SMART MULTI™

MSM/MSH Product Guide

Product Overview

SMART MULTI (MSM/MSH) is a new line of outdoor units that replace the TUMY and MMX/MPH branch-box style outdoor units. SMART MULTI outdoor units are compatible with Nv-Series, P-Series, and CITY MULTI® indoor units. SMART MULTI brings a simplified lineup with the same functionality, same compatibility and improved performance. SMART MULTI is available as a heat pump in 36, 48, and 60 KBTU/H capacities and Hyper-heating heat pumps in 36, 42, and 48 KBTU/H capacities.

Improved Efficiency

SEER and HSPF Efficiencies have been improved, SEER up to 23.0 and HSPF now up to 12.5.

Indoor Unit Compatibility

Hyper-heating (H2i®) units provide 100% heating capacity down to 5° F ambient outdoor temperature and continue to provide reliable heating as temperatures drop to -13° F.

Blue Fin HEX Standard

Anti-corrosion coating is applied to the heat exchanger of the outdoor units. This coating prevents the corrosion of the aluminum fins caused by salt in the air, especially in coastal areas

Quiet Operation

The SMART MULTI outdoor unit operates as low as 49 dB(A), or quieter than a typical conversation.

Compatible Units*

Nv-Series and P-Series

- Deluxe Wall-mounted
- Designer Wall-mounted
- Premier Wall-mounted
- Floor-mounted
- EZ FIT® Recessed Ceiling Cassette
- Multi-position Air Handler
- Four-way Ceiling Cassette
- Low- and Mid-static Horizontal-ducted
- intelli-HEAT™

CITY MULTI

- Wall-mounted
- Floor-mounted
- Ceiling Cassette
- High-static Horizontal-ducted
- Four-way Ceiling Cassette
- Ceiling-suspended
- Multi-position Air Handler

*CITY MULTI indoor units cannot be combined with Nv- and P-Series indoor units on the same outdoor unit.

SMART MULTI™

			NTXMSM36A142A*	NTXMSM48A182A*	NTXMSM60A182A*	NTXMSH36A142A*	NTXMSH42A152A*	NTXMSH48A182A*
Cooling Capacity (Nominal)		BTU/H	36,000	48,000	60,000	36,000	42,000	48,000
Heating Capacity (Nominal)		BTU/H	42,000	54,000	66,000	42,000	48,000	54,000
Guaranteed Operating Range[1]	Cooling[2]	°FDB	115 / 23	115 / 23	115 / 23	115 / 23	115 / 23	115 / 23
	Heating[3]	°FWB	59 / -13	59 / -13	59 / -13	59 / -13	59 / -13	59 / -13
External Dimensions (H x W x D)	In. [mm]		52-11/16 x 41-11/32 x 13 [1,338 x 1,050 x 330]	52-11/16 x 41-11/32 x 13 [1,338 x 1,050 x 330]	52-11/16 x 41-11/32 x 13 [1,338 x 1,050 x 330]	52-11/16 x 41-11/32 x 13 [1,338 x 1,050 x 330]	52-11/16 x 41-11/32 x 13 [1,338 x 1,050 x 330]	52-11/16 x 41-11/32 x 13 [1,338 x 1,050 x 330]
Net Weight		Lbs. [kg]	271 [123]	271 [123]	302 [137]	278 [126]	278 [126]	278 [126]
Electrical Power Requirements	Voltage, Phase, Hertz		208/230, 1, 60	208/230, 1, 60	208/230, 1, 60	208/230, 1, 60	208/230, 1, 60	208/230, 1, 60
Minimum Circuit Ampacity		A	29(35.0)	29(35.0)	36(46.0)	36(42.0)	36(42.0)	36(42.0)
Maximum Overcurrent Protection		A	40(50)	40(50)	50(55)	40(50)	40(50)	40(50)
Recommended Fuse Size		A	30(40)	30(40)	40(50)	40(45)	40(45)	40(45)
Recommended Minimum Wire Size		AWG [mm]	16	16	16	16	16	16
SCCR		kA	5	5	5	5	5	5
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]	3/8 [9.52]	3/8 [9.52]	3/8 [9.52]	3/8 [9.52]	3/8 [9.52]	3/8 [9.52]
	Gas (Low Pressure)	In. [mm]	5/8 [15.88]	5/8 [15.88]	3/4 [19.05]	5/8 [15.88]	5/8 [15.88]	5/8 [15.88]
Max. Total Refrigerant Line Length		Ft. [m]	311 (984) [95 (300)]	311 (984) [95 (300)]	311 (492) [95 (150)]	311 (984) [95 (300)]	311 (984) [95 (300)]	311 (984) [95 (300)]
Max. Refrigerant Line Length (Between ODU & IDU)		Ft. [m]	492 (492) [150 (150)]	492 (492) [150 (150)]	492 (262) [150 (80)]	492 (492) [150 (150)]	492 (492) [150 (150)]	492 (492) [150 (150)]
Indoor Unit Connectable	Total Capacity		12,000 (18,000)~46,800	12,000 (24,000)~62,000	12,000 (30,000)~78,000	12,000 (18,000)~46,800	12,000 (21,000)~54,000	12,000 (24,000)~62,000
	Indoor Unit Quantity	M- and P-Series	2~4 (3)	2~8 (6)	2~8 (6)	2~4 (3)	2~5 (4)	2~8 (6)
		CITY MULTI	1~11	1~12	1~12	1~11	1~12	1~12
Sound Pressure Levels		dB(A)	49/53	51/54	58/59	49/53	50/54	51/54
Sound Power Levels		dB(A)	53	54	59	53	54	54
FAN[4]	Airflow Rate	CFM	3,885/3,885	3,885/3,885	4,875/4,555	3,885/3,885	3,885/3,885	3,885/3,885
Compressor	Type		Hermetic	Hermetic	Hermetic	Hermetic	Hermetic	Hermetic
Compressor Motor Output		kW	2.8	3.4	3.9	2.8	2.9	3.4
Lubricant			FV50S // 78	FV50S // 78	FVC68D // 78	FV50S // 73	FV50S // 73	FV50S // 73
AHRI Ratings (Ducted // Mixed // Non-ducted)	EER		15.0 // 13.8 // 12.6	13.1 // 12.2 // 11.3	13.3 // 12.2 // 11.1	15.0 // 13.8 // 12.6	13.4 // 12.2 // 11.0	13.1 // 12.2 // 11.3
	SEER		23.0 // 20.65 // 18.3	23.0 // 19.75 // 16.5	20.0 // 18.9 // 17.8	23.0 // 20.65 // 18.3	22.0 // 20.0 // 18.0	23.0 // 19.75 // 16.5
	COP		4.0 // 3.85 // 3.7	4.0 // 3.65 // 3.3	4.1 // 3.9 // 3.7	4.0 // 3.85 // 3.7	4.1 // 3.75 // 3.4	4.0 // 3.65 // 3.3
	HSPF		12.5 // 11.8 // 11.2	12.0 // 11.5 // 11.0	12.0 // 11.3 // 10.7	12.5 // 12.1 // 11.7	12.0 // 11.5 // 11.0	12.0 // 11.5 // 11.0
	ENERGY STAR® Certified		Yes // No // Yes	Yes // No // No	Yes // No // No	Yes // No // Yes	Yes // No // No	Yes // No // No

NOTES:

AHRI Rated Conditions (Rated data is determined at a fixed compressor speed)

[1]Cooling (Indoor // Outdoor) °F 80 DB, 67 WB // 95 DB, 75 WB
[2]Heating at 47°F (Indoor // Outdoor) °F 70 DB, 60 WB // 47 DB, 43 WB
[3]Heating at 17°F (Indoor // Outdoor) °F 70 DB, 60 WB // 17 DB, 15 WB

Conditions

[4]Heating at 5°F (Indoor // Outdoor) °F 70 DB, 60 WB // 5 DB, 4 WB

*Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.
*A when 1 or more PLA-A·EA7 connected
*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

For actual capacity performance based on indoor unit type and number of indoor units connected, please refer to multi-zone operational performance.
Although the maximum connectable 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.