

# Fully flat cassette Air Conditioning Technical Data FFA-A9



FFA25A2VEB9 FFA35A2VEB9 FFA50A2VEB9 FFA60A2VEB9



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#### **Features**

#### FFA-A9 1 - 1

- > Fully flat integration in standard architectural ceiling tiles, leaving
- > Remarkable blend of iconic design and engineering excellence with an elegant finish in white or a combination of silver and white
- > Unified indoor unit range for R-32 and R-410A
- > Combining with R-32 Bluevolution technology, reduces environmental impact with 68% compared to R-410A, leads directly to lower energy consumption thanks to its high energy efficiency and has up to lower 16% refrigerant charge
- > Two optional intelligent sensors improve energy efficiency and comfort
- > Individual flap control: flexibility to suit every room layout without changing the location of the unit!
- > Reduced energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
- > Optional fresh air intake
- > Branch duct discharge allows to optimize air distribution in irregular shaped rooms or to supply air to small adjacent rooms
- > Standard drain pump with 630mm lift increases flexibility and installation speed





Infrastructure cooling



Individual flap Vertical auto control



Onecta app (optional)

swing



Fan speed steps (3 steps +

auto)



Presence & Home leave floor sensor operation



Dry programme



Fan only



Air filter



Draught prevention



Weekly timer (optional)



heating changeover



Infrared remote control (optional)





Auto cooling- Whisper quiet Ceiling soiling prevention



Wired remote Centralised control control (optional) (optional)



## 1 Features

1 - 1 FFA-A9















Auto-restart Self diagnosis Drain pump Twin/triple/kit double twin (standard) application

Multi model application

VRV for residential application





# Specifications2 - 1 Specifications

Technical spe		ns			FFA25A9	FFA35A9	FFA50A9	FFA60A9	
Casing	Material					Galvanised s			
Dimensions					260 575				
		Width		mm					
		Depth		mm		575			
	Packed	Height		mm		280	)		
	unit	Width		mm		686			
		Depth		mm		597	7		
Weight	Unit			kg	16	5.0	17	<b>'</b> .5	
	Packed u	nit		kg	18	3.0	19	0.0	
Heat exchanger	Inside len	igth		mm	1,2	295	1,2	48	
3	Outside le			mm	,	1,34	2		
	Rows	Quantity				2		3	
	Fin pitch			mm		1.20			
	Passes	Quantity			5	.0		.0	
	Face area			m²		29		30	
	Stages	Quantity				16			
	Empty	Quantity				0			
	tubeplate					_			
	hole	-							
	Fin	Туре				Cross fin coil (multi slit	fins and hi-X 4 tubes)		
an	Model	iype		-		QTS32E	· · · · · · · · · · · · · · · · · · ·		
uil	Type			-		Turbo			
						1	iuii		
	Quantity Air flow	Cooling	High	m³/min	9.0		12.7	14 5	
		Cooling	піўіі			10.0		14.5	
	rate		Marattern	cfm	318	353	448	512	
			Medium	m³/min	8.0	8.5	10.9	12.5	
				cfm	282	300	385	442	
			Low	m³/min		.5	8.6	9.5	
				cfm		30	304	336	
		Heating	High	m³/min	9.0	10.0	12.7	14.5	
				cfm	318	353	448	512	
			Medium	m³/min	8.0	8.5	10.9	12.5	
				cfm	282	300	385	442	
			Low	m³/min	6	.5	8.6	9.5	
				cfm	2	30	304	336	
an motor	Quantity					1			
	Model				ARW5216DK				
	Speed	Steps		İ		3			
an motor	Speed	Cooling	High	rpm	6	53	793	900	
		Heating	Low	rpm		47	538	581	
			High	rpm		53	793	900	
			Low	rpm		47	538	581	
	Output	High		W		50		301	
Sound power level				dBA	48.0	51.0	56.0	60.0	
Sound pressure	Cooling	High		dBA	31.0	34.0	39.0	43.0	
evel	cooming	Medium		dBA	28.5	30.5	34.0	40.0	
		Low		dBA		5.0	27.0	32.0	
	Heating			dBA	31.0	34.0	39.0	43.0	
	Heating	High				30.5			
		Medium Low		dBA dBA	28.5		34.0	40.0	
Onfrigorant	Turan	LOW		UDA	2:	5.0	27.0	32.0	
Refrigerant	Type					R-32 / R-			
Piping connection:			isulation		Foamed polyurethane				
	Liquid	Туре				Flare conr	iection		
		OD		mm		6			
	Gas	Type				Flare conr			
		OD		mm	9.	9.52 12.70			
	Drain				VP20 (I.D. 20/O.D. 26)				
	Heat insu	lation				Foamed polystyre			
Decoration panel	Model				BYFQ60C2W1W				
	Colour					White (	N9.5)		
	Dimen-	Height		mm	46				
	sions	Width		mm		620			
	-	Depth		mm		620			
	Weight			kg		2.8			
Decoration panel 2				- Ng		BYFQ600			
Accoration panel 2	Colour			-		SILVI			
		∐oiah+		mm					
	Dimen-	Height		mm		46			
	sions	Width		mm		620			
	Weight	Depth		mm		620			
				kg		2.8			



## **Specifications** Specification2 - 1 Specifications

Technical specifications			FFA25A9	FFA35A9	FFA50A9	FFA60A9			
Decoration panel 3 Model			BYFQ60B2W1						
	Colour			White (RAL9010)					
	Dimen- Height mm			55					
	sions Width mm			700					
		Depth	mm	700					
Decoration panel 3	Weight		kg	2.7					
Decoration panel 4 Model		BYFQ60B3W1							
	Colour				WHITE (	RAL9010)			
	Dimen- Height mm		mm	55					
sions		Width	mm		7	00			
		Depth	mm		7	00			
	Weight kg		kg	2.7					
Air filter	Type			Resin net					
Control systems	Infrared i	remote control		BRC7EB530W (standard panel) / BRC7F530W (white panel) / BRC7F530S (grey panel)					
Wired remote control			BRC1D528 / BRC1E53A7 / BRC1E53B7 / BRC1E53C7						

Standard accessories: Installation and operation manual;Quantity: 1;

Standard accessories: Drain hose; Quantity: 1; Standard accessories: Hose band; Quantity: 1;

Standard accessories: Washer for hanger bracket; Quantity: 8;

Standard accessories: Screws;Quantity: 4;

Standard accessories: Thermal insulation tube; Quantity: 2;

Standard accessories: Sealing material; Quantity: 4; Standard accessories: Tie-wraps; Quantity: 7;

<b>Electrical sp</b>	ecifications		FFA25A9	FFA35A9	FFA50A9	FFA60A9
Power supply	Phase		1~			
	Frequency	Hz		5	0	
	Voltage	V		220-	-240	

3



# 3 Safety device settings

3 - 1 Safety Device Settings

## FFA-A9

Safety devices		FFA25-60A2VEB(9)
PCB fuse		250V, 3.15A
PCB fuse (fan driver)		
Fan motor overcurrent protection	Nominal	0.74A
Fan motor thermal protector	Maximum	108°C
Drain pump fuse		

4D110743



#### **Options** 4

#### 4 - 1 Options

							Av
			Co	mpatib	ility		
Option kit	Product name	BYFQ60B2W1 BYFQ60B3W1	BYFQ60C2W1W	BYFQ60C2W1S	BYFQ60C4W1W	BYFQ60C4W1S	FFA2 FFA3 FFA5
Decoration panel - Standard	BYFQ60B2W1						
Decoration panel - Standard	BYFQ60B3W1	-	-		-	-	
Decoration panel - White	BYFQ60C2W1W	-	-		-		
Decoration panel - Silver	BYFQ60C2W1S		-				
Decoration panel - White	BYFQ60C4W1W (14)	-	-		-	-	
Decoration panel - Silver	BYFQ60C4W1S (14)	-					
Conversion wire harness	EKRS22	No	No	No	Yes	Yes	
Sensor kit - White	BRYQ60A2W(3)	No	Yes	No	Yes	No	
Sensor kit - Silver	BRYQ60A2S(3)	No	No	Yes	No	Yes	
Air discharge outlet sealing member	BDBHQ44C60	Yes	Yes	Yes	Yes	Yes	
Panel spacer	KDBQ44B60	Yes	No	No	No	No	
Long-life replacement filter	KAF441C60	Yes	Yes	Yes	Yes	Yes	
Fresh air intake kit	KDDQ44XA60	Yes	Yes	Yes	Yes	Yes	
Remote control   Infrared type   HP	BRC7EB530W(1)(2)	Yes	No	No	No	No	
Remote control   Infrared type   ·HP·   White	BRC7F530W(1)(2)	No	Yes	No	Yes	No	
Remote control   Infrared type   ·HP·   Silver	BRC7F530S(1)(2)	No	No	Yes	No	Yes	
Wired remote control	BRC1D528(2), BRC1H51(9)W/S/K, BRC1H81W/S	Yes	Yes	Yes	Yes	Yes	
Wired remote control	BRC1E53A7(8)/BRC1E53B7(9)/BRC1E53C7(10(11)	Yes	Yes	Yes	Yes	Yes	
Simplified remote control (with operation mode selector button)	BRC2E52C7(5)(11)	Yes	Yes	Yes	Yes	Yes	
Simplified remote control (without operation mode selector button)	BRC3E52C7(S)(1)	Yes	Yes	Yes	Yes	Yes	
Central remote control	DCS302B51	Yes	Yes	Yes	Yes	Yes	
Unified ON/OFF controller	DCS301B51	Yes	Yes	Yes	Yes	Yes	
Schedule timer	DST301B51	Yes	Yes	Yes	Yes	Yes	
Wiring adaptor for electrical appendices	KRP1B57	Yes	Yes	Yes	Yes	Yes	
Wiring adaptor for electrical appendices	KRP4A53	Yes	Yes	Yes	Yes	Yes	
Wiring adaptor (hour meter)	EKRP1B2	Yes	Yes	Yes	Yes	Yes	
Installation box for adaptor PCB	KRP1B101, KRP1BA101	Yes	Yes	Yes	Yes	Yes	
Remote sensor	KRCS01-4B	Yes	Yes	Yes	Yes	Yes	
iTouch Controller	DCS601C51	Yes	Yes	Yes	Yes	Yes	
Centralised control systems	DCC601A51	Yes	Yes	Yes	Yes	Yes	
Intelligent touch controller	DCM601A5A	Yes	Yes	Yes	Yes	Yes	
Digital input adaptor	BRP7A53⑥	Yes	Yes	Yes	Yes	Yes	
Wi-Fi adaptor for smartphones	BRP069A81(13)	Yes	Yes	Yes	Yes	Yes	

- The sensing function is not available.
  The independently-controllable-flaps function is not available.
  The independently-controllable-flaps function is not available.
  This option cannot be used with RR: and RQ: models.
  The independently-controllable-flaps function is not available in combination with RR: and RQ: models.
  Included languages are:
  Language pack 1: English, German, French, Dutch, Spanish, Italian, and Portuguese.
  With PC cable-EKPCCAB3- in combination with the Updater PC software, you can additionally change the language to:
  Language pack 2: English, Bulgarian, Croatlan, Czech, Hungarian, Romanian, and Slovenian.
  Language pack 3: English, Greek, Polish, Russian, Serbian, Slovak, and Turkish.

  Only possible in combination with remote control -BRC2/3ES2C7, BRC1ES3A/B/C7, BRC1HS1(9)W/S/K, BRC1HB1W/S-.

- P. Requires installation box for adaptor PCB

  (a) Included languages are: English, German, French, Italian, Spanish, Portuguese, and Dutch.
  (b) Included languages are: English, Czech, Croatian, Hungarian, Slovenian, Romanian, and Bulgarian.
  (c) Included languages are: English, Russian, Greek, Turkish, Polish, Albanian, and Slovak.
  (f) Language pack: 3- of controller-BRC1253C' is different from that of controller BRC2/3E52C7.
  (c) Editable data for this drawing are available in the -GDE (E-BOM)-system.
  (d) Only possible in combination with wired or wireless remote control (e.g. -BRC1E\*, BRC1H\*, BRC7FA\*-)
  (d) Only possible in combination with -EKRS22:

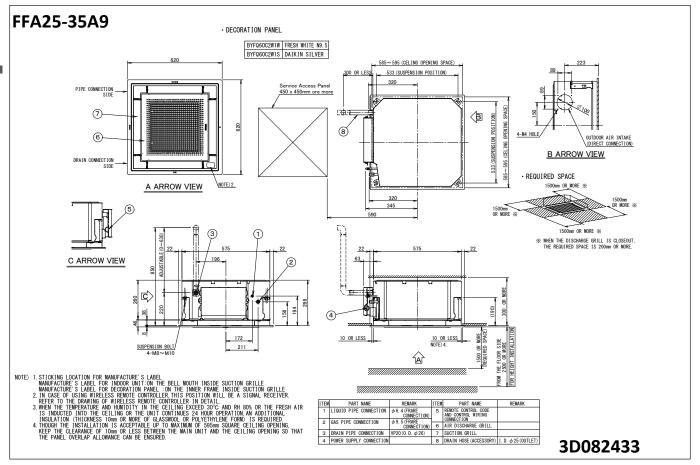
3D106135D

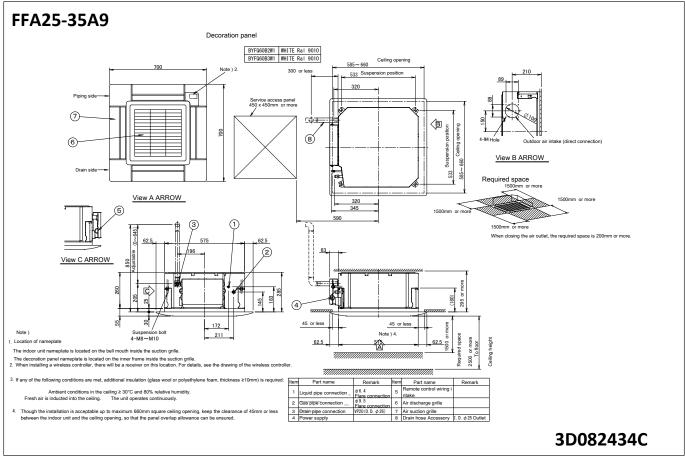




## **Dimensional drawings**

#### 5 - 1 **Dimensional Drawings**

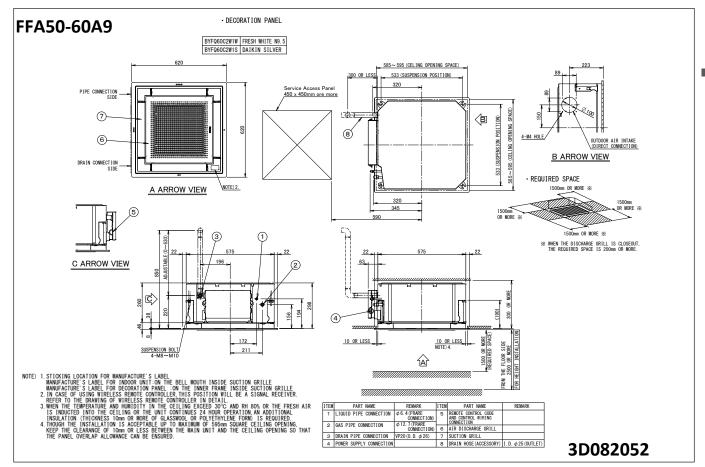


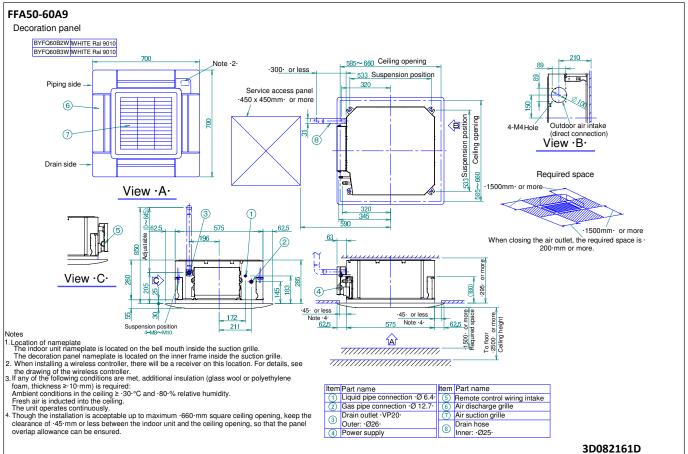




## 5 Dimensional drawings

#### 5 - 1 Dimensional Drawings

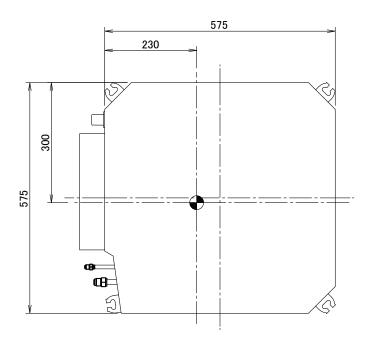


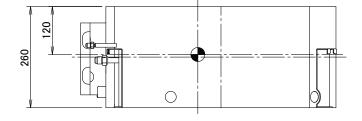


# 6 Centre of gravity

## 6 - 1 Centre of Gravity

#### FFA-A9





4D082432



## 7 Piping diagrams

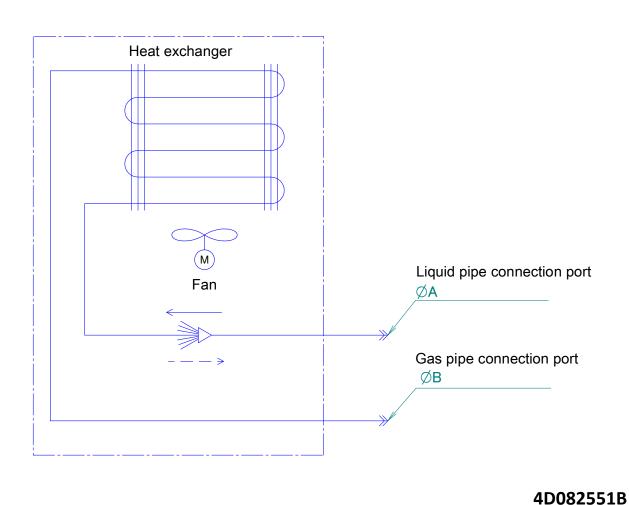
## 7 - 1 Piping Diagrams

#### FFA-A9

Model	A	В		
FFQ25C2VEB	6. 35	9. 52		
FFQ35C2VEB				
FFQ50C2VEB		12. 7		
FFQ60C2VEB		12. /		
FFA25A2VEB(9)		0 50		
FFA35A2VEB(9)		9. 52		
FFA50A2VEB(9)		10.7		
FFA60A2VEB(9)		12. 7		

## Refrigerant flow

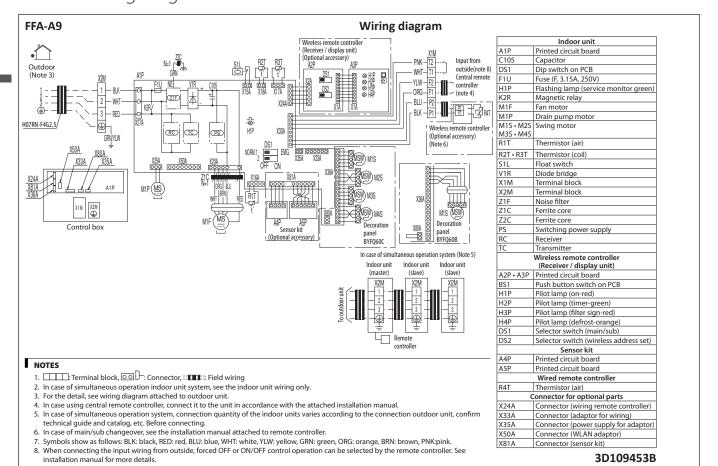
Cooling --->
Heating --->





## 8 Wiring diagrams

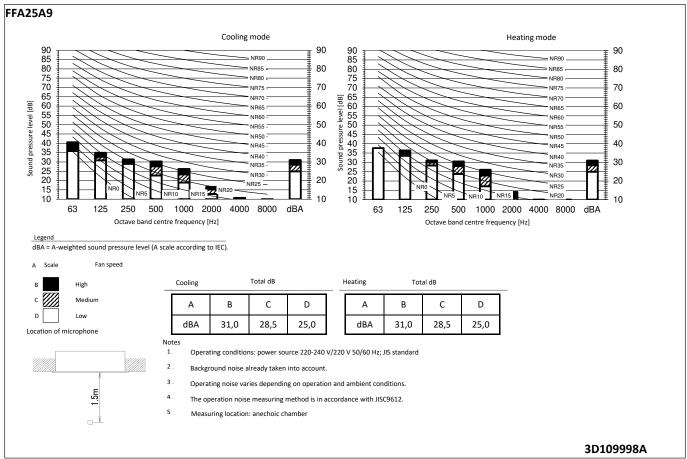
#### 8 - 1 Wiring Diagrams - Three Phase

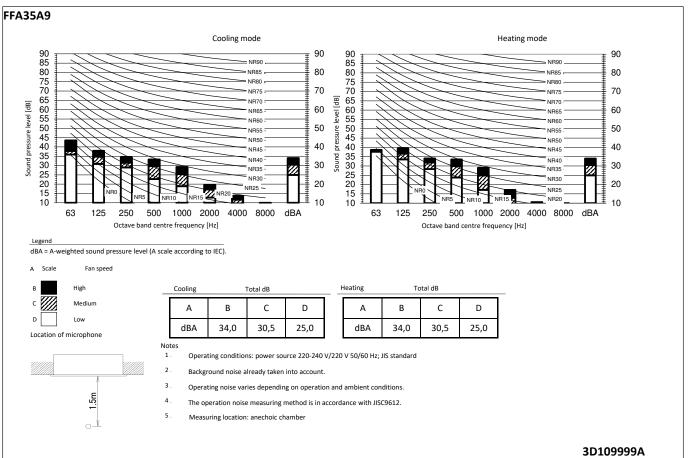




## 9 Sound data

#### 9 - 1 Sound Pressure Spectrum

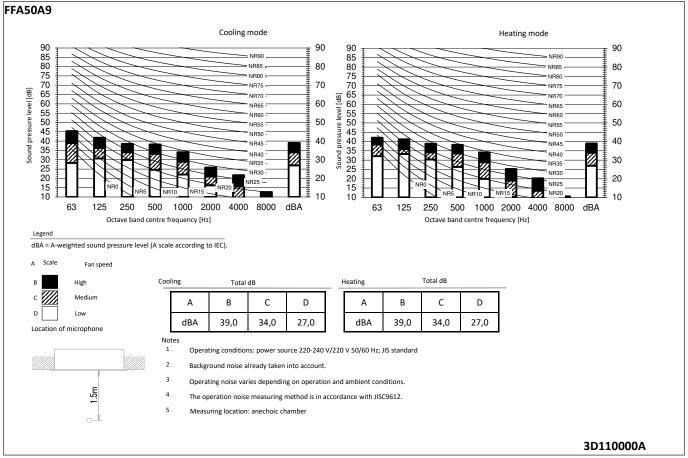


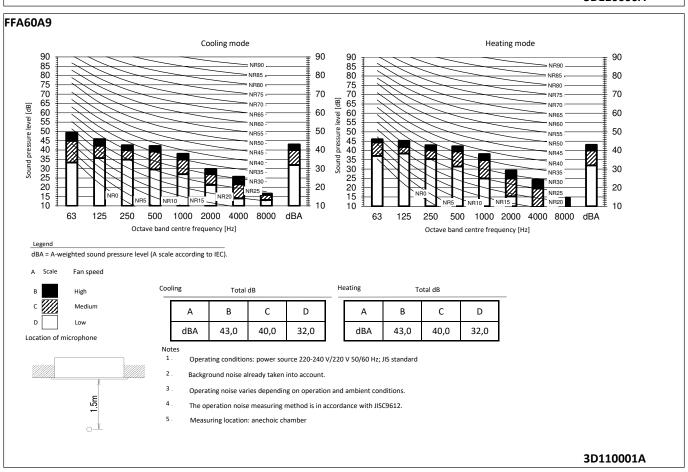




#### 9 Sound data

### 9 - 1 Sound Pressure Spectrum



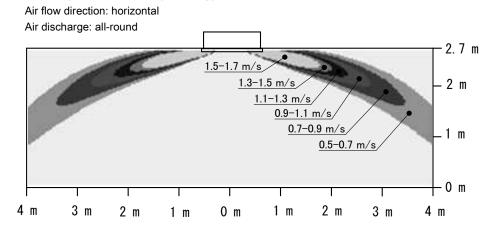




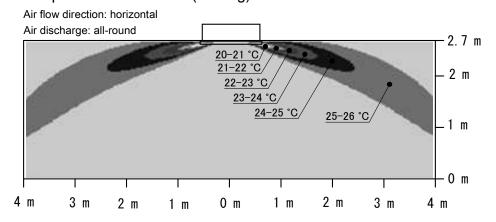
### 10 - 1 Air Flow Pattern - Cooling

#### FFA25A9

#### Air velocity distribution (cooling)



#### Air temperature distribution (cooling)

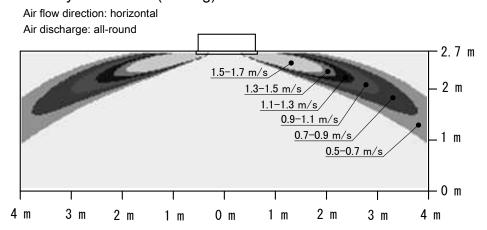


4D083819A

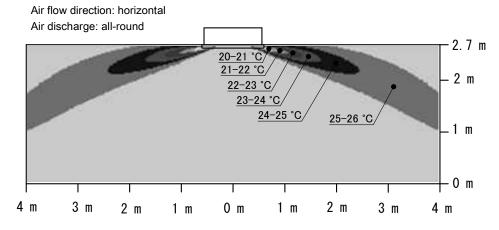
#### 10 - 1 Air Flow Pattern - Cooling

#### FFA35A9

#### Air velocity distribution (cooling)



#### Air temperature distribution (cooling)



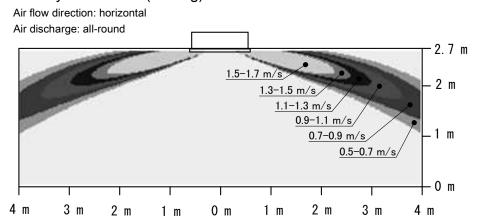
4D083820A



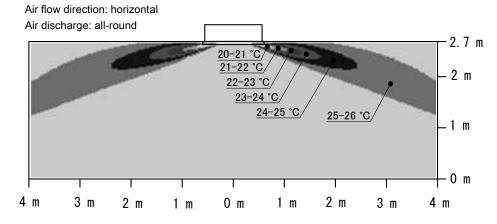
#### 10 - 1 Air Flow Pattern - Cooling

#### FFA50A9

#### Air velocity distribution (cooling)



#### Air temperature distribution (cooling)



4D083821A

10

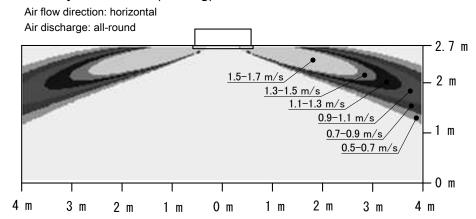


## 10 Air flow patterns

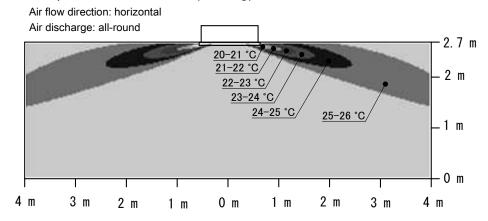
### 10 - 1 Air Flow Pattern - Cooling

#### FFA60A9

#### Air velocity distribution (cooling)



#### Air temperature distribution (cooling)



4D083822A

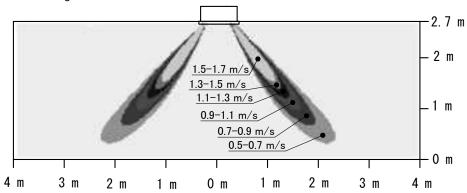


#### 10 - 2 Air Flow Pattern - Heating

#### FFA25A9

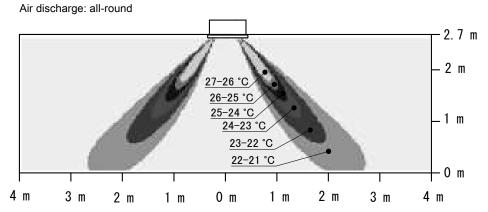
#### Air velocity distribution (heating)

Air flow direction: horizontal Air discharge: all-round



#### Air temperature distribution (heating)

Air flow direction: horizontal



4D083829A



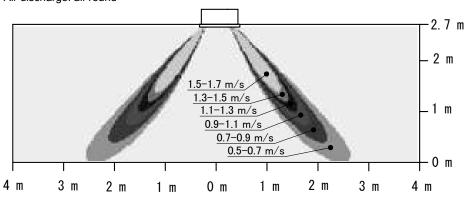


### 10 - 2 Air Flow Pattern - Heating

#### **FFA35A9**

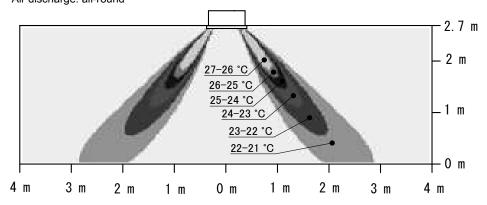
#### Air velocity distribution (heating)

Air flow direction: horizontal Air discharge: all-round



#### Air temperature distribution (heating)

Air flow direction: horizontal Air discharge: all-round



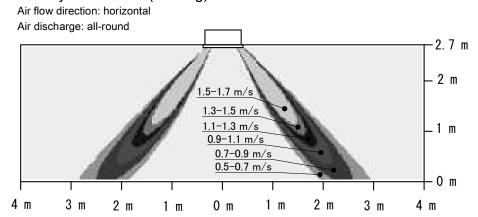
4D083830A



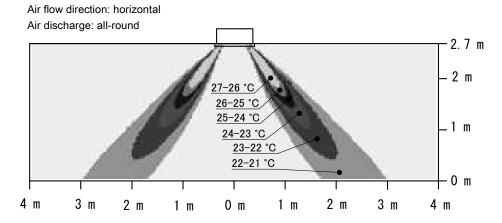
#### 10 - 2 Air Flow Pattern - Heating

#### FFA50A9

#### Air velocity distribution (heating)



#### Air temperature distribution (heating)



4D083831A

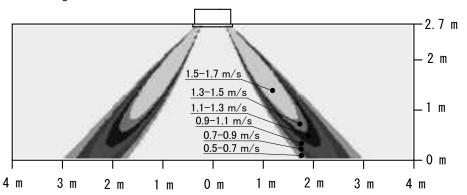


### 10 - 2 Air Flow Pattern - Heating

#### FFA60A9

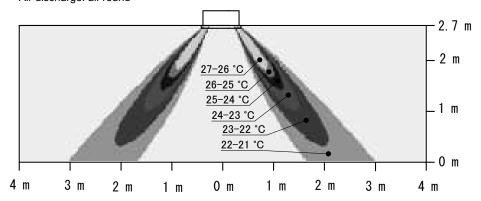
#### Air velocity distribution (heating)

Air flow direction: horizontal Air discharge: all-round



#### Air temperature distribution (heating)

Air flow direction: horizontal Air discharge: all-round



4D083832A

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