant has been engineered by the following 6 concepts.



## New line-up

### 1 FAN structure

Compact design with a 1 FAN structure on the upper part of the unit.



#### 1 Global Environment

- Reduce CO<sub>2</sub> emission by about 70%

#### 2 Wide Design Flexibility

- New exterior design to fit the scenery
- Various type of indoor units available
- Wider limitation of piping installation
- Flexible selection of safety systems

#### 3 Improved Energy Efficiency

- Higher SCOP & SEER
- New R32 scroll compressor
- Heat exchanger with small heat transfer pipe
- Optimized fan and flow path design
- VTCC<sup>+</sup> : advanced variable temperature and capacity control

#### 4 Wellness & Comfort

- Advanced continuous heating

#### 5 Toughness

- Cooling use in high ambient temperature

#### 6 Serviceability

- Easy access to replacement parts

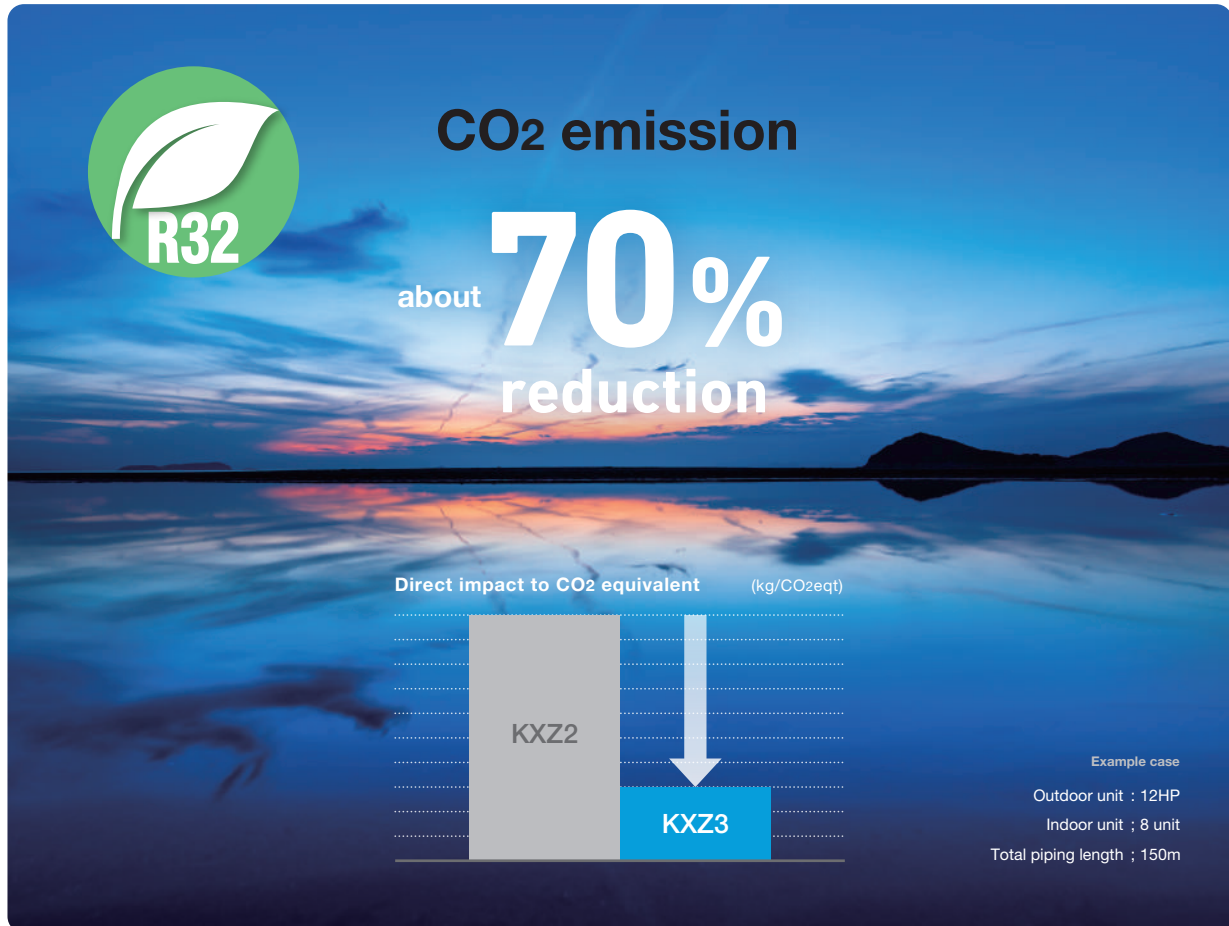
Concept 1

# Global Environment

Meet our new **R32 KXZ3 series** of heat pumps, the perfect climate solution for heating and cooling commercial and industrial applications.

By optimizing the KXZ3 series with R32 refrigerant has increased

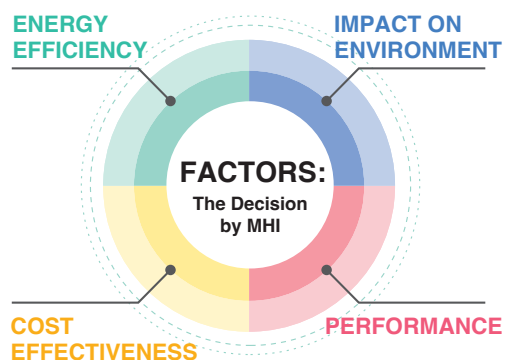
- Energy efficiency
- Overall performance
- Cost effectiveness
- Reduction in environmental impact



## R32 - A Low GWP Refrigerant



The Decision by MHI to transition to a new refrigerant is driven by many factors.  
KXZ3 with the use of R32 refrigerant, lower GWP (675) than R410A (2088)



1. A single component, easy to handle refrigerant
2. Known as a component of the blend R410A (50% R32, 50% R125)
3. Already used in Air-Conditioning systems worldwide
4. Zero Ozone Depletion
5. Superior Energy Efficiency vs. R410A
6. Reduced refrigerant charge vs. R410A
7. Easy to recycle

# Wide Design Flexibility

New exterior design to fit the scenery

## 1. Outdoor units - Product line-up -

Our **line-up** and limitation of use make it possible to adopt wider range of installation on commercial buildings.

### Compact design

One of the smallest in the industry

The **KXZ3 series** has reduced the installation space with the integral structure of the heat exchanger and the mechanical components. The total footprint has become more compact compared to our previous model.



### Combination use is also possible

The new product line-up of the **KXZ3 series** can also be installed to offer solutions with a combination of 3 outdoor units.

Single module	Combination
8 - 12HP	up to 36HP



### Connectability

KXZ3 - Standard Connectable Indoor Units

Increased number of connectable units and max capacity connection.

Standard KXZ3	HP	8	10	12	16	18	20	22	24	26	28	30	32	34	36
	Numbers	22	28	33	45	50	56	61	67	73	80	80	80	80	80
	IU Capacity connection	50 - 150% (*1)													

(\*1) When connecting the indoor unit type FDK, FDFL, FDFU or FDFW series, limit the connectable capacity not higher than 130%.



## Various type of indoor units available

Indoor units only for



## 2. Indoor units

- Product line-up -

Wide variety of **14** types **78** models

Type			Capacity : HP	0.5	0.8	1	1.25	1.6	2	2.5	3.2	4	5	6	8	10
			Model Code : kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0	22.4	28.0
Ceiling Cassette	4way	FDT				●	●	●	●	●	●	●	●	●		
	4way Compact	FDTC		●	●	●	●	●	●							
	2way	FDTW				●		●	●	●	●	●				
	1way	FDTs						●		●						
	1way Compact	FDTQ			●	●	●									
Duct Connected	High Static Pressure	FDU						●	●	●	●	●	●	●	●	●
	Low/Middle Static Pressure	FDUM			●	●	●	●	●	●	●	●	●	●		
	Low Static Pressure (thin)	FDUT		●	●	●	●	●	●	●						
	Compact & Flexible	FDUH			●	●	●									
Wall mounted		FDK		●	●	●	●	●	●	●	●					
Ceiling Suspended		FDE					●	●	●	●		●	●			
Floor Standing	2way	FDFW				●		●	●							
	With Casing	FDFL								●						
	Without Casing	FDFU				●		●	●	●						

Coming soon

## Wider limitation of piping installation

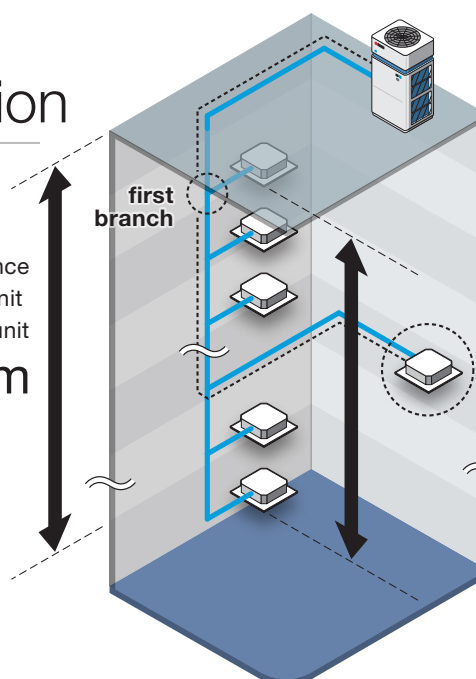
## 3. Flexible pipe installation

Total length:

**1,000m**

The piping length of our KXZ series have been extended with a maximum height difference between indoor units of up to 30m enabling installation of indoor units on an extra three floors. Also, the furthest unit can be installed up to 160m from outdoor unit.

Height difference from Outdoor unit to indoor unit  
Max **90m**



To the first branch:  
Max **130m**

Furthest indoor unit:  
Actual length:  
**160m**


Piping length after the first branch (\*2)  
Max **90m**

(\*2):  
The difference between the longest and the shortest indoor unit piping from the first branch must be within 40m. (MAX85m)

Max height difference between indoor units  
Max **30m**

Flexible selection of safety systems

4. Safety system



R32 refrigerant

R32 refrigerant is categorized as mildly flammable (A2L) by International Standard ISO817. Safety measures specified in safety standard IEC60335-2-40 Ed.6.0. must be observed when installing or using R32 refrigerant equipment. The necessity of safety measures and the type and number of required safety equipment depend on the conditions of each room in the building.

1. Refrigerant leak detector	2. Safety alarm	3. Shut-off valve	4. Ventilator <small>MHI option has not been prepared.</small>
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The necessity of safety measures and the type and number of required safety equipment depend on the conditions of each room in the building. Safety equipment units are grouped into the following categories.

**Refrigerant leak detector**  
(Safety alarm)



RLD-KIT-E

**Remote Controller**  
(Safety alarm)



RC-EX3D

**Shut-off valve**



SV-KIT-S1N-E  
SV-KIT-L1N-E

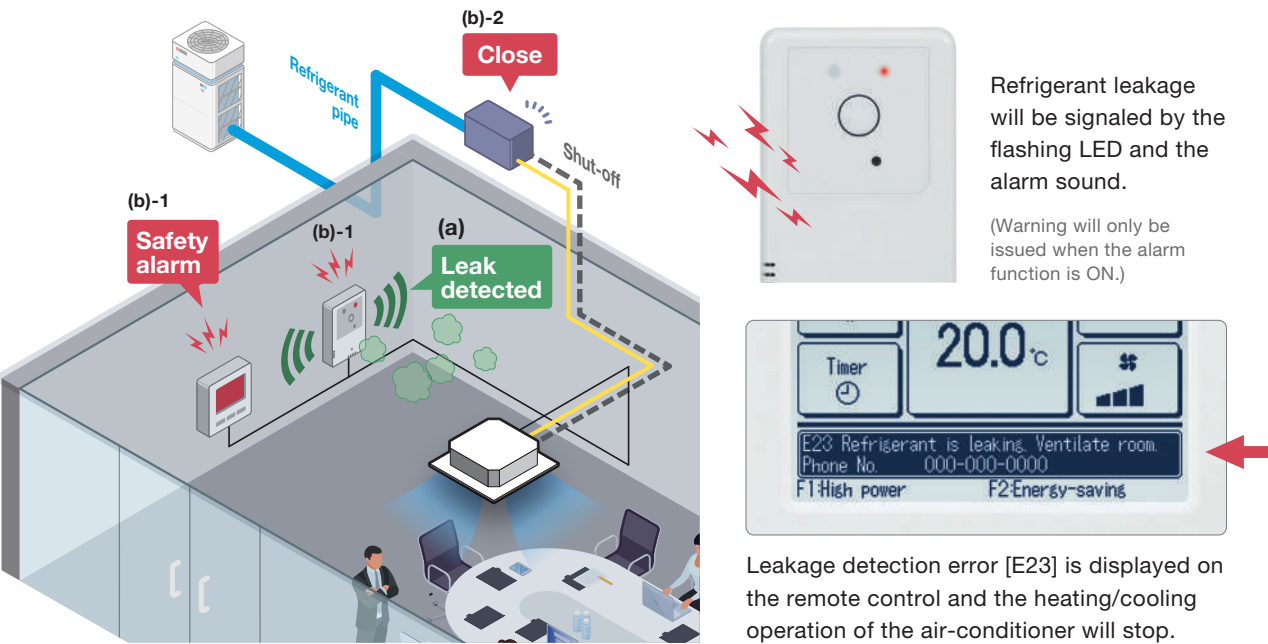
Example of the safety system

1. Refrigerant leak detected

2. Safety alarm is sounded, and flow of refrigerant is blocked.
- (a) : Refrigerant leak detector detects refrigerant leakage in the room.

(b)-1 : Safety alarm sounds and light alerts to signal refrigerant leakage.

(b)-2 : Shut-off valve in the refrigerant pipe closes and blocks the flow of refrigerant.



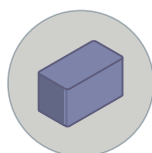


**Our safety system offers** wide flexibility of installation for safety measures.  
Safety system can be installed only to the rooms that are necessary.

### Refrigerant pipe

Power supply wiring

Signal wiring



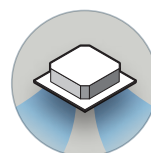
**Shut-off valve**



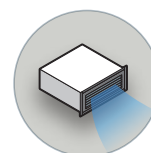
**Refrigerant leak detector**



**Remote controller**



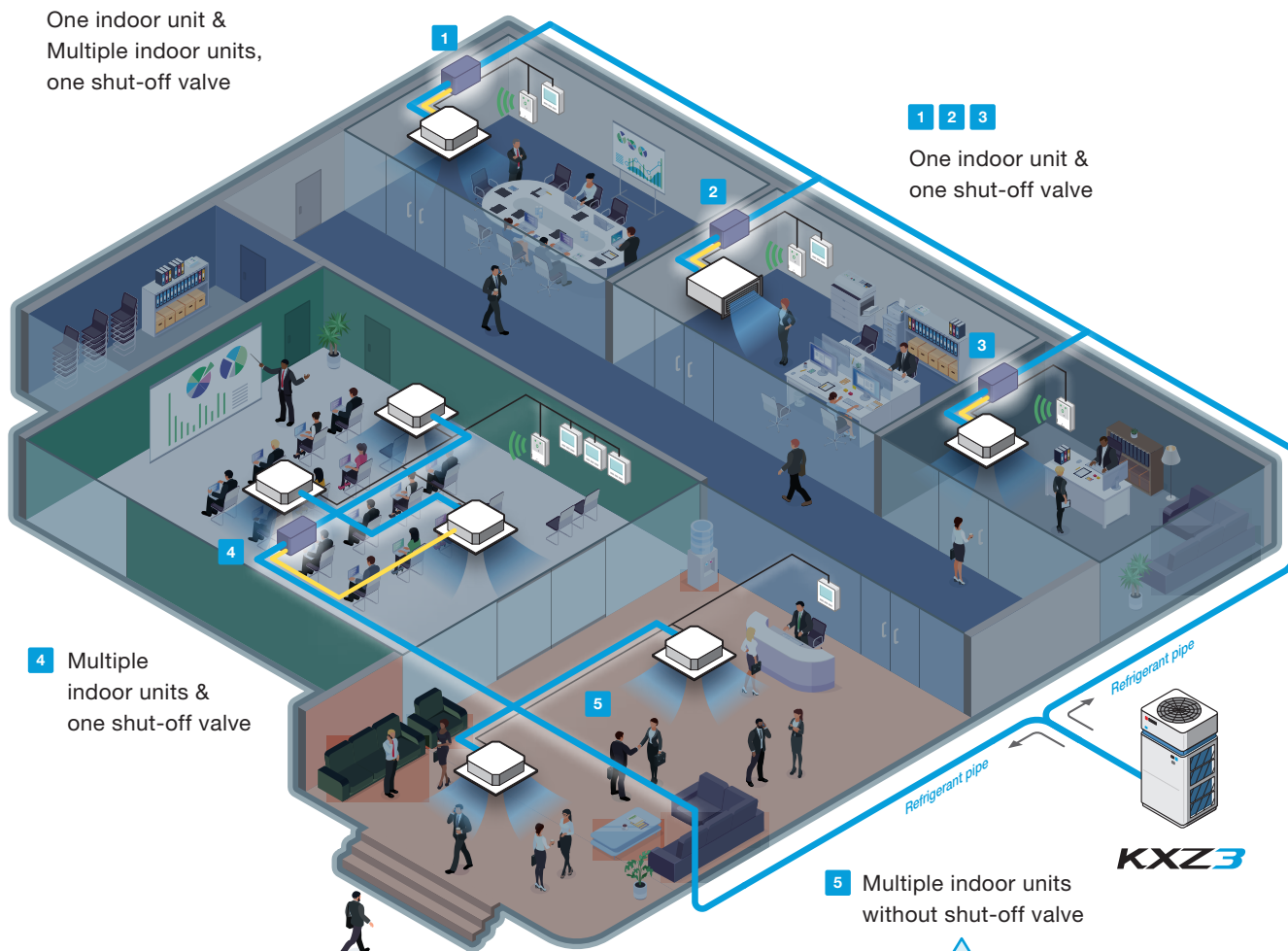
**Indoor unit FDT**



**Indoor unit FDU**

## System diagram

One indoor unit &  
Multiple indoor units,  
one shut-off valve



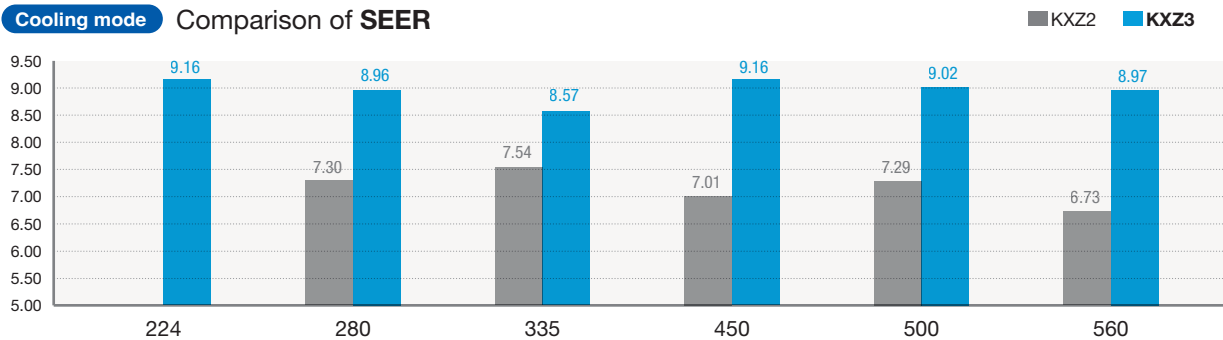
# Improved Energy Efficiency

## Higher SCOP & SEER

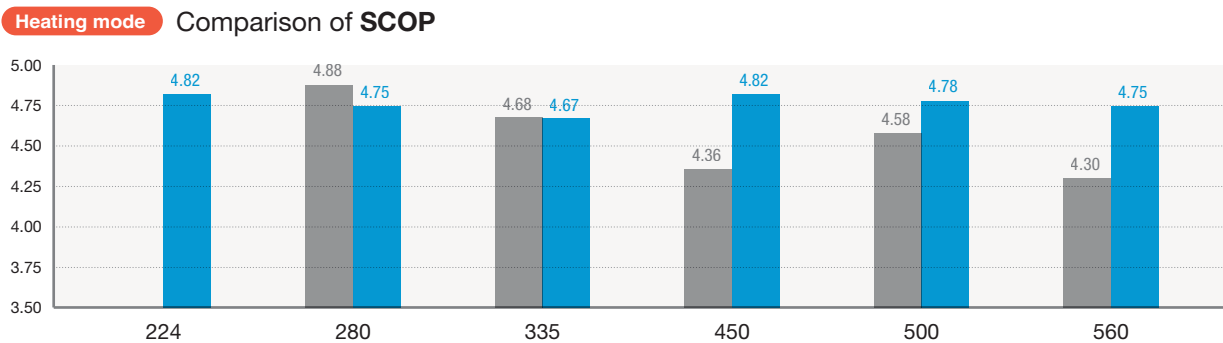
## Increased seasonal efficiencies

Our **KXZ3 series** provide high performance and excellent energy savings across all ranges. This is achieved by the optimized heat exchangers with the increased capacities and the advanced energy efficient compressor.

### Cooling mode Comparison of SEER



### Heating mode Comparison of SCOP



From the models beyond 450 the KXZ3 series are measured with combinations



## Features

Improved seasonal efficiency is achieved by

- 1 New R32 scroll compressor with the improved scroll mechanism and motor.
- 2 Heat exchanger with small heat transfer pipe (Ø7)
- 3 Optimized fan and flow path design
- 4 Advanced VTCC<sup>+</sup> control



## New R32 scroll compressor with the improved scroll mechanism and motor

### 1 New scroll compressor

With the adaptation of new components and its optimization, the KXZ3 series is now available in R32 refrigerant with a higher efficiency and a wide operation range. The new compressor uses the latest compressor technology and has proven to be extremely reliable.

## New Technology

1. New liquid injection structure to cool down the refrigerant

Leading to  
the wide operation range

2. Redesign of the spiral structure of the scroll

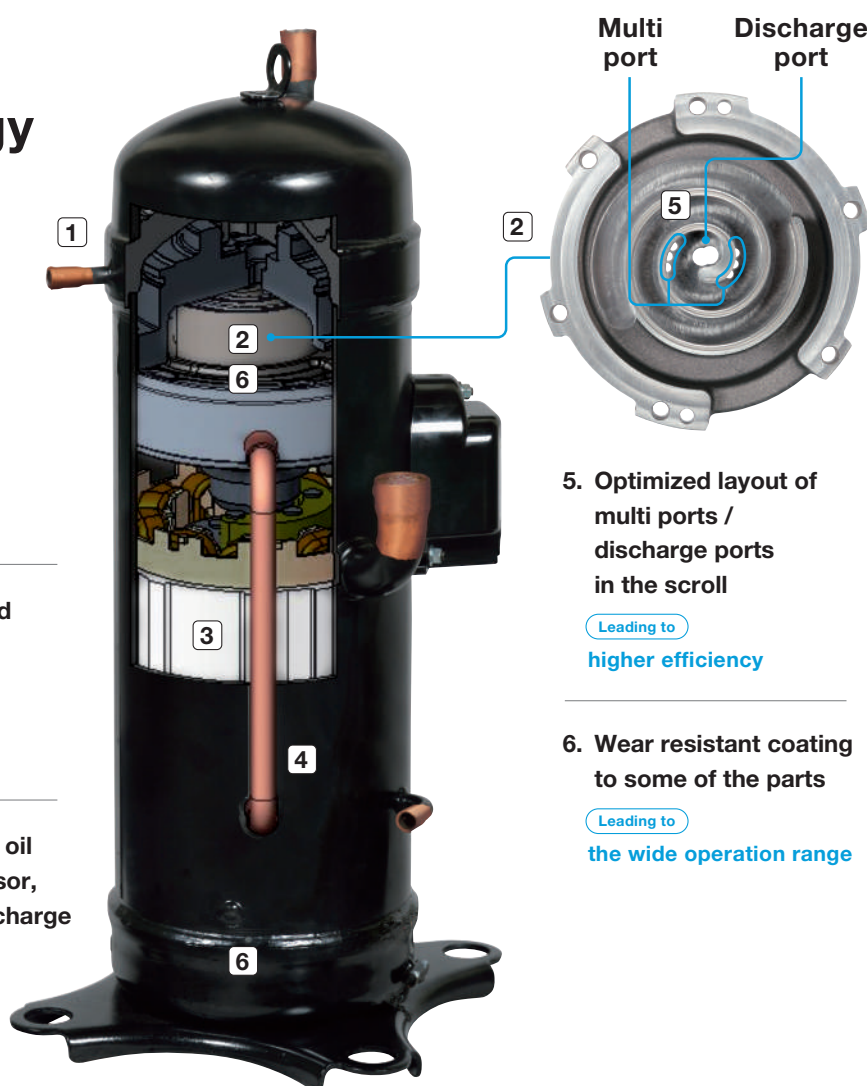
Leading to  
higher efficiency

3. Larger motor with an optimized winding structure of the coil

Leading to  
the wide operation range  
and improved efficiency

4. New oil circuit that returns the oil to the bottom of the compressor, decreasing the amount of discharge oil at high rotation range.

Leading to  
higher efficiency



5. Optimized layout of multi ports / discharge ports in the scroll

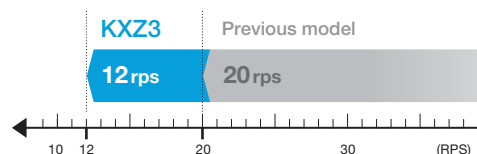
Leading to  
higher efficiency

6. Wear resistant coating to some of the parts

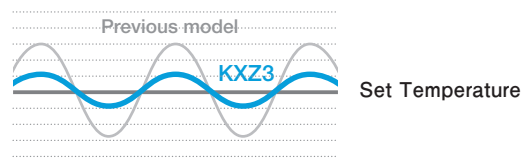
Leading to  
the wide operation range

## Expansion of minimum | Rotation speed of the compressor

Achieving precise performance control



Improved energy savings and comfort at set temperature





Heat exchanger with small heat transfer pipe (Φ7.0)

2 Improved heat exchanger

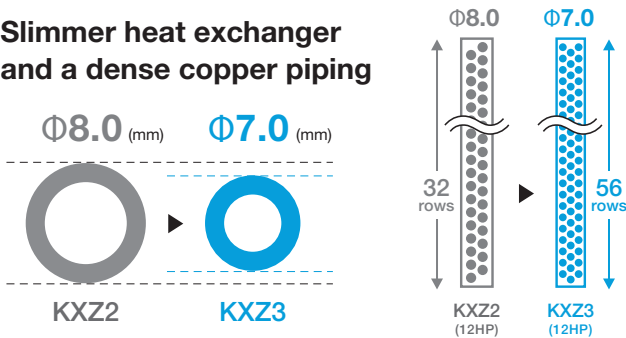


Adopting a slimmer 7.0mm copper pipe. By increasing the number of the copper pipe and fin, the performance level has improved while keeping the heat exchanger size small.

With the adaptation of the new slim heat exchanger lesser refrigerant load and more compact sizing, achieved while keeping the overall permeance and the efficiency higher than the previous model.

Heat exchanger: (10HP)	<b>-30%</b> in volume	<b>-12%</b> in surface area
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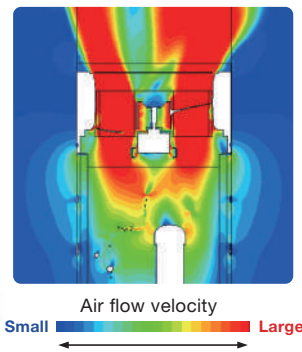
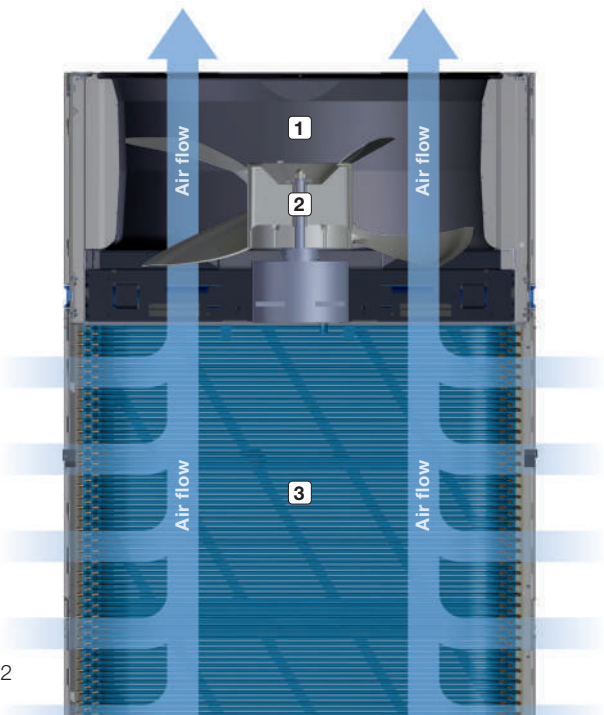
Slimmer heat exchanger and a dense copper piping



Optimized fan and flow path design

3 Optimized air flow structure

Pressure loss in flow path is minimized with the newly designed impeller and optimized path, dedicating better energy efficiency. Regulated air flow by optimized flow path leads to more efficient heat exchange.

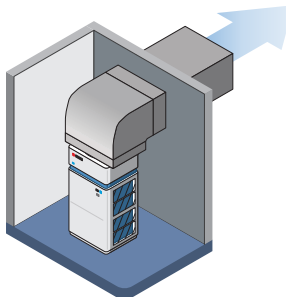


- 1. Optimized diffuser
- 2. Newly designed impeller
- 3. Heat exchanger

Extended external static pressure

Max: **90 Pa**

Flexibility to meet installation location needs.



## VTCC<sup>+</sup> : advanced variable temperature and capacity control

### 4 KX VRF redesigned with VTCC

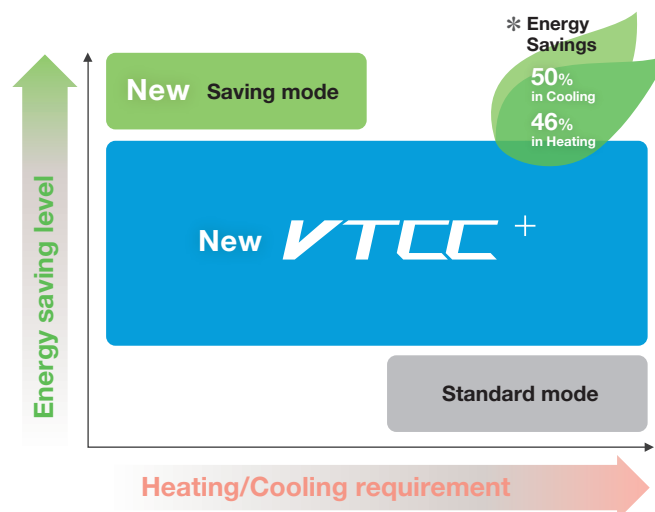
( Variable Temperature and Capacity Control )

# VTCC<sup>+</sup>

New VRF control VTCC<sup>+</sup> adjusts the target pressure of the refrigerant automatically according to the requirement load of the indoor rooms in partial load conditions.

These smooth adjustments ensure an optimal capacity usage of the indoor units as well as maximised energy savings. Ultimately this also increases comfort for the user.

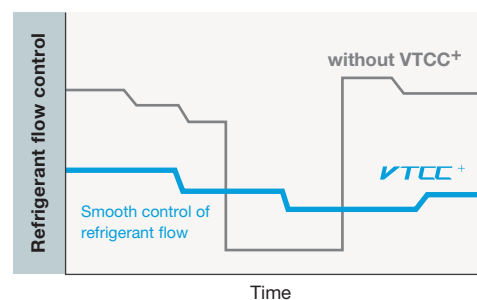
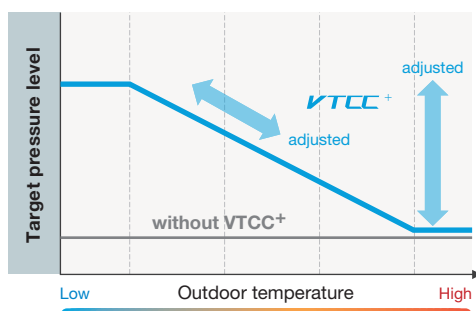
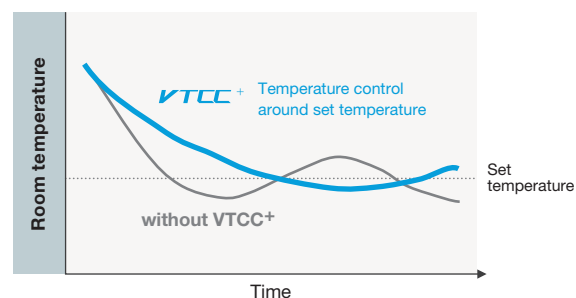
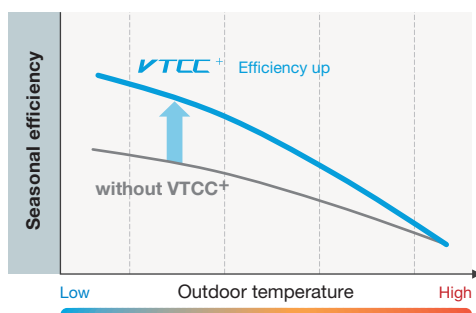
- Most balanced mode between capacity control and energy saving
- Target pressure is automatically adjusted according to heating/cooling requirement, which achieve energy saving
- Advanced capacity control achieves smooth temperature control close to set temperature
- Suitable for heating/cooling demand varies among the room in the building



\* Saving mode(U-High) compared to standard mode in the following conditions

Cooling : Outside temperature 20°CDB, Partial load factor 21%, Set temperature 27°C

Heating : Outside temperature 12°CDB/11°CWB, Partial load factor 15%, Set temperature 20°C



#### New Saving mode

- Most energy saving mode
- Suitable for low heating/cooling demand in the building
- Target pressure is adjusted lower/higher in heating/cooling

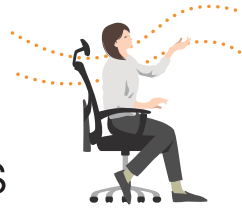
#### Standard mode

- Capacity is maximised
- Suitable for high heating/cooling demand in the building
- Target pressure is adjusted steady to maximize the capacity

# Wellness & Comfort

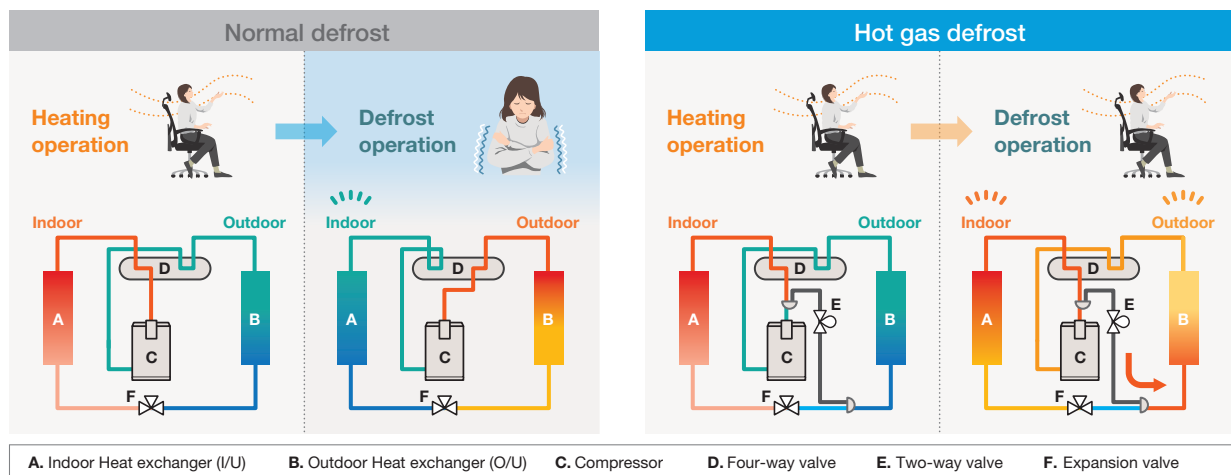
## Advanced continuous heating

### Continuous heating with two defrost modes



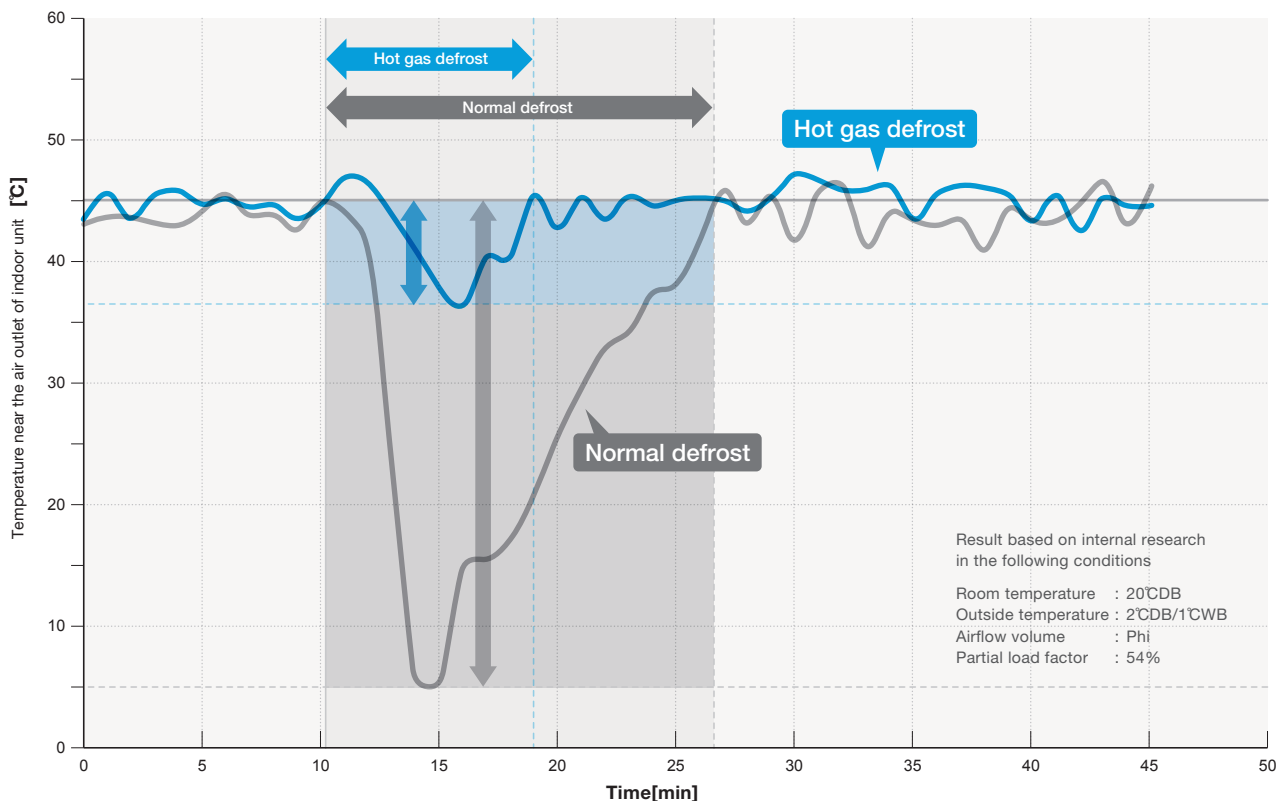
**Two defrost modes** are prepared, and the defrost is automatically switched according to the amount of frost formation. Hot gas defrost mode enables non-stop heating during defrost operation with of hot gas bypass.

### Enhanced heating operation functions



### The comparison between the air outlet temperature of normal defrost and hot gas defrost

- Reduction in the time period of temperature drop caused by defrost
- Mitigation in temperature drop caused by defrost

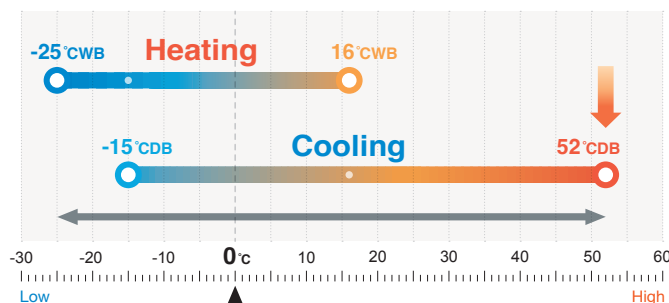
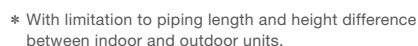




# Toughness

## Wide range of operation

KXZ series permits an extensible system design with a heating range operation down to -25°C and a cooling range operation up to 52°C.



# Serviceability

## Easy access to the control box

**The control box** is in the upper part of the unit and can now be easily accessed by taking off the upper front panel.



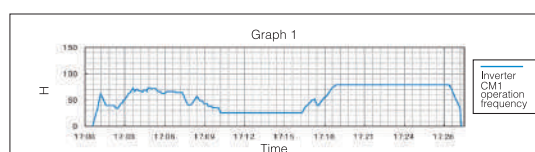
## Features

- The total amount of data that can be checked from the remote controller has increased
- Can save the data of the operating conditions 30~180 minutes before malfunction after the power is off  
(To save data for more than 30 minutes settings must be changed)
- Can now output air flow volume of the outside fan
- Can now record the running hours of the fan motor

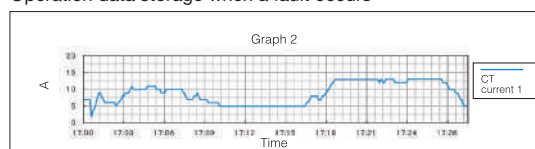
Automatically produced test-run report

[illegible]

### Operation data storage during servicing



Operation data storage when a fault occurs



# 8~12 HP

 (22.4kW ~ 33.5kW)

**VTCC+**

## Technical focus

- Available in the R32 refrigerant
- New exterior design containing cutting edge technology
- High SEER with advanced technology
- VTCC+ : advanced variable temperature and capacity control
- Compact design with a small total footprint
- Advanced continuous heating


**FDC224-335**

## Specifications

Item			Model	FDC224KXZE3	FDC280KXZE3	FDC335KXZE3
Nominal horse power				8HP	10HP	12HP
Power source				3 Phase 380-415V, 50Hz		
Nominal capacity	Cooling	kW	22.4	28.0	33.5	
	Heating		22.4	28.0	33.5	
Max heating capacity		kW	25.0	31.5	37.5	
Power consumption	Cooling	kW	5.52	8.05	9.69	
	Heating		4.58	6.35	7.98	
EER			4.06	3.48	3.46	
COP			4.90	4.41	4.20	
SEER			9.16	8.96	8.57	
SCOP			4.82	4.75	4.67	
Exterior dimensions (HxWxD)		mm	1750×920×760			
Net weight		kg	262			
Sound power level	Cooling	dB(A)	76	77	82	
	Heating		78	83	86	
Sound pressure level	Cooling	dB(A)	55	56	60	
	Heating		55	60	63	
Starting current		A	5			
Max current		A	20.7	23.2	25.7	
Refrigerant	Type/GWP		R32 / 675			
	Charge	kg	7.1	7.7		
	TCO <sub>2</sub> Eq		4.793	5.198		
Refrigerant piping size	Liquid	mm (in)	ø9.52(3/8")		ø12.7(1/2")	
	Gas		ø19.05(3/4")	ø22.22(7/8")		
Total piping length		m	1000			
Outdoor operating temperature range	Cooling	°CDB	-15 ~ 52			
	Heating	°CWB	-25 ~ 16			
Capacity connection		%	50 ~ 150			
Number of connectable indoor units			22	28	33	

- The data are measured under the following conditions (ISO-T1, H1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
- SEER/SCOP are based on EN14825:2018 and Commission regulation (EU) No.2016/2281. Temperature conditions for calculating SCOP are based on "Average climate".
- Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- "tonne(s) of CO<sub>2</sub> equivalent" means a quantity of greenhouse gases- expressed as the product of the weight of the greenhouse gases in metric tonnes and of their global warming potential.
- Refrigerant contained in the products is a fluorinated greenhouse gas listed in Regulation (EU) No 517/2014.
- When connecting the indoor unit type FDK, FDFL, FDFU or FDFW series, limit the connectable capacity not higher than 130%.

# 16~24 HP

 (44.8kW ~ 67.0kW)

**VTCC<sup>+</sup>**

## Technical focus

- Available in the R32 refrigerant
- New exterior design containing cutting edge technology
- High SCOP & SEER with advanced technology
- VTCC<sup>+</sup> : advanced variable temperature and capacity control
- Compact design with a small total footprint
- Advanced continuous heating



FDC450-670

## Specifications

Item		Model	FDC450KXZVE3	FDC500KXZVE3	FDC560KXZVE3	FDC615KXZVE3	FDC670KXZVE3
Combination (FDC)			224KXZE3	224KXZE3	280KXZE3	280KXZE3	335KXZE3
			224KXZE3	280KXZE3	280KXZE3	335KXZE3	335KXZE3
Nominal horse power			16HP	18HP	20HP	22HP	24HP
Power source			3 Phase 380-415V, 50Hz				
Nominal capacity	Cooling	kW	44.8	50.4	56.0	61.5	67.0
	Heating	kW	44.8	50.4	56.0	61.5	67.0
Max heating capacity		kW	50.0	56.5	63.0	69.0	75.0
Power consumption	Cooling	kW	11.0	13.6	16.1	17.7	19.4
	Heating	kW	9.1	10.9	12.7	14.3	16.0
EER			4.06	3.71	3.48	3.46	3.46
COP			4.90	4.61	4.41	4.29	4.20
SEER			9.16	9.02	8.97	8.74	8.57
SCOP			4.82	4.78	4.75	4.70	4.67
Net weight		kg	524			536	548
Starting current		A	10				
Max current		A	41.4	43.9	46.4	48.9	51.4
Refrigerant	Type/GWP		R32 / 675				
	Charge	kg	7.1×2			7.1+7.7	7.7×2
Refrigerant piping size	Liquid	mm (in)	ø12.7(1/2")				
	Gas	mm (in)	ø28.58(1 1/8")				
	Oil equalization		ø12.7(1/2")				
Total piping length		m	1000				
Outdoor operating temperature range	Cooling	°CDB	-15 ~ 52				
	Heating	°CWB	-25 ~ 16				
Capacity connection		%	50 ~ 150				
Number of connectable indoor units			45	50	56	61	67

- The data are measured under the following conditions (ISO-T1, H1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
- SEER/SCOP are based on EN14825:2018 and Commission regulation (EU) No.2016/2281. Temperature conditions for calculating SCOP are based on "Average climate".
- Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- 'tonne(s) of CO<sub>2</sub> equivalent' means a quantity of greenhouse gases- expressed as the product of the weight of the greenhouse gases in metric tonnes and of their global warming potential.
- Refrigerant contained in the products is a fluorinated greenhouse gas listed in Regulation (EU) No 517/2014.
- When connecting the indoor unit type FDK, FDFL, FDFU or FDFW series, limit the connectable capacity not higher than 130%.



# 26 ~ 30 HP

 (72.8kW ~ 84.0kW)

**VTCC+**

## Technical focus

- Available in the R32 refrigerant
- New exterior design containing cutting edge technology
- High SCOP & SEER with advanced technology
- VTCC+ : advanced variable temperature and capacity control
- Compact design with a small total footprint
- Advanced continuous heating



FDC735-850

## Specifications

Item		Model	FDC735KXZVE3	FDC800KXZVE3	FDC850KXZVE3
Combination (FDC)			224KXZE3	224KXZE3	280KXZE3
			224KXZE3	280KXZE3	280KXZE3
			280KXZE3	280KXZE3	280KXZE3
Nominal horse power			26HP	28HP	30HP
Power source			3 Phase 380-415V, 50Hz		
Nominal capacity	Cooling	kW	72.8	78.4	84.0
	Heating	kW	72.8	78.4	84.0
Max heating capacity		kW	81.5	88.0	94.5
Power consumption	Cooling	kW	19.1	21.6	24.1
	Heating	kW	15.5	17.3	19.0
EER			3.81	3.62	3.48
COP			4.69	4.53	4.41
SEER			9.07	9.02	8.97
SCOP			4.79	4.78	4.75
Net weight		kg	786		
Starting current		A	15		
Max current		A	64.6	67.1	69.6
Refrigerant	Type/GWP		R32 / 675		
	Charge	kg	7.1×3		
Refrigerant piping size	Liquid	mm (in)	ø15.88(5/8")		
	Gas	mm (in)	ø34.92(1 3/8")		
	Oil equalization		ø12.7(1/2")		
Total piping length		m	1000		
Outdoor operating temperature range	Cooling	°CDB	-15 ~ 52		
	Heating	°CWB	-25 ~ 16		
Capacity connection		%	50 ~ 150		
Number of connectable indoor units			73	80	80

- The data are measured under the following conditions (ISO-T1, H1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
- SEER/SCOP are based on EN14825:2018 and Commission regulation (EU) No.2016/2281. Temperature conditions for calculating SCOP are based on "Average climate".
- Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- "tonne(s) of CO<sub>2</sub> equivalent" means a quantity of greenhouse gases- expressed as the product of the weight of the greenhouse gases in metric tonnes and of their global warming potential.
- Refrigerant contained in the products is a fluorinated greenhouse gas listed in Regulation (EU) No 517/2014.
- When connecting the indoor unit type FDK,FDL,FDU or FDFW series, limit the connectable capacity not higher than 130%.

# 32 ~ 36 HP

 (89.5kW ~ 100.5kW)

**VTCC<sup>+</sup>**

## Technical focus

- Available in the R32 refrigerant
- New exterior design containing cutting edge technology
- High SCOP & SEER with advanced technology
- VTCC<sup>+</sup> : advanced variable temperature and capacity control
- Compact design with a small total footprint
- Advanced continuous heating



FDC900-1000

## Specifications

Item		Model	FDC900KXZVE3	FDC950KXZVE3	FDC1000KXZVE3
Combination (FDC)			280KXZE3	280KXZE3	335KXZE3
			280KXZE3	335KXZE3	335KXZE3
			335KXZE3	335KXZE3	335KXZE3
Nominal horse power			32HP	34HP	36HP
Power source			3 Phase 380-415V, 50Hz		
Nominal capacity	Cooling	kW	89.5	95.0	100.5
	Heating	kW	89.5	95.0	100.5
Max heating capacity		kW	100.5	106.5	112.5
Power consumption	Cooling	kW	25.8	27.4	29.0
	Heating	kW	20.7	22.3	23.9
EER			3.47	3.46	3.46
COP			4.32	4.25	4.20
SEER			8.81	8.68	8.57
SCOP			4.72	4.69	4.67
Net weight		kg	798	810	822
Starting current		A		15	
Max current		A	72.1	74.6	77.1
Refrigerant	Type/GWP		R32 / 675		
	Charge	kg	7.1×2 + 7.7	7.1 + 7.7×2	7.7×3
Refrigerant piping size	Liquid	mm (in)	ø15.88(5/8")		
	Gas	mm (in)	ø34.92(1 3/8")		
	Oil equalization		ø12.7(1/2")		
Total piping length		m	1000		
Outdoor operating temperature range	Cooling	°CDB	-15 ~ 52		
	Heating	°CWB	-25 ~ 16		
Capacity connection		%	50 ~ 150		
Number of connectable indoor units			80		

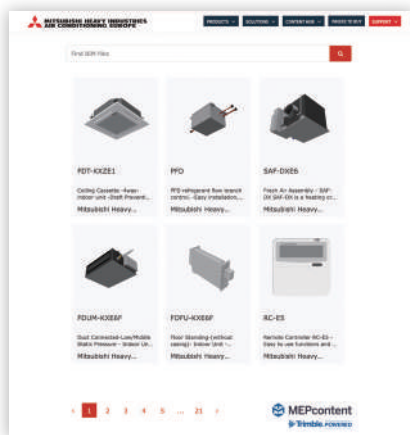
- The data are measured under the following conditions (ISO-T1, H1). Cooling: Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB. Heating: Indoor temp. of 20°CDB, and outdoor temp. of 7°CDB, 6°CWB.
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- Sound level indicates the value in an anechoic chamber. During operation these values are somewhat higher due to ambient conditions.
- 'tonne(s) of CO<sub>2</sub> equivalent' means a quantity of greenhouse gases- expressed as the product of the weight of the greenhouse gases in metric tonnes and of their global warming potential.
- Refrigerant contained in the products is a fluorinated greenhouse gas listed in Regulation (EU) No 517/2014.
- When connecting the indoor unit type FDK,FDL,FDU or FDFW series, limit the connectable capacity not higher than 130%.

# Time Saving Software

## BIM (Building Information Modelling)

Coming soon

We can provide high quality Building Information Modelling (BIM) models in three formats:



1. Revit
2. 3D Cad
3. IFC

(IFC provides an interoperability solution between different software applications. The format establishes international standards to import and export building objects and their properties)

### How and why BIM is used

BIM enables all disciplines of a project (Architects, engineers, quantity surveyors, contractors, clients etc..) to share a common model and data representing the project they are building.

- Better design visualization
- BIM reduces conflicts and changes during construction
- Increases overall accuracy of project documentation
- Improves cost estimating
- Makes energy analysis more efficient
- Simplifies reporting and scheduling



[mhiae.com/BIM](http://mhiae.com/BIM)

## e-seasonal

Coming soon

e-seasonal is an application for our Air cooled VRF Outdoor unit selection.

By selecting a combination of systems, location and occupancy profiles you can simulate:

1. Annual seasonal efficiency calculation
2. Annual energy consumption, cost and CO2 emission estimation
3. Comparison with multiple solutions including conventional heaters

It is possible to download to your PC for an offline version or using a web browser for an online version. e-seasonal provides solution suggestions according to your requested design conditions.





# e-solution

Coming soon

**Use our e-solution design software tool** to find the latest specifications for our KXZ VRF systems. This software helps to simplify the processes to enable engineers to select the most suitable indoor units, outdoor units, pipework, controls & calculate any additional required refrigerants.

If you're an engineer interested in using e-solution, please register and download the e-solution via <https://mhi-ae.com/e-solution/> and be sure to download the latest updates when available.



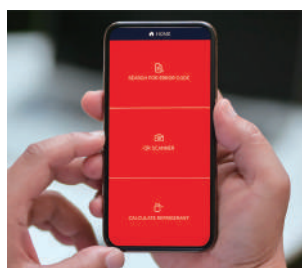
Please be aware that this tool was developed to cater for the design of two and three pipe systems, and specifies the appropriate models and sizes. It also generates wiring diagrams and engineering drawing to export to AutoCAD or PDF. This flexibility allows engineers to print selected design information and technical data to present to potential clients. As well as personalising the design information into their own formats and documents for future proposals.

## MHI e-service App

**MHI e-service application** is available & free to download to both IOS and Android devices.

The application covers "Mitsubishi Heavy Industries Thermal Systems, Ltd" Air conditioning systems: Split (RAC & PAC), VRF, Q-ton & AtoW.

This "MHI e-service" Application enables field engineers to make:  
A quick search of the meaning of error codes that may appear when there is a malfunction in a "Mitsubishi Heavy Industries Thermal Systems, Ltd" Air conditioning system, and the probable cause for the malfunction.  
Scan the unit's QR code and search the meaning of error codes depending on the model type  
Additional refrigerant charge calculation for Split (PAC, RAC) & VRF  
Currently available in English & Spanish languages and Italian



To download the App go to:



Android™



iPhone

# Building Management Systems

**Our company offers** a wide range of control options for the KXZ system to suit any application, large or small, as well as connection to a new or existing BMS.



## Cloud Monitoring system

**M-ACCESS**  
RM-CGW-E1



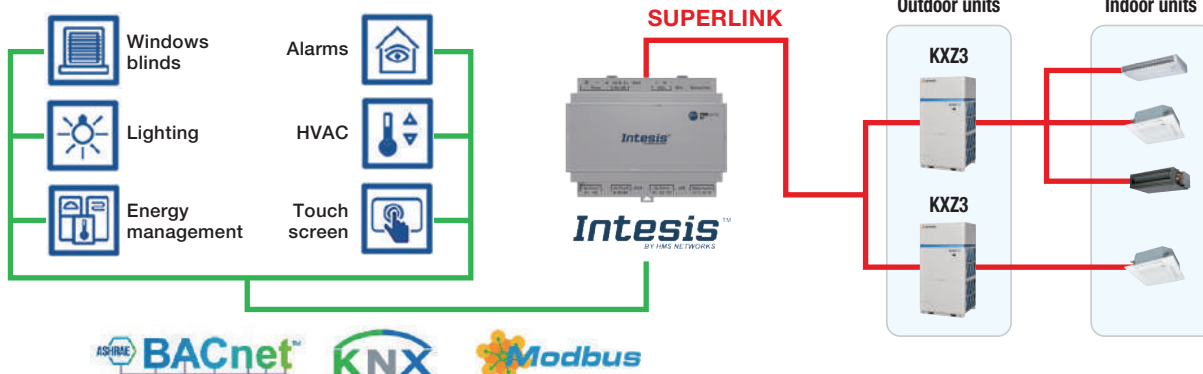
## BACnet gateway

SC-WBGW256



## Direct Connection to VRF outdoor units

The gateway is directly connected to the outdoor unit's communication bus and enables the control of all the indoor units connected to the system. This allows not only the control and monitoring of the main AC functions but the access to some internal variables of the outdoor units.



Please access the followings for details.

**Intesis**  
BY HMS NETWORKS

URL | <http://www.intesis.com>  
email | [info@intesis.com](mailto:info@intesis.com)

**IN776MH100S0000** Up to 16 Indoor Units, 12 Outdoor Units

**IN776MH100M0000** Up to 64 Indoor Units, 12 Outdoor Units

**IN776MH100L0000** Up to 128 Indoor Units, 0 Outdoor Units /  
or up to 80 Indoor Units, 12 Outdoor Units

**This offers building owners and occupiers** a comprehensive control and management system while providing complete commissioning and service maintenance assistance for installers and service engineers.

The SUPERLINK-II is an advanced high speed data transmission system which can connect up to 128 indoor units and 32 outdoor units onto one network.

A wide range of control options are available for the SUPERLINK-II network to suit any application large or small, as well as connection to a new or existing Building Management System (BMS).





## Environmental

**Mitsubishi Heavy Industries, Ltd. (MHI), are unwaveringly dedicated to facing the challenges of the future.**

MHI are dedicated to supporting global sustainability by offering the most energy efficient air-conditioning systems. Through our in-depth research and development, we are able to incorporate new technologies within our units to maximise their energy efficiency and significantly reduce carbon emissions.

### Environmental Impact

MHI recognises the increasing importance of reducing carbon emissions as this is becoming a priority when selecting air and water distribution systems. Furthermore new technologies are constantly being developed to help meet heating and cooling requirements as well as environmental objectives. The future of our planet rests in the sustained evolution of humankind while caring, with love and responsibility, for all life forms that inhabit it. Therefore MHI will continue to develop new technologies and products and will remain competitive in the market to achieve a sustainable future.



**Mitsubishi Heavy Industries Thermal Systems, Ltd.**  
( Wholly-owned subsidiary of MITSUBISHI HEAVY INDUSTRIES, LTD.)

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<https://www.mhi-mth.co.jp/en/>

Our factories are ISO9001 and ISO14001 certified.

Certified ISO 9001



Certificate Number : JQA-0709



Certificate-44 100 980813



Certificate Number : 4333-2007-AQ-RGC-RvA

Certified ISO 14001



Certificate:04 104 980813



Certificate number : 02117E10160R0M

