



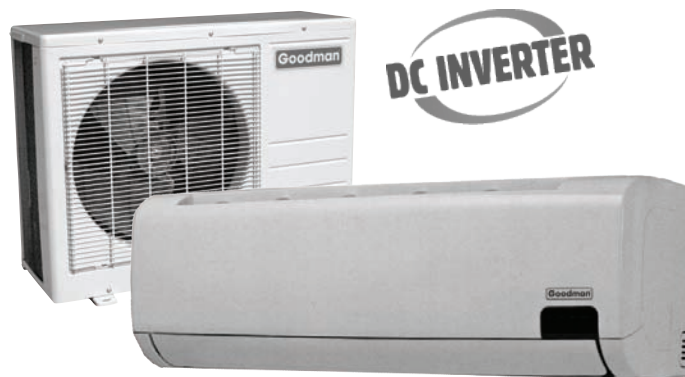
Air Conditioning & Heating

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



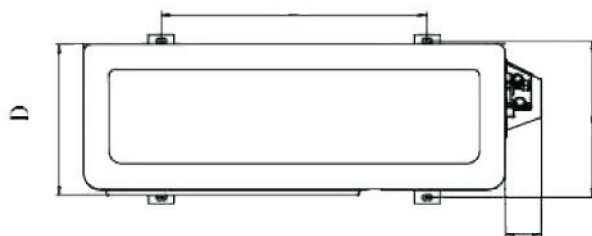
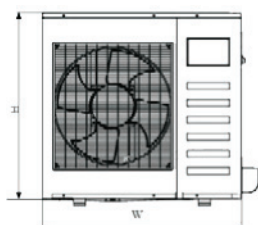
* Complete warranty details available from your local dealer or at www.goodmanmfg.com.



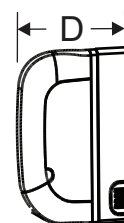
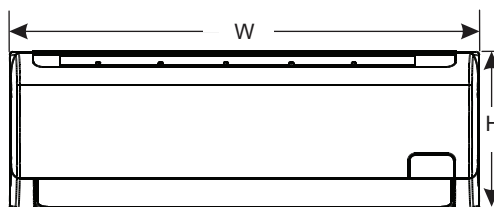
SPECIFICATIONS FOR HEAT PUMPS

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	650	950	980	1,460	2,100
	Heating	760	1,330	1,060	1,480	2,050
Operating Current (A)	Cooling	7.2	9.6	4.7	6.7	9.1
	Heating	8	13.5	5.7	6.6	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)	20'/40'/40'HQ	89 / 182 / 215	89 / 182 / 215	88 / 180 / 214	68 / 138 / 165	40 / 88 / 95

HEAT PUMP DIMENSIONS & SHIPPING WEIGHTS



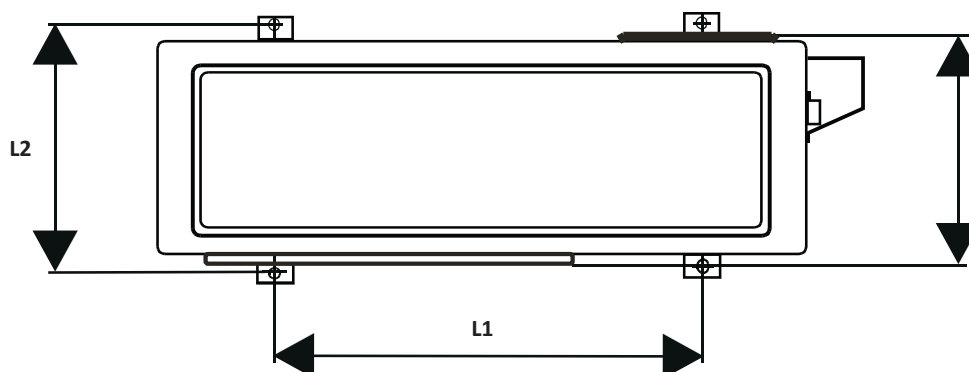
OUTDOOR UNIT



INDOOR UNIT

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 $\frac{1}{4}$ 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 $\frac{3}{4}$ x 27 $\frac{6}{16}$ x 13 $\frac{3}{16}$	35 $\frac{1}{4}$ x 33 $\frac{14}{16}$ 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 $\frac{15}{16}$ x 14 $\frac{1}{2}$ x 11 $\frac{7}{8}$	39 $\frac{15}{16}$ x 14 $\frac{1}{2}$ x 11 $\frac{7}{8}$	39 $\frac{15}{16}$ x 14 $\frac{1}{2}$ x 11 $\frac{7}{8}$	42 $\frac{1}{2}$ x 12 $\frac{3}{4}$ x 15 $\frac{3}{4}$	60 $\frac{1}{4}$ x 14 $\frac{3}{8}$ x 16 $\frac{7}{16}$
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 $\frac{15}{16}$ 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 $\frac{1}{16}$ x 36 x 15 $\frac{9}{16}$
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)

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)		B FEET (M)	A FEET (M)	OZ. (G/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



HEAT PUMP UNITS



Energy Star ratings are dependent upon conditions beyond equipment installation. To make certain your HVAC equipment qualifies for the Energy Star designation get complete information at www.energystar.gov.

Indoor Model		MSH092E19AX	MSH122E19AX	MSH123E19AX	MSH183E19AX	MSH243E19AX
Outdoor model		MSH092E19MC	MSH122E19MC	MSH123E19MC	MSH183E19MC	MSH243E19MC
Capacities						
Cooling Capacity	BTU/h	9,000	12,000	12,300	18,000	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	Cooling (Watts)	650	950	980	1460	2100
	Heating (Watts)	760	1330	1060	1480	2050
Operating Current	Cooling (Amps)	7.2	9.6	4.7	6.7	9.1
	Heating (amps)	8	13.5	5.7	6.6	8.9
MCA		15	17	8	13	15
MOC		25	25	15	20	25
Performance						
SEER		19	19	18.8	19.2	18
Energy Star		YES	YES	YES	YES	YES
Air Flow Volume	Indoor (m³/h)	750	800	850	1150	1600
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
Net Weight & Dimensions						
Indoor Unit (WxHxD)	mm.	920x292x223	920x292x223	920x292x223	998x322x240	1445x340x277
	in.	36 ¹ / ₄ x11 ¹ / ₂ x8 ³ / ₄	36 ¹ / ₄ x11 ¹ / ₂ x8 ³ / ₄	36 ¹ / ₄ x11 ¹ / ₂ x8 ³ / ₄	39 ⁵ / ₁₆ x12 ¹ / ₁₆ x9 ⁷ / ₁₆	56 ⁷ / ₈ x13 ³ / ₈ x10 ⁷ / ₈
Outdoor Unit (WxHxD)	mm.	760x590x285	760x590x285	760x590x285	845x695x335	895x860x330
	in.	29 ¹⁵ / ₁₆ x23 ³ / ₁₆ x11 ⁴ / ₁₆	29 ¹⁵ / ₁₆ x23 ³ / ₁₆ x11 ⁴ / ₁₆	29 ¹⁵ / ₁₆ x23 ³ / ₁₆ x11 ⁴ / ₁₆	33 ³ / ₁₆ x27 ⁹ / ₁₆ x13 ³ / ₁₆	35 ⁷ / ₁₆ x33 ¹⁴ / ₁₆ x13
Net Weight	(Indoor/ Outdoor) kg	11.5/37.5	11.5/ 37.5	11.5 / 39.5	13 / 47.5	26 / 72
	ib	26/83	26/83	26/88	29/105	58/159
Ship Weight & Dimensions						
Indoor Unit (WxHxD)	mm.	1015x368x295	1015x368x295	1015x368x295	1080x320x400	1530x365x420
	in.	39 ⁵ / ₁₆ x14 ¹ / ₂ x11 ⁵ / ₈	39 ⁵ / ₁₆ x14 ¹ / ₂ x11 ⁵ / ₈	39 ⁵ / ₁₆ x14 ¹ / ₂ x11 ⁵ / ₈	42 ¹ / ₂ x12 ⁵ / ₈ x15 ³ / ₄	60 ¹ / ₄ x14 ³ / ₈ x16 ⁹ / ₁₆
Outdoor Unit (WxHxD)	mm.	887x655x355	887x655x355	887x655x355	965x755x395	1043x915x395
	in.	34 ¹⁵ / ₁₆ x25 ¹³ / ₁₆ x14	34 ¹⁵ / ₁₆ x25 ¹³ / ₁₆ x14	34 ¹⁵ / ₁₆ x25 ¹³ / ₁₆ x14	38 x29 ¹ / ₁₆ x15 ⁹ / ₁₆	41 ¹ / ₁₆ x36 x15 ⁹ / ₁₆
Gross Weight	kg	14.5 / 39.5	14.5/40	14.5 / 42	17 / 51	32 / 76
(Indoor/Outdoor)	ib	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)
Stuffing Quantity	(Set)	89/182/215	89/182/215	88/180/214	68/138/165	40/88/95