

# **11. WALL MOUNTED TYPE PACKAGED AIR CONDITIONER**

**( Split system, Air cooled )  
( cooling only type )**

**FDKN208CEN-S, FDKN208CEP-S, FDKN208CEN  
FDKN208CEP, FDKN258CEN-S, FDKN258CEP-S  
FDKN258CEN, FDKN258CEP, FDKN308CEN  
FDKN308CEP, FDKN308CES**

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## 11.1 GENERAL INFORMATION

### 11.1.1 Specific features

- (1) Less refrigerant charge amount due to use of double phase refrigerant flow system. The total refrigerant charge amount has been reduced by more than 50%.
- (2) The indoor outdoor interconnection signal wiring has been done away with. The microcomputer chip is installed in the indoor unit. There is no need for the unit to communicate between the outdoor and indoor units so the unit is more resistant to electromagnetic noise thus the incidence of microcomputer malfunction has been reduced. The compressor in the outdoor unit has its own self protection function, that reacts according to abnormal high pressure and excessive high temperature.
- (3) There are only four power line between the outdoor and indoor unit. As no signal wire is used there is no need to separate the power line from the signal line. One cab tyre cable with 4 wires encased in one sheath is enough for conducting the wiring work between the outdoor unit and the indoor unit. This contributes to simpler wiring work in the field.
- (4) The operation modes are only cooling and fan operation for easier control.
- (5) All air supply ports have auto swing louvers. The indoor fan motor has two speeds of high and low.
- (6) The controls are wireless residential split air conditioner type remote controller with 4 malfunction modes.
- (7) All models have service valves protruding from the outdoor unit for faster flare connection work in the field.

#### **(8) Aero trap louver**

- (a) Pleasantness will be enhanced with the employment of aero trap louver. It has an excellent wind orientation and a homogeneous air conditioning feeling is ensured at every corner in a room with the auto swing blasting which can be adjusted the maximum 70° downward.
- (b) Louver angle can be adjusted to 4 fixed positions with the remote control. It can be adjusted at any optional angle during the manual operation. Sidewise blast is adjustable by 40° in each direction.

#### **(9) Low noise**

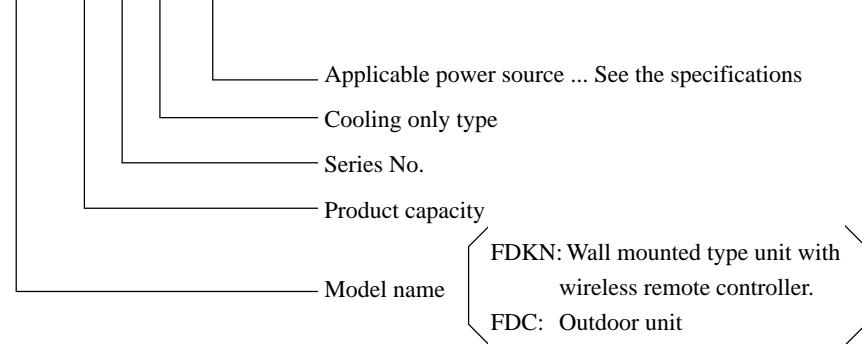
Specially developed silent fan is employed. A very gentle operation sound is assured because the noise like wind slashing sound are suppressed effectively.

#### **(10) Thin and compact design**

The unit measures 17.9 cm (208 type) or 19.6 cm (258, 308 type) in thickness and its size is so compact as a room air conditioner. Body of the unit is finished in the ivory white color and a pleasant and simple design produces a very pleasant harmony for the interior design.

### 11.1.2 How to read the model name

Example: **FDKN 20 8 C EN**



## 11.2 SELECTION DATA

### 11.2.1 Specifications

Model FDKN208CEN-S

Item	Model	FDKN208CEN-S	
		FDKN208C	FDC208CEN3
<b>Nominal cooling capacity<sup>(1)</sup></b>	W	4850	
<b>Power source</b>			1 Phase, 220/240V, 50Hz
Operation data <sup>(3)</sup>	Cooling input	kW	1.76/1.85
	Running current (Cooling)	A	8.2/8.0
	Power factor (Cooling)	%	98/96
	Inrush current (L.R.A)	A	44
	Noise level <sup>(4)</sup>	dB(A)	Hi:45 Lo:38 52
<b>Exterior dimensions</b>		<b>mm</b>	<b>275 × 790 × 179</b> 690 × 880 × 290
<b>Height × Width × Depth</b>			
<b>Net weight</b>	<b>kg</b>	<b>10</b>	<b>49</b>
<b>Refrigerant equipment</b>			
<b>Compressor type &amp; Q'ty</b>		—	RM5523GNE4 × 1
Motor	kW	—	1.6
Starting method		—	Line starting
<b>Heat exchanger</b>		Louver fins & inner grooved tubing	Slotted fines & bare tubing
Refrigerant control		Capillary tube	Capillary tube
<b>Refrigerant</b>			R22
<b>Quantity</b>	<b>kg</b>	<b>Holding charged</b>	0.9 [Pre-charged up to the piping length of 5m]
<b>Refrigerant oil</b>	<b>ℓ</b>	—	0.7 (BARREL FREEZE 32 SAM)
High pressure control		—	
<b>Air handling equipment</b>			
Fan type & Q'ty		Tangential fan × 1	Propeller fan × 1
Motor	W	26 × 1	55 × 1
Starting method		Line starting	Line starting
<b>Air flow (Standard)</b>	<b>CMM</b>	<b>Hi:16 Lo:10</b>	<b>56</b>
<b>Fresh air intake</b>			—
Air filter, Q'ty		Long life filter × 2 (washable)	—
Shock & vibration absorber		Rubber sleeve (for fan motor)	Rubber mount (for compressor)
Electric heater	W	—	20 (Crank case heater)
<b>Operation control</b>			
Operation switch		Wireless remote control switch	— (Indoor unit side)
Room temperature control		Thermostat by electronics	—
<b>Safety equipment</b>			Internal thermostat for fan motor. Frost protection thermostat.
Internal thermostat for fan motor.			Internal thermostat for fan motor. Thermostat for discharge temperature.
<b>Installation data</b>		<b>mm (in)</b>	<b>Liquid line: φ6.35 (1/4") Gas line: φ15.88 (5/8")</b>
<b>Refrigerant piping size</b>			
<b>Connecting method</b>			<b>Flare piping</b>
<b>Drain hose</b>		(Connectable with VP16)	—
Insulation for piping		Necessary (both Liquid & Gas lines)	
Accessories		Mounting kit. Wireless remote controller. Drain hose	
Optional parts		—	

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling		27°C	19°C	35°C	24°C	ISO-T1, JIS B8616

(2) This packaged air conditioner is manufactured and tested in conformity with the following standard.

JIS B8616 "UNITARY AIR CONDITIONERS"

(3) The operation data indicate when the air conditioner is operated at 220V and 240V respectively.

(4) Indicates the value at mild mode.

## Model FDKN208CEP-S

Item		Model		FDKN208CEP-S
		FDKN208C	FDC208CEP3	
<b>Nominal cooling capacity<sup>(1)</sup></b>		W		<b>5200</b>
<b>Power source</b>		1 Phase, 220V, 60Hz		
Operation data <sup>(3)</sup>	Cooling input	kW		1.76
	Running current (Cooling)	A		8.3
	Power factor (Cooling)	%		96
	Inrush current (L.R.A)	A		52
	Noise level <sup>(4)</sup>	dB(A)	Hi:45 Lo:38	52
<b>Exterior dimensions</b>		<b>mm</b>	<b>275 × 790 × 179</b>	<b>690 × 880 × 290</b>
<b>Height × Width × Depth</b>				
<b>Net weight</b>		<b>kg</b>	<b>10</b>	<b>49</b>
<b>Refrigerant equipment</b>			–	<b>RM5520GP4 × 1</b>
<b>Compressor type &amp; Q'ty</b>				
Motor	kW		–	<b>1.6</b>
Starting method			–	Line starting
<b>Heat exchanger</b>			Louver fins & inner grooved tubing	Slotted fins & bare tubing
Refrigerant control			Capillary tube	Capillary tube
<b>Refrigerant</b>			<b>R22</b>	
<b>Quantity</b>		<b>kg</b>	<b>Holding charged</b>	<b>0.9 [Pre-charged up to the piping length of 5m]</b>
<b>Refrigerant oil</b>		<b>ℓ</b>	–	<b>0.7 (BARREL FREEZE 32 SAM)</b>
High pressure control			–	
<b>Air handling equipment</b>			Tangential fan × 1	Propeller fan × 1
Fan type & Q'ty				
Motor	W		26 × 1	55 × 1
Starting method			Line starting	Line starting
<b>Air flow (Standard)</b>		<b>CMM</b>	<b>Hi:16 Lo:10</b>	<b>56</b>
<b>Fresh air intake</b>			Unavailable	–
Air filter, Q'ty			Long life filter × 2 (washable)	–
Shock & vibration absorber			Rubber sleeve (for fan motor)	Rubber mount (for compressor)
Electric heater	W		–	20 (Crank case heater)
<b>Operation control</b>			Wireless remote control switch	– (Indoor unit side)
Operation switch				
Room temperature control			Thermostat by electronics	–
<b>Safety equipment</b>			Internal thermostat for fan motor. Frost protection thermostat.	Internal thermostat for fan motor. Thermostat for discharge temperature.
<b>Installation data</b>		<b>mm (in)</b>	<b>Liquid line: φ6.35 (1/4") Gas line: φ15.88 (5/8")</b>	
<b>Refrigerant piping size</b>			<b>Flare piping</b>	
<b>Connecting method</b>			(Connectable with VP16)	–
<b>Drain hose</b>				
Insulation for piping			Necessary (both Liquid & Gas lines)	
Accessories			Mounting kit. Wireless remote controller. Drain hose	
Optional parts			–	

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling		27°C	19°C	35°C	24°C	ISO-T1, JIS B8616

(2) This packaged air conditioner is manufactured and tested in conformity with the following standard.

JIS B8616 "UNITARY AIR CONDITIONERS"

(3) The operation data indicate when the air conditioner is operated at 220V.

(4) Indicates the value at mild mode.

**Model FDKN258CEN-S**

Item	Model	<b>FDKN258CEN-S</b>	
		<b>FDKN258C</b>	<b>FDC258CEN3</b>
<b>Nominal cooling capacity<sup>(1)</sup></b>	<b>W</b>	<b>5700</b>	
<b>Power source</b>		<b>1 Phase, 220/240V, 50Hz</b>	
Cooling input	kW	2.03/2.14	
Running current (Cooling)	A	9.3/9.3	
Power factor (Cooling)	%	99/96	
Inrush current (L.R.A)	A	51	
Noise level <sup>(4)</sup>	dB(A)	Hi:45 Lo:38	52
<b>Exterior dimensions</b>	<b>mm</b>	<b>298 × 940 × 196</b>	<b>845 × 880 × 340</b>
<b>Height × Width × Depth</b>			
<b>Net weight</b>	<b>kg</b>	<b>11</b>	<b>55</b>
<b>Refrigerant equipment</b>		–	<b>RM5526GNE4 × 1</b>
<b>Compressor type &amp; Q'ty</b>			
Motor	kW	–	1.9
Starting method		–	Line starting
<b>Heat exchanger</b>		Louver fins & inner grooved tubing	Slotted fins & bare tubing
Refrigerant control		Capillary tube	Capillary tube
<b>Refrigerant</b>		<b>R22</b>	
<b>Quantity</b>	<b>kg</b>	<b>Holding charged</b>	<b>1.05 [Pre-charged up to the piping length of 5m]</b>
<b>Refrigerant oil</b>	<b>ℓ</b>	–	<b>0.7 (BARREL FREEZE 32 SAM)</b>
High pressure control		–	
<b>Air handling equipment</b>		Tangential fan × 1	Propeller fan × 1
Fan type & Q'ty			
Motor	W	40 × 1	55 × 1
Starting method		Line starting	Line starting
<b>Air flow (Standard)</b>	<b>CMM</b>	<b>Hi:17 Lo:10</b>	<b>56</b>
<b>Fresh air intake</b>		Unavailable	–
Air filter, Q'ty		Long life filter × 2 (washable)	–
Shock & vibration absorber		Rubber sleeve (for fan motor)	Rubber mount (for compressor)
Electric heater	W	–	20 (Cank case heater)
<b>Operation control</b>		Wireless remote control switch	– (Indoor unit side)
Operation switch			
Room temperature control		Thermostat by electronics	–
<b>Safety equipment<sup>(4)</sup></b>		Internal thermostat for fan motor. Frost protection thermostat.	Internal thermostat for fan motor. Thermostat for discharge temperature.
<b>Installation data</b>	<b>mm (in)</b>	<b>Liquid line: φ9.52 (3/8") Gas line: φ15.88 (5/8")</b>	
<b>Refrigerant piping size</b>			
<b>Connecting method</b>		<b>Flare piping</b>	
<b>Drain hose</b>		(Connectable with VP16)	–
Insulation for piping		Necessary (both Liquid & Gas lines)	
Accessories		Mounting kit. Wireless remote controller. Drain hose	
Optional parts		–	

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling		27°C	19°C	35°C	24°C	ISO-T1, JIS B8616

(2) This packaged air conditioner is manufactured and tested in conformity with the following standard.

JIS B8616 "UNITARY AIR CONDITIONERS"

(3) The operation data indicate when the air conditioner is operated at 220V and 240V respectively.

(4) Indicates the value at mild mode.

## Model FDKN258CEP-S

Item	Model	FDKN258CEP-S	
		FDKN258C	FDC258CEP3
<b>Nominal cooling capacity<sup>(1)</sup></b>	<b>W</b>	<b>6200</b>	
<b>Power source</b>		<b>1 Phase, 220V, 60Hz</b>	
<b>Operation data<sup>(3)</sup></b>	Cooling input	kW	2.75
	Running current (Cooling)	A	12.7
	Power factor (Cooling)	%	98
	Inrush current (L.R.A)	A	71
	Noise level <sup>(4)</sup>	dB(A)	Hi:45 Lo:38 52
<b>Exterior dimensions</b>	<b>mm</b>	<b>298 × 940 × 196</b>	
<b>Height × Width × Depth</b>		<b>845 × 880 × 340</b>	
<b>Net weight</b>	<b>kg</b>	<b>11</b>	<b>55</b>
<b>Refrigerant equipment</b>		—	
<b>Compressor type &amp; Q'ty</b>		<b>RM5526GP4 × 1</b>	
Motor	kW	—	
Starting method		—	
<b>Heat exchanger</b>		Louver fins & inner grooved tubing	Slotted fins & bare tubing
Refrigerant control		Capillary tube	Capillary tube
<b>Refrigerant</b>		<b>R22</b>	
<b>Quantity</b>	<b>kg</b>	<b>Holding charged</b>	
<b>Refrigerant oil</b>	<b>ℓ</b>	—	
High pressure control		—	
<b>Air handling equipment</b>		Tangential fan × 1	Propeller fan × 1
Fan type & Q'ty			
Motor	W	40 × 1	55 × 1
Starting method		Line starting	Line starting
<b>Air flow (Standard)</b>	<b>CMM</b>	<b>Hi:17 Lo:10</b>	<b>56</b>
<b>Fresh air intake</b>		Unavailable	—
Air filter, Q'ty		Long life filter × 2 (washable)	—
Shock & vibration absorber		Rubber sleeve (for fan motor)	Rubber mount (for compressor)
Electric heater	W	—	20 (Cank case heater)
<b>Operation control</b>			
Operation switch		Wireless remote control switch	— (Indoor unit side)
Room temperature control		Thermostat by electronics	—
<b>Safety equipment</b>		Internal thermostat for fan motor. Frost protection thermostat.	Internal thermostat for fan motor. Thermostat for discharge temperature.
<b>Installation data</b>	<b>mm (in)</b>	<b>Liquid line: φ9.52 (3/8") Gas line: φ15.88 (5/8")</b>	
<b>Refrigerant piping size</b>		<b>Flare piping</b>	
<b>Connecting method</b>		(Connectable with VP16)	
<b>Drain hose</b>		Necessary (both Liquid & Gas lines)	
Insulation for piping		Mounting kit. Wireless remote controller. Drain hose	
Accessories		—	
Optional parts		—	

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling		27°C	19°C	35°C	24°C	ISO-T1, JIS B8616

(2) This packaged air conditioner is manufactured and tested in conformity with the following standard.

JIS B8616 "UNITARY AIR CONDITIONERS"

(3) The operation data indicate when the air conditioner is operated at 220V.

(4) Indicates the value at mild mode.

**Model FDKN208CEN**

Item		Model		FDKN208CEN				
				FDKN208C	FDC206CEN3			
<b>Nominal cooling capacity<sup>(1)</sup></b>	ISO-T1	W			5000			
	ISO-T3				4100			
<b>Power source</b>		1 Phase, 220/240V, 50Hz						
<b>Operation data<sup>(3)</sup></b>	ISO-T1	Cooling input	kW	2.07/2.10				
	ISO-T1	Running current (Cooling)	A	9.9/9.7				
	ISO-T1	Power factor (Cooling)	%	95/90				
	ISO-T3	Cooling input	kW	2.33/2.35				
	ISO-T3	Running current (Cooling)	A	11.0/10.8				
	ISO-T3	Power factor (Cooling)	%	96/91				
	Inrush current (L.R.A)		A	47				
	Noise level <sup>(4)</sup>		dB(A)	Hi:45 Lo:38	59			
	<b>Exterior dimensions</b> <b>Height × Width × Depth</b>		mm	275 × 790 × 179	615 × 850 × 290 + 30			
<b>Net weight</b>		kg	10		55			
<b>Refrigerant equipment</b>								
<b>Compressor type &amp; Q'ty</b>								
Motor		kW	—		1.49			
Starting method								
<b>Heat exchanger</b>								
Refrigerant control								
<b>Refrigerant</b>								
<b>Quantity</b>		kg	<b>Holding charged</b>		0.9 [Pre-charged up to the piping length of 10m]			
<b>Refrigerant oil</b>		ℓ	—		1.63 (SUNISO 3GS)			
High pressure control								
<b>Air handling equipment</b>								
Fan type & Q'ty								
Motor		W	26 × 1		55 × 1			
Starting method								
<b>Air flow (Standard)</b>		CMM	<b>Hi:16 Lo:10</b>		42			
<b>Fresh air intake</b>								
Air filter, Q'ty								
Shock & vibration absorber								
Electric heater		W	—		—			
<b>Operation control</b>								
Operation switch								
Room temperature control								
<b>Safety equipment</b>								
Internal thermostat for fan motor.								
Frost protection thermostat.								
<b>Installation data</b>		mm (in)	<b>Liquid line: φ6.35 (1/4") Gas line: φ15.88 (5/8")</b>					
<b>Refrigerant piping size</b>								
<b>Connecting method</b>								
<b>Drain hose</b>								
Insulation for piping								
Accessories								
Optional parts								

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling	27°C	19°C		35°C	24°C	ISO-T1, JIS B8616
	29°C	19°C		46°C	24°C	ISO-T3, SASO

(2) This packaged air conditioner is manufactured and tested in conformity with the following standard.

JIS B8616 "UNITARY AIR CONDITIONERS"

(3) The operation data indicate when the air conditioner is operated at 220V and 240V respectively.

(4) Indicates the value at mild mode.

## Model FDKN208CEP

Item		Model	FDKN208CEP	
			FDKN208C	FDC206CEP3
<b>Nominal cooling capacity<sup>(1)</sup></b>		W	5200	4500
<b>Operation data<sup>(3)</sup></b>	ISO-T1	Cooling input	kW	2.06
	ISO-T1	Running current (Cooling)	A	9.6
	ISO-T1	Power factor (Cooling)	%	98
	ISO-T3	Cooling input	kW	2.32
	ISO-T3	Running current (Cooling)	A	10.9
	ISO-T3	Power factor (Cooling)	%	97
Inrush current (L.R.A)		A		50
Noise level <sup>(4)</sup>		dB(A)	Hi:45 Lo:38	59
<b>Exterior dimensions</b>		<b>mm</b>	<b>275×790×179</b>	<b>615×850×290+30</b>
<b>Height × Width × Depth</b>				
<b>Net weight</b>		<b>kg</b>	<b>10</b>	<b>55</b>
<b>Refrigerant equipment</b>			–	<b>RC5520EPE1×1</b>
<b>Compressor type &amp; Q'ty</b>				
Motor		kW	–	1.31
Starting method			–	Line starting
<b>Heat exchanger</b>			Louver fins & inner grooved tubing	Slitted fins & bare tubing
Refrigerant control			Capillary tube	Capillary tube
<b>Refrigerant</b>			R22	
<b>Quantity</b>	<b>kg</b>	<b>Holding charged</b>	1.15 [Pre-charged up to the piping length of 10m]	
<b>Refrigerant oil</b>	<b>ℓ</b>	–	1.63 (SUNISO 3GS)	
High pressure control			High pressure regulator valve	
<b>Air handling equipment</b>			Tangential fan × 1	Propeller fan × 1
Fan type & Q'ty				
Motor	<b>W</b>	26×1		55×1
Starting method		Line starting		Line starting
<b>Air flow (Standard)</b>	<b>CMM</b>	<b>Hi:16 Lo:10</b>		<b>44</b>
<b>Fresh air intake</b>			Unavailable	–
Air filter, Q'ty			Long life filter × 2 (washable)	–
Shock & vibration absorber			Rubber sleeve (for fan motor)	Rubber mount (for compressor)
Electric heater	<b>W</b>	–		–
<b>Operation control</b>				
Operation switch			Wireless remote control switch	– (Indoor unit side)
Room temperature control			Thermostat by electronics	–
<b>Safety equipment</b>			Internal thermostat for fan motor. Frost protection thermostat.	Internal protector for compressor. Internal thermostat for fan motor. Internal Pressure relief valve for compressor.
<b>Installation data</b>		<b>mm (in)</b>	<b>Liquid line: φ6.35 (1/4") Gas line: φ15.88 (5/8")</b>	
<b>Refrigerant piping size</b>			<b>Flare piping</b>	
<b>Connecting method</b>			(Connectable with VP16)	–
<b>Drain hose</b>			Necessary (both Liquid & Gas lines)	
Insulation for piping			Mounting kit. Wireless remote controller. Drain hose	
Accessories			–	
Optional parts			–	

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling	DB	27°C	19°C	35°C	24°C	ISO-T1, JIS B8616
	WB	29°C	19°C	46°C	24°C	ISO-T3, SASO

(2) This packaged air conditioner is manufactured and tested in conformity with the following standard.

JIS B8616 "UNITARY AIR CONDITIONERS"

(3) The operation data indicate when the air conditioner is operated at 220V.

(4) Indicates the value at mild mode.

**Model FDKN258CEN**

Item		Model		FDKN258CEN	
				FDKN258C	FDC256CEN3
<b>Nominal cooling capacity<sup>(1)</sup></b>		ISO-T1	W	<b>5700</b>	
		ISO-T3		<b>4900</b>	
<b>Power source</b>		<b>1 Phase, 220/240V, 50Hz</b>			
Operation data <sup>(3)</sup>	ISO-T1	Cooling input	kW	2.57/2.61	
	ISO-T1	Running current (Cooling)	A	12.5/13.1	
	ISO-T1	Power factor (Cooling)	%	93/83	
	ISO-T3	Cooling input	kW	2.75/2.79	
	ISO-T3	Running current (Cooling)	A	13.3/13.9	
	ISO-T3	Power factor (Cooling)	%	94/84	
	ISO-T1	Inrush current (L.R.A)	A	64	
	ISO-T1	Noise level <sup>(4)</sup>	dB(A)	Hi:45 Lo:38	59
<b>Exterior dimensions</b>		<b>mm</b>	<b>298 × 940 × 196</b>		<b>615 × 850 × 290 + 30</b>
<b>Height × Width × Depth</b>		<b>kg</b>	<b>11</b>		<b>56</b>
<b>Net weight</b>					
<b>Refrigerant equipment</b>					<b>RC5527ENE1 × 1</b>
<b>Compressor type &amp; Q'ty</b>			–		<b>1.87</b>
Motor		kW	–		Line starting
Starting method			–		Slotted fins & bare tubing
<b>Heat exchanger</b>			Capillary tube		Capillary tube
<b>Refrigerant</b>			<b>R22</b>		
<b>Quantity</b>		<b>kg</b>	<b>Holding charged</b>		<b>1.35 [Pre-charged up to the piping length of 5m]</b>
<b>Refrigerant oil</b>		<b>ℓ</b>	–		<b>1.63 (SUNISO 3GS)</b>
High pressure control			High pressure regulator valve		
<b>Air handling equipment</b>			Tangential fan × 1		Propeller fan × 1
Fan type & Q'ty			40×1		55×1
Motor		W	Line starting		Line starting
Starting method			<b>Hi:17 Lo:10</b>		<b>42</b>
<b>Air flow (Standard)</b>		<b>CMM</b>			
<b>Fresh air intake</b>			Unavailable		–
Air filter, Q'ty			Long life filter × 2 (washable)		–
Shock & vibration absorber			Rubber sleeve (for fan motor)		Rubber mount (for compressor)
Electric heater		W	–		–
<b>Operation control</b>			Wireless remote control switch		– (Indoor unit side)
Operation switch			Thermostat by electronics		–
Room temperature control					
<b>Safety equipment</b>			Internal thermostat for fan motor. Frost protection thermostat.		Internal protector for compressor. Internal thermostat for fan motor. Internal Pressure relief valve for compressor.
<b>Installation data</b>		<b>mm (in)</b>	<b>Liquid line: φ9.52 (3/8") Gas line: φ15.88 (5/8")</b>		
<b>Refrigerant piping size</b>			<b>Flare piping</b>		
<b>Connecting method</b>			(Connectable with VP16)		–
<b>Drain hose</b>			Necessary (both Liquid & Gas lines)		
Insulation for piping			Mounting kit. Wireless remote controller. Drain hose		
Accessories					
Optional parts			–		

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling	DB	27°C	19°C	35°C	24°C	ISO-T1, JIS B8616
	WB	29°C	19°C	46°C	24°C	ISO-T3, SASO

(2) This packaged air conditioner is manufactured and tested in conformity with the following standard.

JIS B8616 "UNITARY AIR CONDITIONERS"

(3) The operation data indicate when the air conditioner is operated at 220V and 240V respectively.

(4) Indicates the value at mild mode.

## Model FDKN258CEP

Item		Model		FDKN258CEP							
				FDKN258C	FDC256CEP3						
<b>Nominal cooling capacity<sup>(1)</sup></b>	ISO-T1	W			6200						
	ISO-T3				5200						
<b>Power source</b>		1 Phase, 220V, 60Hz									
<b>Operation data<sup>(3)</sup></b>	ISO-T1	Cooling input	kW	2.66							
	ISO-T1	Running current (Cooling)	A	12.3							
	ISO-T1	Power factor (Cooling)	%	98							
	ISO-T3	Cooling input	kW	3.04							
	ISO-T3	Running current (Cooling)	A	14.3							
	ISO-T3	Power factor (Cooling)	%	97							
	Inrush current (L.R.A)		A	66							
	Noise level <sup>(4)</sup>		dB(A)	Hi:45 Lo:38	59						
	<b>Exterior dimensions</b> <b>Height × Width × Depth</b>		mm	298 × 940 × 196							
<b>Net weight</b>		kg	11		56						
<b>Refrigerant equipment</b>											
<b>Compressor type &amp; Q'ty</b>											
Motor	kW		–								
Starting method			–								
<b>Heat exchanger</b>			Louver fins & inner grooved tubing		Slitted fines & bare tubing						
Refrigerant control			Capillary tube		Capillary tube						
<b>Refrigerant</b>	R22										
<b>Quantity</b>	kg	<b>Holding charged</b>		1.35 [Pre-charged up to the piping length of 5m]							
<b>Refrigerant oil</b>	ℓ	–		1.63 (SUNISO 3GS)							
High pressure control	High pressure regulator valve										
<b>Air handling equipment</b>											
Fan type & Q'ty			Tangential fan × 1		Propeller fan × 1						
Motor	W	40 × 1		55 × 1							
Starting method			Line starting		Line starting						
<b>Air flow (Standard)</b>	CMM	<b>Hi:17 Lo:10</b>		44							
<b>Fresh air intake</b>	Unavailable										
Air filter, Q'ty			Long life filter × 2 (washable)		–						
Shock & vibration absorber			Rubber sleeve (for fan motor)		Rubber mount (for compressor)						
Electric heater	W	–		–							
<b>Operation control</b>											
Operation switch			Wireless remote control switch		– (Indoor unit side)						
Room temperature control			Thermostat by electronics		–						
<b>Safety equipment</b>			Internal thermostat for fan motor. Frost protection thermostat.		Internal protector for compressor. Internal thermostat for fan motor. Internal Pressure relief valve for compressor.						
<b>Installation data</b>	mm (in)	<b>Liquid line: φ9.52 (3/8") Gas line: φ15.88 (5/8")</b>									
<b>Refrigerant piping size</b>											
<b>Connecting method</b>	<b>Flare piping</b>										
<b>Drain hose</b>			(Connectable with VP16)		–						
Insulation for piping	Necessary (both Liquid & Gas lines)										
Accessories	Mounting kit. Wireless remote controller. Drain hose										
Optional parts	–										

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling	DB	27°C	19°C	35°C	24°C	ISO-T1, JIS B8616
	WB	29°C	19°C	46°C	24°C	ISO-T3, SASO

(2) This packaged air conditioner is manufactured and tested in conformity with the following standard.

JIS B8616 "UNITARY AIR CONDITIONERS"

(3) The operation data indicate when the air conditioner is operated at 220V.

(4) Indicates the value at mild mode.

**Model FDKN308CEN**

Item		Model		FDKN308CEN				
				FDKN308C	FDC306CEN3			
<b>Nominal cooling capacity<sup>(1)</sup></b>		ISO-T1	W	<b>7100</b>				
		ISO-T3		<b>5700</b>				
<b>Power source</b>		<b>1 Phase, 220/240V, 50Hz</b>						
<b>Operation data<sup>(3)</sup></b>	<b>ISO-T1</b>	Cooling input	kW	3.04/3.08				
		Running current (Cooling)	A	15.5/16.2				
		Power factor (Cooling)	%	89/79				
	<b>ISO-T3</b>	Cooling input	kW	3.23/3.27				
		Running current (Cooling)	A	16.5/17.2				
		Power factor (Cooling)	%	89/79				
		Inrush current (L.R.A)	A	89				
		Noise level <sup>(4)</sup>	dB(A)	Hi:46 Lo:40	56			
		<b>Exterior dimensions</b> <b>Height × Width × Depth</b>	<b>mm</b>	<b>298 × 1155 × 196</b>	<b>844 × 950 × 340</b>			
<b>Net weight</b>		<b>kg</b>	<b>13.5</b>		<b>67</b>			
<b>Refrigerant equipment</b>								
<b>Compressor type &amp; Q'ty</b>								
Motor		kW	–		<b>2.24</b>			
Starting method			–		Line starting			
<b>Heat exchanger</b>		Louver fins & inner grooved tubing		Slitted fines & bare tubing				
Refrigerant control		Capillary tube		Capillary tube				
<b>Refrigerant</b>		<b>R22</b>						
<b>Quantity</b>		<b>kg</b>	<b>Holding charged</b>	1.3 [Pre-charged up to the piping length of 10m]				
<b>Refrigerant oil</b>		<b>ℓ</b>	–		<b>1.63 (SUNISO 3GS)</b>			
High pressure control		High pressure regulator valve						
<b>Air handling equipment</b>								
Fan type & Q'ty		Tangential fan × 1		Propeller fan × 1				
Motor		W	40×1	60×1				
Starting method		Line starting		Line starting				
<b>Air flow (Standard)</b>		<b>CMM</b>	<b>Hi:21 Lo:15</b>	<b>54</b>				
<b>Fresh air intake</b>		Unavailable						
Air filter, Q'ty		Long life filter × 3 (washable)						
Shock & vibration absorber		Rubber sleeve (for fan motor)		Rubber mount (for compressor)				
Electric heater		W	–	–				
<b>Operation control</b>								
Operation switch		Wireless remote control switch		– (Indoor unit side)				
Room temperature control		Thermostat by electronics		–				
<b>Safety equipment</b>		Internal thermostat for fan motor. Frost protection thermostat.		Internal protector for compressor. Internal thermostat for fan motor. Internal Pressure relief valve for compressor.				
<b>Installation data</b>		<b>mm (in)</b>	<b>Liquid line: φ9.52 (3/8") Gas line: φ15.88 (5/8")</b>					
<b>Refrigerant piping size</b>								
<b>Connecting method</b>		<b>Flare piping</b>						
<b>Drain hose</b>		(Connectable with VP16)		–				
Insulation for piping		Necessary (both Liquid & Gas lines)						
Accessories		Mounting kit. Wireless remote controller. Drain hose						
Optional parts		–						

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling	DB	27°C	19°C	35°C	24°C	ISO-T1, JIS B8616
	WB	29°C	19°C	46°C	24°C	ISO-T3, SASO

(2) This packaged air conditioner is manufactured and tested in conformity with the following standard.

JIS B8616 "UNITARY AIR CONDITIONERS"

(3) The operation data indicate when the air conditioner is operated at 220V and 240V respectively.

(4) Indicates the value at mild mode.

## Model FDKN308CEP

Item		Model		FDKN308CEP	
				FDKN308C	FDC306CEP3
<b>Nominal cooling capacity<sup>(1)</sup></b>		ISO-T1	W	7100	
		ISO-T3		5700	
<b>Power source</b>			1 Phase, 220V, 60Hz		
Operation data <sup>(3)</sup>	ISO-T1	Cooling input	kW	3.00	
		Running current (Cooling)	A	13.9	
		Power factor (Cooling)	%	98	
	ISO-T3	Cooling input	kW	3.23	
		Running current (Cooling)	A	15.1	
		Power factor (Cooling)	%	97	
		Inrush current (L.R.A)	A	78	
		Noise level <sup>(4)</sup>	dB(A)	Hi:46 Lo:40	59
<b>Exterior dimensions</b>		<b>mm</b>	<b>298 × 1155 × 196</b>		<b>844 × 950 × 340</b>
<b>Height × Width × Depth</b>					
<b>Net weight</b>		<b>kg</b>	<b>13.5</b>		<b>67</b>
<b>Refrigerant equipment</b>					
<b>Compressor type &amp; Q'ty</b>			–		<b>RC5533EPE1 × 1</b>
Motor		kW	–		<b>1.87</b>
Starting method			–		Line starting
<b>Heat exchanger</b>			Louver fins & inner grooved tubing		Slitted fines & bare tubing
Refrigerant control			Capillary tube		Capillary tube
<b>Refrigerant</b>			<b>R22</b>		
<b>Quantity</b>		<b>kg</b>	<b>Holding charged</b>		<b>1.3 [Pre-charged up to the piping length of 10m]</b>
<b>Refrigerant oil</b>		<b>ℓ</b>	–		<b>1.63 (SUNISO 3GS)</b>
High pressure control			High pressure regulator valve		
<b>Air handling equipment</b>			Tangential fan × 1		Propeller fan × 1
Fan type & Q'ty					
Motor		W	40 × 1		60 × 1
Starting method			Line starting		Line starting
<b>Air flow (Standard)</b>		<b>CMM</b>	<b>Hi:21 Lo:15</b>		<b>56</b>
<b>Fresh air intake</b>			Unavailable		–
Air filter, Q'ty			Long life filter × 3 (washable)		–
Shock & vibration absorber			Rubber sleeve (for fan motor)		Rubber mount (for compressor)
Electric heater		W	–		–
<b>Operation control</b>			Wireless remote control switch		– (Indoor unit side)
Operation switch					
Room temperature control			Thermostat by electronics		–
<b>Safety equipment</b>			Internal thermostat for fan motor. Frost protection thermostat.		Internal protector for compressor. Internal thermostat for fan motor. Internal Pressure relief valve for compressor.
<b>Installation data</b>		<b>mm (in)</b>	<b>Liquid line: φ9.52 (3/8") Gas line: φ15.88 (5/8")</b>		
<b>Refrigerant piping size</b>					
<b>Connecting method</b>			<b>Flare piping</b>		
<b>Drain hose</b>			(Connectable with VP16)		–
Insulation for piping			Necessary (both Liquid & Gas lines)		
Accessories			Mounting kit. Wireless remote controller. Drain hose		
Optional parts			–		

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling	DB	27°C	19°C	35°C	24°C	ISO-T1, JIS B8616
	WB	29°C	19°C	46°C	24°C	ISO-T3, SASO

(2) This packaged air conditioner is manufactured and tested in conformity with the following standard.

JIS B8616 "UNITARY AIR CONDITIONERS"

(3) The operation data indicate when the air conditioner is operated at 220V.

(4) Indicates the value at mild mode.

**Model FDKN308CES**

Item		Model	FDKN308CES	
			FDKN308C	FDC306CES3
<b>Nominal cooling capacity<sup>(1)</sup></b>	ISO-T1 ISO-T3	W	7100/7700 5700/6000	
<b>Power source</b>			3 Phase, 380-415V 50Hz or 380V 50Hz/415V 50Hz, 380V 60Hz	
<b>Operation data<sup>(3)</sup></b>	ISO-T1	Cooling input kW	2.80/2.81/3.32	
		Running current (Cooling) A	5.2/5.2/5.9	
		Power factor (Cooling) %	82/75/85	
	ISO-T3	Cooling input kW	2.99/3.00/3.55	
		Running current (Cooling) A	5.6/5.6/6.4	
		Power factor (Cooling) %	81/75/84	
		Inrush current (L.R.A) A	43	
		Noise level <sup>(4)</sup> dB(A)	Hi:46 Lo:40	59
<b>Exterior dimensions</b>		<b>mm</b>	<b>298 × 1155 × 196</b>	<b>844 × 950 × 340</b>
<b>Height × Width × Depth</b>				
<b>Net weight</b>		<b>kg</b>	<b>13.5</b>	<b>67</b>
<b>Refrigerant equipment</b>				
<b>Compressor type &amp; Q'ty</b>			–	RC5538ESE1 × 1
Motor		kW	–	2.24
Starting method			–	Line starting
<b>Heat exchanger</b>			Louver fins & inner grooved tubing	Slitted fines & bare tubing
Refrigerant control			Capillary tube	Capillary tube
<b>Refrigerant</b>			<b>R22</b>	
<b>Quantity</b>		<b>kg</b>	<b>Holding charged</b>	<b>1.3 [Pre-charged up to the piping length of 10m]</b>
<b>Refrigerant oil</b>		ℓ	–	<b>1.63 (SUNISO 3GS)</b>
High pressure control			High pressure regulator valve	
<b>Air handling equipment</b>				
Fan type & Q'ty			Tangential fan × 1	Propeller fan × 1
Motor		W	40 × 1	60 × 1
Starting method			Line starting	Line starting
<b>Air flow (Standard)</b>		<b>CMM</b>	<b>Hi:21 Lo:15</b>	<b>54/56</b>
<b>Fresh air intake</b>			Unavailable	–
Air filter, Q'ty			Long life filter × 3 (washable)	–
Shock & vibration absorber			Rubber sleeve (for fan motor)	Rubber mount (for compressor)
Electric heater		W	–	–
<b>Operation control</b>				
Operation switch			Wireless remote control switch	– (Indoor unit side)
Room temperature control			Thermostat by electronics	–
<b>Safety equipment</b>			Internal thermostat for fan motor. Frost protection thermostat.	Internal protector for compressor. Internal thermostat for fan motor. Internal Pressure relief valve for compressor.
<b>Installation data</b>		<b>mm (in)</b>	<b>Liquid line: φ9.52 (3/8") Gas line: φ15.88 (5/8")</b>	
<b>Refrigerant piping size</b>			<b>Flare piping</b>	
<b>Connecting method</b>			(Connectable with VP16)	–
<b>Drain hose</b>			Necessary (both Liquid & Gas lines)	
Insulation for piping			Mounting kit. Wireless remote controller. Drain hose	
Accessories			–	
Optional parts			–	

Notes (1) The data are measured at the following conditions.

Operation	Item	Indoor air temperature		Outdoor air temperature		Standards
		DB	WB	DB	WB	
Cooling	DB	27°C 29°C	19°C 19°C	35°C 46°C	24°C 24°C	ISO-T1, JIS B8616 ISO-T3, SASO
	WB					

(2) This packaged air conditioner is manufactured and tested in conformity with the following standard.

JIS B8616 "UNITARY AIR CONDITIONERS"

(3) The operation data indicate when the air conditioner is operated at 380/415V 50Hz and 380V 60Hz respectively.

(4) Indicates the value at mild mode.

## 11.2.2 Range of usage & limitations

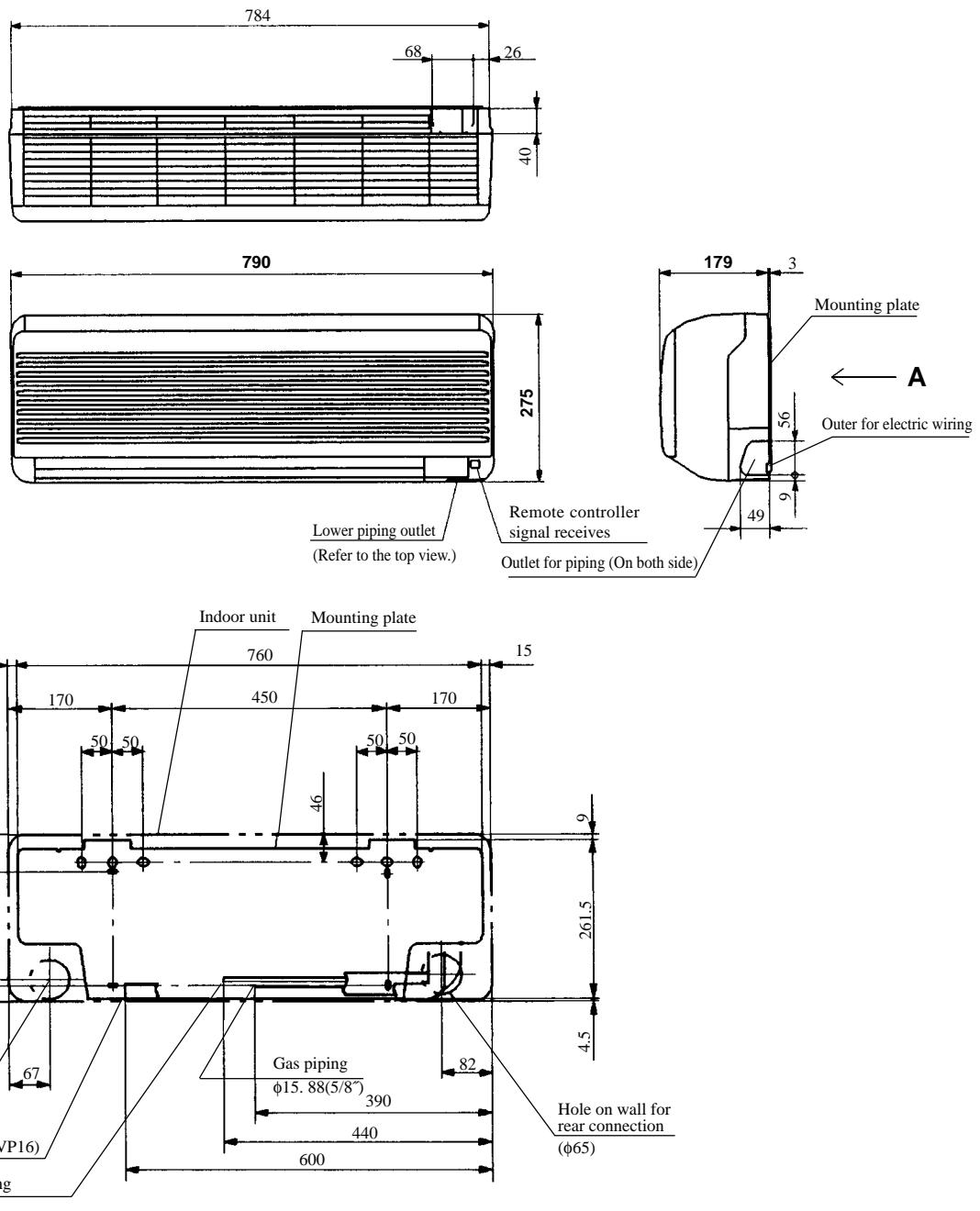
Item	Models	FDKN208, 258 (FDC208, 258 type)	FDKN208, 258, 308 (FDC206, 256, 306 type)
Indoor return air temperature (Upper, lower limits)			Refer to the selection chart
Outdoor air temperature (Upper, lower limits)			
Refrigerant line (one way) length			30 m
Vertical height difference between outdoor unit and indoor unit		Max. 20 m (Outdoor unit is higher) Max. 15 m (Outdoor unit is lower)	15 m
Power source voltage			Rating ± 10%
Voltage at starting			Min. 85% of rating
Frequency of ON-OFF cycle			Max. 10 times/h
ON and OFF interval			Min. 3 minutes

### 11.2.3 Exterior dimensions

#### (1) Indoor unit

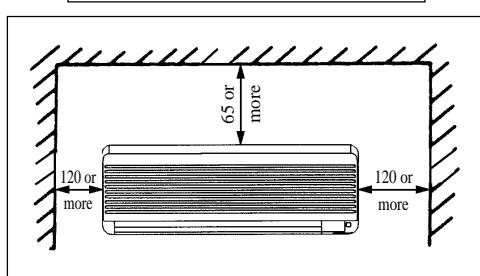
Model FDKN208C

Unit: mm



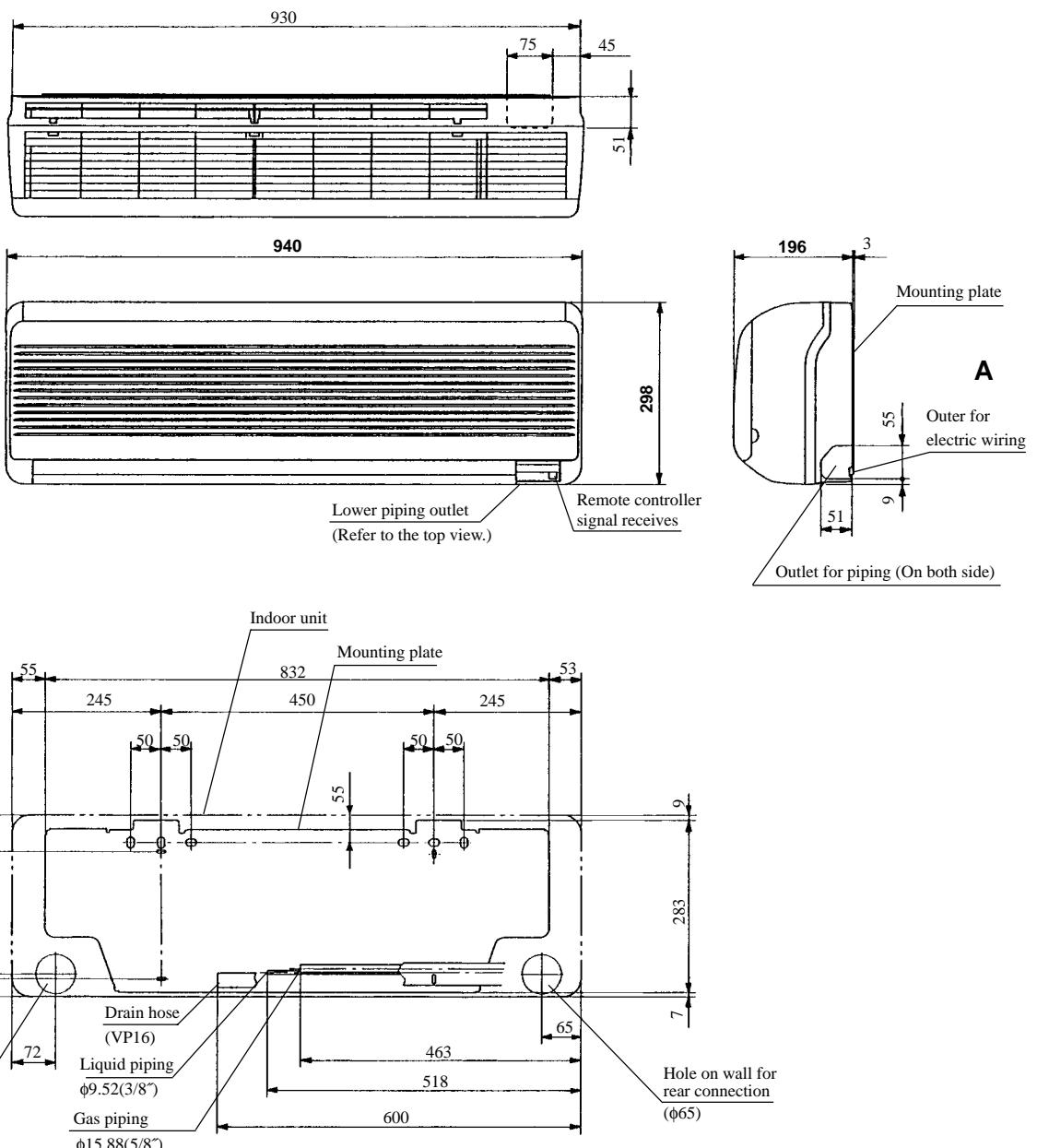
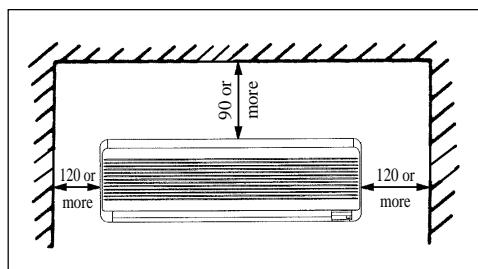
**VIEW A (Rear side)**

**Space for installation and service**



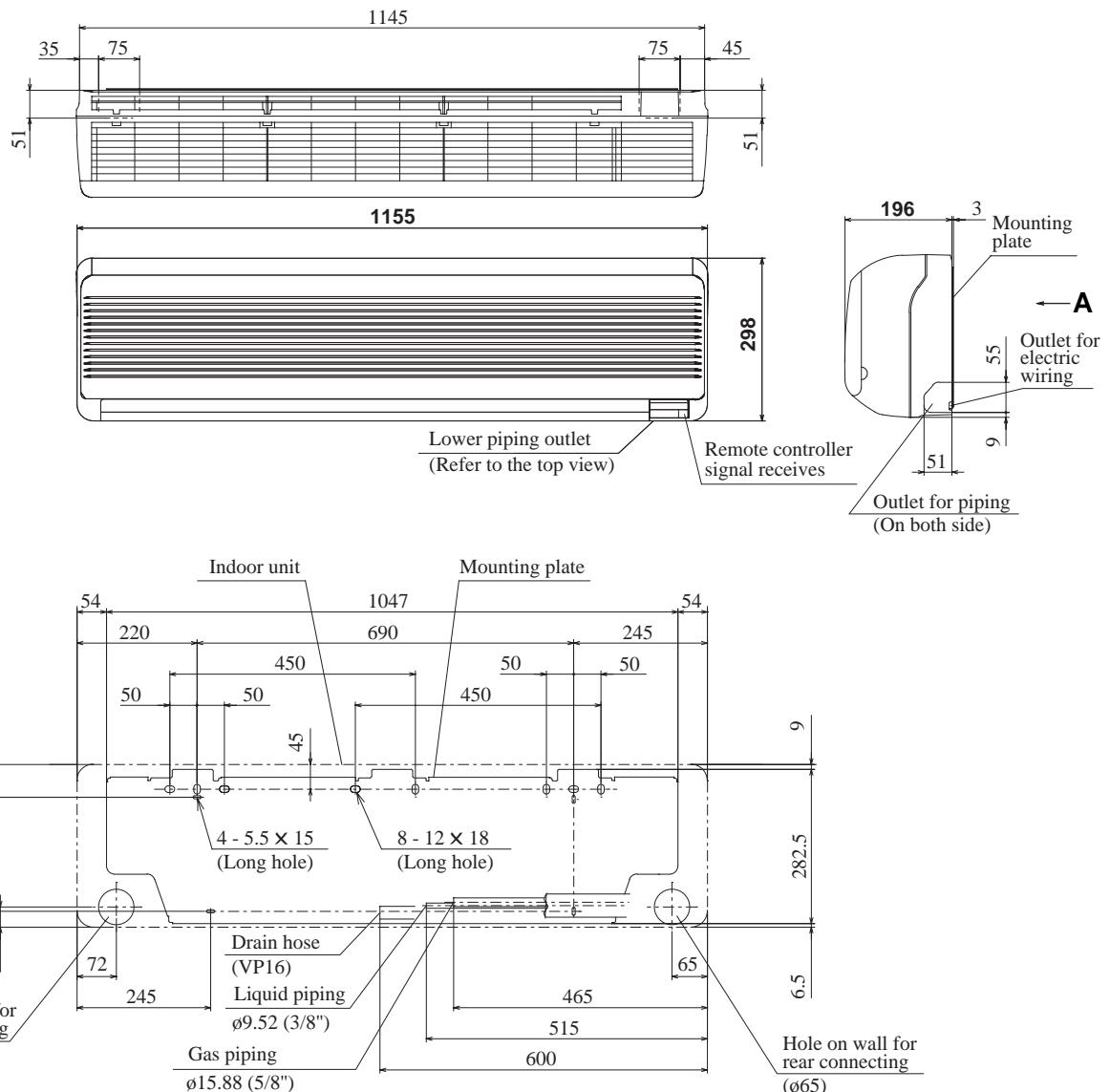
Model FDKN258C

Unit: mm

VIEW A (Rear side)**Space for installation and service**

Model FDKN308C

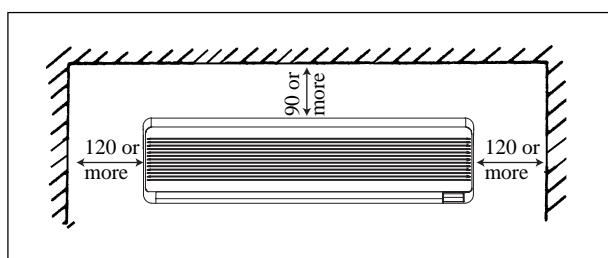
Unit : mm



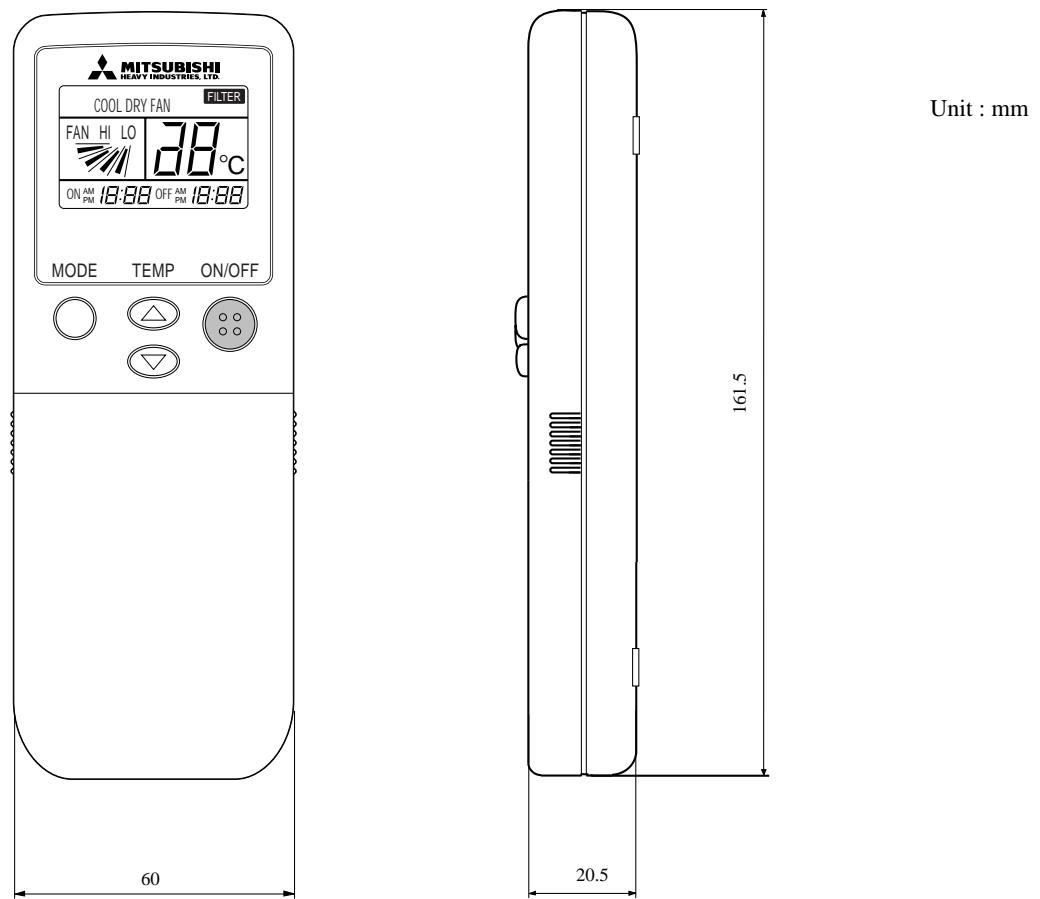
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**VIEW A (Rear side)**

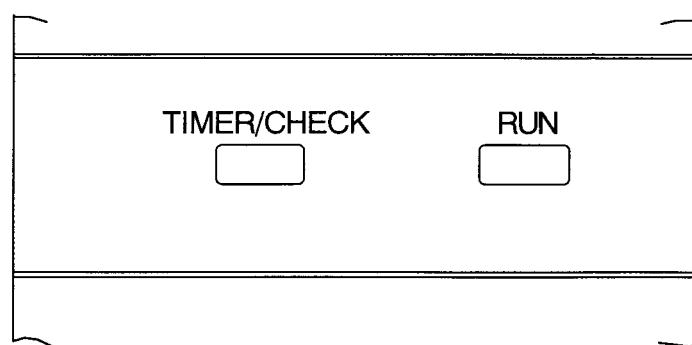
#### **Space for installation and service**



## (2) Wireless remote controller

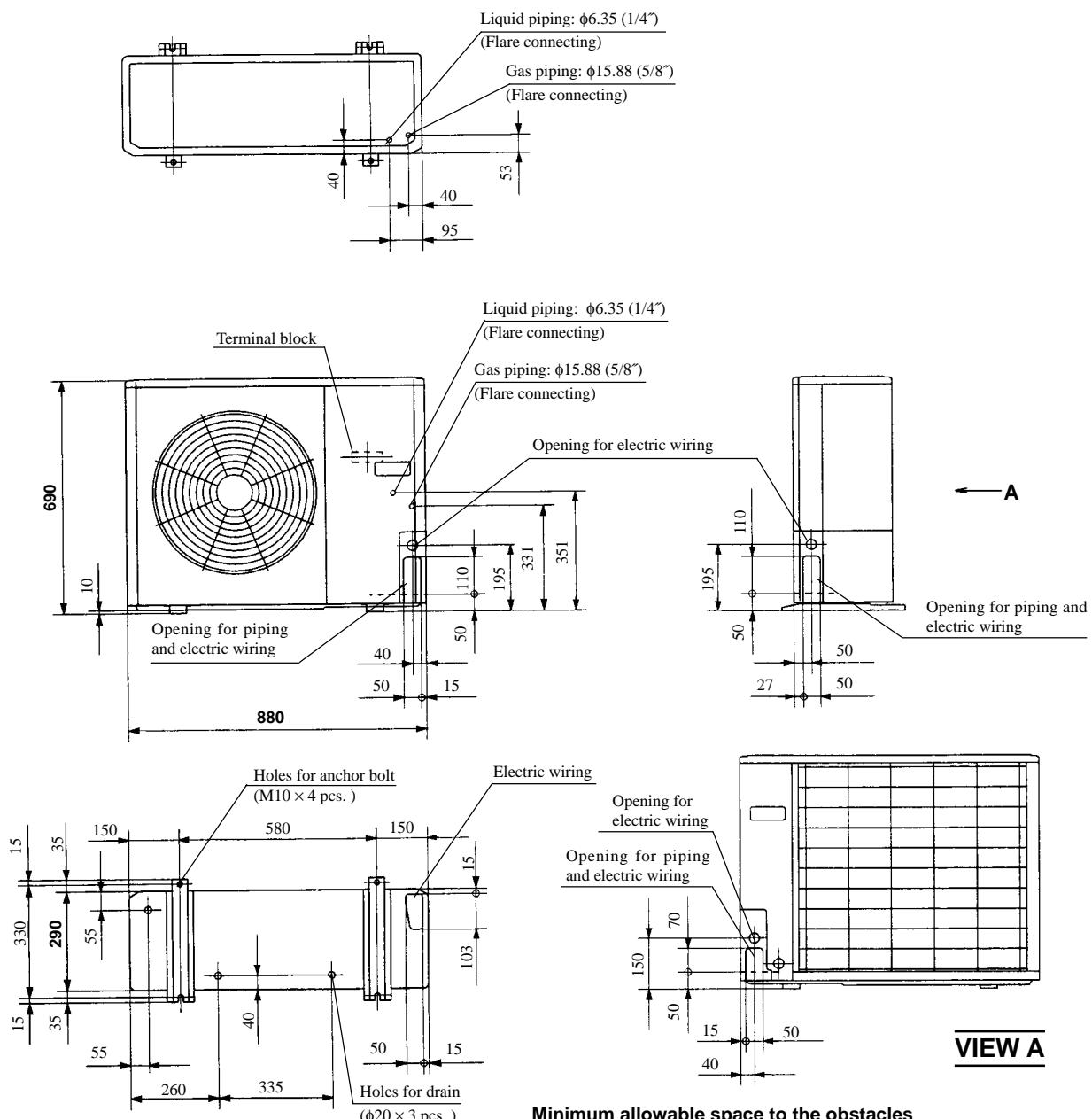


## (3) Indication board of indoor unit



**(4) Outdoor unit**  
**Models FDC208CEN3, 208CEP3**

Unit: mm

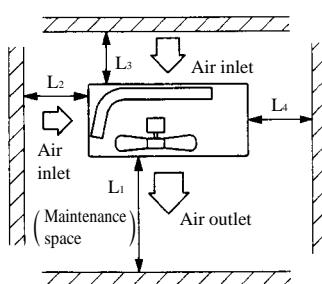
**Minimum allowable space to the obstacles**

Unit: mm

Mark \ Installation type	I	II	III
L <sub>1</sub>	Open	Open	500
L <sub>2</sub>	300	5	Open
L <sub>3</sub>	100	150	100
L <sub>4</sub>	5	5	5

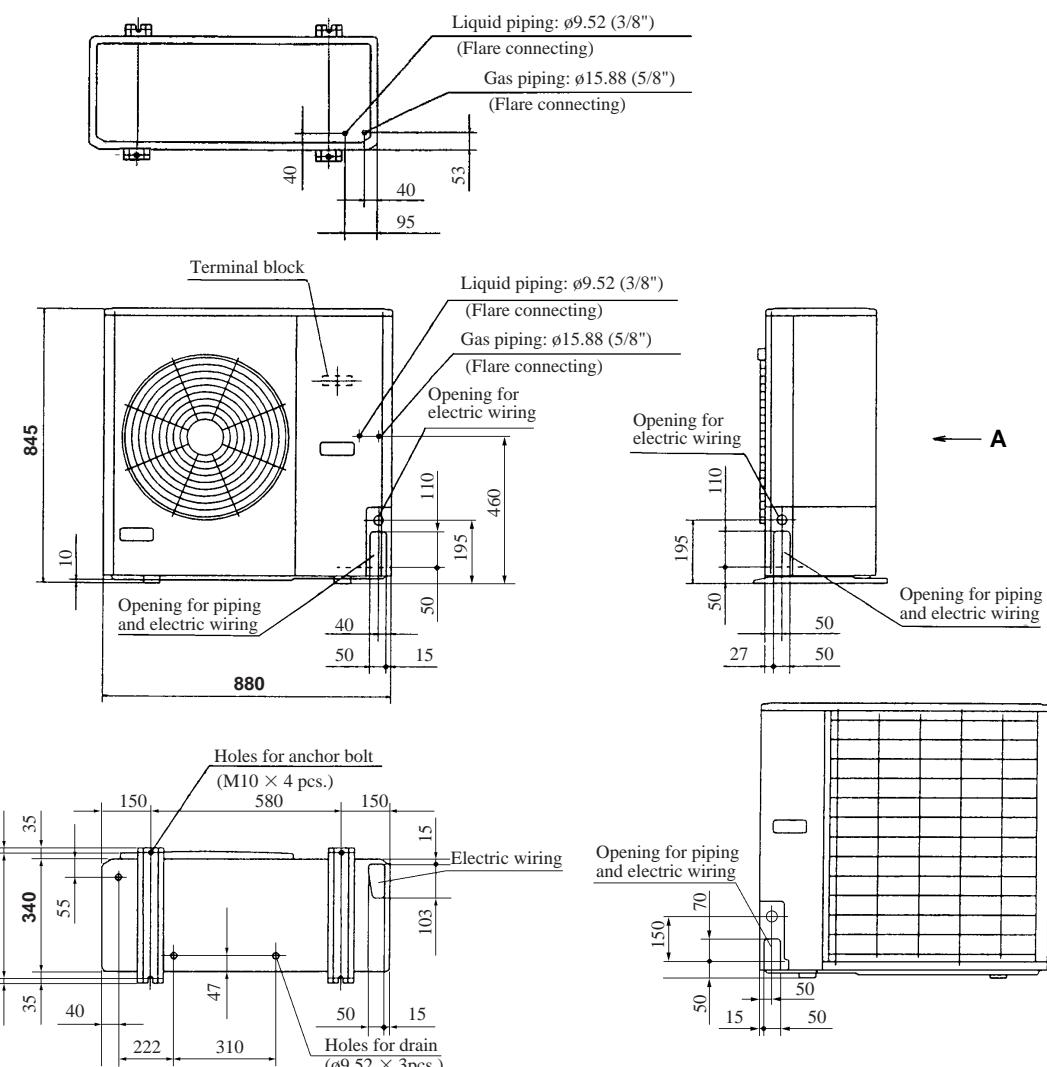
**Notes**

- (1) Avoid the location where four sides are entirely surrounded by walls.
- (2) Fix the unit by anchor bolts without fail. Restrict the protrusion length of anchor bolt to 15 mm and under.
- (3) When strong wind blows against the unit, direct the discharge port at a right angle to the wind direction.
- (4) Secure the space of 1 m and over at the top of unit.
- (5) Make the height of obstruction wall in front of discharge port lower than the height of unit.

**Required space for maintenance and air flow**

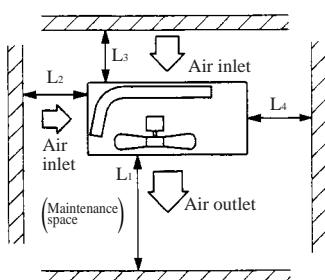
## Models FDC258CEN3, 258CEP3

Unit: mm



VIEW A

## Required space for maintenance and air flow



## Minimum allowable space to the obstacles

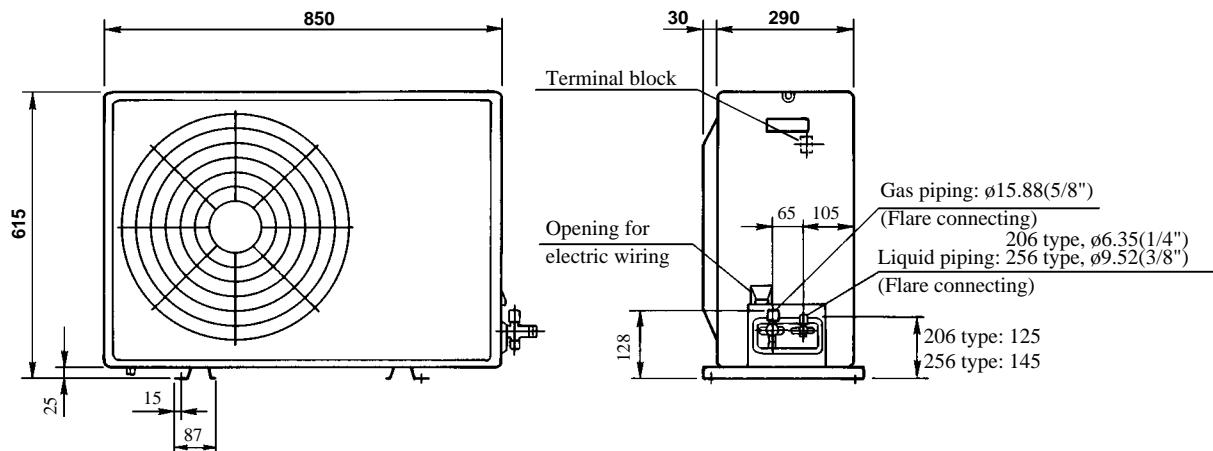
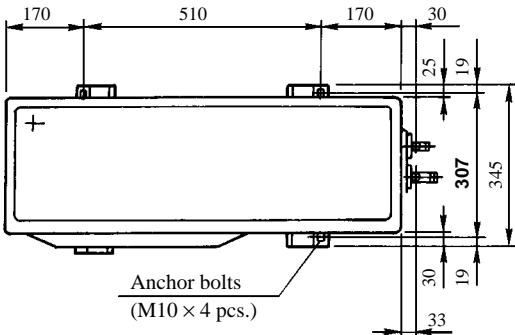
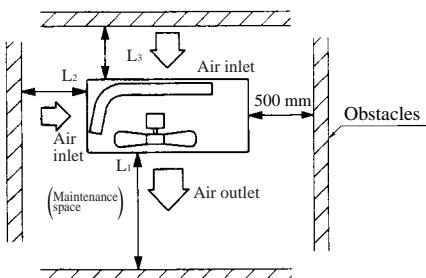
Mark	Unit:mm		
	I	II	III
L <sub>1</sub>	Open	Open	500
L <sub>2</sub>	300	5	Open
L <sub>3</sub>	100	150	100
L <sub>4</sub>	5	5	5

## Notes

- (1) Avoid the location where four sides are entirely surrounded by walls.
- (2) Fix the unit by anchor bolts without fail. Restrict the protrusion length of anchor bolt to 15 mm and under.
- (3) When strong wind blows against the unit, direct the discharge port at a right angle to the wind direction.
- (4) Secure the space of 1 m and over at the top of unit.
- (5) Make the height of obstruction wall in front of discharge port lower than the height of unit.

**Models FDC206CEN3, 206CEP3, 256CEN3, 256CEP3**

Unit: mm


**Required space for maintenance and air flow**

**Minimum allowable space to the obstacles**

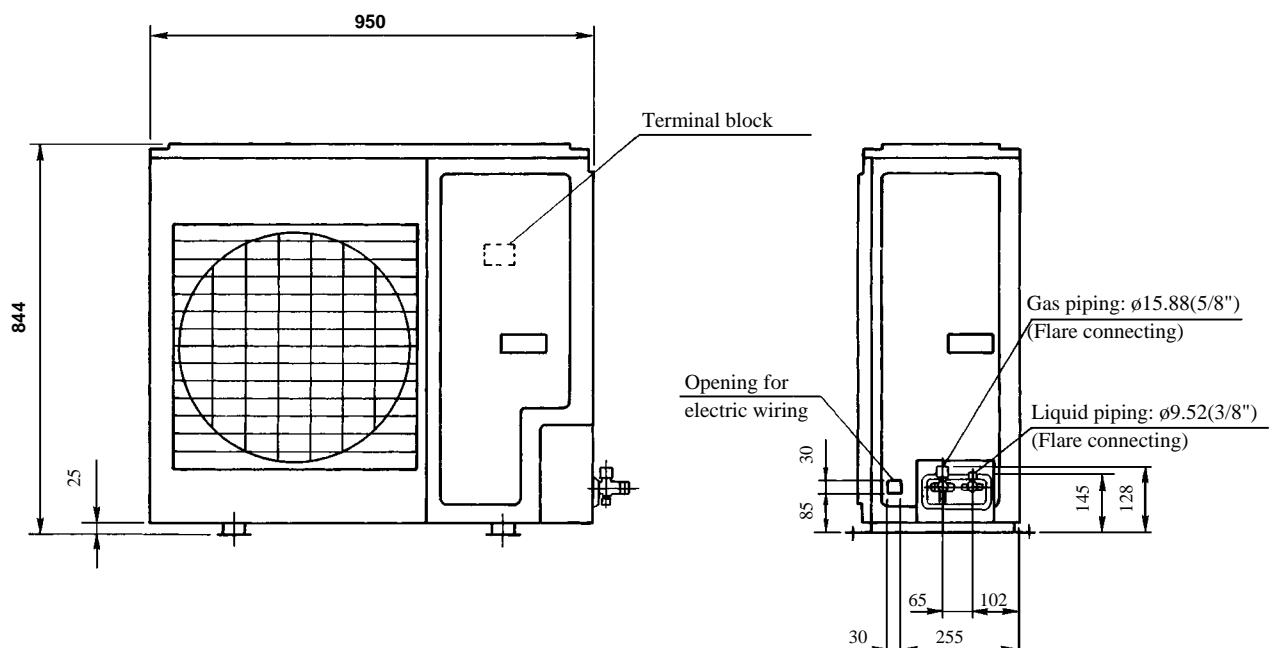
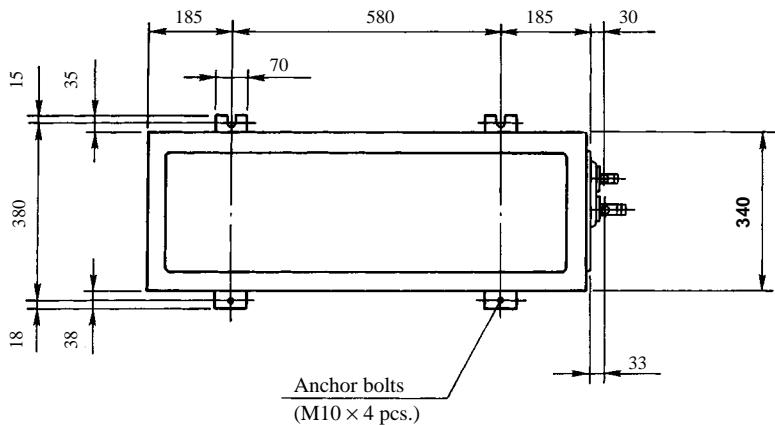
Mark	Unit:mm	
	Installation type	
L <sub>1</sub>	I Open	II 100
L <sub>2</sub>	100	Open
L <sub>3</sub>	100	500

**Notes**

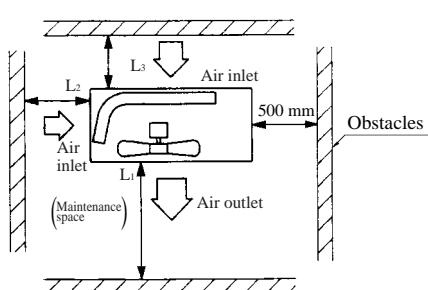
- (1) Fix the unit with anchor bolts.
- (2) Strong wind must not be directed to the air outlet.
- (3) Free space over the unit must be larger than 1 m.
- (4) The unit should not be surrounded by obstructions in all direction.  
At least one direction around the unit must be free.

## Models FDC306CEN3, 306CEP3, 306CES3

Unit: mm



## Required space for maintenance and air flow



## Minimum allowable space to the obstacles

Mark	Unit:mm		
	Installation type I	II	III
L <sub>1</sub>	Open	Open	500
L <sub>2</sub>	300	0	Open
L <sub>3</sub>	100	150	100

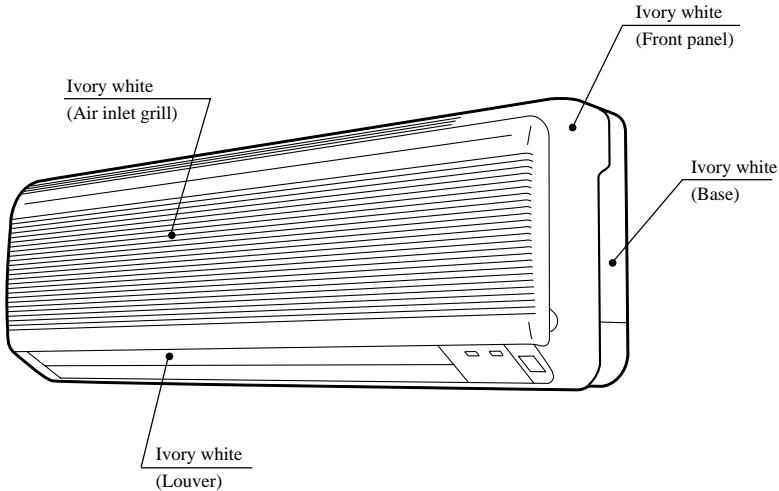
## Notes

- (1) Fix the unit with anchor bolts.
- (2) Strong wind must not be directed to the air outlet.
- (3) Free space over the unit must be larger than 1 m.
- (4) The unit should not be surrounded by obstructions in all direction.  
At least one direction around the unit must be free.

### 11.2.4 Exterior appearance

#### (1) Indoor unit

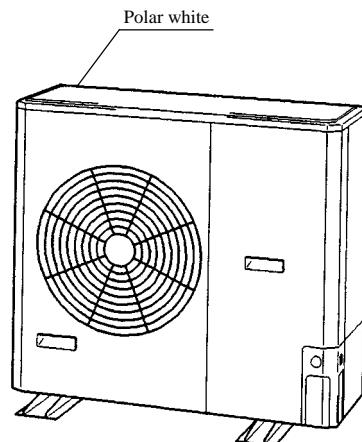
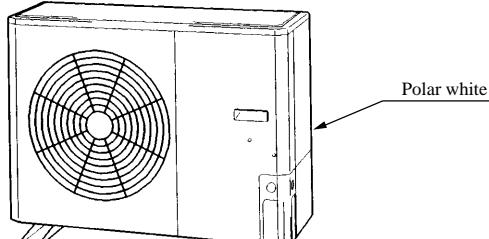
Models All models



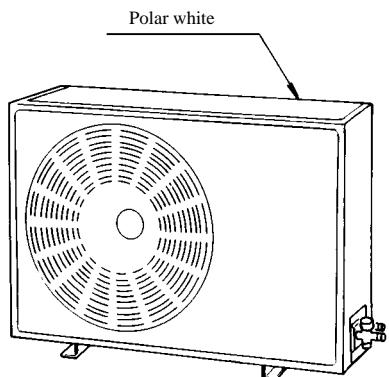
#### (2) Outdoor unit

Models FDC208CEN3, 208CEP3

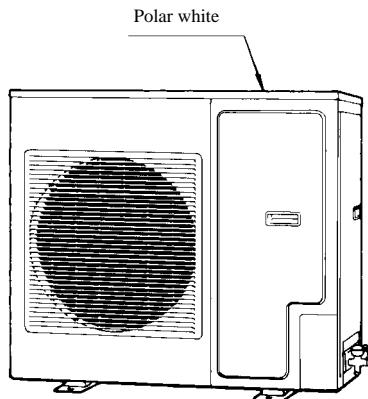
Models FDC258CEN3, 258CEP3



Models FDC206CEN3, 206CEP3, 256CEN3  
256CEP3

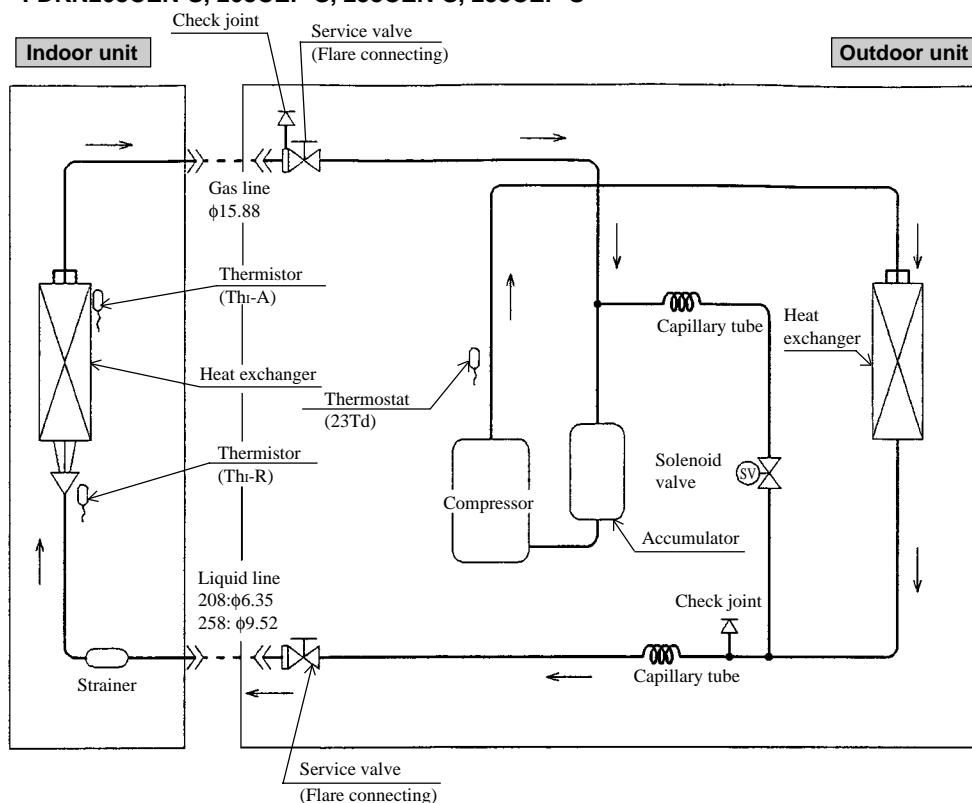


Models FDC306CEN3, 306CEP3, 306CES3

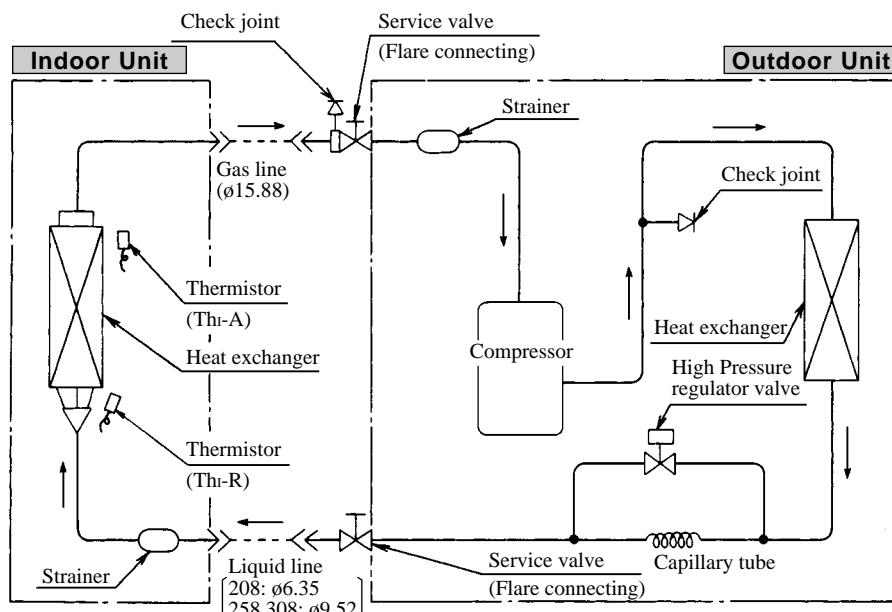


### 11.2.5 Piping system

Models FDKN208CEN-S, 208CEP-S, 258CEN-S, 258CEP-S



Models FDKN208CEN, 208CEP, 258CEN, 258CEP,  
308CEN, 308CEP, 308CES



### Preset point of the protective devices

Part name	Mark	Equipped unit	All models
Thermistor (for frost prevention)	Thi-R	Indoor unit	OFF 2.5°C ON 10°C

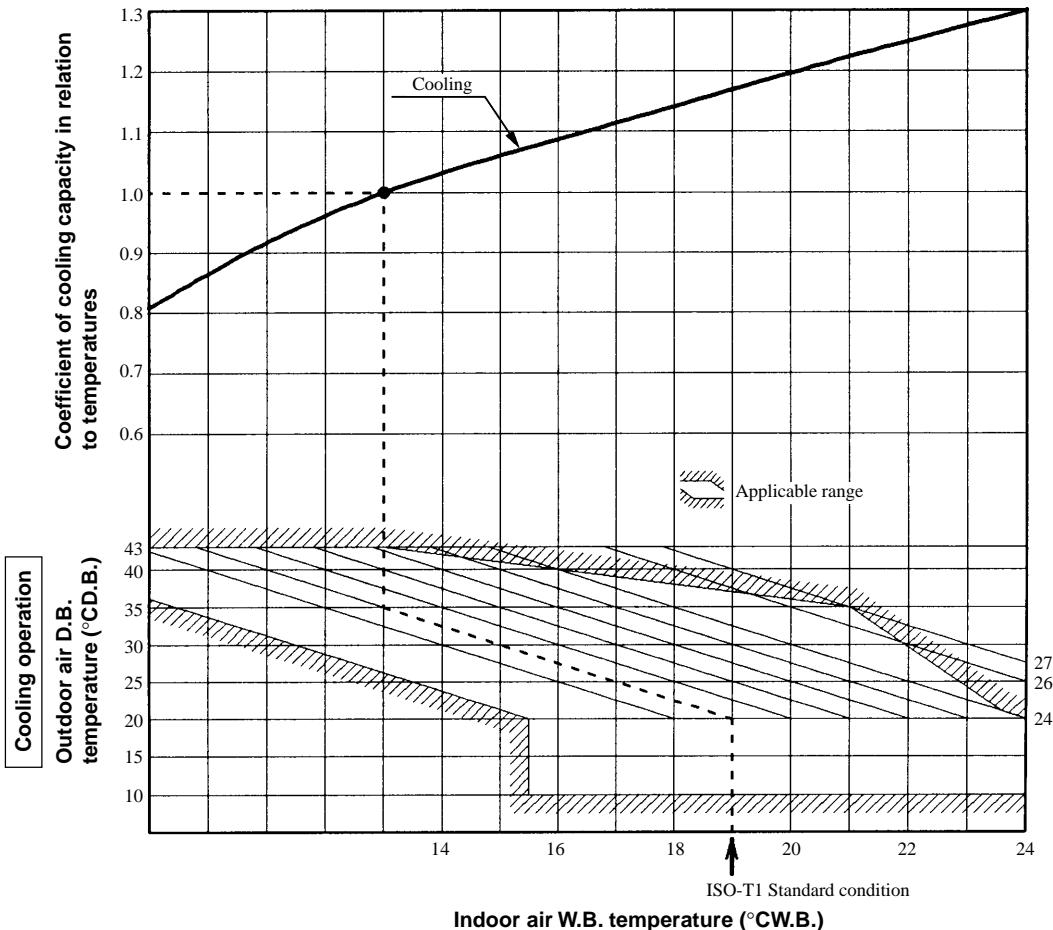
## 11.2.6 Selection chart

Correct the cooling capacity in accordance with the conditions as follows. The net cooling capacity can be obtained in the following way.

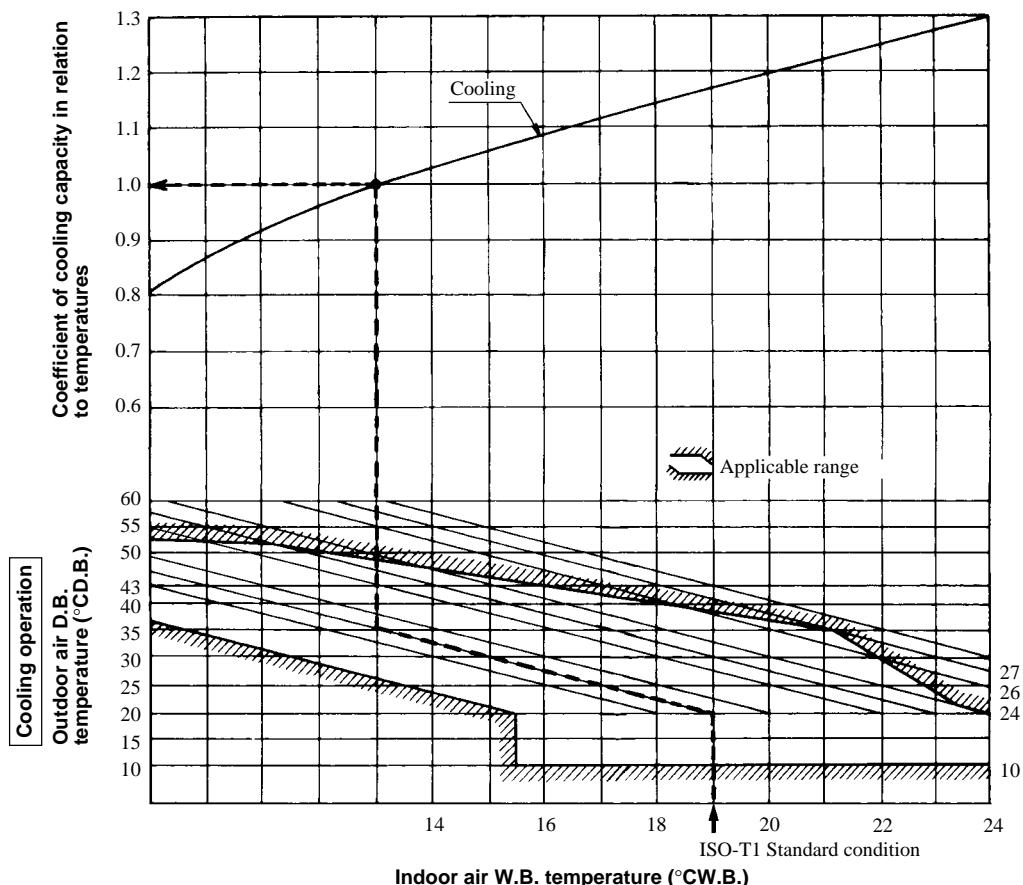
$$\text{Net capacity} = \text{Capacity shown on specifications} \times \text{Correction factors as follows.}$$

### (1) Coefficient of cooling capacity in relation to temperatures

#### (a) Only case of ISO-T1 models



## (b) Only case of ISO-T3 and SASO models

**Table of bypass factor**

Item \ Model	FDKN208 type	FDKN258 type	FDKN308 type	
Air flow	Hi	0.03	0.03	0.04

**(2) Correction of cooling capacity in relation to air flow rate control (fan speed)**

Coefficient: 1.00 at High, 0.95 at Low

**(3) Correction of cooling capacity in relation to one way length of refrigerant piping**

It is necessary to correct the cooling capacity in relation to the one way equivalent piping length between the indoor and outdoor units.

(50/60Hz)

Cooling	Equivalent piping length <sup>(1)</sup> m	5	10	15	20	25	30	35
FDKN208type		1.0	0.995	0.995/0.99	0.99/0.985	0.985/0.98	0.985/0.975	0.98/0.97
FDKN258type		1.0	0.995	0.99	0.985	0.98	0.975	0.97
FDKN308type		1.0	0.99	0.98/0.975	0.97/0.965	0.96/0.95	0.95/0.94	0.94/0.925

Note (1) Equivalent piping length can be obtained by calculating as follows.

**Equivalent piping length** = Real piping length + (0.10 × Number of bends in piping)

[Equivalent piping length Limitation length of piping + 5 m]

**(4) When the outdoor unit is located at a lower height than the indoor unit in cooling operation, the following values should be subtracted from the values in the above table.**

Height difference between the indoor unit and outdoor unit in the vertical height difference	5 m	10 m	15 m
Adjustment coefficient	0.01	0.02	0.03

**Piping length limitations**

Model Item	FDKN208, 258 (FDC208, 258 type)	FDKN208, 258, 308 (FDC206, 256, 306 type)
<b>Max. one way piping length</b>	30 m	
<b>Max. vertical height difference</b>	20m (Outdoor unit is higher) 15m (Outdoor unit is lower)	15m

Note (1) Values in the table indicate the one way piping length between the indoor and outdoor units.

**How to obtain the cooling capacity**

**Example:** The net cooling capacity of the model FDKN258CEN-S with the air flow “High”, the piping length of 15 m, the outdoor unit located 5 m above the indoor unit, indoor wet-bulb temperature at 19.0°C and outdoor dry-bulb temperature 35°C is

$$\text{Net cooling capacity} = \frac{5700}{\text{FDKN258CEN-S}} \times \frac{1.00}{\text{Air flow "High"}} \times \frac{(0.99-0.01)}{\text{Length 15 m.}} \times \frac{1.0}{\substack{\text{Factor by air temperatures} \\ \text{Height difference 5 m}}} = 5586 \text{ W}$$

## 11.2.7 Noise level

Notes (1) The data are based on the following conditions.

Ambient air temperature:

Indoor unit 27°C DB, 19°C WB

Outdoor unit 35°C DB,

### Indoor unit

**Measured based on JIS B 8616**

Mike position as below



### Outdoor unit

**Measured based on JIS B 8616**

Mike position: at highest noise level  
in position as below

Distance from front side 1 m

Height 1 m

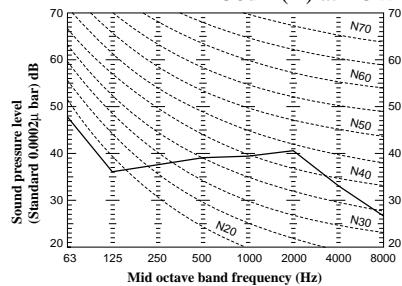
(2) The data in the chart are measured in an unechonic room.

(3) The noise levels measured in the field are usually higher than the data because of reflection.

### (1) Indoor unit

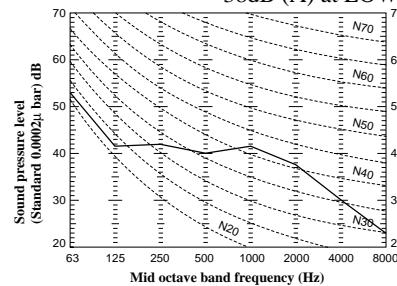
**Model FDKN208C**

**Noise level** 45dB (A) at HIGH  
38dB (A) at LOW



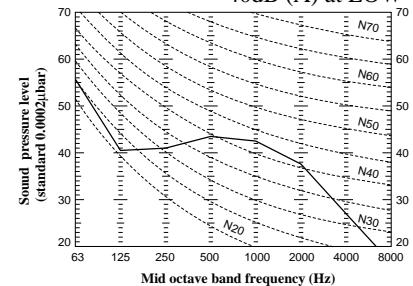
**Model FDKN258C**

**Noise level** 45dB (A) at HIGH  
38dB (A) at LOW



**Model FDKN308C**

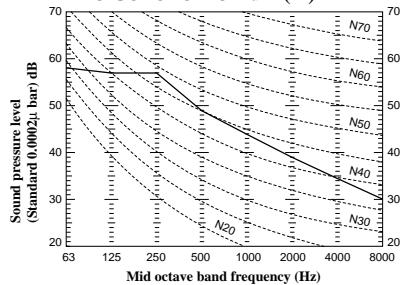
**Noise level** 46dB (A) at HIGH  
40dB (A) at LOW



### (2) Outdoor unit

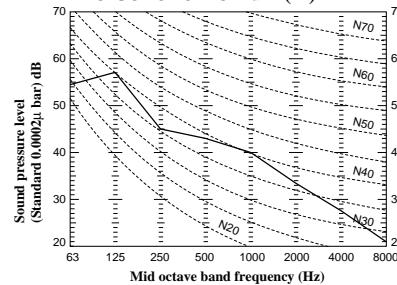
**Model FDC208CEN3**

**Noise level** 52 dB (A)



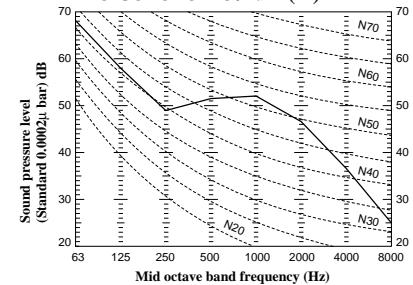
**Model FDC208CEP3**

**Noise level** 52 dB (A)



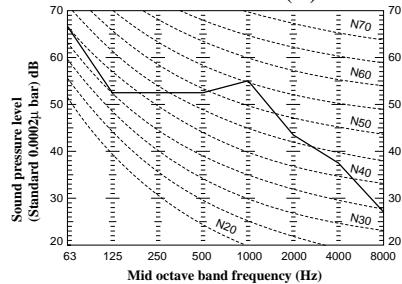
**Model FDC206CEN3**

**Noise level** 59 dB (A)



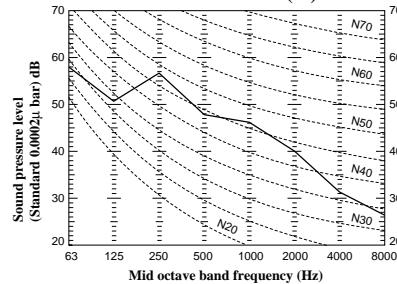
**Model FDC206CEP3**

**Noise level** 59 dB (A)



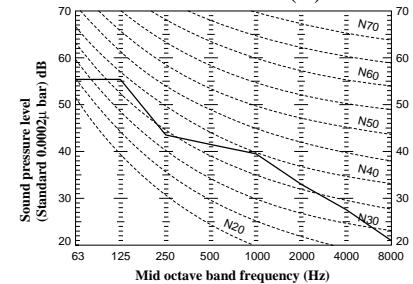
**Model FDC258CEN3**

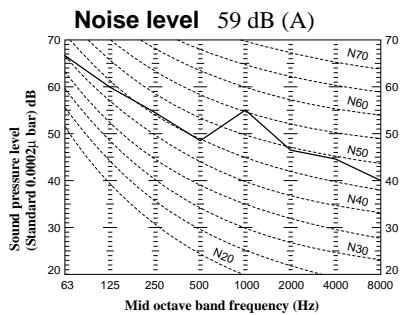
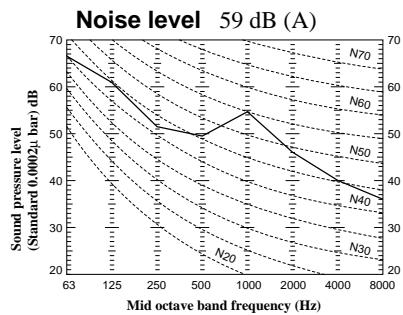
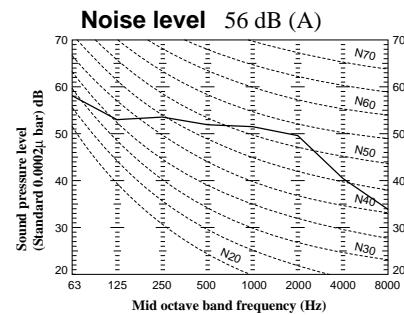
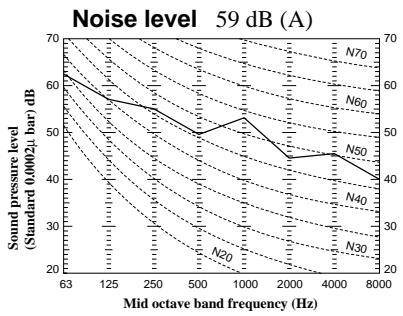
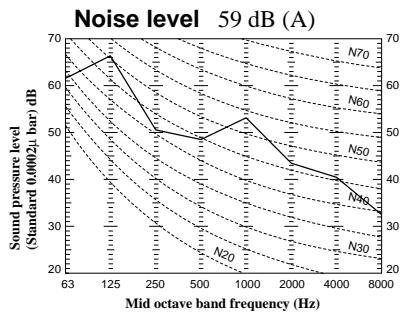
**Noise level** 52 dB (A)



**Model FDC258CEP3**

**Noise level** 52 dB (A)

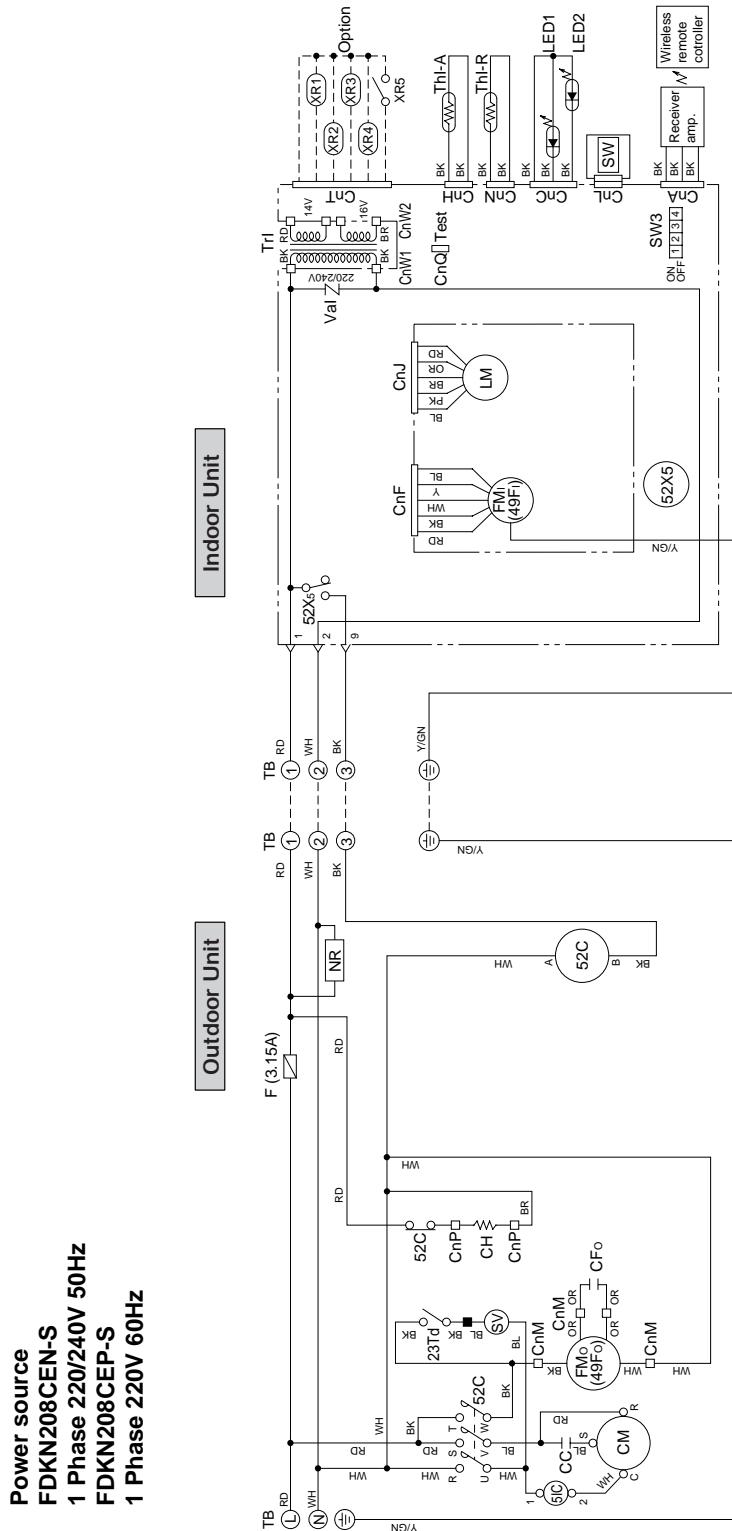


**Model FDC256CEN3****Model FDC256CEP3****Model FDC306CEN3****Model FDC306CEP3****Model FDC306CES3**

## 11.3 ELECTRICAL DATA

### 11.3.1 Electrical wiring

Models FDKN208CEN-S, 208CEP-S



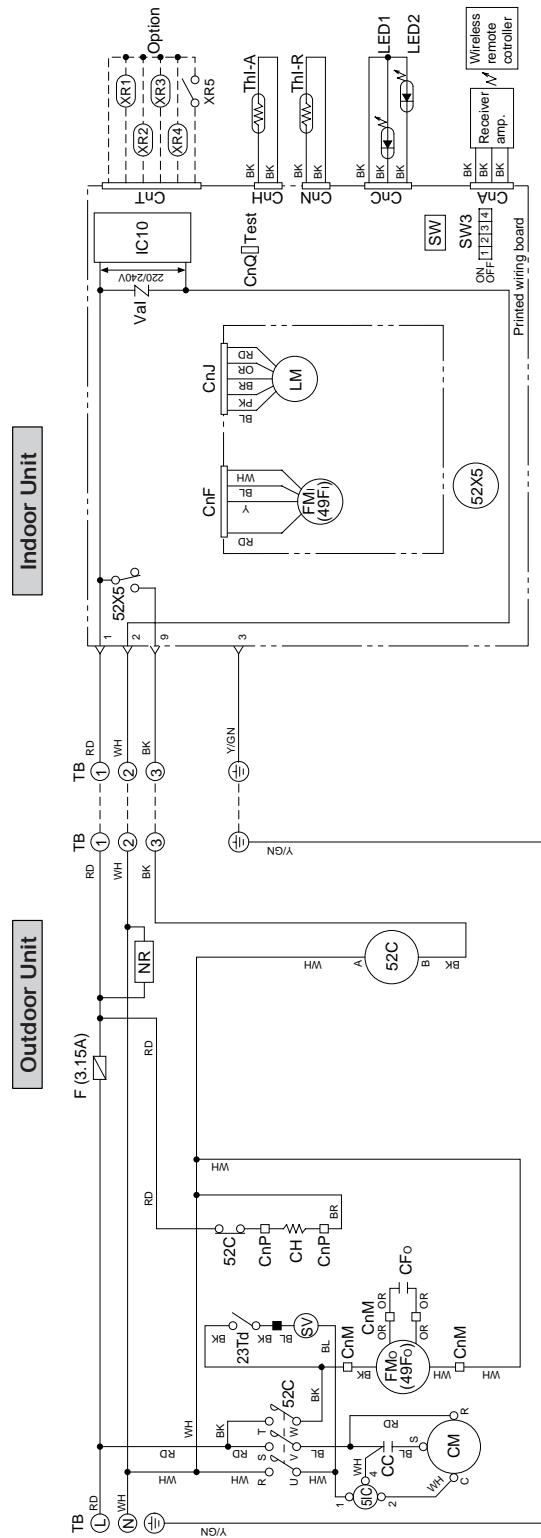
Meaning of marks		Mark	Parts name	Mark	Parts name	Color mark
Mark	Parts name					
Cc	Capacitor for CM	Th-A	Thermistor	BK	Black	
CF <sub>o</sub>	Capacitor for FM <sub>o</sub>	Th-R	Thermistor	BL	Blue	
CH	Crankcase heater	Tri	Transformer	BR	Brown	
CM	Compressor motor	Val	Varistor	GR	Gray	
CnA-W	Connector	49F <sub>i</sub>	Internal thermostat for FM <sub>i</sub>	OR	Orange	
F	Fuse	23T <sub>d</sub>	Internal thermostat for FM <sub>d</sub>	PK	Pink	
FM <sub>i</sub>	Fan motor (Indoor unit)	51C	Thermostat	RD	Red	
FM <sub>o</sub>	Fan motor (Outdoor unit)	52C	Overcurrent relay for CM	WH	White	
LED1	Indication lamp (Green-Run)	52X5	Magnetic contactor for CM	Y	Yellow	
LED2	Indication lamp (Yellow-Timer/Check)	▽	Auxiliary relay	Y/GN	Yellow/Green	
LM	Louver motor	■	Terminal (F)			
NR	Surge suppressor		Connector			
SV	Solenoid coil (for control)					
SW	Back up switch (ON/OFF)					
SW3	Change over switch					
TB	Terminal block (○ mark)					

Power source  
FDKN208CEN-S  
1 Phase 220/240V 50Hz  
FDKN208CEP-S  
1 Phase 220V 60Hz

# FDKN-C

Models FDKN258CEN-S, 258CEP-S

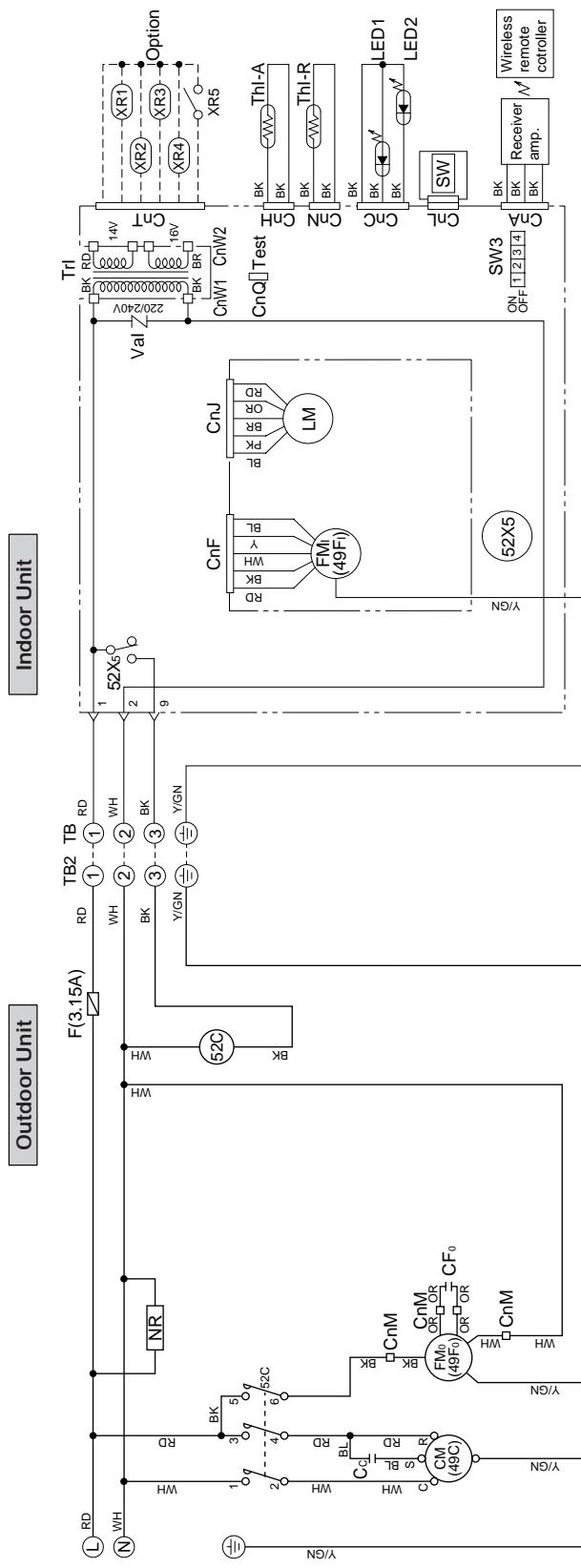
**Power source**  
**FDKN258CEN-S**  
**1 Phase 220/240V 50Hz**  
**FDKN258CEP-S**  
**1 Phase 220V 60Hz**



Meaning of marks			
Mark	Parts name	Mark	
Cc	Capacitor for CM	Th-A	Thermistor
CFo	Capacitor for FMo	Th-R	Thermistor
CH	Crankcase heater	Val	Varistor
CM	Compressor motor	49F	Internal thermostat for FMo
CnA-W	Connector	49Ro	Internal thermostat for FMo
F	Fuse	23Td	Thermostat
FMo	Fan motor (Indoor unit)	51C	Overcurrent relay for CM
LED1	Fan motor (Outdoor unit)	52C	Magnetic contactor for CM
LED2	Indication lamp (Green-Run)	52X5	Auxiliary relay
LM	Indication lamp (Yellow-Timer/Check)	■	Terminal (F)
NR	Louver motor		Connector
SV	Surge suppressor		
SW	Solenoid coil (for control)		
SW3	Back up switch (ON/OFF)		
TB	Change over switch		
	(O mark)		

## Models FDKN208CEN, 208CEP

**Power source**  
**FDKN208CEN**  
 1 Phase 220/240V 50Hz  
**FDKN208CEP**  
 1 Phase 220V 60Hz

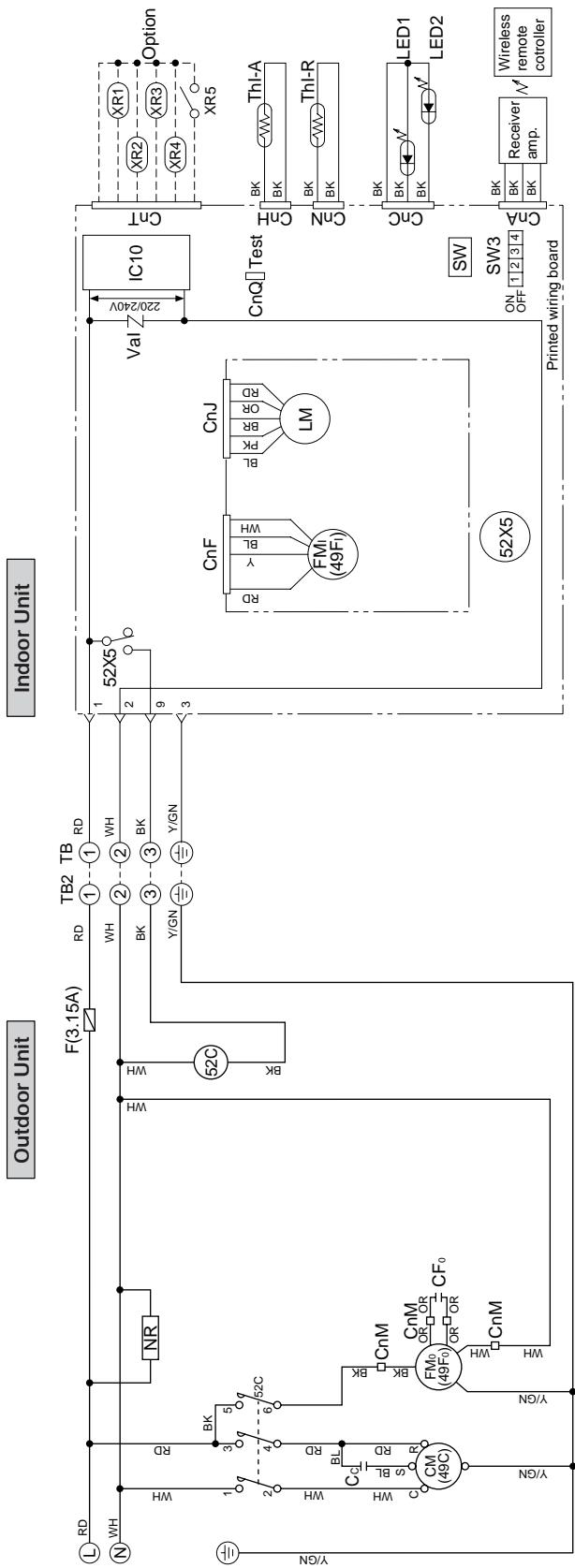


## Meaning of marks

Mark	Parts name	Mark	Parts name	Color mark
Cc	Capacitor for CM	Th-A	Thermistor	BK Black
CF <sub>o</sub>	Capacitor for FM <sub>o</sub>	Th-R	Thermistor	BL Blue
CM	Compressor motor	Tr	Transformer	BR Brown
CnA-W	Connector		Vanistor	GR Gray
F	Fuse		Internal thermostat for FM <sub>o</sub>	OR Orange
FM <sub>o</sub>	Fan motor (Indoor unit)		Internal thermostat for FM <sub>o</sub>	PK Pink
49F <sub>o</sub>	Fan motor (Outdoor unit)		Magnetic contactor for CM	RD Red
49C	Indication lamp (Green-Run)		Auxiliary relay	WH White
52C	Indication lamp (Yellow-Timer/Check)		Terminal (F)	Y Yellow
52X5	Louver motor	■	Connector	GN Green
NR	Surge suppressor			
SW3	Change over switch (ON/OFF)			
TB	Terminal block (○ mark)			

**Models FDKN258CEN, 258CEP, 308CEN, 308CEP**

**Power source**  
**FDKN258CEN, 308CEN**  
**1 Phase 220/240V 50Hz**  
**FDKN258CEP, 308CEP**  
**1 Phase 220V 60Hz**


**Meaning of marks**

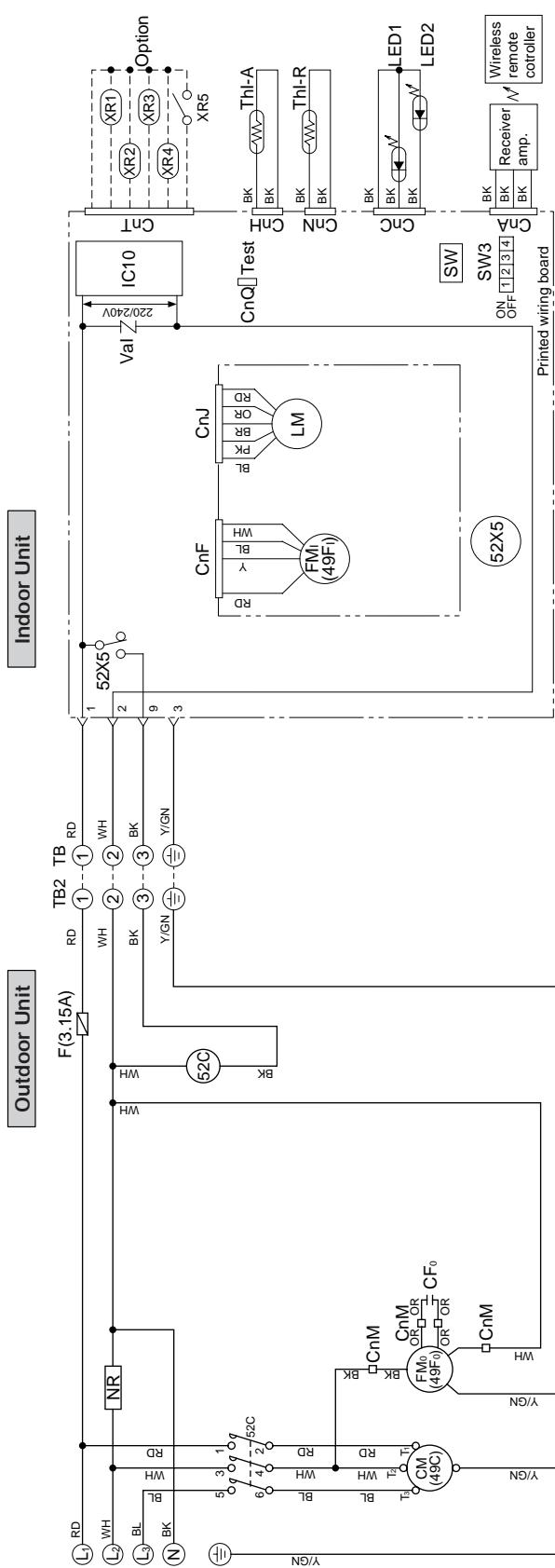
Mark	Parts name	Mark	Parts name
Cc	Capacitor for CM	Th-A	Thermistor
CF <sub>o</sub>	Capacitor for FM <sub>o</sub>	Th-R	Thermistor
CM	Compressor motor	Val	Variistor
CnA-W	Connector	49F <sub>i</sub>	Internal thermostat for FM <sub>o</sub>
F	Fuse	49F <sub>o</sub>	Internal thermostat for CM
FM <sub>o</sub>	Fan motor (Indoor unit)	52C	Magnetic contactor for CM
LED1	Fan motor (Outdoor unit)	52X5	Auxiliary relay
LED2	Indication lamp (Yellow-Timer/Check)	■	Terminal (F)
LM	Louver motor		Connector
NR	Surge suppressor		
SW3	Change over switch (ON/OFF)		
TB	Terminal block (○ mark)		

Color mark	Mark	Color
BK	BK	Black
BL	BL	Blue
BR	BR	Brown
GR	GR	Gray
OR	OR	Orange
PK	PK	Pink
RD	RD	Red
WH	WH	White
Y	Y	Yellow
Y/GN	Y/GN	Yellow/Green

**Power source**  
3 Phase 380-415V 50Hz / 380V 60Hz

**Model FDKN308CES**

**FDKN-C**



Meaning of marks	Mark	Parts name	Mark	Parts name	Color mark
CF <sub>o</sub>	CF <sub>o</sub>	Capacitor for FM <sub>o</sub>	Th-A	Thermistor	BK
CM	CM	Compressor motor	Th-R	Thermistor	BL
CnA-W	CnA-W	Connector	Val	Varistor	BR
F	F	Fuse	49F <sub>1</sub>	Internal thermostat for FM <sub>o</sub>	GR
FM <sub>o</sub>	FM <sub>o</sub>	Fan motor (Indoor unit)	49C	Internal thermostat for CM	OR
LED1	LED1	Fan motor (Outdoor unit)	52C	Magnetic contactor for CM	PK
LED2	LED2	Indication lamp (Green-Run)	52X5	Auxiliary relay	RD
LM	LM	Indication lamp (Yellow-Timer/Check)	52X5	Terminal (F)	WH
NR	NR	Louver motor	▀	Connector	Y
SW	SW	Surge suppressor	█		GN
SW3	SW3	Change over switch (ON/OFF)			
TB	TB	Terminal block (○ mark)			

## **11.4 OUTLINE OF OPERATION CONTROL BY MICROCOMPUTER**

Except for function relating to heating, same as the unit for FDT(N) heat pump type. See page 241.

## **11.5 APPLICATION DATA**

The application data for the cooling only models are similar to those for the heat pump models. (See page 464.)

## **11.6 MAINTENANCE DATA**

Same as the cooling/heating equipment for FDT(N) heat pump type. Refer to page 271.