



Mr. Slim® Systems: Redefining Comfort



Mr. Slim M-Series Indoor Unit

Comfort is a concept many of us notice only when we're either uncomfortable or extremely relaxed. At Mitsubishi Electric comfort is all we think about, and our Mr. Slim split-ductless cooling and heating systems reflect that thinking. At home or at work, our Mr. Slim systems are designed to make any space inviting. Maybe your home has a room that's always too hot or too cold. Or perhaps you're looking for a way to effectively control the climate in different rooms. No matter what your cooling and heating needs may be, Mr. Slim is the perfect way to make any room in your home or workplace as comfortable as possible.

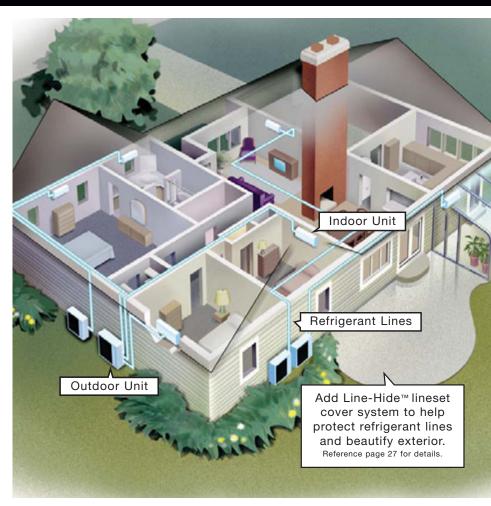


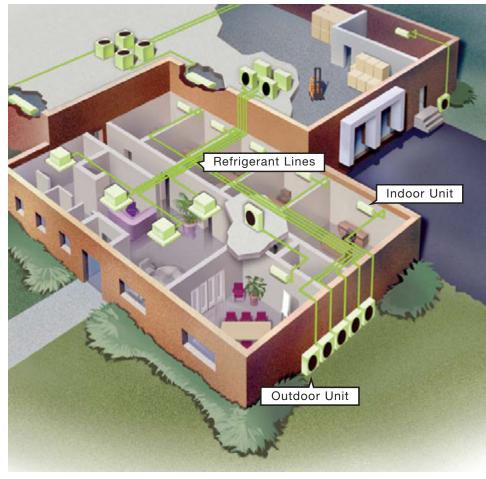
What is Mr. Slim® Ductless Technology?

For decades split-ductless air-conditioning systems have been the quiet solution for cooling and heating problems around the world. Our quiet and powerful Mr. Slim systems have three main components: an indoor unit, outdoor unit, and remote controller. These units are easily connected by refrigerant lines running through a small three-inch opening in the wall or ceiling. The outdoor unit cycles the refrigerant through the lines to and from the indoor unit, where the air is conditioned and distributed into the space. Installation is as simple as mounting the indoor and outdoor units, connecting the refrigerant lines, and making a few electrical connections. An easy installation for your contractor means you'll be enjoying the comfort Mr. Slim provides faster.

Why Mr. Slim?

Mitsubishi Electric is the industry leader in ductless air-conditioning technology. Our innovations have defined cutting-edge technology for years. Compare, and you'll see no one surpasses Mr. Slim's performance for quiet, easy-to-use, and energy efficient operation. And since our ductless technology carries the Mitsubishi Electric name, you know every unit is built to last. The bottom line is that Mr. Slim delivers the ultimate control of comfort for your home or office. It's true today and will be comfortably evident for years to come.







Sure you can use a window unit.

But it will block the view from any angle. It's also an open invitation for burglars to pay you a visit. Oh, and don't



forget that old window units are also ugly, drippy, noisy and add no significant value to your home whatsoever. On the other hand, Mr. Slim units from Mitsubishi Electric are easy for your contractor to install. They work quietly and don't leave a large, easily-accessed opening in your otherwise secure home. And split-ductless systems like Mr. Slim also add value to your home. All-in-all, window units may be the easy solution, but Mr. Slim systems from Mitsubishi Electric are the smart solution. You get what you pay for when it comes to innovative and reliable air conditioning.

Where Can Mr. Slim® Be Used?

Mitsubishi Electric Mr. Slim systems are the perfect solution for almost any spot cooling or heating situation. For example, our ductless systems can make an uncomfortably hot or cold room in an existing building comfortable again. Perhaps you are remodeling or renovating an older home or business built before ducted air conditioning was available. Because there is no ductwork to run, Mr. Slim ductless systems are both plaster-wall and brick-facade friendly, so there's no need to compromise the integrity of your home or office just to make each room comfortable. In addition, Mr. Slim systems are perfect for schools, universities, nursing homes, hospitals, restaurants, hotels, equipment rooms, office buildings, and churches. The versatility and variety of applications for Mr. Slim are virtually unlimited. If a room is too hot or cold, Mr. Slim can handle it! To find more information about our Mr. Slim ductless product line or to find a Diamond Dealer near you, please visit our website at mrslim.com.

Features	Benefits
Efficient, Quiet Operation	Mr. Slim is designed to be quieter and more efficient than old window units, so you'll sleep easier with less worry about operating costs.
No Ductwork	Mr. Slim installs without ductwork, only a three-inch opening in the wall or ceiling. This design allows you to retain the original aesthetics of your home.
EASY TO INSTALL	Because no ductwork is involved, the installation is quick and simple, which means little, or no, disruption to your home or business.
Versatile	From living rooms to board rooms, from classrooms to kitchens to cafeterias, there's a Mr. Slim system to fit any cooling or heating need.
Wireless Remote Controller	Mr. Slim M-Series systems come with a convenient wireless remote controller that puts you in control of your own comfort.

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MR. SLIM PRODUCT FAMILY





M-SERIES







PC/PCH

P-SERIES

GLOSSARY

AIR CONDITIONER: A mechanical device used to control temperature, humidity, cleanliness, and movement of air in a confined space.

Btu/h: British Thermal Units per Hour. A term that is used to measure cooling or heating capacity.

CAPACITY or LOAD: A refrigerating rating system usually measured in Btu/h.

COMPRESSOR: A pump found in a refrigerating or airconditioning system which pumps refrigerant through pipes between an outdoor and an indoor unit using pressure.

HEAT PUMP: An air-conditioning system that is capable of reversing the direction of refrigerant flow to provide either cooling or heating to the indoor space.

HSPF: Heating Season Performance Factor. A rating of the seasonal efficiency of a heat pump unit when operating in the heating mode.

HVAC: A term which stands for Heating, Ventilation, and Air Conditioning.

INDOOR UNIT: The air-handler of an air-conditioning system, which contains a heat exchange coil, filters, and fan. Provides conditioned air into the space.

INVERTER TECHNOLOGY: Mitsubishi Electric's MSZ and MXZ outdoor units use inverter compressor technology (Variable Frequency Drive) to provide exceptional indoor, high-speed cooling and heating. By responding to indoor temperature changes, these systems reduce power consumption by varying the compressor speed for extra energy savings. The system operates only at the levels needed to maintain a constant and comfortable indoor environment. Our CITY MULTI product line also employs inverter technology.

MICROPROCESSOR: An electrical component consisting of integrated circuits which may accept, store, control, and output information.

OUTDOOR UNIT: A component of an air-conditioning system which contains compressor, propeller fan, circuit board, and heat exchange coil. Pumps refrigerant to/from indoor unit.

REFRIGERANT LINES: Copper tubing through which refrigerant flows to and from the indoor and outdoor units.

SEER: Seasonal Energy Efficiency Ratio. A rating of the seasonal efficiency of an air-conditioning unit in cooling mode.

SPLIT-DUCTLESS SYSTEM: A system comprised of a remote outdoor condensing unit connected by refrigerant pipes to a matching, non-ducted indoor air-handler. Special cases for introducing fresh air may call for limited ducting to air-handler from outside.

M-SERIES

RESIDENTIAL AND SELECT COMMERCIAL

Small Size, Big Performance

While all of our Mr. Slim® units are compact and lightweight, the M-Series is designed specifically for tight spaces. But don't be fooled. The powerful M-Series delivers plenty of cool or warm air to almost any size room. And unlike window units, Mr. Slim's small size, color, and mounting position means it blends in well.

No Ductwork Required

Mr. Slim systems need no ductwork.

There's only a small, three-inch opening connecting the indoor and outdoor units. This means easy installation, less mess, and a better looking home.

Efficient. Quiet. Secure. Pick All Three.

That's right. Mr. Slim units deliver all of these. First, its small design, smart functionality, and lack of ductwork plus inverter technology (MSZ, MXZ) make it energy-efficient. Second, the unit's fan is

designed to deliver air quietly and continuously with only a gentle whoosh. (That's why Mr. Slim was the first choice for thousands of churches, schools, and libraries across the U.S. *Shhh!*) And because each system installs with only a three-inch opening for connecting the indoor and outdoor units, you don't have to worry

about thieves seeing an inviting window unit which is easy to remove. With Mr. Slim systems you can sleep in quiet comfort and with a sense of security.



Choose the Mr. Slim® That's Right for You

Room Size	Performance
100 - 350 Sq. Ft.	<9,000 Вти/н
350 - 465 Sq. Fт.	9,000 - 14,000 Вти/н
465 - 525 Sq. Fт.	14,000 - 16,000 Вти/н
525 - 600 Sq. Fт.	16,000 - 18,000 Вти/н
600 - 1,050 Sq. Fт.	18,000 - 30,000 Вти/н

Lifestyle photo courtesy of

ubishi Digital Electronics America, Inc. Plasma TV Model PP-5010 shown.

This table is for general guidance only. Additional conditions may factor into your actual cooling or heating needs. Please contact your contractor or Mitsubishi Electric for a more accurate determination of your specific cooling or heating needs.

M-SERIES LINE-UP



MS/MSH-T/MSZ Wall-mounted Air Conditioners and Heat Pumps [pg.08]



MSH-E Wall-mounted Heat Pump With Auxiliary Electric Heat [pg.08]



MSM Multi Wall-mounted Air Conditioners [pg.10]



INVERTER MXZ
Inverter Multi
Wall-mounted
Heat Pumps
[pg.12]





you get with the Mr. Slim® system, perfect year-round comfort. The MS/MSH system installs easily. Mounted high on the wall, the indoor unit blends into most room environments without taking up any window space. Our MS/MSH systems are the perfect way to cool or heat any room in your home. The MSZ inverter series provides high speed and efficient

No Ductwork Required

your home cozy year-round.

cooling and heating performance to keep

Mr. Slim systems need no ductwork; so if you are adding on a room you don't have to tie into an existing system to steal cold or warm air from other areas in the home. This advanced technology means better room control and increased comfort for your home or office, plus greater efficiency.

System Control in the Palm of Your Hand

Controller

Mr. Slim's M-Series systems offer three remote controllers: two comprehensive remotes for complete control and a simplified one when only simple control of temperature and fan speed are needed. Each provides three modes: COOL, HEAT and DRY. They control fan speed and temperature setting and have 12-hour on/off timers, giving you one-button control over your personal comfort.

Our new MS/MSH24WN models add two additional features to the controller. First, is a WIDE VANE button, which distributes airflow to a wider angle (150 deg.) evenly from right to left, to ensure that a much more comfortable temperature is maintained across a wider area. Second, is a button marked LONG, which boosts airflow reach to up to 36 feet. Together these two new features offer seven different airflow patterns, so the conditioned air always reaches to where you need it.

Warm Air Without Drafts

Our Hot-start technology provides warmth from the beginning. The fan increases in speed as the coil is warmed, which reduces drafts, so when you want warm air, you'll get it.



SPECIFICATIONS MS/MSH/MSZ WALL-MOUNTED AIR CONDITIONERS AND HEAT PUMPS



SYSTEM		MS09TW	MS12TN	MS15TN	MS17TN	MS24WN	MSH09TW	MSH12TN	MSH15TN	MSH17TN	MSH24WN	MSZ09UN	MSZ12UN	MSH15EN
Capacity	Cooling "Btuth "1	8.500	12,600	14,600	16,100	22,000	8,800	12,900	14,600	16,200	22,000	8,800(2,600-9,700)	11.400(2.900-13.000)	14,200
Capacity	Heating 47°F Bluft *1, *3						10,500	13,500	14,800	17,200	23,600	12,300(2,300-15,700)	16,000/2,400-18,000)	14,500(19,600)
Capacity	Heating 17"F Bturh *2	-	_	(i = 1);	-	-	5,300	7,000	8,900	10,300	13,500	10,000	11,600	8,700 (13,800)
Power Consumption	Cooling W *1	840	1,130	1,400	1,600	2,170	890	1,310	1,380	1,580	2,220	980(290-1,250)	1,140(290-1,400)	1,430
Power Consumption	Heating W *1		-			-	890	1,250	1,300	1,570	2,230	1,320(280-1,770)	1,590(290-2,050)	1,340 (2,840)
EER	Cooling	10.1	11.2	10.4	10.1	10.5	9.9	9.8	10.6	10.3	9.9	_	_	_
SEER		10.2	11.3	10.5	10.2	10.5	10	10.2	10.7	10.4	10.0	12.0	13.0	10
HSPF		_	_		_		6.8	6.8	6.8	6.8	6.8	7.7	7.7	6.8
COP	47°F°1		_				3.45	3.17	3.34	3.21	3.1	2.73	2.95	3.2
INDOOR UNIT		MS09TW	MS12TN	MS15TN	MS17TN	MS24WN	MSH09TW	MSH12TN	MSH15TN	MSH17TN	MSH24WN	MSZ09UN	MSZ12UN	MSH15EN
External Finish						White							White	
Power Supply	V, Phase, Hz	115,1,60	115,1,60	115,1,60	115,1,60	115,1,60	115,1,60	115,1,60	115,1,60	115,1,60	115,1,60	115,1,60	115,1,60	115,1,60
Max. Fuse Size	(Time Delay) Amp	15	15	15	15	15	15	15	15	15	15	15	15	20
Min. Ampacity		0.5	0.6	0.6	0.7	1.1	0.5	0.6	0.6	0.7	1.1	0.5	0.6	17
Fan Motor	FLA	0.37	0.43	0.43	0.51	0.82	0.37	0.43	0.43	0.51	0.82	0.37	0.43	0.5
Auxiliary Heater	Amps. (kW)											_		13.0 (1.5)
Airflow Lo-Med-Hi	Dry CFM	191-237-289	360-395-452	360-395-452	406-441-491	402-484-565	198-244-297	360-395-452	360-395-452	406-441-491	402-484-565	184-237-297	360-395-452	280-375-425
Airflow Lo-Med-Hi	Wet CFM	138-184-226	314-342-392	293-321-367	346-374-417	345-417-487	145-187-233	311-339-388	293-321-367	342-371-413	345-417-487	124-180-233	311-339-388	265-355-405
Moisture Removal	Pints/h	2.3	3.2	4.7	5.1	7.6	2.3	3.3	4.7	5.1	7.3	2.3	2.8	4.4
Sound Level	dB(A) Low-Med-High	26-31-36	35-39-42	36-39-42	40-43-45	39-43-47	26-31-36	36-39-42	36-39-42	40-43-45	39-43-47	22-29-36	35-39-42	48
Cond. Drain Connection	O.D. Inches	5/8	5/8	5/8	58	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8	5/8
Indoor Unit Width	Inches	33-1/2	39-15/16	39-15/16	39-15/16	43-5/16	33-1/2	39-15/16	39-15/16	39-15/16	43-5/16	33-1/2	39-15/16	39-3/8
Indoor Unit Depth	Inches	7-1/2	7-1/2	7-1/2	7-1/2	8-15/16	7-1/2	7-1/2	7-1/2	7-1/2	8-15/16	7-1/2	7-1/2	7
Indoor Unit Height	Inches	10-15/16	12-5/8	12-5/8	12-5/8	12-13/16	10-15/16	12-5/8	12-5/8	12-5/8	12-13/16	10-15/16	12-5/8	14-3/16
Weight	Pounds	20	31	31	31	40	20	31	31	31	40	20	31	37.5
OUTDOOR UNIT		MU09TW	MU12TN	MU15TN	MU17TN	MU24WN	MUH09TW	MUH12TN	MUH15TN	MUH17TN	MUH24WN	MUZOSUN	MUZ12UN	MUH15EN
External Finish		Munsell 5Y7/1	Monsett SY7/1	Munsell 5Y7/1	Munsell 5Y7/1	Munsell 5Y7/1	Munsell 5Y7/1	Munsell SY7/1	Munsell 5Y7/1	Munsell 5Y7/1	Munsell SY7/1	Morento EY 8 00.5	Munual 5 (FY 8:00:5	Munsell 5Y6.5/1
Sound Level	dB(A)	46.0	49.0	52.0	52.0	55.0	47.0	49.0	53.0	53.0	55.0	49	49	55.0
Power Supply	V, Phase, Hz	115,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	115,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230, 1, 60	208/230, 1, 60	208/230,1,60
Max. Fuse Size	(Time Delay) A	15.0	15.0	20.0	20.0	25.0	20.0	15.0	20.0	20.0	25.0	15	15	20.0
Min. Ampacity		11.0	12.0	14.0	15.0	22.0	16.0	14.0	14.0	15.0	22.0	14	14	14.0
Fan Motor	FLA	0.6	0.42	0.52	0.52	0.87	0.6	0.42	0.52	0.75	0.87	0.43	0.43	0.5
Compressor	Model (Type)	RH130WGJT	RH167NHDT	RH207NHDT	RH231NHDT	PH33NP8T	RH140WGJT	RH189NHDT	RH207NHDT	RH231NH0T	PH33NPBT	SHV-130FEA	SHV-130FEA	RH207NFL
Compressor	RLA	7.8	9.0	10.0	11.0	16.0	12.0	10.0	10.0	11.0	16.0	9.7	9.7	10.0
Compressor	LRA	41.0	29.0	35.0	38.0	58.0	42.0	35.0	35.0	38.0	58.0	41.0	41.0	35.0
Refrigerant Control			0	apillary Tube		Linear Expansion Valve	17.0	Capita	ry Tube		Linear Expension Valve	Linear Expansion Valve	Linear Expansion	Capillary Tube
Defrost Method		_	-	_	-	-		Revers	ie Cycle		-	1411	Reverse Cycle	
Outdoor Unit Width	Inches	30-3/4	30-3/4	33-7/16	33-7/16	34-1/4	30-3/4	30-3/4	33-7/16	34-1/4	34-1/4	28	28	33-1/2
Outdoor Unit Depth	Inches	10-1/16	10-1/16	11-7/16	11-7/16	11-5/8	10-1/16	10-1/16	11-7/16	11-5/8	11-5/8	10 -1/16	10-1/16	11-7/16
Outdoor Unit Height	Inches	21-1/4	21-1/4	23-13/16	23-13/16	33-1/2	21-1/4	21-1/4	23-13/16	33-1/2	33-1/2	21 -1/4	21-1/4	23-7/8
Weight	Pounds	71.0	84.0	92.0	97.0	152	82.0	86.0	99.0	128.0	154	75	75	106.0
Remote Controller	777.01	= 7.5%	C. L.	35773	7,777	Wireless Type		1000000	111111	1007717	3000	- 27	Wireless Type	272-117
Control Voltage	(By Built-In Transformer)	12V0C	12VDC	12VDC	12VDC	12VDC	12VDC	12VDC	12VDC	12V0C	12VDC	12	VDC	12VDC
Refrigerant Piping Size	(Liquid x Gas) Inches	1/4 x 3/8	1/4 x 1/2	1/4 x 5/8	1/4 x 5/8	3/8 x 5/8	1/4 x 3/8	1/4 x 1/2	1/4 x 5/8	1/4 x 5/8	3/8 x 5/8	1/4 x 3/8	1/4 x 1/2	1/4 x 5/8
Between Indoor & Outdoor	Max. Piping: (Height x Length) Rt.	25 x 49	25 x 49	25 x 49	25 x 49	25 x 50	25 x 49	25 x 49	25 x 49	25 x 49	25 x 50	25 x 49	25×49	25 x 49

*1,*2,*3 See page 27 for rating conditions.

LIMITED WARRANTY | Six-year warranty on compressor. One-year warranty on parts.

MSM MULTI

WALL-MOUNTED SYSTEM

Air Conditioners



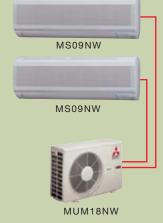
MS-NW Indoor Unit 18,000 Btu/h Capacity (Dual MS09 Units)

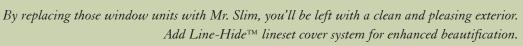
Possibilities. That's what the MSM system is about. A versatile multi-split design means two MS09NW indoor units can be connected to a single outdoor unit. MSM systems are adaptable, so you can install just one indoor unit first and add a second unit later. With just one outdoor unit you reduce electrical costs and leave a cleaner, better-looking exterior. The MSM system is the easy way to have efficient, zoned air conditioning.





The M-Series wireless remote controller puts you in command of your personal comfort.





Reference page 27 for details.



SPECIFICATIONS MULTI WALL-MOUNTED AIR CONDITIONERS



Cooling Capacity Bit/h 1 8,400 (Single) / 16,800 (Dual) Power Consumption W 850 (Single) / 1700 (Dual) ER 9.9 SEER 1.0.0 NOOGO UNIT MSSORW (Bacch) External Frinish	SYSTEM		MSM18NW
EER 9.9 SER 10.0 10.0 NDOOR UNIT MOSONW (sech) External Finish My Passe, It2 115,160 Max. Fuse Size (Time Delay) Amp 15 Min. Ampacity E.L.A. 0.5 Fan Motor F.L.A. 0.0-3 Alfrow Lo-Med-Hi My CFM 20-35-338 Allrow Lo-Med-Hi My CFM 0.2-3 Mostaure Removal Pintsuh 2.3 Sound Level d6(A) 4.2 Cond. Drain Connection 0.D. Inches 32-176 Indoor Unit Depth inches 32-176 Indoor Unit Depth inches 3-2-176 Moder Unit Depth Inches 3-2-176 Moder Unit Depth Inches 3-2-176 Moder Unit Height Pounds 18-2-276 Weight Pounds 18-2-276 Sund Pressure Level d6(A) 18-2 Mux. Fuss Size (Time Delay) A 15-2 Mux. Fuss Size (Time Delay) A 15-2 </td <td>Cooling Capacity</td> <td>Btu/h *1</td> <td>8,400 (Single) / 16,800 (Dual)</td>	Cooling Capacity	Btu/h *1	8,400 (Single) / 16,800 (Dual)
SER 10.00 INUT MS09NW (each) External Flinish W. Phase, Hz 1151,80 Nower Supply Y. Phase, Hz 1151,80 Min. Ampacity 0.05 15 Fan Motor F.L.A. 0.37 Airflow Lo-Med-Hi 0.07 CFM 20.828-282-282 Airflow Lo-Med-Hi 0.07 CFM 2.3 Moisture Removal Pints/n 2.3 Sound Level 0.01, Inches 2.3 Cond. Drain Connection 0.01, Inches 3.2-1/16 Indoor Unit Depth Inches 3.2-1/16 Indoor Unit Weight Pounds 18 Molocy Unit Weight Pounds 10-13/16 Molocy Unit Weight Pounds 18 Molocy Unit Weight Pounds 18 More Will Weight 10-13/16 Melory Unit Weight Pounds 18 Sound Pressure Level 4B/N 20-20/20/20/20/20/20/20/20/20/20/20/20/20/2	Power Consumption	W	850 (Single) / 1700 (Dual)
NDOOR UNIT MSDOWN (each) External Finish (Minite) Power Supply V, Phase, Hz 115,1,60 Max. Fuse Size (Time Delay) Amp 15 Max. Fuse Size (Time Delay) Amp 15 Airflow Lo-Med-Hi Dry CFM 0.5 Airflow Lo-Med-Hi Wet CFM 208-286-328 Airflow Lo-Med-Hi Wet CFM 177-226-279 Moisture Removal Birthy 2.3 Sound Level 60(A) 42 Cond. Drain Connection 0.0.1 Inches 36 Indoor Unit Width Inches 32-1/16 Indoor Unit Height Inches 7-3/16 Indoor Unit Height Pounds 18 OTDOOR UNIT Pounds 18 OTDOOR UNIT Munsell Sy 6.51 External Finish Munsell Sy 6.51 Sound Pressure Level dB(A) 56.5 Awar Sus Size (Time Delay) A 15.2 Min. Ampacity F.L.A. 10.2 Fan Motor F.L.A. 10.2	EER		9.9
External Finish Memory Supply V, Phase, Hz 1151,80 Max. Fise Size (Time Delay Amp 15 Min. Ampacity 0.5 15 Fan Motor F.L.A. 0.37 Airflow Lo-Med-Hi Dry CFM 208-265-328 Airflow Lo-Med-Hi Wet CFM 177-225-279 Moisture Removal Pintsh 2.3 Sound Lovel 48(A) 42 Cond. Drain Connection 0.0. Inches 36's Indoor Unit Width Inches 32-1/16 Indoor Unit Width Inches 3-2-1/16 Indoor Unit Height Inches 3-3/16 Indoor Unit Height Inches 10-13/16 Veight Pound 18 OUTDOR UNIT Muntell Sty 6.5/1 External Finish Muntell Sty 6.5/1 Sound Pressure Level dB(A) 5.5 Power Supply V, Phase, Hz 208/230,160 (3-wire) Max. Fises Size (Time Delay) A 15/2 Min. Ampacity FL.A. 1.0	SEER		10.0
Power Supply V, Phase, Hz 1151,60 Max. Fuse Size (Time Delay) Amp 15 Min. Ampacity 5.5 5.5 Fan Motor F.L.A. 0.37 Artilow Lo-Med-Hi Opy CFM 208-265-328 Artilow Lo-Med-Hi Wet CFM 177-226-279 Moisture Removal Pints/h 2.3 Sound Level d8(A) 42 Cond. Drain Connection 0.0.0. Inches 5/8 Indoor Unit Width Inches 32-1/16 Indoor Unit Width Inches 32-1/16 Indoor Unit Width Inches 10-13/16 Weight Pounds 18 Weight Pounds 18 Windoor Unit Height Inches 10-13/16 Weight Pounds 18 Weight Pounds 18 Word Flags Mummel Sy 65/1 Sound Pressure Level d8(A) 56.5 Power Supply V, Phase, Hz 2082330,160(3-wire) Max. Fuse Size (Time Delay) A	INDOOR UNIT		MS09NW (each)
Max. Fuse Size (Time Delay) Amp 15 Min. Ampacity E.L. 0.5 Fan Motor F.L.A. 0.37 Airflow Lo-Med-Hi Dy CFM 208-265-328 Airflow Lo-Med-Hi Dy CFM 208-265-328 Airflow Lo-Med-Hi Wet CFM 177-226-279 Moisture Removal Big May 2.3 Sound Level d8(A) 42 Cond. Drain Connection G.D. D. Inches 5/8 Indoor Unit Width 10.00 D. D. Inches 32-1/16 Indoor Unit Height Pounds 7-3/16 Indoor Unit Height Pounds 10-13/16 Weight Pounds 10-13/16 External Finish Munsell Sy 6.51 Sound Pressure Level 4B(A) 56.5 Sound Pressure Level 4B(A) 56.5 Max. Fuse Size (Time Delay) A 15x2 Min. Ampacity F.L.A 1.0 Compressor R.L.A 1.0 Compressor R.L.A 1.0x2 Compressor	External Finish		White
Min. Ampacity Control FLA. 0.5 Fan Motor F.L.A. 0.37 Artflow Lo-Med-Hi Dry CFM 208-265-228 Airflow Lo-Med-Hi Wet CFM 1177-226-279 Moisture Removal Pints/h 2.3 Sound Level 606(A) 42 Cond. Drain Connection 0.0.1 inches 5/8 Indoor Unit Width 1.0.2 inches 32-1/16 Indoor Unit Width 1.0.2 inches 32-1/16 Indoor Unit Height 1.0.2 inches 10-13/16 Weight Pounds 1.0.13/16 Weight Pounds 1.0.13/16 Sound Pressure Level 4.0.1 Mansell SY 6.5/1 Sound Pressure Level 4.0.1 56.5 Power Supply 1.0.2 1.5.2 Max. Fuse Size 4.0.1 1.5.2 Min. Ampacity 1.0.2 1.1.2 Fan Motor 4.0.2 1.1.2 Compressor 8.0.1 1.0.2 Compressor 8.1.2. 1.0.2	Power Supply	V, Phase, Hz	115,1,60
Fan Motor F.L.A. 0.37 Airliow Lo-Med-Hi Dry CFM 208-265-328 Airliow Lo-Med-Hi Wet CFM 1177-226-279 Moisture Removal Pinish 2.3 Sound Level dB(A) 42 Cond. Drain Connection 0.0. Inches 32-1/16 Indoor Unit Width inches 32-1/16 Indoor Unit Height Inches 7-3/16 Indoor Unit Height Inches 10-13/16 Weight Pounds 18 Very Supply Pounds Munsell SY 6.5/1 Sound Pressure Level dB(A) 56.5 Sound Pressure Level B(B) 65.5 Power Supply V, Phase, Hz 208/230,1,60/3-wire) Max. Fuse Size G(Time Delay) A 15/2 Min. Ampacity FLA 1,0 Compressor Model (Type) KH122WES x2 Compressor RLA 10/2 Compressor RLA 37-2 Refrigent Control Inches 33-12 Out	Max. Fuse Size	(Time Delay) Amp	15
Airflow Lo-Med-Hi Dry CFM 208-265-328 Airflow Lo-Med-Hi Wet CFM 177-226-279 Moisture Removal Pints/h 2.3 Sound Level dB(A) 42 Cord. Drain Connection 0.D. Inches 5/8 Indoor Unit Width Inches 32-1/16 Indoor Unit Width Inches 7-3/16 Indoor Unit Bepth Inches 10-13/16 Weight Pounds 18 Weight Pounds 18 OUTDOOR UNIT Munsell 57 6.5/1 18 External Finish Munsell 57 6.5/2 Munsell 57 6.5/2 Sound Pressure Level GB(A) 5.6.5 Power Supply Wer Supply V. Phase, Hz 208/230,1,60 (3-wire) 1442 Fan Motor F.L.A. 1.0 1442 Fan Motor F.L.A. 1.0 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor R.L.A. 37x2 Compressor <td>Min. Ampacity</td> <td></td> <td>0.5</td>	Min. Ampacity		0.5
Airflow Lo-Med-Hi Wet CFM 177-226-279 Moisture Removal Pints/h 2.3 Sound Level dB(A) 42 Cond. Drain Connection 0.0. Inches 5/8 Indoor Unit Width 1.0. Inches 32-1/16 Indoor Unit Depth 1.0. Inches 10-13/16 Meight Pounds 1.0-13/16 Weight Pounds 1.0. Munsell 57 6.51 Sound Pressure Level BB(A) 56.5 Sound Pressure Level BB(A) 56.5 Max. Fuse Size (Time Delay) A 1.5x2 Min. Ampacity Pounds 1.0. Fan Motor FL.A. 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 1.0x2 Compressor L.R.A. 3.3-1/2 Compressor L.R.A. 3.3-1/2 Outdoor Unit Width Inches 3.3-1/2 Outdoor Unit Width Inches 3.3-1/2 Outdoor Unit Weight Inches 3.2-7/8 <td< td=""><td>Fan Motor</td><td>F.L.A.</td><td>0.37</td></td<>	Fan Motor	F.L.A.	0.37
Moisture Removal Pints/h 2.3 Sound Level dB(A) 42 Cond. Drain Connection 0.D. Inches 5/8 Indoor Unit Width Inches 32-1/16 Indoor Unit Depth Inches 7-3/16 Indoor Unit Height Inches 10-13/16 Weight Pounds 18 OUTDOOR UNIT Pounds 18 External Finish Munsell SY 6.5/1 Sound Pressure Level dB(A) 56.5 Power Supply V, Phase, Hz 208/230,1,60 (3-wire) Max. Fuse Size (Time Delay) A 15x2 Min. Ampacity 14x2 1.0 Fan Motor F.L.A. 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor R.L.A. 37x2 Refrigerant Control Inches 33-1/2 Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 23-7/8 Weight Pounds	Airflow Lo-Med-Hi	Dry CFM	208-265-328
Sound Level dB(A) 42 Cond. Drain Connection 0.D. Inches 5/8 Indoor Unit Width Inches 32-1/16 Indoor Unit Depth Inches 7-3/16 Indoor Unit Height Inches 10-13/16 Weight Pounds 18 OUTDOOR UNIT Munsell SY 6.5/1 Sternal Finish Munsell SY 6.5/1 Sound Pressure Level dB(A) 56.5 Power Supply V, Phase, Hz 208/230,1,60 (3-wire) Max. Fuse Size (Time Delay) A 15x2 Min. Ampacity F.L.A. 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor R.L.A. 10x2 Refrigerant Control L.R.A. 37x2 Refrigerant Control Inches 33-1/2 Outdoor Unit Width Inches 11-7/16 Outdoor Unit Depth Inches 23-7/8 Weight Pounds 122 Remote Controller (8) Bull-I	Airflow Lo-Med-Hi	Wet CFM	177-226-279
Cond. Drain Connection O.D. Inches 5/8 Indoor Unit Width Inches 32-1/16 Indoor Unit Depth Inches 7-3/16 Indoor Unit Height Inches 10-13/16 Weight Pounds 18 OUTDOOR UNIT MUMBISW External Finish Munsell SY 6.5/1 Sound Pressure Level dB(A) 56.5 Power Supply V, Phase, Hz 208/230,160 (3-wire) Max. Fuse Size (Time Delay) A 15x2 Min. Ampacity 14x2 1.0 Fan Motor FL.A. 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor R.L.A. 37x2 Refrigerant Control L.R.A. 33-1/2 Outdoor Unit Width Inches 33-1/2 Outdoor Unit Width Inches 23-7/8 Weight Pounds 122 Remote Controller Wireless Type Control Voltage (By Built-In Transformer) <td< td=""><td>Moisture Removal</td><td>Pints/h</td><td>2.3</td></td<>	Moisture Removal	Pints/h	2.3
Indoor Unit Width Inches 32-1/16 Indoor Unit Depth Inches 7-3/16 Indoor Unit Depth Inches 10-13/16 Weight Pounds 18 OUTDOOR UNIT MUMBINW External Finish Munsell 5Y 6.5/1 Sound Pressure Level dB(A) 56.5 Power Supply V, Phase, Hz 208/230,160 (3-wire) Max. Fuse Size (Time Delay) A 15x2 Min. Ampacity FLA. 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor R.L.A. 37x2 Refrigerant Control Inches 33-1/2 Outdoor Unit Width Inches 33-1/2 Outdoor Unit Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller (By Bull-in Transformer) 1200C	Sound Level	dB(A)	42
Indoor Unit Depth Inches 7-3/16 Indoor Unit Height Inches 10-13/16 Weight Pounds 18 OUTDOOR UNIT MUMBRW External Finish Munsell 57 6.5/1 Sound Pressure Level dB(A) 56.5 Power Supply V, Phase, Hz 208/230,1,60 (3-wire) Max. Fuse Size (Time Delay) A 15x2 Min. Ampacity 14x2 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor R.L.A. 37x2 Refrigerant Control L.R.A. 33-1/2 Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller (By Built-In Transformer) 12VDC	Cond. Drain Connection	O.D. Inches	5/8
Indoor Unit Height Inches 10-13/16 Weight Pounds 18 OUTDOOR UNIT MUM18NW External Finish Munsell 5Y 6.5/1 Sound Pressure Level dB(A) 56.5 Power Supply V, Phase, Hz 208/230.1,60 (3-wire) Max. Fuse Size (Time Delay) A 15x2 Min. Ampacity 14x2 1.0 Fan Motor F.L.A. 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor R.L.A. 37x2 Refrigerant Control Capillary Tube Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller (By Bull-In Transformer) 12VDC	Indoor Unit Width	Inches	32-1/16
Weight Pounds 18 OUTDOOR UNIT MUM18NW External Finish Munsell SY 6.5/1 Sound Pressure Level dB(A) 56.5 Power Supply V, Phase, Hz 208/230,1,60 (3-wire) Max. Fuse Size (Time Delay) A 15x2 Min. Ampacity 14x2 Fan Motor F.L.A. 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor R.R.L.A. 37x2 Refrigerant Control Capillary Tube Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller (By Built-In Transformer) 12VDC	Indoor Unit Depth	Inches	7-3/16
OUTDOOR UNIT MUM18NW External Finish Munsell 5Y 6.5/1 Sound Pressure Level dB(A) 56.5 Power Supply V, Phase, Hz 208/230,1,60 (3-wire) Max. Fuse Size (Time Delay) A 15x2 Min. Ampacity 14x2 Fan Motor F.L.A. 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor L.R.A. 37x2 Refrigerant Control Capillary Tube Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller (By Built-In Transformer) 12VDC	Indoor Unit Height	Inches	10-13/16
External Finish Munsell 5Y 6.5/1 Sound Pressure Level dB(A) 56.5 Power Supply V, Phase, Hz 208/230,1,60 (3-wire) Max. Fuse Size (Time Delay) A 15x2 Min. Ampacity 14x2 Fan Motor F.L.A. 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor R.L.A. 37x2 Refrigerant Control Capillary Tube Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller (By Built-In Transformer) 12VDC	Weight	Pounds	18
Sound Pressure Level dB(A) 56.5 Power Supply V, Phase, Hz 208/230,1,60 (3-wire) Max. Fuse Size (Time Delay) A 15x2 Min. Ampacity 14x2 Fan Motor F.L.A. 1.0 Compressor Model (Type) KH12WES x2 Compressor R.L.A. 10x2 Compressor L.R.A. 37x2 Refrigerant Control Capillary Tube Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller Wireless Type Control Voltage (By Built-In Transformer) 12VDC	OUTDOOR UNIT		MUM18NW
Power Supply V, Phase, Hz 208/230,1,60 (3-wire) Max. Fuse Size (Time Delay) A 15x2 Min. Ampacity 14x2 Fan Motor F.L.A. 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor L.R.A. 37x2 Refrigerant Control Capillary Tube Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller Wireless Type Control Voltage (By Built-In Transformer) 12VDC	External Finish		Munsell 5Y 6.5/1
Max. Fuse Size (Time Delay) A 15x2 Min. Ampacity 14x2 Fan Motor F.L.A. 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor L.R.A. 37x2 Refrigerant Control Capillary Tube Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller Wireless Type Control Voltage (By Built-In Transformer) 12VDC	Sound Pressure Level	dB(A)	56.5
Min. Ampacity Fan Motor F.L.A. 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor R.L.A. 37x2 Refrigerant Control Capillary Tube Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Pounds 122 Remote Controller Control Voltage (By Built-In Transformer) 12VDC	Power Supply	V, Phase, Hz	208/230,1,60 (3-wire)
Fan Motor F.L.A. 1.0 Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor L.R.A. 37x2 Refrigerant Control Capillary Tube Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller Wireless Type Control Voltage (By Built-In Transformer) 12VDC	Max. Fuse Size	(Time Delay) A	15x2
Compressor Model (Type) KH122WES x2 Compressor R.L.A. 10x2 Compressor L.R.A. 37x2 Refrigerant Control Capillary Tube Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller (By Built-In Transformer) 12VDC	Min. Ampacity		14x2
Compressor R.L.A. 10x2 Compressor L.R.A. 37x2 Refrigerant Control Capillary Tube Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller Wireless Type Control Voltage (By Built-In Transformer) 12VDC	Fan Motor	F.L.A.	1.0
Compressor L.R.A. 37x2 Refrigerant Control Capillary Tube Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller (By Built-In Transformer) 12VDC	Compressor	Model (Type)	KH122WES x2
Refrigerant Control Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller (By Built-In Transformer) 12VDC	Compressor	R.L.A.	10x2
Outdoor Unit Width Inches 33-1/2 Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller Wireless Type Control Voltage (By Built-In Transformer) 12VDC	Compressor	L.R.A.	37x2
Outdoor Unit Depth Inches 11-7/16 Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller Wireless Type Control Voltage (By Built-In Transformer) 12VDC	Refrigerant Control		Capillary Tube
Outdoor Unit Height Inches 23-7/8 Weight Pounds 122 Remote Controller Wireless Type Control Voltage (By Built-In Transformer) 12VDC	Outdoor Unit Width	Inches	33-1/2
Weight Pounds 122 Remote Controller Wireless Type Control Voltage (By Built-In Transformer) 12VDC	Outdoor Unit Depth	Inches	11-7/16
Remote Controller Wireless Type Control Voltage (By Built-In Transformer) 12VDC	Outdoor Unit Height	Inches	23-7/8
Control Voltage (By Built-In Transformer) 12VDC	Weight	Pounds	122
	Remote Controller		Wireless Type
Refrigerant Piping Size (Liquid x Gas) Inches 1/4 x 3/8	Control Voltage	(By Built-In Transformer)	12VDC
	Refrigerant Piping Size	(Liquid x Gas) Inches	1/4 x 3/8

^{*1} See page 27 for rating conditions.

LIMITED WARRANTY \mid Six-year warranty on compressor. One-year warranty on parts.

INVERTER

INVERTER DRIVEN MULTI-ZONE HEAT PUMP SYSTEMS



MXZ30TN Outdoor Unit

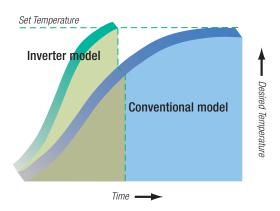
INVERTER

Inverter Technology for Superior Year-Round Comfort and Performance

Mitsubishi Electric's MXZ and MSZ outdoor units employ inverter compressor technology (Variable Frequency Drive) to provide exceptional high-speed cooling and heating performance.

In response to indoor and outdoor temperature fluctuations, the system varies the compressor speed, thereby reducing power consumption for extra energy savings. The system adjusts itself precisely to the level needed to maintain a consistently comfortable indoor environment.

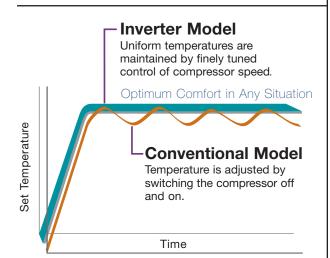




High-speed Cooling and Heating

Compressor speed is controlled to maximize efficiency, changing speeds according to the cooling and heating load of a room.

The desired temperature is, therefore, reached much faster, saving both energy and cash.



Optimum Comfort Year-round

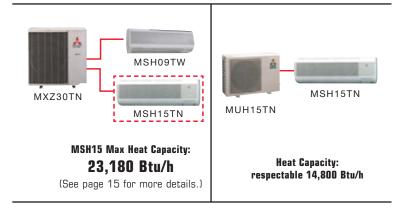
Unlike conventional units that start and stop repetitively, inverter units are able to detect subtle fluctuations in room temperature and adjust compressor speed up or down automatically. The result is less noticeable temperature swings and a more comfortable climate.



Extra Energy Savings

For optimum performance, inverter technology controls the electrical current to the compressor, delivering only the energy needed to satisfy the cooling and heating load of a room, thereby reducing energy consumption.

When operating just one indoor unit at a time the MXZ outdoor inverter unit can provide up to 50% better heating performance when compared to a standard single-speed heat pump system.



Ask about how the CITY MULTI® and the Mr. Slim® inverter systems give you even greater performance capabilities and design flexibility, making Mitsubishi Electric products the best choice for any of your cooling and heating applications.

INVERTER DRIVEN MULTI-ZONE HEAT PUMP SYSTEMS



INVERTER

MXZ30TN Outdoor Unit 30,000 Combined Rated Btu/h Capacity

Are you looking to add superior cooling or heating to more than one room? The MXZ system is the ideal solution. It delivers powerful cooling and heating with up to three wallmounted indoor units and only one outdoor unit, giving you greater design flexibility and multi-zoned air conditioning. The MXZ two-to-one or three-to-one system provides the flexibility of up to seven different indoor unit combinations. Two popular examples are shown to the lower right.



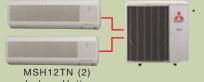
MXZ30TN Outdoor Unit



Indoor Unit

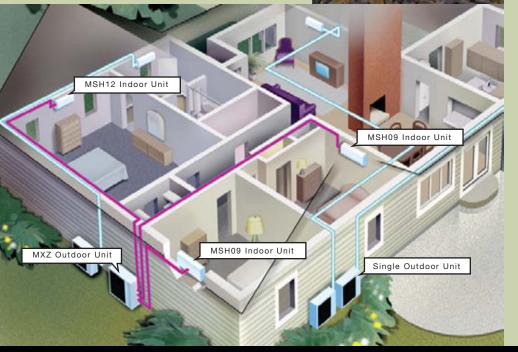
This 2:1 multi-system provides up to 27,900 Btu/h of cooling or 36,890 Btu/h of heating.

MXZ30TN Outdoor Unit



Indoor Units

* Requires joint piping adapter accessory (See page 15 for more details.)





SPECIFICATIONS

MXZ30TN HEAT PUMPS





SYSTEM		MXZ30TN: MSH09TW(2), MSH12TN(1)
Capacity	Cooling Btu/h *1	28,400
Capacity	Heating 47°F Btu/h *1	28,600
Capacity	Heating 17°F Bth/h *2	18,100
Power Consumption	Cooling W *1	3,550
Power Consumption	Heating W *1	2,720
Power Consumption	Heating 17°F Bth/h *2	2,310
SEER	Cooling	11.0
HSPF IV (V)	Heating	7.5
COP	Heating 47°F *1	3.08
OUTDOOR UNIT		MXZ30TN
External Finish		Munsell 5Y 8/1
Sound Level	dB(A)	48.0
Power Supply	V, Phase, Hz	208 / 230,1,60
Max. Fuse Size	(Time Delay) Amp	30.0
Min. Ampacity		25.0
Fan Motor	F.L.A.	0.6
Compressor	Model (Type)	THV-247FBA
Compressor	Winding Resistance (@ 68°F)Ω	UV0.61 V-W0.61 W-U0.61
Compressor	R.L.A.	10.0
Compressor	L.R.A.	37.0
Refrigerant Control		LEV
Defrost Method		Reverse Cycle
Outdoor Unit Width	Inches	35-7/16
Outdoor Unit Depth	Inches	12-5/8(+1-3/8 w/feet)
Outdoor Unit Height	Inches	35-7/16
Weight	Pounds	179.0
Remote Controller		Wireless Type
Control Voltage	(By Built-In Transformer)	12VDC
Refrigerant Piping Size	(Liquid x Gas) Inches	A= 1/4 x 1/2, B= 1/4 x 3/8, C= 1/4 x 3/8

^{*1,*2,} See page 27 for rating conditions.

LIMITED WARRANTY \mid Six-year warranty on compressor. One-year warranty on parts.

Model		Cooling Capacity (Btu/h)*1		ı/h)*1	Outdoor Unit	Current	(AMP.)
Combination	UNIT (1)	UNIT (2)	UNIT (3)	TOTAL (Min-Max)	Power Consumption (w)	208V	230V
MSH09TW	8,800	·	ı	8,800 (4,160 - 9,210)	1,030 (510 - 1,280)	4.5	4.0
MSH12TN	12,900	-	1	12,900 (5,600-15,350)	1,250 (510 - 1,680)	5.4	4.9
MSH15TN	14,600	•	i	14,600 (5,600-17,010)	1,250 (510 - 1,780)	5.4	4.9
MSH17TN	16,200	•	i	16,200 (6,470-18,720)	2,200 (550 - 2,620)	9.5	8.6
MSH09TW(2)	8,800	8,800	i	17,600 (5,470-18,680)	2,200 (550 - 3,230)	9.5	8.6
MSH09TW+ MSH12TN	8,800	12,900	•	21,700 (6,240 - 22,760)	2,280 (540 - 3,270)	9.9	8.9
**MSH09TW+ MSH15TN	8,800	14,600	i	23,400 (6,240-24,030)	2,280 (540 - 3,430)	9.9	8.9
**MSH09TW+ MSH17TN	8,800	16,200	i	25,000 (6,220-27,170)	2,680 (550 - 4,000)	11.6	10.5
**MSH12TN(2)	12,900	12,900	i	25,800 (6,300-27,900)	2,700 (540 - 4,100)	11.7	10.6
**MSH09TW(3)	8,800	8,800	8,800	26,400 (9,740-29,150)	3,500 (770 - 4,500)	15.1	13.6
MSH09TW(2)+ MSH12TN(1)	7,370	7,370	13,660	28,400 (9,940-30,500)	3,800 (810 - 4,610)	16.4	14.9

Combination	4.3 4.7 5.5
MSH12TN 13,500 - (5,790-16,350) (560-1,990) 4-0 MSH12TN 13,500 - (13,500) 1,200 (6,420-22,400) (560-2,340) 5.2 MSH15TN 14,800 - (14,800) 1,400 (6,470-23,180) (570-2,480) 6.1	4.7 5.5
MSH121N 13,900 - (6,426-22,400) (560-2,340) 5.2 MSH15TN 14,800 - 14,800 1,400 6.1 MSH15TN 17,000 17,000 1,600 6.0	5.5
MSH131N 14,800 (6,470-23,180) (570-2,480) 0.1	
	0.0
MSH171N 17,200 (6,520-23,550) (600-2,710) 0.9	6.3
MSH09TW(2) 10,500 10,500 - 21,000 1,950 (6,520-26,900) (620-2,900) 8.4	7.6
MSH09TW+ MSH12TN 10,500 13,500 - 24,000 2,210 9.6	8.6
**MSH09TW+ MSH15TN 10,500 14,800 - 25,300 2,400 (640-3,360) 10.4	9.4
**MSH09TW+ MSH17TN 10,500 17,200 - 27,700 2,700 11.7	10.6
**MSH12TN(2) 13,500 13,500 - 27,000 2,520 10.9	9.9
**MSH09TW(3) 9,530 9,530 9,530 28,590 2,720 11.8	10.6
MSH09TW(2)+ MSH12TN(1) 7,820 7,820 12,960 28,600 (9,040-38,000) 2,800 (710-3,970) 12.1	11.0

All models 60 Hz. Refer to the *Service Manual* for additional indoor and outdoor unit specifications. **This combination requires joint piping adapter accessory. Please refer to charts below for more details.

MXZ30TN Outdoor Unit Refrigerant Piping Size									
Circuit	Liquid	Suction							
Α	1/4	1/2							
В	1/4	3/8							
С	1/4	3/8							

[JOINT PIPING ACCESSORIES											
		MXZ30TN Outdoor Unit Circuits											
S	Α	В	C	Part #									
Z 0	09	09	09	MAC455JP									
	15	09	-	MAC456JP									
NATI	17	09	-	MAC456JP									
~	12	12	-	MAC454JP									
MBL	-	09	09	-									
0	12	09		-									
	12	09	09	-									

FLARED CONNECTIONS Pipe Length and Height Difference							
Limits							
82 ft.	Max.						
197 ft.	Max.						
33 ft.	Max.						
25	Max.						
60	Max.						
	82 ft. 197 ft. 33 ft. 25						

^{*1} See page 27 for rating conditions.

P-SERIES

LARGE RESIDENTIAL, VARIED COMMERICAL AND INSTITUTIONAL

The Mr. Slim® P-Series delivers flexible and convenient cooling and heating solutions to almost any commercial, institutional or large residential application. Whether in a church, office school, building, nursing home, restaurant, retail store, or even equipment room, the compact design of P-Series indoor units makes cooling and heating difficult spaces a *breeze*. With wall-mounted, ceiling-recessed, and ceiling-suspended options, the P-Series is the perfect solution for almost any building. The P-Series provides up to 42,000 Btu/h of cooling or heating.

Flexible Control Options

Convenient and efficient zone control means you can cool or heat only the spaces that are in use. You can control each unit individually or up to 50 different units from a single remote

P-Series Remote Controller





PK/PKH Wall-mounted Air Conditioners and Heat Pumps [pg.18]



controller. You can even have single or dual controllers connected to one system. The controller does not even have to be in the space shared with the indoor unit, which measures the room temperature.

Low Ambient Operation

This feature allows for a space to be air-conditioned by the PU/H-EK line of products even when it is 23°F outside. This feature is important when dealing with electronic equipment rooms, telecom substations, surveillance mechanical rooms, restaurant kitchens, and more. Our wind baffle accessory is required when PU/H-EK models are

installed in cooling applications down to 0°F.

Redi-charged Systems

P-Series outdoor units come with enough refrigerant to be installed up to 100 feet away from the indoor units. Line sets can be run to a maximum distance of 164 feet when additional charge is added (PU/H-EK).

Hot-start System

Mr. Slim heat pumps use our Hot-start Technology to provide warmth from the beginning by ramping up fan speed as the coil warms. So when you want warm air, that's what you'll get.



PC/PCH Ceiling-suspended Air Conditioners and Heat Pumps [pg.21]



PL/PLH Ceiling-recessed Air Conditioners and Heat Pumps [pg.24]



Features	Benefits
QUIET OPERATION	You can hold a board meeting or teach a class in the quiet comfort of Mr. Slim® P-Series.
No Ductwork	There's no need to shut down for major construction. Mr. Slim installs quickly and easily.
ZONE CONTROL	Cool and heat only those spaces desired for maximum control and energy efficiency.
DEHUMIDIFICATION	Drier air means healthier air and less damage to books or furniture.
ADVANCED MICROPROCESSOR CONTROLS	Built-in electronics ensure efficient operation and maximum performance for optimum comfort.
LOW AMBIENT COOLING OPTION	Perfect for computer network centers and telecom equipment rooms that need help to stay cool even during winter months.



TEMPERATURE
SETTING. The LCD indicator displays the set temperature in units of 2°F.

selected by pressing MODE.

MEMORY.



ROOM TEMPERATURE DISPLAY. The room

DISPLAY. The room temperature display is measured at the indoor unit.

SELF-DIAGNOSTIC DISPLAY. The LCD

DISPLAY. The LCD microprocessor quickly detects malfunctions and pinpoints the location which is then shown on the LCD display.

VANE CONTROL.

The angle of the air outlet vanes can be adjusted to one of four positions by pressing the air discharge UP/DOWN button.

24-HOUR ON/OFF

TIMER. Operation can be set to start and/or stop at specified times. This sequence may be repeated daily if desired.

Installation Service and Maintenance Ease

P-Series outdoor units are designed with easy service and maintenance in mind. Maintenance points are located behind easy-access panels to make installation and servicing a breeze for a trained technician. Four-way piping access allows connection in four directions: front, rear, right, and base (all PU/H-EK models). P-Series indoor units incorporate a washable-filter design, meaning less filter replacement headaches.

Only two non-polar wires are needed to connect the remote controller to the indoor and outdoor unit, a feature which helps avoid installation errors. These control wires can also be extended up to 1,650 feet.

Mr. Slim[®] Outdoor Unit Comparison

Choose either the Vertical Discharge or Slim-line Horizontal Discharge model to fit your application.

PU/PUH Slim-line Horizontal Air Discharge Model

Mr. Slim's compact, horizontal air discharge units have a small footprint to fit into tight spaces. This feature allows for greater application freedom as you can place in a tight alley-way or mount on an exterior wall.



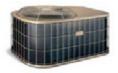
PU/PUH [EK]

FEATURES:

- 12,000 to 42,000 Btu/h
- Low ambient operation to 23°F or 0°F with optional wind baffle
- Compact, space-saving design
- · Quiet operation
- Easy to service and maintain unit through front access panel
- Redi-charged up to 100 ft.

PUG/PUGH Vertical Air Discharge Model

The vertical discharge outdoor when combined with the Mr. Slim P-Series indoor units, makes for one of the most cost-effective ductless systems on the market.



FEATURES:

- 18,000 to 42,000 Btu/h models
- Vertical air discharge
- · Compact design
- Pre-charged for 25 ft.
- Perfect for rooftop applications
- Mesh coil protection guard

PK/PKH (FK,FL)

WALL-MOUNTED SERIES



PK/PKH Indoor Unit 12,000 to 36,000 Btu/h Capacity

Similar to the MS/MSH wall-mounted models, the PK/PKH-Series fills larger spaces with substantial cooling or heating from a compact, wall-mounted package. Walk into any room where a PK system is installed, and all you'll notice is the perfectly comfortable climate. What you may not notice is the unit itself, for it mounts high on the wall and blends into most spaces.

Auto Flap Shutter

With a simple flip of the *Off* switch, the vane closes to cover the air outlet for a clean presentation while not in use. During operation the vane can be adjusted or will automatically adjust itself to the perfect position to direct the airflow towards the floor in heating mode or horizontally in cooling mode, keeping the room temperature even and comfortable.

Slim and Lightweight Indoor Unit

The largest PK unit measures only about 66" wide, 13" tall, and 9" deep and weighs 66 pounds. This feature allows for easy



installation high on most walls and above windows and doorways. In most cases, just two licensed installers can do the installation in about a day.

Easy-clean Filters

Convenient tabs enable the washable filters to be quickly and easily removed for fast cleaning. You won't need to replace the filters as with other systems, saving money and time.

Easy to Install

Mr. Slim® PK-Series models require no ductwork. They don't need a huge hole cut in a wall as with motel-type or window-type units. In fact PK systems install into some of the toughest spaces even on brick and block walls because only a small three-inch round

opening in the wall or ceiling is needed.

Ultimate Comfort Meets Ultimate Convenience

Select from wall-mounted, hard-wired controller (FK) and wireless controller (FL) for ultimate comfort control.

The hand-held Mr. Slim LCD wireless remote controller is easier to use than most TV remotes. The set-temperature display is large and easy to read. Using the 24-hour timer, unit operation can be set to start and stop at specified times and to repeat daily. And the convenient remote provides easy control of the *Fan Speed*, as well as the COOL, HEAT, and DRY modes from anywhere in the room.



SPECIFICATIONS WITH HORIZONTAL AIR SLIM-LINE OUTDOOR UNIT PK/PKH WALL-MOUNTED AIR CONDITIONERS AND HEAT PUMPS



SYSTEM		PK12FK	PK18FK/FL	PK24FK/FL	PK30FK/FL	PK36FK/FL	PKH18FK/FL	PKH24FK/FL	PKH30FK/FL	PKH36FK/FL
Capacity	Cooling Btu/h *1	12,500	18,500	24,000	30,000	34,200	18,000	24,000	30,000	34,200
Capacity	Heating Btu/h *1,*3						18,600 (24,100/25,100)	25,000 (30,500/31,500)	33,000 (39,100/40,500)	38,000 (44,100/45,500)
Capacity	Heating Btu/h *2,*3						10,700 (16,200/17,200)	14,700 (20,200/21,200)	19,000 (25,100/26,500)	19,600 (25,700/27,100)
Power Consumption	Cooling kW *1	1.21	1.75	2.34	3.06	3.47	1.79	2.36	3.12	3.44
Power Consumption	Heating kW *1,*3						1.56 (3.16/3.46)	2.37 (3.97/4.27)	3.02 (4.82/5.22)	3.54 (5.34/5.74)
Power Consumption	Heating kW *2,*3						1.34 (2.94/3.24)	1.92 (3.52/3.82)	2.48 (4.28/4.68)	2.65 (4.45/4.85)
EER	Cooling	10.3	10.6	10.3	9.8	9.9	10.1	10.2	9.6	9.9
SEER		11.5	11.3	10.6	10.7	10.2	11.1	10.2	10.6	10.5
HSPF							7.2	6.8	7.1	6.9
COP	Heating *1						3.5	3.1	3.2	3.1
COP	Heating *2						2.3	2.2	2.2	2.2
INDOOR UNIT	-	PK12FK	PK18FK/FL	PK24FK/FL	PK30FK/FL	PK36FK/FL	PKH18FK/FL	PKH24FK/FL	PKH30FK/FL	PKH36FK/FL
External Finish		J.		l	Mı	ınsell 3.4Y7.7/0.8	1 B	I	I	
Power Supply	V, Phase, Hz	115,1,60	115,1,60	115,1,60	115,1,60	115,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60
Max. Fuse Size	(Time Delay) Amp	15	15	15	15	15	15	15	15	15
Min. Ampacity	Amp	1	1	1	2	2	12	12	13	13
Fan Motor	F.L.A.	0.7	0.7	0.7	1	1	0.5	0.5	0.6	0.6
Auxiliary Heater	A (kW)						7.6/8.4 (1.6/1.9)	7.6/8.4 (1.6/1.9)	8.7/9.6 (1.8/2.2)	8.7/9.6 (1.8/2.2)
Airflow Lo-Hi	Dry CFM	350-490	530-710	530-710	780-990	780-990	530-710	530-710	780-990	780-990
Airflow Lo-Hi	Wet CFM	320-440	480-640	480-640	700-890	700-890	480-640	480-640	700-890	700-890
Moisture Removal	Pints/h	3.8	5.3	7.2	9.6	10.5	5.3	7	9.1	10.5
Sound Pressure Level Lo-Hi	dB(A)	38-45	41-48	41-48	44-49	44-49	41-48	41-48	44-49	46-50
Cond. Drain Connection	Inches			<u> </u>	1.0	O.D. (3/16 I.D	! .)			
Indoor Unit Width	Inches	49-1/4	55-1/8	55-1/8	66-3/16	66-3/16	55-1/8	55-1/8	66-3/16	66-3/16
Indoor Unit Depth	Inches	7-7/8	9-1/4	9-1/4	9-1/4	9-1/4	9-1/4	9-1/4	9-1/4	9-1/4
Indoor Unit Height	Inches	11-13/16	13-3/8	13-3/8	13-3/8	13-3/8	13-3/8	13-3/8	13-3/8	13-3/8
Weight	Pounds	37	53	53	62	62	57	57	66	66
OUTDOOR UNIT		PU12EK	PU18EK	PU24EK	PU30EK	PU36EK	PUH18EK	PUH24EK	PUH30EK	PUH36EK
External Finish						Munsell 5Y 7/1				
Sound Pressure Level	dB(A)	50.0	53.0	55.0	55.0	55.0	53.0	55.0	55.0	55.0
Power Supply	V, Phase, Hz	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60
Max. Fuse Size	(Time Delay) Amp	15.0	20.0	20.0	30.0	30.0	20.0	20.0	30.0	30.0
Min. Ampacity	Amp	11.0	16.0	16.0	20.0	22.0	16.0	16.0	20.0	22.0
Fan Motor	F.L.A.	0.65	0.75	0.65+0.65	0.65+0.65	0.75+0.75	0.75	0.65+0.65	0.75+0.75	0.75+0.75
Compressor	Model (Type)	RH167NAB	RH247NAB	NH33NBD	NH41NAD	NH47NAD	RH247NAB	NH33NBD	NH41NAD	NH47NAD
Compressor	R.L.A.	8.9	12.0	11.5	14.0	17.5	12.0	11.5	14.0	17.5
Compressor	L.R.A.	29.0	37.0	54.0	73.0	87.0	37.0	54.0	73.0	87.0
Crankcase Heater	A(W)	0.11/0.12 (23/28)	0.11/0.12 (23/28)	0.16/0.17 (33/39)	0.16/0.17 (33/39)	0.16/0.17 (33/39)	0.11/0.12 (23/28)	0.16/0.17 (33/39)	0.16/0.17 (33/39)	0.16/0.17 (33/39)
Refrigerant Control			l .	l .	l	Capillary Tube				l .
Defrost Method								Reverse	Cycle	
Outdoor Unit Width	Inches	34-1/4	34-1/4	34-1/4	34-1/4	38-3/16	34-1/4	34-1/4	38-3/16	38-3/16
Outdoor Unit Depth	Inches	11-5/8	11-5/8	11-5/8	11-5/8	13-9/16	11-5/8	11-5/8	13-9/16	13-9/16
Outdoor Unit Height	Inches	25-9/16	33-1/2	49-9/16	49-9/16	49-9/16	33-1/2	49-9/16	49-9/16	49-9/16
Weight	Pounds	105.0	154.0	207.0	208.0	220.0	131.0	202.0	245.0	246.0
Remote Controller			1	1	Hard-wir	ed (FK) or Wireles	ss (FL) With Indo	or Unit		1
Control Voltage	(By Built-In Transformer)	12VDC	12VDC	12VDC	12VDC	12VDC	12VDC	12VDC	12VDC	12VDC

^{*1,*2,*3} See page 27 for rating conditions.

LIMITED WARRANTY | Six-year warranty on compressor. One-year warranty on parts.

 ${}^{\scriptscriptstyle \dagger}0{}^{\scriptscriptstyle \circ}F$ low ambient operation possible on slim-line horizontal discharge outdoor units with optional wind baffle.



SPECIFICATIONS WITH VERTICAL AIR DISCHARGED OUTDOOR UNIT PKG/PKGH (FK, FL) WALL-MOUNTED AIR CONDITIONERS



SYSTEM		PKG18FK/FL	PKG24FK/FL	PKG30FK/FL	PKG36FK/FL	PKGH18FK/FL	PKGH24FK/FL	PKGH30FK/FL	PKGH36FK/FL
Capacity	Cooling BTU/h *1	19,400	23,400	29,200	34,200	17,900	23,400	29,600	34,200
Capacity	Heating BTU/h *1,*3					17,400(23,900)	23,000(29,500)	30,000(37,500)	35,000(42,500)
Capacity	Heating BTU/h *2,*3					9,000(15,500)	13,700(20,200)	16,800(24,300)	19,200(26,700)
EER	Cooling	10.65	9.80	10.20	10.25	10.0	9.2	9.85	9.85
SEER		11.60	11.00	11.60	11.40	11.5	10.5	11.0	10.7
HSPF						7.5	7.45	7.80	7.4
COP	Heating *1					3.38	3.1	3.44	3.22
COP	Heating *2					2.12	2.4	2.36	2.30
INDOOR UNIT		PK18FK/FL	PK24FK/FL	PK30FK/FL	PK36FK/FL	PKH18FK/FL	PKH24FK/FL	PKH30FK/FL	PKH36FK/FL
External Finish					Munsell 3.	4Y7.7/0.8			
Power Supply	V, Phase, Hz	115,1,60	115,1,60	115,1,60	115,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60
Max. Fuse size	(Time Delay) Amp	15	15	15	15	15	15	15	15
Min. Ampacity	Amp	1	1	2	2	12	12	13	13
Fan Motor	F.L.A.	0.7	0.7	1	1	0.5	0.5	0.6	0.6
Auxiliary Heater	A (kW)					7.6/8.4 (1.6/1.9)	7.6/8.4 (1.6/1.9)	8.7/9.6 (1.8/2.2)	8.7/9.6 (1.8/2.2)
Airflow Lo-Hi	Dry CFM	530-710	530-710	780-990	780-990	530-710	530-710	780-990	780-990
Airflow Lo-Hi	Wet CFM	480-640	480-640	700-890	700-890	480-640	480-640	700-890	700-890
Moisture Removal	Pints/h	5.3	7.2	9.6	10.5	5.3	7	9.1	10.5
Sound Pressure Level Lo-Hi	dB(A)	41-48	41-48	44-49	44-49	41-48	41-48	44-49	46-50
Cond. Drain Connection	Inches				13/16 O.D. (1-1/1	6 l.D. or 7/8 l.D.)			
Indoor Unit Width	Inches	55-1/8	55-1/8	66-3/16	66-3/16	55-1/8	55-1/8	66-3/16	66-3/16
Indoor Unit Depth	Inches	9-1/4	9-1/4	9-1/4	9-1/4	9 -1/4	9 -1/4	9-1/4	9 -1/4
Indoor Unit Height	Inches	13-3/8	13-3/8	13-3/8	13-3/8	13-3/8	13-3/8	13-3/8	13-3/8
Weight	Pounds	53	53	62	62	57	57	66	66
OUTDOOR UNIT		PUG18AYB	PUG24AYB	PUG30AYB	PUG36AYB	PUGH18AYB	PUGH24AYB	PUGH30AYB	PUGH36AYB
External Finish	15/10				Baked Polyester				
Sound Pressure	dB(A)	74	75	75	77	C/72, H/76	C/74, H/75	C/77, H/80	C/76, H/83
Max. Fuse Size 208/230V 1PH	(Time Delay) Amp	20	25	30	35	20	25	30	35
Min. Ampacity 208/230V 1PH	Amp	12.5	12.8	19.8	22.1	12.5	12.8	19.8	22.1
Fan Motor 208/230V 1PH	F.L.A.	0.5	0.5	1.4	1.3	0.5	0.5	1.4	1.3
Compressor 208/230V 1PH	R.L.A.	7.3	9.6	12.6	14.0	7.6 / 6.2	10.6 / 8.9	12.5 / 10.1	17.3 / 16.3
Compressor 208/230V 1PH	L.R.A.	45	68	82	94	45	68	82	94
Compressor 208/230V 1PH	F.L.A.	9.6	12.8	14.7	16.6	9.6	12.8	14.7	16.6
Unit Total 208/230V 1PH	Unit Total F.L.A.	10.1	13.3	16.1	17.9	10.1	13.3	16.1	17.9
Crankcase Heater		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Refrigerant Control			Metering orifice installe for cooling o			Cap	Fixed orifice at outdo illary tube installed at the	or unit for cooling e indoor unit for heating	operation
Defrost Method					Reversi	e Cycle			
Outdoor Unit Width	Inches	35	35	35	35	35	35	35	37
Outdoor Unit Depth	Inches	23	23	23	23	23	23	23	23
Outdoor Unit Height	Inches	17	17	19	19	19	19	25	27
Weight	Pounds	192	192	192	192	171	171	189	209
Remote Controller				Haro	wired (FK) or Wireless	(FL) With Indoor Ur	iit		
Control Voltage	(By Built-In Transformer)	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V
Refrigerant Piping Size	(Liquid x Gas) Inches	3/8 x 5/8	3/8 x 5/8	1/2 x 3/4	1/2 x 3/4	3/8 x 5/8	3/8 x 5/8	1/2 x 3/4	1/2 x 3/4

*1,*2,*3 See page 27 for rating conditions.

LIMITED WARRANTY | Six-year warranty on compressor. One-year warranty on parts.

Operates in cooling mode to 50°F or to 25°F with optional low ambient kit.

PC/PCH CEILING-SUSPENDED SERIES



PC/PCH Indoor Unit 24,000 to 42,000 Btu/h Capacity

Powerful cooling and heating performance is what the PC/PCH-Series is designed to deliver. This ceiling-suspended unit delivers enough cold or hot air to make any space more comfortable. Manually adjusted jumbo swing louvers direct the airflow left or right, covering the entire space quietly. Accessory filters are available to increase efficiency and increase the time span between service calls. The PC/PCH-Series is perfect for restaurants, kitchens, and other large commercial spaces where ovens and other equipment add to an already taxed cooling or heating load.

Control Airflow Angle for Better Coverage

With the wired remote controller, four different airflow positions can be set. When using the *Autovane* mode during Cooling, the angle self-adjusts into a horizontal position to circulate cold air more effectively. During Heating, the vane forces the hot air downward toward the floor, where it will rise and circulate, keeping your room comfortable from the top to bottom.

Warm Air with No Drafts

Mr. Slim® heat pumps use our Hot-start technology to provide warmth from the beginning. So when you want warm air, you'll get it.





All Mr. Slim PC/PCH-Series models come with a wired remote controller that puts you in command of your personal comfort. Wireless controller is available in an accessory kit.

Bring Outside Air In

With minimal on-site work, ducting can be installed to bring in outside air, creating a healthier indoor environment.

Automatic Cooling/Heating Changeover (Heat Pumps)

When set to *Auto*, PCH units will automatically switch back and forth from cooling to heating operation to compensate for the temperature fluctuation in a room. This feature means total hands-free comfort and efficient air-conditioning of your space.



PC/PCH CEILING-SUSPENDED AIR CONDITIONERS 0°F LOW AMBIENT CAPABLE[†] AND HEAT PUMPS



SYSTEM		PC24GK	PC30GK	PC36GK	PC42GK	PCH24GK	PCH30EK	PCH36GK	PCH42GK
Capacity	Cooling Btu/h *1	25,000	31,000	36,500	42,500	24,000	30,000	35,400	42,000
Capacity	Heating Btu/h *1,*3	: : : : :	1-	-	-	27,000 (34,000:35,500)	33,000 (41,5000)	38,000 (45,500 47,500)	45,000 (52,500/54,500)
Capacity	Heating Btu/h *2,*3	-	-	-	-	14,800 (21,800/23,300)	18,000 (26,500)	21,000 (28,500:00,500)	23,800 (31,300/33,300)
Power Consumption	Cooling kW *1	2.61	3.18	3.62	4.10	2.51	3.06	3.60	4.10
Power Consumption	Heating kW *1,*3	-	-	-	-	2.46 (4.49/4.94)	3.13 (5.63)	3.32 (5.57/6.08)	3.76 (6.01/6.25)
Power Consumption	Heating kW *2,*3	-	-	-	-	1.95 (3.98/4.43)	2.6 (5.1)	2.63 (4.88/5.39)	3.00 (5.25/5.76)
EER	"1	9.6	9.7	10.1	10.4	9.6	9.8	9.8	10.5
SEER		10.4	10	10.3	10.8	10.3	10	10.3	10.3
HSPF		-	-	-	-	6.8	7.1	7.0	7.2
COP	Heating *1	-	-	-	-	3.2	3.1	3.4	3.4
COP	Heating *2	-	-	-	-	2.2	2.4	2.3	2.3
INDOOR UNIT		PC24GK	PC30GK	PC36GK	PC42GK	PCH24GK	PCH30EK	PCH36GK	PCH42GK
External Finish			M	unsell 0.70Y 8.59/0.9	17		Munsel 2.5Y 8 G 3 & N2	Munsell 0.7	0Y 8.59/0.97
Power Supply	V, Phase, Hz	115,1,60	115,1,60	115,1,60	115,1,60	208/230,1,60	230,1,60	208/230,1,60	208/230,1,60
Max. Fuse Size	(Time Delay) Amp	15	15	15	15	20	25	25	25
Min. Ampacity	Атр	2.0	3.0	3.0	3.0	15	15	17	17
Fan Motor	FLA	1.9	2.4	2.4	2.4	1.1	0.7	1.3	1.3
Auxiliary Heater	A (kW)	-	-	-	-	9.8/10.8(2.0/2.5)	10.8 (2.5)	10.8/12.0 (2.3/2.8)	10.8/12.0 (2.3/2.8)
Airflow Lo-Hi	Dry CFM	880-710	1240-990	1240-990	1240-990	880-710	740-920	1240-990	1240-990
Airflow Lo-Hi	Wet CFM	810-640	1130-880	1130-880	1130-880	810-640	670-830	1130-880	1130-880
Moisture Removal	Pints/h	4.6	5.2	7.4	10.6	4.6	9.1	6.3	10.3
Sound Pressure Level Lo-Hi	dB(A)	48-42	51-45	51-45	51-45	48-43	43-50	51-45	51-45
Cond. Drain Connection	O.D. Inches	1	1	1	1	1	1	1	1
Indoor Unit Width	Inches	51-9/16	63-3/4	63-3/4	63-3/4	51-9/16	50-7/16	63-3/4	63-3/4
Indoor Unit Depth	Inches	26-3/4	26-3/4	26-3/4	26-3/4	26-3/4	26-13/16	26-3/4	26-3/4
Indoor Unit Height	Inches	10-5/8	10-5/8	10-5/8	10-5/8	10-5/8	10-1/8	10-5/8	10-5/8
Weight	Pounds	82	95	99	99	87	101	106	106
OUTDOOR UNIT		PU24EK	PU30EK	PU36EK	PU42EK	PUH24EK	PUH30EK	PUH36EK	PUH42EK7
External Finish					Munse	II 5Y 7/1			
Sound Pressure Level	dB(A)	55.0	55.0	55.0	56.0	55.0	55.0	55.0	56.0
Power Supply	V, Phase, Hz	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60
Max. Fuse Size	(Time Delay) Amp	20.0	30.0	30.0	40.0	20.0	30.0	30.0	40.0
Min. Ampacity	Amp	16.0	20.0	22.0	27.0	16.0	20.0	22.0	27.0
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
Compressor	Model (Type)	NH33NBD	NH41NAD	NH47NAD	NH569NXA	NH33NBD	NH41NAD	NH47NAD	NH569NXA
Compressor	R.L.A.	11.5	14.0	17.5	20.0	11.5	14.0	17.5	20.0
Compressor	LRA	54.0	73.0	87.0	105.0	54.0	73.0	87.0	105.0
Crankcase Heater	A(W)	.17(39)	.17(39)	.17(39)	.17(39)	.17(39)	.17(39)	.17(39)	.17(39)
Refrigerant Control					Capillar	ry Tube			
Defrost Method		-	-	-	-		Reverse	Cycle	
Outdoor Unit Width	Inches	34-1/4	34-1/4	38-3/16	38-3/16	34-1/4	38-3/16	38-3/16	38-3/16
Outdoor Unit Depth	Inches	11-5/8	11-5/8	13-9/16	13-9/16	11-5/8	13-9/16	13-9/16	13-9/16
Outdoor Unit Height	Inches	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	Pounds	207.0	208.0	220.0	260.0	202.0	245.0	246.0	268.0
Remote Controller					Hard-wired type,	With Indoor Unit			
Control Voltage				201411			00.00	DAIN!	00101
Control voltage	(By Built-In Transformer)	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V

^{*1,*2,*3} See page 27 for rating conditions.

LIMITED WARRANTY $\big|$ Six-year warranty on compressor. One-year warranty on parts.

 $^{^{\}dagger}0^{\circ}F$ low ambient operation possible on slim-line horizontal discharge outdoor units with optional wind baffle.



SPECIFICATIONS WITH VERTICAL AIR DISCHARGE OUTDOOR UNIT PCG/PCGH CEILING-SUSPENDED AIR CONDITIONERS

AND HEAT PUMPS



SYSTEM			PCG24GK	PCG30GK	PCG36GK	PCG42GK	PCGH24GK	PCH30EK	PCGH36GK	PCGH42GK
Capacity		Cooling Stuft *1	24,400	29,800	36,000	41,500	25,000	30,200	35,800	40,500
Capacity		Heating Btu/h *1,*3	_	_	_	_	24,200(32,700)	31,000(40,500)	36,200(45,700)	45,000(54,500)
Capacity		Heating Btu/h *2,*3		_	_	_	14,400(22,900)	17,400(26,900)	20,000(29,500)	28,400(37,900)
EER		'1	9.35	9.65	10.05	9.50	9.00	9.33	9.65	10.25
SEER			10.50	11.00	11.20	10.00	10.00	10.00	10.50	11.50
HSPF			_	_	_	_	7.35	7.6	7.4	7.8
COP		Heating "1	_	_	_	_	3.10	3.33	3.24	3.35
COP		Heating *2	_	_	_	_	2.40	2.25	2.28	2.46
INDOOR UNI	т		PC246K	PC30GK	PC36GK	PC42GK	PCH246K	PCH30EK	PCH36GK	PCH426K
External Finish				1	Aunsell 0.70Y 8.59/0.9	7		Munsel 2.5Y 8/0.3 & N2	Munsell 0.70	Y 8.59/0.97
Power Supply		V, Phase, Hz	115,1,60	115,1,60	115,1,60	115,1,60	230,1,60	230,1,60	230,1,60	230,1,60
Max. Fuse Size		(Time Delay) Amp	15	15	15	15	20	25	25	25
Min. Ampacity		Amp	2	3	3	3	15	15	17	17
Fan Motor		FLA	1.9	2.4	2.4	2.4	1.1	0.7	1.3	1.3
Auxiliary Heate	er	A (kW)	_	_	_	_	9.8/10.8 (2.0/2.5)	10.8 (2.5)	10.8/12.0 (2.3/2.8)	10.8/12.0 (2.3/2.8)
Airflow Lo-Hi	1	Dry CFM	880-710	1,240-990	1,240-990	1,240-990	880-710	740-920	1,240-990	1,240-990
Airflow Lo-Hi	i i	Wet CFM	810-640	1,130-880	1,130-880	1,130-880	810-640	670-830	1,130-880	1,130-880
Moisture Remo	oval	Pints/h	4.6	5.2	7.4	10.6	4.6	9.1	6.3	10.3
Sound Pressur	re Level Lo-Hi	dB(A)	48-42	51-45	51-45	51-45	48-43	43-50	51-45	51-45
Cond. Drain Co	onnection	0.D. Inches	1	1	1	1	1	1	1	1
Indoor Unit Wi	idth	Inches	51-9/16	63-3/4	63-3/4	63-3/4	51-9/16	50-7/16	63-3/4	63-3/4
Indoor Unit De	rpth	Inches	26-3/4	26-3/4	26-3/4	26-3/4	26-3/4	26-13/16	26-3/4	26-3/4
Indoor Unit He	eight	Inches	10-5/8	10-5/8	10-5/8	10-5/8	10-5/8	10-1/8	10-5/8	10-5/8
Weight	100	Pounds	82	95	99	99	87	97	101	101
OUTDOOR UP	NIT		PUG24AYB	PUG30AYB	PUG36AYB	PUG42AYB	PUGH24AYB	PUGH30AYB	PUGH36AYB	PUGH42AYB
External Finish						Baked Polyeste	r Powder Coating			
Sound Pressur	10	dB(A)	75	75	77	82	C/74, H/75	C/77, H/80	C/76, H/83	C/78, H/81
Max. Fuse Size	208/230V 1PH	(Time Delay) Amp	25.0	30.0	35.0	45.0	25.0	30.0	35.0	40.0
Min. Ampacity	208/230V 1PH	Amp	15.5	18.9	21.4	26.4	12.8	19.8	22.1	24.2
Fan Motor	208/230V 1PH	F.L.A.	0.5	0.5	1,4	1.4	0.5	1.4	1.3	1.3
Compressor	208/230V 1PH	RLA	9.6	12.6	14.0	16.7	7.6 / 6.2	10.6 / 8.9	12.5 / 10.1	17.3 / 16.3
Compressor	208/230V 1PH	LRA	57	73	82	129	68	82	94	109
Compressor	208/230V 1PH	FLA	12.1	14.7	16.0	20.00	12.8	14.7	16.6	18.3
Unit Total	208/230V 1PH	Unit Total F.L.A.	12.6	15.2	17.4	21.4	13.3	16.1	17.9	19.6
Crankcase Hea	ater		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Refrigerant Co.	introl			Metering orfice installe for cooling o	ed at the outdoor unit peration		Can	Fixed prifice at outdi	oor unit for cooling e indoor unit for heating	coeration
Defrost Methor	d					Rever	se Cycle	,		
Outdoor Unit V	Width	Inches	35	35	35	35	35	35	35	37
Outdoor Unit 0	Depth	Inches	23	23	23	23	23	23	23	27
Outdoor Unit H	Height	Inches	17	19	19	19	19	19	19	27
Weight	767	Pounds	192	192	192	192	171	189	209	230
Remote Contri	oller					With Inc	door Unit			
Control Voltage	e	(By Built-In Transformer)	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V
	ping Size	(Liquid x Gas) Inches	3/8 x 5/8	1/2 x 3/4	1/2 x 3/4	1/2 x 3/4	3/8 x 5/8	1/2 x 3/4	1/2 x 3/4	1/2 x 7.8

*1,*2,*3 See page 27 for rating conditions.

Operates in cooling mode to $50^{\circ}\mathrm{F}$ or to $25^{\circ}\mathrm{F}$ with optional low ambient kit.

LIMITED WARRANTY | Six-year warranty on compressor. One-year warranty on parts.

PL/PLH

CEILING-RECESSED SERIES



PL/PLH Indoor Unit 12,000 to 42,000 Btu/h Capacity

If there's at least a foot of space above your ceiling, the PL/PLH-Series is for you. These models combine powerful cooling and heating in an elegant cassette design that recesses into the ceiling. When installed, the attractive, flushmounted grille is all you see. With its fresh air intake capability and fourway discharge airflow, the PL/PLH-Series gives you plenty of fresh, comfortable airflow options. There are even branch duct knockouts for either a round or a rectangular duct, allowing for the air-conditioning of a smaller adjacent space. All these features are found in a versatile, attractive design made to disappear discreetly into the ceiling.



Easy-tomaintain Long-life Filter

The washable filter provides about 2,500 hours of use in a normal office environment before cleaning is needed. Replacement is not necessary.



PLH heat pump units will automatically switch back and forth from cooling to heating to compensate for temperature fluctuations in a room.

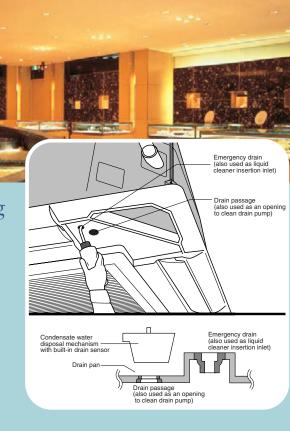
Customize the Airflow Pattern to Meet Your Needs

The PL/PLH offers 2-, 3-, or 4-way outlet selection, enabling effective air-conditioning in places such as halls, showrooms, and shopping malls.*

* Optional air outlet shutter plate is necessary for 2- or 3-way airflow setting.

Easy to Install

PL/PLH-AK units are about 40% lighter than previous models, making suspension work easier. The height can be adjusted through the corner pockets without removing the grille.



Drain Lift for Condensate Water Disposal

A built-in high-performance drain pump means improved condensate water disposal. The pump lifts the water up to 33 inches above the unit to help simplify drain piping.

A built-in drain sensor shuts off the indoor unit if a drain is clogged or if in the unlikely event that the pump malfunctions. This failproof system is the perfect solution for computer rooms or high-end conference rooms where condensation build-up is undesirable.





PL/PLH CEILING-RECESSED AIR CONDITIONERS AND HEAT PUMPS 0°F LOW AMBIENT CAPABLE†



SYSTEM		PL12AK	PL18AK	PL24AK	PL30AK	PL36AK	PL42AK	PLH18AK	PLH24AK	PLH30AK	PLH36AK	PLH42AK
Capacity	Cooling Btu/h *1	12,500	18,400	24,000	31,000	36,500	42,500	18,000	24,000	30,000	35,400	42,000
Capacity	Heating Btu/h *1,*3	12,300	10,400	24,000	31,000	30,300	42,300	19,000 (24,500/25,500)	26,000 (31,500/32,500)	33,000 (39,500/41,200)	38,000 (45,900/47,600)	44,300 (52,200/53,900)
Capacity	Heating Btu/h *2,*3							11,000	(31,500/32,500) 16,500	18,500	23,000	26,800
Power Consumption	Cooling kW *1	1.26	1.85	2.65	3.17	3.64	4.08	(16,500/17,500)	(22,000/23,000)	(25,000/26,700)	(30,900/32,600)	(34,700/36,400)
Power Consumption	Heating kW *1,*3	1.20	1.00	2.00	3.17	3.04	4.00	1.75	2.57	3.04 (4.94/5.44)	3.63	3.82 (6.12/6.62)
Power Consumption	Heating kW *2,*3							1.59 (3.19/3.49)	2.51(4.11/4.41)	` '	3.45 (5.75/6.25)	, ,
EER	*1	9.9	9.9	9.1	9.8	10.0	10.4	1.32 (2.92/.3.22)	2.15(3.75/4.05)	2.55 (4.45/4.95)	2.93 (5.23/5.73)	3.24 (5.54/6.04)
SEER	ı		10.2			10.0	10.4	10.3	9.3	9.5	9.8	10.6
		10.1	10.2	10.0	10.6	10.5	10.0	10.5	10.3	10.4	10.0	10.7
HSPF	Hasting #4							7.2	7.0	6.9	7.1	7.0
COP	Heating *1							3.5	3.0	3.2	3.2	3.4
COP	Heating *2	DI 10AV	DI 10AV	DISAAN	DISOAN	DIOCAV	DI 42AV	2.4	2.2	2.1	2.3	2.4
INDOOR UNIT		PL12AK	PL18AK	PL24AK	PL30AK	PL36AK	PL42AK	PLH18AK	PLH24AK	PLH30AK	PLH36AK	PLH42AK
External Finish	V 81 . II	445400	115100	115100	4454.00	ı	ed Sheets With					
Power Supply	V, Phase, Hz	115,1,60	115,1,60	115,1,60	115,1,60	115,1,60	115,1,60	208/230,1,60	208/230,1,60		208/230,1,60	208/230,1,60
Max. Fuse Size	(Time Delay) Amp	15.0	15.0	15.0	15.0	15.0	15.0	20.0	20.0	25.0	25.0	25.0
Min. Ampacity	Amp	2.0	2.0	3.0	3.0	3.0	3.0	15.0	15.0	17.0	17.0	17.0
Fan Motor	F.L.A.	1.2	1.2	2.6	2.6	2.6	2.6	0.7	1.2	1.2	1.4	1.4
Auxiliary Heater	A (kW)							7.7-8.3(1.6-1.9)	7.7-8.3(1.6-1.9)	9.1-10.4(1.9-2.4)	11.1-122(2.3-2.8)	11.1-122(23-28)
Airflow Lo-Hi	Dry CFM	420-560	530-710	710-990	780-1,060	780-1,060	780-1,060	530-710	710-990	780-1,060	780-1,060	780-1,060
Airflow Lo-Hi	Wet CFM	390-530	490-670	670-950	740-1,020	740-1,020	740-1,020	490-670	670-950	740-1,020	740-1,020	740-1,020
Moisture Removal	Pints/h	3.8	5.3	7.2	9.6	11.1	12.6	5.3	7.0	9.1	10.9	12.3
Sound Pressure Level Lo-Hi	dB(A)	27-32	31-37	33-41	43-45	37-45	37-45	31-37	33-41	35-43	37-45	37-45
Cond. Drain Connection	O.D. Inches	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4
Indoor Unit Width	Inches	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16
Indoor Unit Depth	Inches	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16
Indoor Unit Height	Inches	10-3/16	10-3/16	11-3/4	11-3/4	11-3/4	11-3/4	10-3/16	11-3/4	11-3/4	11-3/4	11-3/4
Weight	Pounds	49.0	53.0	66.0	66.0	71.0	71.0	57.0	71.0	71.0	75.0	75.0
Decorative Indoor Grille	External Finish					Mu	insell 0.7Y 8.59	9/0.97				
Decorative Indoor Grille Width	Inches	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8
Decorative Indoor Grille Depth	Inches	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8
Decorative Indoor Grille Height	Inches	1-3/16	1-3/16	1-3/16	1-3/16	1-3/16	1-3/16	1-3/16	1-3/16	1-3/16	1-3/16	1-3/16
Decorative Indoor Grille Weight	Pounds	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
OUTDOOR UNIT		PU12EK	PU18EK	PU24EK	PU30EK	PU36EK	PU42EK7	PUH18EK	PUH24EK	PUH30EK	PUH36EK	PUH42EK7
External Finish		Munsell 5Y 7/1	Munsell 5Y 7/1	Munsell 5Y 7/1	Munsell 5Y 7/1	Munsell 5Y 7/1						
Sound Pressure Level	dB(A)	50.0	53.0	55.0	55.0	55.0	56.0	53.0	55.0	55.0	55.0	56.0
Power Supply	V, Phase, Hz	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60
Max. Fuse Size	(Time Delay) Amp	15.0	20.0	20.0	30.0	30.0	40.0	20.0	20.0	30.0	30.0	40.0
Min. Ampacity	Amp	11.0	16.0	16.0	20.0	22.0	28.0	16.0	16.0	20.0	22.0	27.0
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	ZR42K3PFV	RH247NAB	NH33NBD	NH41NAD	NH47NAD	ZR42K3PFV
Compressor	R.L.A.	8.9	12.0	11.5	14.0	17.5	20.4	12.0	11.5	14.0	17.5	20.4
Compressor	L.R.A.	29.0	37.0	54.0	73.0	87.0	109.0	37.0	54.0	73.0	87.0	109.0
Crankcase Heater	A(W)	0.11/0.12(23/28)	0.11/0.12(23/28)	0.16/0.17(33/39)	0.16/0.17(33/39)	0.16/0.17(33/39)	0.16/0.17(33/39)	0.11/0.12(23/28)	0.16/0.17(33/39)	0.16/0.17(33/39)	0.16/0.17(33/39)	0.16/0.17(33/39)
Refrigerant Control					l			ry Tube	L			. , ,
Defrost Method										Reverse Cycle	 !	
Outdoor Unit Width	Inches	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
Outdoor Unit Depth	Inches	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
Outdoor Unit Height	Inches	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	Pounds	105.0	154.0	207.0	208.0	220.0	260.0	131.0	202.0	245.0	246.0	268.0
Remote Controller	1 outlas		.01.0				With Decora		202.0	270.0		200.0
Control Voltage	(By Built-In Transformer)	12VDC	12VDC	12VDC	12VDC	12VDC						
Refrigerant Piping Size	(Liquid x Gas) Inches	3/8 x 5/8	3/8 x 5/8	3/8 x 5/8	1/2 x 3/4	1/2 x 3/4	1/2 x 3/4					
Hemyerani riping Size	(Liquiu x das) IIICIIES	0/0 x 0/0	3/0 x 3/8	3/0 X 3/8	1/2 X 3/4	1/2 X 3/4	1/2 X 3/4	3/8 x 5/8	3/8 x 5/8	1/2 x 3/4	1/2 x 3/4	1/2 x 7/8

 $^{^*1,^*2,^*3}$ See page 27 for rating conditions.

LIMITED WARRANTY | Six-year warranty on compressor. One-year warranty on parts.





SPECIFICATIONS WITH VERTICAL AIR DISCHARGE OUTDOOR UNIT PLG/PLGH CEILING-RECESSED AIR CONDITIONERS AND HEAT PUMPS



SYSTEM		PLG18AK	PLG24AK	PLG30AK	PLG36AK	PLG42AK	PLGH18AK	PLGH24AK	PLGH30AK	PLGH36AK	PLGH42AK
Capacity	Cooling Btu/h *1	20,000	24,000	28,400	35,600	40,000	19,200	24,400	27,800	35,200	40,000
Capacity	Heating Btu/h *1						19,200(25,700)	24,200(30,700)	30,200(38,400)	36,400(45,900)	45,000(54,500
Capacity	Heating Btu/h *2						10,100(16,600)	14,400(20,900)	16,900(25,100)	20,200(29,700)	
EER	*1	10.5	9.0	9.3	9.9	9.25	10.0	8.9	8.9	9.5	11.6
SEER		11.4	10.0	10.3	11.0	10.0	10.8	10.0	10.0	10.0	11.0
HSPF							7.0	6.8	7.0	7.0	7.5
COP	Heating *1						3.6	3.0	3.2	3.2	3.2
COP	Heating *2						2.1	2.3	2.2	2.2	2.3
INDOOR UNIT	riouting 2	PL18AK	PL24AK	PL30AK	PL36AK	PL42AK	PLH18AK	PLH24AK	PLH30AK	PLH36AK	PLH42AK
External Finish		1 L TOPIK	1 22-7/11	1 LOOKIK			/ith Gray Heat Ins		1 Elloorat	1 Elloom	TEITTEIN
Power Supply	V, Phase, Hz	115,1,60	115,1,60	115,1,60	115,1,60	115,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60	208/230,1,60
Max. Fuse Size	(Time Delay) A	15.0	15.0	15.0	15.0	15.0	20.0	20.0	25.0	25.0	25.0
Min. Ampacity	(Time Dolay) A	2.0	3.0	3.0	3.0	3.0	15.0	15.0	17.0	17.0	17.0
Fan Motor	F.L.A.	1.2	2.6	2.6	2.6	2.6	0.7	1.2	1.2	1.4	1.4
Auxiliary Heater	A (kW)	1.4	2.0	2.0	2.0	2.0	7.7-8.3(1.6-1.9)	7.7-8.3(1.6-1.9)	9.1-10.4(1.9-2.4)	11.1-12.2(2.3-2.8)	11.1-12.2(2.3-2.8)
Airflow Lo-Hi	Dry CFM	530-710	710-990	780-1,060	780-1,060	780-1,060	530-710	710-990	780-1,060	780-1,060	780-1,060
	Wet CFM	490-670				740-1,000	490-670	670-950		740-1,000	740-1,000
Airflow Lo-Hi			670-950	740-1,020	740-1,020				740-1,020		
Moisture Removal	Pints/h	5.3	7.2	9.6	11.1	12.6	5.3	7.0	9.1	10.9	12.3
Sound Pressure Level Lo-Hi	dB(A)	31-37	33-41	43-45	37-45	37-45	31-37	33-41	35-43	37-45	37-45
Cond. Drain Connection	O.D. Inches	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4
Indoor Unit Width	Inches	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16
Indoor Unit Depth	Inches	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16	33-1/16
Indoor Unit Height	Inches	10-3/16	11-3/4	11-3/4	11-3/4	11-3/4	10-3/16	11-3/4	11-3/4	11-3/4	11-3/4
Weight	Pounds	53.0	66.0	66.0	71.0	71.0	57.0	71.0	71.0	75.0	75.0
Decorative Indoor Grille	External Finish					Munsell 0.7Y					
Decorative Indoor Grille Width	Inches	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8
Decorative Indoor Grille Depth	Inches	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8	37-3/8
Decorative Indoor Grille Height	Inches	1-3/16	1-3/16	1-3/16	1-3/16	1-3/16	1-3/16	1-3/16	1-3/16	1-3/16	1-3/16
Decorative Indoor Grille Weight	Pounds	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
OUTDOOR UNIT		PUG18AYB	PUG24AYB	PUG30AYB	PUG36AYB	PUG42AYB	PUGH18AYB	PUGH24AYB	PUGH30AYB	PUGH36AYB	PUGH42AYB
External Finish						Baked Polyeste	er Powder Coating]			
Sound Pressure	dB(A)	74	75	75	77	82	C/72, H/76	C/74, H/75	C/77, H/80	C/76, H/83	C/78, H/81
Max. Fuse Size 208/230V 1PH	(Time Delay) A	20	25	30	35	45	20	25	30	35	40
Min. Ampacity 208/230V 1PH		12.5	12.8	19.8	22.1	24.2	12.5	12.8	19.8	22.1	24.2
Fan Motor 208/230V 1PH	F.L.A.	0.5	0.5	1.4	1.3	1.3	0.5	0.5	1.4	1.3	1.3
Compressor 208/230V 1PH	R.L.A.	7.3	9.6	12.6	14.0	16.4	7.6 / 6.2	10.6 / 8.9	12.5 / 10.1	17.3 / 16.3	12.3 / 16.3
Compressor 208/230V 1PH	L.R.A.	45	68	82	94	109	45	68	82	94	109
Compressor 208/230V 1PH	F.L.A.	9.6	12.8	14.7	16.6	18.3	9.6	12.8	14.7	16.6	18.3
Unit Total 208/230V 1PH	Unit Total F.L.A.	10.1	13.3	16.1	17.9	19.6	10.1	13.3	16.1	17.9	19.6
Crankcase Heater		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Refrigerant Control			Metering ori	fice installed at the for cooling operation	outdoor unit		Ca	Fixed orifice pillary tube installed	at outdoor unit for c at the indoor unit fo	ooling r heating operation	
Defrost Method				seeming operation		Revers	se Cycle	ar y was o mosumou	and mader unit to		
Outdoor Unit Width	Inches	35	35	35	35	37	35	35	35	37	37
Outdoor Unit Depth	Inches	23	23	23	23	27	23	23	23	23	27
Outdoor Unit Height	Inches	17	17	19	19	27	19	19	25	27	33
			192	192	192	192	171		189	209	
Weight Remate Controller	Pounds	192	192	192	197		prative Grille	171	103	209	230
Remote Controller	(By Built-In Transformer)	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V	DC12V
Control Voltage				-							
Refrigerant Piping Size	(Liquid x Gas) Inches	3/8 x 5/8	3/8 x 5/8	1/2 x 3/4	1/2 x 3/4	1/2 x 3/4	3/8 x 5/8	3/8 x 5/8	1/2 x 3/4	1/2 x 3/4	1/2 x 7/8

*1,*2,*3 See page 27 for rating conditions.

LIMITED WARRANTY | Six-year warranty on compressor. One-year warranty on parts.

Operates in cooling mode to 50° F or to 25° F with optional low ambient kit.

GENERAL SPECIFICATIONS

MS/MSH, MSZ, MSM, MXZ RATING CONDITIONS

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 MS/MSH, MSZ, MSM, MXZ

- *1. Rating conditions (cooling) Indoor: 80°F DB, 67°F WB Outdoor: 95°F DB, 75°F WB Rating conditions (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 including auxiliary electric heater operation at 115V shown in ().

GENERAL SPECIFICATIONS

PK/PKH, PC/PCH, PL/PLH RATING CONDITIONS

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	23°F DB or 0°F DB PU (when wind baffle installed) (PUG 25°F with optional LA kit)
HEATING	Maximum	80°F DB, 67°F WB	75°F DB, 65°F DB
	Minimum	70°F DB, 60°F WB	17°F DB, 15°F DB

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 Rating conditions (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: 47°F DB, 15°F WB
- *3. Heating capacity and power consumption in () include auxiliary electric heater operation at 208/230V.

OPTIONAL ACCESSORIES

PART NUMER	USE WITH	DESCRIPTION
CWMB1	MU and PU outdoor units	condensing unit wall mounting brackets (painted steel)
CWMBSS	MU and PU outdoor units	condensing unit wall mounting brackets (304 stainless steel)
SI1730-115	P series A/C	mini condensation pump - 115V (painted steel)
SI1730-230	P series H/P	mini condensation pump - 230V (painted steel)
SI3100-115	M series	mini condensation pump - 115V (painted steel)
SI3100-230	M series	mini condensation pump - 230V (painted steel)
ICM326HM	M series (except MXZ)	low ambient head pressure controller
ICM379M	MSM18/30	extra coil sensor needed for MUM18/30
LLCP1	P-models with wired controller	2-system lead/lag controller
MAC-1000FT	MS/MSH09NW only	enhanced air cleaning filter (1)
MAC-101HRC	MSH series	simple remote controller - H/P
MAC-102CRC	M series	simple remote controller - A/C
MAC-454JP	MXZ & MS/MSH12 combinations	joint piping accessory
MAC-455JP	MXZ & 3 MS/MSH09 combinations	joint piping accessory
MAC-456JP	MXZ & MS/MSH09 & 15 combinations	joint piping accessory
	MXZ & MS/MSH09 & 17 combinations	
MAC-1100FT	MS/MSH12/15/17TN	enhanced air cleaning filter (1)
MAC-1300FT	MS/MSH09TW	enhanced air cleaning filter (1)
MAC-1500DF	MS/MSH09NW only	deodorizing filter (1)
MAC-1600DF	MS/MSH12/15/17TN	deodorizing filter (1)
MAC-1800DF	MS/MSH09TW	deodorizing filter (1)
PAC-715AD	EK & FK models	timer adapter for programmable timer
PAC-725AD	EK, FK, AK, GK models	multiple remote controller adapter & duct fan controller
PAC-YT34PTA	FK, AK, GK models	7-day programmable timer
PAC-SG01KF	PL-AK models	high efficiency filter: requires multi-function casement (PAC-SG03TM-E)
PAC-SG03TM-E	PL-AK models	multi-function casement for high efficiency filter and for one additional fresh air intake
PAC-SG06SP-E	PL-AK models	air outlet shutter plate
PAC-SK65PT	EK models with original controllers	7-day programmable timer
PAR-SW96A-E	PL/PLH-AK models	wireless remote controller kit: receiver and wireless remote
PCH364201	PC/PCH36/42EK	permanent filter kit: includes (1) filter set and hardware
PCH364202	PC/PCH36/42EK	permanent replacement filters (2)
PCH364203	PC/PCH36/42EK	disposable filter kit: includes (1) filter set and hardware
PCH364204	PC/PCH36/42EK	disposable replacement filter media: polyester, 12-pack or 24 pieces
PCH364205	PC/PCH36/42EK	hardware only: frame and accessories (no filters)
PCH364206	PC/PCH36/42EK	Odorstat replacement media sets (2): packed 24 per box or 48 pieces
RCH-D	MS/MSH-N and PK-FL models	lockdown bracket for remote controller
RCMKP1CB	MS/MSH-T and PKH-FL models	lockdown bracket for remote controller
TC	PUG/PUGH outdoor units	corrosive resistant coating Please add ${\cal TC}$ suffix to outdoor model number when ordering
ULTRILITE1	All outdoor units that fit	condensing unit mounting pad (in.): 16x36x3
ULTRILITE2	All outdoor units that fit	condensing unit mounting pad (in.): 24x24x3
ULTRILITE3	PUG and PUGH outdoor units	condensing unit mounting pad (in.): 36x36x3
WB-PEK	PU12EK, PU18EK	low ambient wind baffle

^{*} Btu/h performance rated at ARI conditions. Specifications and prices are subject to change without notice. See price guide for accessory pricing.

GENERAL SPECIFICATIONS

REFRIGERANT TUBING SIZE FLARE/FLARE

MODEL	OUTDOOR Unit	MAX. HEIGHT DIFFERENCE (FT.)	MAX. Tubing Length (FT.)
MS09TW, MSH09TW, MSZ09UN	MU/MUH/MUZ	25	49
MF12EN, MF15EN	MU	25	49
MS12TN, MSH12TN, MSH12EN, MS15TN MSH15TN, MSH15EN, MS17TN, MSH17TN	MU/MUH	25	49
PK12FK, PL12AK, PK18[FK,FL], PL18AK, PLH18AK, PKH18[FK,FL]	PU/PUH	130	130
PKGH18[FK,FL] PKG18[FK,FL], PLG18AK, PLGH18AK, PKGH18[FK,FL]	PUG/PUGH/AYB	50	75
PK24[FK,FL], PKH24[FK,FL], PC24GK, PCH24GK, PL24AK, PLH24AK	PU/PUH	164	164
PKG24[FK,FL], PKGH24[FK,FL], PCG24GK, PCGH24GK, PLG24AK, PLGH24AK	PUG/PUGH/AYB	50	75
PK30[FK,FL] PKH30[FK,FL], PL30AK, PLH30AK, PC30GK, PCH30GK, PK36FK, PK36[FK,FL], PKH36[FK,FL], PL36AK, PLH36AK, PC36GK, PCH36GK, PL42AK, PLH42AK	PU/PUH	164	164
PKG30[FK,FL], PKGH30[FK,FL], PLG30AK, PLGH30AK, PCG30GK, PCGH30GK, PKG36[FK,FL], PKGH36[FK,FL], PLG36AK, PLGH36AK, PCG36GK, PCGH36GK, PLG42AK, PLGH42AK	PUG/PUGH/AYB	50	75
PLH42AK, PCH42GK	PU/PUH	164	164
PLGH42AK, PCGH42GK	PUG/PUGH/AYB	50	75
MXZ30TN Total refrigerant tubing length of any combination of indoor units cannot exceed 197 feet.	MXZ30	33	82

RE	REFRIGERANT TUBING SETS									
Use With	Length (Ft.)	Coupling	Order No.	Tubing Size						
	16	Flare/Flare	PACSK05FS	3/8-5/8						
All P Models	22	Flare/Flare	PACSK07FS	3/8-5/8						
12,000-24,000 BTU	32	Flare/Flare	PACSK10FS	3/8-5/8						
	49	Flare/Flare	PACSK15FS	3/8-5/8						
All P Models	16	Flare/Flare	PACSK05FF	1/2-3/4						
30.000- 42.000 BTU	22	Flare/Flare	PACSK07FF	1/2-3/4						
(Except PLH42FK(AK)	32	Flare/Flare	PACSK10FF	1/2-3/4						
and PCH42EK)	49	Flare/Flare	PACSK15FF	1/2-3/4						
PLH42AK	22	Flare/Flare	PACSK07FK	1/2-7/8						
PCH42EK	49	Flare/Flare	PACSK15FK	1/2-7/8						
	10	Flare/Flare	MAC645PI	1/4-3/8						
MS09TW	16	Flare/Flare	MAC646PI	1/4-3/8						
MSH09TW	23	Flare/Flare	MAC647PI	1/4-3/8						
WIGHTOOTW	33	Flare/Flare	MAC648PI	1/4-3/8						
	49	Flare/Flare	MAC649PI	1/4-3/8						
	10	Flare/Flare	MAC660PI	1/4-1/2						
	16	Flare/Flare	MAC661PI	1/4-1/2						
MS12TN MSH12TN	23	Flare/Flare	MAC662PI	1/4-1/2						
	33	Flare/Flare	MAC663PI	1/4-1/2						
	49	Flare/Flare	MAC664PI	1/4-1/2						
MF12EN2	10	Flare/Flare	MAC725PI	1/4-5/8						
MF15EN2	16	Flare/Flare	MAC726PI	1/4-5/8						
MS15TN	23	Flare/Flare	MAC727PI	1/4-5/8						
MSH15TN MS17TN	33	Flare/Flare	MAC728PI	1/4-5/8						
MSH17TN	49	Flare/Flare	MAC729PI	1/4-5/8						
	Joint Pipe	Flare/Flare	MAC454JP	3/8-1/2						
MXZ30TN	Joint Pipe	Flare/Flare	MAC455JP	1/2-3/8						
	Joint Pipe	Flare/Flare	MAC456JP	1/2-5/8						

M Series Tubing Sets Include insulated copper pipes, 1 roll of tape, putty, straps including screws, refrigerant oil, and a flange.
 S Series Tubing Sets Include insulated copper pipes, 2 rolls of tape (adhesive & non-adhesive), putty, sleeve, flange, 2 connecting wires (1 indoor unit to controller, 1 indoor unit to outdoor unit).

 ${\sf DiamondBack^{\sf TM}\ basic\ line-sets\ are\ available}.$

LIMITED WARRANTY | Six-year warranty on compressor.

One-year warranty on parts.

LINE-HIDE™ LINESET COVER SYSTEM

- Available in four sizes 2-1/4", 3", 4" and 6" tubes
- Snap-On covers and a full selection of couplings, elbows, T-joints, caps, and more for any application, complex or simple
- · High-quality PVC with UV inhibitors for outdoor service in all weather conditions

















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