

Cooling Only FSV-EX MS3 Series

SPACE SAVING COMBINATION MODEL

Appearance												
HP		8	10	12	14	16	18	20	22	24		
Model name		U-8MS3H7 U-10MS3H7 U-12MS3H7	U-10MS3H7 U-18MS3H7 U-24MS3H7	U-12MS3H7 U-18MS3H7 U-24MS3H7	U-14MS3H7 U-16MS3H7 U-18MS3H7	U-16MS3H7 U-18MS3H7 U-24MS3H7	U-18MS3H7 U-20MS3H7 U-24MS3H7	U-20MS3H7 U-22MS3H7 U-24MS3H7	U-22MS3H7 U-24MS3H7	U-24MS3H7		
Power supply		380/400/415V/3-phase/50Hz 380/400V/3-phase/60Hz										
Capacity	Cooling	kW	22.4	28.0	33.5	40.0	45.0	50.0	56.0	61.5	68.0	
		BTU/h	76,500	95,600	114,300	136,500	153,600	170,600	191,100	209,900	232,100	
EER / COP	Cooling	W/W	5.30	5.03	4.10	4.56	4.13	3.68	3.76	3.60	3.42	
Dimensions	H x W x D	mm	1,842 x 770 x 1,000	1,842 x 770 x 1,000	1,842 x 770 x 1,000	1,842 x 1,180 x 1,000	1,842 x 1,180 x 1,000	1,842 x 1,180 x 1,000	1,842 x 1,540 x 1,000	1,842 x 1,540 x 1,000	1,842 x 1,540 x 1,000	
Net weight		kg	210	210	210	313	313	313	366	366	366	
Electrical ratings	Cooling	Running current	A	7.14 / 6.78 / 6.54	9.62 / 9.14 / 8.81	13.6 / 13.0 / 12.5	15.3 / 14.5 / 14.0	18.4 / 17.5 / 16.8	23.0 / 21.8 / 21.0	24.6 / 23.4 / 22.5	28.2 / 26.8 / 25.9	32.8 / 31.2 / 30.1
		Power input	kW	4.23	5.57	8.17	8.77	10.9	13.6	14.9	17.1	19.9
Starting current		A	1	1	1	2	2	2	2	2	2	
Air flow rate		m³/h	13,440	13,440	13,440	13,920	13,920	13,920	24,300	24,300	24,300	
		L/s	3,733	3,733	3,733	3,867	3,867	3,867	6,750	6,750	6,750	
Refrigerant amount at shipment		kg	5.6	5.6	5.6	8.3	8.3	8.3	9.5	9.5	9.5	
External static pressure		Pa	80	80	80	80	80	80	80	80	80	
Piping connections	Gas pipe	mm (inches)	Ø19.05 (Ø3/4)	Ø22.22 (Ø7/8)	Ø28.58 (Ø1-1/8)	Ø28.58 (Ø1-1/8)	Ø28.58 (Ø1-1/8)	Ø28.58 (Ø1-1/8)	Ø28.58 (Ø1-1/8)	Ø28.58 (Ø1-1/8)	Ø28.58 (Ø1-1/8)	
	Liquid pipe	mm (inches)	Ø9.52 (Ø3/8)	Ø9.52 (Ø3/8)	Ø12.70 (Ø1/2)	Ø12.70 (Ø1/2)	Ø12.70 (Ø1/2)	Ø15.88 (Ø5/8)	Ø15.88 (Ø5/8)	Ø15.88 (Ø5/8)	Ø15.88 (Ø5/8)	
	Balance pipe	mm (inches)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	
Ambient temperature operating range			Cooling: 10°C (DB)~ +52°C (DB)									
Sound pressure level	Normal mode	dB (A)	53.0	56.0	59.0	58.0	61.0	62.0	59.0	62.0	62.0	
	Silent mode (2)	dB (A)	48.0	51.0	54.0	53.0	56.0	57.0	54.0	57.0	57.0	
Sound power level	Normal mode	dB	74.0	77.0	80.0	79.0	82.0	83.0	80.0	83.0	83.0	



Appearance																																					
HP		26	28	30	32	34	36	38	40	42	44	46	48																								
Model name		U-26MS3H7SP U-8MS3H7 U-10MS3H7 U-12MS3H7	U-28MS3H7SP U-10MS3H7 U-18MS3H7	U-30MS3H7SP U-12MS3H7 U-18MS3H7	U-32MS3H7SP U-8MS3H7 U-24MS3H7	U-34MS3H7SP U-10MS3H7 U-24MS3H7	U-36MS3H7SP U-12MS3H7 U-24MS3H7	U-38MS3H7SP U-14MS3H7 U-24MS3H7	U-40MS3H7SP U-16MS3H7 U-24MS3H7	U-42MS3H7SP U-18MS3H7 U-24MS3H7	U-44MS3H7SP U-20MS3H7 U-24MS3H7	U-46MS3H7SP U-22MS3H7 U-24MS3H7	U-48MS3H7SP U-24MS3H7																								
Power supply		380/400/415V/3-phase/50Hz 380/400V/3-phase/60Hz																																			
Capacity	Cooling	kW	73.0	78.5	85.0	90.0	96.0	101.0	107.0	113.0	118.0	124.0	130.0	135.0																							
		BTU/h	249,100	267,900	290,100	307,200	327,600	344,700	365,200	385,700	402,700	423,200	443,700	460,800																							
EER / COP	Cooling	W/W	4.03	4.05	3.79	3.75	3.76	3.63	3.78	3.67	3.52	3.56	3.49	3.44																							
Dimensions	H x W x D	mm	1,842 x 2,010 x 1,000	1,842 x 2,010 x 1,000	1,842 x 2,010 x 1,000	1,842 x 2,370 x 1,000	1,842 x 2,370 x 1,000	1,842 x 2,370 x 1,000	1,842 x 2,780 x 1,000	1,842 x 2,780 x 1,000	1,842 x 2,780 x 1,000	1,842 x 2,780 x 1,000	1,842 x 3,140 x 1,000	1,842 x 3,140 x 1,000	1,842 x 3,140 x 1,000																						
Net weight		kg	523	523	523	576	576	576	679	679	679	732	732	732																							
Electrical ratings	Cooling	Running current	A	30.6 / 29.0 / 28.0	33.1 / 31.5 / 30.3	37.8 / 35.9 / 34.6	39.6 / 37.7 / 36.3	42.6 / 40.4 / 39.0	45.9 / 43.6 / 42.0	47.8 / 45.4 / 43.7	51.4 / 48.9 / 47.1	55.9 / 53.1 / 51.2	57.5 / 54.6 / 52.6	61.4 / 58.4 / 56.3	64.9 / 61.7 / 59.4																						
		Power input	kW	18.1	19.4	22.4	24.0	25.5	27.8	28.3	30.8	33.5	34.8	37.2	39.3																						
Starting current		A	3	3	3	3	3	3	4	4	4	4	4	4																							
Air flow rate		m³/h	27,360	27,360	27,360	37,740	37,740	37,740	38,220	38,220	38,220	48,600	48,600	48,600																							
		L/s	7,600	7,600	7,600	10,483	10,483	10,483	10,617	10,617	10,617	13,500	13,500	13,500																							
Refrigerant amount at shipment		kg	13.9	13.9	13.9	15.1	15.1	15.1	17.8	17.8	17.8	19.0	19.0	19.0																							
External static pressure		Pa	80	80	80	80	80	80	80	80	80	80	80	80																							
Piping connections	Gas pipe	mm (inches)	Ø34.92 (Ø1-3/8)	Ø34.92 (Ø1-3/8)	Ø34.92 (Ø1-3/8)	Ø34.92 (Ø1-3/8)	Ø34.92 (Ø1-3/8)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)																						
	Liquid pipe	mm (inches)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)																						
	Balance pipe	mm (inches)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)																						
Ambient temperature operating range			Cooling: 10°C (DB)~ +52°C (DB)																																		
Sound pressure level	Normal mode	dB (A)	63.0	63.0	64.0	63.0	63.0	64.0	63.0	65.0	65.0	64.0	65.0	65.0																							
	Silent mode (2)	dB (A)	58.0	58.0	59.0	58.0	58.0	59.0	58.0	60.0	60.0	59.0	60.0	60.0																							
Sound power level	Normal mode	dB	84.0	84.0	85.0	84.0	84.0	85.0	84.0	86.0	86.0	85.0	86.0	86.0																							

Appearance																												
HP		50	52	54	56	58	60	62	64	66																		
Model name		U-50MS3H7SP U-8MS3H7 U-10MS3H7 U-12MS3H7 U-18MS3H7 U-24MS3H7	U-52MS3H7SP U-10MS3H7 U-18MS3H7 U-24MS3H7	U-54MS3H7SP U-12MS3H7 U-18MS3H7 U-24MS3H7	U-56MS3H7SP U-8MS3H7 U-10MS3H7 U-12MS3H7 U-18MS3H7 U-24MS3H7	U-58MS3H7SP U-10MS3H7 U-12MS3H7 U-18MS3H7 U-24MS3H7	U-60MS3H7SP U-12MS3H7 U-18MS3H7 U-24MS3H7	U-62MS3H7SP U-14MS3H7 U-18MS3H7 U-24MS3H7	U-64MS3H7SP U-16MS3H7 U-18MS3H7 U-24MS3H7	U-66MS3H7SP U-18MS3H7 U-24MS3H7																		
Power supply		380/400/415V/3-phase/50Hz 380/400V/3-phase/60Hz																										
Capacity	Cooling	kW	140.0	145.0	151.0	156.0	162.0	174.0	180.0	185.0																		
		BTU/h	477,800	494,900	515,400	532,400	552,900	573,400	593,900	614,300	631,400																	
EER / COP	Cooling	W/W	3.72	3.75	3.65	3.63	3.64	3.55	3.65	3.59	3.50																	
Dimensions	H x W x D	mm	1,842 x 3,610 x 1,000	1,842 x 3,610 x 1,000	1,842 x 3,610 x 1,000	1,842 x 3,970 x 1,000	1,842 x 3,970 x 1,000	1,842 x 3,970 x 1,000	1,842 x 4,380 x 1,000	1,842 x 4,380 x 1,000	1,842 x 4,380 x 1,000																	
Net weight		kg	889	889	889	942	942	942	1,045	1,045	1,045																	
Electrical ratings	Cooling	Running current	A	62.8 / 59.6 / 57.5	64.6 / 61.4 / 59.2	69.1 / 65.7 / 63.3	71.0 / 67.5 / 65.0	73.5 / 69.8 / 67.3	78.1 / 74.2 / 71.5	79.6 / 75.7 / 72.9	82.9 / 78.8 / 75.9	87.4 / 83.0 / 80.0																
		Power input	kW	37.6	38.7	41.4	43.0	44.5	47.3	50.2	52.9																	
Starting current		A	5	5	5	5	5	6	6	6																		
Air flow rate		m³/h	51,660	51,660	51,660	62,040	62,040	62,040	62,520	62,520	62,520																	
		L/s	14,350	14,350	14,350	17,233	17,233	17,233	17,367	17,367	17,367																	
Refrigerant amount at shipment		kg	23.4	23.4	23.4	24.6	24.6	24.6	27.3	27.3	27.3																	
External static pressure		Pa	80	80	80	80	80	80	80	80	80																	
Piping connections	Gas pipe	mm (inches)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)	Ø41.28 (Ø1-5/8)																		
	Liquid pipe	mm (inches)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)	Ø19.05 (Ø3/4)																		
	Balance pipe	mm (inches)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)																		
Ambient temperature operating range			Cooling: 10°C (DB)~ +52°C (DB)																									
Sound pressure level	Normal mode	dB (A)	65.0	66.0	66.0	65.0	66.0	66.0	66.0	67.0																		
	Silent mode (2)	dB (A)	60.0	61.0	61.0	60.0	61.0	61.0	61.0	62.0																		
Sound power level	Normal mode	dB	86.0	87.0	87.0	86.0	87.0	87.0	87.0	88.0																		

Appearance																																					
HP		68	70	72	74	76	78	80	82	84	86	88	90																								
Model name		U-68MS3H7SP U-20MS3H7 U-24MS3H7 U-24MS3H7	U-70MS3H7SP U-22MS3H7 U-24MS3H7 U-24MS3H7	U-72MS3H7SP U-24MS3H7 U-24MS3H7 U-24MS3H7	U-74MS3H7SP U-8MS3H7 U-10MS3H7 U-12MS3H7 U-18MS3H7 U-24MS3H7 U-24MS3H7	U-76MS3H7SP U-10MS3H7 U-18MS3H7 U-24MS3H7 U-24MS3H7	U-78MS3H7SP U-12MS3H7 U-18MS3H7 U-24MS3H7 U-24MS3H7	U-80MS3H7SP U-8MS3H7 U-10MS3H7 U-12MS3H7 U-18MS3H7 U-24MS3H7 U-24MS3H7	U-82MS3H7SP U-10MS3H7 U-12MS3H7 U-18MS3H7 U-24MS3H7 U-24MS3H7	U-84MS3H7SP U-12MS3H7 U-18MS3H7 U-24MS3H7 U-24MS3H7	U-86MS3H7SP U-14MS3H7 U-18MS3H7 U-24MS3H7 U-24MS3H7	U-88MS3H7SP U-16MS3H7 U-18MS3H7 U-24MS3H7 U-24MS3H7	U-90MS3H7SP U-18MS3H7 U-24MS3H7																								
Power supply		380/400/415V/3-phase/50Hz 380/400V/3-phase/60Hz																																			
Capacity	Cooling	kW	190.0	196.0	202.0																																

Cooling Only FSV-EX MS3 Series

SPACE SAVING COMBINATION MODEL



Appearance						
HP		92	94	96		
		U-92MS3H7SP	U-94MS3H7SP	U-96MS3H7SP		
Model name		U-20MS3H7 U-24MS3H7 U-24MS3H7	U-22MS3H7 U-24MS3H7 U-24MS3H7	U-24MS3H7 U-24MS3H7 U-24MS3H7		
Power supply		380/400/415V/3-phase/50Hz 380/400/3-phase/60Hz				
Capacity	Cooling	kW	260.0	266.0	272.0	
		BTU/h	887,400	907,800	928,300	
EER / COP	Cooling	W/W	3.49	3.45	3.42	
Dimensions	H x W x D	mm	1,842 x 6,340 x 1,000	1,842 x 6,340 x 1,000	1,842 x 6,340 x 1,000	
Net weight		kg	1,464	1,464	1,464	
Electrical ratings	Cooling	Running current	A	123.0 / 116.9 / 112.7	127.2 / 120.8 / 116.4	131.3 / 124.7 / 120.2
		Power input	kW	74.5	77.0	79.5
Starting current		A	8	8	8	
Air flow rate		m ³ /h	97,200	97,200	97,200	
		L/s	27,000	27,000	27,000	
Refrigerant amount at shipment		kg	38.0	38.0	38.0	
External static pressure		Pa	80	80	80	
Piping connections	Gas pipe	mm (inches)	Ø53.98 (Ø2-1/8)	Ø53.98 (Ø2-1/8)	Ø53.98 (Ø2-1/8)	
	Liquid pipe	mm (inches)	Ø22.22 (Ø7/8)	Ø22.22 (Ø7/8)	Ø22.22 (Ø7/8)	
	Balance pipe	mm (inches)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	Ø6.35 (Ø1/4)	
Ambient temperature operating range			Cooling: 10°C (DB)~ +52°C (DB)			
Sound pressure level	Normal mode	dB (A)	67.0	68.0	68.0	
	Silent mode (2)	dB (A)	62.0	63.0	63.0	
Sound power level	Normal mode	dB	88.0	89.0	89.0	

GLOBALREMARKS

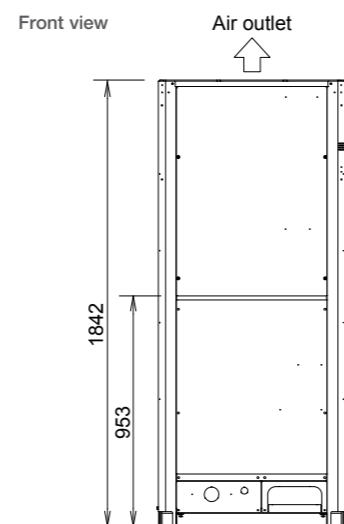
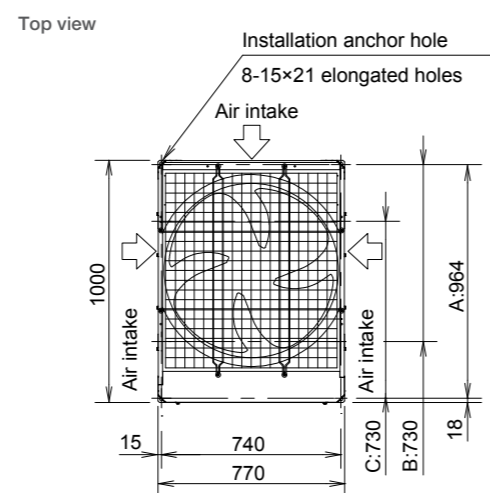
Rated conditions:	Cooling
Indoor air temperature	27°C DB / 19°C WB
Outdoor air temperature	35°C DB

These specifications are subject to change without notice.

8 / 10 / 12 HP

According to the installation site, you may choose the setting position in the depth direction of the anchor bolt from A, B or C.

- A: (Installation hole pitch) For removing tube forward
- B: (Installation hole pitch) For removing the downward
- C: (Installation hole pitch)

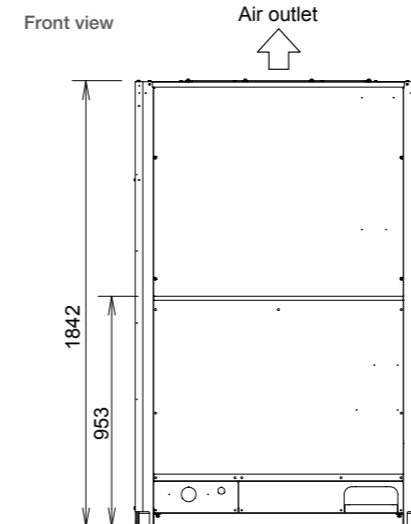
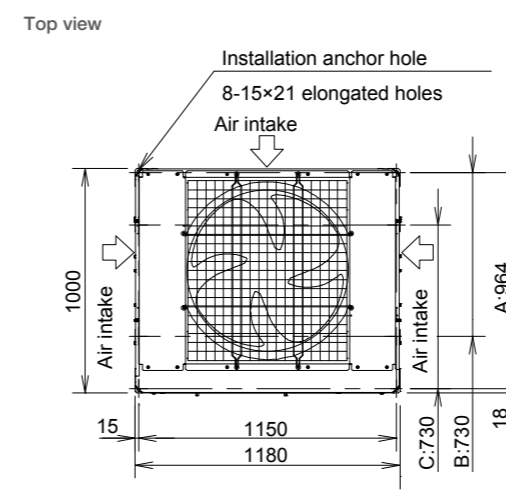


unit: mm

14 / 16 / 18 HP

According to the installation site, you may choose the setting position in the depth direction of the anchor bolt from A, B or C.

- A: (Installation hole pitch) For removing tube forward
- B: (Installation hole pitch) For removing the downward
- C: (Installation hole pitch)

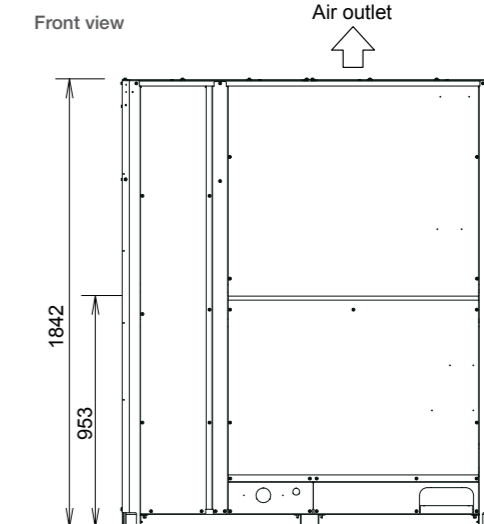
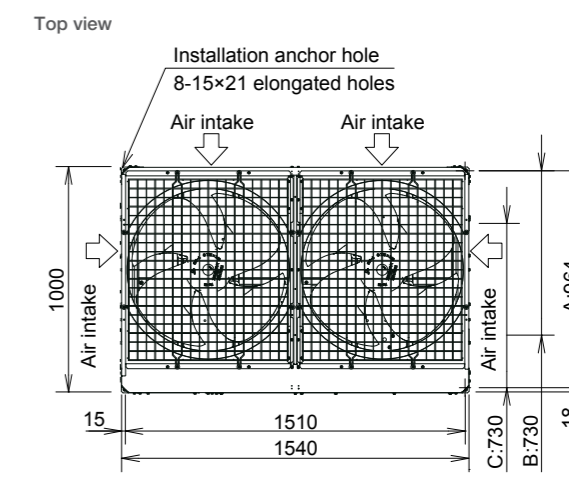


unit: mm

20 / 22 / 24 HP

According to the installation site, you may choose the setting position in the depth direction of the anchor bolt from A, B or C.

- A: (Installation hole pitch) For removing tube forward
- B: (Installation hole pitch) For removing the downward
- C: (Installation hole pitch)



unit: mm