

Our Technologies, Your Tomorrow



# Eco-ution

High Performance Air-Conditioning



FD series

**Inverter Packaged Air-Conditioners** 

# Individual flap control system

According to room temperature conditions, four directions of air flow can be controlled by individual flap as preferred. Individual flap control is available even after installation.

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For the person who is far away from the indoor unit



For when one person feels hot and the other cold



Can cool both the kitchen and the guests

#### **QUICK CONTROL & HIGH EFFICIENCY**

#### DC PAM inverter

An inverter system has a number of advantages over a constant speed system. It's variable speed compressor outputs can ensure quick cooling or heating after start up and attains a set temperature more quickly. The air conditioner can slow down the compressor speed to save energy whilst keeping comfortable conditions. The compressor is DC motor driven so it provides higher performance.

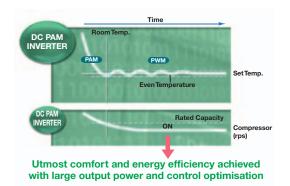
# Magnet Motor Magnet Motor Improving Induction Motor Low Revolution speed High

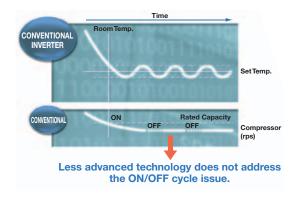
DC

#### New Inverter Control (Vector control)

New Inverter Control has applied the new advanced technology of Vector control enabling:-

- Smooth operation from low to high speed
- Smooth Sine Voltage Wave form is achieved
- Energy efficiency has improved in low speed range



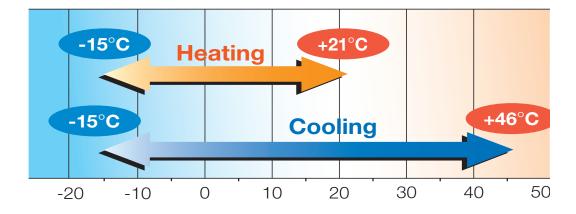


# Wide Operation Range

#### Heating and cooling operations are possible at an outdoor temperature as low as -15°C.

Our new advanced technology has improved the heating and cooling operation range.

Units can be installed when heating or cooling operation is required at low ambient conditions down to -15°C.



### New remote control RC-E4

New remote control for all indoor units Non-polar 2 core wiring now used. Installation is easier.



# Individual flap control system

Four directions of air flow can be arranged by individual flap control.

Our new outlet design enables the right amount of air to reach all corners of the room. Pressure loss caused by airflow in the indoor unit has been reduced.



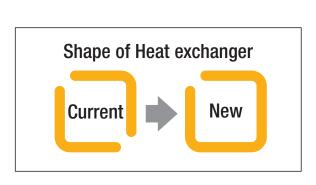






# The thinnest design

The heat exchanger has been re-designed and energy efficient DC fan motors have been used to enable us to reduce the height of the indoor unit. Heat exchanger piping modification and design increases heat transfer efficiency.







High performance and energy efficiency are achieved at the same time by an increase in the heat exchanger capacity and by using DC fan motors.

# Compact design

# Size reduction and high efficiency performance of the DC twin rotary compressor

The DC twin rotary compressor can operate at speeds as high as 120 rps to achieve the required capacity. Vector control and has provided the optimum compressor control. Starting current has improved significantly and vibration has been reduced.

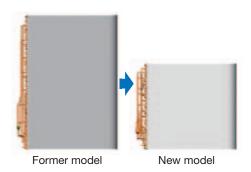


#### Improved efficiency of heat exchanger

Re-designing the fins to a straight shape has reduced the pressure loss of the air flow in the heat exchanger. A new surface treatment on the fins has enhanced the frost resistance capacity compared to former models. A high speed fan motor has increased the airflow which allows cooling capacity to be maintained even at high outdoor air temperatures.

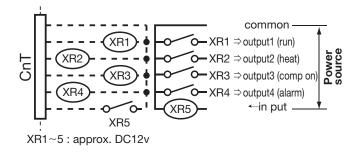


The outdoor fan motor has improved efficiency by 60% compared to former models.



# CnT terminal

A dry contact is fitted to each indoor unit which is used when a signal output is required. The CnT simpliflies connection to BMS, home automation systems and external timers



#### New outdoor units SRC50/60ZIX-S

SRC50/60ZIX-S is common for both outdoor units of SRK50/60ZIX-S wall split systems, and 5.0 & 5.6kW of Inverter Packaged Air-Conditioners. The installation procedure is the same.





	Model						
	Woder		6.0	7.1	10.0	12.5	14.0
	FDT Caseette						
RTER	FDTC Mini Cassette						
HEAT PUMP DC INVERTER	FDU Ducted						
HEA:	FDUM Ducted						
	FDEN Under Ceiling						

# Ceiling Cassette - 4way

# **FDT**





Wireless remote control

RCN-T-36W-E



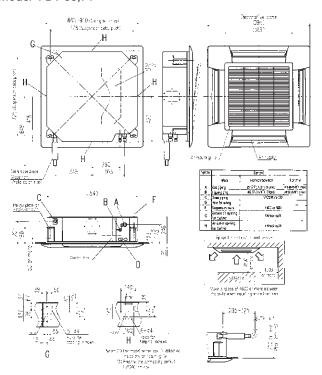
RC-E4 (Option)



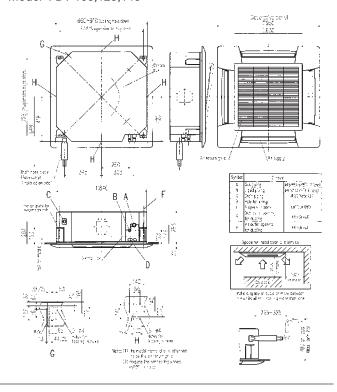
RCH-E3 (Option)

■ Outline drawing (Unit:mm)

Model FDT 60,71



#### Model FDT 100,125,140



### Installation

Detachable covers at each corner allows for easy alignment and balance. The panel does not need to be removed. Installation time is reduced.



## Infrared control

For wireless control simply insert the infra-red receiver kit on the corner.



wireless remote control



RCN-T-36W-E

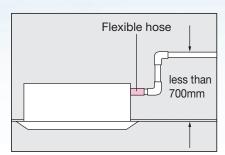
Easy checking of drain pan

To check the drain pan simply remove the corner lid.



# 700mm Drain Pump

The drain pump can discharge up to 700mm from the ceiling surface.



			FDT60ZIXVD	FDT71VNVD	FDT100VNVD	FDT125VNVD	FDT140VNV
<b>FDT Series</b>			FDT60VD	FDT71VD	FDT100VD	FDT125VD	FDT140V
			SRC60ZIX-S	FDC71VN	FDC100VN	FDC125VN	FDC140VN
Power Supply	Outdoor Unit				1 phase 230V 50Hz	I	1
Capacity	Cooling T1	kW	5.6 (2.8~6.3)	7.1 (3.2~8.0)	10.0 (4.0~11.2)	12.5 (5.0~14.0)	14.0 (5.0~14.5)
Odpacity	Heating H1	KVV	6.7 (3.1~7.1)	8.0 (3.6~9.0)	11.2 (4.0~12.5)	14.0 (4.0~16.0)	16.0 ( 4.0~16.5)
Input	Cooling T1	kW	1.57	1.90	2.76	4.05	4.98
при	Heating H1	KVV	1.85	2.07	2.74	3.77	4.57
Energy Label	Cooling	Cooling		2	1.5	1	Crandfatharad
Energy Label	Heating	Stars	2.5	2.5	3	2	- Grandfathered
EER	Cooling T1		3.56	3,73	3.62	3.08	2.81
COP	Heating H1		3.62	3.86	4.08	3.71	3.5
Our	Cooling T1	A	7.0	8.3	12.1	17.7	22.0
Current	Heating H1	Amp	8.2	9.0	12.0	16.6	20.2
Recommended Circuit Breaker		Amp	16	20		32	
0  0   (10.00040)	1.4	ID.	46-33-31-30	46-35-33-31	51-40-37-35	51-42-40-37	51-43-41-38
Sound Pressure Level (JIS C9612)	Indoor	dB	48		49	Ę	51
Sound Power Level (JIS C9612)	Outdoor	dB(A)	65	63	70	72	73
Airflow	Indoor	l/s	466-300-266-233	466-350-316-283	616-450-400-333	616-500-450-383	616-500-450-383
Panel	T-PSA-3AW-E	mm			$35 \times 950 \times 950$		
F Love I D' consider (INMAN/D)	Indoor		246 × 840 × 840		298 × 840 × 840		
External Dimensions (HXWXD)	Outdoor	mm	640 × 800 × 290	750 × 968 × 340		845 × 970 × 370	
MatMathi	Indoor		Unit 24 I	Panel 5.5	Unit 27 Panel 5.5		
Net Weight	Outdoor	kg	43	60		81	
	Liquid line		Ø6.35 (1/4")		Ø9.52	(3/8")	
Refrigerant Piping	Gas line	mm(in)	Ø12.7 (1/2")		Ø15.88	8 (5/8")	
	Connection Method			Flare			
Defrigerent D410A	Dra abargad Americat	kg	1.4	2.95		3.8	
Refrigerant R410A	Pre-charged Amount	m	15	30			
Maximum Piping Length		m	30		5	60	
Controller					RC-E4 or RCN-T-36W-E		

For additional information please reference 10.PAC.DB.142A Sound pressure level indicates the value in an anechoic chamber

# Cassette - 4way Compact (600x600mm)

# **FDTC**





**FDTC 50** 

#### Wireless remote control



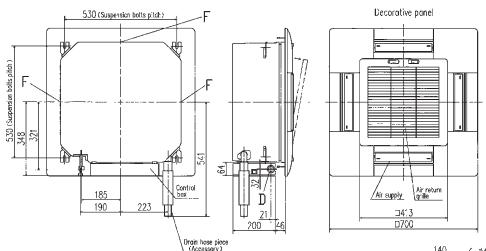


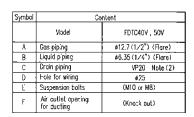
RCN-TC-24W-ER (Option)



RC-E4 (Option)

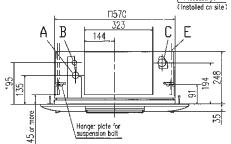
#### ■ Outline drawing (Unit:mm)

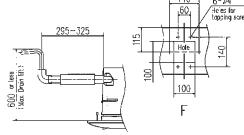




Space for installation and service

Make a space of 4000 or more between the units when installing more than one.



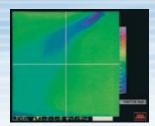


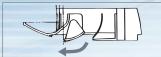
- Notes (1) The model name label is attached on the control box lic inside the air return grille.

  (2) Prepare the carnecting sacket (VP20) on site.

  (3) This unit is designed for 2x2 grid celling.
  If it is installed on a celling ather than 2x2 grid celling, provide on inspection port on the control box side.

# Clearer airflow





The new shape and angle of the louver directs the air current away from the ceiling reducing ceiling stains.

## Infrared control



For wireless control simply insert the infra-red receiver kit on the corner.





# Compact design

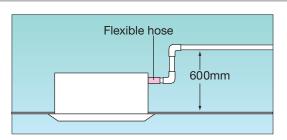
Panel size is only 700x700mm.

# 248 Height dimension is only 248mm The indoor unit is 570x570mm ideal for suspended ceilings. Opening for exit wiring

# Installation

Wired or infra-red wireless remote control option. Light weight only18.5kg 600mm Drain Pump

The drain pump can discharge up to 600mm from the ceiling surface.

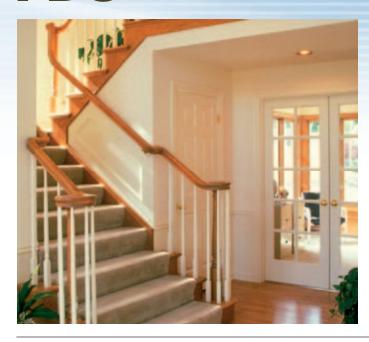


			FDTC50ZIXVD
<b>FDTC Series</b>			FDTC50VD
			SRC50ZIX-S
Power Supply	Outdoor Un	it	1phase 230V 50Hz
Capacity	Cooling T1	kW	5.0 (2.2~5.6)
Сараспу	Heating H1	NVV	5.4 (2.5~6.3)
lanut	Cooling T1	kW	1.56
Input	Heating H1	KVV	1.45
Facros Label	Cooling	Stars	2
Energy Label	Heating	Stars	2.5
EER	Cooling T1		3.205
COP	Heating H1		3.724
0	Cooling T1		6.9
Current	Heating H1	Amp	6.4
Recommended Circuit Breaker		Amp	16
01.0	Indoor	ID.	47-42-36-32
Sound Pressure Level (JIS C9612)	Outdoor	dB	47
Sound Power Level (JIS C9612)	Outdoor	dB(A)	62
Airflow	Indoor	l/s	225-191-150-133
Panel	TC-PSA-25W-E	mm	35 × 700 × 700
F Lovel D' Constitute (INAMA)	Indoor		248 × 570 × 570
External Dimensions (HXWXD)	Outdoor	mm	640 × 800 × 290
	Indoor		Unit 15 Panel 3.5
Net Weight	Outdoor	kg	43
	Liquid line		Ø6.35 (1/4")
Refrigerant Piping	Gas line	mm(in)	Ø12.7 (1/2")
	Connection Method		Flare
D.C. and DMOA	D. d. d. d.	kg	1.4
Refrigerant R410A	Pre-charged Amount	m	15
Maximum Piping Length		m	30
Controller			RC-E4 or RCN-TC-24W-ER

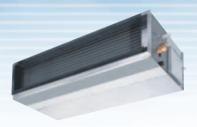
For additional information please reference 10.PAC.DB.142A Sound pressure level indicates the value in an anechoic chamber

# ■ Ducted - Medium Static Pressure

# FDU



RCH-E3 (Option)



Wired remote control

Merce .

RC-E4 (Option)

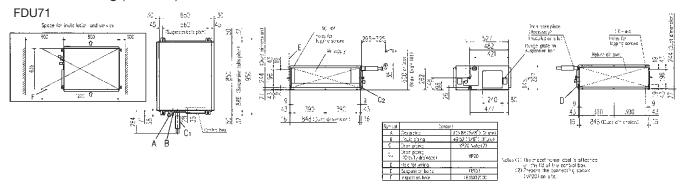
**RCN-KIT3-E** 

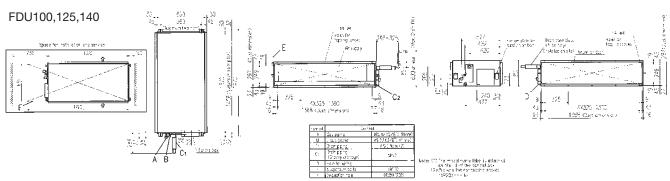


Return air option

FDU71/100/125/140

#### **■ Outline drawing** (Unit:mm)





# Quiet, Lightweight and Compact

The FDU71 noise level is only 37dB on low fan. Weight is only 40kg and height 297mm. In addition a 600mm drain pump is mounted in all models. The indoor unit is concealed in the ceiling making it the ideal choice for homes and commercial premises.



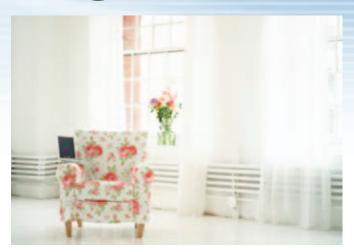


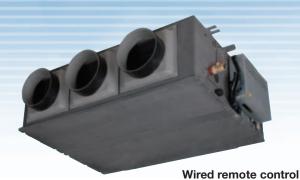
			FDU71VNVD	FDU100VNVD	FDU125VNVD	FDU140VNV	
<b>FDU Series</b>			FDU71VD	FDU100VD	FDU125VD	FDU140V	
			FDC71VN	FDC100VN	FDC125VN	FDC140VN	
Power Supply	Outdoor Un	iit		1 phase 2	30V 50Hz		
Capacity	Cooling T1	kW	7.1 (3.2~8.0)	10.0 (4.0~11.2)	12.5 (5.0~14.0)	14.0 (5.0~14.5)	
Сараспу	Heating H1	KVV	8.0 (3.6~9.0)	11.2 (4.0~12.5)	14.0 (4.0~16.0)	16.0 (4.0~16.5)	
loput	Cooling T1	kW	2.08	2.88	4.04	4.95	
Input	Heating H1	KVV	2.21	2.99	3.79	4.43	
EER	Cooling T1		3.41	3.47	3.09	2.82	
COP	Heating H1		3.61	3.74	3.69	3.61	
0	Cooling T1	۸	9.2	12.7	17.8	21.7	
Current	Heating H1	Amp	10.2	13.1	16.6	19.5	
Recommended Circuit Breaker		Amp	20		32		
Count Decours Level ( IIC 00010)	Indoor	40	Hi :41 Lo : 37	Hi : 42 Lo : 37	Hi : 43 Lo : 38	Hi : 43 Lo : 38	
Sound Pressure Level (JIS C9612)	Outdoor	dB	48	49	Ę	i1	
Sound Power Level (JIS C9612)	Outdoor	dB(A)	63	70	72	73	
Airflow	Indoor	I/s	Hi : 333 Lo : 283	Hi : 566 Lo : 450	Hi : 700 Lo : 558		
External Static Pressure	IIIdooi	Pa	60/130 @ 333 I/S	60/130 @ 566 L/S	60/130 @ 700 L/S		
Fitamal Disconsissa (LIMANA)	Indoor		297 × 850 × 650		350 × 1,370 × 650		
External Dimensions (HXWXD)	Outdoor	mm	750 × 968 × 340		845 × 970 × 370		
Mariana	Indoor		40		63		
Net Weight	Outdoor	- kg	60		81		
	Liquid line	( )	Ø9.52 (3/8")				
Refrigerant Piping	Gas line	mm(in)		Ø15.88	3 (5/8")		
	Connection Method		Flare				
Defricered DA10A	Dan alcowered Average	kg	2.95		3.8		
Refrigerant R410A	Pre-charged Amount	m	30				
Maximum Piping Length		m		5	0		
Controller				RC	-E4		

For additional information please reference 10.PAC.DB.142A Sound pressure level indicates the value in an anechoic chamber

# ■ Ducted - Medium Static Pressure

# **FDUM**





THE PERSON NAMED IN



RCN-KIT3-E

RC-E4 (Option)

RCH-E3 (Option)



# <u>Adaptable</u>

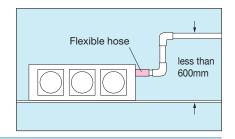
Selectable static pressure and Flexible duct design with selectable air suction (direct suction /duct suction) can meet a wide range of installations.

#### Static pressure Pa

model	Standard	Max
50/60	50	85

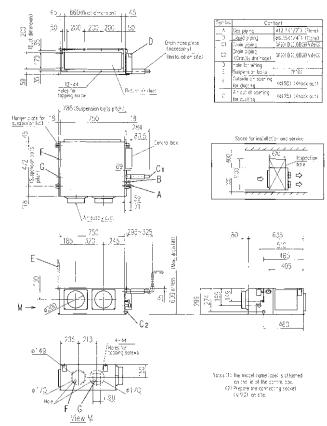
# (Point 2) 600mm Drain Pump

Drain can be discharged upwards by 600mm from the ceiling surface. It allows a piping layout with a high degree of freedom depending on the installation location.

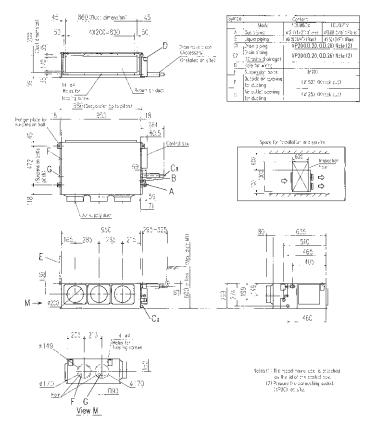


#### ■ Outline drawing(Unit:mm)

#### Model FDUM50



#### Models FDUM60



# Indoor Unit



			FDUM50ZIXVD	FDUM60ZIXVD	
FDUM Series			FDUM50VD	FDUM60VD	
			SRC50ZIX-S	SRC60ZIX-S	
Power Supply	Outdoor Unit			1 phase 230V 50Hz	
Capacity	Cooling T1	kW	5.0 (2.2~5.6)	5.6 (2.8~6.3)	
Сараспу	Heating H1	NVV	5.4 (2.5~6.3)	6.7 (3.1~7.1)	
Input	Cooling T1	kW	1.52	1.86	
input	Heating H1	NVV	1.41	1.96	
EER	Cooling T1		3.28	3.01	
COP	Heating H1		3.82	3.41	
Current	Cooling T1	Amp	6.7	8.2	
Current	Heating H1		6.3	9	
Recommended Circuit Breaker		Amp		16	
Count Drawn I and (IIC 00010)	Indoor	dB	35-34-31-28	38-34-31-28	
Sound Pressure Level (JIS C9612)	Outdoor		47	48	
Sound Power Level (JIS C9612)	Outdoor	dB(A)	62	65	
Airflow	Indoor	l/s	233-216-200-183	300-266-250-233	
External Static Pressure	Indoor	Pa	85 @ 233 l/s	85 @ 300 l/s	
External Dimensions (HXWXD)	Indoor	mm	299 × 750 × 635	299 × 950 × 635	
External differisions (fixwad)	Outdoor	mm	640 × 800 × 290		
Net Weight	Indoor	lea	34	40	
Net Weight	Outdoor	kg	43		
	Liquid line	mm(in)		Ø6.35 (1/4")	
Refrigerant Piping	Gas line	mm(in)		Ø12.7 (1/2")	
	Connection Method		Flare		
Defrigarant D410A	Dro oborgod Amt	kg		1.4	
Refrigerant R410A	Pre-charged Amount	m		15	
Maximum Piping Length		m		30	
Controller				RC-E4	

For additional information please reference 10.PAC.DB.142A Sound pressure level indicates the value in an anechoic chamber

# Ceiling Suspended

# **FDEN**





Wireless remote control

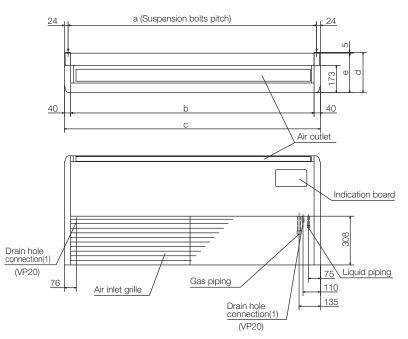


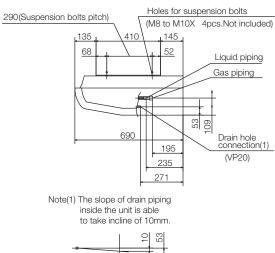
Wired remote control



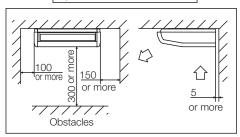
RC-E4 (Option)

#### Outline drawing (Unit:mm)





#### Space for installation and service



#### **■ Dimension Table**

model	а	b	С	d	е
FDEN100VNV	1572	1540	1620	255	250

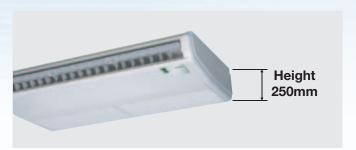
# Installation



Refrigeration piping can be set in three directions and the drain pipe arranged in two directions making installation easier.

The unit is serviceable from the bottom.

# Compact design



The FDE height starts at just 250mm and weighs just 63kg's allowing for quick and easy installation. The unit is compact and fits neatly on the ceiling. The modern design with rounded corners lends style to the room.

			FDEN100VNVD
FDEN Series			FDEN100VD
			FDC100VN
Power Supply	Outdoor Ur	nit	1 phase 230V 50Hz
Capacity	Cooling T1	kW	10.0 (4.0~11.2)
Сараспу	Heating H1	KVV	11.2 (4.0~12.5)
locut	Cooling T1	kW	2.85
Input	Heating H1	KVV	2.97
Facement about	Cooling	Charra	2
Energy Label	Heating	Stars	2.5
EER	Cooling T1		3.508
СОР	Heating H1		3.771
0	Cooling T1	A	12.5
Current	Heating H1	Amp	13.0
Recommended Circuit Breaker		Amp	32
0	Indoor	ID.	P-Hi : 46 Hi : 44 Me : 41 Lo : 39
Sound Pressure Level (JIS C9612)	Outdoor	- dB	49
Sound Power Level (JIS C9612)	Outdoor	dB(A)	70
Airflow	Indoor	I/s	P-Hi :466 Hi :433 Me :383 Lo :350
5	Indoor		250 × 1,620 × 690
External Dimensions (HXWXD)	Outdoor	mm	845 × 970 × 370
Name	Indoor		63
Net Weight	Outdoor	- kg	81
	Liquid line		Ø9.52 (3/8")
Refrigerant Piping	Gas line	mm(in)	Ø15.88 (5/8")
	Connection Method		Flare
		kg	3.8
Refrigerant R410A	Pre-charged Amount	m	30
Maximum Piping Length		m	50
Controller			RC-E4 or RCN-E1R

For additional information please reference 10.PAC.DB.142A Sound pressure level indicates the value in an anechoic chamber

# **OUTDOOR UNIT (4.0-14.0kW)**

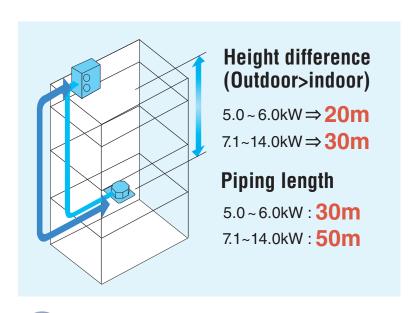


# **Installation workability**

Enhanced installation workability thanks to the extended pipe length – one of the longest levels in the industry and pre-charged refrigerant.



Piping length can be extended up to 50m for single type, which allows wider design flexibility.



# Refrigerant pre-charged piping length extending to 30m

Refrigerant pre-charged piping length extends up to 30m. (5.0  $\sim\!6.0 \text{kW}$ : up to 15m)

This eliminates the need to add refrigerant on site, which sets it free from trouble of excessive or insufficient charging of refrigerant, and allows carrying out the installation smoothly.

# **Control Systems** [Individual control]

#### Remote Control line up

	indoor unit	remote control
wired	wired all models	RC-E4
wired all models	RCH-E3	

	indoor unit	remote control
	FDT	RCN-T-36W-E
wireless	FDTC	RCN-TC-24W-ER
WITCHCSS	FDUM, FDU	RCN-KIT3-E
	FDEN	RCN-E1R

#### Wired remote control with weekly timer (option)

#### RC-E4

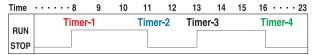


The RC-E4 controller enables extensive access to service and maintenance technical data combined with easy to use functions and a clear LCD display.

#### Weekly timer function as standard

RC-E4 provides (as a standard feature) a weekly timer, which allows one-week operation schedules to be registered. A user can specify up to four times a day to start/stop the air conditioner. (Temperature setting is also possible with the timer).

#### Timer operation



#### Run hour meters to facilitate maintenance checking

RC-E4 stores operation data when an anomaly occurs and indicates the error on the LCD. It also displays cumulative operation hours of the air conditioner and compressor since commissioning.

#### Room temperature controlled by the remote control sensor

The temperature sensor is housed in the top section of the remote control unit. This arrangement has improved the sensitivity of the remote control unit's sensor, which permits more finely controlled air conditioning.



#### Changeable set temperature ranges

RC-E4 allows the upper and lower limits of a set temperature range to be specified separately.

By adjusting a set temperature range, you can ensure energy saving air conditioning by avoiding excessive cooling or heating.

Changeable range				
Upper limit	20~30°C(effective for heating operation)			
Lower limit	18~26°C(effective for non-heating operation)			

#### Simple remote control (option)

#### RCH-E3 (wired)



Considering specialized usage in hotel rooms, control buttons are limited only to minimum required functions such as ON/OFF, mode, temperature setting and fan speed. It is really simple and easy to use.

#### Up to 16 units

It can control up to 16 units individually by pressing the AIR CON No. button.

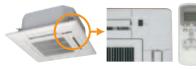
#### AUTO restart

This function allows starting the air conditioner automatically when power supply is restored after power failure or by turning on the power switch.

#### Wireless remote control (option)

For wireless control simply insert the infrared receiver kit on a corner of the panel.

#### RCN-T-36W-E, RCN-TC-24W-ER



#### RCN-KIT3-E



# RCN-E1R



#### **Thermistor (option)**

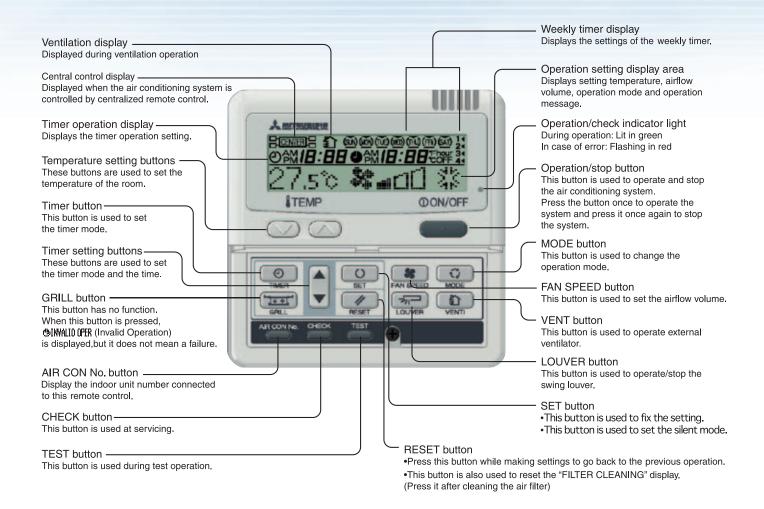
#### SC-THB-E3

In case the sensor in the indoor units or the remote control sensor can not sense the room temperature correctly, or individual remote control in each room is not required but only a censor is required (as when center control system is in place), install SC-THB-E3 at a proper place in the room.



# ■ WIRED Control (RC-E4)

The RC-E4 control allows access to service and maintenance data and easy to use comfort functions.



# Improved Functionality

#### Weekly timer function as standard

RC-E4 provides a 7day 24hr timer which allows programming of weekly operating schedules to be registered. The user can specify up to four times a day to start / stop the air conditioner. Temperature setting is also possible with the timer.

# Timer operation Time · · · · · · 8 9 10 11 12 13 14 15 16 · · · · 23 RUN Timer-1 Timer-2 Timer-3 Timer-4 STOP

#### ■ Run hour meters to facilitate maintenance checking

RC-E4 stores operation when an anomaly occurs and indicates the error on the LCD. It also displays cumulative hours of the air conditioner and compressor since commissioning.

#### ■Room temperature controlled by the remote control sensor

The temperature sensor is located in the top section of the remote control unit. This has improved the sensitivity of the remote controls heat sensor and permits more finely controlled air conditioning.

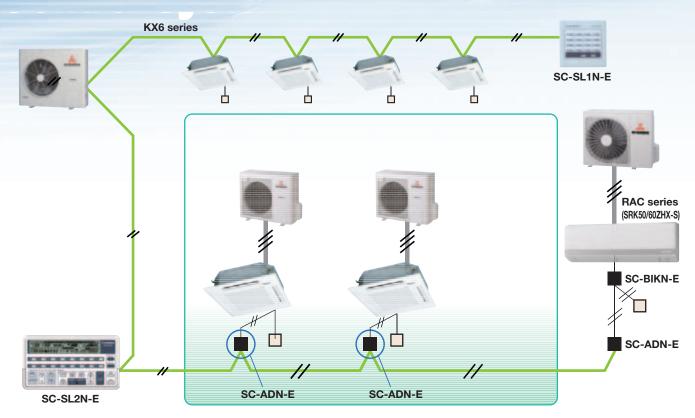


#### **■**Changeable set temperature range

The RC-E4 allows for the upper and lower limits of a set temperature range to be specified separately. By adjusting the set temperature range you can ensure energy saving air conditioning by avoiding excessive heating or cooling.

Changeable range				
Upper limit	20~30°C (effective for heating operation)			
Lower limit	18~26°C (effective for non-heating operation)			

# ■ Control System SUPERLINK-II



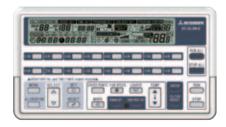
#### Central Control

#### SC-SL1N-E



Start/stop control of up to 16 indoor units is possible either individually or collectively. With simple operations, you can effect centralized control.

#### SC-SL2N-E



Centralized control of up to 64 indoor units. It can allow connection with a weekly timer without using any interface.

#### SC-SL3N-AE/BE



Easy operation realized with a large color LCD and touch panel. Up to 128 indoor units can be controlled, when three SUPERLINK-II systems are connected.

#### PC windows central control

#### SC-WGWN-A/B\*

(SC-WGWN-B is with electric power calculation function)



Up to 96 groups (64 indoor unit x 2 SUPERLINK-II systems) are controlled through an internet browser.

#### NA/NI A+

# SC-BGWN-A\* (BACnet gateway)



Up to 96 groups (64 indoor unit x 2 SUPERLINK-II systems) are controlled centrally from a BMS.

\*Additional engineering service cost etc. is required.

#### BMS interface unit

# SC-LGWN-A\* (LonWorks gateway)



Up to 96 indoor units (48 indoor unit x 2) are linked as an open network. Centrally controlled through LonWorks.

# SUPERLINK E BOARD (SC-ADN-E)

This board is used when conducting control of the single package (wired remote control unit) 1-type series using a network option (SC-SL1N-E, SC-SL2N-E, etc).

#### (1) Functions

- (a) Transmits the settings from the network option to the indoor units.
- (b) Returns the priority indoor unit data in response to a data request from the network option.
- (c) Inspects the error status of connected indoor units and transmits the inspection codes to the network option.
- (d) A maximum of 16 units can be controlled (if in the same operation mode).

#### (2) Wiring connection diagram Connected to the terminals for Superlink signal lines MVVS 0.75 - 1.25mm<sup>2</sup> $\bigcirc$ $\bigcirc$ SL E board SRun Abnormal Blue Α Blue Βſ В Χ White ON BBBB $\bigcirc$ polarity) (the length should be 600 m or shorter) 0.5 mm<sup>2</sup> x 2 cores 0.75 mm<sup>2</sup> x 2 cores 200 m or shorter 300 m or shorter 400 m or shorter 1.25 mm<sup>2</sup> x 2 cores Network address setting switches Master/Sub

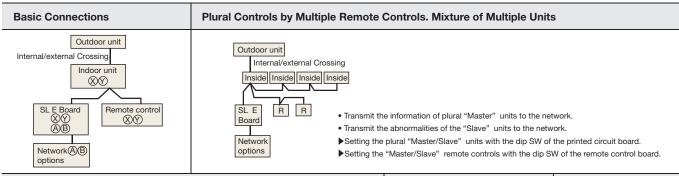
(3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet

(6) The unit name plate is attached on the lower right corner of the front panel.

faces perpendicularly to the dominant wind direction (4) Leave a 1m or larger space above the unit.
 (5) A wall in front of the blower outlet must not exceed the units height

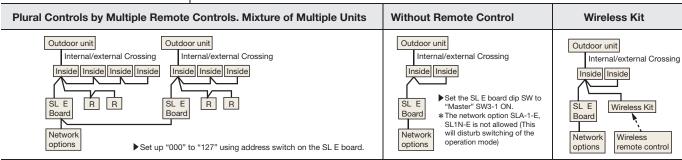
600 m or shorter -

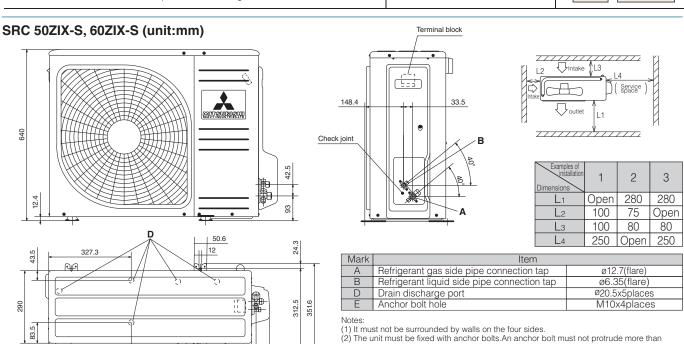
2.0 mm<sup>2</sup> x 2 cores



[000]-(127)

address





17.9

E 71.2

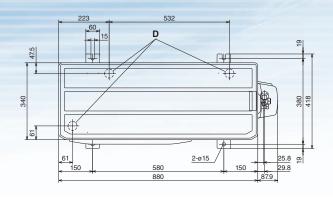
201

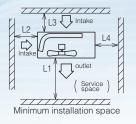
327.3

510

89

#### FDC71VN (unit:mm)

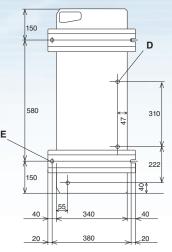




Examples of installation  Dimensions	1	2	3
L <sub>1</sub>	Open	Open	500
L2	300	250	Open
Lз	100	150	100
L4	250	250	250

Terminal block

165.5



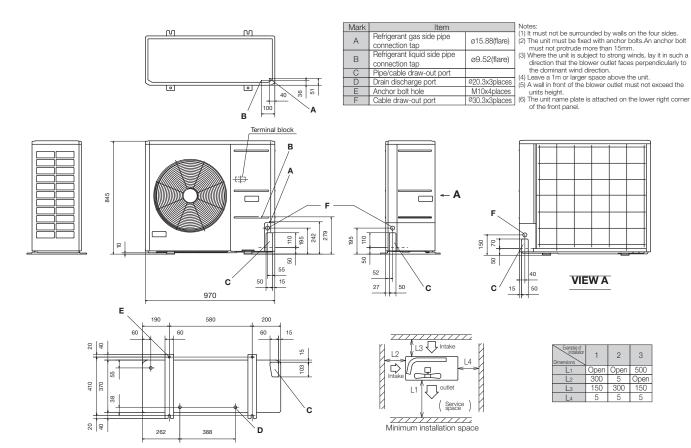
	Mark	Item		
	А	Refrigerant gas side pipe connection tap	ø15.88(flare)	
	В	Refrigerant liquid side pipe connection tap	ø9.52(flare)	
	С	Pipe/cable draw-out port		
	D	Drain discharge port	Ø20.3x3places	
_	Е	Anchor bolt hole	M10x4places	
∕B	F	Cable draw-out port	Ø30.3x3places	
e.	Notes:			

- It must not be surrounded by walls on the four sides.
- (1) It must not be surrounded by waits on the root sides.
  (2) The unit must be fixed with anchor bolts. An anchor bott must not protrude more than 15mm.
  (3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
- (4) Leave a 1m or larger space above the unit.
  (5) A wall in front of the blower outlet must not exceed the
- units height.

  (6) The unit name plate is attached on the lower right corner of the front panel.

#### FDC100VN, 125VN, 140VN

750



#### Before starting use

#### Heating performance

The heating performance values (kW) described in catalog are the values obtained by operating at an outdoor temperature of 7C and indoor temperature of 20C as set forth in the ISO Standards. As the heating performance decreases as the outdoor temperature drops, if the outdoor temperature is too low and the heating performance is insufficient, use other heating appliances as well.

#### Indication of sound values

The sound values are the values (A scale) measured in a chamber such as an anechoic chamber following the ISO Standards. In the actual installation state, the value is normally larger than the values given in the catalog due to the effect of surrounding noise and echo. Take this into consideration when installing.

#### Use in oil atmosphere

Avoid installing this unit in as atmosphere where oil scatters or builds up, such as in a kitchen or machine factory.

If the oil adheres to the heat exchanger, the heat exchanging performance will drop, mist may be generated, and the synthetic resin parts may deform and

#### Use in acidic or alkaline atmosphere

If this unit is used in acidic atmosphere such as hot spring areas having high level of sulfuric gases or in alkaline atmosphere including ammonia or calcium chloride, places where the exhaust of the heat exchanger is sucked in, or at coastal areas where the unit is subject to salt breezes, the outer plate or heat exchanger, etc., will corrode. Please ask a dealer or specialist when you use an air conditioner in places differing from a general atmosphere.

#### Use in places with high ceilings

If the ceiling is high, install a circulator to improve the heat and air flow distribution when heating.

#### Refrigerant leakage

The refrigerant (R410A) used for Air conditioner is non-toxic and nonflammable in its original state.

However, in consideration of a state where the refrigerant leaks into the room, measures against refrigerant leaks must be taken in small rooms where the tolerable level could be exceeded. Take measures by installing ventilation

#### Use in snowy areas

Take the following measures when installing the outdoor unit in snowy areas.

#### Snow prevention

Install a snow-prevention hood so that the snow does not obstruct the air intake port or enter and freeze in the outdoor unit.

#### Snow piling

In areas with heavy snow fall, the piled snow could block the air intake port. In this case, a frame that is 50cm or higher than the estimated snow fall must be installed underneath the outdoor unit.

#### **Automatic defrosting device**

If the temperature is low, and the humidity is high, frost will stick to the heat exchanger of the outdoor unit. If use is continued, the heating performance will

The "Automatic defrosting device" will function to remove this frost. After heating for approx, three to ten minutes, it will stop, and the frost will be removed. After defrosting, hot air will be blown again.

#### Servicing the air-conditioner

After the air-conditioner is used for several seasons, dirt will build up in the air-conditioner causing the performance to drop. In addition to regular servicing, we recommend the maintenance contract (charged for) by a specialist.

#### 

#### Air-conditioner usage target

The air-conditioner described in this catalog is a dedicated cooling/heating device for human use.

Do not use it for special applications such as the storage of foodstuffs, animals or plants, computer server rooms, precision devices or valuable art, etc. This could cause the quality of the items to drop, etc.

Do not use this for cooling vehicles or ships. Water leakage or current leaks could occur.

#### Before use

Always read the "User,s Manual" thoroughly before starting use.

#### Installation

Always commission the installation to a dealer or specialist. Improper installation will lead to water leakage, electric shocks and fires. Make sure that the outdoor unit is stable in installation. Fix the unit to stable base.

#### Usage place

Do not install in places where combustible gas could leak or where there are sparks.

installation in a place where combustible gas could be generated, flow or accumulate, or places containing carbon fibers could lead to fires.

Only persons that are qualified and licensed are permitted to install and service products that contain refrigerants in Australia, go to www.arctick.org. Suitable access for service must be provided in compliance with industry standards and local regulations.



#### MITSUBISHI HEAVY INDUSTRIES AIR-CONDITIONERS AUSTRALIA, PTY. LTD. ABN 92 133 980 275

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#### MRE SPARE PARTS

#### ISO9001 Our Air Conditioning & Refrigeration Systems Headquarters is an ISO9001 approved factory for residential air conditioners and commercial-use air conditioners (including heat pumps).





MITSUBISHI HEAVY INDUSTRIES-AHAJAK AIR CONDITIONERS CO., LTD. Crefficials 9001 Crefficials Number: 04100 1998 0813

#### ISO14001

Our Air Conditioning 8 Refrigeration Systems Headquarters has been assessed and found to comply with the requirements of ISO14001.





MITSUBISHI HEAVY INDUSTRIES-HAJAK AIR CONDITIONERS CO.,LTD.



