



E1 TYPE HIGH STATIC PRESSURE DUCTED // CONCEALED DUCT HIGH-STATIC PRESSURE

The E1 range of ducted units offers improved design flexibility for extended duct layouts as a result of their increased external static pressures.

environmentally friendly refrigerant

R410A

easy maintenance

SELF-DIAGNOSING

for more comfort

AUTOMATIC FAN

perfect humidity control

MILD DRY

practical operation

AUTOMATIC RESTART

MODEL NAME		S-73ME1E5	S-106ME1E5	S-140ME1E5	S-224ME1E5	S-280ME1E5
Power source		220/230/240 V, 1 phase - 50, 60 Hz				220/230/240 V, 1 phase - 50 Hz
Cooling capacity	kW	7.3	10.6	14.0	22.4	28.0
	BTU/h	25,000	36,000	47,800	76,400	95,500
Heating capacity	kW	8.0	11.4	16.0	25.0	31.5
	BTU/h	27,000	39,000	54,600	85,300	107,500
Power input	Cooling kW	0.480/0.505/0.530	0.520/0.545/0.570	0.600/0.660/0.710	0.870/0.900/0.930	1.270/1.330/1.390
	Heating kW	0.480/0.505/0.530	0.520/0.545/0.570	0.600/0.660/0.710	0.870/0.900/0.930	1.270/1.330/1.390
Running current	Cooling A	2.29/2.30/2.31	2.46/2.46/2.47	2.80/2.90/3.00	4.05/4.06/4.07	6.04/6.06/6.07
	Heating A	2.29/2.30/2.31	2.46/2.46/2.47	2.80/2.90/3.00	4.05/4.06/4.07	6.04/6.06/6.07
Fan	Type	Sirocco fan				
	Air flow rate (H/M/L) m ³ /h	1,380/1,320/1,260	1,800/1,680/1,500	2,160/2,100/1,980	3,360/3,190/2,980	4,320/4,200/3,960
	Motor output kW	0.2	0.2	0.35	0.2	0.4
	External static pressure Pa	186	176	167	176	216 (235) ¹
Sound power level (L/M/H) dB		53/54/55	53/55/56	55/57/58	57/58/59	60/61/62
Sound pressure level (L/M/H) dB(A)		42/43/44	42/44/45	44/46/47	46/47/48	49/50/51 (50/51/52) ¹
Dimensions	H x W x D mm	420 x 1,065 x 620		450 x 1,065 x 620	467 x 1,428 x 1,230	467 x 1,428 x 1,230
Pipe connections	Liquid inches (mm)	3/8 (Ø9.52)		3/8 (Ø9.52)	3/8 (Ø9.52)	3/8 (Ø9.52)
	Gas inches (mm)	5/8 (Ø15.88)		5/8 (Ø15.88)	3/4 (Ø19.05)	7/8 (Ø22.22)
	Drain piping	VP-25		VP-25	VP-25	VP-25
Net weight	kg	47	50	54	110	120

¹ With booster cable.

GLOBAL REMARKS	Rated conditions:	
	Cooling	Heating
	Indoor air temperature	27°C DB / 19°C WB
Outdoor air temperature	35°C DB / 24°C WB	7°C DB / 6°C WB

Specifications subject to change without notice.

8. High Static Pressure Ducted Type (E1 Type)

8-1. Specifications

Unit specifications (A)

MODEL No.		Indoor Unit		S-73ME1E5				
POWER SOURCE				220 - 230 - 240 V, single-phase, 50/60 Hz				
PERFORMANCE				Cooling			Heating	
Capacity	kW		7.3			8.0		
	BTU / h		25,000			27,000		
Air circulation (Hi / Me / Lo)		m ³ / h	1,380 / 1,320 / 1,260					
Moisture removal (High)		Liters / h	3.1			-		
External static pressure (High)		Pa (mmAq)	186 (19)					
ELECTRICAL RATINGS								
Voltage rating		V	220	230	240	220	230	240
Available voltage range		V	198 - 264			198 - 264		
Running amperes		A	2.29	2.30	2.31	2.29	2.30	2.31
Power input		W	480	505	530	480	505	530
Power factor		%	95	95	96	95	95	96
Max. starting amperes		A	3	3	3	3	3	3
FEATURES								
Controls		Microprocessor						
Timer		ON / OFF Timer (Max. 72 hr)						
Fan speeds		3 and Automatic control						
Air filter		Field supply						
Refrigerant control		Electronic expansion valve						
Operation sound (Hi / Me / Lo)		dB-A	44 / 43 / 42					
Refrigerant tubing connections		Flare type						
Refrigerant tube diameter	Liquid tube	mm (in.)	9.52 (3 / 8)					
	Gas tube	mm (in.)	15.88 (5 / 8)					
Drain connection		25 A, Male screw						
Remote controller		Optional (Wired / Wireless)						
Refrigerant tubing kit / Accessories		Optional / -						
Color (Approximate value)		-						
DIMENSIONS & WEIGHT				Unit dimensions		Package dimensions		
Unit dimensions	Height	mm (in.)	420 (16-17 / 32)			513 (20-3 / 16)		
	Width	mm (in.)	1065 (41-15 / 16)			1148 (45-3 / 16)		
	Depth	mm (in.)	620 (24-13 / 32)			713 (28-1 / 16)		
Net weight		kg (lbs.)	47 (104)					
Shipping weight		kg (lbs.)	61 (134)					
Shipping volume		m ³ (cu.ft)	0.420 (14.8)					

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Rated conditions

Cooling: Indoor air temperature 27°C DB / 19°C WB; Outdoor air temperature 35°C DB

Heating: Indoor air temperature 20°C DB; Outdoor air temperature 7°C DB / 6°C WB

8. High Static Pressure Ducted Type (E1 Type)

Unit specifications (B)

MODEL No.	Indoor Unit		S-106ME1E5					
POWER SOURCE			220 - 230 - 240 V, single-phase, 50/60 Hz					
PERFORMANCE			Cooling			Heating		
Capacity	kW		10.6			11.4		
	BTU / h		36,000			39,000		
Air circulation (Hi / Me / Lo)		m ³ / h	1,800 / 1,680 / 1,500					
Moisture removal (High)		Liters / h	4.4			-		
External static pressure (High)		Pa (mmAq)	176 (18)					
ELECTRICAL RATINGS								
Voltage rating		V	220	230	240	220	230	240
Available voltage range		V	198 - 264			198 - 264		
Running amperes		A	2.46	2.46	2.47	2.46	2.46	2.47
Power input		W	520	545	570	520	545	570
Power factor		%	96	96	96	96	96	96
Max. starting amperes		A	4	4	4	4	4	4
FEATURES								
Controls		Microprocessor						
Timer		ON / OFF Timer (Max. 72 hr)						
Fan speeds		3 and Automatic control						
Air filter		Field supply						
Refrigerant control		Electronic expansion valve						
Operation sound (Hi / Me / Lo)		dB-A	45 / 44 / 42					
Refrigerant tubing connections		Flare type						
Refrigerant tube diameter	Liquid tube	mm (in.)	9.52 (3 / 8)					
	Gas tube	mm (in.)	15.88 (5 / 8)					
Drain connection		25 A, Male screw						
Remote controller		Optional (Wired / Wireless)						
Refrigerant tubing kit / Accessories		Optional / -						
Color (Approximate value)		-						
DIMENSIONS & WEIGHT			Unit dimensions			Package dimensions		
Unit dimensions	Height	mm (in.)	420 (16-17 / 32)			513 (20-3 / 16)		
	Width	mm (in.)	1065 (41-15 / 16)			1148 (45-3 / 16)		
	Depth	mm (in.)	620 (24-13 / 32)			713 (28-1 / 16)		
Net weight		kg (lbs.)	50 (110)					
Shipping weight		kg (lbs.)	64 (141)					
Shipping volume		m ³ (cu.ft)	0.420 (14.8)					

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Rated conditions

Cooling: Indoor air temperature 27°C DB / 19°C WB; Outdoor air temperature 35°C DB

Heating: Indoor air temperature 20°C DB; Outdoor air temperature 7°C DB / 6°C WB

8. High Static Pressure Ducted Type (E1 Type)

Unit specifications (C)

MODEL No.		Indoor Unit		S-140ME1E5				
POWER SOURCE				220 - 230 - 240 V, single-phase, 50/60 Hz				
PERFORMANCE				Cooling		Heating		
Capacity	kW		14.0		16.0			
	BTU / h		47,800		54,600			
Air circulation (Hi / Me / Lo)		m ³ / h	2,160 / 2,100 / 1,980					
Moisture removal (High)		Liters / h	6.6		-			
External static pressure (High)		Pa (mmAq)	167 (17)					
ELECTRICAL RATINGS								
Voltage rating		V	220	230	240	220	230	240
Available voltage range		V	198 - 264			198 - 264		
Running amperes		A	2.80	2.90	3.00	2.80	2.90	3.00
Power input		W	600	660	710	600	660	710
Power factor		%	97	99	99	97	99	99
Max. starting amperes		A	4	4	4	4	4	4
FEATURES								
Controls		Microprocessor						
Timer		ON / OFF Timer (Max. 72 hr)						
Fan speeds		3 and Automatic control						
Air filter		Field supply						
Refrigerant control		Electronic expansion valve						
Operation sound (Hi / Me / Lo)		dB-A	47 / 46 / 44					
Refrigerant tubing connections		Flare type						
Refrigerant tube diameter	Liquid tube	mm (in.)	9.52 (3 / 8)					
	Gas tube	mm (in.)	15.88 (5 / 8)					
Drain connection		25 A, Male screw						
Remote controller		Optional (Wired / Wireless)						
Refrigerant tubing kit / Accessories		Optional / -						
Color (Approximate value)		-						
DIMENSIONS & WEIGHT				Unit dimensions		Package dimensions		
Unit dimensions	Height	mm (in.)	450 (17-23 / 32)		513 (20-3 / 16)			
	Width	mm (in.)	1065 (41-15 / 16)		1148 (45-3 / 16)			
	Depth	mm (in.)	620 (24-13 / 32)		713 (28-1 / 16)			
Net weight		kg (lbs.)	54 (119)					
Shipping weight		kg (lbs.)	69 (152)					
Shipping volume		m ³ (cu.ft)	0.420 (14.8)					

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Rated conditions

Cooling: Indoor air temperature 27°C DB / 19°C WB; Outdoor air temperature 35°C DB

Heating: Indoor air temperature 20°C DB; Outdoor air temperature 7°C DB / 6°C WB

8. High Static Pressure Ducted Type (E1 Type)

Unit specifications (D)

MODEL No.	Indoor Unit		S-224ME1E5					
POWER SOURCE			220 - 230 - 240 V, single-phase, 50/60 Hz					
PERFORMANCE			Cooling		Heating			
Capacity	kW		22.4		25.0			
	BTU / h		76,400		85,300			
Air circulation (Hi / Me / Lo)	m ³ / h		3,360 / 3,190 / 2,980					
Moisture removal (High)	Liters / h		11.1		-			
External static pressure (High)	Pa (mmAq)		176 (18)					
ELECTRICAL RATINGS								
Voltage rating	V		220	230	240	220	230	240
Available voltage range	V		198 - 264			198 - 264		
Running amperes	A		4.05	4.06	4.07	4.05	4.06	4.07
Power input	W		870	900	930	870	900	930
Power factor	%		98	96	95	98	96	95
Max. starting amperes	A		7	7	7	7	7	7
FEATURES								
Controls			Microprocessor					
Timer			ON / OFF Timer (Max. 72 hr)					
Fan speeds			3 and Automatic control					
Air filter			Field supply					
Refrigerant control			Electronic expansion valve					
Operation sound (Hi / Me / Lo)		dB-A	48 / 47 / 46					
Refrigerant tubing connections			3 / 8" : Flare type 3 / 4" : Brazing connection					
Refrigerant tube diameter	Liquid tube	mm (in.)	9.52 (3 / 8)					
	Gas tube	mm (in.)	19.05 (3 / 4)					
Drain connection			25 A, Male screw					
Remote controller			Optional (Wired / Wireless)					
Refrigerant tubing kit / Accessories			Optional / -					
Color (Approximate value)			-					
DIMENSIONS & WEIGHT			Unit dimensions		Package dimensions			
Unit dimensions	Height	mm (in.)	467 (18-3 / 8)		615 (24-7 / 32)			
	Width	mm (in.)	1428 (56-7 / 32)		1536 (60-15 / 32)			
	Depth	mm (in.)	1230 (48-7 / 16)		1342 (52-27 / 32)			
Net weight		kg (lbs.)	110 (243)					
Shipping weight		kg (lbs.)	134 (295)					
Shipping volume		m ³ (cu.ft)	1.268 (44.8)					

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Rated conditions

Cooling: Indoor air temperature 27°C DB / 19°C WB; Outdoor air temperature 35°C DB

Heating: Indoor air temperature 20°C DB; Outdoor air temperature 7°C DB / 6°C WB

8. High Static Pressure Ducted Type (E1 Type)

Unit specifications (E)

MODEL No.	Indoor Unit		S-280ME1E5					
POWER SOURCE			220 - 230 - 240 V, single-phase, 50 Hz					
PERFORMANCE			Cooling		Heating			
Capacity	kW		28.0		31.5			
	BTU / h		95,500		107,500			
Air circulation (Hi / Me / Lo)	m ³ / h		4,320 / 4,200 / 3,960					
Moisture removal (High)	Liters / h		13.9		-			
External static pressure (High)	Pa (mmAq)		216 (22) at shipment		235 (24) using the booster cable			
ELECTRICAL RATINGS								
Voltage rating	V		220	230	240	220	230	240
Available voltage range	V		198 - 264			198 - 264		
Running amperes	A		6.04	6.06	6.07	6.04	6.06	6.07
Power input	W		1270	1330	1390	1270	1330	1390
Power factor	%		96	95	95	96	95	95
Max. starting amperes	A		7	7	7	7	7	7
FEATURES								
Controls			Microprocessor					
Timer			ON / OFF Timer (Max. 72 hr)					
Fan speeds			3 and Automatic control					
Air filter			Field supply					
Refrigerant control			Electronic expansion valve					
Operation sound (Hi / Me / Lo)	dB-A		51 / 50 / 49					
Using the booster cable (Mi / Me / Lo)	dB-A		52 / 51 / 50					
Refrigerant tubing connections			3 / 8" : Flare type 7 / 8" : Brazing connection					
Refrigerant tube diameter	Liquid tube	mm (in.)	9.52 (3 / 8)					
	Gas tube	mm (in.)	22.22 (7 / 8)					
Drain connection			25 A, Male screw					
Remote controller			Optional (Wired / Wireless)					
Refrigerant tubing kit / Accessories			Optional / -					
Color (Approximate value)			-					
DIMENSIONS & WEIGHT			Unit dimensions		Package dimensions			
Unit dimensions	Height	mm (in.)	467 (18-3 / 8)		615 (24-7 / 32)			
	Width	mm (in.)	1428 (56-7 / 32)		1536 (60-15 / 32)			
	Depth	mm (in.)	1230 (48-7 / 16)		1342 (52-27 / 32)			
Net weight		kg (lbs.)	120 (265)					
Shipping weight		kg (lbs.)	144 (317)					
Shipping volume		m ³ (cu.ft)	1.268 (44.8)					

DATA SUBJECT TO CHANGE WITHOUT NOTICE.

Rated conditions

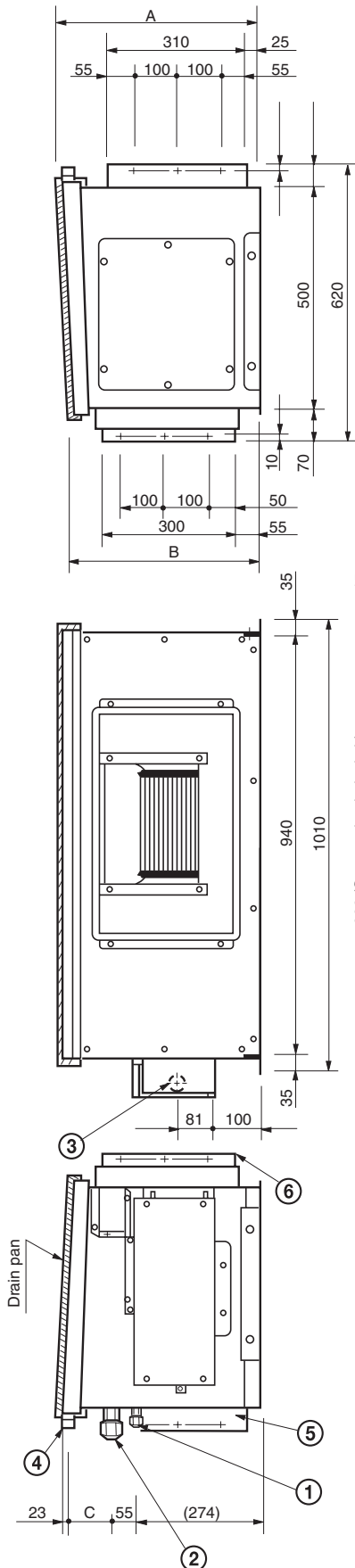
Cooling: Indoor air temperature 27°C DB / 19°C WB; Outdoor air temperature 35°C DB

Heating: Indoor air temperature 20°C DB; Outdoor air temperature 7°C DB / 6°C WB

8. High Static Pressure Ducted Type (E1 Type)

8-3. Dimensional Data

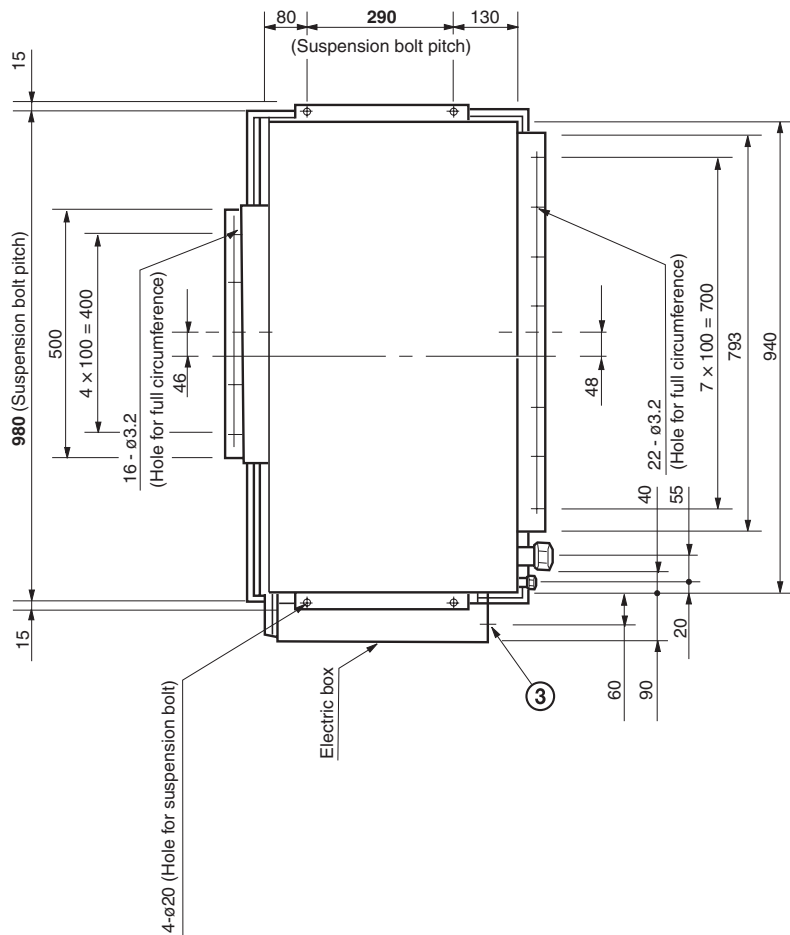
Indoor unit: S-73ME1E5 / 106ME1E5 / 140ME1E5



unit: mm

	A	B	C
S-73ME1E5 / 106ME1E5	420	395	68
S-140ME1E5	450	425	98

- ① Refrigerant liquid line (ø9.52)
- ② Refrigerant gas line (ø15.88)
- ③ Power supply entry
- ④ Drain connection (20A / VP20)
- ⑤ Duct connection for suction
- ⑥ Duct connection for discharge

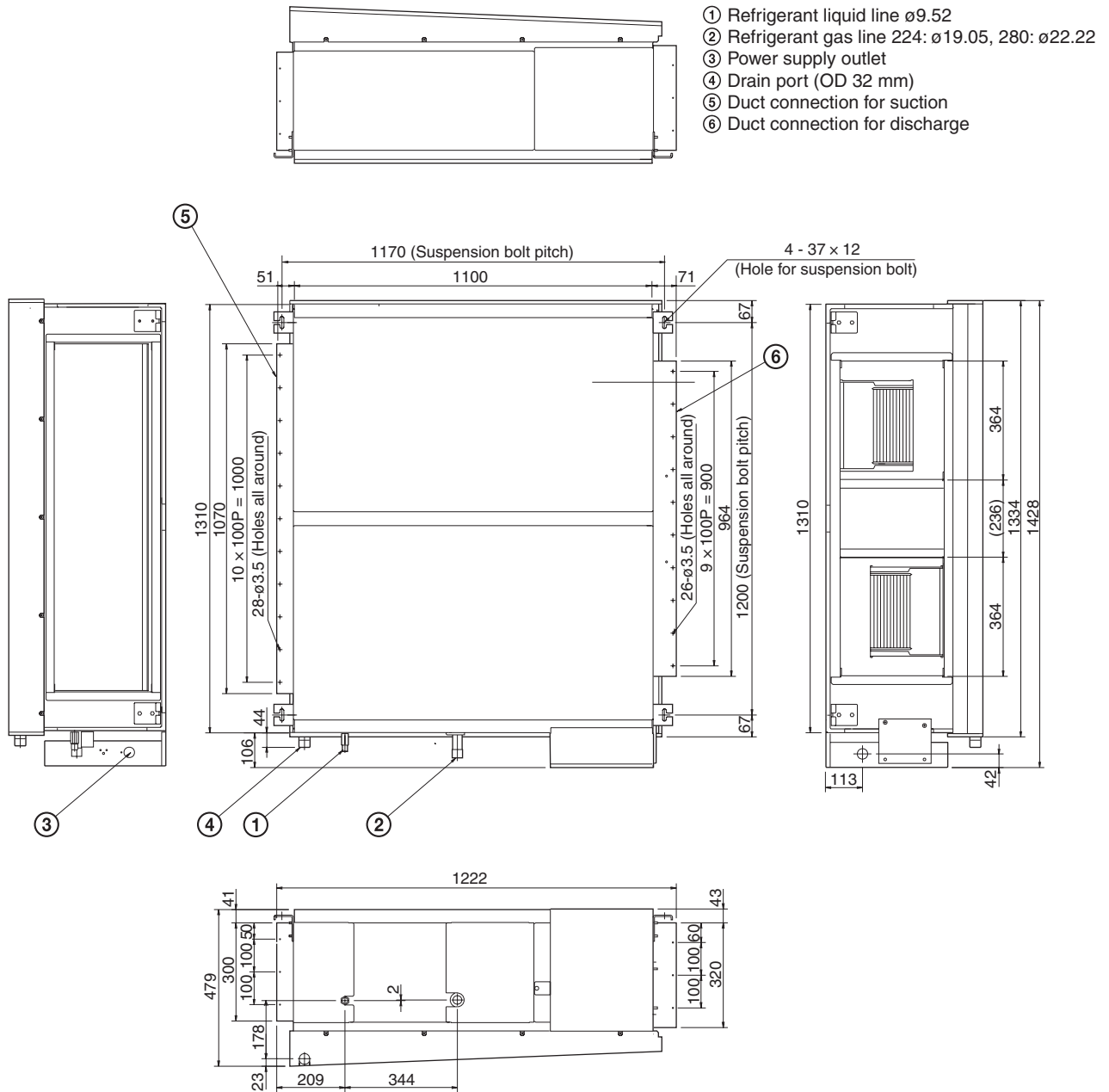


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8. High Static Pressure Ducted Type (E1 Type)

Indoor unit: S-224ME1E5 / 280ME1E5

unit: mm

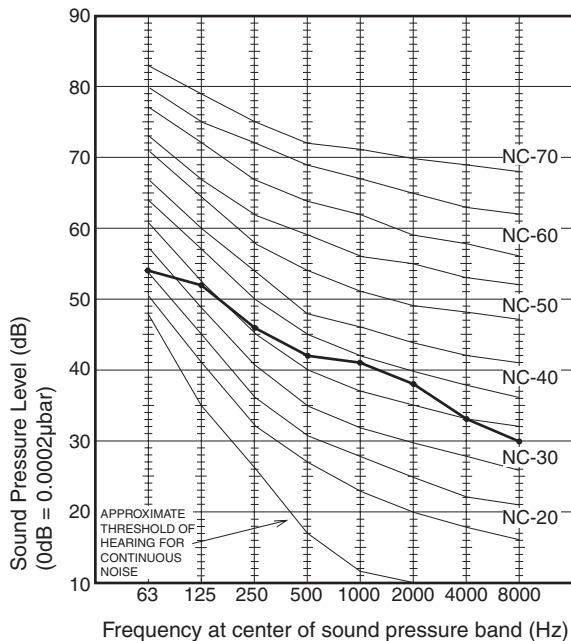
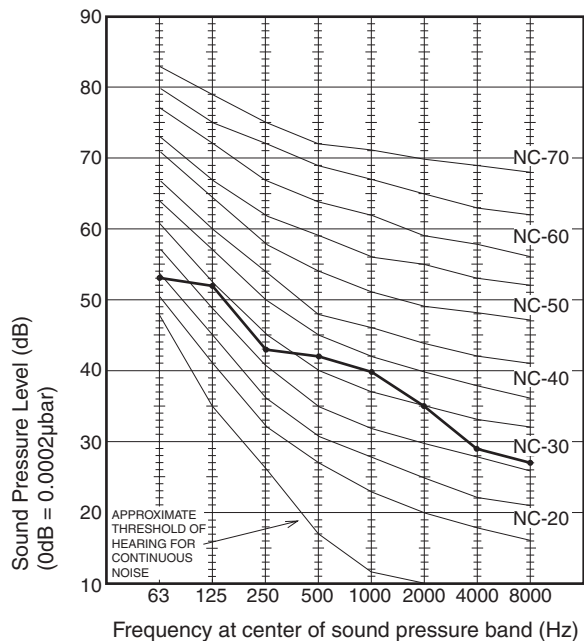


8. High Static Pressure Ducted Type (E1 Type)

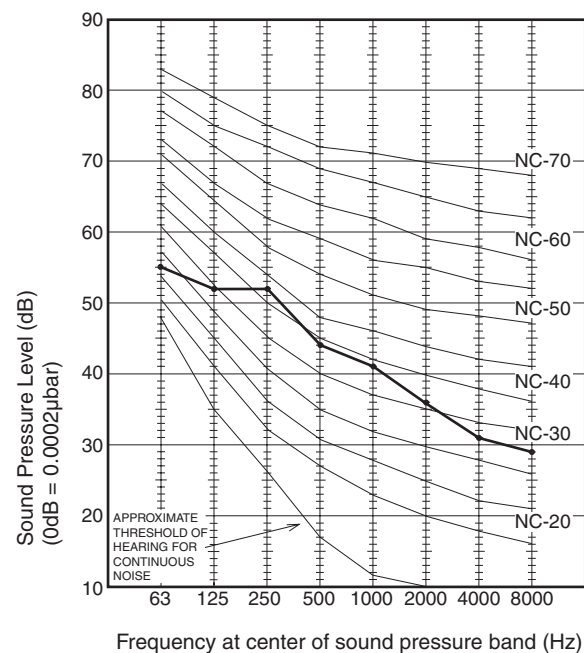
8-4. Noise Criterion Curves

MODEL	: S-73ME1E5
SOUND LEVEL	: HIGH 44 dB(A), NC 38
CONDITION	: Under the unit 1.5 m
SOURCE	: 220 - 230 - 240 V, Single-phase, 50 Hz

MODEL	: S-106ME1E5
SOUND LEVEL	: HIGH 45 dB(A), NC 39
CONDITION	: Under the unit 1.5 m
SOURCE	: 220 - 230 - 240 V, Single-phase, 50 Hz



MODEL	: S-140ME1E5
SOUND LEVEL	: HIGH 47 dB(A), NC 42
CONDITION	: Under the unit 1.5 m
SOURCE	: 220 - 230 - 240 V, Single-phase, 50 Hz



- REMARKS:**
1. Value obtained in the actual place where the unit is installed may be slightly higher than the values shown in this graph because of the conditions of operation, the structure of the building, the background noise and other factors.
 2. The test results were obtained from an anechoic room.

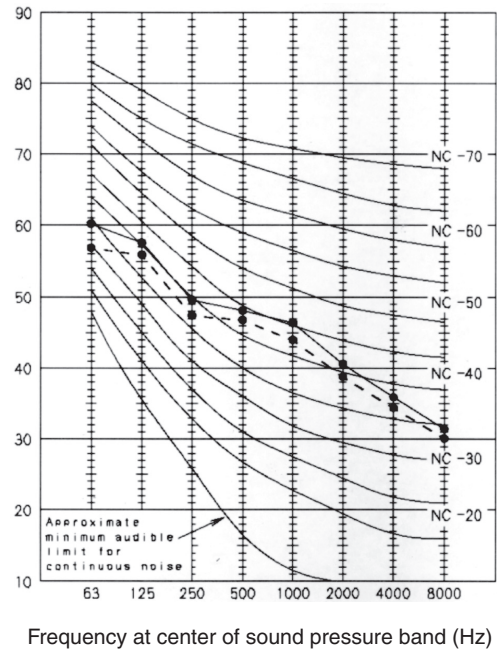
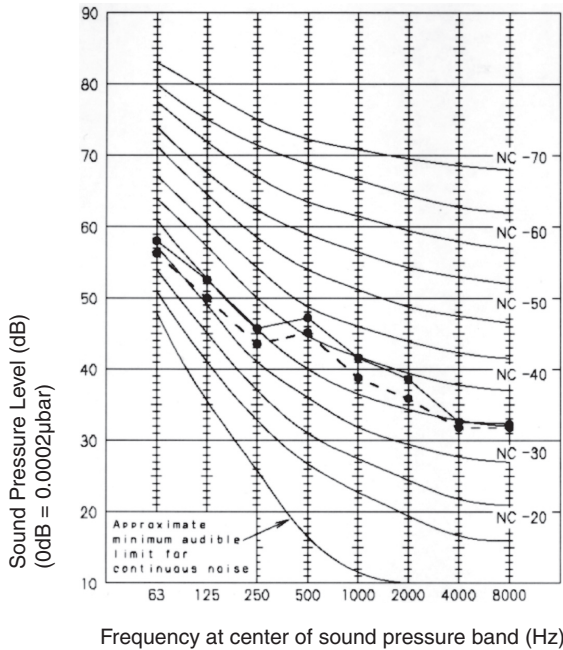
NOTE

To evaluate the noise level, the maximum value of the measured sound pressure level is used. Read the value at each frequency level (on horizontal axis, center of the sound pressure band) from 63 Hz to 8000 Hz, and select the corresponding maximum value indicated on the vertical axis.

8. High Static Pressure Ducted Type (E1 Type)

MODEL	: S-224ME1E5
SOUND LEVEL	: HIGH 48 dB(A), NC 42
CONDITION	: Under the unit 1.5 m
SOURCE	: 220 - 230 - 240 V, 1 Phase, 50 Hz

MODEL	: S-280ME1E5
SOUND LEVEL	: HIGH 51 dB(A), NC 43
CONDITION	: Under the unit 1.5 m
SOURCE	: 220 - 230 - 240 V, 1 Phase, 50 Hz



- REMARKS:**
- Value obtained in the actual place where the unit is installed may be slightly higher than the values shown in this graph because of the conditions of operation, the structure of the building, the background noise and other factors.
 - The test results were obtained from an anechoic room.

NOTE

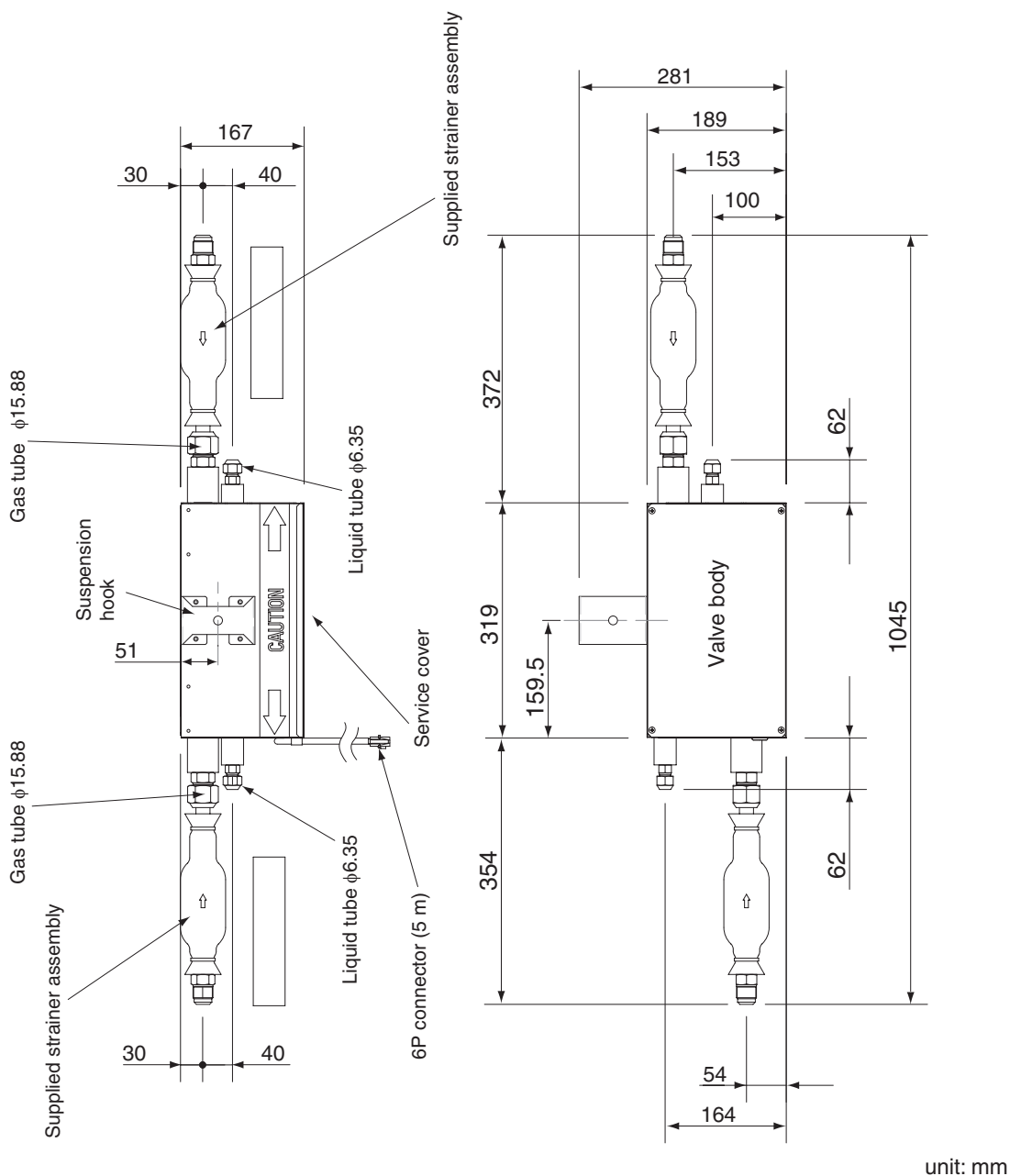
To evaluate the noise level, the maximum value of the measured sound pressure level is used. Read the value at each frequency level (on horizontal axis, center of the sound pressure band) from 63 Hz to 8000 Hz, and select the corresponding maximum value indicated on the vertical axis.

8. High Static Pressure Ducted Type (E1 Type)

8-5. R.A.P. (Refrigerant Accumulation Protector) Valve Kit

■ Model: CZ-CAPE2 (Optional)

- Connect 2 units in parallel for each indoor unit.
- Attach the R.A.P. valve kit within 30 meters from the indoor unit.
- Secure the R.A.P. valve kit using hanging bolts, etc.
- Be absolutely sure to install the R.A.P. valve kit top side up.
- Do not place the R.A.P. valve kit directly on the ceiling.
- The R.A.P. valve kit is required when a multiple number of type 224 or 280 units are to be connected to the same system.
- The R.A.P. valve kit is required when a type 224 or 280 indoor unit is to be connected among other indoor units.



unit: mm

8. High Static Pressure Ducted Type (E1 Type)

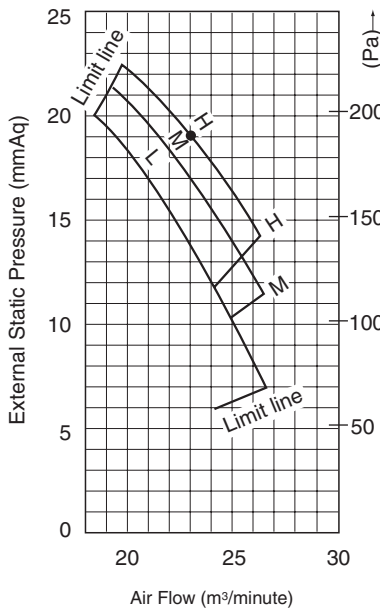
8-6. Indoor Fan Performance

How to Read the Diagram

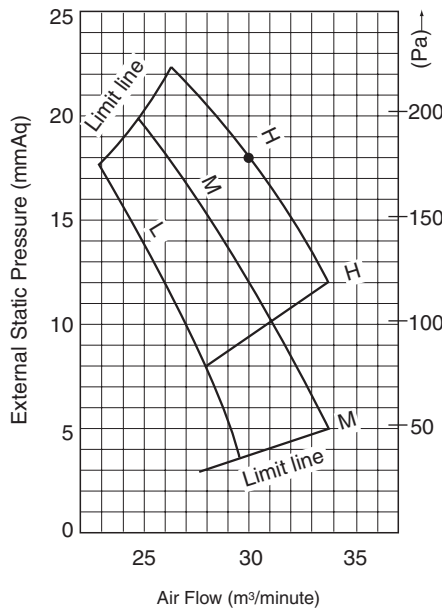
The vertical axis is the EXTERNAL STATIC PRESSURE (mmAq) while the horizontal axis represents the AIR FLOW (m³/minute). The characteristic curve for the “H”, “Med”, and “Lo” fan speed control.

The name plate values are shown based on the “H” air flow. Therefore in the case of the 73 type the flow is 23 m³/minute, while the EXTERNAL STATIC PRESSURE is 19 mmAq at “H” position. If the external static pressure is too great (due to long extension of duct, for example), the air flow volume may drop too low at each air outlet.

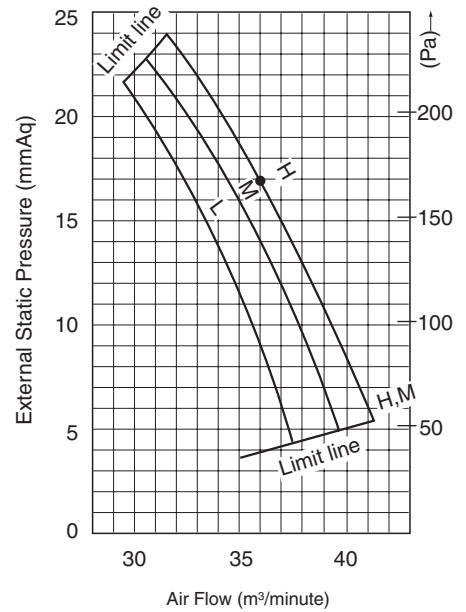
S-73ME1E5



S-106ME1E5



S-140ME1E5



8. High Static Pressure Ducted Type (E1 Type)

Increasing the Fan Speed (280 type only)

If external static pressure is too great (due to long extension of ducts, for example), the air flow volume may drop too low at each air outlet. This problem may be solved by increasing the fan speed using the following procedure:

- (1) Remove 4 screws on the electrical component box and remove the cover plate.
- (2) Disconnect the fan motor sockets in the box.
- (3) Take out 2 booster cables from option curtain box (sockets at both ends).
- (4) Securely connect 2 booster cable's sockets between the disconnected fan motor sockets in step 2 as shown in the Fig. 8-1.
- (5) Place the cable neatly in the box and reinstall the cover plate.

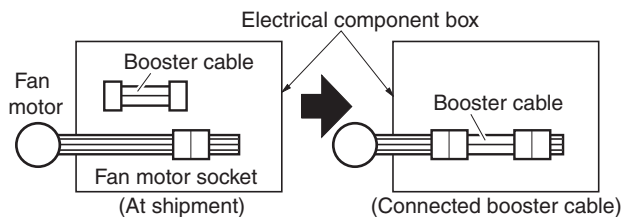
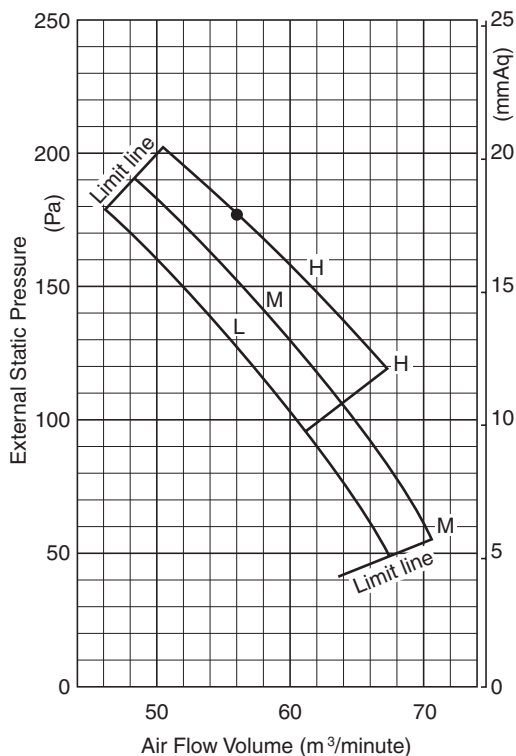


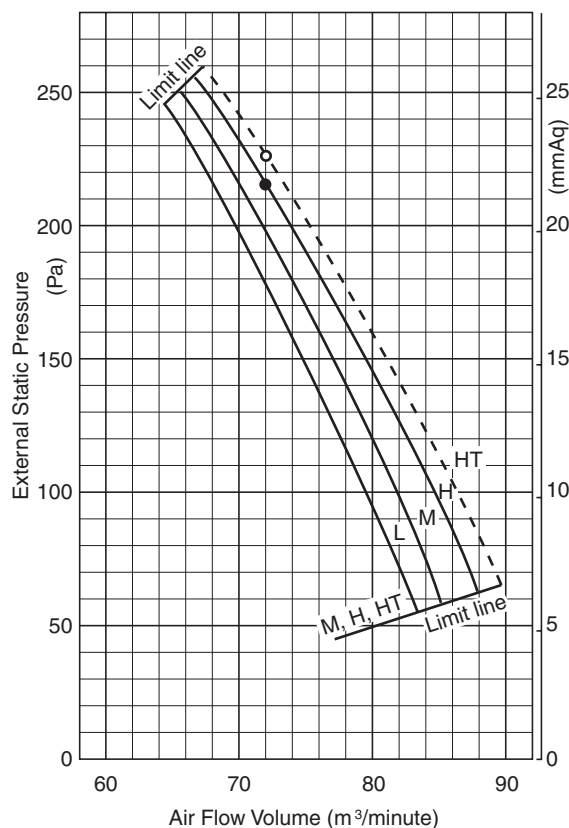
Fig. 8-1

Indoor Fan Performance

S-224ME1E5



S-280ME1E5



NOTE HT : Using the booster cable (280 type only)

H : At shipment



Fig. 8-2