

# 1. SPECIFICATIONS

EP-YLM

R2 (HIGH COP)

Model			PURY-EP200YLM-A (-BS)	PURY-EP260YLM-A (-BS)	
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		
Cooling capacity (Nominal)	*1	kW	22.4	28.0	
		kcal/h	20,000	25,000	
		BTU/h	76,400	95,500	
	Power input	kW	5.48	7.25	
		Current input	A	9.2-8.7-8.4	12.2-11.6-11.2
		EER	kW/kW	4.08	3.86
Temp. range of cooling	*3 Indoor	W.B.	15.0-24.0°C (59-75°F)	15.0-24.0°C (59-75°F)	
	Outdoor	D.B.	-5.0-46.0°C (23-115°F)	-5.0-46.0°C (23-115°F)	
Heating capacity (Nominal)	*2	kW	25.0	31.5	
		kcal/h	21,500	27,100	
		BTU/h	85,300	107,500	
	Power input	kW	6.41	8.45	
		Current input	A	10.8-10.2-9.9	14.2-13.5-13.0
		COP	kW/kW	3.90	3.72
Temp. range of heating	*3 Indoor	D.B.	15.0-27.0°C (59-81°F)	15.0-27.0°C (59-81°F)	
	Outdoor	W.B.	-20.0-15.5°C (-4-60°F)	-20.0-15.5°C (-4-60°F)	
Indoor unit connectable	Total capacity		50-150%	50-150% of outdoor unit capacity	
	Model/Quantity		P15-P250/1-20	P15-P250/1-25	
Sound pressure level (measured in anechoic room)		dB <A>	59	60	
Sound power level (measured in anechoic room)		dB <A>	82.5	83.5	
Refrigerant piping diameter	High pressure	mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed	
	Low pressure	mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed	
FAN	Type x Quantity		Propeller fan x 1		
	Air flow rate	m <sup>3</sup> /min	185	185	
		L/s	3,083	3,083	
		cfm	6,532	6,532	
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		
	Motor output	kW	0.92 x 1	0.92 x 1	
	*4 External static press.		0 Pa (0 mmH <sub>2</sub> O)		
Compressor	Type x Quantity		Inverter scroll hermetic compressor		
	Manufacture		AC&R Works, MITSUBISHI ELECTRIC CORPORATION		
	Starting method		Inverter		
	Motor output	kW	5.6	6.9	
	Case heater	kW	- (- V)	- (- V)	
	Lubricant		MEL32		
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension H x W x D		mm	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740	
		in.	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection		
	Compressor		Over-heat protection		
	Fan motor		Over-current protection		
Refrigerant	Type x original charge		R410A x 8.5 kg (19 lbs)		
	Control		Indoor LEV and BC controller		
Net weight	kg (lbs)	218 (481)	218 (481)		
Heat exchanger			Salt-resistant cross fin & aluminium tube		
HIC circuit (HIC: Heat Inter-Changer)			-		
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle, Hot gas)		
Drawing	External		WKJ94L363	WKJ94L363	
	Wiring		WKE94C948	WKE94C948	
Standard attachment	Document		Installation Manual	Installation Manual	
	Accessory		Refrigerant conn. pipe	Refrigerant conn. pipe	
Optional parts			Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 BC controller: CMB-P104, 105, 106, 108, 1010, 1013, 1016V-G1 Main BC controller: CMB-P108, 1010, 1013, 1016V-GA1 Sub BC controller: CMB-P104, 108V-GB1, CMB-P1016V-HB1	
Remarks			Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice.		

**Notes:**

- Nominal cooling conditions (subject to JIS B8615-1)  
Indoor: 27°C D.B./19°C W.B. (81°F D.B./68°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-1)  
Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./8°C W.B. (45°F D.B./43°F W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- 5°C D.B. (23°F D.B.)/6°C W.B. (21°F W.B.) to 21°C D.B. (70°F D.B.)/15.5°C W.B. (60°F W.B.)  
with cooling/heating mixed operation.
- External static pressure option is available (30 Pa, 60 Pa/3.1 mmH<sub>2</sub>O, 6.1 mmH<sub>2</sub>O).

**Unit converter**

BTU/h	=kW x 3.412
cfm	=m <sup>3</sup> /min x 35.31
lbs	=kg/0.4536

\*Above specification data is subject to rounding variation.

R2 (HIGH COP)

PURY-EP200, 250YLM-A (-BS)

Unit : mm

- <Accessories>  
 •Connecting pipe  
 <Low pressure>  
 •Pipe (ID $\phi$ 28.58 $\times$ OD $\phi$ 22.2) ... EP200, EP250 1pc.  
 •Pipe (ID $\phi$ 22.2 $\times$ OD $\phi$ 19.05) ... EP200 1pc.  
 •Elbow (ID $\phi$ 28.58 $\times$ OD $\phi$ 28.58) ... EP200, EP250 1pc.  
 <High pressure>  
 •Pipe (ID $\phi$ 25.4 $\times$ ID $\phi$ 15.88) ... EP200 1pc.  
 •Pipe (ID $\phi$ 25.4 $\times$ OD $\phi$ 15.88) ... EP200 1pc.  
 •Pipe (ID $\phi$ 25.4 $\times$ ID $\phi$ 19.05) ... EP250 1pc.  
 •Pipe (ID $\phi$ 25.4 $\times$ OD $\phi$ 19.05) ... EP250 1pc.

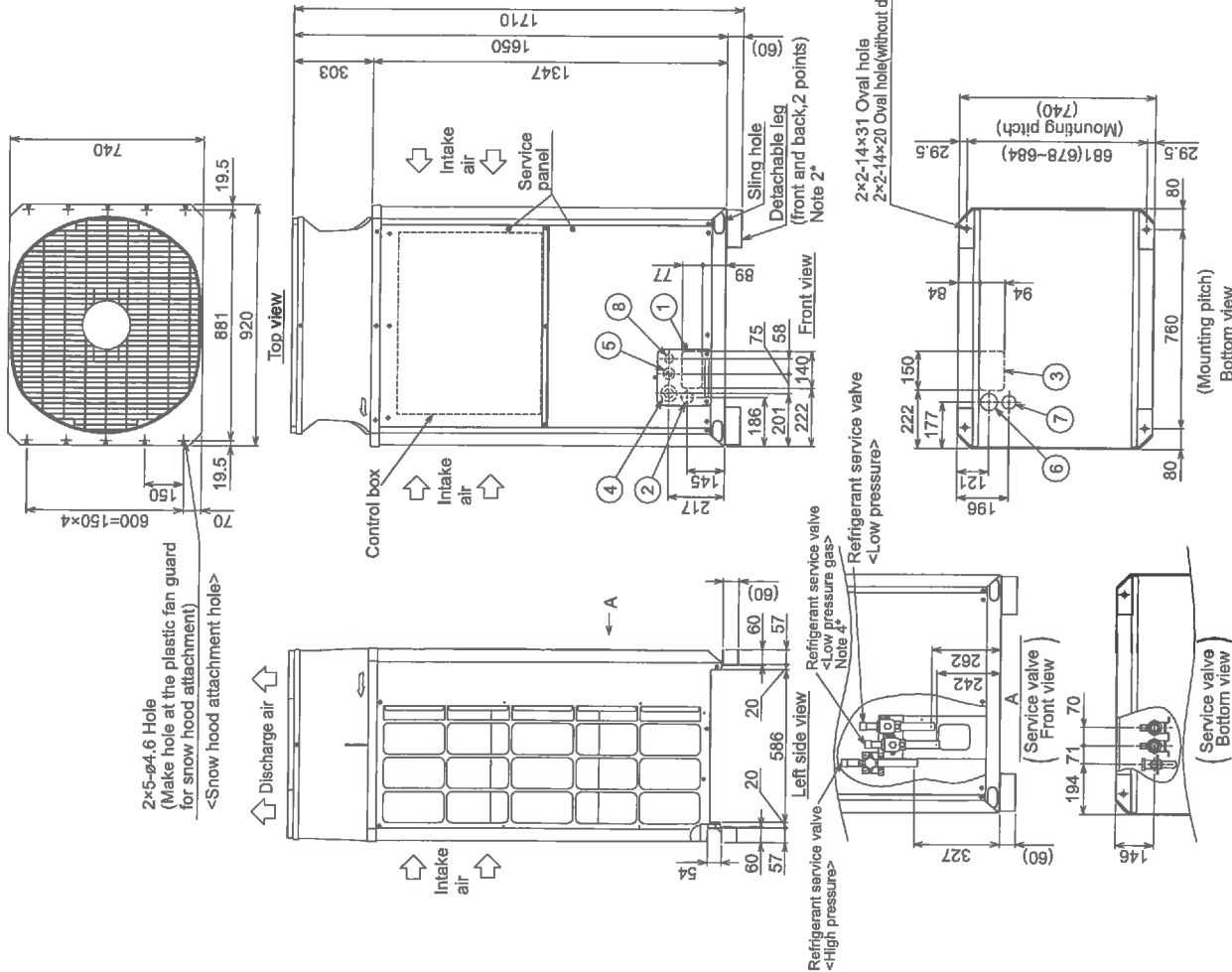
Note 1. Please refer to the next page for information regarding necessary spacing around the unit and foundation work.  
 2. The detachable leg can be removed at site.  
 3. At brazing of pipes, wrap the refrigerant service valve with wet cloth and keep the temperature of refrigerant service valve under 120°C.  
 4. Used only when a separately-sold unit is attached. Refer to the Installation Manual of the unit for details.

Connecting pipe specifications

Model	Refrigerant pipe		Service valve	
	High pressure	Low pressure	High pressure	Low pressure
PURY-EP200YLM-A(-BS)	$\phi$ 15.88 Brazed *1	$\phi$ 19.05 Brazed *1	$\phi$ 25.4	$\phi$ 28.58
PURY-EP250YLM-A(-BS)	$\phi$ 18.05 Brazed *1	$\phi$ 22.2 Brazed *1		

\*1 Use the included connecting pipe and connect to the refrigerant service valve piping.

NO.	Usage	Specifications
①	Front through hole	140 $\times$ 77 Knockout hole
②	For pipes	Front through hole (Uses when twinning kit (optional parts) is mounted.)
		Bottom through hole
③	Bottom through hole	150 $\times$ 94 Knockout hole
④	Front through hole	$\phi$ 65 or $\phi$ 40 Knockout hole
⑤	Front through hole	$\phi$ 52 or $\phi$ 27 Knockout hole
⑥	Bottom through hole	$\phi$ 65 Knockout hole
⑦	Bottom through hole	$\phi$ 52 Knockout hole
⑧	For transmission cables	Front through hole $\phi$ 34 Knockout hole



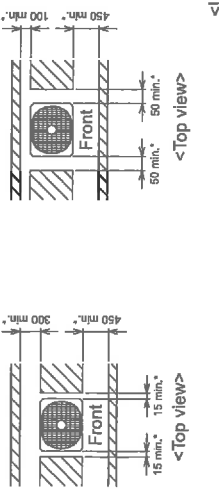
PURY-EP200, 250YLM-A (-BS)

Unit : mm

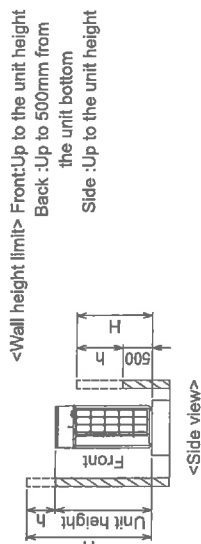
1. Required space around the unit

● In case of single installation

- ① Secure enough space around the unit as shown in the figure below.
  - With a space of at least 300mm to the wall on the back of the unit



- ② When the height of the walls on the front, back or on the sides<H> exceeds the wall height limit as defined below, add the height that exceeds the height limit <h> to the figures that are marked with an asterisk.



<Wall height limit> Front:Up to the unit height  
Back :Up to 500mm from the unit bottom  
Side :Up to the unit height

2. Foundation work

- ① Take into consideration the surface strength, water drainage route, piping route, and wiring route when preparing the installation site.
  - <Note that the drain water comes out of the unit during operation.>
- ② Build the foundation in such way that the corner of the installation leg is securely supported as shown in the right figure.(Fig.A,B)
  - When using a rubber isolating cushion, please ensure it is large enough to cover the entire width of each of the unit's legs.
- ③ The protrusion length of the anchor bolt must not exceed 30mm.(Fig.A,B)
- ④ Use four fixing plates as shown in the right figure <field supply required> when using post-installed anchor bolts.(Fig.C,D)
- ⑤ To prevent small animals and water and snow from entering the unit and damaging its parts, close the gap around the edges of through holes for pipes and wires with filler plates <field supply required>.
- ⑥ When the pipes or cables are routed at the bottom of the unit, make sure that the through hole at the base of the unit does not get blocked with the installation base.
- ⑦ Refer to the Installation Manual when installing units on an installation base.

● In case of collective installation

- ① When multiple units are installed adjacent to each other, secure enough space to allow for air circulation and walkway between groups of units as shown in the figures below.
- ② At least two sides must be left open.
- ③ As with the single installation, add the height that exceeds the height limit<h> to the figures that are marked with an asterisk.
- ④ If there is a wall at both the front and the rear of the unit, install up to six units consecutively in the side direction and provide a space of 1000mm or more as inlet space/ passage space for each six units.

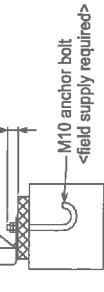
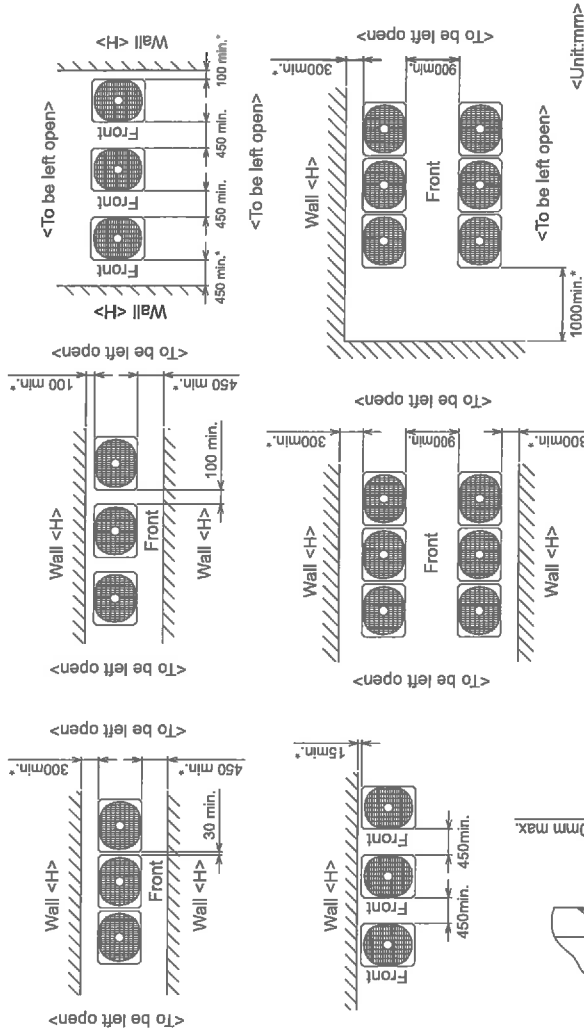


Fig.A (without detachable legs)

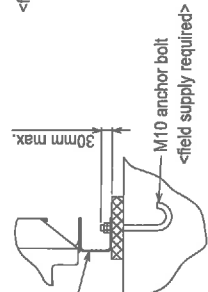


Fig.B (with detachable legs)

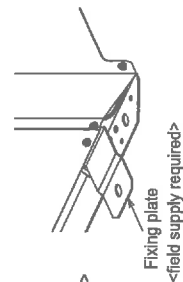


Fig.C (without detachable legs)

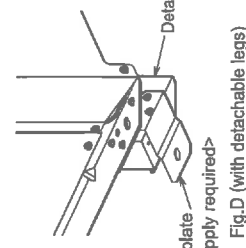
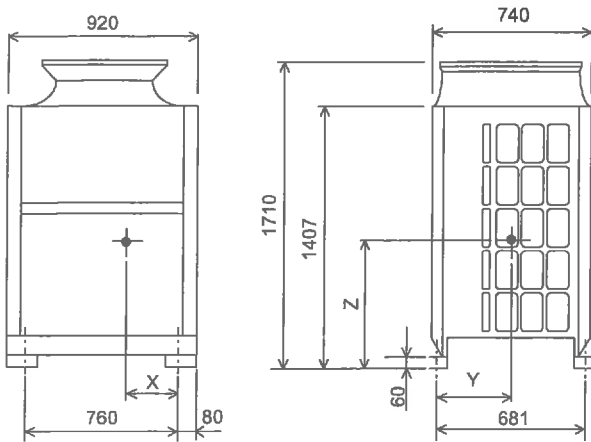


Fig.D (with detachable legs)

R2 (HIGH COP)

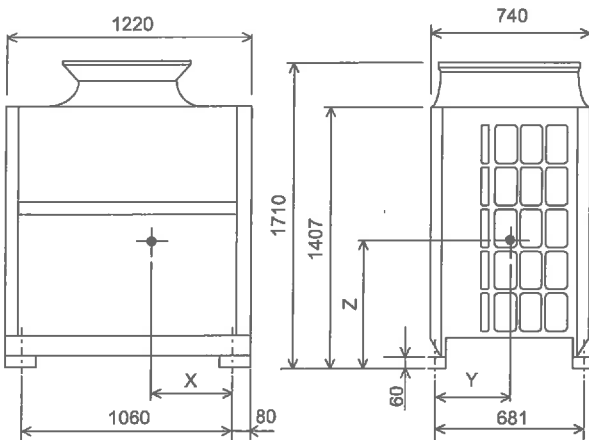
PURY-EP200, 250YLM-A (-BS)



Unit : mm

Model	X	Y	Z
PURY-EP200YLM-A(-BS)	352	314	701
PURY-EP250YLM-A(-BS)	352	314	701

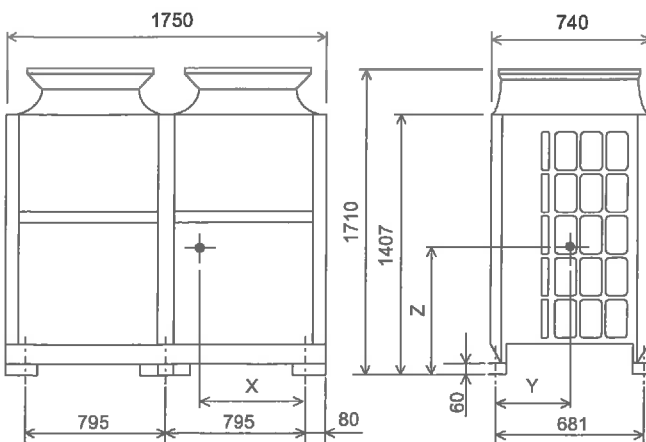
PURY-EP300, 350YLM-A (-BS)



Unit : mm

Model	X	Y	Z
PURY-EP300YLM-A(-BS)	467	318	670
PURY-EP350YLM-A(-BS)	467	318	670

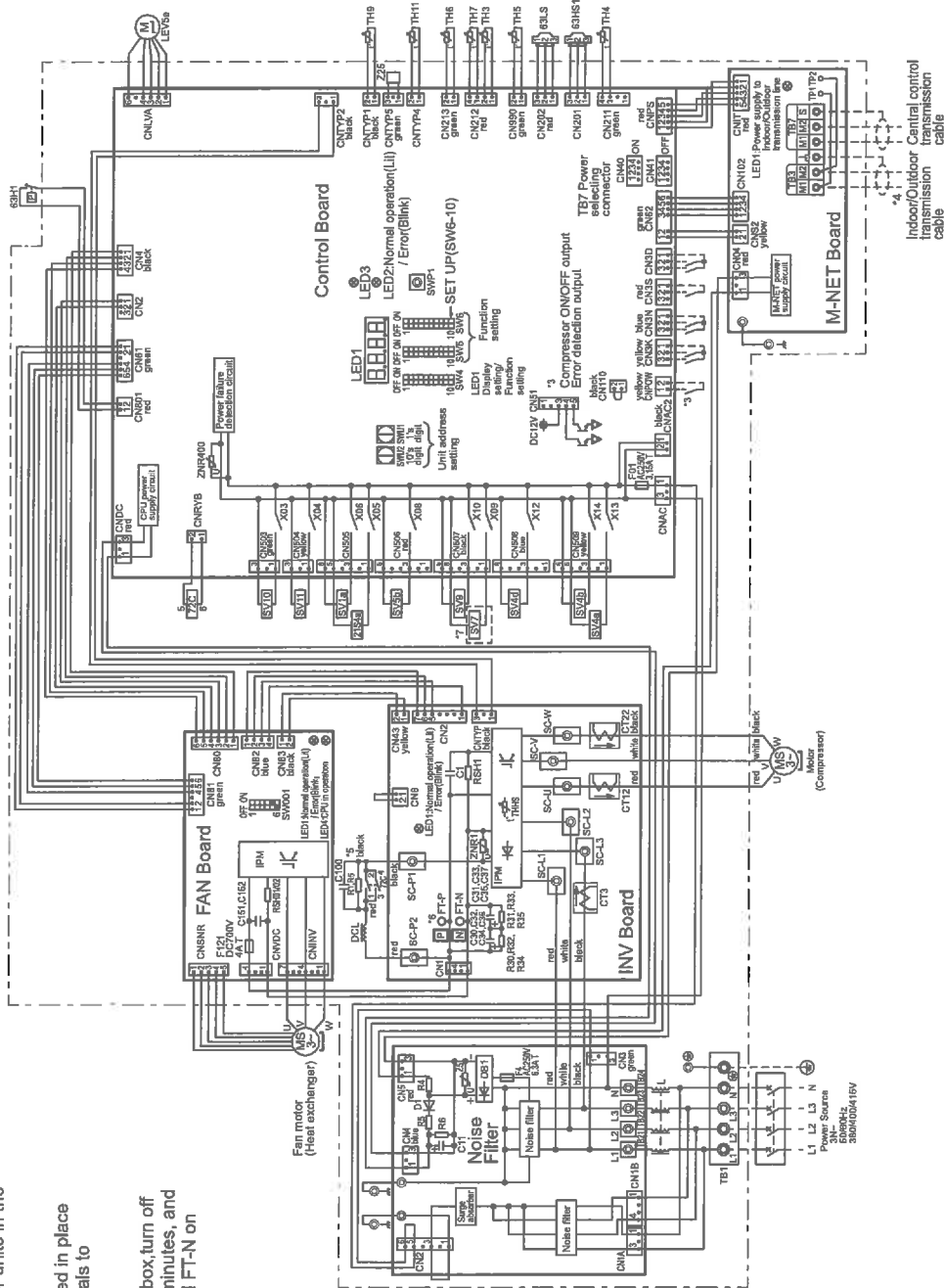
PURY-EP400, 450, 500YLM-A (-BS)



Unit : mm

Model	X	Y	Z
PURY-EP400YLM-A(-BS)	727	339	728
PURY-EP450YLM-A(-BS)	727	339	728
PURY-EP500YLM-A(-BS)	738	334	751

PURY-EP200, 250, 300, 350YLM-A(-BS)



R2 (HIGH COP)

- \*1. Single-dotted lines indicate wiring not supplied with the unit.
- \*2. Dot-dash lines indicate the control box boundaries.
- \*3. Refer to the Data book for connecting input/output signal connectors.
- \*4. Daisy-chain terminals (TB3) on the outdoor units in the same refrigerant system together.
- \*5. Faston terminals have a locking function. Make sure the terminals are securely locked in place after insertion. Press the tab on the terminals to removed them.
- \*6. Control box houses high-voltage parts. Before inspecting the inside of the control box, turn off the power, keep the unit off for at least 10 minutes, and confirm that the voltage between FT-P and FT-N on INV Board has dropped to DC20V or less.
- \*7. Difference of appliance.

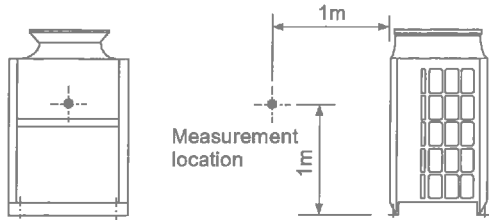
Model name	appliance
EP200/250/300/350/400	L7 do not exist
EP200/250/300/350	L7 exist

<Symbol explanation>

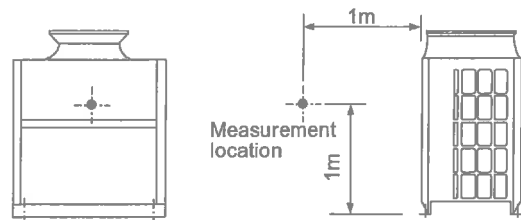
Symbol	Explanation
Z1S4a	4-way valve(Cooling/heating switching)
63H1	Pressure switch
63HS1	High pressure protection for the outdoor unit
63LS	Discharge pressure
72C	Pressure sensor
72C-C37	Low pressure
C12,C12/C73	Magnetic relay/inverter main circuit
C12,C12/C73	Coupled relay/inverter main circuit
DCL	Current sensor(CS)
L	DC reactor
LEV5b	Choke coil (for high frequency noise reduction)
R1.5	Linear expansion valve (for the control of evaporating temperature)
RSH102,RSH1	Resistor
SV1a	For inrush current prevention
SV4a,b,d	For opening/closing the bypass circuit under the O/S
SV5b	Heat exchanger capacity control
SV7,SV9	Outdoor unit heat exchanger capacity control
SV10,SV11	For opening/closing the bypass circuit
TB1	For opening/closing the deinvest circuit
TB3	Power supply
TB7	Indoor/Outdoor transmission cable
TH3	Central control transmission cable
TH4	Pipe temperature
TH5	Discharge pipe temperature
TH6	ACC inlet pipe temperature
TH7	Subcooled liquid refrigerant temperature
TH8,TH11	OA temperature
TH14	Heat exchanger coil pipe temperature
TH15	IPM temperature
Z25	Function setting connector

R2 (HIGH COP)

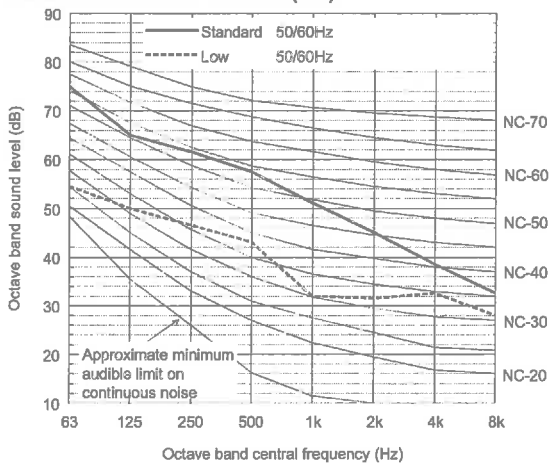
Measurement condition  
PURY-EP200, 250YLM-A(-BS)



Measurement condition  
PURY-EP300, 350YLM-A(-BS)



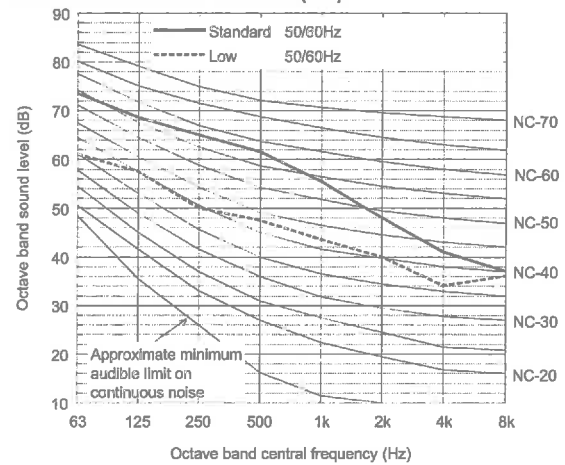
Sound level of PURY-EP200YLM-A(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	75.0	65.0	61.5	57.5	51.0	45.0	38.5	32.5	59.0
Low noise mode	50/60Hz	54.5	50.0	46.5	43.0	32.0	31.5	32.5	28.0	44.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

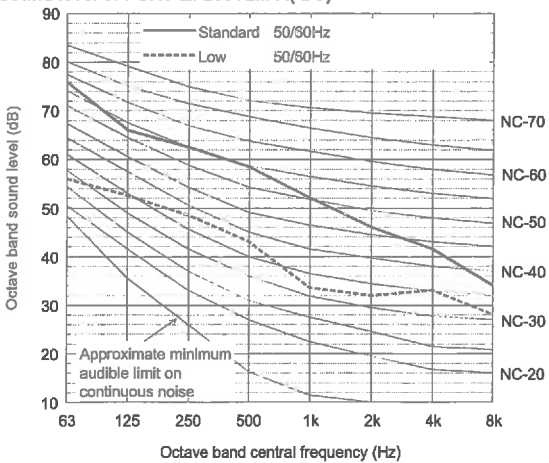
Sound level of PURY-EP300YLM-A(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	73.5	68.5	65.0	61.5	55.5	48.0	41.0	37.0	62.5
Low noise mode	50/60Hz	61.0	57.5	50.0	47.5	43.5	40.0	34.0	36.0	50.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

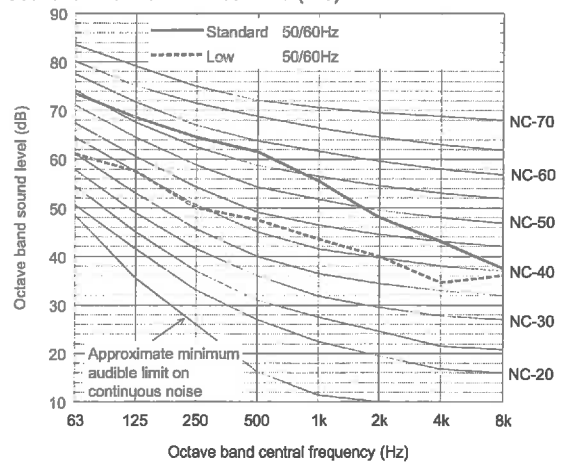
Sound level of PURY-EP250YLM-A(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	76.0	66.0	62.5	58.5	52.0	46.0	41.5	34.0	60.0
Low noise mode	50/60Hz	56.0	52.5	48.5	43.0	33.5	32.0	33.0	28.0	45.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

Sound level of PURY-EP350YLM-A(-BS)



		63	125	250	500	1k	2k	4k	8k	dB(A)
Standard	50/60Hz	73.5	68.5	64.5	61.5	55.5	48.0	43.0	37.5	62.5
Low noise mode	50/60Hz	61.0	57.5	50.0	47.5	43.5	40.0	34.5	36.0	50.0

When Low noise mode is set, the A/C system's capacity is limited. The system could return to normal operation from Low noise mode automatically in the case that the operation condition is severe.

• Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

[PURY-EP200-500YLM, PURY-EP550-900YSLM]

Measurement condition

Measurement frequency: 1 Hz-80 Hz

Measurement point: Ground surface 20 cm away from the unit leg

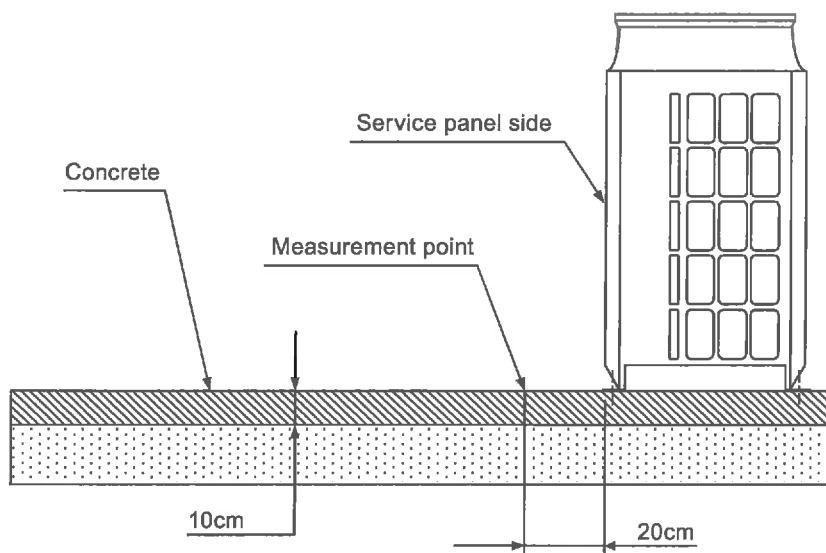
Installation condition: Direct installation on the concrete floor

Power source: 3-phase 4-wire 380-400-415 V 50/60 Hz

Operation condition: JIS condition (cooling, heating)

Measurement device: Vibration level meter for vibration pollution VM-1220C (JIS-compliant product)

R2 (HIGH COP)



Vibration level

Model	Vibration level (dB)
PURY-EP200YLM-A (-BS)	45
PURY-EP250YLM-A (-BS)	46
PURY-EP300YLM-A (-BS)	47
PURY-EP350YLM-A (-BS)	47
PURY-EP400YLM-A (-BS)	47
PURY-EP450YLM-A (-BS)	47
PURY-EP500YLM-A (-BS)	48
PURY-EP550YSLM-A (-BS)	49.5
PURY-EP600YSLM-A (-BS)	50
PURY-EP650YSLM-A (-BS)	50
PURY-EP700YSLM-A (-BS)	50
PURY-EP750YSLM-A (-BS)	50
PURY-EP800YSLM-A (-BS)	50
PURY-EP850YSLM-A (-BS)	50
PURY-EP900YSLM-A (-BS)	50