

# Wind-Free 1Way Cassette

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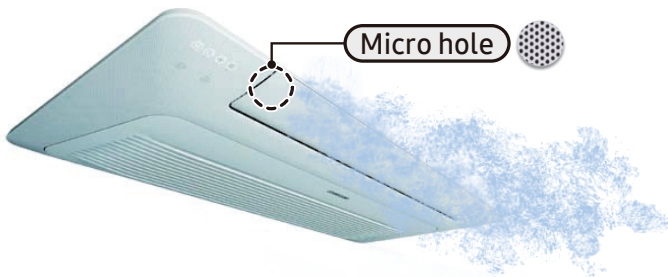
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# Features & Benefits

## Wind-Free 1Way Cassette

### 1. Wind-Free cooling

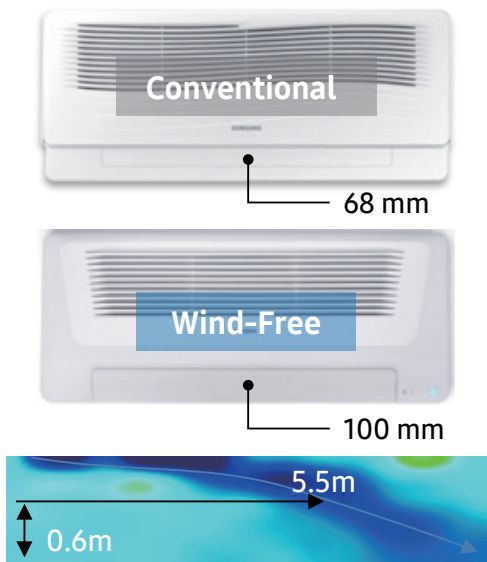
Comfort wind implementation by Wind-Free cooling



※ Wind-Free implementation : Still air by the velocity of flow below 0.15m/s.

### 2. Big blade

Max. 5.5m Horizontal reach

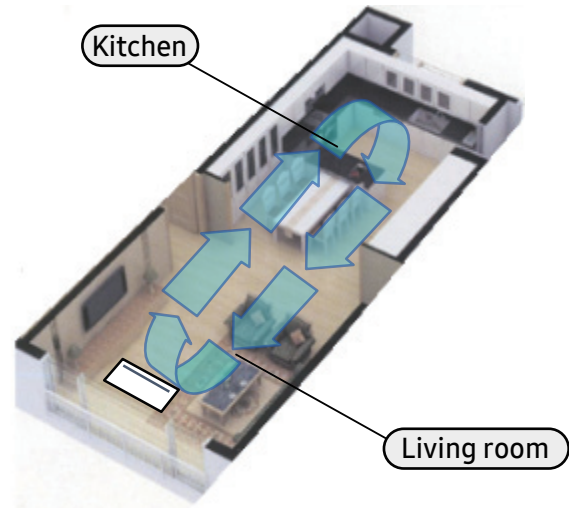


※ Reach : 5.5m (Height 0.6m, Wind speed 0.3m/s)  
Conventional product (Samsung) : 3m

※ Based on Wind-Free 1Way 3.5kW

### 3. Even cooling

Even cooling For spacious space



※ Expand the blade angle from 30° to 80°  
Conventional product (Samsung) : 40~80°

# 1. Specification

## Wind-Free 1Way Cassette

Model Name	Indoor Unit			AC026RN1DKG/EU	AC035RN1DKG/EU	
	Outdoor Unit			AC026RXADKG/EU	AC035RXADKG/EU	
Mode				-	HEAT PUMP	
Performance	Capacity (Min/Std/Max)	Cooling	kW	0.82 / 2.60 / 3.80	0.85 / 3.50 / 4.20	
			Btu/h	2,800 / 8,870 / 12,970	2,900 / 11,940 / 14,330	
		Heating	kW	0.98 / 3.30 / 4.40	1.00 / 4.00 / 5.00	
			Btu/h	3,340 / 11,260 / 15,000	3,410 / 13,650 / 17,060	
Power	Power Input (Min/Std/Max)	Cooling	kW	0.17 / 0.72 / 1.16	0.18 / 1.09 / 1.40	
		Heating	kW	0.20 / 1.01 / 1.45	0.19 / 1.28 / 1.80	
	Current Input (Min/Std/Max)	Cooling	A	1.2 / 3.8 / 5.4	1.6 / 5.3 / 7.5	
		Heating	A	1.4 / 5.0 / 7.0	1.3 / 6.2 / 10.5	
	Current	MCA	A	11.0	11.0	
		MFA	A	12.5	12.5	
Efficiency	EER	Cooling	-	3.61	3.21	
	COP	Heating	-	3.26	3.12	
	SEER (Cooling Energy Grade)		-	6.4 (A++)	6.2 (A++)	
	SCOP (Heating Energy Grade)		-	4.0 (A+)	4.0 (A+)	
	Pdesignh		kW	2.0	2.0	
Piping Connections	Liquid Pipe	Type		Flare connection	Flare connection	
		Φ, mm (inch)		6.35 (1/4)	6.35 (1/4)	
	Gas Pipe	Type		Flare connection	Flare connection	
		Φ, mm (inch)		9.52 (3/8)	9.52 (3/8)	
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	
	Piping length (ODU-IDU)	Standard	Max.	m	5	5
			Elevation	m	20	20
Chargeless			m	15	15	
			m	20	20	
Wiring connections	Communication	Min.	mm <sup>2</sup>	0.75	0.75	
		Remark	-	F1, F2	F1, F2	
Refrigerant	Type		-	R32	R32	
	Factory Charging		kg	0.9	0.9	
			tCO <sub>2</sub> e	0.61	0.61	

# 1. Specification

## Wind-Free 1Way Cassette

Model Name	Indoor Unit		AC026RN1DKG/EU		AC035RN1DKG/EU	
	Outdoor Unit		AC026RXADKG/EU		AC035RXADKG/EU	
Power Supply			Ø, #, V, Hz	1,2,220-240,50		1,2,220-240,50
Heat Exchanger	Type		-	F&T		F&T
	Material	Fin	-	Al		Al
		Tube	-	Cu		Cu
	Fin Treatment		-	Green Hydrophile		Green Hydrophile
Fan	Type		-	Crossflow Fan		Crossflow Fan
	Quantity		EA	1		1
	Air Flow Rate	Cooling (H/M/L)	m <sup>3</sup> /min	7.3 / 6.5 / 5.8		9.0 / 8.2 / 7.2
			l/s	121.6 / 108.3 / 96.6		150 / 136.6 / 120
		Heating (H/M/L)	m <sup>3</sup> /min	8.5 / 7.2 / 6.5		10.0 / 8.4 / 7.3
l/s			141.6 / 120 / 108.3		166.6 / 140 / 121.6	
Fan Motor	Type		-	BLDC		BLDC
	Output		W x n	27		27
Drain	Drain Pipe		Φ, mm	VP-20(OD26, ID20)		VP-20(OD26, ID20)
Sound	Sound Pressure Level	High/Mid/Low/(Silent)	dB(A)	32 / 29 / 26 / 25		35 / 32 / 29 / 28
	Sound Power Level		dB(A)	52		55
External Dimension	Net Weight		kg	9.2		9.2
	Shipping Weight		kg	12.0		12.0
	Net Dimensions (WxHxD)		mm	970 x 135 x 410		970 x 135 x 410
	Shipping Dimensions (WxHxD)		mm	1,175 x 231 x 487		1,175 x 231 x 487
Casing	Material		-	ABS		ABS
Indoor Unit Panel (1)	Model Name		-	PC1NWFMAN		PC1NWFMAN
	Type		-	Wind-Free Type		Wind-Free Type
	Material		-	HIPS		HIPS
	Color		-	DA White		DA White
	Net Weight		kg	4.3		4.3
	Shipping Weight		kg	6.3		6.3
	Net Dimensions (WxHxD)		mm	1,198 x 35 x 500		1,198 x 35 x 500
	Shipping Dimensions (WxHxD)		mm	1,262 x 122 x 566		1,262 x 122 x 566
Panel (2)	Model Name		-	PC1NWSMAN		PC1NWSMAN
	Type		-	Fluid Type		Fluid Type
	Material		-	ABS		ABS
	Color		-	White		White
	Net Weight		kg	5.5		5.5
	Shipping Weight		kg	7.2		7.2
	Net Dimensions (WxHxD)		mm	1,198 x 25 x 500		1,198 x 25 x 500
	Shipping Dimensions (WxHxD)		mm	1,275 x 152 x 580		1,275 x 152 x 580
Control System	Infrared remote control		-	AR-EH03E		AR-EH03E
	Wired remote control		-	MWR-WE13N MWR-WG00*N		MWR-WE13N MWR-WG00*N
Drain Pump	Drain Pump		-	Included		Included
	Max. lifting Height / Displacement		mm / Liter / h	750/24		750/24
Additional Accessories	Drain Pump	External Model	-	-		-
		Internal Model	-	-		-
		Max. lifting Height / Displacement	mm / Liter / h	-		-
	Air Filter		-	Removable / Washable		Removable / Washable
	Virus Doctor		-	-		-

# 1. Specification

## Wind-Free 1Way Cassette

	Model Name		Indoor Unit	AC026RN1DKG/EU	AC035RN1DKG/EU	
			Outdoor Unit	AC026RXADKG/EU	AC035RXADKG/EU	
Outdoor Unit	Power Supply			Ø, #, V, Hz	1, 2, 220-240, 50	1, 2, 220-240, 50
	Heat Exchanger	Type		-	Fin & Tube	Fin & Tube
		Material	Fin	-	Al	Al
			Tube	-	Cu	Cu
		Fin Treatment		-	Anti-Corrosion	Anti-Corrosion
	Compressor	Model Name			UB9AK5090FER	UB9AK5090FER
		Type		-	Single BLDC	Single BLDC
		Output		kW	0.86	0.86
		Oil	Type	-	POE	POE
			Initial charge	cc	320	320
	Fan	Type		-	Propeller	Propeller
		Discharge direction		-	Front	Front
		Quantity		EA	1	1
		Air Flow Rate		m <sup>3</sup> /min	30	30
	l/s			500	500	
	Fan Motor	Type		-	BLDC Motor	BLDC Motor
		Output		W x n	40 x 1	40 x 1
	Sound	Sound Pressure Level	Cooling	dB(A)	46	48
			Heating	dB(A)	47	48
		Sound Power Level		dB(A)	59	61
External Dimension	Net Weight		kg	32.5	32.5	
	Shipping Weight		kg	35.5	35.5	
	Net Dimensions (WxHxD)		mm	790 x 548 x 285	790 x 548 x 285	
	Shipping Dimensions (WxHxD)		mm	913 x 622 x 371	913 x 622 x 371	
Casing	Material	Body	-	EGL Steel Plate	EGL Steel Plate	
Operating Temp. Range	Cooling		°C	-15 ~ 46	-15 ~ 46	
	Heating		°C	-20 ~ 24	-20 ~ 24	

### NOTE

- Specification may be subject to change without prior notice.
  - 1) Performances are based on the following test conditions.
    - Cooling : Indoor temperature 27°C DB, 19°C WB, Outdoor temperature 35°C DB, 24°C WB
    - Heating : Indoor temperature 20°C DB, 15°C WB, Outdoor temperature 7°C DB, 6°C WB
    - Equivalent refrigerant pipe length 5m, Level differences 0m
  - 2) Select wire size based on the value of MCA
  - 3) Sound pressure level is obtained in an anechoic room.
    - Sound pressure level is a relative value, depending on the distance and acoustic environment.
    - Sound pressure level may differ depending on operation condition.
    - dBA = A-weighted sound pressure level
    - Reference acoustic pressure 0 dB = 20uPa
  - 4) Sound power level is an absolute value that a sound source generates.
    - dBA = A-weighted sound power level
    - Reference power : 1pW
    - Measured according to ISO 3741
  - 5) These products contain R32(GWP=675) which is fluorinated greenhouse gas.
  - 6) 'MWR-WG00\*N' is new wired remote control type(Graphic).  
If you need the latest control system information, please refer to SAC control TDB.

## 2. Summary Table

### Wind-Free 1Way Cassette

#### Performance Characteristics

Model Code	Net Weight (kg)	Capacity		Fan Speed	Airflow (CMM)	Sound Pressure Level (dBA)	Sound Power Level (dBA)	
		Cooling (kW)	Heating (kW)					
AC026RN1DKG/EU	9.5	Max.	3.80	4.40	High	7.3	32	54
		Std.	2.60	3.30	Mid	6.5	29	
		Min.	0.82	0.98	Low	5.8	26	
AC035RN1DKG/EU	9.5	Max.	4.20	5.00	High	9.0	35	57
		Std.	3.50	4.00	Mid	8.2	32	
		Min.	0.85	1.00	Low	7.2	29	

#### NOTE

- Sound data is based on cooling operation.

#### Electric Characteristics

Model		Outdoor Unit				Maximum Input Current [A]				Power Supply	
Indoor Unit	Outdoor Unit	Rated	Voltage range			Outdoor Unit		Indoor Unit	Total	MCA	MFA
		Hz	Volts	Min.	Max.	Cooling	Heating				
AC026RN1DKG/EU	AC026RXADKG/EU	50	220 to 240	198	264	10	10	1.0	11.0	11.0	12.5
AC035RN1DKG/EU	AC035RXADKG/EU	50	220 to 240	198	264	10	10	1.0	11.0	11.0	12.5

#### NOTE

- MCA : Minimum circuit amperes
- MFA : Maximum fuse amperes
- Select wire size based on the value of MCA

# 3. Capacity Table

## Wind-Free 1Way Cassette

### (1) AC026RN1DKG/EU+AC026RXADKG/EU

#### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°C, DB)	Indoor Temperature (°C, DB / WB)																				
	20 / 14			22 / 16			25 / 18			27 / 19			28 / 20			30 / 22			32 / 24		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
-15	2.5	1.9	0.52	2.7	2.0	0.53	2.8	2.0	0.54	2.9	2.1	0.55	2.9	2.1	0.55	3.1	2.1	0.56	3.2	2.0	0.57
21	2.4	1.8	0.54	2.5	1.9	0.55	2.6	1.9	0.56	2.7	2.0	0.58	2.8	2.0	0.58	2.9	2.0	0.59	3.1	1.9	0.60
35	2.3	1.7	0.68	2.4	1.8	0.69	2.5	1.8	0.71	2.6	1.9	0.72	2.7	1.9	0.73	2.8	1.9	0.73	2.9	1.8	0.75
46	2.0	1.7	0.61	2.1	1.7	0.62	2.1	1.8	0.64	2.2	1.9	0.65	2.3	1.8	0.65	2.4	1.8	0.66	2.5	1.8	0.67

#### Heating

TC : Total Capacity, PI : Power Input

Outdoor Temperature (°C, DB)	Indoor Temperature (°C, DB)													
	16		18		20		21		22		24			
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI		
	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW		
-20	2.3	1.34	2.3	1.33	2.3	1.31	2.3	1.30	2.2	1.29	2.2	1.27		
-15	2.9	1.55	2.9	1.53	2.9	1.52	2.8	1.50	2.8	1.48	2.8	1.47		
-5	3.3	1.44	3.3	1.43	3.2	1.41	3.2	1.40	3.2	1.39	3.1	1.37		
0	3.4	1.24	3.4	1.22	3.4	1.21	3.3	1.20	3.3	1.19	3.3	1.18		
7	3.4	1.03	3.3	1.02	3.3	1.01	3.3	1.00	3.2	0.99	3.2	0.98		
24	4.4	1.18	4.3	1.17	4.3	1.16	4.2	1.15	4.2	1.14	4.2	1.13		

### (2) AC035RN1DKG/EU+AC035RXADKG/EU

#### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°C, DB)	Indoor Temperature (°C, DB / WB)																				
	20 / 14			22 / 16			25 / 18			27 / 19			28 / 20			30 / 22			32 / 24		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
-15	3.4	2.5	0.78	3.6	2.6	0.80	3.7	2.7	0.81	3.9	2.8	0.83	3.9	2.7	0.84	4.1	2.7	0.84	4.3	2.6	0.86
21	3.3	2.4	0.82	3.4	2.5	0.84	3.6	2.5	0.85	3.7	2.6	0.87	3.7	2.6	0.88	3.9	2.6	0.89	4.1	2.5	0.91
35	3.1	2.3	1.03	3.3	2.4	1.05	3.4	2.4	1.07	3.5	2.5	1.09	3.6	2.5	1.10	3.7	2.5	1.11	3.9	2.4	1.13
46	2.6	2.1	0.92	2.8	2.2	0.94	2.9	2.3	0.96	3.0	2.3	0.98	3.0	2.3	0.99	3.2	2.3	1.00	3.3	2.3	1.02

#### Heating

TC : Total Capacity, PI : Power Input

Outdoor Temperature (°C, DB)	Indoor Temperature (°C, DB)													
	16		18		20		21		22		24			
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI		
	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW		
-20	2.8	1.70	2.8	1.68	2.8	1.66	2.7	1.65	2.7	1.63	2.7	1.61		
-15	3.5	1.96	3.5	1.94	3.5	1.92	3.4	1.90	3.4	1.88	3.4	1.86		
-5	4.0	1.83	4.0	1.81	3.9	1.79	3.9	1.77	3.8	1.76	3.8	1.74		
0	4.2	1.57	4.1	1.55	4.1	1.54	4.0	1.52	4.0	1.51	4.0	1.49		
7	4.1	1.31	4.0	1.29	4.0	1.28	4.0	1.27	3.9	1.25	3.9	1.24		
24	5.3	1.50	5.3	1.49	5.2	1.47	5.1	1.46	5.1	1.44	5.0	1.43		

#### NOTE

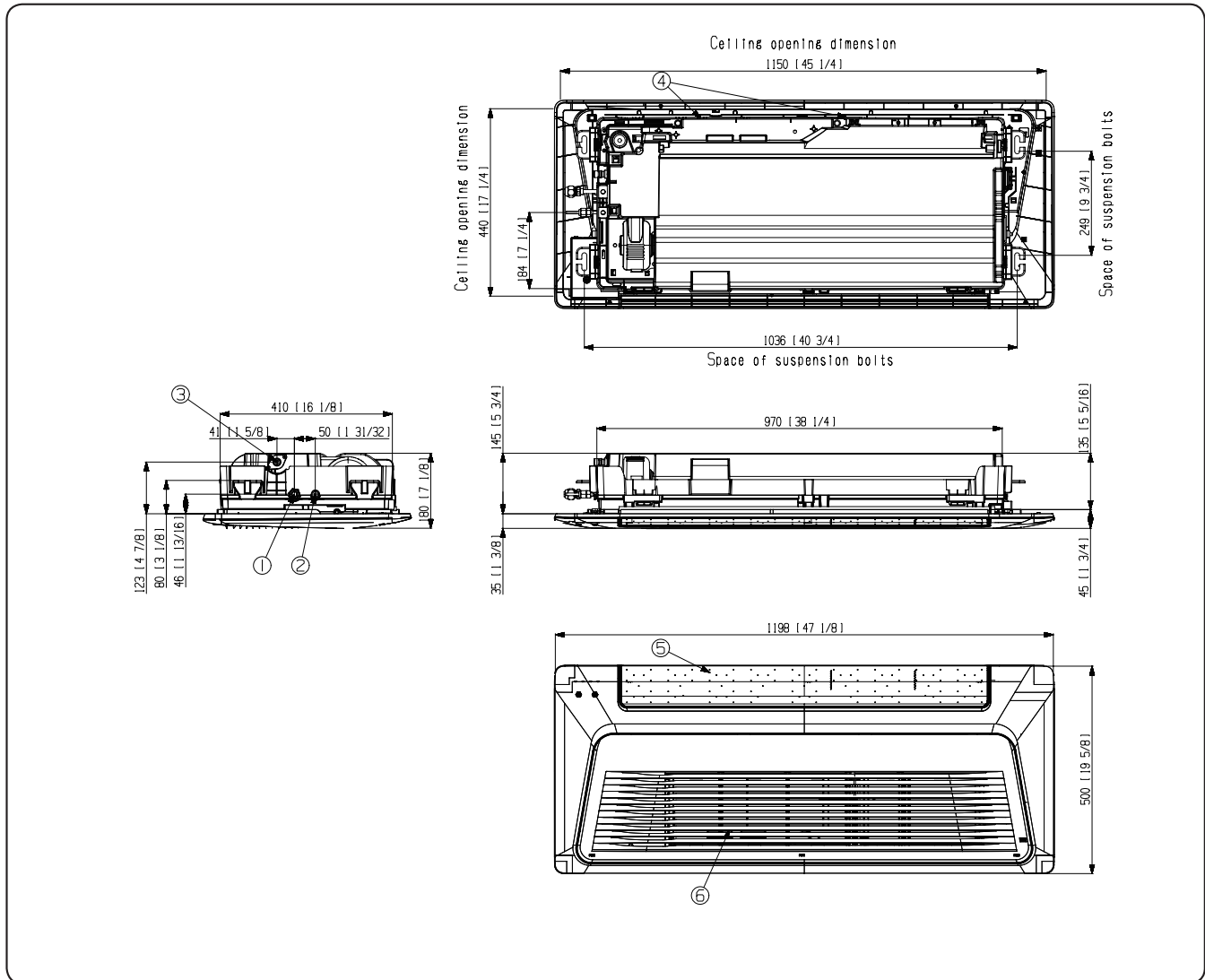
- The performance table shows the average value of each conditions.

# 4. Dimensional Drawing

## Wind-Free 1Way Cassette

AC026/035RN1DKG/EU

Units : mm [inches]



No.	Name	Description
1	Gas pipe connection	Φ 9.52 (3/8)
2	Liquid pipe connection	Φ 6.35 (1/4)
3	Drain pipe connection	VP-20 (OD26, ID20)
4	Power supply & Communication wiring conduit	-
5	Air outlet louver	-
6	Air inlet grille	-

### NOTE

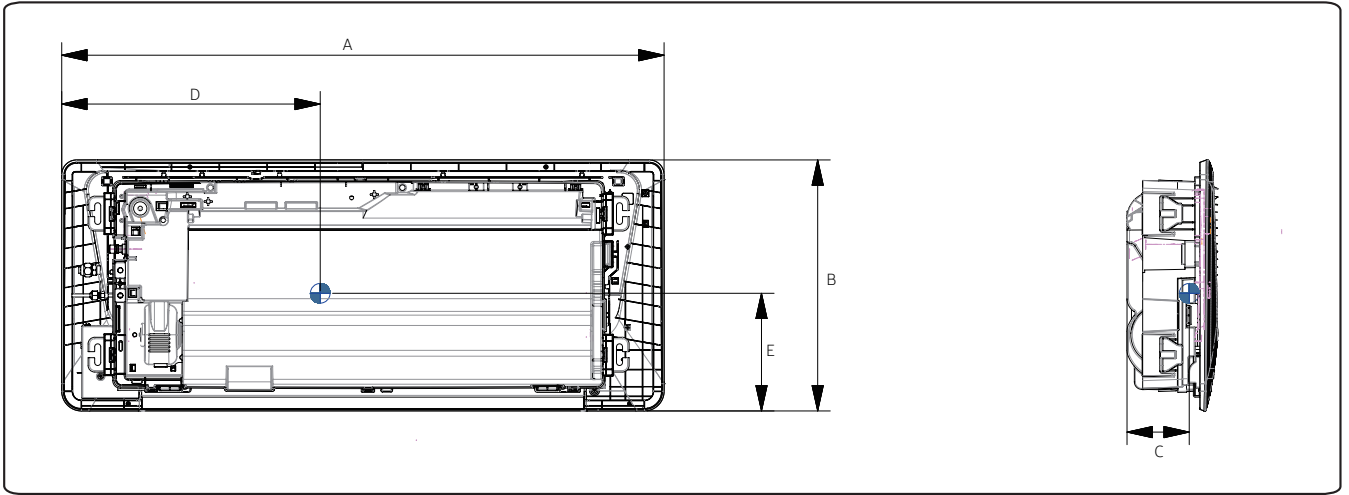
- As for suspension bolt, please use M8 ~ M10.  
(Procured at local site)



# 5. Center of Gravity

## Wind-Free 1Way Cassette

Units : mm [inches]

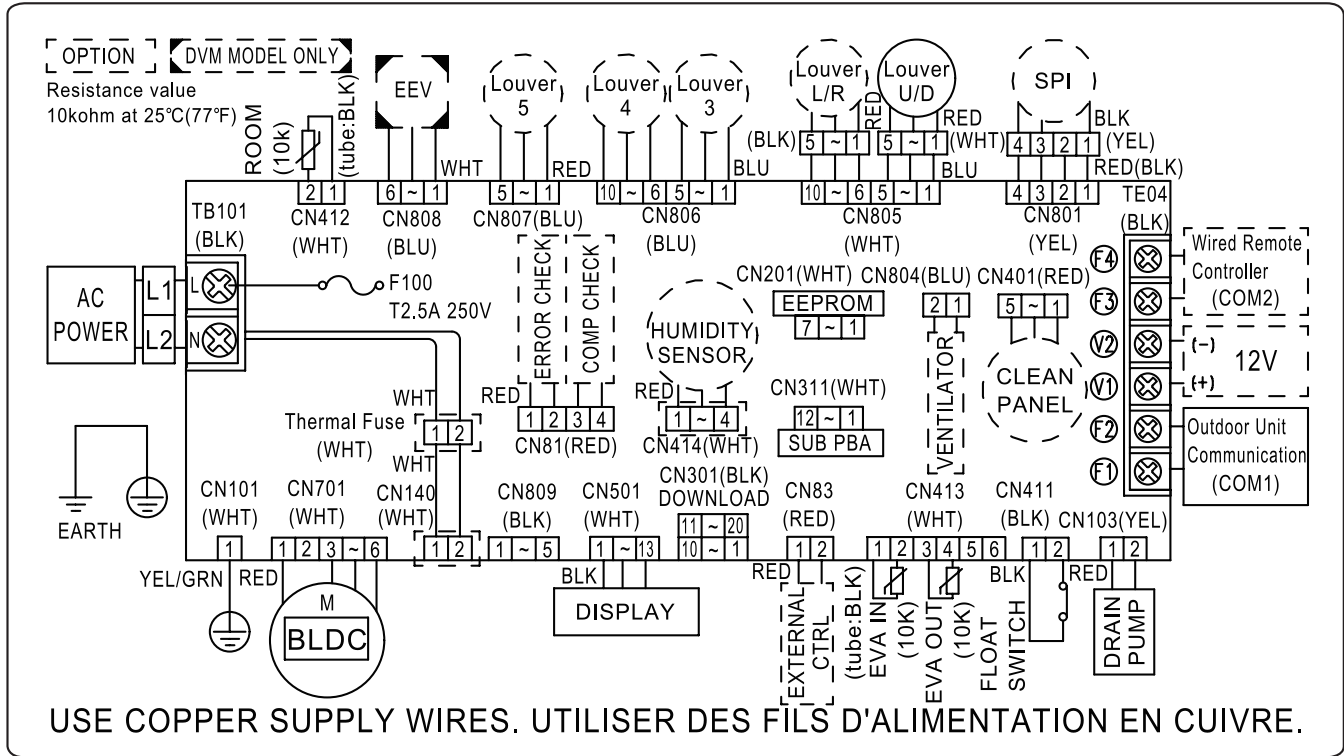


Model	A	B	C	D	E
AC026/035RN1DKG/EU	1,198 [47-3/16]	500 [19-11/16]	108 [4-1/2]	555 [21-7/8]	200 [7-7/8]

# 6. Electrical Wiring Diagram

## Wind-Free 1Way Cassette

### AC026/035RN1DKG/EU



SPI	S-Plasma ion	EEV	Electronic Expansion Valve	ROOM	Thermistor ROOM in (10K)
FLOAT SWITCH	Check the FLOATING S/W	EVA-IN	Thermistor EVA IN(10K)	EVA-OUT	Thermistor EVA OUT(10K)

#### NOTE

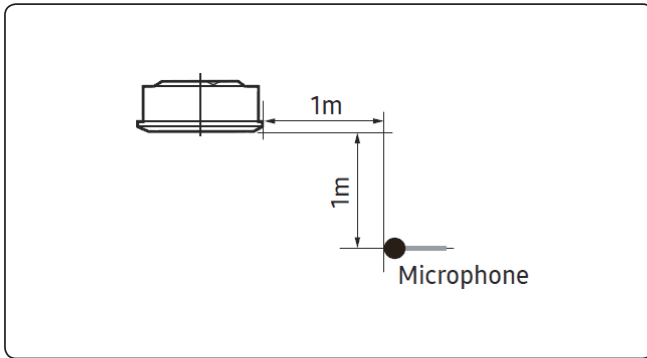
- This wiring diagram applies only to the Indoor unit.
- Symbols show as follow :  
 blk: black, red: red, blu: blue, wht: white, yel: yellow, brn: brown, sky: skyblue: grn: green
- For connection wiring indoor-outdoor transmission F1-F2, indoor-wired remote controller transmission F3-F4.
- Protective earth(screw)

# 7. Sound Data

## Wind-Free 1Way Cassette

### Sound Pressure level

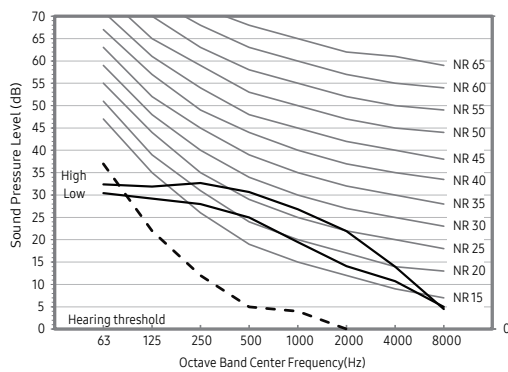
Unit: dB(A)



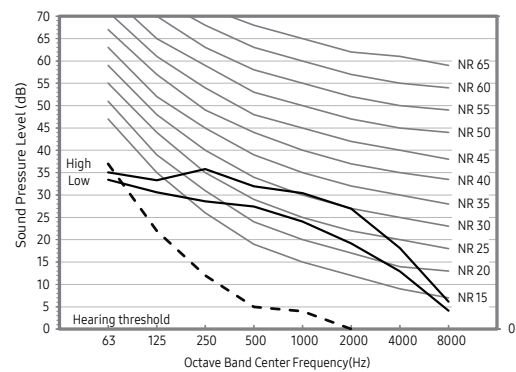
Model	HIGH	MID	LOW
AC026RN1DKG/EU	32	29	26
AC035RN1DKG/EU	35	32	29

- NC Curve

1) AC026RN1DKG/EU



2) AC035RN1DKG/EU



### NOTE

- Specifications may be subject to change without prior notice.
  - Sound pressure level is obtained in an anechoic room.
  - Sound pressure level is a relative value, depending on the distance and acoustic environment.
  - Sound pressure level may differ depending on operation condition.
  - dBA = A weighted sound pressure level
  - Reference acoustic pressure 0 dB = 20μPa

# 7. Sound Data

## Wind-Free 1Way Cassette

### Sound Power level

**NOTE**

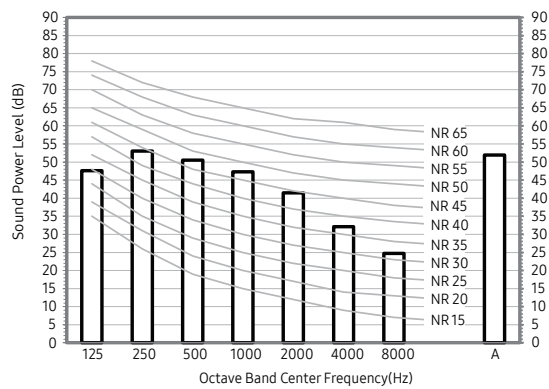
- Specifications may be subject to change without prior notice
  - Sound power level is an absolute value that a sound source generates.
  - dBA = A-weighted sound power level.
  - Reference power : 1pW.
  - Measured according to ISO 3741.

Unit: dB(A)

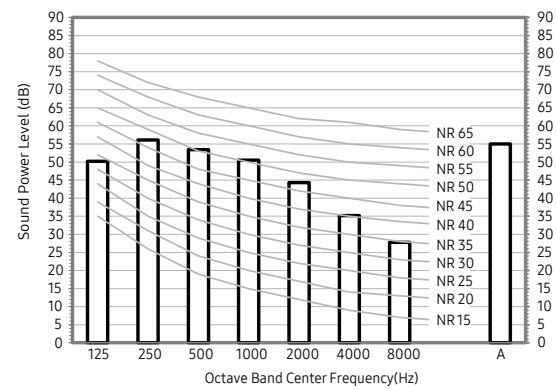
Model	Power
AC026RN1DKG/EU	52
AC035RN1DKG/EU	55

• NR Curve

1) AC026RN1DKG/EU



2) AC035RN1DKG/EU



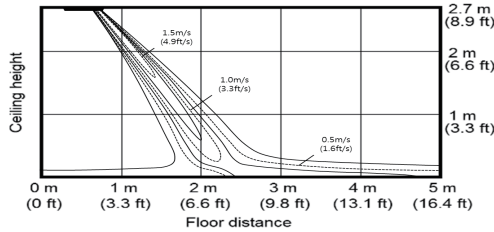
# 8. Temperature and airflow distribution

## Wind-Free 1Way Cassette

### AC026RN1DKG/EU

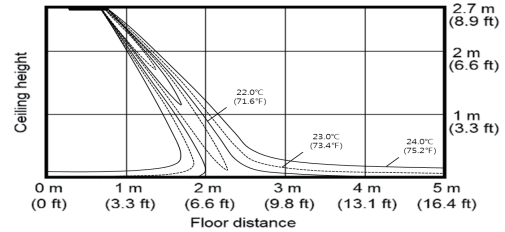
- Cooling Air Velocity distribution

(Discharge angle : 60 degree)



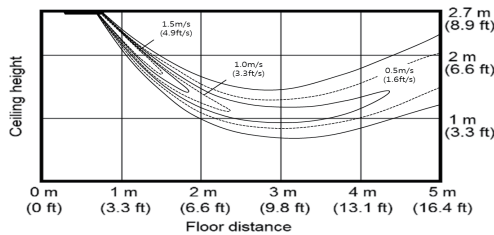
- Cooling temperature distribution

(Discharge angle : 60 degree)



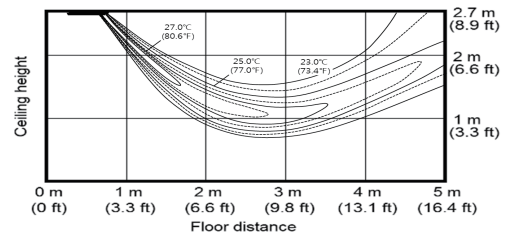
- Heating Air Velocity distribution

(Discharge angle : 60 degree)



- Heating temperature distribution

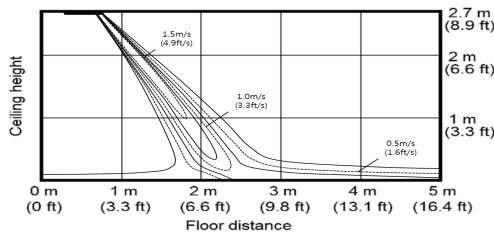
(Discharge angle : 60 degree)



### AC035RN1DKG/EU

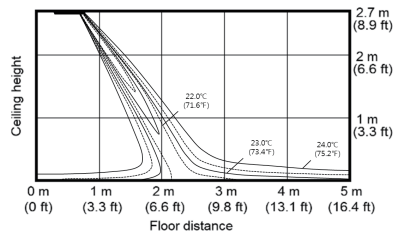
- Cooling Air Velocity distribution

(Discharge angle : 60 degree)



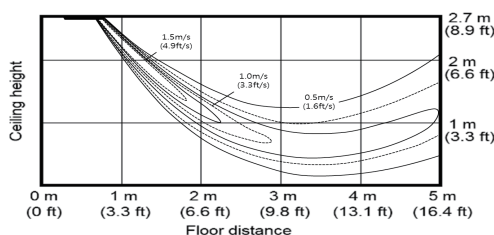
- Cooling temperature distribution

(Discharge angle : 60 degree)



- Heating Air Velocity distribution

(Discharge angle : 60 degree)



- Heating temperature distribution

(Discharge angle : 60 degree)

