

Job Name:

System Reference:

Date:



GENERAL FEATURES

- Multiple IDU Connection: Connect up to 30 indoor units depending on MXZ-SM capacity
- Three Phase: Three-phase 208/230V operation for use in light commercial applications
- 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)
- ASTM B117 : Outdoor unit has passed ASTM B117 testing for 2,000hrs with additional coating on PCB and base panel

Specifications			System
Unit Type			MXZ-SM72TL
Cooling at 95F ¹ (Non-Ducted // Mixed // Ducted)	Maximum Capacity	Btu/h	72,000 // 72,000 // 72,000
	Rated Capacity	Btu/h	69,000 // 69,000 // 69,000
	Maximum Power Input	W	5,440 // 5,330 // 5,520
	Rated Power Input	W	5,433 // 5,477 // 5,520
Heating at 47F ² (Non-Ducted // Mixed // Ducted)	Maximum Capacity	Btu/h	80,000 // 80,000 // 80,000
	Rated Capacity	Btu/h	76,000 // 76,000 // 76,000
	Minimum Capacity	Btu/h	4.54 // 4.45 // 4.36
	Maximum Power Input	W	5,160 // 5,270 // 5,380
Heating at 17F ³ (Non-Ducted // Mixed // Ducted)	Rated Power Input	W	5,085 // 5,194 // 5,303
	Rated Capacity	Btu/h	56,000 // 56,000 // 56,000
Heating at -13F ⁹ (Non-Ducted // Mixed // Ducted)	Rated Power Input	W	5,946 // 5,946 // 5,946
	Maximum Capacity	Btu/h	34,700 // 34,700 // 34,700
Efficiency (Non-Ducted // Mixed // Ducted)	Maximum Power Input	W	6,700 // 6,700 // 6,700
	EER		12.7 // 12.6 // 12.5
	IEER		25 // 23.75 // 22.5
Electrical	COP at 47°F ²		4.38 // 4.28 // 4.20
	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	50
	MOCP if Branch Box Powered by Outdoor Unit	A	75
	MCA without Branch Box or Branch Box Powered Separate	A	32
	MOCP without Branch Box or Branch Box Powered Separate	A	57

NOTES

¹Nominal cooling conditions (Test conditions are based on AHRI 1230-2023) Indoor: 80°F DB, 67°F WB, (26.7°C DB, 19.4°C WB), Outdoor: 95°F DB, (35°C DB.)

²Nominal heating conditions (Test conditions are based on AHRI 1230-2023) Indoor: 70°F DB, (21.1°C DB.), Outdoor: 47°F DB, 43°F WB, (8.3°C DB, 6.1°C WB.)

³Heating at 17°F (Indoor: 70°F DB, 60°F WB // Outdoor: 17°F DB, 15°F WB)

⁹Heating at -13°F (Indoor: 70°F DB, 60°F WB // Outdoor: -13°F DB, -14°F WB)

⁴Maximum connected units reduced when PLA connected. Refer to manual for details

⁸Branch box should be placed within the level between the outdoor unit and indoor units

⁵5°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).

SPECIFICATIONS: MXZ-SM72TL

Specifications			System
Unit Type			MXZ-SM72TL
Outdoor Unit	Fan Motor Output	W	285+285
	Defrost Method		Reverse Cycle
	Blue Fin Heat Exchanger Coating		Yes
	Airflow Rate Cooling/Heating	CFM / CFM	5,260 / 5,260
	Sound Pressure Level, Cooling ¹	dB (A)	53
	Sound Pressure Level, Heating ²	dB (A)	54
	Compressor Type		Scroll
	Compressor Model		ARB78FBAMT
	Compressor Motor Output	kW	5.3
	Compressor Oil Type // Charge	Type // 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 [1,050 x 460 x 1,662]
	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 [1,140 x 620 x 1,840]
Unit Weight	lbs [kg]	421 [191]	
Package Weight	lbs [kg]	470 [213]	
ODU Operating Temp. Range	Cooling Intake Air Temp (Maximum / Minimum ³)	°FDB / °FDB	115 / 23
	Cooling Thermal Lock-out / Re-start Temperatures	°FDB / °FDB	N/A / N/A
	Heating Intake Air Temp [Maximum / Minimum]	°FDB , °FWB / °FDB , °FWB	70 , 59 / -13 , -13
	Heating Thermal Lock-out / Re-start Temperatures**	°FDB / °FDB	-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 ⁴		12
	Maximum Number of Connected IDU without Branch Box		23
	Minimum Connected Capacity with Branch Box	Btu/h	36,000
	Minimum Connected Capacity without Branch Box	Btu/h	36,000
	Maximum connected capacity	Btu/h	93,000
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]	1,016 [310]
	Maximum Height Difference ⁵ , ODU above IDU	ft [m]	164 [50]
	Maximum Height Difference ⁶ , ODU below IDU	ft [m]	131 [40]
	Maximum Height Difference ⁷ , 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

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OUTDOOR UNIT ACCESSORIES: MXZ-SM72TL

Ball Valve	Refrigeration Ball Valve - 5/8	BV58FFSI2
	Refrigeration Ball Valve - 1/2	BV12FFSI2
	Refrigeration Ball Valve - 1/4	BV14FFSI2
	Refrigeration Ball Valve - 3/8	BV38FFSI2
Branch Box	3 Port Branch Box	PAC-LMA30BC
	5 Port Branch Box	PAC-LMA50BC
	Branch Box Enclosure	BBE-1
Control Wire	M-Net Control Wire 1000 Roll 16-AWG Standard Twisted Pair Shielded Jacketed- Plenum rated	CW162S-1000
	M-Net Control Wire 250 Roll 16-AWG Standard Twisted Pair Shielded Jacketed- Plenum rated	CW162S-250
Control/Service Tool	Maintenance Tool Interface	PAC-USCMS-MN-1
Distribution pipe	Flare Connection	MSDD-50AR2-E
	Brazed Connection	MSDD-50BR-E
Mini-Split Wire	14 Gauge 4 wire MiniSplit Cable50 ft roll	S144-50
	16 Gauge 4 wire Armored MiniSplit Cable250 ft roll	SW164-250
	14 Gauge 4 wire Armored MiniSplit Cable50 ft roll	SW144-50
	16 Gauge 4 wire MiniSplit Cable250 ft roll	S164-250
	16 Gauge 4 wire Armored MiniSplit Cable50 ft roll	SW164-50
	14 Gauge 4 wire MiniSplit Cable250 ft roll	S144-250
	14 Gauge 4 wire Armored MiniSplit Cable250 ft roll	SW144-250
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-G-E
	Branch Joint	CMY-Y62-GA-E
	Eight Branch Header	CMY-Y68-G-E
Port Adaptor	Adaptor 1/4 x 3/8	PAC-SJ87RJ-E
	Adaptor 3/8 x 1/2	ADP3812
	Adaptor 3/8 x 5/8	PAC-SK90RJ-E
	Adaptor 1/2 x 3/8	PAC-SK88RJ-E
	Adaptor 1/2 x 5/8	PAC-SK89RJ-E
Shutoff Valve Kit	Shutoff Valve Kit Flare Joint Kit (32)	PAC-MR10RJ-E
Stand	12" Dual Fan Stand	QSMS1202M
	18" Dual Fan Stand	QSMS1802M
	Outdoor Unit 3-14 inch Mounting Base Pair - Plastic	DSD-400P
	24" Dual Fan Stand	QSMS2402M
Terminal Signal Adapter	3-Pin Connector	PAC-715AD
	Connector and wire for Operation status/error using CN51	PAC-725AD
Wind Baffle	Front Wind Baffle	WB-PA6 (two pieces required)
NOTES		

