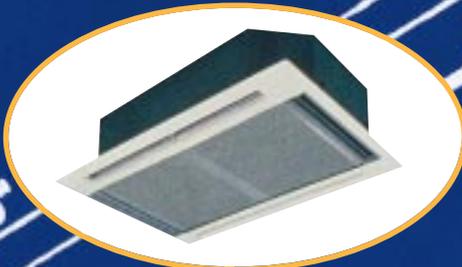


Mr. Slim[®]

Ductless Air Conditioning And
Heat Pump Product Guide



 **MITSUBISHI ELECTRONICS AMERICA, INC.**
HVAC DIVISION
3100 AVALON RIDGE PL. STE. 200. NORCROSS, GA 30071
CALL: 770-613-5840 OR 800-433-4822 (PRESS 3). FAX: 800-889-9904

Mr. Slim[®] DUCTLESS AIR CONDITIONERS AND HEAT PUMPS

Mr. Slim systems are unlike any other products in the HVAC category. Actually they're a category in themselves because Mr. Slim is probably the most unique innovation in air comfort in two decades and one that has made us the worldwide leader in ductless.

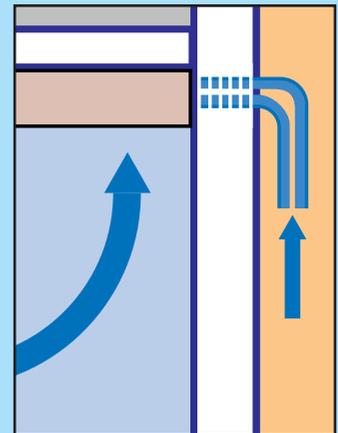
We designed Mr. Slim air conditioners and heat pumps to solve cooling and heating problems that other systems have never addressed, specifically spot or zone cooling and heating especially in retrofit situations. These are voids in comfort that central air and room air simply can't fill economically and attractively.

Where Mr. Slim Fits.

You'll often encounter a hot or cold spot in existing buildings that already have large central systems. Is the answer to remodel and make way for more ductwork? Obviously that's a small fortune. Should you opt for room air? It's unsightly at best, expensive to run, and a real security hazard.

Now you're beginning to see how Mr. Slim fits in. It's the ideal supplemental system for cooling or heating those smaller zones with absolutely no ductwork, no remodeling, and few disruptions to business and traffic.

Our system is energy efficient and whisper quiet. Its remote control keeps all operating functions and data within a glance and in easy reach. And it neatly tucks away into corners, blending in with the room's decor.



How Mr. Slim Works.

Basically Mr. Slim is two units: an indoor air handler and an outdoor compressor unit.

The two connect via refrigerant lines through a three inch diameter opening in the wall or ceiling. In fact that's the toughest part of installation: one hole.

You can locate the compact outdoor compressor unit anywhere up to 164 feet away from the air handler on select models: in many cases. Many models have a front service panel that clearly exposes all connections.

The indoor air handler is as easy to install as a ceiling fan. And both the indoor and outdoor units are microprocessor controlled. Simple remotes let you control all functions.

COMFORT MADE SIMPLE.

Mr. Slim[®] CEILING SUSPENDED UNITS



Medium-to-large capacity cooling and heating
for large area commercial applications

PC/PCH

LARGE AREA COOLING AND HEATING MADE SIMPLE.

Intelligent Remote Controller

Highly advanced microprocessor technology is one reason why Mitsubishi leads the air comfort category. This ultrathin microprocessor remote controller with LCD display gives you a variety of functions and options to keep room comfort perfectly balanced. It lets you check Mr. Slim's operating conditions with just a glance. In the rare case of a malfunction the self-diagnostic system even indicates specific problems for easy repair.



- Computerized Dehumidification
- Operation Mode Setting (Heat, Auto, Cool/Dry)
- Temperature Setting (in units of two degrees fahrenheit.)
- Self-Diagnostic Display
- Room Temperature Display
- Twenty-Four Hour On/Off Timer
- Fan Speed Indicator
- Auto/Swing Vane Operation
- Memory (for storing operation functions)
- Low Ambient Operation
- Whisper-Quiet Operation
- EMS Gateway Available To Management System Via RS-232 Cable

Outdoor Compressor Unit

Mr. Slim outdoor compressor units are extremely efficient and reliable and true space-savers.

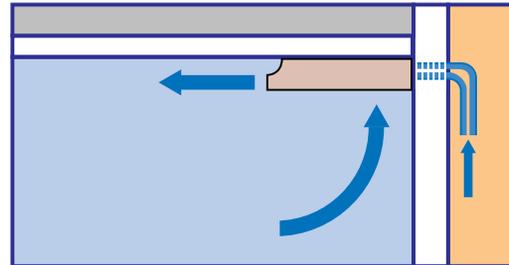
These models can be installed up to 164 feet away from the indoor unit. They connect simply through a single three-to-four inch opening in the wall or ceiling. No ductwork or remodeling is necessary. As many as ten units can be installed in a row for major space savings.

Outdoor units are designed with a front-access service panel that provides easy access to all maintenance points.

These units operate in outdoor temperatures as low as zero degrees fahrenheit when the optional wind baffle is installed. So you can cool spaces such as computer rooms year round.



Mr. Slim heat pumps also feature automatic cooling/heating changeover for simple control and lower maintenance. You never have to readjust the unit.



Air Flow

These units offer a wide choice of air flow directions. In the heating mode the vanes automatically set the flow of warm air downward at an angle of seventy degrees fahrenheit. In the cooling mode the vanes automatically set the flow of cool air outward (horizontally). But you can override the automatic setting to blend air flow. Four directions may be selected: one hundred percent downward, eighty percent downward and twenty percent horizontal, sixty percent downward, and forty percent horizontal. Jumbo louvers automatically rotate right and left for uniform air distribution over your entire space.

Redi-Charged System

Mr. Slim "P" series features the industry's first redi-charged refrigerant system. There's no longer any need to adjust the amount of refrigerant to match the piping length on-site unless lines exceed one hundred feet. You'll see a major reduction in installation time and labor costs. Plus you can always count on Mr. Slim's reliability from day one because it's thoroughly charged and tested at the factory. You know it's going to work.

Hot Start System

Mr. Slim heat pumps provide warmth right from the beginning. At the start of heating and during defrosting, a very low fan speed prevents the unit from blowing cold air into the room. And a microprocessor-controlled booster heater speeds the warming process.

Air Conditioners



PC24EK

PC24EK
Cooling Capacity: 24,000 BTU/h
SEER: 10.3
Dimensions:
W:50-7/16", D:26-13/16", H:10-1/8"

PC30EK
Cooling capacity: 31,000 BTU/h
SEER: 10.4
Dimensions:
W:50-7/16", D:26-13/16", H:10-1/8"

PC36EK
Cooling capacity: 36,500 BTU/h
SEER: 10.2
Dimensions:
W:62-1/4", D:26-13/16", H:10-1/8"

PC42EK
Cooling capacity: 42,500 BTU/h
SEER 10.0
Dimensions:
W:62-1/4", D:26-13/16", H:10-1/8"

Heat Pumps



PCH24EK

PCH24EK
Cooling capacity: 24,000 BTU/h
SEER: 10.3
Heating capacity:
27,000 BTU/h (33,500 w/ aux. booster heat)
HSPF: 7.1
Dimensions: W:50-7/16", D:26-13/16", H:10-1/8"

PCH30EK
Cooling capacity: 30,000 BTU/h
SEER: 10.0
Heating capacity:
33,000 BTU/h (41,500 w/ aux. booster heat)
HSPF: 7.1
Dimensions: W:50-7/16", D:26-13/16", H:10-1/8"

PCH36EK
Cooling capacity: 35,400 BTU/h
SEER: 10.4
Heating capacity:
38,000 BTU/h (47,600 w/ aux. booster heat)
HSPF: 7.4
Dimensions: W:62-1/4", D:26-13/16", H:10-1/8"

PCH42EK
Cooling capacity: 42,000 BTU/h
SEER: 10.0
Heating capacity:
43,000 BTU/h (52,600 w/ aux. booster heat)
HSPF: 7.3
Dimensions: W:62-1/4", D:26-13/16", H:10-1/8"

Simplified Installation

Mr. Slim's streamlined design makes indoor units adaptable to an almost infinite variety of room configurations. They're simple to mount, and they require a minimum of wiring. Naturally they're not only efficient but also whisper-quiet. You'll hardly hear them running.

Refrigerant lines may be connected to the outdoor unit from the front, rear, or side or

beneath the base. This easy-access design lets you arrange and install a number of units in a small area.

Warranty

Mitsubishi is so confident of the reliability of Mr. Slim® Systems that we offer a six year warranty on the compressor and a one year warranty on all other parts.

ITEM	MODEL	PC24EK	PC30EK	PC36EK	PC42EK	PCH24EK	PCH30EK	PCH36EK	PCH42EK
Capacity	Cooling *1 BTU/h	24,000	31,000	36,500	42,500	24,000	30,000	35,400	42,000
	Heating *1 BTU/h	—	—	—	—	27,000(33,500)	33,000(41,500)	38,000(47,600)	43,000(52,600)
	Heating *2 BTU/h	—	—	—	—	18,400(24,900)	18,000(26,500)	19,600(29,200)	24,800(34,400)
Power Consumption	Cooling *1 kW	2.43	3.1	3.8	4.4	2.46	3.06	3.53	4.37
	Heating *1 kW	—	—	—	—	2.42(4.32)	3.13(5.63)	3.4(6.2)	4.3(7.1)
	Heating *2 kW	—	—	—	—	2.1(4.0)	2.6(5.1)	2.7(5.5)	3.2(6.1)
EER	*1	9.9	10.0	9.6	9.7	9.8	9.8	10.0	9.6
SEER		10.3	10.4	10.2	10.0	10.3	10.0	10.4	10.0
HSPF		—	—	—	—	7.1	7.1	7.4	7.3
COP	Heating *1	—	—	—	—	3.3	3.1	3.3	3.1
	Heating *2	—	—	—	—	2.6	2.4	2.1	2.3
INDOOR UNIT		PC24EK	PC30EK	PC36EK	PC42EK	PCH24EK	PCH30EK	PCH36EK	PCH42EK
External Finish		Munsell 2.5Y 8/0.3 & N2							
Power Supply V, phase, Hz		115, 1, 60				230, 1, 60			
Max. Fuze Size (time delay) A		15	15	15	15	20	25	25	25
Min. Ampacity 3		3	3	3	12	15	15	17	
Fan Motor F.L.A.		1.8	1.8	2.1	2.4	0.7	0.7	1.3	1.3
Auxiliary Heater A (kW)		—	—	—	—	8.4(1.9)	10.8(2.5)	12(2.8)	12(2.8)
Airflow Hi-Lo	Dry CFM	1,050-850	1,050-850	1,270-990	1,270-990	920-740	920-740	1,270-990	1,270-990
	Wet CFM	900-730	900-730	1,100-860	1,100-860	830-670	830-670	1,100-860	1,100-860
Moisture Removal Pints/h		7.2	9.6	11.1	12.6	7.0	9.1	10.9	12.3
Sound Pressure Level Hi-Lo dB(A)		50-43	50-43	52-44	52-44	50-43	50-43	51-45	51-45
Cond. Drain Connection OD in.		1	1	1	1	1	1	1	1
Dimensions	W in.	50-7/16	50-7/16	62-1/4	62-1/4	50-7/16	50-7/16	62-1/4	62-1/4
	D in.	26-13/16	26-13/16	26-13/16	26-13/16	26-13/16	26-13/16	26-13/16	26-13/16
	H in.	10-1/8	10-1/8	10-1/8	10-1/8	10-1/8	10-1/8	10-1/8	10-1/8
Weight lbs.		93	93	115	115	97	97	119	119
OUTDOOR UNIT		PU24EK	PU30EK	PU36EK	PU42EK	PU24EK	PU30EK	PU36EK	PU42EK
External Finish		Munsell 5Y 7/1							
Sound Pressure Level dB(A)		55	55	55	56	55	55	55	53
Power Supply V, phase, Hz		230, 1, 60							
Max. Fuze Size (time delay) A		20	30	30	40	20	30	30	40
Min. Ampacity 16		20	22	27	16	20	22	27	
Fan Motor F.L.A.		0.65+0.65	0.65+0.65	0.75+0.75	0.8+0.8	0.65+0.65	0.75+0.75	0.75+0.75	0.8+0.8
Model (Type)		NH33NBD	NH41NAD	NH47NAD	NH569NXA	NH33NBD	NH41NAD	NH47NAD	NH569NXA
Compressor	R.L.A.11.5	14	17.5	20	11.5	14	17.5	20	
	L.R.A.54	73	87	105	54	73	87	105	
Crankcase Heater A(W)		.17(39)	.17(39)	.17(39)	.17(39)	.17(39)	.17(39)	.17(39)	.17(39)
Refrigerant Control		Capillary Tube							
Defrost method		—				Reverse Cycle			
Dimensions	W in.	34-1/4	34-1/4	38-3/16	38-3/16	34-1/4	38-3/16	38-3/16	38-3/16
	D in.	11-5/8	11-5/8	13-9/16	13-9/16	11-5/8	13-9/16	13-9/16	13-9/16
	H in.	49-9/16	49-9/16	49-9/16	49-9/16	49-9/16	49-9/16	49-9/16	49-9/16
Weight lbs.		207	208	220	260	202	245	246	268
REMOTE CONTROLLER		With Indoor Unit							
Control Voltage (by built-in transformer)		Indoor unit-remote controller: DC 12V, Indoor unit-outdoor unit: DC 12V							

Figures in parentheses include auxiliary heat.

* For 208 volt applications refer to *Technical And Service Manual* for ratings.

Mr. Slim[®] CEILING MOUNTED CASSETTES

Medium-to-large capacity cooling and heating
for large area commercial applications.

PL/PLH

LARGE AREA COOLING AND HEATING MADE SIMPLE.

Intelligent Remote Controller

Highly advanced microprocessor technology is one reason why Mitsubishi leads the air comfort category. This ultra-thin microprocessor remote controller with LCD display gives you a variety of functions and options to keep room comfort perfectly balanced. It lets you check Mr.



Slim's operating conditions with just a glance. In the rare case of a malfunction the self-diagnostic system even indicates specific problems for easy repair.

- Computerized Dehumidification
- Operation Mode Setting (Heat, Auto, Cool/Dry)
- Temperature Setting (in units of two degrees fahrenheit.)
- Self-Diagnostic Display
- Room Temperature Display
- Twenty-Four Hour On/Off Timer
- Fan Speed Indicator
- Auto/Swing Vane Operation
- Memory (for storing operation functions)
- Low Ambient Operation
- Whisper-Quiet Operation
- EMS Gateway Available To Management System Via RS-232 Cable

Outdoor Compressor Unit

Mr. Slim outdoor compressor units are extremely efficient and reliable and true space-savers.

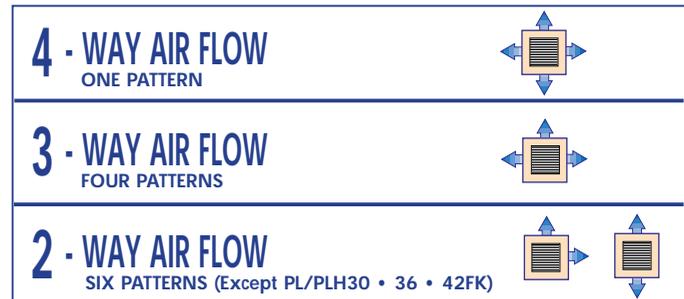
These models can be installed up to 164 feet away from the indoor unit. They connect simply through a single three inch opening in the wall or ceiling. No ductwork or remodeling is necessary. As many as ten units can be installed in a row for major space savings.

Outdoor units are designed with a front-access service panel that provides easy access to all maintenance points.

These units operate in outdoor temperatures as low as zero degrees fahrenheit. when the optional wind baffle is installed. You can, therefore, cool spaces such as computer rooms year round.



Mr. Slim heat pumps also feature automatic cooling/heating changeover for simple control and lower maintenance. You never have to readjust the unit.



Air Flow

These ceiling cassettes offer multi-directional air flow in a number of various patterns to direct heat or cool air where you need it most. You can use two, three, or four vents and even set the vents for a narrow or wide breeze, depending on whether you prefer a strong, directed stream of air or a gentle breeze over a wide area. Air outlet vanes inside the vents automatically swing up and down for uniform air distribution.

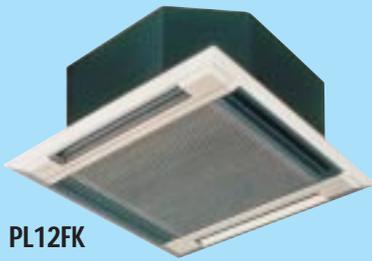
Redi-Charged System

Mr. Slim "P" Series features the industry's first redi-charged refrigerant system. There is no need to adjust the amount of refrigerant to match the piping length on-site unless lines exceed 100 feet. You'll see a major reduction in installation time and labor costs. Plus you can always count on Mr. Slim's reliability from day one because they're thoroughly charged and tested at the factory. You know it's going to work.

Hot Start System

Mr. Slim heat pumps provide warmth right from the beginning. At the start of heating and after defrosting, a very low fan speed prevents the unit from blowing cold air into the room. And a microprocessor controlled booster heater speeds the warming process.

Air Conditioners

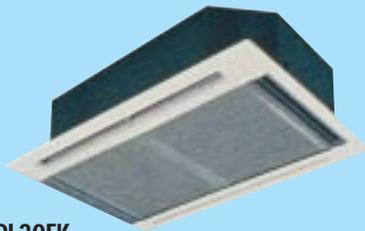


PL12FK

PL12FK
Cooling capacity: 12,300 BTU/h
SEER: 10.4
Cassette Dimensions:
W:32-1/4" D:32-1/4" H:10-1/8"

PL18FK
Cooling capacity: 18,400 BTU/h
SEER: 10.2
Cassette Dimensions:
W:32-1/4" D:32-1/4" H:10-1/8"

PL24FK
Cooling capacity: 23,600 BTU/h
SEER: 10.0
Cassette Dimensions:
W:32-1/4" D:32-1/4" H:10-1/8"



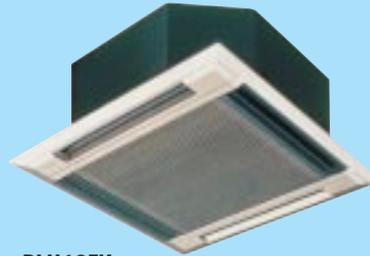
PL30FK

PL30FK
Cooling capacity: 31,000 BTU/h
SEER: 10.4
Cassette Dimensions:
W: 52-3/4" D:32-1/4" H:10-1/8"

PL34FK
Cooling capacity: 32,400 BTU/h
SEER: 10.0
Cassette Dimensions:
W:52-3/4" D:32-1/4" H:10-1/8"

PL42FK
Cooling capacity: 42,500 BTU/h
SEER: 10.0
Cassette Dimensions:
W:52-3/4" D:32-1/4" H:10-1/8"

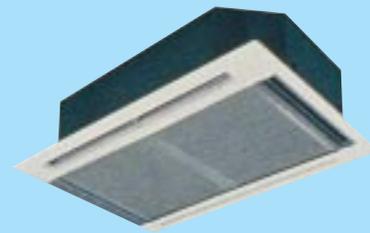
Heat Pumps



PLH18FK

PLH18FK
Cooling capacity: 17,300 BTU/h
SEER: 10.3
Heating capacity: 18,000 BTU/h
(24,500 w/ aux. booster heat)
HSPF: 7.0
Cassette Dimensions:
W:32-1/4" D:32-1/4" H:10-1/8"

PLH24FK
Cooling capacity: 23,100 BTU/h
SEER 10.3
Heating capacity: 25,000 BTU/h
(31,500 w/ aux. booster heat)
HSPF: 7.1
Cassette Dimensions:
W:32-1/4" D:32-1/4" H:10-1/8"



PLH30FK

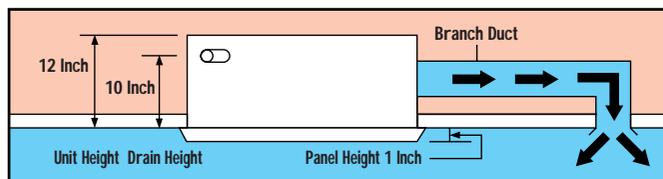
PLH30FK
Cooling capacity: 30,000 BTU/h
SEER 10.0
Heating capacity: 33,000 BTU/h
(41,200 w/ aux. booster heat)
HSPF: 7.1
Cassette Dimensions:
W:52-3/4" D:32-1/4" H:10-1/8"

PLH36FK
Cooling capacity: 35,400 BTU/h
SEER 10.4
Heating capacity: 38,000 BTU/h
(47,600 w/ aux. booster heat)
HSPF: 7.4
Cassette Dimensions:
W:52-3/4" D:32-1/4" H:10-1/8"

PLH42FK
Cooling capacity: 42,000 BTU/h
SEER: 10.0
Heating capacity: 44,300 BTU/h
(53,900 w/ aux. booster heat)
HSPF: 7.3
Cassette Dimensions:
W:52-3/4" D:32-1/4" H:10-1/8"

Slimmer Indoor Unit And Fresh Air Intake

The unit is specially designed for neat and tidy installation. With minimum on-site work, branch ducting and outside air ducting can be installed.



Simplified Installation

Mr. Slim Ceiling Cassettes install as easily as track lighting and make an extremely neat, unobtrusive presentation. They require only a minimum of wiring. Naturally they're not only

efficient but whisper quiet, too. You'll hardly hear them running.

These models also feature a drain water lift-up mechanism that saves space and makes drainage pipe connection surprisingly simple.

Refrigerant lines may be connected to the outdoor unit from the front, rear, or side or beneath the base. This easy-access design lets you arrange and install a number of units in a small area.

Warranty

Mitsubishi is so confident of the reliability of Mr. Slim® Systems that we offer a six year warranty on the compressor and a one year warranty on all other parts.

ITEM	MODEL	PL12FK	PL18FK	PL24FK	PL30FK	PL34FK	PL42FK	PLH18FK	PLH24FK	PLH30FK	PLH36FK	PLH42FK	
Capacity	Cooling *1 BTU/h	12,300	18,400	23,600	31,000	32,400	42,500	17,300	23,100	30,000	35,400	42,000	
	Heating *1 BTU/h	—	—	—	—	—	—	18,000(24,500)	25,000(31,500)	33,000 (41,200)	38,000 (47,600)	44,300 (53,900)	
	Heating *2 BTU/h	—	—	—	—	—	—	11,500 (18,000)	16,000(22,500)	20,800(29,000)	19,600 (29,200)	28,300 (37,900)	
Power Consumption	Cooling *1 kW	1.23	1.88	2.48	3.10	3.76	4.40	1.77	2.42	3.20	3.53	4.27	
	Heating *1 kW	—	—	—	—	—	—	1.6 (3.5)	2.48 (4.38)	2.97 (5.37)	3.40 (6.2)	4.38 (7.18)	
	Heating *2 kW	—	—	—	—	—	—	1.4 (3.3)	2.0 (3.9)	2.6 (5.0)	2.70 (5.5)	3.4 (6.2)	
EER	*1	10.0	9.8	9.5	10.0	9.6	9.7	9.8	9.5	9.4	10.0	9.8	
SEER		10.4	10.2	10.0	10.4	10.0	10.0	10.3	10.3	10.0	10.4	10.0	
HSPF		—	—	—	—	—	—	7.0	7.1	7.1	7.4	7.3	
COP	Heating *1	—	—	—	—	—	—	3.3	3.0	3.3	3.3	3.0	
	Heating *2	—	—	—	—	—	—	2.4	2.3	2.3	2.1	2.4	
INDOOR UNIT		PL12FK	PL18FK	PL24FK	PL30FK	PL34FK	PL42FK	PLH18FK	PLH24FK	PLH30FK	PLH36FK	PLH42FK	
External Finish		Galvanized sheets with gray heat insulation											
Power Supply V, phase, Hz		115, 1, 60						230, 1, 60					
Max. Fuze Size (time delay) A		15	15	15	15	15	15	20	20	25	25	25	
Min. Ampacity		2.0	2.0	2.0	2.0	2.0	3.0	15	15	17	17	17	
Fan Motor F.L.A.		0.75	0.85	1.1	1.0 + 1.0	1.0 + 1.0	1.2 + 1.2	0.55	0.6	0.5 + 0.5	0.5+0.5	0.6 + 0.6	
Auxiliary Heater A (kW)		—	—	—	—	—	—	8.4 (1.9)	8.4 (1.9)	11.0 (2.4)	12.0 (2.8)	12.0 (2.8)	
Airflow Hi-Lo	Dry CFM	570-540	680-460	750-550	1,170-850	1,170-850	1,270-920	600-390	640-420	1,060-670	1,060-670	1,090-780	
	Wet CFM	420-400	650-440	660-480	1,090-790	1,090-790	1,200-870	540-350	580-380	950-600	950-600	980-700	
Moisture Removal Pints/h		3.8	5.3	6.8	9.6	10.9	12.6	5.3	7.0	9.1	10.9	12.3	
Sound Pressure Level Hi-Lo dB(A)		43-35	45-38	47-39	49-41	49-41	49-42	45-38	47-39	49-41	49-41	49-42	
Cond. Drain Connection OD in.		1-1/4											
Cassette Dimensions	W in.	32-1/4	32-1/4	32-1/4	52-3/4	52-3/4	52-3/4	32-1/4	32-1/4	52-3/4	52-3/4	52-3/4	
	D in.	32-1/4	32-1/4	32-1/4	32-1/4	32-1/4	32-1/4	32-1/4	32-1/4	32-1/4	32-1/4	32-1/4	
	H in.	10-1/8	10-1/8	10-1/8	10-1/8	10-1/8	10-1/8	10-1/8	10-1/8	10-1/8	10-1/8	10-1/8	
Weight lbs		60	64	64	99	99	101	66	66	104	104	104	
Decorative Indoor grille	External Finish		Marble White										
	W in.	36-5/8	36-5/8	36-5/8	57-1/8	57-1/8	57-1/8	36-5/8	36-5/8	57-1/8	57-1/8	57-1/8	
	D in.	36-5/8	36-5/8	36-5/8	36-5/8	36-5/8	36-5/8	36-5/8	36-5/8	36-5/8	36-5/8	36-5/8	
	H in.	2-3/8	2-3/8	2-3/8	2-3/8	2-3/8	2-3/8	2-3/8	2-3/8	2-3/8	2-3/8	2-3/8	
Weight lbs		22	22	22	35	35	35	22	22	35	35	35	
OUTDOOR UNIT		PU12EK	PU18EK	PU24EK	PU30EK	PU36EK	PU42EK	PUH18EK	PUH24EK	PUH30EK	PUH36EK	PUH42EK	
External Finish		Munsell 5Y 7/1											
Sound Pressure Level dB(A)		50	53	55	55	55	56	53	55	55	55	56	
Power Supply V, phase, Hz		230, 1, 60											
Max. Fuze Size (time delay) A		15	20	20	30	30	40	20	20	30	30	40	
Min. Ampacity		11	16	16	20	22	27	16	16	20	22	27	
Fan Motor F.L.A.		0.65	0.75	0.65+0.65	0.65+0.65	0.75+0.75	0.8 + 0.8	0.75	0.65 + 0.65	0.75 + 0.75	0.75+0.75	0.8 + 0.8	
Compressor	Model (Type)	RH167NAB	RH247NAB	NH33NBD	NH41NAD	NH47NAD	NH569NXA	RH247NAB	NH33NBD	NH41NAD	NH47NAD	NH569NXA	
	R.L.A.	8.9	12	11.5	14	17.5	20	12	11.5	14	17.5	20	
	L.R.A.	29	37	54	73	87	105	37	54	73	87	105	
Crankcase Heater A(W)		0.12 (28)	0.12 (28)	0.17(39)				0.12 (28)	0.17(39)				
Refrigerant Control		Capillary Tube											
Defrost method		—						Reverse Cycle					
Dimensions	W in.	34-1/4	34-1/4	34-1/4	34-1/4	38-3/16	38-3/16	34-1/4	34-1/4	38-3/16	38-3/16	38-3/16	
	D in.	11-5/8	11-5/8	11-5/8	11-5/8	13-9/16	13-9/16	11-5/8	11-5/8	13-9/16	13-9/16	13-9/16	
	H in.	25-9/16	33-1/2	49-9/16	49-9/16	49-9/16	49-9/16	33-1/2	49-9/16	49-9/16	49-9/16	49-9/16	
Weight lbs		105	154	207	208	220	260	131	202	245	246	268	
REMOTE CONTROLLER		With indoor unit											
Control Voltage (by built-in transformer)		Indoor unit-remote controller: DC 12V, Indoor unit-outdoor unit: DC 12V											
REFRIGERANT PIPING SIZE		3/8, 5/8			1/2, 3/4			3/8, 5/8			1/2, 3/4		1/2, 7/8

Figures in parentheses include auxiliary booster heat.

* For 208 volt applications refer to *Technical And Service Manual* for ratings.

General Specifications

Notes: For MS/MSH, MF, MSM

- *1. Rating conditions (cooling)— Indoor: 80°F DB, 67°F WB Outdoor: 95°F DB, 75°F WB
(heating)— Indoor: 70°F DB, 60°F WB Outdoor: 47°F DB, 43°F WB
- *2. Include auxiliary electric heater operations at 115V. (MSH09EW, MSH12EN, MSH15EN)
- *3. Rated voltage of compressor and fan motor is 115V. (MUM18EW)
- *4. Values are for each indoor unit.
- *5. Depth of outdoor unit () includes thickness of fan grille.

Operating Range

MODEL		Indoor air intake temperature	Outdoor air intake temperature
Cooling	Maximum	95°F DB, 71°F WB	115°F DB
	Minimum	67°F DB, 57°F WB	67°F DB
Heating	Maximum	80°F DB, 67°F WB	75°F DB, 65°F WB
	Minimum	70°F DB, 60°F WB	17°F DB, 15°F WB

Notes: For PK/PKH, PC/PCH, PL/PLH

- * 1. Rating conditions (cooling)— Indoor: 80°F DB, 67°F WB Outdoor: 95°F DB, 75°F WB
(heating)— Indoor: 70°F DB, 60°F WB Outdoor: 47°F DB, 43°F WB
- * 2. Rating conditions (heating)— Indoor: 70°F DB, 60°F WB Outdoor: 17°F DB, 15°F WB
- * 3. Heating capacity and power consumption in [] include auxiliary electric heater operation at 208/230V.

Operating Range

MODEL		Indoor air intake temperature	Outdoor air intake temperature
Cooling	Maximum	95°F DB, 71°F WB	115°F DB
	Minimum	67°F DB, 57°F WB	*5 0°F DB
Heating	Maximum	80°F DB, 67°F WB	75°F DB, 65°F WB
	Minimum	70°F DB, 60°F WB	17°F DB, 15°F WB

*5 With Wind Baffle installed.

REFRIGERANT TUBING SIZE

MODEL	Refrigerant Tubing				Connection Method
	Max. Height Difference (ft)	Max. Tubing Length (ft)	Tubing (OD)/N		
			Liquid	Gas	
MS09EW, MSH09EW, MSM18EW	25	49	1/4	3/8	Flared
MF12EN, MF15EN				1/2	
MMS30EN	25	65		3/8	
(MS09EWX2•MS15ENX1)				5/8	
MS12EN, MS15EN, MSH12EN, MSH15EN	25	49	3/8	5/8	
PK18EK, PKH18EK, PL18FK, PLH18FK, PK12EK, PL12FK	130	130			
PK24EK, PKH24EK, PC24EK, PCH24FK, PL24FK, PK24EK	164	164	1/2	3/4	
PK30EK, PKH30EK, PL30FK, PLH30FK, PC30EK, PCH30EK, PL36FK, PLH36FK, PC36EK, PCH36EK, PL42FK2, PC42EK				7/8	
PLH42FK, PCH42EK					

*For more details refer to *Technical And Service Manual*. All specifications are subject to change without notice.

