



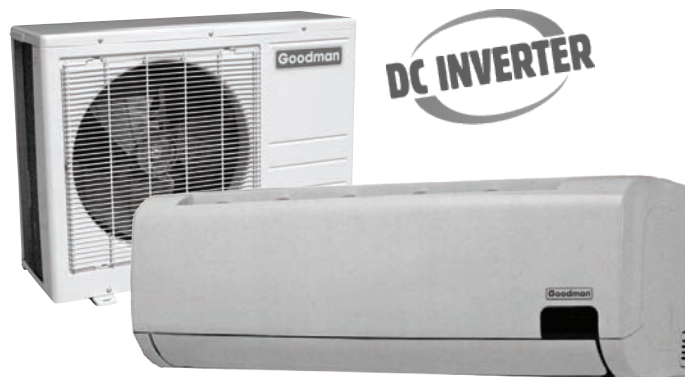
Air Conditioning & Heating

MS20

HIGH-EFFICIENCY MINI-SPLIT SYSTEM

UP TO 20 SEER PERFORMANCE

R-410A REFRIGERANT



- R-410A chlorine-free refrigerant
- High-efficiency performance — up to 20 SEER
- DC Inverter technology compressor
- Indoor antibacterial fan
- Odor-capture carbon filter
- Easy-to-read LCD display
- Follow-me remote control (Ambient temperature at location of remote control determines actual heating or cooling demand communication.)
- Time-delay safety control
- Sleep mode setting (7-hour off-cycle)
- Easy-clean indoor exterior panels
- Turbo settings for fast heating or cooling
- Auto-restart temperature setting (Remote memory automatically sets thermostat at last stored temperature setting.)
- Bi-directional airflow for optimal air distribution



* Complete warranty details available from your local dealer or at www.goodmanmfg.com.



NOMENCLATURE

		MSC	09	3	E	19	AX	AA		
		1,2,3	4,5	6	7	8,9	10,11	12,13		
Model Type								Engineering		
MSC	Air Conditioner							Major/Minor Revisions		
MSH	Heat Pump							Section Code		
Cooling Capacity								MC = Condenser Unit		
09	9,000 BTU/h							AX = Indoor Unit - High Wall		
12	12,000 BTU/h							Examples:		
18	18,000 BTU/h							MSC092E19AX		
24	24,000 BTU/h							MSC123E19MC		
36	36,000 BTU/h							Efficiency		
Rated Voltage								13 = 13 SEER		
2	115V, 60Hz, 1Ph							16 = 16 SEER		
3	230/208V, 60Hz, 1Ph							19 = 19 SEER		
5	240/220V, 50Hz, 1Ph									
		Design Series (Refrig.)								
		A R-22								
		E R-410A								



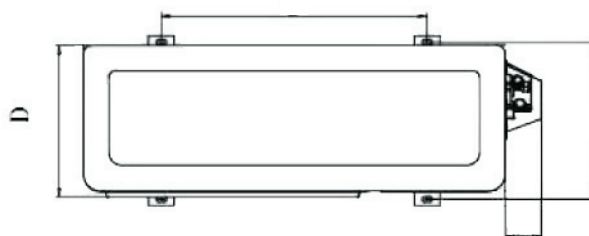
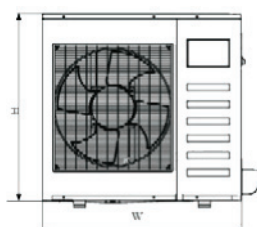
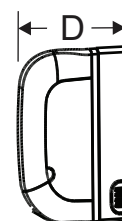
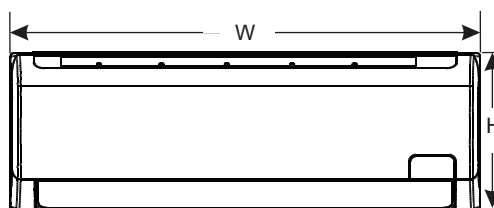
SPECIFICATIONS FOR AIR CONDITIONERS

MODELS					
Indoor model	MSC092E19AX	MSC122E19AX	MSC123E19AX	MSC183E19AX	MSC243E19AX
Outdoor model	MSC092E19MC	MSC122E19MC	MSC123E19MC	MSC183E19MC	MSC243E19MC
AHRI #s	4865909	4865910	4865911	4865912	4865913
CAPACITY					
Cooling Capacity (BTU/h)	9,000	12,000	12,200	18,000	24,000
ELECTRICAL DATA					
Power Supply (V~,Hz,Ph)	115V, 60Hz, 1Ph	115V, 60Hz, 1Ph	230V, 60Hz, 1Ph	230V, 60Hz, 1Ph	230V, 60Hz, 1Ph
Power Input (W)	650	950	980	1,460	2,100
Operating Current (A)	7.2	9.6	4.7	6.7	9.1
MCA	15	15	9	14	16
MOC	25	25	15	20	25
PERFORMANCE					
SEER	19	19	19	20.3	18.5
EnergyStar	YES	YES	YES	YES	YES
Airflow Volume (Indoor(m3/h))	750	800	850	1,150	1,600
Noise Level (dB(A))					
Indoor(Hi/Med/Lo)	39 / 35 / 32	40 / 38 / 35	41 / 37 / 34	48 / 40 / 36	50 / 48 / 46
Outdoor	53	53	54	54	59
FEATURES					
Follow Me	YES	YES	YES	YES	YES
Turbo Mode	YES	YES	YES	YES	YES
Auto-Restart	YES	YES	YES	YES	YES
LCD Display	YES	YES	YES	YES	YES
Auto-Level Swing	YES	YES	YES	YES	YES
Active Carbon	YES	YES	YES	YES	YES
Timer (Sleep)	24	24	24	24	24
STUFFING QUANTITY					
Stuffing Quantity (Set) (20'/40'/40'HQ)	89 / 182 / 215	89 / 182 / 215	88 / 180 / 214	68 / 138 / 165	40 / 88 / 95

SPECIFICATIONS FOR HEAT PUMPS

MODELS					
Indoor Model	MSH092E19AX	MSH122E19AX	MSH123E19AX	MSH183E19AX	MSH243E19AX
Outdoor Model	MSH092E19MC	MSH122E19MC	MSH123E19MC	MSH183E19MC	MSH243E19MC
AHRI #s	4865914	4865915	4865916	4865917	4865918
CAPACITY					
Cooling Capacity (BTU/h)	9,000	12,000	12,300	18,300	24,000
Heating Capacity (BTU/h)	10,000	13,000	13,000	19,200	25,400
ELECTRICAL DATA					
Power Supply (V~,Hz,Ph)	115V, 60Hz, 1Ph	115V, 60Hz, 1Ph	230V, 60Hz, 1Ph	230V, 60Hz, 1Ph	230V, 60Hz, 1Ph
Power Input (W) (Cooling / Heating)	650 / 760	950 / 1,330	980 / 1,060	1,460 / 1,480	2,100 / 2,050
Operating Current (A) (Cooling / Heating)	7.2 / 8	9.6 / 13.5	4.7 / 5.7	6.7 / 6.6	9.1 / 8.9
MCA	15	17	8	13	15
MOC	25	25	15	20	25
PERFORMANCE					
SEER	19	19	18.8	19.2	18
EnergyStar	YES	YES	YES	YES	YES
Airflow Volume (Indoor(m3/h))	750	800	850	1,150	1,600
Noise Level (dB(A))					
Indoor(Hi/Med/Lo)	39 / 35 / 32	40 / 38 / 35	41 / 37 / 34	48 / 40 / 36	50 / 48 / 46
Outdoor	53	53	54	54	59
FEATURES					
Follow Me	YES	YES	YES	YES	YES
Turbo Mode	YES	YES	YES	YES	YES
Auto-Restart	YES	YES	YES	YES	YES
LCD Display	YES	YES	YES	YES	YES
Auto-Level Swing	YES	YES	YES	YES	YES
Active Carbon	YES	YES	YES	YES	YES
Timer (Sleep)	24	24	24	24	24
STUFFING QUANTITY					
Stuffing Quantity (Set)	89 / 182 / 215	89 / 182 / 215	88 / 180 / 214	68 / 138 / 165	40 / 88 / 95

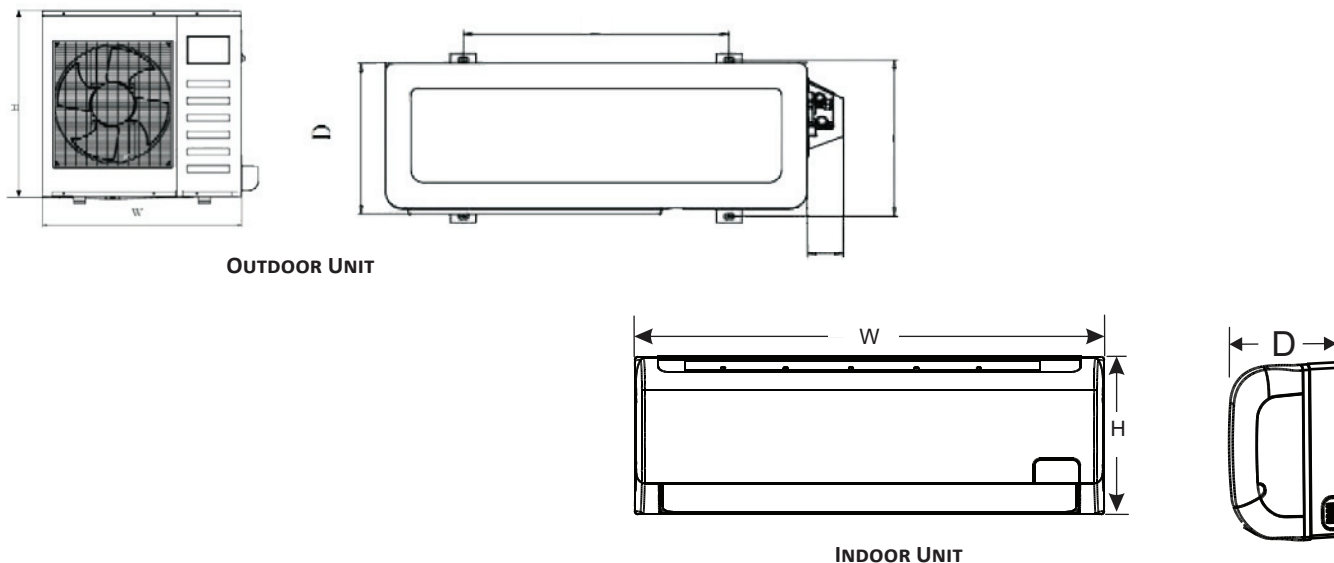
AIR CONDITIONING DIMENSIONS & SHIPPING WEIGHTS


OUTDOOR UNIT

INDOOR UNIT

AIR CONDITIONING MODELS

Indoor model	MSC092E19AX	MSC122E19AX	MSC123E19AX	MSC183E19AX	MSC243E19AX
Outdoor model	MSC092E19MC	MSC122E19MC	MSC123E19MC	MSC183E19MC	MSC243E19MC
NET WEIGHT & DIMENSION					
Indoor (W*H*D)					
mm.	920 x 292 x 223	920 x 292 x 223	920 x 292 x 223	998 x 322 x 240	1445 x 340 x 277
in.	36¼ x 11½ x 8¾	36¼ x 11½ x 8¾	36¼ x 11½ x 8¾	39 ⁵ / ₁₆ x 12 ¹¹ / ₁₆ x 9 ⁷ / ₁₆	56 ⁷ / ₈ x 13 ³ / ₈ x 10 ⁷ / ₈
Outdoor (W*H*D)					
mm.	760 x 590 x 285	760 x 590 x 285	760 x 590 x 285	845 x 695 x 335	895 x 860 x 330
in.	29 ¹⁵ / ₁₆ x 23¾ x 11¼	29 ¹⁵ / ₁₆ x 23¾ x 11¼	29 ¹⁵ / ₁₆ x 23¾ x 11¼	33¾ x 27 ⁶ / ₁₆ x 13 ³ / ₁₆	35¼ x 33 ¹⁴ / ₁₆ x 13
Net Weight					
Indoor/Outdoor (kg)	11.5 / 37.5	11.5 / 37.5	11.5 / 39.5	13 / 47.5	26 / 72
lbs.	26 / 83	26 / 83	26 / 88	29 / 105	58 / 159
SHIP WEIGHT & DIMENSION					
Indoor (W*H*D) (mm.)	1015 x 368 x 295	1015 x 368 x 295	1015 x 368 x 295	1080 x 320 x 400	1530 x 365 x 420
Indoor (W*H*D) (in.)	39 ¹⁵ / ₁₆ x 14½ x 11½	39 ¹⁵ / ₁₆ x 14½ x 11½	39 ¹⁵ / ₁₆ x 14½ x 11½	42½ x 12½ x 15¾	60¾ x 14¾ x 16 ⁹ / ₁₆
Outdoor (W*H*D) (mm.)	887 x 655 x 355	887 x 655 x 355	887 x 655 x 355	965 x 755 x 395	1043 x 915 x 395
Outdoor (W*H*D) (in.)	34 ¹⁵ / ₁₆ x 25 ¹³ / ₁₆ x 14	34 ¹⁵ / ₁₆ x 25 ¹³ / ₁₆ x 14	34 ¹⁵ / ₁₆ x 25 ¹³ / ₁₆ x 14	38 x 29¾ x 15 ⁹ / ₁₆	41 ¹ / ₁₆ x 36 x 15 ⁹ / ₁₆
Gross Weight (kg) (Indoor/Outdoor)	14.5 / 39.5	14.5 / 40	14.5 / 42	17 / 51	32 / 76
Gross Weight (lb) (Indoor/Outdoor)	32 / 88	32 / 88	32 / 93	64 / 113	71 / 168
Piping Size (mm)					
Liquid	1/4" (Φ6.35)	1/4" (Φ6.35)	1/4" (Φ6.35)	3/8" (Φ9.53)	3/8" (Φ9.53)
Gas	3/8" (Φ9.53)	1/2" (Φ12.7)	1/2" (Φ12.7)	5/8" (Φ16)	5/8" (Φ16)

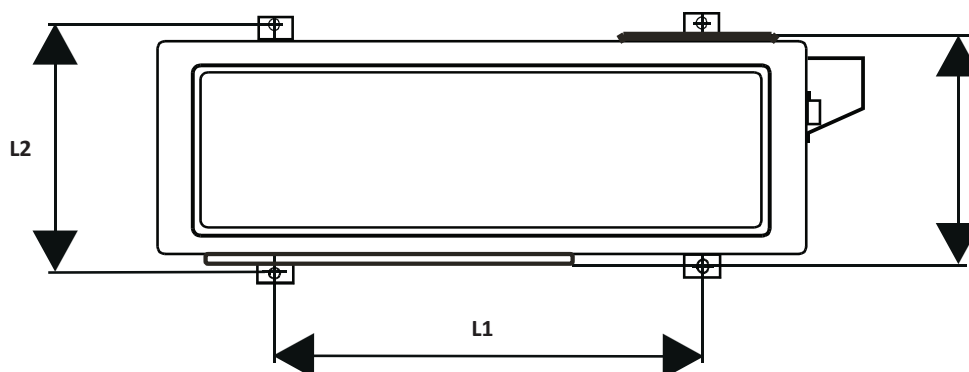
HEAT PUMP DIMENSIONS & SHIPPING WEIGHTS



HEAT PUMP MODELS

Indoor Model	MSH092E19AX	MSH122E19AX	MSH123E19AX	MSH183E19AX	MSH243E19AX
Outdoor Model	MSH092E19MC	MSH122E19MC	MSH123E19MC	MSH183E19MC	MSH243E19MC
NET WEIGHT & DIMENSION					
Indoor (W*H*D)					
mm.	920 x 292 x 223	920 x 292 x 223	920 x 292 x 223	998 x 322 x 240	1445 x 340 x 277
in.	36 $\frac{3}{4}$ x 11 $\frac{1}{2}$ x 8 $\frac{7}{8}$	36 $\frac{3}{4}$ x 11 $\frac{1}{2}$ x 8 $\frac{7}{8}$	36 $\frac{3}{4}$ x 11 $\frac{1}{2}$ x 8 $\frac{7}{8}$	39 $\frac{5}{16}$ x 12 $\frac{11}{16}$ x 9 $\frac{7}{16}$	56 $\frac{7}{8}$ x 13 $\frac{3}{4}$ x 10 $\frac{7}{8}$
Outdoor (W*H*D)					
mm.	760 x 590 x 285	760 x 590 x 285	760 x 590 x 285	845 x 695 x 335	895 x 860 x 330
in.	29 $\frac{15}{16}$ x 23 $\frac{3}{4}$ x 11 $\frac{1}{4}$	29 $\frac{15}{16}$ x 23 $\frac{3}{4}$ x 11 $\frac{1}{4}$	29 $\frac{15}{16}$ x 23 $\frac{3}{4}$ x 11 $\frac{1}{4}$	33 $\frac{1}{4}$ x 27 $\frac{9}{16}$ x 13 $\frac{3}{16}$	35 $\frac{3}{4}$ x 33 $\frac{1}{4}$ x 13
Net Weight (Indoor/Outdoor)					
kg.	11.5 / 37.5	11.5 / 37.5	11.5 / 39.5	13 / 47.5	26 / 72
lbs.	26 / 83	26 / 83	26 / 88	29 / 105	58 / 159
SHIP WEIGHT & DIMENSION					
Indoor (W*H*D)					
mm.	1015 x 368 x 295	1015 x 368 x 295	1015 x 368 x 295	1080 x 320 x 400	1530 x 365 x 420
in.	39 $\frac{15}{16}$ x 14 $\frac{1}{2}$ x 11 $\frac{3}{4}$	39 $\frac{15}{16}$ x 14 $\frac{1}{2}$ x 11 $\frac{3}{4}$	39 $\frac{15}{16}$ x 14 $\frac{1}{2}$ x 11 $\frac{3}{4}$	42 $\frac{1}{2}$ x 12 $\frac{3}{4}$ x 15 $\frac{3}{4}$	60 $\frac{3}{4}$ x 14 $\frac{3}{4}$ x 16 $\frac{9}{16}$
Outdoor (W*H*D)					
mm.	887 x 655 x 355	887 x 655 x 355	887 x 655 x 355	965 x 755 x 395	1043 x 915 x 395
in.	34 $\frac{15}{16}$ x 25 $\frac{13}{16}$ x 14	34 $\frac{15}{16}$ x 25 $\frac{13}{16}$ x 14	34 $\frac{15}{16}$ x 25 $\frac{13}{16}$ x 14	38 x 29 $\frac{3}{4}$ x 15 $\frac{9}{16}$	41 $\frac{7}{16}$ x 36 x 15 $\frac{9}{16}$
Gross Weight (Indoor/Outdoor)					
kg	14.5 / 39.5	14.5/40	14.5 / 42	17 / 51	32 / 76
lbs.	32 / 88	32 / 88	32 / 93	64 / 113	71 / 168
Piping Size (mm)					
Liquid	1/4" (Φ6.35)	1/4" (Φ6.35)	1/4" (Φ6.35)	3/8" (Φ9.53)	3/8" (Φ9.53)
Gas	3/8" (Φ9.53)	1/2" (Φ12.7)	1/2" (Φ12.7)	5/8" (Φ16)	5/8" (Φ16)

OUTDOOR UNIT INSTALLATION DIMENSIONS



OUTDOOR UNIT	L1	L2
MSC092E19MC	20 $\frac{7}{8}$ (530)	11 $\frac{13}{32}$ (290)
MSC122E19MC	20 $\frac{7}{8}$ (530)	11 $\frac{13}{32}$ (290)
MSC123E19MC	20 $\frac{7}{8}$ (530)	11 $\frac{13}{32}$ (290)
MSC183E19MC	22 $\frac{3}{64}$ (560)	13 $\frac{3}{16}$ (335)
MSC243E19MC	23 $\frac{15}{64}$ (590)	13 $\frac{3}{16}$ (335)

OUTDOOR UNIT	L1	L2
MSH092E19MC	20 $\frac{7}{8}$ (530)	11 $\frac{13}{32}$ (290)
MSH122E19MC	20 $\frac{7}{8}$ (530)	11 $\frac{13}{32}$ (290)
MSH123E19MC	20 $\frac{7}{8}$ (530)	11 $\frac{13}{32}$ (290)
MSH183E19MC	22 $\frac{3}{64}$ (560)	13 $\frac{3}{16}$ (335)
MSH243E19MC	23 $\frac{15}{64}$ (590)	13 $\frac{3}{16}$ (335)

REFRIGERANT LINE & CHARGE CHART

MODEL	PIPE SIZE		LINE SET LENGTH PROVIDED W/ UNIT	MAX ELEVATION	MAX LENGTH OVERALL	ADD. REFRIGERANT PER FT. OF ADD. LINE
	VAPOR	LIQUID				
	INCHES (M)	INCHES (M)				
MSH092E19MC	3/8" (φ9.53)	1/4" (φ6.35)	16 (5)	16 (5)	33 (10)	0.7 oz. (20g)
MSH122E19MC	1/2" (φ12.7)	1/4" (φ6.35)	16 (5)	16 (5)	33 (10)	0.7 oz. (20g)
MSH123E19MC	1/2" (φ12.7)	1/4" (φ6.35)	16 (5)	16 (5)	33 (10)	0.7 oz. (20g)
MSH183E19MC	5/8" (φ12.7)	3/8" (φ9.53)	16 (5)	26 (8)	49 (15)	1.4 oz. (40g)
MSH243E19MC	5/8" (φ12.7)	3/8" (φ9.53)	16 (5)	33 (10)	66 (20)	1.4 oz. (40g)
MSC092E19MC	3/8" (φ9.53)	1/4" (φ6.35)	16 (5)	16 (5)	33 (10)	0.7 oz. (20g)
MSC122E19MC	1/2" (φ12.7)	1/4" (φ6.35)	16 (5)	16 (5)	33 (10)	0.7 oz. (20g)
MSC123E19MC	1/2" (φ12.7)	1/4" (φ6.35)	16 (5)	16 (5)	33 (10)	0.7 oz. (20g)
MSC183E19MC	5/8" (φ12.7)	3/8" (φ9.53)	16 (5)	26 (8)	49 (15)	1.4 oz. (40g)
MSC243E19MC	5/8" (φ12.7)	3/8" (φ9.53)	16 (5)	33 (10)	66 (20)	1.4 oz. (40g)

POWER SUPPLY DATA

MODEL	POWER SUPPLY	MCA	MOC	AWG (MIN) CONNECTING CABLE
MSC092E19MC	115V,60Hz,1Ph	15.0	25.0	14#
MSC122E19MC	115V,60Hz,1Ph	15.0	25.0	14#
MSC123E19MC	230V,60Hz,1Ph	9.0	15.0	16#
MSC183E19MC	230V,60Hz,1Ph	14.0	20.0	14#
MSC243E19MC	230V,60Hz,1Ph	16.0	25.0	14#
MSH092E19MC	115V,60Hz,1Ph	15.0	25.0	14#
MSH122E19MC	115V,60Hz,1Ph	17.0	25.0	14#
MSH123E19MC	230V,60Hz,1Ph	8.0	15.0	16#
MSH183E19MC	230V,60Hz,1Ph	13.0	20.0	16#
MSH243E19MC	230V,60Hz,1Ph	15.0	25.0	14#

NOTES