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# T3 SERIES FULL DC INVERTER CASSETTE SERIES

Kingdom of Saudi Arabia (60Hz)

HEATING  COOLING  WATER HEATING



## Product Line-up

### Product Lineup-Cassette

18~36K 220V



42K 220/380V



18~42K 220V

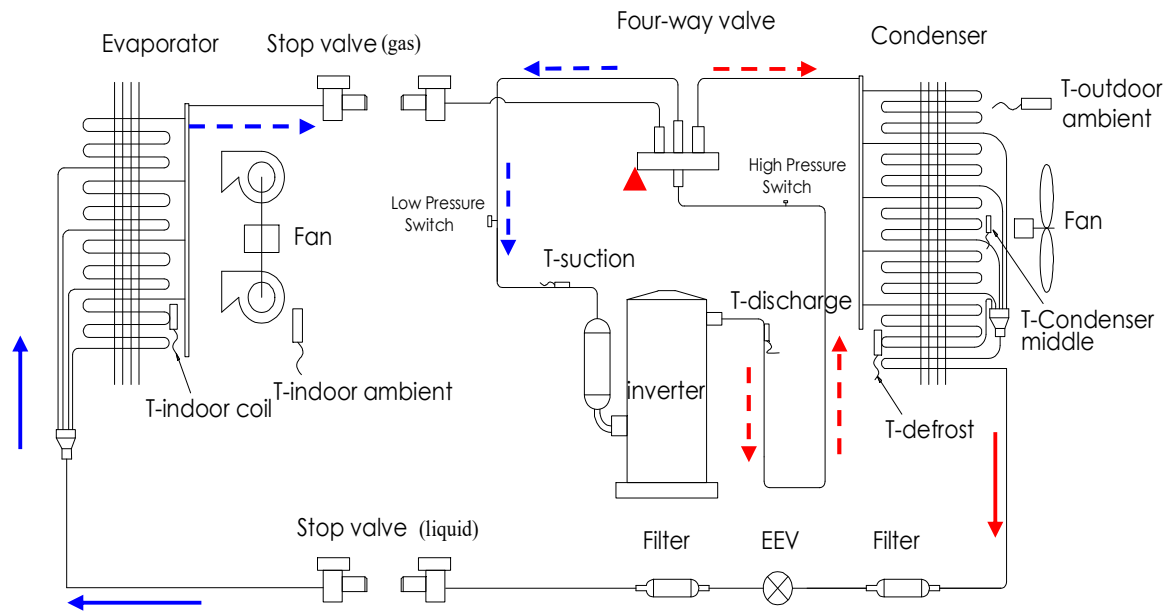


42K 380V



# Cooling Cycle

## Cooling Cycle

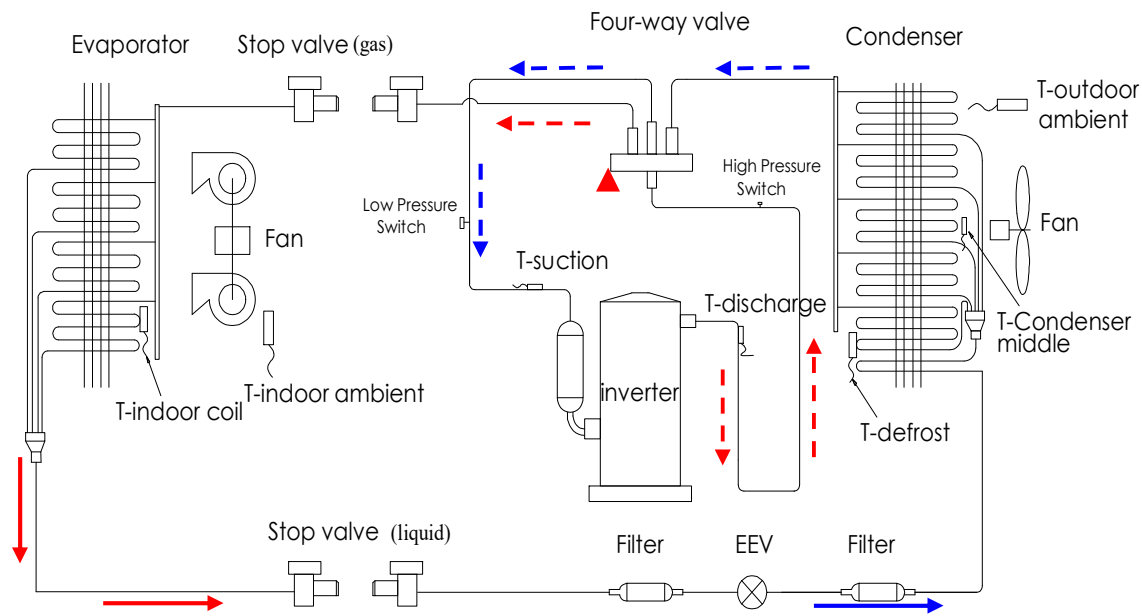


Refrigerant State	
High temp and pressure Steam	- - ->
Normal temp High pressure Liquid	->
Normal temp Low pressure Liquid	->
Normal temp Low pressure Steam	- - ->



# Heating Cycle

## Heating Cycle



Refrigerant State	
High temp and pressure Steam	- - - ->
Normal temp High pressure Liquid	- - - ->
Normal temp Low pressure Liquid	- - - ->
Normal temp Low pressure Steam	- - - ->



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## Outdoor Unit

- **Outdoor type Lineup**
- **Outdoor type Feature**

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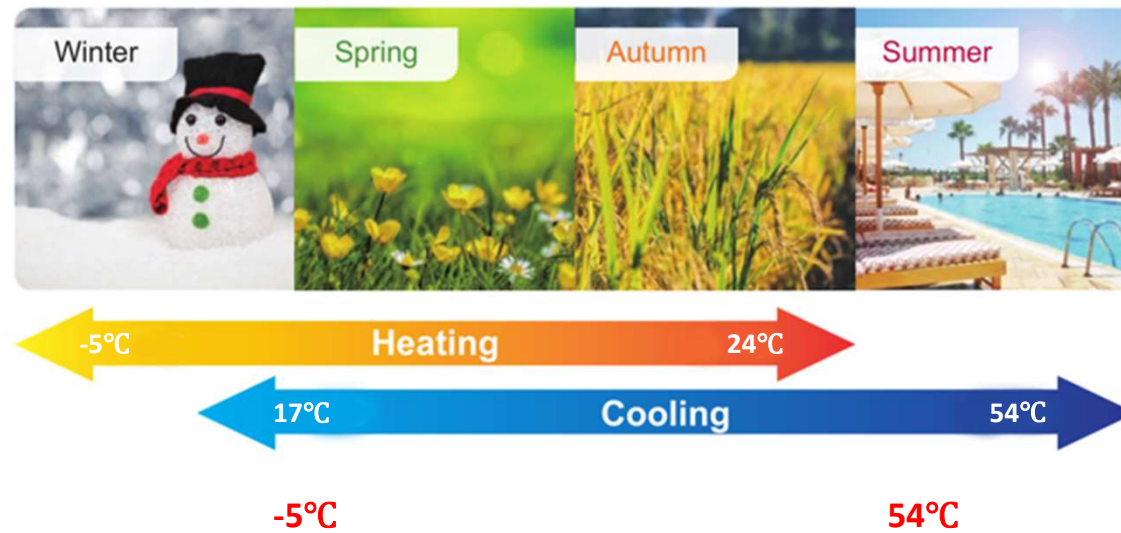
## Feature—Outdoor Unit Lineup

### Feature—Outdoor Unit Lineup

<b>Capacity</b>	18/24/30/36K	42K	42K
<b>Power</b>	220V,1P,50/60Hz	220V,1P,50/60Hz	380V,3P,50/60Hz
<b>Compressor</b>	GMCC	HIGHLY	
<b>Appearance</b>			



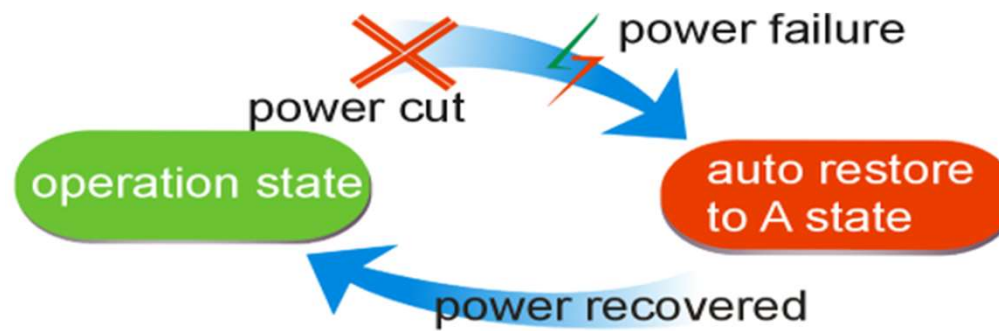
## Wide Operation Range—Operation Range



- Cooling range 17~54°C
- Heating range -5~24°C



## Wide Operation Range—Auto Restart Function

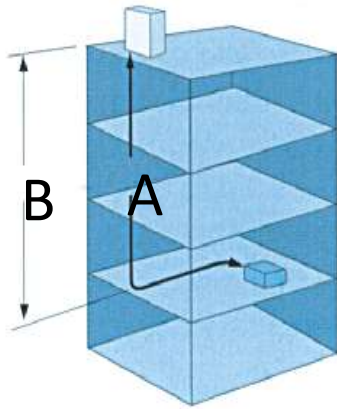


- Recover the former operation state when power is restored
- No need restart the unit manually.





## Wide Operation Range—Long Piping

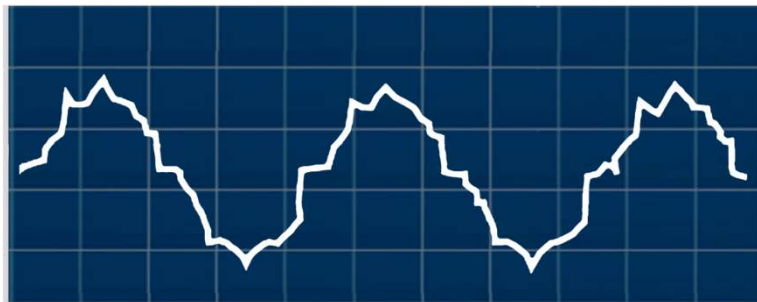


Cooling capacity (KBtu/h)	18K	24K	30K	36K	42K
Max.piping length(m) (A)	30			50	
Max.piping height(m) (B)	20			30	

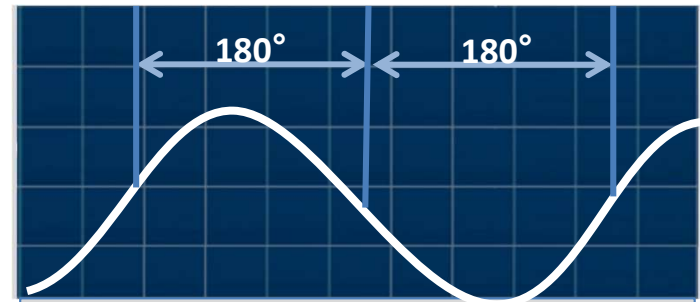
- The maximum pipe length can be **up to 50m**



## High Efficiency—180° Sine wave technology



Conventional saw tooth wave, low operation efficiency

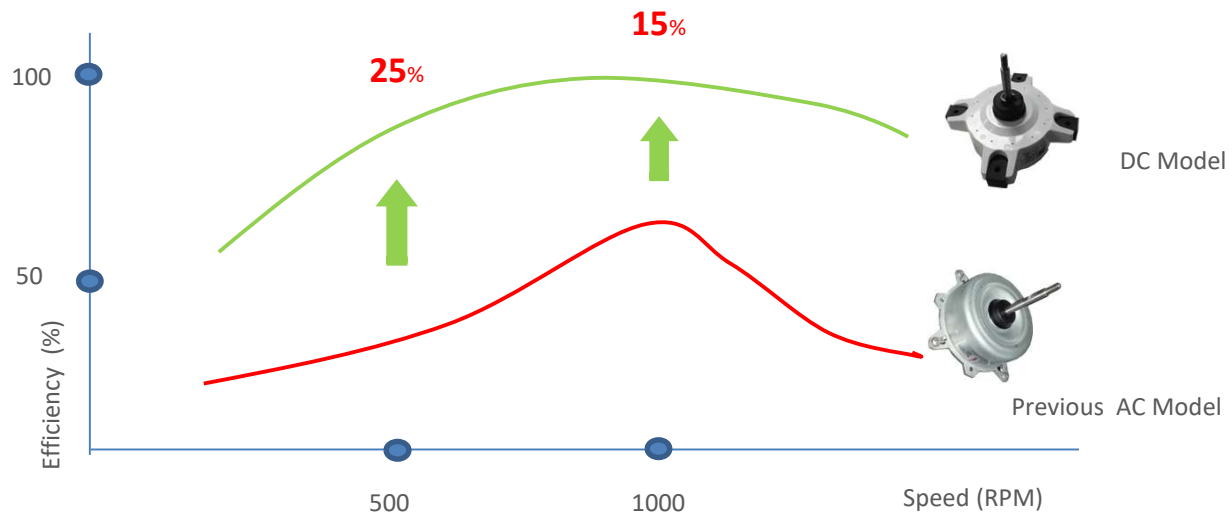


Smooth 180° sine wave, operation efficiency is improved around 30%

- Advanced 180° sine wave DC inverter technology
- More Quiet
- Compressor operate more smoothly



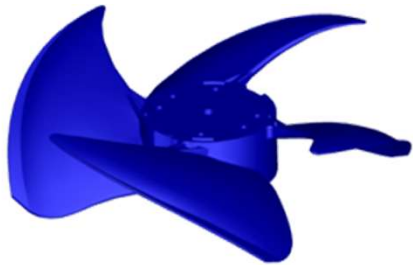
## High Efficiency—More Efficiency DC model



- DC Fan Motor is more efficient than previous AC fan motor, offering an 25% energy saving at low speed and 15% at high speed .



## High Efficiency—Component Characteristic



- Optimize fan blade design
- DC brushless motor
- Use muffler to reduce noise



## System Protection

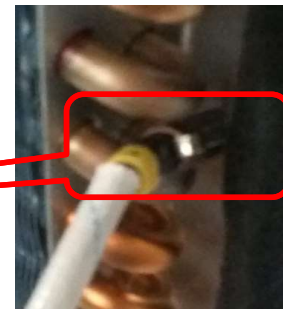
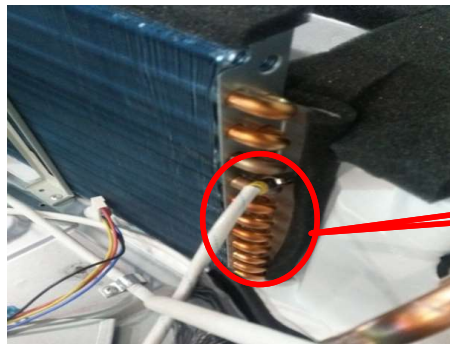
### System Protection

1. Discharge temperature too high protection
2. Condenser temperature too high protection
3. High and low pressure protection
4. Overcurrent protection
5. Over temperature protection
6. High or low voltage protection
7. Compressor overloading protection
8. Phase sequence protection
9. Communication failure protection



## System Protection—Indoor high temp protection

### System Protection



Temperature sensor

- If  $T \geq 50^{\circ}\text{C}$  Decrease the running frequency of compressor;
- If  $T \geq 60^{\circ}\text{C}$  stop compressor;
- $T < 41^{\circ}\text{C}$  Quit protection



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# Certification

HEATING



COOLING



WATER HEATING



## Certification



ESMA



ESTIDAMA



SASO



KWS

- Top 3 Lab scale
- Advanced test equipment
- Standards: ESMA/ESTIDAMA/SASO/KWS





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## Indoor Unit

- **Cassette type Lineup**
- **Cassette type Feature**

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## Cassette Type Lineup

<b>Capacity</b>	18K	24K	30K	36K	42K	42K
<b>Appearance</b>						
<b>Power</b>	220V,1P,50/60Hz					380V,3P,50/60Hz
<b>Air Flow(m<sup>3</sup>/h)</b>	1100	1500	1700	1950	1700	1950



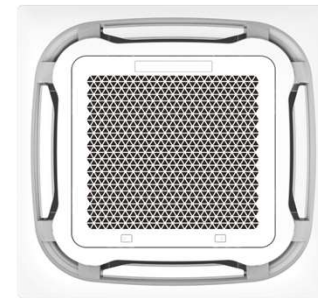
## Multi-panel option



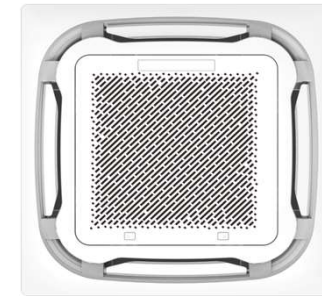
**Grille A**  
**Standard**



**Grille B**  
**Option**



**Grille C**  
**Option**



**Grille D**  
**Option**

- Around Flow panel improves comfort



## Long distance air supply

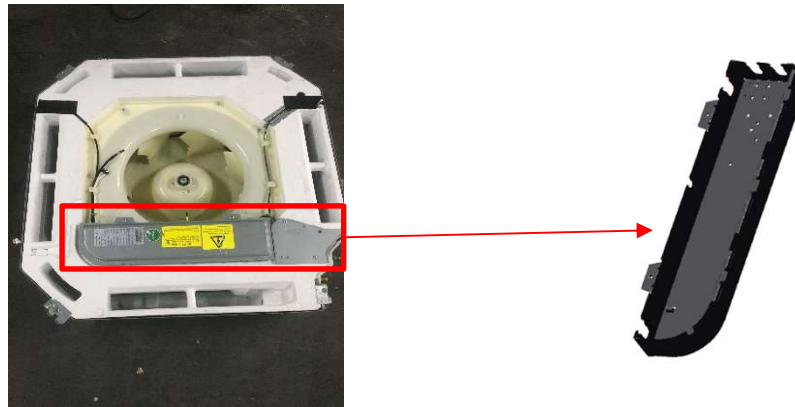
### Long distance air supply

- Strong air volume makes it have longer air supply longer.
- Long distance to 5 meters.





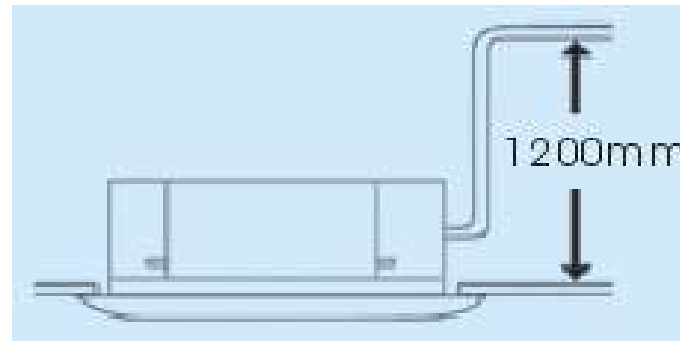
## Security—Fireproof Electric box



- Integrated electric control box, the E-box is safely covered by metal plate, for **better fire-resistance.**
- It is **easy to repair** the control part.



## Built-in drainage pump



- The built-in pump can lift condensing water up to 1200mm high from the drainage pan