

# Big Ceiling

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# Features & Benefits

## Ceiling Type (large capacity) - Powerful cooling with a long distance wind

### Combine simple neat and innovated technologies to experience superior performance and easy operation

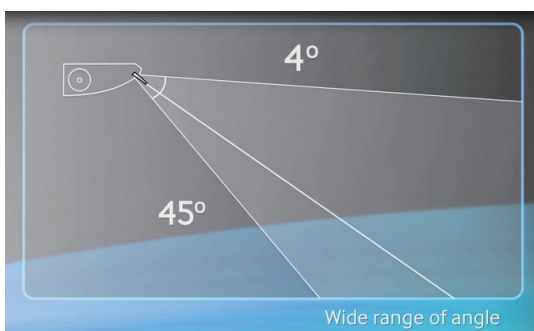
Samsung has been rewriting product descriptions beyond the industry standards. As one of such company's product, Samsung Ceiling focused on sending "sufficient" amount of conditioned air to "distant" places to cover huge area. For convenient installations and maintenances, the Ceiling concentrated service direction on one side. Do not get stressed with air conditioning. Just leave it to Samsung Ceiling.



### Fast cooling, 15m air flow

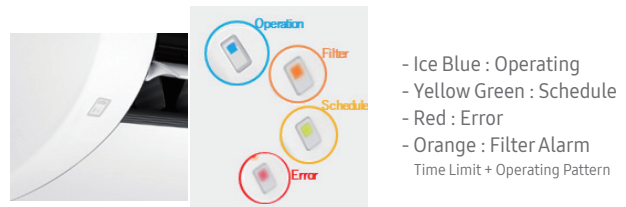
When users need air conditioning, they really need it quickly. While the ceiling applied latest flow-efficient blowers to increase amount of air it discharges, it also mounted single BLDC motor to reduce noises and possibilities of abrupt changes of modes. With increased size of inlet area and fluid dynamically designed inner passages, customers can experience incomparable cooling power.

Also, with the advanced blade, which can move from 40 to 45, Samsung ceiling type can refreshingly cool air that reaches every corner of the room with no blind spots.



### Simple display

The simple display design with its rounded corners adds a neat and tidy feeling to your interior.



### Single side installation

Due to difficulties in accessing their installed locations, easiness to maintain ceiling indoor units should be considered seriously. Relatively thin width of the product makes locating all service ports at one side difficult. However, for better customer experience, Samsung challenged to this difficulty.

# 1. Specification

## Big Ceiling

Model Name	Indoor Unit			AC100RNCDKG/EU	AC100RNCDKG/EU	AC120RNCDKG/EU	
	Outdoor Unit			AC100RXADKG/EU	AC100RXADNG/EU	AC120RXADKG/EU	
Mode				-	HEAT PUMP	HEAT PUMP	HEAT PUMP
Performance	Capacity (Min/Std/Max)	Cooling	kW	3.0 / 10.0 / 12.0	3.0 / 10.0 / 12.0	3.0 / 12.0 / 13.5	
			Btu/h	10,240 / 34,120 / 41,000	10,240 / 34,120 / 41,000	10,240 / 41,000 / 46,100	
		Heating	kW	2.2 / 11.2 / 15.5	2.2 / 11.2 / 15.5	3.8 / 13.2 / 16.5	
			Btu/h	7,500 / 38,210 / 52,900	7,500 / 38,210 / 52,900	12,970 / 45,040 / 56,300	
Power	Power Input (Min/Std/Max)	Cooling	kW	0.60 / 3.28 / 4.70	0.60 / 3.15 / 4.70	0.90 / 4.35 / 5.30	
		Heating	kW	0.46 / 3.25 / 5.40	0.46 / 3.20 / 5.40	0.70 / 3.83 / 5.60	
	Current Input (Min/Std/Max)	Cooling	A	3.0 / 14.6 / 20.4	1.5 / 5.0 / 7.1	5.1 / 19.1 / 24.0	
		Heating	A	2.5 / 14.2 / 23.0	1.2 / 5.1 / 8.4	3.9 / 17.0 / 26.0	
	Current	MCA	A	26.5	18.6	26.5	
		MFA	A	30.0	18.6	30.0	
Efficiency	EER	Cooling	-	3.05	3.17	2.76	
	COP	Heating	-	3.44	3.50	3.44	
	SEER (Cooling Energy Grade)		-	6.1 (A++)	6.1 (A++)	5.9 (A+)	
	SCOP (Heating Energy Grade)		-	4.0 (A+)	4.0 (A+)	4.0 (A+)	
	Pdesignh		kW	5.2	5.2	6.5	
Piping Connections	Liquid Pipe		Type	Flare connection	Flare connection	Flare connection	
			Φ, mm (inch)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	
	Gas Pipe		Type	Flare connection	Flare connection	Flare connection	
			Φ, mm (inch)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	
	Piping length (ODU-IDU)	Standard	m	5	5	5	
		Max.	m	50	50	50	
Elevation		m	30	30	30		
Chargeless		m	30	30	30		
Wiring connections	Communication	Min.	mm <sup>2</sup>	0.75	0.75	0.75	
		Remark	-	F1, F2	F1, F2	F1, F2	
Refrigerant	Type		-	R32	R32	R32	
	Factory Charging		kg	2.7	2.7	2.7	
			tCO <sub>2</sub> e	1.82	1.82	1.82	

# 1. Specification

## Big Ceiling

Indoor Unit	Model Name		Indoor Unit	AC100RNCDKG/EU	AC100RNCDKG/EU	AC120RNCDKG/EU	
			Outdoor Unit	AC100RXADKG/EU	AC100RXADNG/EU	AC120RXADKG/EU	
	Power Supply			Ø, #, V, Hz	1,2,220-240,50	1,2,220-240,50	1,2,220-240,50
	Heat Exchanger	Type		-	F&T	F&T	F&T
		Material	Fin	-	Al	Al	Al
			Tube	-	Cu	Cu	Cu
		Fin Treatment		-	Green Hydrophile	Green Hydrophile	Green Hydrophile
	Fan	Type		-	Sirocco	Sirocco	Sirocco
		Quantity		EA	4	4	4
		Air Flow Rate	Cooling (H/M/L)	m <sup>3</sup> /min	26.0 / 23.0 / 19.0	26.0 / 23.0 / 19.0	30.0 / 24.0 / 20.0
				l/s	433 / 383 / 317	433 / 383 / 317	500 / 400 / 333
			Heating (H/M/L)	m <sup>3</sup> /min	26.0 / 23.0 / 19.0	26.0 / 23.0 / 19.0	32.0 / 26.0 / 22.0
	l/s			433 / 383 / 317	433 / 383 / 317	533 / 433 / 367	
	Fan Motor	Type		-	BLDC	BLDC	BLDC
		Output		W x n	244 x 1	244 x 1	244 x 1
	Drain	Drain Pipe		Φ, mm	VP-25(OD32, ID25)	VP-25(OD32, ID25)	VP-25(OD32, ID25)
	Sound	Sound Pressure Level	High/Mid/Low/(Silent)	dB(A)	42 / 38 / 34	42 / 38 / 34	44 / 41 / 37
		Sound Power Level		dB(A)	60	60	62
	External Dimension	Net Weight		kg	42.0	42.0	41.5
		Shipping Weight		kg	48.0	48.0	48.0
		Net Dimensions (WxHxD)		mm	1,650 x 235 x 675	1,650 x 235 x 675	1,650 x 235 x 675
		Shipping Dimensions (WxHxD)		mm	1,739 x 321 x 758	1,739 x 321 x 758	1,739 x 321 x 758
	Casing	Material		-	GI Steel Plate	GI Steel Plate	GI Steel Plate
	Control System	Infrared remote control		-	AR-EH03E	AR-EH03E	AR-EH03E
		Wired remote control		-	MWR-WE13N MWR-WG00*N	MWR-WE13N MWR-WG00*N	MWR-WE13N MWR-WG00*N
	Drain Pump	Drain Pump		-	-	-	-
		Max. lifting Height / Displacement		mm / Liter / h	-	-	-
	Additional Accessories	Drain Pump	External Model	-	-	-	-
Internal Model			-	-	-	-	
Max. lifting Height / Displacement			mm / Liter / h	-	-	-	
Air Filter		-	Removable / Washable	Removable / Washable	Removable / Washable		
Virus Doctor		-	Option	Option	Option		

# 1. Specification

## Big Ceiling

Model Name	Indoor Unit			AC100RNCDKG/EU	AC100RNCDKG/EU	AC120RNCDKG/EU		
	Outdoor Unit			AC100RXADKG/EU	AC100RXADNG/EU	AC120RXADKG/EU		
Power Supply		Ø, #, V, Hz		1, 2, 220-240, 50	3, 4, 380-415, 50	1, 2, 220-240, 50		
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube		
	Material	Fin	-	Al	Al	Al		
		Tube	-	Cu	Cu	Cu		
Fin Treatment		-		Anti-Corrosion	Anti-Corrosion	Anti-Corrosion		
Compressor	Model Name		-		UB8TN8300FJU	UB8TN8300FJU	UB5TN5450FJX	
	Type		-		Twin BLDC	Twin BLDC	Twin BLDC	
	Output		kW		2.91	2.91	4.25	
	Oil	Type	-		POE	POE	POE	
Initial charge		cc		1,200	1,200	1,700		
Fan	Type		-		Propeller	Propeller	Propeller	
	Discharge direction		-		Front	Front	Front	
	Quantity		EA		1	1	1	
	Air Flow Rate		m <sup>3</sup> /min		72	72	72	
l/s			1,200	1,200	1,200			
Fan Motor	Type		-		BLDC Motor	BLDC Motor	BLDC Motor	
	Output		W x n		125 x 1	125 x 1	125 x 1	
Sound	Sound Pressure Level	Cooling	dB(A)		52	52	54	
		Heating	dB(A)		54	54	56	
	Sound Power Level		dB(A)		69	69	70	
External Dimension	Net Weight		kg		75.0	74.0	81.0	
	Shipping Weight		kg		80.0	79.0	86.0	
	Net Dimensions (WxHxD)		mm		940 x 998 x 330	940 x 998 x 330	940 x 998 x 330	
	Shipping Dimensions (WxHxD)		mm		995 x 1,096 x 426	995 x 1,096 x 426	995 x 1,096 x 426	
Casing	Material	Body		-		EGI Steel Plate	EGI Steel Plate	EGI Steel Plate
	Operating Temp. Range		Cooling		°C		-15 ~ 50	-15 ~ 50
		Heating		°C		-20 ~ 24	-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.

# 1. Specification

## Big Ceiling

System	Model Name		Indoor Unit	AC120RNCDKG/EU	AC140RNCDKG/EU	AC140RNCDKG/EU		
			Outdoor Unit	AC120RXADNG/EU	AC140RXADKG/EU	AC140RXADNG/EU		
	Mode			-	HEAT PUMP	HEAT PUMP	HEAT PUMP	
	Performance	Capacity (Min/Std/Max)	Cooling	kW	3.0 / 12.0 / 13.5	3.5 / 13.4 / 15.5	3.5 / 13.4 / 15.5	
				Btu/h	10,240 / 41,000 / 46,100	11,940 / 45,720 / 52,900	11,940 / 45,720 / 52,900	
			Heating	kW	3.8 / 13.2 / 16.5	3.5 / 15.5 / 18.0	3.5 / 15.5 / 18.0	
				Btu/h	12,970 / 45,040 / 56,300	11,940 / 52,900 / 61,420	11,940 / 52,900 / 61,420	
	Power	Power Input (Min/Std/Max)	Cooling	kW	0.90 / 4.15 / 5.50	0.80 / 4.50 / 6.45	0.80 / 4.50 / 6.60	
			Heating	kW	0.70 / 3.80 / 6.40	0.70 / 4.54 / 7.36	0.70 / 4.54 / 7.50	
		Current Input (Min/Std/Max)	Cooling	A	1.7 / 6.6 / 10.0	3.7 / 19.7 / 28.0	2.1 / 7.0 / 10.5	
			Heating	A	1.5 / 6.2 / 12.0	3.5 / 19.8 / 32.0	1.9 / 7.0 / 12.0	
		Current	MCA	A	18.6	34.5	18.6	
			MFA	A	18.6	40.0	18.6	
	Efficiency	EER	Cooling	-	2.89	2.97	2.97	
		COP	Heating	-	3.47	3.41	3.41	
		SEER (Cooling Energy Grade)		-	5.9 (A+)	6.1 (-)	6.1 (-)	
		SCOP (Heating Energy Grade)		-	4.0 (A+)	4.0 (-)	4.0 (-)	
		Pdesignh		kW	6.5	8.4	8.4	
	Piping Connections	Liquid Pipe		Type	Flare connection	Flare connection	Flare connection	
				Φ, mm (inch)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	
		Gas Pipe		Type	Flare connection	Flare connection	Flare connection	
				Φ, mm (inch)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	
		Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	
		Piping length (ODU-IDU)	Standard	Max.	m	5	5	5
				Elevation	m	30	30	30
				Chargeless	Min.	m	30	30
	Remark				-	F1, F2	F1, F2	F1, F2
Wiring connections	Communication		mm <sup>2</sup>	0.75	0.75	0.75		
			-	F1, F2	F1, F2	F1, F2		
Refrigerant	Type		-	R32	R32	R32		
	Factory Charging		kg	2.7	2.9	2.9		
			tCO <sub>2</sub> e	1.82	1.96	1.96		

# 1. Specification

## Big Ceiling

Indoor Unit	Model Name		Indoor Unit	AC120RNCDKG/EU	AC140RNCDKG/EU	AC140RNCDKG/EU	
			Outdoor Unit	AC120RXADNG/EU	AC140RXADKG/EU	AC140RXADNG/EU	
	Power Supply			Ø, #, V, Hz	1,2,220-240,50	1,2,220-240,50	1,2,220-240,50
	Heat Exchanger	Type		-	F&T	F&T	F&T
		Material	Fin	-	Al	Al	Al
			Tube	-	Cu	Cu	Cu
	Fin Treatment		-	Green Hydrophile	Green Hydrophile	Green Hydrophile	
	Fan	Type		-	Sirocco	Sirocco	Sirocco
		Quantity		EA	4	4	4
		Air Flow Rate	Cooling (H/M/L)	m <sup>3</sup> /min	30.0 / 24.0 / 20.0	34.0 / 27.0 / 23.0	34.0 / 27.0 / 23.0
				l/s	500 / 400 / 333	567 / 450 / 383	567 / 450 / 383
			Heating (H/M/L)	m <sup>3</sup> /min	32.0 / 26.0 / 22.0	34.0 / 27.0 / 23.0	34.0 / 27.0 / 23.0
	l/s			533 / 433 / 366	567 / 450 / 383	567 / 450 / 383	
	Fan Motor	Type		-	BLDC	BLDC	BLDC
		Output		W x n	244 x 1	244 x 1	244 x 1
	Drain	Drain Pipe		Φ, mm	VP-25(OD32, ID25)	VP-25(OD32, ID25)	VP-25(OD32, ID25)
	Sound	Sound Pressure Level	High/Mid/Low/(Silent)	dB(A)	44 / 41 / 37	46 / 42 / 38	46 / 42 / 38
		Sound Power Level		dB(A)	62	64	64
	External Dimension	Net Weight		kg	41.5	41.5	41.5
		Shipping Weight		kg	48.0	48.0	48.0
		Net Dimensions (WxHxD)		mm	1,650 x 235 x 675	1,650 x 235 x 675	1,650 x 235 x 675
		Shipping Dimensions (WxHxD)		mm	1,739 x 321 x 758	1,739 x 321 x 758	1,739 x 321 x 758
	Casing	Material		-	GI Steel Plate	GI Steel Plate	GI Steel Plate
	Control System	Infrared remote control		-	AR-EH03E	AR-EH03E	AR-EH03E
		Wired remote control		-	MWR-WE13N MWR-WG00*N	MWR-WE13N MWR-WG00*N	MWR-WE13N MWR-WG00*N
	Drain Pump	Drain Pump		-	-	-	-
		Max. lifting Height / Displacement		mm / Liter / h	-	-	-
	Additional Accessories	Drain Pump	External Model	-	-	-	-
Internal Model			-	-	-	-	
Max. lifting Height / Displacement			mm / Liter / h	-	-	-	
Air Filter		-	Removable / Washable	Removable / Washable	Removable / Washable		
Virus Doctor		-	Option	Option	Option		

# 1. Specification

## Big Ceiling

Model Name	Indoor Unit			AC120RNCDKG/EU	AC140RNCDKG/EU	AC140RNCDKG/EU
	Outdoor Unit			AC120RXADNG/EU	AC140RXADKG/EU	AC140RXADNG/EU
Power Supply	Ø, #, V, Hz			3, 4, 380-415, 50	1, 2, 220-240, 50	3, 4, 380-415, 50
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al	Al
		Tube	-	Cu	Cu	Cu
Fin Treatment		-	Anti-Corrosion	Anti-Corrosion	Anti-Corrosion	
Compressor	Model Name			UB5TN5450FJX	UB5TN5450FJX	UB5TN5450FJX
	Type			Twin BLDC	Twin BLDC	Twin BLDC
	Output			kW	4.25	4.25
	Oil	Type	-	POE	POE	POE
Initial charge		cc	1,700	1,700	1,700	
Fan	Type		-	Propeller	Propeller	Propeller
	Discharge direction		-	Front	Front	Front
	Quantity		EA	1	2	2
	Air Flow Rate		m <sup>3</sup> /min	72	110	110
l/s			1,200	1,833	1,833	
Fan Motor	Type			BLDC Motor	BLDC Motor	BLDC Motor
	Output			W x n	125 x 1	125 x 2
Sound	Sound Pressure Level	Cooling	dB(A)	54	53	53
		Heating	dB(A)	56	54	54
	Sound Power Level		dB(A)	70	69	69
External Dimension	Net Weight		kg	80.0	91.5	90.5
	Shipping Weight		kg	85.0	100.0	99.0
	Net Dimensions (WxHxD)		mm	940 x 998 x 330	940 x 1,210 x 330	940 x 1,210 x 330
	Shipping Dimensions (WxHxD)		mm	995 x 1,096 x 426	995 x 1,388 x 426	995 x 1,388 x 426
Casing	Material	Body	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate
		Operating Temp. Range			°C	-15 ~ 50
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

### Big Ceiling

#### Performance Characteristics

Model Code	Net Weight (kg)	Capacity			Fan Speed	Airflow (Cooling/Heating) (CMM)	Sound Pressure Level (dBA)	Sound Power Level (dBA)
		Cooling (kW)	Heating (kW)					
AC100RNCDKG/EU	41.5	Max.	12.00	15.50	High	26.0	42	60
		Std.	10.00	11.20	Mid	23.0	38	
		Min.	3.00	2.20	Low	19.0	34	
AC120RNCDKG/EU	41.5	Max.	13.50	16.50	High	30.0	44	62
		Std.	12.00	13.20	Mid	24.0	41	
		Min.	3.00	3.80	Low	20.0	37	
AC140RNCDKG/EU	41.5	Max.	15.50	18.00	High	34.0	46	64
		Std.	13.40	15.50	Mid	27.0	42	
		Min.	3.50	3.50	Low	23.0	38	

#### NOTE

- Sound data is based on cooling operation.

#### Electric Characteristics

Model		Outdoor Unit				Input Current (Amperes)				Power Supply	
Indoor Unit	Outdoor Unit	Rated	Voltage range			Outdoor Unit		Indoor Unit	Total	MCA(A)	MFA(A)
		Hz	Volts	Min.	Max.	Cooling	Heating				
AC100RNCDKG/EU	AC100RXADKG/EU	50	220 to 240	198	264	25.5	25.5	1.0	26.5	26.5	30.0
AC100RNCDKG/EU	AC100RXADNG/EU	50	380 to 415	342	456.5	17.6	17.6	1.0	18.6	18.6	18.6
AC120RNCDKG/EU	AC120RXADKG/EU	50	220 to 240	198	264	25.5	25.5	1.0	26.5	26.5	30.0
AC120RNCDKG/EU	AC120RXADNG/EU	50	380 to 415	342	456.5	17.6	17.6	1.0	18.6	18.6	18.6
AC140RNCDKG/EU	AC140RXADKG/EU	50	220 to 240	198	264	33.5	33.5	1.0	34.5	34.5	40.0
AC140RNCDKG/EU	AC140RXADNG/EU	50	380 to 415	342	456.5	17.6	17.6	1.0	18.6	18.6	18.6

#### NOTE

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

# 3. Capacity Table

## Big Ceiling

### (1) AC100RNCDKG/EU+AC100RXADKG/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	9.8	7.4	2.35	10.3	7.7	2.39	10.7	7.9	2.44	11.0	8.2	2.49	11.2	8.1	2.52	11.8	8.0	2.54	12.4	7.8	2.59
21	9.3	7.1	2.47	9.8	7.3	2.52	10.2	7.5	2.57	10.5	7.8	2.62	10.7	7.7	2.65	11.2	7.6	2.68	11.8	7.5	2.73
35	8.8	6.8	3.09	9.3	7.0	3.15	9.7	7.2	3.21	10.0	7.4	3.28	10.2	7.3	3.31	10.7	7.3	3.35	11.2	7.1	3.41
46	7.5	6.3	3.24	7.9	6.5	3.31	8.2	6.7	3.38	8.5	6.9	3.44	8.7	6.8	3.48	9.1	6.8	3.51	9.6	6.6	3.58
50	5.8	5.0	2.69	6.1	5.1	2.74	6.3	5.3	2.80	6.5	5.5	2.85	6.6	5.4	2.88	7.0	5.4	2.91	7.3	5.2	2.97

#### 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	7.9	4.31	7.8	4.27	7.7	4.23	7.7	4.18	7.6	4.14	7.5	4.10
-15	9.9	4.64	9.8	4.60	9.7	4.55	9.6	4.50	9.6	4.46	9.5	4.41
-5	11.2	4.97	11.1	4.92	11.0	4.88	10.9	4.83	10.8	4.78	10.7	4.73
0	11.7	3.98	11.5	3.94	11.4	3.90	11.3	3.86	11.2	3.82	11.1	3.78
7	11.4	3.32	11.3	3.28	11.2	3.25	11.1	3.22	11.0	3.19	10.9	3.15
24	14.9	3.81	14.7	3.77	14.6	3.74	14.4	3.70	14.3	3.66	14.1	3.63

#### NOTE

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

# 3. Capacity Table

## Big Ceiling

### (2) AC100RNCDKG/EU+AC100RXADNG/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	9.8	7.4	2.25	10.3	7.7	2.30	10.7	7.9	2.35	11.0	8.2	2.39	11.2	8.1	2.42	11.8	8.0	2.44	12.4	7.8	2.49
21	9.3	7.1	2.37	9.8	7.3	2.42	10.2	7.5	2.47	10.5	7.8	2.52	10.7	7.7	2.55	11.2	7.6	2.57	11.8	7.5	2.62
35	8.8	6.8	2.96	9.3	7.0	3.03	9.7	7.2	3.09	10.0	7.4	3.15	10.2	7.3	3.18	10.7	7.3	3.21	11.2	7.1	3.28
46	7.8	6.5	3.26	8.2	6.7	3.33	8.5	6.9	3.40	8.8	7.2	3.47	9.0	7.1	3.50	9.4	7.0	3.53	9.9	6.9	3.60
50	6.4	5.5	2.91	6.7	5.7	2.96	7.0	5.9	3.03	7.2	6.0	3.09	7.3	6.0	3.12	7.7	5.9	3.15	8.1	5.8	3.21

#### 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	7.9	4.24	7.8	4.20	7.7	4.16	7.7	4.12	7.6	4.08	7.5	4.04
-15	9.9	4.57	9.8	4.52	9.7	4.48	9.6	4.44	9.6	4.39	9.5	4.35
-5	11.2	4.90	11.1	4.85	11.0	4.80	10.9	4.75	10.8	4.70	10.7	4.66
0	11.7	3.92	11.5	3.88	11.4	3.84	11.3	3.80	11.2	3.76	11.1	3.73
7	11.4	3.26	11.3	3.23	11.2	3.20	11.1	3.17	11.0	3.14	10.9	3.10
24	14.9	3.75	14.7	3.72	14.6	3.68	14.4	3.64	14.3	3.61	14.1	3.57

#### NOTE

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

# 3. Capacity Table

## Big Ceiling

### (3) AC120RNCDKG/EU+AC120RXADKG/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	11.7	8.6	3.11	12.3	8.8	3.18	12.8	9.1	3.24	13.2	9.4	3.31	13.5	9.3	3.34	14.2	9.2	3.37	14.9	9.0	3.44
21	11.1	8.2	3.28	11.7	8.4	3.34	12.2	8.7	3.41	12.6	8.9	3.48	12.9	8.9	3.51	13.5	8.8	3.55	14.2	8.6	3.62
35	10.6	7.8	4.09	11.2	8.0	4.18	11.6	8.3	4.26	12.0	8.5	4.35	12.2	8.4	4.39	12.9	8.4	4.44	13.5	8.2	4.53
46	9.0	7.6	3.68	9.5	7.8	3.76	9.9	8.0	3.84	10.2	8.3	3.92	10.4	8.2	3.95	10.9	8.1	3.99	11.5	8.0	4.07
50	6.9	6.1	3.28	7.3	6.2	3.34	7.6	6.4	3.41	7.8	6.6	3.48	8.0	6.6	3.51	8.4	6.5	3.55	8.8	6.4	3.62

#### 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	9.3	5.08	9.2	5.03	9.1	4.98	9.0	4.93	8.9	4.88	8.8	4.83
-15	11.7	5.47	11.6	5.42	11.5	5.36	11.4	5.31	11.3	5.26	11.1	5.20
-5	13.2	5.67	13.1	5.61	12.9	5.55	12.8	5.50	12.7	5.44	12.6	5.39
0	13.7	4.69	13.6	4.64	13.5	4.60	13.3	4.55	13.2	4.50	13.1	4.46
7	13.5	3.91	13.3	3.87	13.2	3.83	13.1	3.79	12.9	3.75	12.8	3.72
24	17.5	4.49	17.3	4.45	17.2	4.40	17.0	4.36	16.8	4.32	16.7	4.27

#### NOTE

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

# 3. Capacity Table

## Big Ceiling

### (4) AC120RNCDKG/EU+AC120RXADNG/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	11.7	8.6	2.97	12.3	8.8	3.03	12.8	9.1	3.09	13.2	9.4	3.15	13.5	9.3	3.19	14.2	9.2	3.22	14.9	9.0	3.28
21	11.1	8.2	3.12	11.7	8.4	3.19	12.2	8.7	3.25	12.6	8.9	3.32	12.9	8.9	3.35	13.5	8.8	3.39	14.2	8.6	3.45
35	10.6	7.8	3.91	11.2	8.0	3.99	11.6	8.3	4.07	12.0	8.5	4.15	12.2	8.4	4.19	12.9	8.4	4.23	13.5	8.2	4.32
46	9.0	7.5	3.52	9.5	7.7	3.59	9.9	8.0	3.66	10.2	8.2	3.74	10.4	8.1	3.77	10.9	8.1	3.81	11.5	7.9	3.89
50	6.9	6.0	3.12	7.3	6.2	3.19	7.6	6.4	3.25	7.8	6.6	3.32	8.0	6.5	3.35	8.4	6.4	3.39	8.8	6.3	3.45

#### 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	9.3	5.04	9.2	4.99	9.1	4.94	9.0	4.89	8.9	4.84	8.8	4.79
-15	11.7	5.43	11.6	5.37	11.5	5.32	11.4	5.27	11.3	5.21	11.1	5.16
-5	13.2	5.62	13.1	5.57	12.9	5.51	12.8	5.45	12.7	5.40	12.6	5.35
0	13.7	4.65	13.6	4.61	13.5	4.56	13.3	4.51	13.2	4.47	13.1	4.42
7	13.5	3.88	13.3	3.84	13.2	3.80	13.1	3.76	12.9	3.72	12.8	3.69
24	17.5	4.46	17.3	4.41	17.2	4.37	17.0	4.33	16.8	4.28	16.7	4.24

#### NOTE

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

# 3. Capacity Table

## Big Ceiling

### (5) AC140RNCDKG/EU+AC140RXADKG/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	13.1	9.5	3.22	13.8	9.8	3.28	14.3	10.1	3.35	14.8	10.4	3.42	15.1	10.3	3.45	15.8	10.2	3.49	16.6	10.0	3.56
21	12.4	9.0	3.39	13.1	9.3	3.46	13.6	9.6	3.53	14.1	9.9	3.60	14.4	9.8	3.64	15.1	9.7	3.67	15.8	9.5	3.75
35	11.9	8.6	4.24	12.5	8.8	4.32	13.0	9.1	4.41	13.4	9.4	4.50	13.7	9.3	4.55	14.4	9.2	4.59	15.1	9.0	4.68
46	10.1	8.3	3.81	10.6	8.5	3.89	11.0	8.8	3.97	11.4	9.1	4.05	11.6	9.0	4.09	12.2	8.9	4.13	12.8	8.7	4.21
50	7.7	6.6	3.39	8.1	6.8	3.46	8.4	7.0	3.53	8.7	7.2	3.60	8.9	7.2	3.64	9.3	7.1	3.67	9.8	6.9	3.75

#### 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	10.3	5.09	10.2	5.04	10.1	4.99	10.0	4.94	9.9	4.89	9.8	4.85
-15	13.8	6.02	13.6	5.96	13.5	5.90	13.4	5.84	13.2	5.78	13.1	5.73
-5	15.5	6.48	15.3	6.42	15.2	6.36	15.0	6.29	14.9	6.23	14.7	6.17
0	16.1	5.56	16.0	5.50	15.8	5.45	15.7	5.39	15.5	5.34	15.3	5.29
7	15.8	4.63	15.7	4.59	15.5	4.54	15.3	4.49	15.2	4.45	15.0	4.41
24	20.6	5.33	20.4	5.27	20.2	5.22	19.9	5.17	19.7	5.12	19.6	5.07

#### NOTE

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

# 3. Capacity Table

## Big Ceiling

### (6) AC140RNCDKG/EU+AC140RXADNG/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	13.1	9.5	3.22	13.8	9.8	3.28	14.3	10.1	3.35	14.8	10.4	3.42	15.1	10.3	3.45	15.8	10.2	3.49	16.6	10.0	3.56
21	12.4	9.0	3.39	13.1	9.3	3.46	13.6	9.6	3.53	14.1	9.9	3.60	14.4	9.8	3.64	15.1	9.7	3.67	15.8	9.5	3.75
35	11.9	8.6	4.24	12.5	8.8	4.32	13.0	9.1	4.41	13.4	9.4	4.50	13.7	9.3	4.55	14.4	9.2	4.59	15.1	9.0	4.68
46	10.1	8.3	3.81	10.6	8.5	3.89	11.0	8.8	3.97	11.4	9.1	4.05	11.6	9.0	4.09	12.2	8.9	4.13	12.8	8.7	4.21
50	7.7	6.6	3.39	8.1	6.8	3.46	8.4	7.0	3.53	8.7	7.2	3.60	8.9	7.2	3.64	9.3	7.1	3.67	9.8	6.9	3.75

#### 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	10.3	5.09	10.2	5.04	10.1	4.99	10.0	4.94	9.9	4.89	9.8	4.85
-15	13.8	6.02	13.6	5.96	13.5	5.90	13.4	5.84	13.2	5.78	13.1	5.73
-5	15.5	6.48	15.3	6.42	15.2	6.36	15.0	6.29	14.9	6.23	14.7	6.17
0	16.1	5.56	16.0	5.50	15.8	5.45	15.7	5.39	15.5	5.34	15.3	5.29
7	15.8	4.63	15.7	4.59	15.5	4.54	15.3	4.49	15.2	4.45	15.0	4.41
24	20.6	5.33	20.4	5.27	20.2	5.22	19.9	5.17	19.7	5.12	19.6	5.07

#### NOTE

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



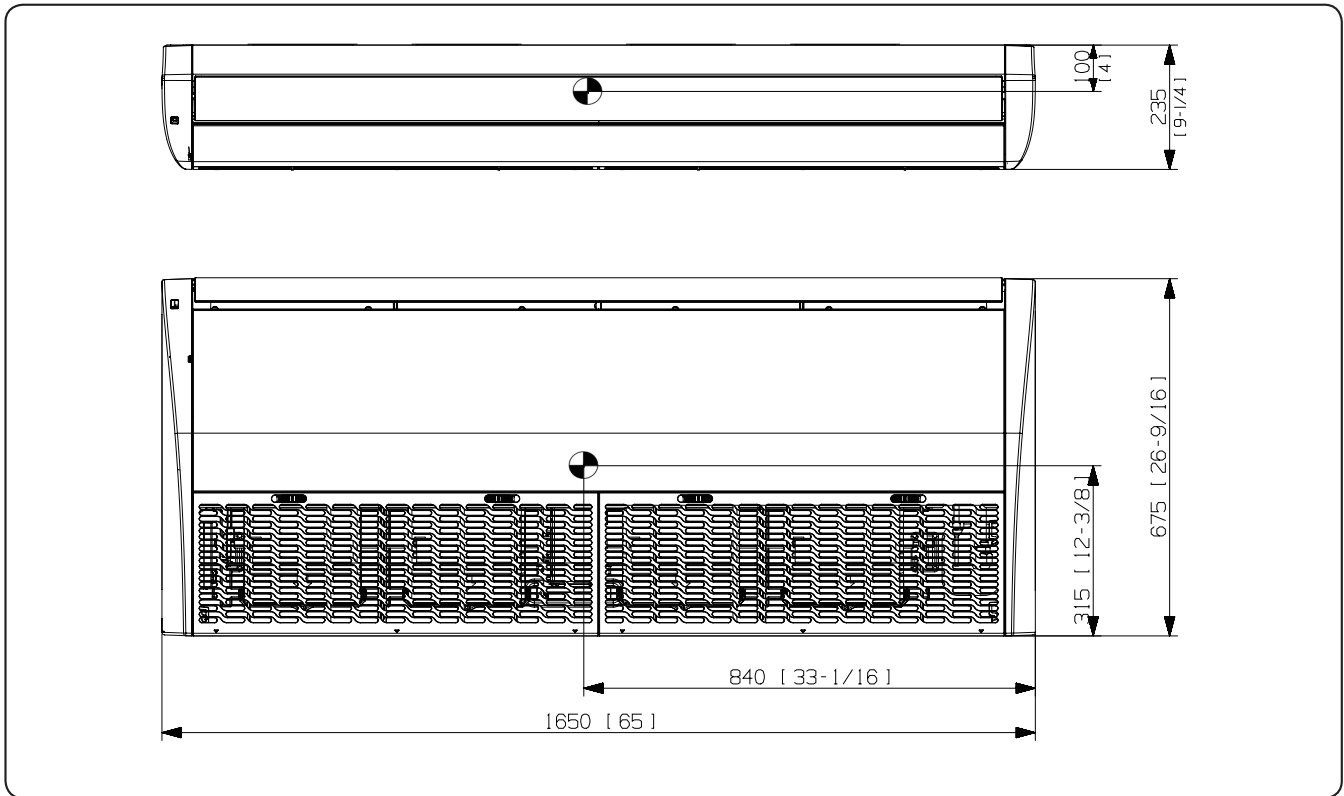


# 5. Center of Gravity

## Big Ceiling

AC100/120/140RNCDKG/EU

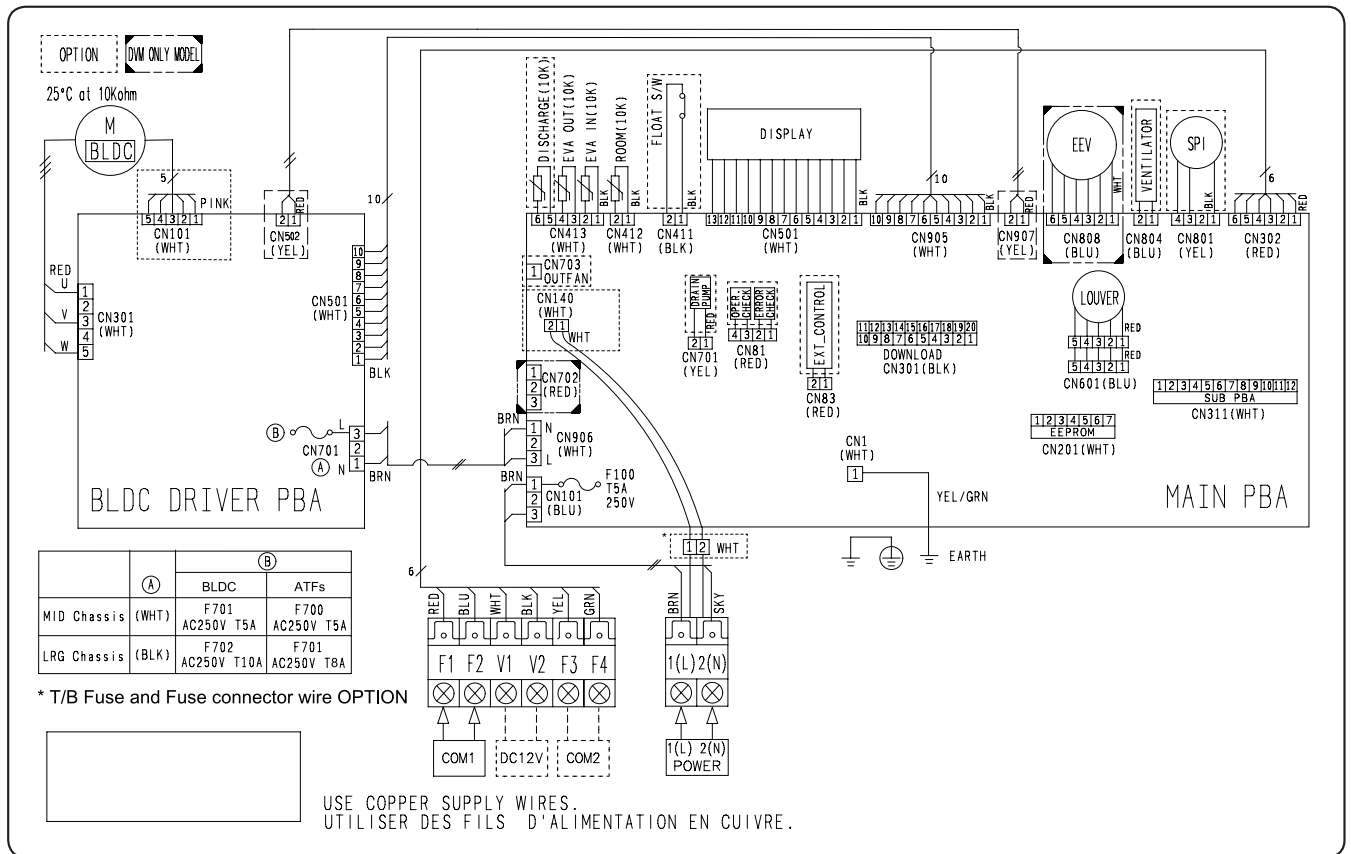
Units : mm [inches]



# 6. Electrical Wiring Diagram

## Big Ceiling

### AC100/120/140RNCDKG/EU



SPI	S-Plasma ion	EEV	Electronic Expansion Valve	ROOM	Thermistor ROOM in (10K)
M-BLDC	BLDC Motor	EVA-IN	Thermistor EVA IN(10K)	EVA-OUT	Thermistor EVA OUT(10K)

### NOTE

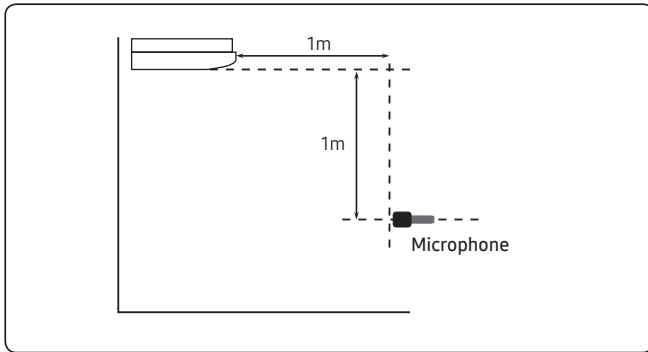
- This wiring diagram applies only to the Indoor unit.
- Symbols show as follow : blk: black, red: red, blu: blue, wht: white, yel: yellow, brn: brown, sky: skyblue: grn: green
- For connection wiring indoor-outdoor transmission F1-F2, indoor-wired remotecontroller transmission F3-F4.
- Protective earth(screw)

# 7. Sound Data

## Big Ceiling

### Sound Pressure level

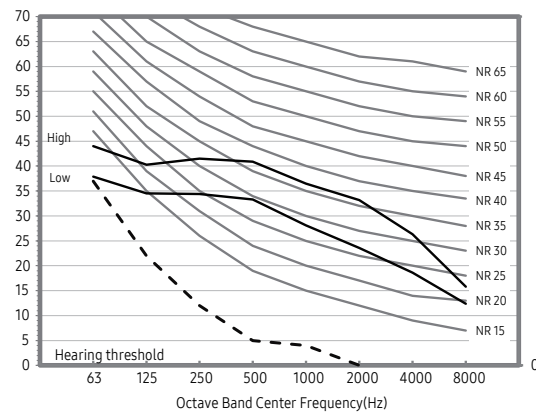
Unit: dB(A)



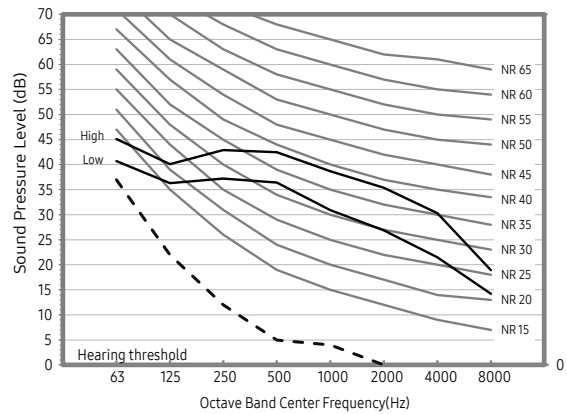
Model	HIGH	MID	LOW
AC100RNCDKG/EU	42	38	34
AC120RNCDKG/EU	44	41	37
AC140RNCDKG/EU	46	42	38

- NR Curve

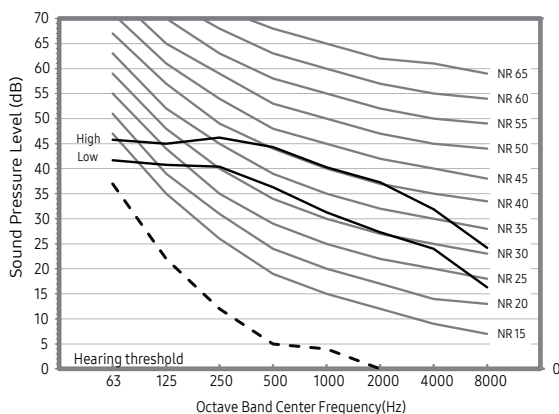
1) AC100RNCDKG/EU



2) AC120RNCDKG/EU



3) AC140RNCDKG/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.
  - dB(A) = A weighted sound pressure level
  - Reference acoustic pressure 0 dB = 20μPa

# 7. Sound Data

## Big Ceiling

### Sound Power level

**NOTE**

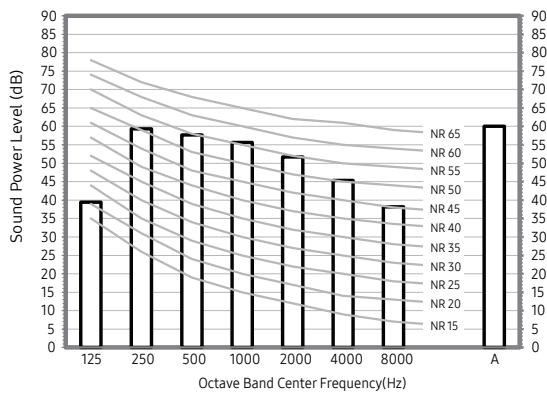
Unit: dB(A)

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

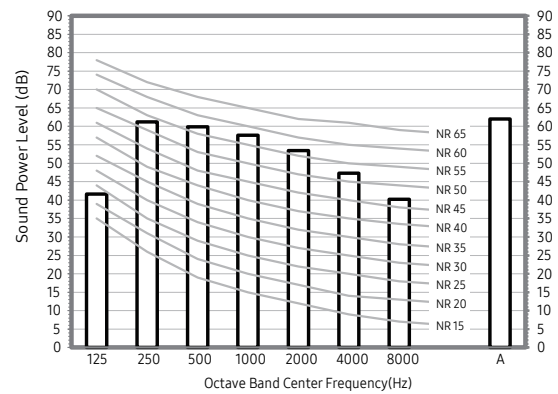
Model	Power
AC100RNCDKG/EU	60
AC120RNCDKG/EU	62
AC140RNCDKG/EU	64

• NR Curve

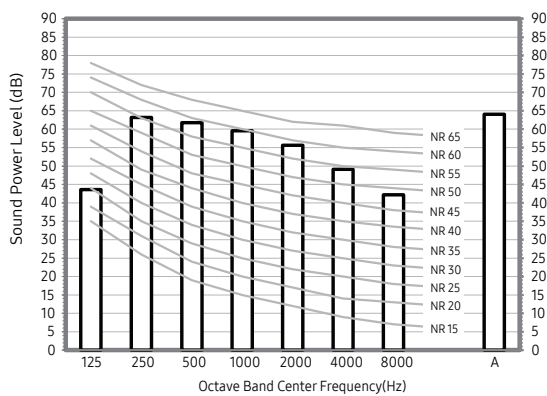
1) AC100RNCDKG/EU



2) AC120RNCDKG/EU



3) AC140RNCDKG/EU



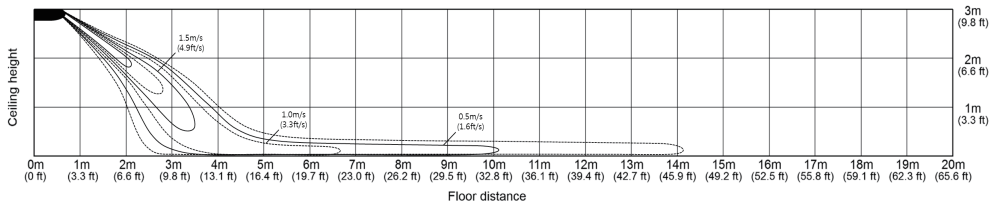
# 8. Temperature and air flow distribution

## Big Ceiling (Ceiling Installation Only)

### AC100RNCDKG/EU

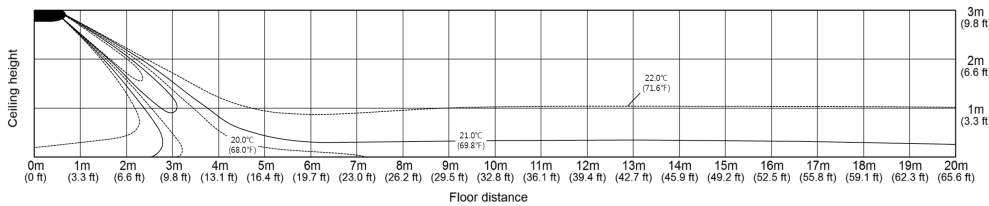
- Cooling Air Velocity distribution

(Discharge angle : 32 degree)



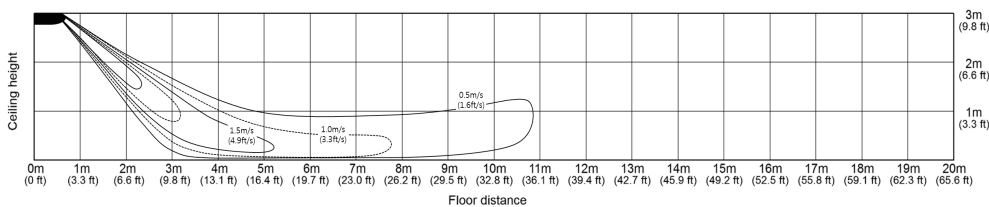
- Cooling temperature distribution

(Discharge angle : 32 degree)



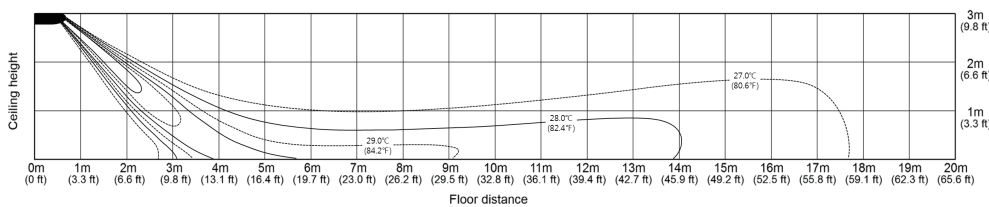
- Heating Air Velocity distribution

(Discharge angle : 32 degree)



- Heating temperature distribution

(Discharge angle : 32 degree)



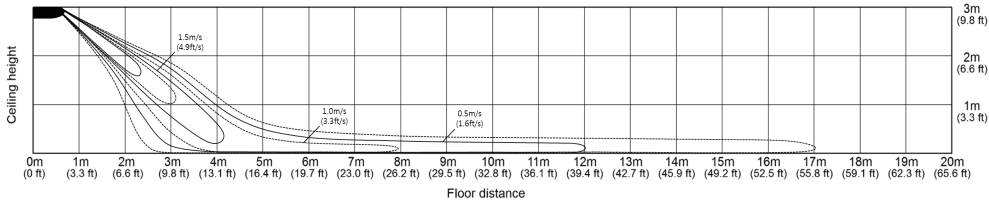
# 8. Temperature and air flow distribution

## Big Ceiling (Ceiling Installation Only)

### AC120RNCDKG/EU

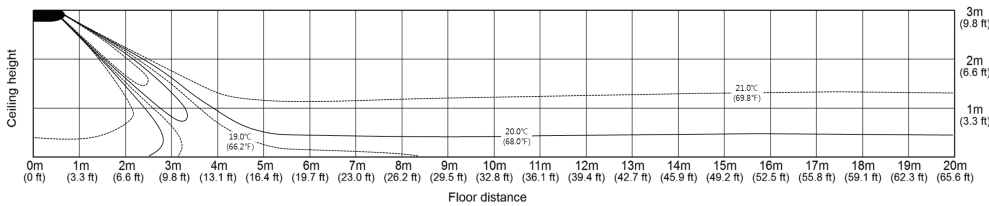
- Cooling Air Velocity distribution

(Discharge angle : 32 degree)



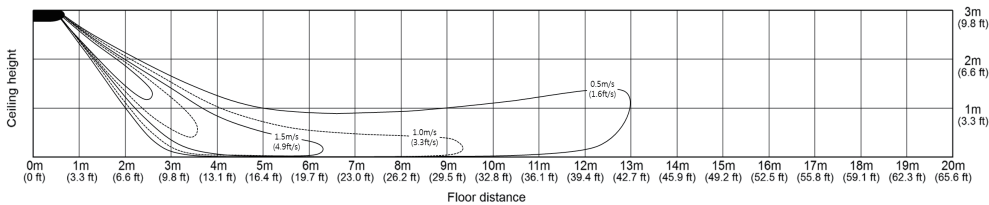
- Cooling temperature distribution

(Discharge angle : 32 degree)



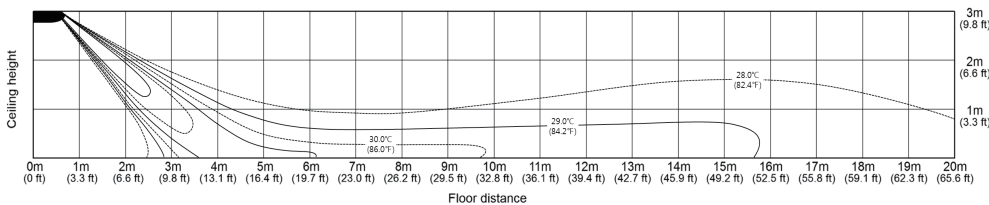
- Heating Air Velocity distribution

(Discharge angle : 32 degree)



- Heating temperature distribution

(Discharge angle : 32 degree)



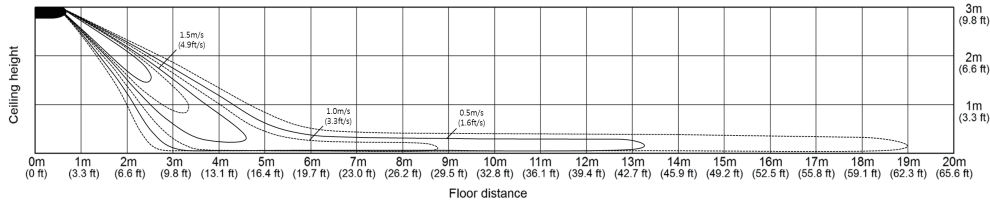
# 8. Temperature and air flow distribution

## Big Ceiling (Ceiling Installation Only)

### AC140RNCDKG/EU

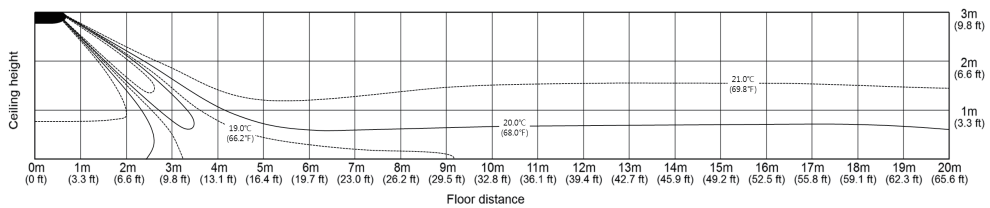
- Cooling Air Velocity distribution

(Discharge angle : 32 degree)



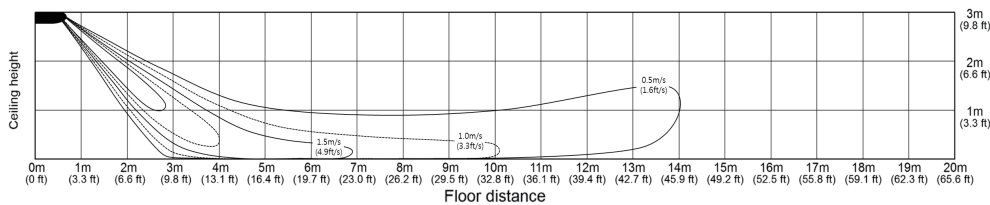
- Cooling temperature distribution

(Discharge angle : 32 degree)



- Heating Air Velocity distribution

(Discharge angle : 32 degree)



- Heating temperature distribution

(Discharge angle : 32 degree)

