



Air Conditioning & Heating

MS15

HIGH-EFFICIENCY MINI-SPLIT SYSTEM

UP TO 15 SEER PERFORMANCE
R-410A REFRIGERANT



Product Features

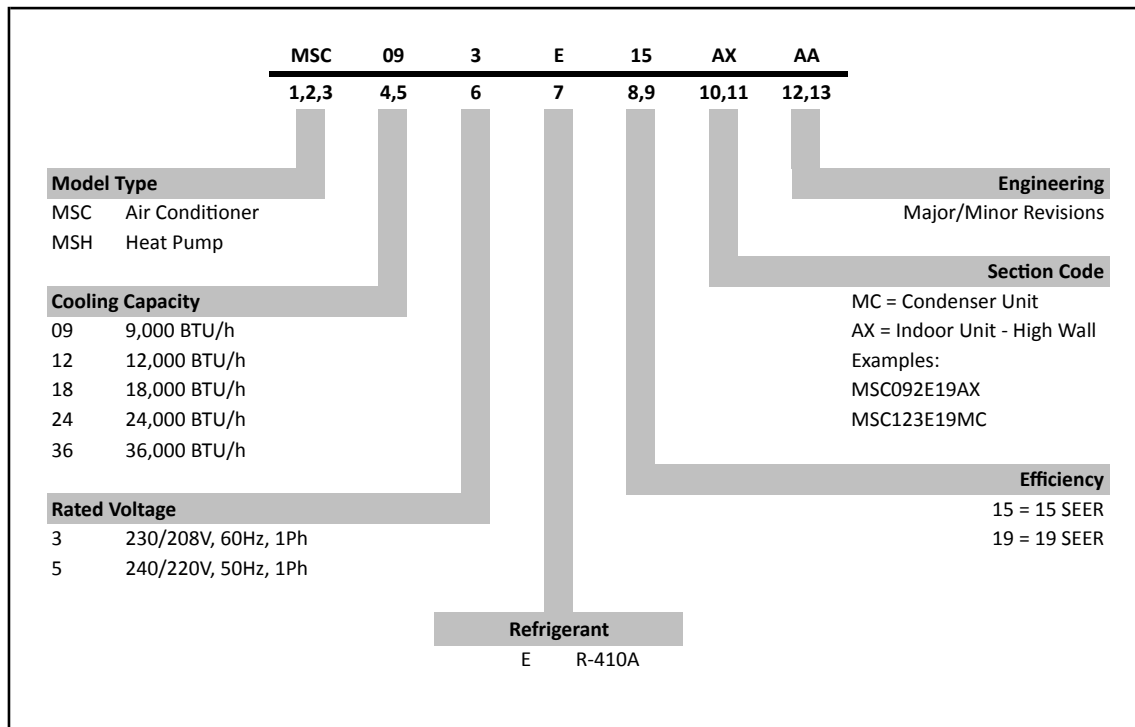
- R-410A chlorine-free refrigerant
- High-efficiency performance: up to 15 SEER
- DC Inverter technology compressor
- Auto-restart function
- Sleep mode setting (7-hour off-cycle)
- Auto-Level Swing
- Louver Position Memory
- Refrigerant Leakage Detection
- Turbo settings for fast heating or cooling
- Cold Catalyst Filter
- Indoor antibacterial fan
- Time-delay safety control
- Easy-clean indoor exterior panels
- Bi-directional airflow for optimal air distribution



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



NOMENCLATURE



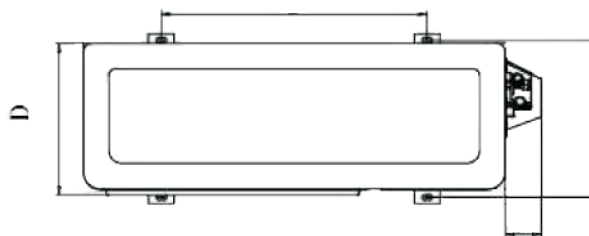
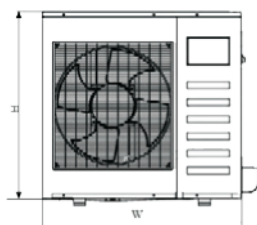
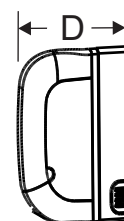
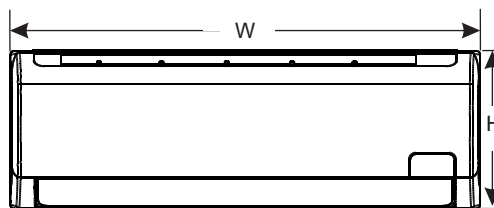
SPECIFICATIONS FOR AIR CONDITIONERS

INDOOR MODELS		MSC093E15AX	MSC123E15AX	MSC183E15AX	MSC243E15AX
OUTDOOR MODELS		MSC093E15MC	MSC123E15MC	MSC183E15MC	MSC243E15MC
AHRI #		5677748	5677749	5677750	5677751
CAPACITIES					
Cooling	Btu/h	9,000	12,000	18,000	22,000
SEER / EER		15 / 9	15 / 9	15 / 9	15 / 9
ELECTRICAL DATA					
Power Supply	Ph-V-Hz	115V~ 60Hz, 1Ph	208-230V~ 60Hz, 1Ph	208-230V~ 60Hz, 1Ph	208-230V~ 60Hz, 1Ph
MCA	A	19	7.5	12	14
Max Fuse	A	30	15	30	25
Moisture Removal	L/h	1	1.2	1.8	2.4
Compressor Type		Rotary	Rotary	Rotary	Rotary
INDOOR FAN MOTOR					
Blower RLA		0.63	0.23	0.36	0.56
Blower LRA		63	51	74.4	124
Input	W	46	43	58.5	80.5
Speed (Hi/Mi/Lo)	r/min	1200 / 1050 / 850	1200 / 1050 / 800	1250 / 1100 / 800	1200 / 1100 / 900
Airflow (Hi/Mi/Lo)	m3/h	480/420/320	600/530/400	750/660/480	1250/1150/950
Indoor Noise Level (Hi/Mi/Lo)	dB(A)	39/35/29	39/35/31	42/39/31	47/45/39
OUTDOOR FAN MOTOR					
Input	W	64/47	75/66	119/96	136/130
Capacitor	uF	3	2.5 / 6.0	2.5	2.5
Speed	r/min	860 / -- / 660	940 / -- / 835	860 / -- / 680	930 / -- / 830
Airflow	m3/h	1,400	1,900	2,300	2,700
Outdoor Noise Level	dB(A)	56	55	59	59
REFRIGERANT DATA					
Refrigerant Charge	g	900g	650g	850g	1180g
	oz	31.8	22.93	29.9	41.6
Refrigerant Type		R-410A	R-410A	R-410A	R-410A
Design Pressure	MPa	550/340 PSIG	550/340 PSIG	550/340 PSIG	550/340 PSIG
Connection Wiring		16#	16#	16#	16#
Thermostat Type		Remote Control	Remote Control	Remote Control	Remote Control
Operation Temperature (Cooling/ Heating) (°C)	Indoor	≥17/----	≥17/----	≥17/----	≥17/----
	Outdoor	-15 ~ 50/----	-15 ~ 50/----	-15 ~ 50/----	-15 ~ 50/----
Stuffing Quantity (Set) (20'/40'/40'HQ)		111/252/290	111/239/273	96/200/231	70/143/158

SPECIFICATIONS FOR HEAT PUMPS

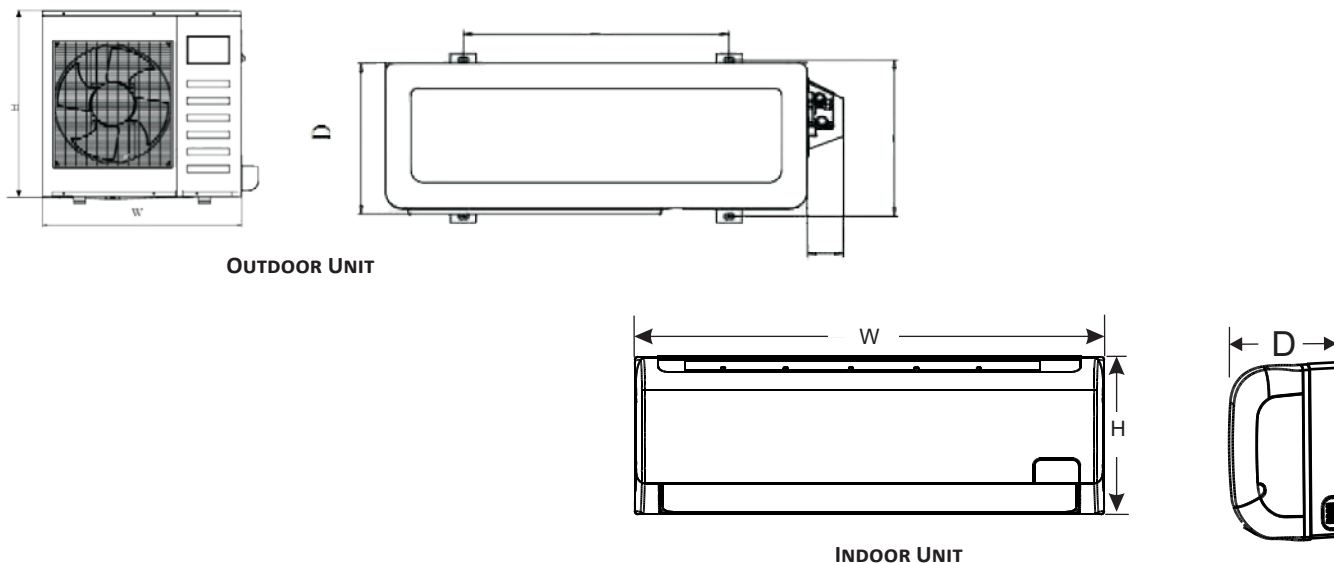
INDOOR MODELS		MSH093E15AX	MSH123E15AX	MSH183E15AX	MSH243E15AX
OUTDOOR MODELS		MSH093E15MC	MSH123E15MC	MSH183E15MC	MSH243E15MC
AHRI #		5677752	5677753	5677754	5677755
CAPACITIES					
Cooling / Heating	Btu/h	9,000 / 9,000	12,000 / 12,000	18,000 / 18,000	22,000 / 22,000
SEER / EER		15 / 9	15 / 9	15 / 9	15 / 9
HSPF		8.2	8.2	8.2	8.2
ELECTRICAL DATA					
Power Supply	Ph-V-Hz	208-230V~ 60Hz, 1Ph	208-230V~ 60Hz, 1Ph	208-230V~ 60Hz, 1Ph	208-230V~ 60Hz, 1Ph
MCA	A	19	7.5	12	14
Max Fuse	A	30	15	30	25
Moisture Removal	L/h	1	1.2	1.8	2.4
Compressor Type		Rotary	Rotary	Rotary	Rotary
INDOOR FAN MOTOR					
Blower RLA		0.63	0.23	0.36	0.56
Blower LRA		63	51	74.4	124
Input	W	46	43	58.5	80.5
Speed (Hi/Mi/Lo)	r/min	1200 / 1050 / 850	1200 / 1050 / 800	1250 / 1100 / 800	1200 / 1100 / 900
Airflow (Hi/Mi/Lo)	m3/h	480/420/320	600/530/400	750/660/480	1250/1150/950
Indoor Noise Level (Hi/Mi/Lo)	dB(A)	39/35/29	39/35/31	42/39/31	47/45/39
OUTDOOR FAN MOTOR					
Input	W	64/47	75/66	119/96	136/130
Capacitor	uF	3	2.5 / 6.0	2.5	2.5
Speed	r/min	860 / -- / 660	940 / -- / 835	860 / -- / 680	930 / -- / 830
Airflow	m3/h	1,400	1,900	2,300	2,700
Outdoor Noise Level	dB(A)	56	55	59	59
REFRIGERANT DATA					
Refrigerant Charge	g	900g	650g	850g	1180g
	oz	31.8	22.93	29.9	41.6
Refrigerant Type		R-410A	R-410A	R-410A	R-410A
Design Pressure	MPa	550/340 PSIG	550/340 PSIG	550/340 PSIG	550/340 PSIG
Connection Wiring		16#	16#	16#	16#
Thermostat Type		Remote Control	Remote Control	Remote Control	Remote Control
Operation Temperature (Cooling/ Heating) (°C)	Indoor	≥17 / ≤ 30	≥17 / ≤ 30	≥17 / ≤ 30	≥17 / ≤ 30
	Outdoor	-15 ~ 50 / -15~30	-15 ~ 50 / -15~30	-15 ~ 50 / -15~30	-15 ~ 50 / -15~30
Stuffing Quantity (Set) (20'/40'/40'HQ)		111/252/290	111/239/273	96/200/231	70/143/158

AIR CONDITIONING DIMENSIONS & SHIPPING WEIGHTS


OUTDOOR UNIT

INDOOR UNIT

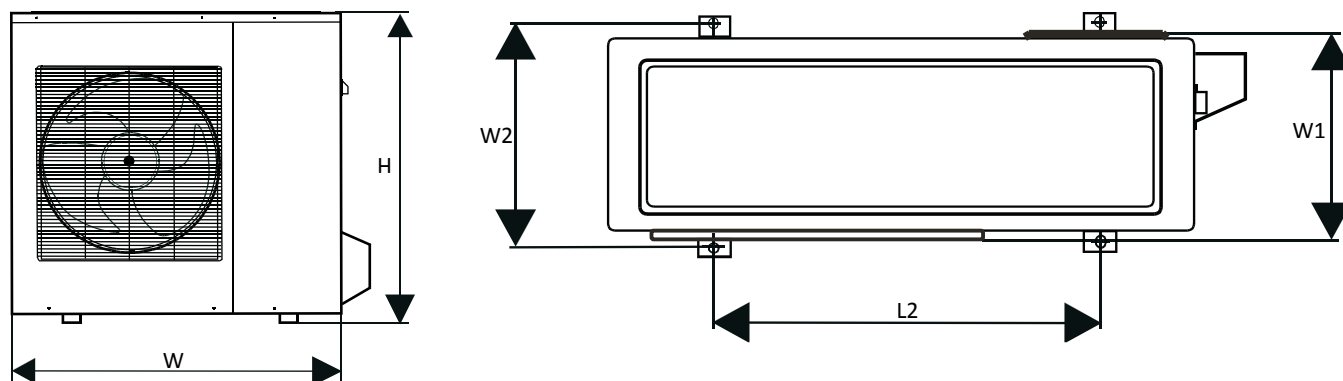
INDOOR MODEL		MSC092E15AX	MSC123E15AX	MSC183E15AX	MSC243E15AX
OUTDOOR MODEL		MSC092E15MC	MSC123E15MC	MSC183E15MC	MSC243E15MC
INDOOR UNITS					
Dimensions (W*H*D)	mm	680x178x255	770x188x255	905x198 x275	1030x218x315
	inch	26.77x7.01x10.04	30.31x7.40x10.04	35.63x7.80x10.83	40.55x8.58x12.40
Packing (W*H*D)	mm	745x255x330	835x265x330	970x270x345	1115x395x300
	inch	29.33x10.04x12.99	32.87x10.43x12.99	38.19x10.63x13.58	43.90x15.55x11.81
Net/Gross weight	lb (Kg)	15.5/ 17.6 (7 / 8)	16.5/ 20.95 (7.5 / 9.5)	19.85/ 25.35 (9 / 11.5)	90.35/ 137.35 (41 / 62.3)
OUTDOOR UNITS					
Dimensions (W*H*D)	mm	660x265x540	780x250x540	760x285x590	845x320x700
	inch	25.98x10.43x21.26	30.71x9.84x21.26	29.92x11.22x23.23	33.27x12.60x27.56
Packing (W*H*D)	mm	790x355x620	910x335x585	887x355x645	965x395x755
	inch	31.10x13.98x24.41	35.83x13.19x23.03	34.92x13.98x25.39	37.99x15.55x29.72
Net/Gross weight	lb (Kg)	62.85/ 69.5 (28.5 / 31.5)	66.15/ 70.55 (30 / 32)	82.65/88.15 (37.5 / 40)	103.6/ 111.35 (47 / 50.5)
PIPING					
Max. pipe length	m / ft	20 / 65.6	20 / 65.6	25 / 82	25 / 82
Max. Level difference	m / ft	8 / 26.25	8 / 26.25	10 / 35.8	10 / 35.8
Piping (Liquid / Gas)	mm (inch)	Φ6.35/Φ9.52(¼"/⅝")	Φ6.35/Φ9.52(¼"/⅝")	Φ6.35/Φ12.7(¼"/½")	Φ9.52/Φ15.9(⅝"/⅞")

HEAT PUMP DIMENSIONS & SHIPPING WEIGHTS



INDOOR MODEL		MSH092E15AX	MSH123E15AX	MSH183E15AX	MSH243E15AX
OUTDOOR MODEL		MSH092E15MC	MSH123E15MC	MSH183E15MC	MSH243E15MC
INDOOR UNITS					
Dimensions (W*H*D)	mm	680x178x255	770x188x255	905x198 x275	1030x218x315
	inch	26.77x7.01x10.04	30.31x7.40x10.04	35.63x7.80x10.83	40.55x8.58x12.40
Packing (W*H*D)	mm	745x255x330	835x265x330	970x270x345	1115x395x300
	inch	29.33x10.04x12.99	32.87x10.43x12.99	38.19x10.63x13.58	43.90x15.55x11.81
Net/Gross weight	lb (Kg)	15.5/ 17.6 (7 / 8)	16.5/ 20.95 (7.5 / 9.5)	19.85/ 25.35 (9 / 11.5)	90.35/ 137.35 (41 / 62.3)
OUTDOOR UNITS					
Dimensions (W*H*D)	mm	660x265x540	780x250x540	760x285x590	845x320x700
	inch	25.98x10.43x21.26	30.71x9.84x21.26	29.92x11.22x23.23	33.27x12.60x27.56
Packing (W*H*D)	mm	790x355x620	910x335x585	887x355x645	965x395x755
	inch	31.10x13.98x24.41	35.83x13.19x23.03	34.92x13.98x25.39	37.99x15.55x29.72
Net/Gross weight	lb (Kg)	62.85/ 69.5 (28.5 / 31.5)	66.15/ 70.55 (30 / 32)	82.65/ 88.15 (37.5 / 40)	103.6/ 111.35 (47 / 50.5)
PIPING					
Max. pipe length	m / ft	20 / 65.6	20 / 65.6	25 / 82	25 / 82
Max. Level difference	m / ft	8 / 26.25	8 / 26.25	10 / 35.8	10 / 35.8
Piping (Liquid / Gas)	mm(")	Φ6.35/Φ9.52(¼"/⅜")	Φ6.35/Φ9.52(¼"/⅜")	Φ6.35/Φ12.7(¼"/½")	Φ9.52/Φ15.9(⅜"/⅝")

OUTDOOR UNIT INSTALLATION DIMENSIONS



MODEL	OUTDOOR UNIT DIMENSIONS	MOUNTING DIMENSIONS	
	Inches/mm (L1xHxW1)	L2 (mm)	W2 (mm)
MS*09*E15	26" x 21" x 10.5" 660 x 540 x 265	19" 481	11" 276
MS*12*E15	31" x 21" x 10" 780 x 540 x 250	21.5" 549	11" 276
MS*18*E15	30" x 23" x 11" 760 x 590 x 285	21" 530	11.5" 290
MS*24*E15	33" x 27.5" x 12.5" 840 x 700 x 320	22" 560	13" 335

REFRIGERANT LINE & CHARGE CHART

MODEL	PIPE SIZE		LINE SET LENGTH PROVIDED WITH UNIT	MAX ELEVATION	MAX. LENGTH OVERALL	ADDITIONAL REFRIG, PER FOOT OF ADDITIONAL LINE
	VAPOR	LIQUID				
	INCHES (M)	INCHES (M)	[FEET (M)]	B [FEET (M)]	A [FEET (M)]	
MSC093E15MC	3/8" (φ9.53)	1/4" (φ6.35)	16 (5)	26 (8)	66 (20)	0.2 oz. (20g)
MSC123E15MC	3/8" (φ9.53)	1/4" (φ6.35)	16 (5)	26 (8)	66 (20)	0.2 oz. (20g)
MSC183E15MC	1/2" (φ12.7)	1/4" (φ6.35)	16 (5)	33 (10)	82 (25)	0.2 oz. (20g)
MSC243E15MC	5/8" (φ15.9)	3/8" (φ9.53)	16 (5)	33 (10)	82 (25)	0.4 oz. (40g)
MSH093E15MC	3/8" (φ9.53)	1/4" (φ6.35)	16 (5)	26 (8)	66 (20)	0.2 oz. (20g)
MSH123E15MC	3/8" (φ9.53)	1/4" (φ6.35)	16 (5)	26 (8)	66 (20)	0.2 oz. (20g)
MSH183E15MC	1/2" (φ12.7)	1/4" (φ6.35)	16 (5)	33 (10)	82 (25)	0.2 oz. (20g)
MSH243E15MC	5/8" (φ15.9)	3/8" (φ9.53)	16 (5)	33 (10)	82 (25)	0.4 oz. (40g)

POWER SUPPLY DATA

MODEL	POWER SUPPLY	MCA	MOC	AWG (MIN) CONNECTING CABLE
MSC093E15MC	230V,60Hz,1Ph	8.0	15.0	16#
MSC123E15MC	230V,60Hz,1Ph	8.0	15.0	16#
MSC183E15MC	230V,60Hz,1Ph	12.0	30.0	16#
MSC243E15MC	230V,60Hz,1Ph	14.0	25.0	16#
MSH093E15MC	230V,60Hz,1Ph	8.0	15.0	16#
MSH123E15MC	230V,60Hz,1Ph	8.0	15.0	16#
MSH183E15MC	230V,60Hz,1Ph	12.0	30.0	16#
MSH243E15MC	230V,60Hz,1Ph	14.0	25.0	16#