SMART MULTI™

MXZ-SM96TL
92,000 BTU/H 3-PHASE MXZ SMART MULTI OUTDOOR UNIT

MITSUBISHI ELECTRIC
HEATING & AIR CONDITIONING

Job Name:			
System Reference:		**Date:**	

GENERAL FEATURES

- ASTM B117: Outdoor unit has passed ASTM B117 testing for 2,000hrs with additional coating on PCB and base panel
- Three Phase: Three-phase 208/230V operation for use in light commercial applications
- Multiple IDU Connection: Connect up to 30 indoor units depending on MXZ-SM capacity
- Static Fan Adjustment: Outdoor unit fan can be adjusted to allow 0.12 in.w.g. static pressure by dip switch setting change
- Compatibility: Compatible with M- and P-Series and CITY MULTI® indoor units (branch box required for connection with M- and P-Series)

SPECIFICATIONS			SYSTEM
UNIT TYPE			MXZ-SM96TL
Cooling at 95F[1] (Non-Ducted // Mixed // Ducted)	Maximum Capacity	Btu/h // Btu/h // Btu/h	96000 // 96000 // 96000
	Rated Capacity	Btu/h // Btu/h // Btu/h	92000 // 92000 // 92000
	Maximum Power Input	W // W // W	7550 // 7550 // 7550
	Rated Power Input	W // W // W	7540 // 7540 // 7540
Heating at 47F[2] (Non-Ducted // Mixed // Ducted)	Maximum Capacity	Btu/h // Btu/h // Btu/h	108000 // 108000 // 108000
	Rated Capacity	Btu/h // Btu/h // Btu/h	103000 // 103000 // 103000
	Minimum Capacity	Btu/h // Btu/h // Btu/h	4.24 // 4.12 // 4.01
	Maximum Power Input	W // W // W	7460 // 7675 // 7890
	Rated Power Input	W // W // W	7453 // 7667 // 7881
Heating at 17F[3] (Non-Ducted // Mixed // Ducted)	Rated Capacity	Btu/h // Btu/h // Btu/h	76000 // 76000 // 76000
	Rated Power Input	W // W // W	8436 // 8518 // 8599
Heating at -13F[9] (Non-Ducted // Mixed // Ducted)	Maximum Capacity	Btu/h // Btu/h // Btu/h	47000 // 47000 // 47000
	Maximum Power Input	W // W // W	7300 // 7300 // 7300
Efficiency (Non-Ducted // Mixed // Ducted)	EER		12.2 // 12.2 // 12.2
	IEER		24.2 // 23.15 // 22.1
	COP at 47°F[2]		4.05 // 3.94 // 3.83
Electrical	Electrical Power Requirements	V AC / V AC , ø , Hz	208 / 230 , 3 , 60
	Guaranteed Voltage Range	V AC - V AC	188 - 253
	Short-circuit Current Rating (SCCR)	kA	5
	Recommended Fuse/Breaker Size if Branch Box Powered by Outdoor Unit	A	60
	Recommended Fuse/Breaker Size without Branch Box or Branch Box Powered Separate	A	40
	MCA if Branch Box Powered by Outdoor Unit	A	64
	MOCP if Branch Box Powered by Outdoor Unit	A	100
	MCA without Branch Box or Branch Box Powered Separate	A	46
	MOCP without Branch Box or Branch Box Powered Separate	A	82
Outdoor Unit	Fan Motor Output	W	285+285
	Defrost Method		Reverse Cycle
	Blue Fin Heat Exchanger Coating		Yes
	Airflow Rate Cooling/Heating	CFM / CFM	6320 / 6320
	Sound Pressure Level, Cooling[1]	dB (A)	58
	Sound Pressure Level, Heating[2]	dB (A)	59
	Compressor Type		Scroll
	Compressor Model		ARB78FBAMT
	Compressor Motor Output	kW	5.3
	Compressor Oil Type // Charge	// oz	RM68EH // 101
	External Finish Color		3Y7.8/1.1
	Base Pan Heater		Optional
	Unit Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	41-11/32 x 18-7/64 x 65-7/16 [1050 x 460 x 1662]
	Package Dimensions (W x D x H)	inch x inch x inch [mm x mm x mm]	45 x 24-1/2 x 72-1/2 [1140 x 620 x 1840]
	Unit Weight	lbs [kg]	421 [191]
	Package Weight	lbs [kg]	470 [213]
ODU Operating Temp. Range	Cooling Intake Air Temp (Maximum / Minimum[C])	F / F	115 / 23

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OUTDOOR UNIT SPECIFICATIONS: MXZ-SM96TL

ODU Operating Temp. Range	Heating Intake Air Temp [Maximum / Minimum]	F , F / F , F	70 , 59 / -13 , -13
	Heating Thermal Lock-out / Re-start Temperatures**	F / F	-24 / -14
Refrigerant	Type		R454B
	Pre-Charged Refrigerant Amount	lbs	15, 3
	Additional Refrigerant Charge Per Additional Piping Length	oz/ft	0.22
IDU Connection	Maximum Number of Connected IDU with Branch Box[A]		12
	Maximum Number of Connected IDU without Branch Box		30
	Minimum Connected Capacity with Branch Box	Btu/h	48000
	Minimum Connected Capacity without Branch Box	Btu/h	48000
	Maximum connected capacity	Btu/h	124000
Piping	Liquid Pipe Size O.D. (Flared)	inch [mm]	3/8 [9.52]
	Gas Pipe Size O.D. (Flared)	inch [mm]	7/8 [22.23]
	Total Piping Length when using Branch Box	ft [m]	787 [240]
	Total Piping Length without Branch Box	ft [m]	1016 [310]
	Maximum Height Difference[*B], ODU above IDU	ft [m]	164 [50]
	Maximum Height Difference[*B], ODU below IDU	ft [m]	131 [40]
	Maximum Height Difference[*B], between branch boxes	ft [m]	49 [15]
	Maximum Height Difference between IDU and IDU without branch box	ft [m]	39 [12]
	Maximum Piping Length between ODU and Branch Box	ft [m]	311 [95]
	Farthest Piping Length from ODU to IDU with Branch Box	ft [m]	262 [80]
	Farthest Piping Length from ODU to IDU without Branch Box	ft [m]	426 [130]
	Farthest Piping Length after Branch Box	ft [m]	82 [25]
	Total Piping Length between Branch Boxes and IDU	ft [m]	475 [145]

Notes

[1]Nominal cooling conditions (Test conditions are based on AHRI 1230-2023) Indoor: 80°FD.B./67°FW.B. (26.7°CD.B./19.4°CW.B.), Outdoor: 95°FD.B. (35°CD.B.)
[2]Nominal heating conditions (Test conditions are based on AHRI 1230-2023) Indoor: 70°FD.B. (21.1°CD.B.), Outdoor: 47°FD.B./43°FW.B. (8.3°CD.B./6.1°CW.B.)
[3]Heating at 17°F (Indoor: 70°F DB, 60°F WB // Outdoor: 17°F DB, 15°F WB)
[9]Heating at -13°F (Indoor: 70°F DB, 60°F WB // Outdoor: -13°F DB, -14°F WB)
[A]Maximum connected units reduced when PLA connected. Refer to manual for details
[B]Branch box should be placed within the level between the outdoor unit and indoor units
[C]5°F DB - 115°F DB when optional wind baffles are installed. 50F to 115°F DB when connecting, PKFY-P(M/L)04/06/08/12NLMU, PFFY-M06/08/12NEMU and PFFY-M06/08/12NRMU type indoor units. Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions. When the temperature is below 50°F D.B with the branch box system, noise could potentially occur.
[*]For actual capacity performance based on indoor unit type and number of indoor units connected, please refer to MXZ Operational Performance
[*]Although the maximum connectible capacity is 130%, the outdoor unit cannot provide more than 100% of the rated capacity. Please utilize this over-capacity capability for load shedding or applications where it is known that all connected units will NOT be operating at the same time.
[*]Both CITY MULTI indoor units and branch box indoor units cannot be utilized on the same system.
[*]Refer to piping diagrams in the installation manuals for requirements related to piping lengths greater than 295 ft and when PEFY-M72 or M96 are installed
[*]A dip switch setting can be changed to allow the fan to operate with an external static pressure of 0.12 in.w.g. (30 Pa).

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OUTDOOR UNIT ACCESSORIES: MXZ-SM96TL

Ball Valve	Refrigeration Ball Valve - 1/4	☐	BV14FFSI2
	Refrigeration Ball Valve - 3/8	☐	BV38FFSI2
	Refrigeration Ball Valve - 5/8	☐	BV58FFSI2
	Refrigeration Ball Valve - 1/2	☐	BV12FFSI2
Branch Box	5 Port Branch Box	☐	PAC-LMA50BC
	3 Port Branch Box	☐	PAC-LMA30BC
	Branch Box Enclosure	☐	BBE-1
Control Wire	M-Net Control Wire - 250 Foot Roll	☐	CW162S-250
	M-Net Control Wire - 1,000 Foot Roll	☐	CW162S-1000
Control/Service Tool	Maintenance Tool Interface	☐	PAC-USCMS-MN-1
Distribution pipe	Brazed Connection	☐	MSDD-50BR-E
	Flare Connection	☐	MSDD-50AR2-E
Mini-Split Wire	14 Gauge 4 wire Armored MiniSplit Cable50 ft roll	☐	SW144-50
	14 Gauge 4 wire MiniSplit Cable50 ft roll	☐	S144-50
	14 Gauge 4 wire Armored MiniSplit Cable250 ft roll	☐	SW144-250
	16 Gauge 4 wire Armored MiniSplit Cable250 ft roll	☐	SW164-250
	14 Gauge 4 wire MiniSplit Cable250 ft roll	☐	S144-250
	16 Gauge 4 wire MiniSplit Cable250 ft roll	☐	S164-250
	16 Gauge 4 wire Armored MiniSplit Cable50 ft roll	☐	SW164-50
Mounting Pad	Condensing Unit Mounting Pad 24 x 42 x 3	☐	ULTRILITE2
Piping Accessories	Four Branch Header	☐	CMY-Y64-G-E
	Branch Joint	☐	CMY-Y62-GA-E
	Eight Branch Header	☐	CMY-Y68-G-E
	Branch Joint	☐	CMY-Y62-G-E
Port Adaptor	Adaptor 3/8 x 5/8	☐	PAC-SK90RJ-E
	Adaptor 1/2 x 5/8	☐	PAC-SK89RJ-E
	Adaptor 3/8 x 1/2	☐	ADP3812
	Adaptor 1/2 x 3/8	☐	PAC-SK88RJ-E
	Adaptor 1/4 x 3/8	☐	PAC-SJ87RJ-E
Shutoff Valve Kit	Shutoff Valve Kit Flare Joint Kit (32)	☐	PAC-MR10RJ-E
Stand	24 Dual Fan Stand	☐	QSMS2402M
	Outdoor Unit Stand 12 High	☐	QSMS1202M
	18 Dual Fan Stand	☐	QSMS1802M
	Outdoor Unit 3-14 inch Mounting Base Pair - Plastic	☐	DSD-400P
Terminal Signal Adapter	3-Pin Wiring Harness	☐	PAC-715AD
	5-Pin Wiring Harness	☐	PAC-725AD
Wind Baffle	Front Wind Baffle	☐	WB-PA6 (two pieces required)
Notes			

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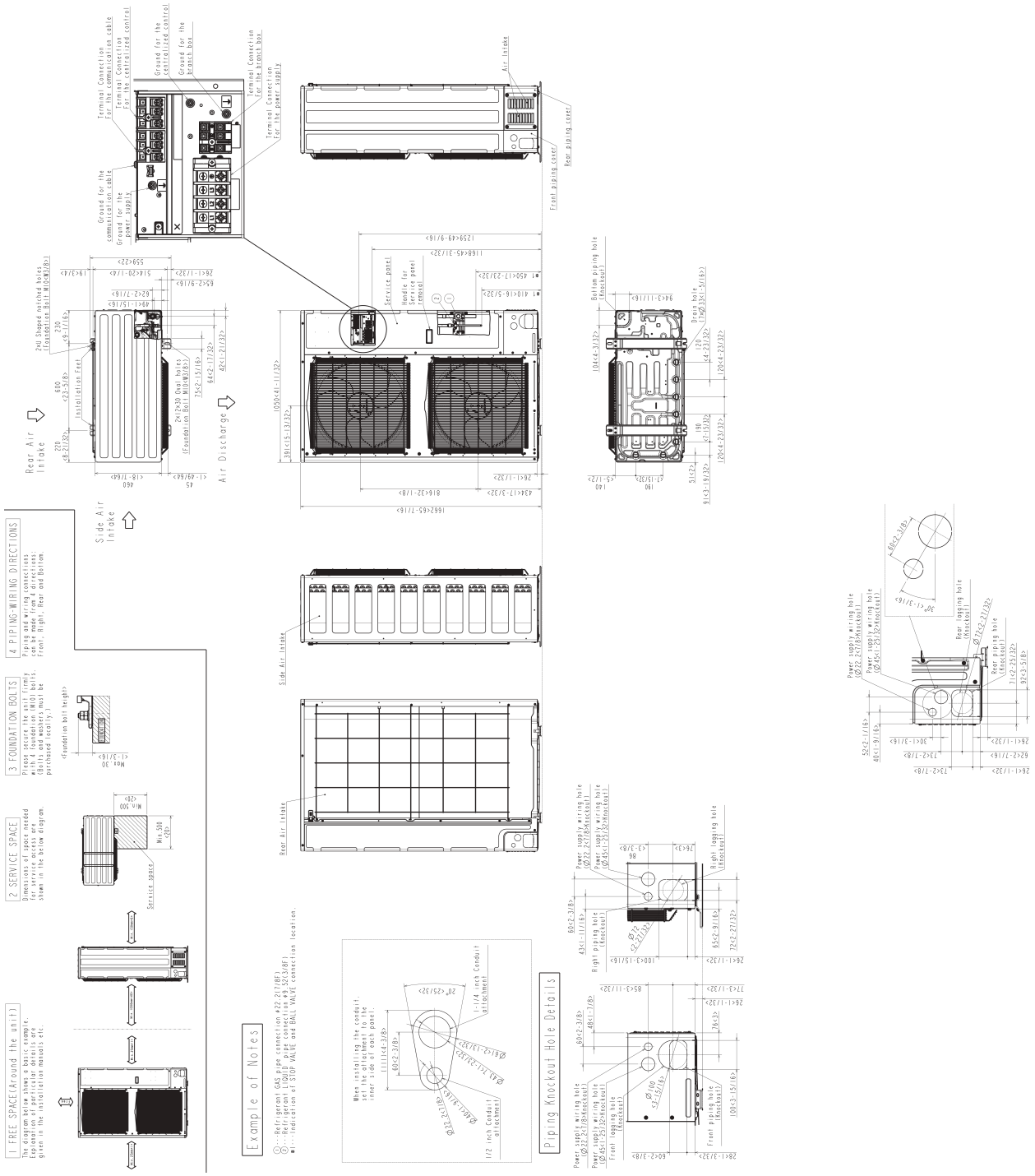
OUTDOOR UNIT DIMENSIONS: MXZ-SM96TL



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Specifications are subject to change without notice.

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