



**AIR COOLED PACKAGED TYPE AIR  
CONDITIONERS**

[Your satisfaction is always our cherished desire!]



**AirTrojan International Co., Ltd.**

<http://www.airtrojan.com>

2011.12.PF



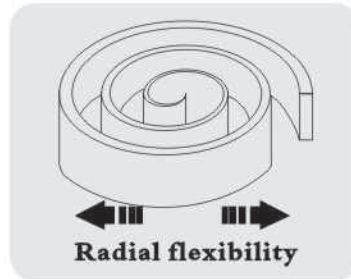
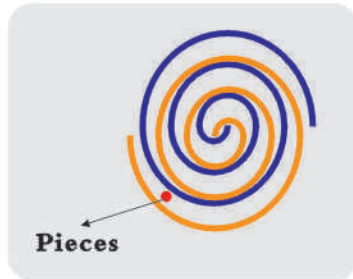
The models and specifications of equipment listed in this catalog shall be subject to change without any prior notification due to product updating.





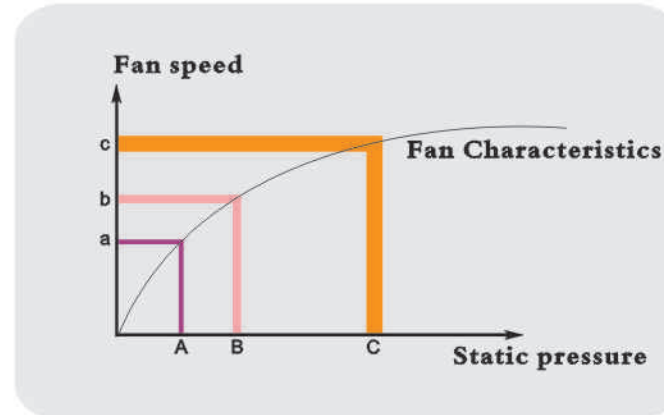
## Product Features

### Feature 1 Save money, save worry and reduce interference



- Scroll compressor with high reliability  
The flexible scroll allows pieces and liquid to pass easily.
- Hermetic compressor with high efficiency and low noise 20% higher than reciprocating compressors in efficiency. Low noise.

- Reliable defrost design improves running efficiency
- Indoor unit centrifugal fan is with low noise and the static pressure can be adjusted randomly.
- Adopting louver fin evaporator and condenser together to achieve high efficiency and save power.  
The special treatment of outdoor heat exchanger provides 5 to 6 times protection against the corrosion of acid rain and salt. And the antirust steel plate at the machine base adds durability.

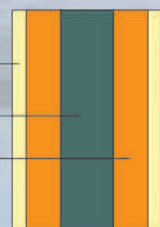


#### Anticorrosion improvement

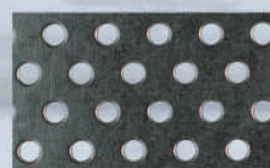
	Anticorrosion grade	
	Not treated	Anticorrosion treatment
Salt corrosion	1	5-6
Acid rain	1	5-6

#### Section view of anticorrosion heat exchanger

Hydrophilic membrane  
Aluminum  
Acrylic resin

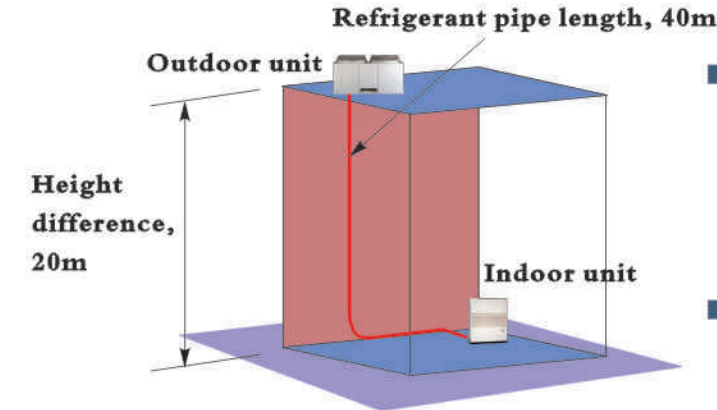


Highly efficient louver fin heat exchanger



Common type heat exchanger

### Feature 2 Save time, save space and save trouble

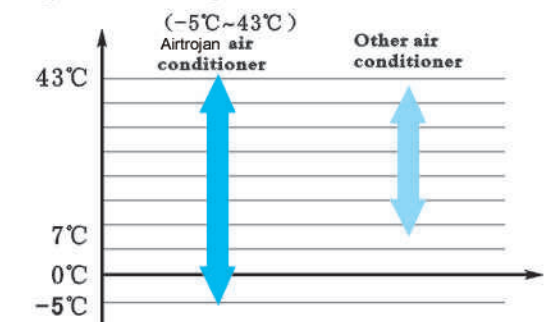


- Long piping  
The refrigerant pipe can reach up to 40m in length and 20m in height difference, which reduces the limitation on the air conditioner installation by the building scale and shape.
- Simple installation design  
Improve installation efficiency and shorten construction period.

### Other features

- Wide operation range  
The machine can run at  $-5^{\circ}\text{C}$  outdoors. The heating efficiency is high.
- Space saving design  
Super slim design allows the air conditioner to be placed at balcony. And it occupies less space.
- More convenient maintenance  
The air conditioner can be widely used in hotels, mansions, restaurants, office buildings, supermarkets, hospitals, gymnasiums and workshops and so on.

#### Operation range





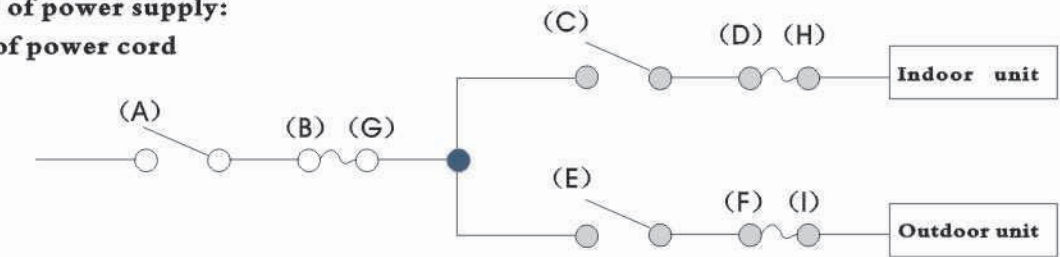
## Product Specifications

Model		F32TC/R(L)/F32WT2	F32TD/R(L)/F32WT2	F43TD/R(L)/F43WT1	F54TD/R(L)/F54WT1	F80TD/R(L)/F80WT1			
Cooling capacity	kW	31.1		42.2	53.1	79.1			
Power consumption	kW	11.6		17	21.4	31.8			
Starting current	A	58		95	125	175			
Running current	A	20.78		31.27	39.27	57.52			
E.E.R.	WW	2.68		2.48	2.48	2.49			
Heating capacity	kW	32	- 32	38.5	- 57.5	80			
Power consumption	kW	11.0	- 11.0	13.5	- 18.8	25.8			
Starting current	A	58	- 58	95	- 125	175			
Running current	A	20.2	- 20.2	25.3	- 31.75	38.5			
C.O.P.	WW	2.91	- 2.91	2.85	- 3.06	3.1			
Refrigerant pipe	φ	(12.7/19.05) x 2		(15.88/28.6) x 2		(19.05/32) x 2			
Outdoor Unit		RF32WT2	LF32WT2	RF43WT1	LF43WT1	RF54WT1	LF54WT1	RF80WT1	LF80WT1
Power supply	φ-V-Hz	3-380-50							
Compressor output	kW	3.79 x 2		6.0 x 2		7.5 x 2		13.62 x 2	
Fan motor output	kW	0.52		0.42 x 2		0.52 x 2		1.1 x 2	
Refrigerant control	R-22	Capillary							
Protection devices		HP/LP switch, over current relay, compressor internal protector, over-voltage/low-voltage/lack-phase/reverse-phase protector							
Crankcase heater	W	50 x 2	- 50 x 2	70 x 2	- 70 x 2	70 x 2	- 70 x 2	70 x 2	-
Air flow rate	m <sup>3</sup> /h	9000		9000 x 2		9900 x 2		16000 x 2	
Dimension	Width(packd)	1150(1250)		1850(1970)					
	Depth(packd)	478(588)		920(1051)					
	Height(packd)	1750(1920)		987(1161)		1190(1364)		1597(1771)	
Net(Gross) weight	kg	185(235)	180(230)	300(360)	290(350)	387(447)	380(440)	440(520)	432(512)
Indoor Unit		F32TC	F32TD	F43TD	F54TD	F80TD			
Type		Free blow		Duct type					
Power supply	φ-V-Hz	3-380-50							
Fan motor output	kW	0.68		2.6	3.7	5.5			
Refrigerant control	R-22	Capillary							
Control method		Microcomputer							
External static pressure	Pa	0	78	98		147			
Air flow rate	m <sup>3</sup> /h	5400	4500	9000	11000	15000			
Dimension	Width(packd)	1178(1292)		1549(1643)		2040(2065)			
	Depth(packd)	485(598)		630(753)		920(1034)			
	Height(packd)	1900(2092)	1620(1812)	1875(2042)		1900(2080)			
Net(Gross) weight	kg	165(212)	145(192)	230(260)	253(286)	274(310)			

Note:  
 1.Plenum can be added in F43TD+RF43WT1/F43TD+LF43WT1 and F54TD+F54TDWT1/F54TD+LF54WT1.  
 2.Cooling capacity is measured when the indoor return air temperature is 27°C DB, 19°C WB, the outdoor return air temperature 35°C DB, 24°C WB, and the refrigerant pipe is 7.5m.  
 3.The heating capacity is measured when the indoor return air temperature is 21°C DB, the outdoor return air temperature 7°C DB, 6°C WB, and the refrigerant pipe is 7.5m.  
 4.This machine can be used for heating, under its ambient temperature reach -5°C.  
 5.The specifications may be modified without prior notification.

## Specialized Electric wiring

- 1.Electrical boxes are equipped both in indoor unit and outdoor unit. Its inner wiring is well connected and checked before shipment.
- 2.The field installation is completed only by connecting the connecting wires of indoor unit and outdoor unit.
- 3.Connect the power cord of the outdoor/indoor unit, namely three-phase powers are provided separately.
- 4.All electric wires shall not be bound with refrigerating pipes.
- 5.Connect ground wire.
- 6.Wiring method of power supply:
- 7.Specifications of power cord



Model	Wire diameter	Switch capacity (A)	FUSE(B)	Switch capacity (C)	FUSE(D)	Switch capacity (E)	FUSE(F)	Wire mm <sup>2</sup> (G)	Wire mm <sup>2</sup> (H)
F32TC+RF32WT2 F32TC+LF32WT2		40A	40A	5A	5A	25A	25A	6	As shown in the right table.
F32TD+RF32WT2 F32TD+LF32WT2		40A	40A	5A	5A	25A	25A	6	
F43TD+RF43WT1 F43TD+LF43WT1		60A	60A	10A	10A	40A	40A	10	
F54TD+RF54WT1 F54TD+LF54WT1		70A	70A	10A	10A	50A	45A	12	
F80TD+RF80WT1 F80TD+LF80WT1		90A	90A	10A	10A	80A	80A	14	

Model	Wire diameter	Indoor unit	Outdoor unit
F32TC+RF32WT2 F32TC+LF32WT2		4mm <sup>2</sup>	6mm <sup>2</sup>
F32TD+RF32WT2 F32TD+LF32WT2		4mm <sup>2</sup>	6mm <sup>2</sup>
F43TD+RF43WT1 F43TD+LF43WT1		4mm <sup>2</sup>	10mm <sup>2</sup>
F54TD+RF54WT1 F54TD+LF54WT1		6mm <sup>2</sup>	12mm <sup>2</sup>
F80TD+RF80WT1 F80TD+LF80WT1		6mm <sup>2</sup>	14mm <sup>2</sup>

Note: The No-Fuse breaker or Current Leak Breaker can replace the FUSE and switch combination. Do not install when power is connected.

### Specification of electrical heater(Optional)

Model	PZRP13C	PZRP26C	PZRP29C	PZRP14C	PZRP28C	PZRP30C
Applicable type	F32TC(D)	F43TD	F54TD	F32TE	F43TE	F54TE
Heating capacity(kW)	13.5	26.4	28.8	14	28	30
Segment	one segment type	two segment type	two segment type	one segment type	two segment type	two segment type

### Specification of hot-water coil(Optional)

Model	PZRP24A	PZRP38A	PZRP54A	PZRP25A	PZRP40A	PZRP55A
Applicable type	F32TC/D	F43TD	F54TD	F32TE	F43TE	F54TE
Heating capacity(kW)	24	38	54	25	40	55

For details, see product manual.

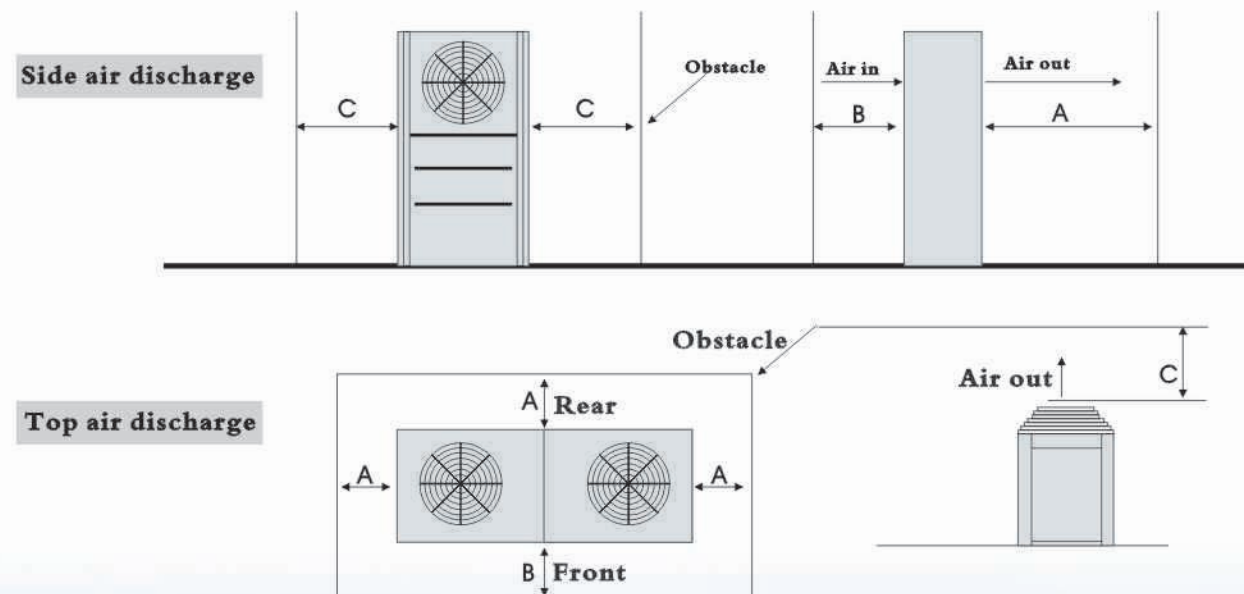


## Product Installation

Select installation positions referring to figures.  
Such positions are not difficult for you to make a choice.

The machine set shall have enough space for maintenance and ventilation as shown in the table below:

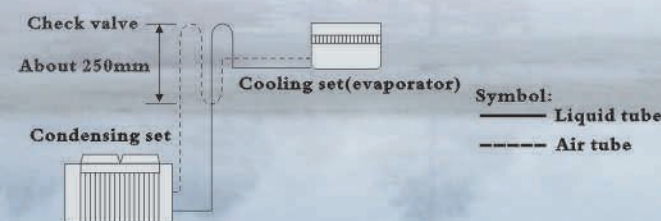
Model	A	B	C
F32TC+RF32WT2 / F32TC+LF32WT2	2500	1000	800
F32TD+RF32WT2 / F32TD+LF32WT2	2500	1000	800
F43TD+RF43WT1 / F43TD+LF43WT1	1000	1500	3500
F54TD+RF54WT1 / F54TD+LF54WT1	1000	1500	3500
F80TD+RF80WT1 / F80TD+LF80WT1	1000	1500	3500



## Field piping What you have to do is really simple

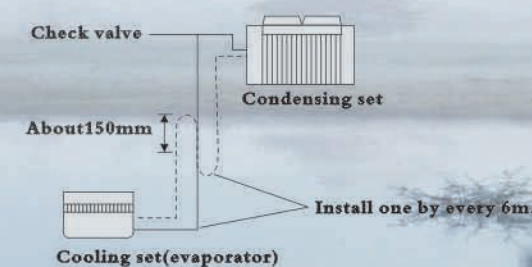
The configuration and installation of all pipes in the machine set has been completed in factory before shipment. And the refrigerant is filled at a fixed amount in the outdoor unit. For field installation, connect the connecting pipes of indoor unit and outdoor unit by referring to the figures as below.

### Outdoor unit at lower position



Note: Do not connect wrongly the piping loop between indoor unit and outdoor unit for avoiding damage to machine.

### Outdoor unit at higher position



## Installation/Product List

### Pipe specifications

Pipe	Model	F32TC+RF32WT2 F32TC+LF32WT2	F32TD+RF32WT2 F32TD+LF32WT2	F43TD+RF43WT1 F43TD+LF43WT1	F54TD+RF54WT1 F54TD+LF54WT1	F80TD+RF80WT1 F80TD+LF80WT1
∅12.7		2	2	/	/	/
∅15.88		/	/	2	2	/
∅19.05		2	2	/	/	2
∅28.6		/	/	2	2	/
∅32		/	/	/	/	2

Note: Except that flare opening is applied in F28TC/RF28WT2, the rest models are constructed with welding method.

### Pipe length

Parameter	Model	Total length(m)	Height of fall(m)	Maximum bends
F32TC+RF32WT2 / F32TC+LF32WT2		Below 40	Below 20	Below 15
F32TD+RF32WT2 / F32TD+LF32WT2		Below 40	Below 20	Below 15
F43TD+RF43WT1 / F43TD+LF43WT1		Below 40	Below 20	Below 15
F54TD+RF54WT1 / F54TD+LF54WT1		Below 40	Below 20	Below 15
F80TD+RF80WT1 / F80TD+LF80WT1		Below 40	Below 20	Below 15

For good performance of machine set, pay attention to the following at installation:  
Install corresponding liquid upper loop and oil receiver for system connecting pipes by referring the installation position of indoor unit and outdoor unit.

**Plenum** Plenum is an option for a change from ducted type to free blow type.



### Specification table

Model	Applicable type	Weight(before/after packaging)	Dimensions before packaging(mm)	Dimensions after packaging(mm)
PZPW15-I	F43TD	24/26kg	H302 × W1549 × D630	H387 × W1629 × D695
PZPW20-I	F54TD	33/35kg	H302 × W1735 × D630	H387 × W1815 × D695



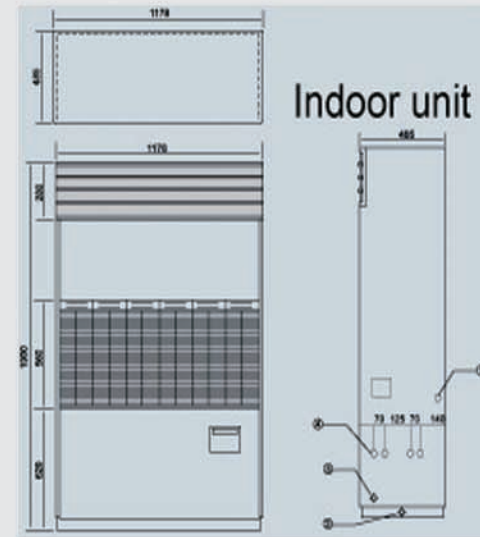
**Product List**

Heat pump/Cooling only **F32TC(D)+RF32WT2/F32TC(D)+LF32WT2**

Heat pump/Cooling only **F43TD+RF43WT1/F43TD+LF43WT1**

**F32TC**

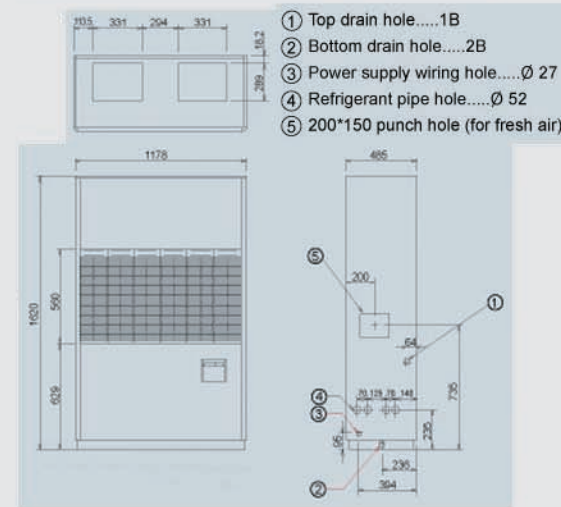
Indoor unit



Indoor unit

**F32TD**

Indoor unit



- ① Top drain hole.....1B
- ② Bottom drain hole.....2B
- ③ Power supply wiring hole..... $\varnothing$  27
- ④ Refrigerant pipe hole..... $\varnothing$  52
- ⑤ 200\*150 punch hole (for fresh air)

**R(L)F32WT2**

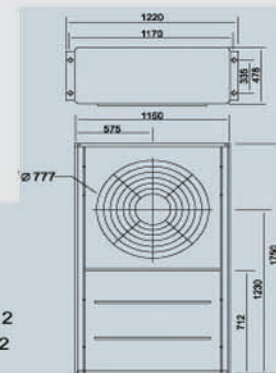
Outdoor unit



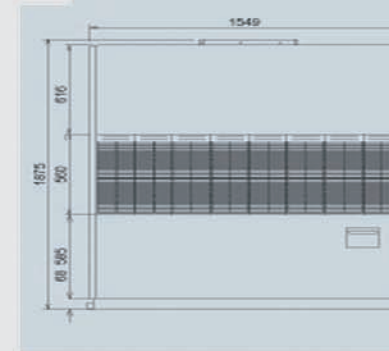
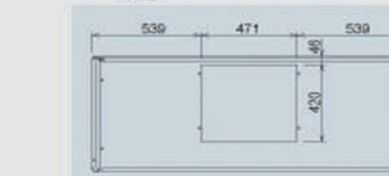
**Heat pump model**  
Cooling capacity:31.1kw  
Heating capacity:32kw

**Cooling only model**  
Cooling capacity:31.1kw

- ① Top drain hole.....1B
- ② Bottom drain hole.....2B
- ③ Power supply wiring hole..... $\varnothing$  27
- ④ Refrigerant pipe hole..... $\varnothing$  27
- Refrigerant pipe (liquid pipe)..... $\varnothing$  12.7 X 2
- Refrigerant pipe (gas pipe)..... $\varnothing$  19.05 X 2
- Flare opening joint



Indoor unit



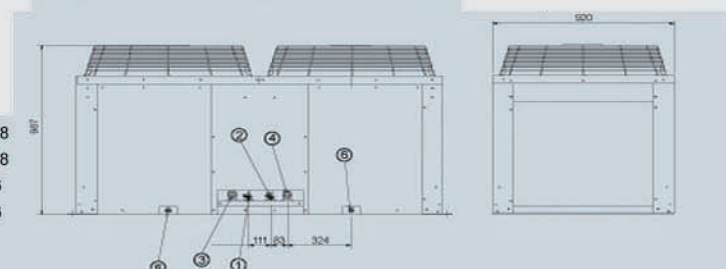
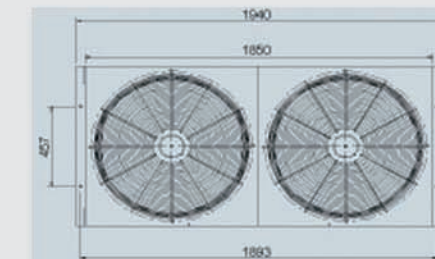
**Heat pump model**  
Cooling capacity:42.2kw  
Heating capacity:38.5kw

**Cooling only model**  
Cooling capacity: 42.2kw

- 1)Refrigerant pipe(liquid tube)15.88 x 2
- 2)Refrigerant pipe(air tube)  $\varnothing$ 28.6 x 2
- 3)Hex bolt(for hanging) M10

- ① Top drain hole.....1B
- ② Bottom drain hole.....2B
- ③ Power supply wiring hole..... $\varnothing$  52
- ④ Refrigerant pipe hole..... $\varnothing$  52
- ⑤ 330\*170 punch hole (for fresh air)

Outdoor unit



- ① Refrigerant pipe (liquid pipe)..... $\varnothing$  15.88
- ② Refrigerant pipe (liquid pipe)..... $\varnothing$  15.88
- ③ Refrigerant pipe (gas pipe)..... $\varnothing$  28.6
- ④ Refrigerant pipe (gas pipe)..... $\varnothing$  28.6
- ⑤ Hex nuts.....M16
- ⑥ Hex nuts.....M16



**Heat pump/Cooling only F54TD+RF54WT1/F54TD+LF54WT1**

Indoor unit

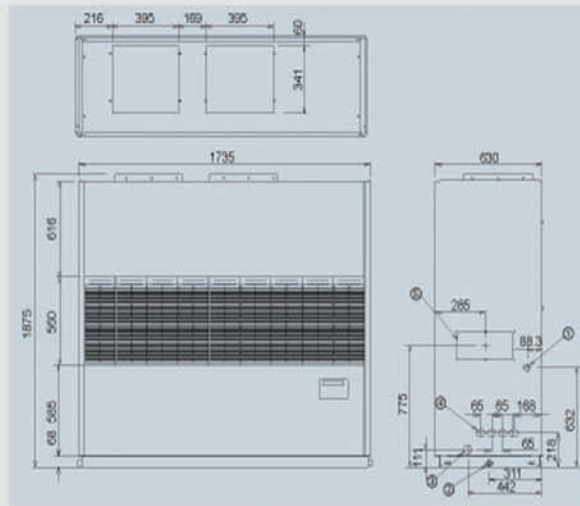


**Heat pump model**

Cooling capacity: 53.1kw  
Heating capacity: 57.5kw

**Cooling only model**

Cooling capacity: 53.1kw  
1)Refrigerant pipe(liquid tube)  $\phi$ 15.88  
2)Refrigerant pipe(air tube)  $\phi$  28.6



**Indoor unit**

- ① Top drain hole.....1B
- ② Bottom drain hole.....2B
- ③ Power supply wiring hole..... $\phi$  52
- ④ Refrigerant pipe hole..... $\phi$  52
- ⑤ 330\*170 punch hole (for fresh air)

**Heat pump/cooling only F80TD+RF80WT1/F80TD+LF80WT1**

Indoor unit



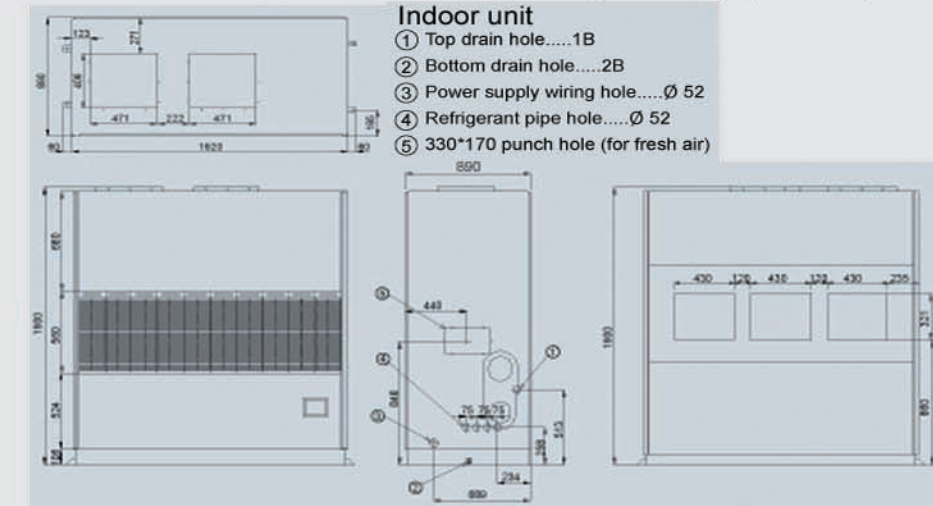
**Heat pump model**

Cooling capacity: 79.1kw  
Heating capacity: 80kw

**Cooling only model**

Cooling capacity: 79.1kw

- 1)Refrigerant pipe(liquid tube) $\phi$ 19.05
- 2)Refrigerant pipe(air tube) $\phi$  32



**Indoor unit**

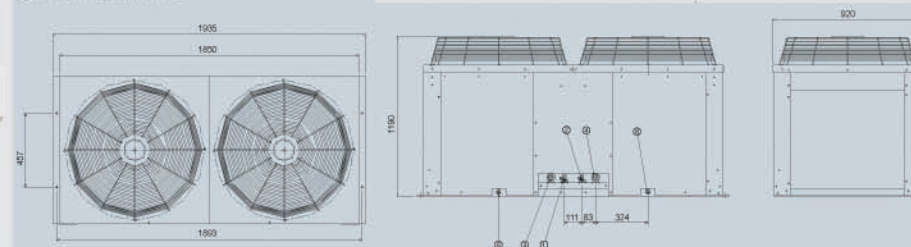
- ① Top drain hole.....1B
- ② Bottom drain hole.....2B
- ③ Power supply wiring hole..... $\phi$  52
- ④ Refrigerant pipe hole..... $\phi$  52
- ⑤ 330\*170 punch hole (for fresh air)

Outdoor unit

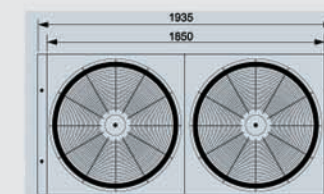


**Outdoor unit**

- ① Refrigerant pipe (liquid pipe)..... $\phi$  15.88
- ② Refrigerant pipe (liquid pipe)..... $\phi$  28.6
- ③ Refrigerant pipe (gas pipe)..... $\phi$  15.88
- ④ Refrigerant pipe (gas pipe)..... $\phi$  28.6
- ⑤ Hex nuts.....M16
- ⑥ Hex nuts.....M16



Outdoor unit



**Outdoor unit**

- ① Refrigerant pipe (liquid pipe)..... $\phi$  19.05
- ② Refrigerant pipe (liquid pipe)..... $\phi$  32 X 2
- ③ Hex nuts.....M16 X 2

