

# DIECOTEC SMART CONTROL

Diecotec DC inverted heat pump adopts Wifi Smart Control technology (optional).  
User can control their heat pump via Mobile App



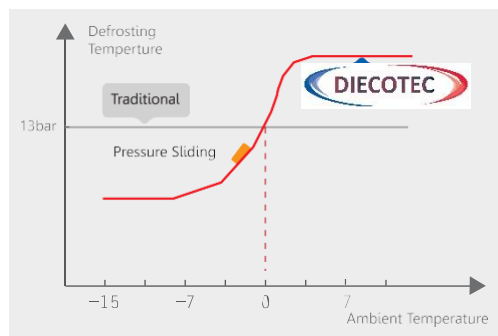
## Intelligence Defrosting

### Traditional Defrosting Method

Traditional defrosting method is with fixed defrosting time and start temperature . Once the ambient temperature reaches or is lower than -7 o C, the unit will start defrosting. It's easy to cause energy wasting when there is no defrost and will reduce the heating performance at the same time.

### Intelligent Defrosting Method

Diecotec intelligent defrosting uses the pressure sliding defrosting technology to figure out the exact defrosting time and start pressure according to the real ambient temperature. It saves energy and makes the heat pump work in high efficiency.



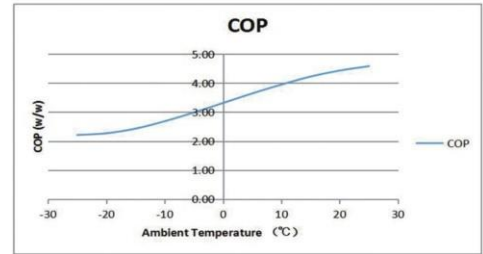
## 30% Energy Saving

With the use of inverter compressors, brushless DC fan motors and smart full control method , the units can regulate the running capacity . With no frequstart-ups and stop runnings , the units Work in stable condition with high efficiency . The energy consumption is 30% less than that of standard heat pimp units.



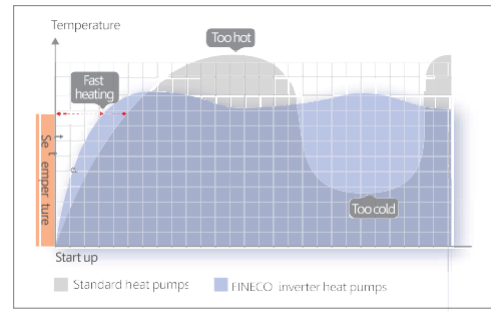
## Powerful Heating at -25°C Ambient Temperature

DIECOTEC all in one monoblock DC inverter heat pump adopts Mitsubishi high efficiency DC inverter compressor and DC inverter brushless motor, which combined with smart full DC controlling, assures the motor speed and refrigerant flow can be adjusted in real time according to the changes of environment and ensures the system can also provide powerful heating under severe cold climate.



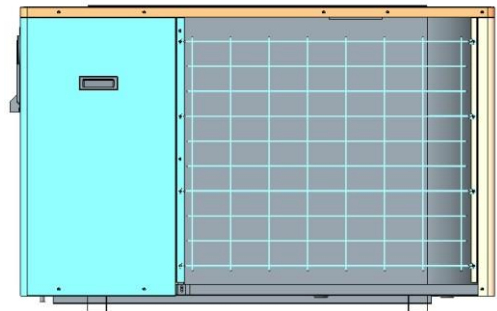
## Speed Up Heating and Cooling Time

When there is a large difference between the actual temperature and the programmed temperature, the unit can run at a higher frequency to make fast heating or cooling to increase or decrease the temperature rapidly.



## No Frosting at the Bottom

With the use of the special liquid distribution technology, in heating mode, the temperature of refrigerant in the air exchanger's bottom copper tube will not decrease in order to ensure no frosting on it and smooth drainage. Then, there is one auxiliary electric heating belt on the base which can prevent water from freezing.



## Compact Design

DIECOTEC DC inverter heat pump adopts a compact structure design. The internal pipeline layout is reasonable. The design fully considers the principles of fluid mechanics and vibration to avoid the impact of excessive stress points on vibration, and combines aesthetic morphological elements, the pipeline design is straight in horizontal and vertical. Effectively reduce the loss of life of the machine caused by the vibration of the pipeline, and reduce the running noise of the machine.



## Multifunction

Through the use of intelligent control, Diecotec heat pump can achieve multi-function. The combination of functions is as follows: Heating only, hot water only, cooling only, heating+hot water, cooling + hot water. This multi-functional combination design can meet the needs of use in various situations, and realize a multi-purpose machine.



## DIECOTEC CORE COMPONENTS



**Mitsubishi DC inverte high efficiency compressor.**

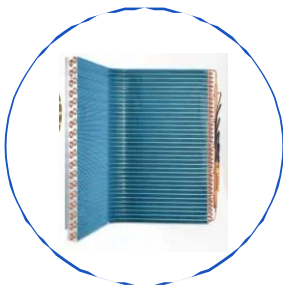
**Inverter Dual-rotor compressor . Lower noise, longer life and more efficient .**

**Brushless, DC inverter motor for increasing fan performance and reliability.**



**Brazed plate or tube in shell heat exchanger (Optional)  
High efficiency with anti-corrosion protection**

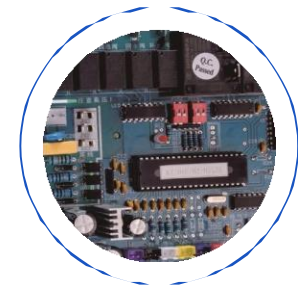
**Danfoss, or Sanhua electronic expansion valve  
Precise refrigerant flow control.**



**High efficiency hydrophilic aluminum foil fan evaporator**

**Blue fin or golden fin**

**Inverter PC board , intelligent control  
Smart wifi control ( Optional) .**



# DIECOTEC INTELLIGENT PROTECTION FUNCTION



Ground protection



Overvoltage protection



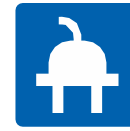
Leakage protection



Temp differential protection



High temp protection



Losing-phase protection



Low-voltage protection



Dry heat protection



Over-current protection



Water flow protection



Intelligent fault automatic detection



High/low voltage protection



Automatic monitoring



Communication line fault protection

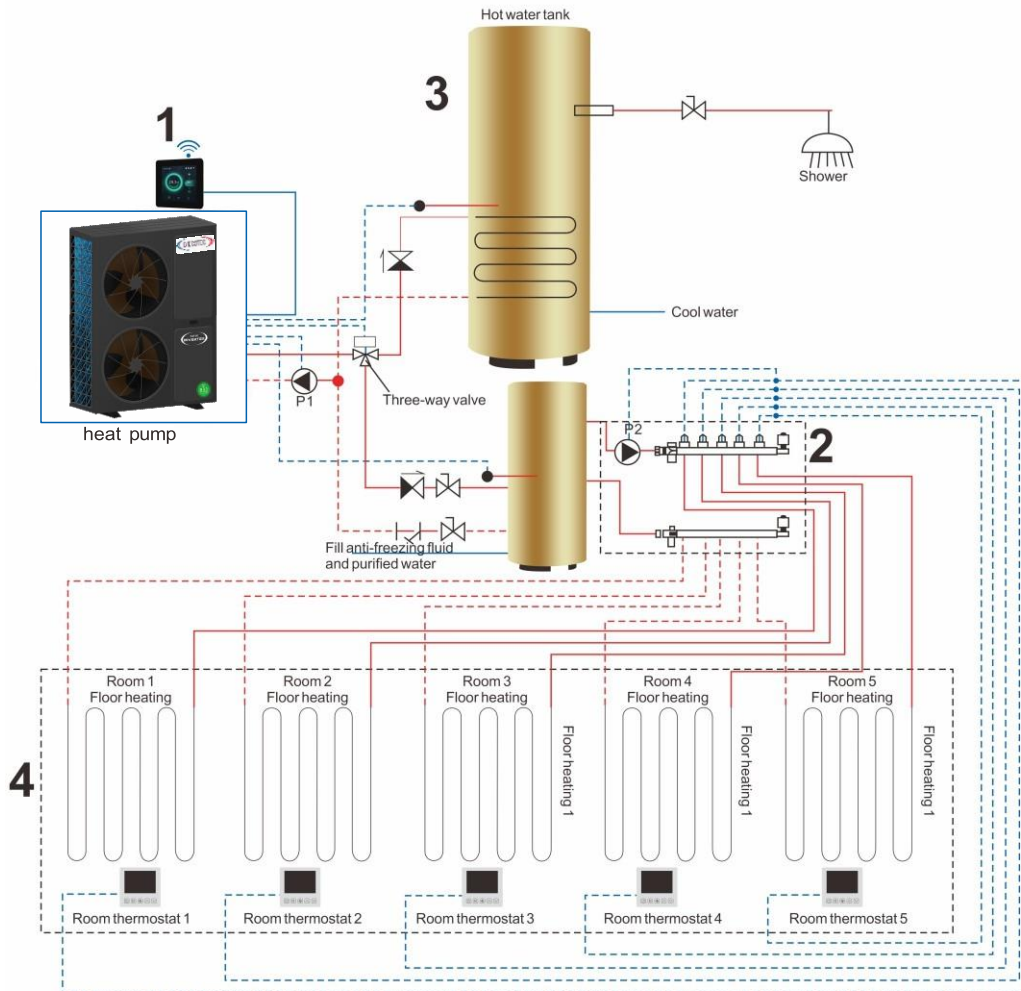


Frost protection



Temp sensor fault protection

## Installation Diagram





## Monoblock DC Inverter Heat Pump Parameter

Model		XD-03BPM	XD-04BPM	XD-05BPM	XD-06BPM	XD-05BPM	XD-06BPM
		(220V)	(220V)	(220V)	(220V)	(380V)	(380V)
Power Supply		220-240V/1N ~ /50Hz				380-415V/3N ~ /50Hz	
Ambient Temperature Range		-30 +43 °C				-30 +43 °C	
Heating Capacity(kW/COP)	A7W35	8(2-9)/4.1	12(2-13)/4.2	15(3-17)/3.96	18(3-20)/4.1	15(3-17)/4.2	18(3-20)/4.15
	A7W45	7.6/3.2	10.6/3.4	13.2/3.11	14.5/3.4	13.4/3.15	15/3.4
	A2W35	6.4/3.58	9.4/3.62	12.6/3.58	14/3.44	12.5/3.56	14/3.44
	A-15W35	4.8/1.97	7.0/2.17	8.7/2.12	11/2.5	9 / 2.22	11/2.5
Domestic Hot Water(kW/COP)	A20W55	8.8/4.0	12.5/4.1	13.8/4.1	16.5/4.0	14 / 4.1	17/4.0
	A7W55	7.0 /3.12	9.8 /3.2	12.5/3.1	14.2/3.0	13/3.0	14.5/3.0
	A2W45	6.1/3.3	8.2/3.4	8.8/3.3	13.5/3.2	9/3.3	13.8/3.2
DHW Input Power/Current ( kW/A)	A7W55	2.22/9.5	2.9/13.2	4.1/18.6	5.2/ 21	4.3/7	5.1/ 8.1
Rated Input Power/Current ( kW/A)	A7W35	2.1/8.5	2.7/11.5	3.85/17.4	4.7/18	3.95/6.2	4.7/7.2
Cooling Capacity(kW/EER)	A35W7	6.2/2.5-5.8	10.8/2.6-5.8	11/2.6-5.7	14/2.5-5.7	11/2.5-5.8	14/2.4-5.8
Cooling Input Power(kW/A)		2.1/9.5	2.6/11.3	3.93/18	4.5/23	3.95/6.5	5.2/8.5
Electric Shock Proof Grade		Class I				Class I	
Protection Grade		IPX4				IPX4	
Max. Working Power/Current(kW/A)		3.5/15	4.5/18	6.5/25	7.6/30	6.5/15	6.5/15
Max./Min. Working Pressure(Mpa)		4.2/0.15					
Hot Water Tem. ( °C )		25-60				25-60	
Water Yield(L/h)		1300	1500	2000	2500-3000	2000	2500-3000
Refrigerant Type/Weight (kg)		R32/1.25	R32/1.4	R32/1.7	R32/1.9	R32/1.6	R32/1.9
Noise (dB)		40-55	42-57	45-60	45-60	45-60	45-60
Compressor		Mitsubishi Panasonic/Dc Inverter compressor					
Dimension (L/W/H)mm		1120/430/775	1120/430/775	1060/440/1380	1060/440/1380	1060/440/1380	1060/440/1380
Net Weight (kg)		65	75	115	125	115	125

### Remarks:

- a: Rated cooling conditions: ambient temperature 35°C, inlet water temperature 12°C, outlet water temperature 7°C;  
 b: A7W35 Rated heating conditions: dry bulb temperature 7°C, wet bulb temperature 6°C, inlet water temperature 30°C, outlet water temperature 35°C;  
 c: A7W45 Conditions: inlet air temperature 7°C, outlet air temperature 45°C



### Features:

- Twin rotary compressor with inverter control-DC inverter technology control the heat pump output according to the house's energy requirements. Low waste of the power
- R32 refrigerant, environmentally friendly.
- Intelligent controller and LCD display.
- Safety operation with multi-protections. Optional:
  - Electronic Expansion Valve control accurate refrigerant to ensure the heat pump can work with high efficiency performance in any conditions.
  - Hydrophilic coating air exchanger and SWEP plate heat exchanger all available.
  - Auto defrosting function.
  - Convenient for installation and maintenance.

