1 TECHNICAL CHANGES

MUZ-D30NA MUZ-D30NA-U1
MUZ-D36NA MUZ-D36NA-U1
MUY-D30NA
MUY-D36NA

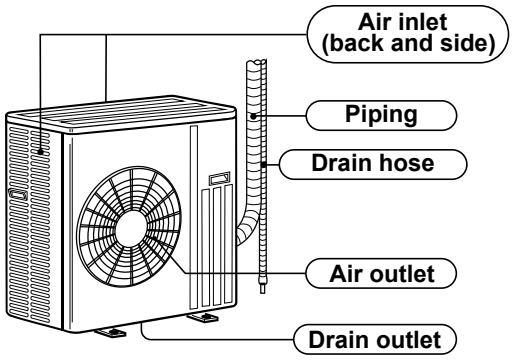
1. New model

MUZ-D30NA → MUZ-D30NA-1 MUZ-D30NA-U1 → MUZ-D30NA-U2
MUZ-D36NA → MUZ-D36NA-1 MUZ-D36NA-U1 → MUZ-D36NA-U2
MUY-D30NA → MUY-D30NA-1
MUY-D36NA → MUY-D36NA-1

1. Wiring diagram has been changed.
2. Fan motor has been changed.

2 PART NAMES AND FUNCTIONS

MUZ-D30NA MUZ-D36NA MUY-D30NA MUY-D36NA



3 SPECIFICATION

Item \ Model			MSZ-D30NA	MSY-D30NA	MSZ-D36NA	MSY-D36NA
Capacity Rated (Minimum ~ Maximum)	Cooling ❄1	Btu/h	30,700 (9,800 ~ 30,700)	30,700 (9,800 ~ 30,700)	32,000/33,200 (9,800 ~ 32,000) / (9,800 ~ 33,200)	33,200/34,600 (9,800 ~ 33,200) / (9,800 ~ 34,600)
	Heating 47 ❄1		32,600 (8,700 ~ 34,000)	—	35,200 (8,700 ~ 36,000)	—
Capacity	Heating 17 ❄2	Btu/h	20,800	—	22,800	—
Power consumption Rated (Minimum ~ Maximum) (TOTAL)	Cooling ❄1	W	3,850 (620 ~ 3,850)	3,380 (620 ~ 3,380)	4,140/4,360 (620 ~ 4,140) / (620 ~ 4,360)	4,210/4,240 (620 ~ 4,210) / (620 ~ 4,240)
	Heating 47 ❄1		3,360 (520 ~ 3,600)	—	3,840 (520 ~ 4,100)	—
Power consumption	Heating 17 ❄2	W	2,620	—	3,000	—
EER ❄1 [SEER] ❄3	Cooling		8.0 [14.5]	9.1 [16.0]	7.7/7.6 [14.5]	7.9/8.2 [15.1]
HSPF IV(V) ❄4	Heating		8.2 (6.7)	—	8.2 (6.7)	—
COP	Heating ❄1		2.84	—	2.69	—
Outdoor unit model			**MUZ-D30NA**	**MUY-D30NA**	**MUZ-D36NA**	**MUY-D36NA**
Power supply V , phase , Hz			208/230 , 1 , 60			
Max. fuse size (time delay)		A	25			
Min. circuit ampacity		A	21			
Fan motor		F.L.A	0.93			
Compressor	Model		TNB220FMCHT			
		R.L.A	16			
		L.R.A	20			
	Refrigeration oil	cc	870 (NEO22)			
Refrigerant control			Linear expansion valve			
Sound level ❄1	Cooling	dB(A)	55	55	56	56
	Heating		57	—	57	—
Defrost method			Reverse cycle	—	Reverse cycle	—
Dimensions	W	in.	33-1/16			
	D		13			
	H		33-7/16			
Weight		lb.	141	126	141	126
External □nish			Munsell 3Y 7.8/1.1			
Remote controller			Wireless type			
Control voltage (by built-in transformer)			12 - 24 VDC			
Refrigerant piping			Not supplied			
Refrigerant pipe size (Min. wall thickness)	Liquid	in.	3/8 (0.0315)			
	Gas		5/8 (0.0394)			
Connection method	Indoor		Flared			
	Outdoor					
Between the indoor & outdoor units	Height difference	ft.	50			
	Piping length		100			
Refrigerant charge (R410A)			4 lb. 10 oz.	4 lb.	4 lb. 10 oz.	4 lb.

NOTE: Test conditions are based on ARI 210/240.
❄1: Rating conditions (Cooling) — Indoor: 80□FDB, 67□FWB, Outdoor: 95□FDB, (75□FWB) Rated frequency
(Heating) — Indoor: 70□FDB, 60□FWB, Outdoor: 47□FDB, 43□FWB Rated frequency
❄2: (Heating) — Indoor: 70□FDB, 60□FWB, Outdoor: 17□FDB, 15□FWB Maximum frequency

Test condition

❊3,❊4

ARI	Mode	Test	Indoor air condition (°F)		Outdoor air condition (°F)	
			Dry bulb	Wet bulb	Dry bulb	Wet bulb
	SEER (Cooling)	"A" Cooling Steady State at rated compressor Speed	80	67	95	(75)
		"B-2" Cooling Steady State at rated compressor Speed	80	67	82	(65)
		"B-1" Cooling Steady State at minimum compressor Speed	80	67	82	(65)
		Low ambient Cooling Steady State at minimum compressor Speed	80	67	67	(53.5)
		Intermediate Cooling Steady State at Intermediate compressor Speed ❊5	80	67	87	(69)
	HSPF (Heating)	Standard Rating-Heating at rated compressor Speed	70	60	47	43
		Low temperature Heating at rated compressor Speed	70	60	17	15
		Max temperature Heating at minimum compressor Speed	70	60	62	56.5
		High temperature Heating at minimum compressor Speed	70	60	47	43
		Frost Accumulation at rated compressor Speed	70	60	35	33
		Frost Accumulation at Intermediate compressor Speed ❊5	70	60	35	33

❊5: At Intermediate compressor Speed
=("Cooling rated compressor speed" - "minimum compressor speed") / 3 + "minimum compressor speed".

OPERATING RANGE

(1) POWER SUPPLY

	Rated voltage	Guaranteed voltage (V)
Outdoor unit	208/230 V 1 phase 60 Hz	Min. 187 208 230 Max. 253

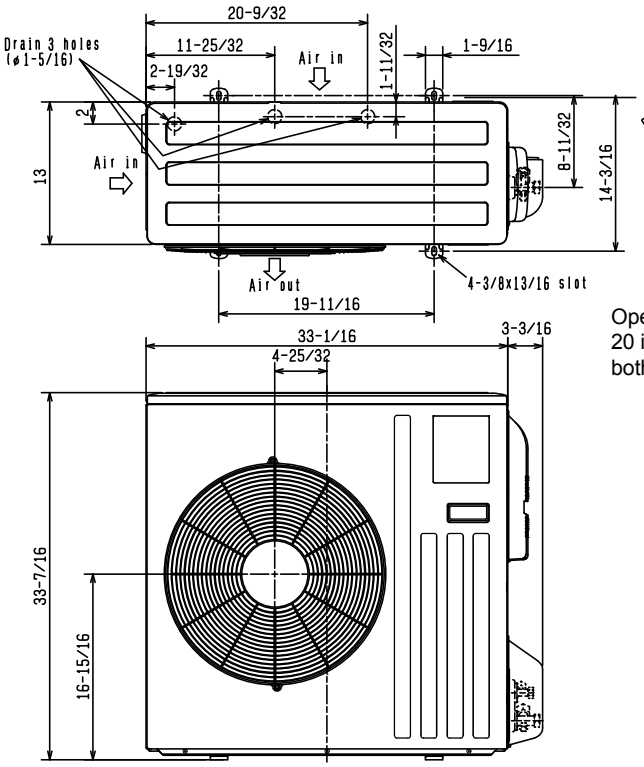
(2) OPERATION

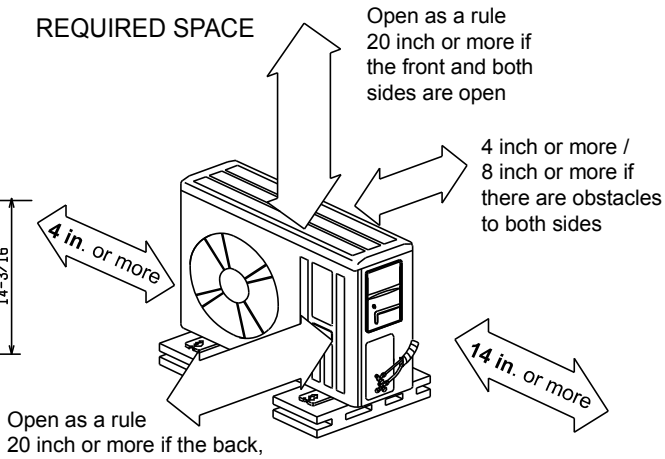
Mode	Condition	Intake air temperature (°F)			
		Indoor		Outdoor	
		DB	WB	DB	WB
Cooling	Standard temperature	80	67	95	—
	Maximum temperature	90	73	115	—
	Minimum temperature	67	57	14	—
	Maximum humidity	78%		—	
Heating	Standard temperature	70	60	47	43
	Maximum temperature	80	67	75	65
	Minimum temperature	70	60	14	13

4 OUTLINES AND DIMENSIONS

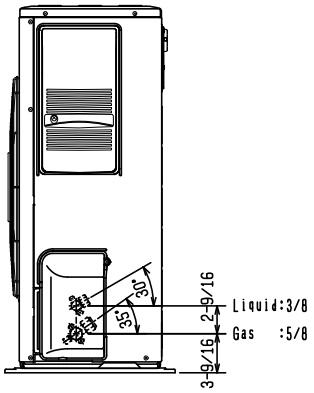
MUZ-D30NA MUZ-D36NA MUY-D30NA MUY-D36NA

Unit: inch





Open as a rule
20 inch or more if the back,
both sides and top are open



7 DATA

MUZ-D30NA MUZ-D36NA MUY-D30NA MUY-D36NA

7-1. PERFORMANCE DATA

1) COOLING CAPACITY

Model	Indoor air	Outdoor intake air DB temperature (°F)														
	IWB (°F)	75			85			95			105			115		
		TC	SHC	TPC	TC	SHC	TPC	TC	SHC	TPC	TC	SHC	TPC	TC	SHC	TPC
MUZ-D30NA	71	37.6	19.1	3.43	35.2	17.8	3.75	33.0	16.7	4.04	30.7	15.6	4.25	28.2	14.3	4.43
	67	35.6	22.8	3.23	33.2	21.2	3.56	30.7	19.6	3.85	28.6	18.3	4.08	26.2	16.8	4.27
	63	33.5	25.9	3.08	31.0	24.0	3.41	28.9	22.3	3.68	26.2	20.3	3.93	23.9	18.5	4.08
MUZ-D36NA	71	40.7	19.8	3.88	38.0	18.5	4.25	35.7	17.4	4.58	33.2	16.2	4.82	30.5	14.9	5.01
	67	38.5	23.9	3.66	35.9	22.2	4.03	33.2	20.6	4.36	30.9	19.1	4.62	28.4	17.6	4.84
	63	36.2	27.3	3.49	33.5	25.3	3.86	31.2	23.5	4.16	28.4	21.4	4.45	25.9	19.5	4.62
MUY-D30NA	71	37.6	19.1	3.01	35.2	17.8	3.30	33.0	16.7	3.55	30.7	15.6	3.73	28.2	14.3	3.89
	67	35.6	22.8	2.84	33.2	21.2	3.13	30.7	19.6	3.38	28.6	18.3	3.58	26.2	16.8	3.75
	63	33.5	25.9	2.70	31.0	24.0	2.99	28.9	22.3	3.23	26.2	20.3	3.45	23.9	18.5	3.58
MUY-D36NA (208 V)	71	40.7	19.8	3.75	38.0	18.5	4.10	35.7	17.4	4.42	33.2	16.2	4.65	30.5	14.9	4.84
	67	38.5	23.9	3.54	35.9	22.2	3.89	33.2	20.6	4.21	30.9	19.1	4.46	28.4	17.6	4.67
	63	36.2	27.3	3.37	33.5	25.3	3.73	31.2	23.5	4.02	28.4	21.4	4.29	25.9	19.5	4.46
MUY-D36NA (230 V)	71	42.4	20.6	3.77	39.6	19.3	4.13	37.2	18.1	4.45	34.6	16.8	4.69	31.8	15.5	4.88
	67	40.1	24.9	3.56	37.4	23.2	3.92	34.6	21.5	4.24	32.2	20.0	4.49	29.6	18.3	4.71
	63	37.7	28.4	3.39	34.9	26.3	3.75	32.5	24.5	4.05	29.6	22.3	4.32	27.0	20.3	4.49

NOTE: 1. IWB : Intake air wet-bulb temperature
TC : Total Capacity (x10^{3}Btu/h)
SHC : Sensible Heat Capacity (x10^{3}Btu/h)
TPC : Total Power Consumption (kW)
2. SHC is based on 80°F of indoor Intake air DB temperature.

2) COOLING CAPACITY CORRECTIONS

	Refrigerant piping length (one way: ft.)			
	25 (std.)	40	65	100
MUZ-D30NA MUZ-D36NA MUY-D30NA MUY-D36NA	1.0	0.95	0.878	0.713

3) HEATING CAPACITY

Model	Indoor air	Outdoor intake air WB temperature (°F)											
	IDB (°F)	15		25		35		43		45		55	
		TC	TPC	TC	TPC	TC	TPC	TC	TPC	TC	TPC	TC	TPC
MUZ-D30NA	75	18.9	2.50	23.6	2.94	28.2	3.28	31.8	3.44	32.8	3.49	37.2	3.63
	70	20.0	2.42	24.5	2.87	28.9	3.19	32.6	3.36	33.6	3.43	38.0	3.56
	65	20.5	2.32	25.6	2.77	29.8	3.11	33.6	3.28	34.6	3.33	38.8	3.49
MUZ-D36NA	75	20.4	2.86	25.5	3.36	30.4	3.74	34.3	3.94	35.4	3.99	40.1	4.15
	70	21.6	2.76	26.4	3.28	31.2	3.65	35.2	3.84	36.3	3.92	41.0	4.07
	65	22.2	2.65	27.6	3.17	32.2	3.55	36.3	3.74	37.3	3.80	41.9	3.99

NOTE: 1. IDB: Intake air dry-bulb temperature
TC : Total Capacity (x10^{3}Btu/h)
TPC : Total Power Consumption (kW)
2. Above data is for heating operation without any frost.

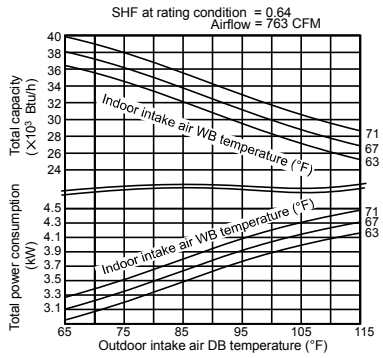
How to operate with fixed operational frequency of the compressor.

1. Press the EMERGENCY OPERATION switch on the front of the indoor unit, and select either EMERGENCY COOL mode or EMERGENCY HEAT mode before starting to operate the air conditioner.
2. The compressor starts with operational frequency.
3. The fan speed of the indoor unit is High.
4. This operation continues for 30 minutes.
5. In order to release this operation, press the EMERGENCY OPERATION switch twice or once, or press any button on the remote controller.

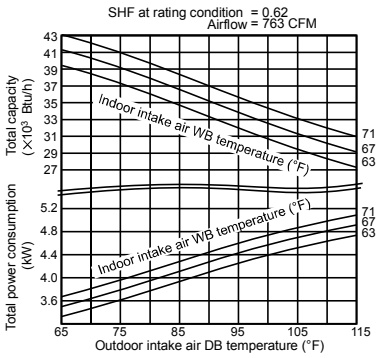
7-2. PERFORMANCE CURVE

Cooling

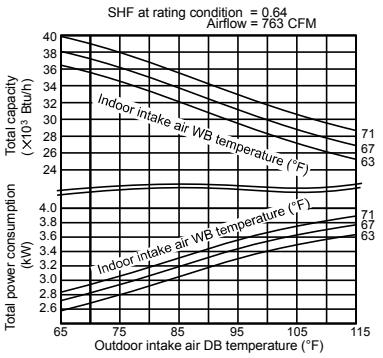
MUZ-D30NA



MUZ-D36NA



MUY-D30NA



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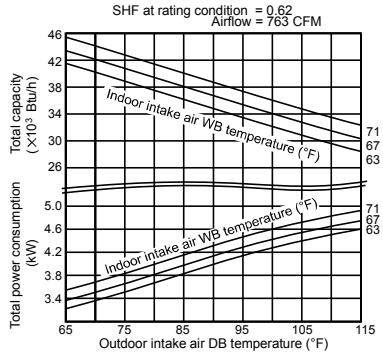
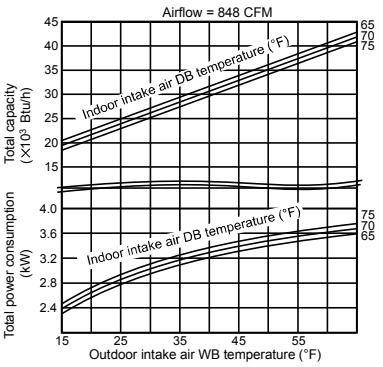
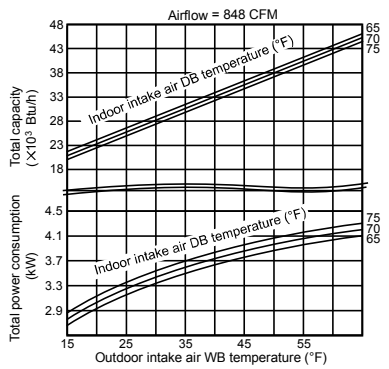


Heating

MUZ-D30NA



MUZ-D36NA



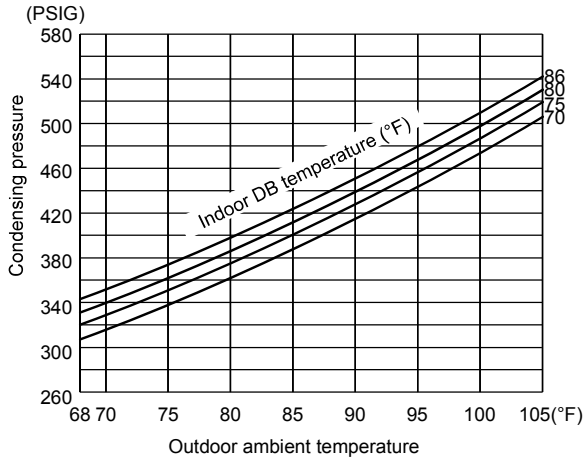
This value of frequency is not the same as the actual frequency in operating. Refer to 7-5 and 7-6 for the relationships between frequency and capacity.

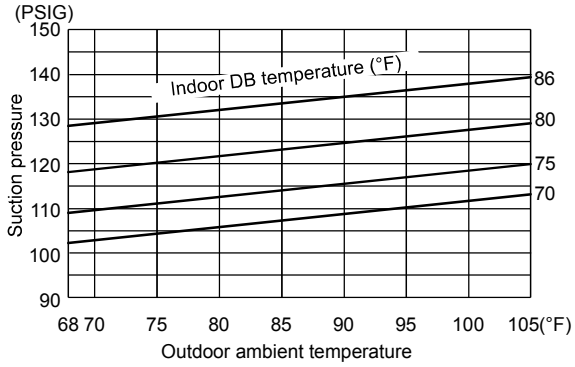
7-3. CONDENSING PRESSURE

Cooling

Data is based on the condition of indoor humidity 50%.
Air flow should be set to High speed.

MUZ-D30NA





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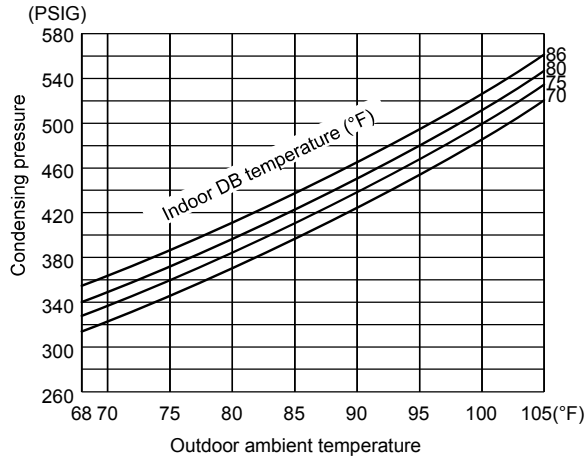
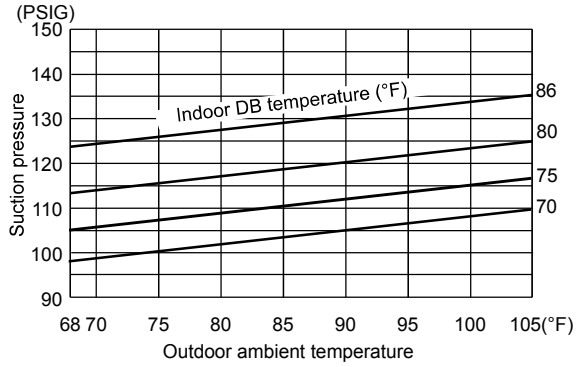
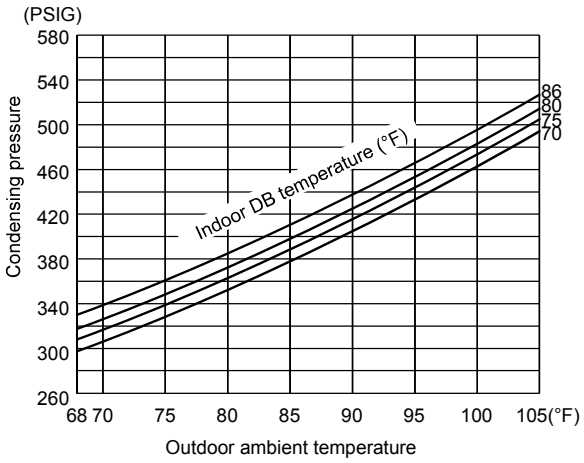
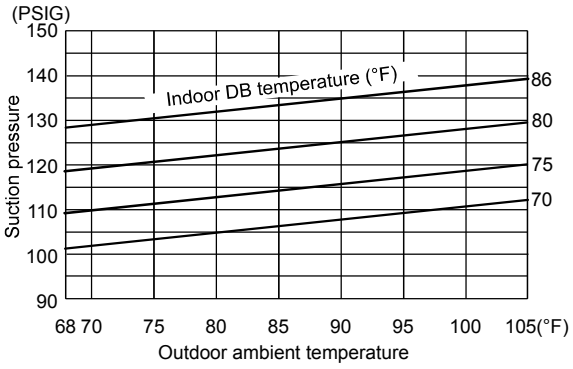




MUY-D30NA





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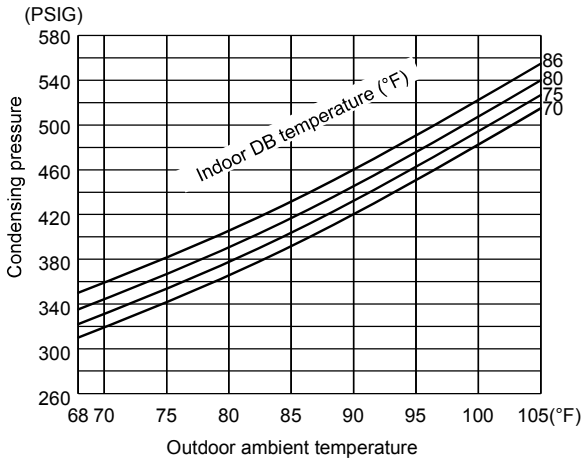
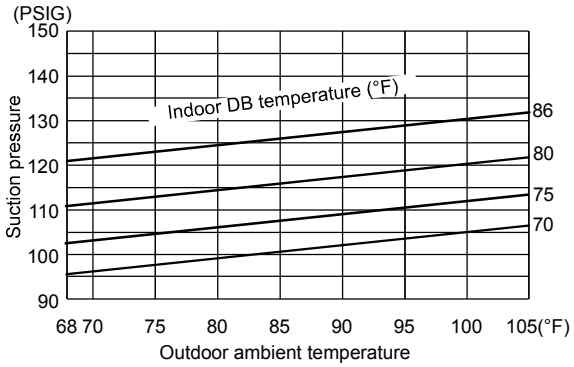
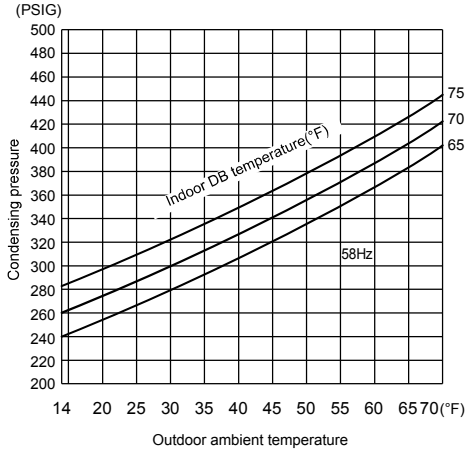


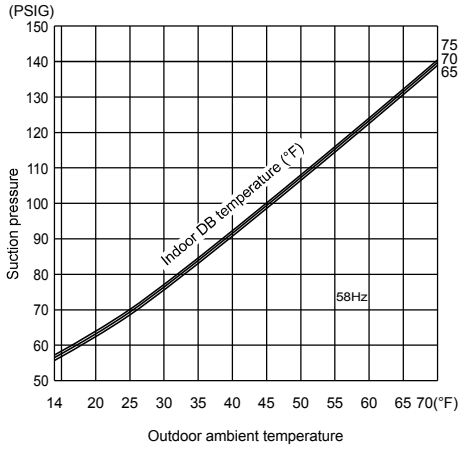


Heating

Data is based on the condition of outdoor humidity 75%.
Air flow should be set to High speed.
Data is for heating operation without any frost.

MUZ-D30NA





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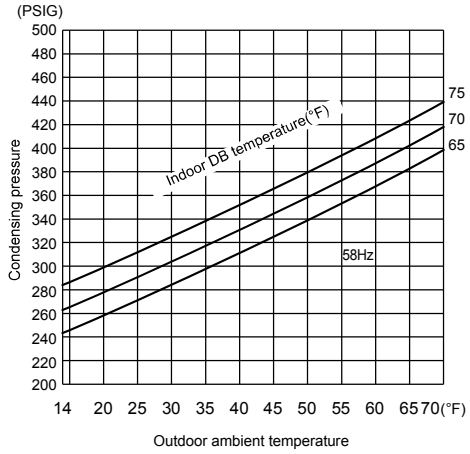
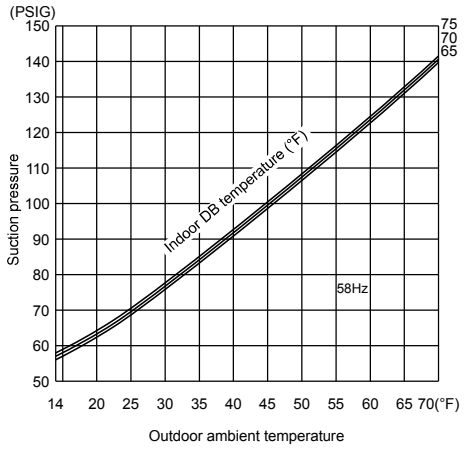


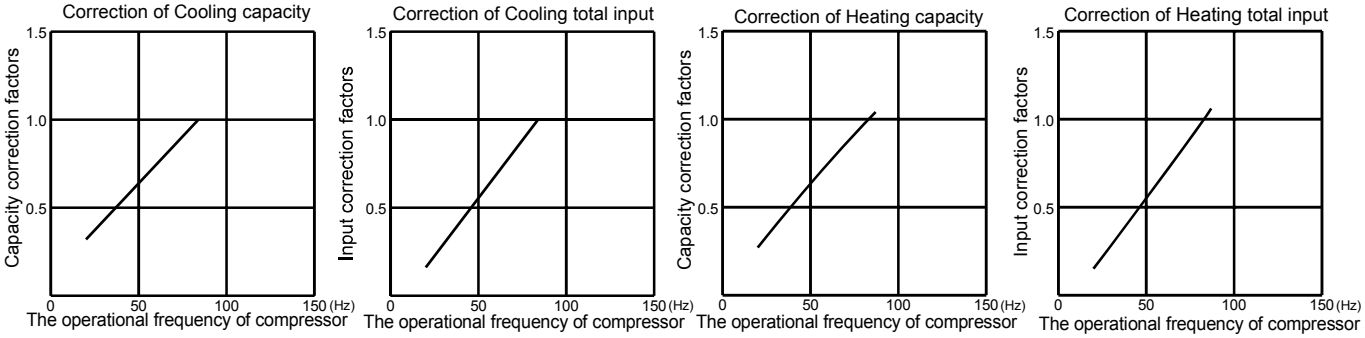


7-4. STANDARD OPERATION DATA

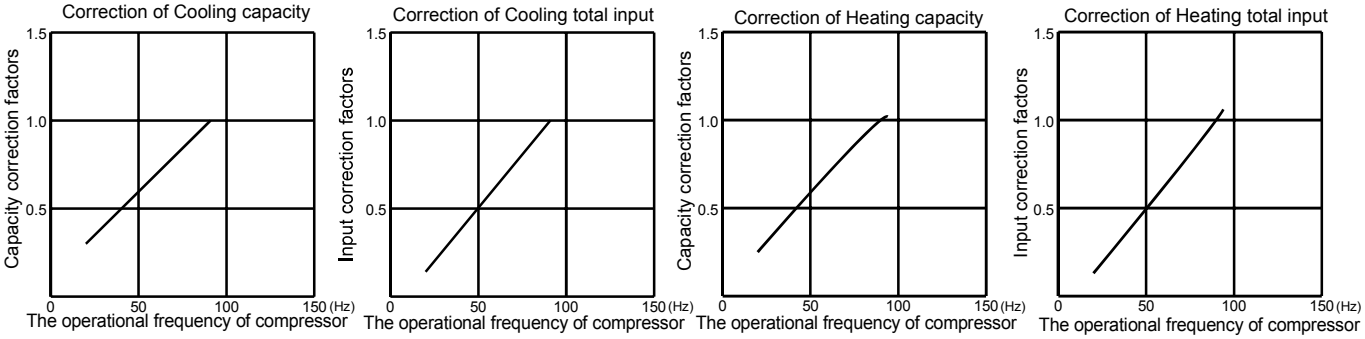
Model				MSZ-D30NA		MSZ-D36NA		MSY-D30NA	MSY-D36NA
Item			Unit	Cooling	Heating	Cooling	Heating	Cooling	Cooling
Total	Capacity		Btu/h	30,700	32,600	32,000/33,200	35,200	30,700	33,200/34,000
	SHF		—	0.64	—	0.62	—	0.64	0.62
	Input		kW	3.85	3.36	4.14/4.36	3.84	3.38	4.21/4.24
	Rated frequency		Hz	84	84	91	91	79	92
Electrical circuit	Indoor unit			MSZ-D30NA		MSZ-D36NA		MSY-D30NA	MSY-D36NA
	Power supply		V, phase, Hz	208/230 , 1 , 60					
	Input		kW	0.058					
	Fan motor current		A	0.45/0.42					
	Outdoor unit			MUZ-D30NA		MUZ-D36NA		MUY-D30NA	MUY-D36NA
	Power supply		V, phase, Hz	208/230 , 1 , 60					
	Input		kW	3.792	3.302	4.082/4.302	3.782	3.322	4.152/4.182
	Comp. current		A	17.25/15.56	14.95/13.46	18.65/17.86	17.25/15.56	15.05/13.56	18.95/17.26
	Fan motor current		A	0.80/0.72					
Refrigerant circuit	Condensing pressure		PSIG	468	404	480	420	453	475
	Suction pressure		PSIG	126	96	122	94	125	119
	Discharge temperature		°F	186.8	169.7	198.7	168.8	191.3	197.1
	Condensing temperature		°F	126.5	114.3	128.5	117.0	123.8	127.4
	Suction temperature		°F	45.5	29.8	48.0	29.1	54.7	48.6
	Comp. shell bottom temperature		°F	175.6	156.4	187.0	155.7	177.4	182.7
	Ref. pipe length		ft.	25					
	Refrigerant charge (R410A)		—	4 lb. 10 oz.				4 lb.	
Indoor unit	Intake air temperature	DB	°F	80	70	80	70	80	80
		WB	°F	67	60	67	60	67	67
	Discharge air temperature	DB	°F	53.9	112.2	53	114.9	53.7	51.7
		WB	°F	53	73.9	52.1	74.6	52.8	50.8
	Fan speed (High)		rpm	1,100					
	Air□ow (High)		CFM	741 (Wet)	795	738 (Wet)	794	718 (Wet)	710 (Wet)
Outdoor unit	Intake air temperature	DB	°F	95	47	95	47	95	95
		WB	°F	—	43	—	43	—	—
	Fan speed		rpm	800					
	Air□ow		CFM	1,941					

7-5. CAPACITY AND INPUT CORRECTION BY INVERTER OUTPUT FREQUENCY

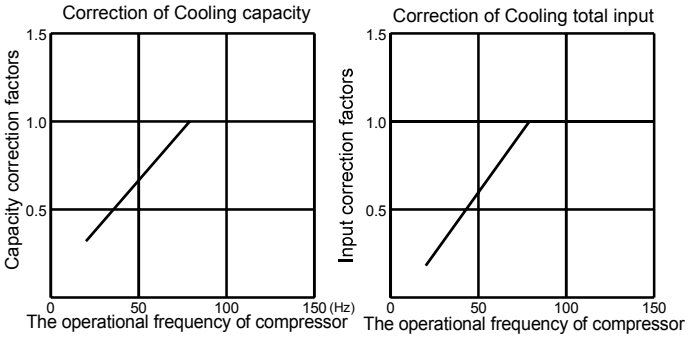
MUZ-D30NA



MUZ-D36NA



MUY-D30NA



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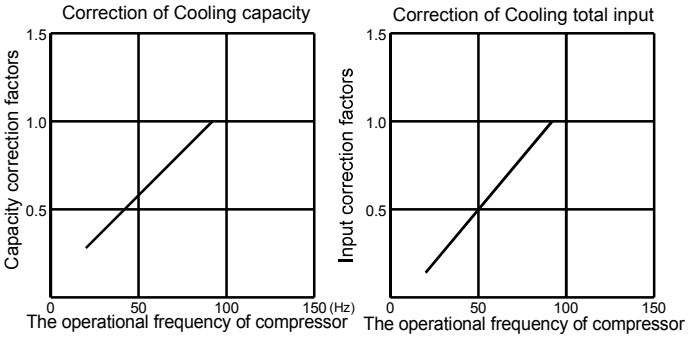

7-6. TEST RUN OPERATION (How to operate fixed-frequency operation)

1. Press EMERGENCY OPERATION switch to COOL or HEAT mode (COOL: Press once, HEAT: Press twice).
2. Test run operation starts and continues to operate for 30 minutes.
3. Compressor operates at rated frequency in COOL mode or 58 Hz in HEAT mode.
4. Indoor fan operates at High speed.
5. After 30 minutes, test run operation finishes and EMERGENCY OPERATION starts (Operation frequency of compressor varies).
6. To cancel test run operation (EMERGENCY OPERATION), press EMERGENCY OPERATION switch or any button on remote controller.