



DUCTED REVERSE CYCLE AIR CONDITIONING  
The Ultimate Comfort Experience... All Year Round.

## Why Ducted Reverse Cycle Air Conditioning?

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### Ducted Reverse Cycle Air Conditioning

Whether you live in the tropical regions of Cairns or Darwin, the colder extremities of southern Tasmania or the fluctuating temperatures of the more moderate zones, there is a total comfort solution for your home – ducted reverse cycle air conditioning.

At the heart of ducted reverse cycle air conditioning is 'heat pump' technology. To cool your home in summer, the heat pump transfers heat from the inside of the home to the outside. In winter, the process is reversed for heating, moving heat from outside to inside your home. This process of heat transfer makes reverse cycle air conditioning the most energy efficient way to heat your home. Some models are up to 300% more efficient than conventional heating systems. This means that reverse cycle air conditioners are economical to operate, environmentally responsible and safe to use.

Mitsubishi Electric's far reaching research and development programs are designed with the environment in mind. We want to enhance lifestyles while preserving the world for future generations. In fact, 5% of our net sales goes towards researching and developing ways we can preserve the environment, maximise our contributions to society and improve lifestyles.

We target technologies such as ozone friendly alternatives to chloro-fluorocarbons. To save on raw material consumption and cut down on waste, we use recyclable packaging and we are exploring energy sources such as solar power to hinder global warming.

Our commitment to quality, service, research and development has helped us gain a leading position in today's marketplace.

### Research and Development

Mitsubishi Electric engages in a wide range of R&D efforts to continually offer better products, especially in air flow.

It can significantly effect comfort levels, as well as human health and energy saving. Comfort levels are analysed under various simulated weather and climate conditions, including snowfall and outside air temperatures ranging from -25°C to 50°C, at our site- adjustable "Residential Comfort Testing Laboratory". Rather than depending on sometimes fuzzy human responses, the laboratory measures the degree of comfort using a NASA-developed thermal mannequin that generates heat just as a human body does.

To learn more about real settings, we constructed "Amenity Home", a special model house that allows the performance of air conditioners to be experienced. In addition, the company's extensive global network gathers information and directs marketing efforts toward the development of high-quality air conditioners that meet the particular needs of the market and environment where they are to be installed.

**" We are committed to the production of the finest, most environmentally friendly air conditioning in the world!"**

## SEH Series Ceiling-Concealed

The new SEH series achieves stringent economy in all aspects of air conditioning to realise significant cost savings.

It's whisper quiet operation is ideal for master bedrooms, living rooms and other single or multi-room residential uses. Available in three sizes, it can be installed in a bulkhead for a different and attractive architectural finish or can be ducted within the space for total integration with the room.

Our LED remote controller allows precise temperature adjustment for optimum comfort conditions. Mitsubishi Electric's integrated package (outdoor unit, indoor unit and remote controller) ensures quality air conditioning and minimises installation work.

### Features Include:

- Energy efficient reverse cycle heating and cooling.
- Our ultra compact design saves installation space (indoor unit only 270mm high) and provides a flexible solution.
- Our unit design facilitates easy Installation and service, whether installed in your walk-in robe, bulkhead or ceiling.
- Super quiet operation (indoor unit only 30-32dB(A) at low speed, outdoor unit only 50-54 dB(A).
- Classic style side blow-louvers are used in bulk head installations, whilst in ceiling registers are used for in room ducted applications (either are supplied by your air conditioning specialist).
- Installed with two direct driven forward curved centrifugal fan and 2-speed motor, for optimum air flow and efficiency.
- Energy saving operation guarantees economy in use.
- Auto restart function is included as standard for your convenience in use, in the event of a power failure.

### Outdoor optional parts include:

- Air outlet guide
- drain socket set
- soft start (SEH 2.5)

## LED Microprocessor Remote Control

The ultra-thin remote controller (12mm) features an attractive and easy-to-read LED display which simultaneously indicates set temperature and room temperature. For extra convenience, the remote controller's microprocessor quickly detects malfunctions and pinpoints the location via the self-diagnostic troubleshooting function. Other features include a 12hr On-Off timer and memory for storing instructions. This can be installed on the wall for convenient use or near your bed head so that you are in total control.



SEH Series



SUH-1.6/2



SUH-2.5



Remote Controller

## The Perfect Multi-Room or Whole Home System For You!

### Mr Slim PEH Series Ceiling Concealed

Mr. Slim ceiling concealed ducted systems, offer a convenient and versatile solution for air conditioning your whole home, or several rooms at the same time. Almost limitless installation possibilities are available to you. Common configurations include whole home, multi indoor and night/day zoning. In whole home systems your air conditioning specialist will select a unit that is capable of cooling and heating your whole home and custom design the duct work and installation to suit your specific needs.

In special cases, like split level homes or apartments, multiple indoor units can be used in conjunction with a single outdoor unit to provide greater installation flexibility.

An alternative to whole home systems is night and day zoning. With zoned systems, in addition to duct work being installed throughout your home, a zone damper(s) is included in the ducting design. Typically, during day time operation, the air flows into the living room spaces that are occupied. The bedroom damper remains shut so that no air flows into that part of the home. At night time the zone damper is activated redirecting the air from the living room spaces to the bedrooms. This approach requires smaller air conditioning equipment than a non zoned system, keeping capital cost and running cost to a minimum.

Mr. Slim ceiling concealed ducted systems have many advanced features which maximise user comfort.

#### Features Include:

- Limitless installation possibilities
- Energy efficient reverse cycle heating and cooling
- Hot start system - heating will always begin comfortably with warm air since the hot start system prevents cold air from being blown out at the start of heating and during defrosting.
- Computerised dehumidification - maintains the set temperature whilst eliminating the effects of humidity.
- Self Diagnostics - in the unlikely event of a malfunction, the system detects problems and advises the nature of the fault. This simplifies service should it be required.
- Automatic cooling/heating change over operation for more comfort.
- Liquid Crystal Display (LCD) wall mounted controller for convenient use.

- Heating operation is guaranteed down to  $-8.5^{\circ}\text{C}$ .  
Cooling operation is guaranteed up to  $46^{\circ}\text{C}$ .

#### Optional accessories include:

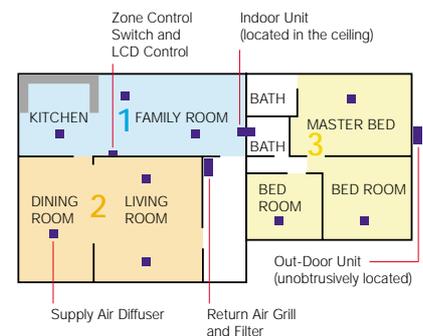
- Air outlet guide – outdoor
- Remote sensor to allow the LCD Controller to be concealed
- Soft starter (PEH2.5/3 only) limits starting current to 34 amperes on single phase models, minimising the potential effects of light flicker.
- Optional LCD control for two storey homes
- Program timer with or without night set back
- Salt proof outdoor unit specification (special order only) for total seaside protection. Treatment includes unit cabinet, hydrophilic coils, motor housing and shaft, printed circuit boards, etc...

### Multi Room Zoning (Example Only)

The house plan (pictured below) is divided into three zones. Using automatic dampers that operate at the flick of a switch, air can be switched from zone to zone. This approach not only reduces capital costs but also running cost.

#### Zones

- 1 Kitchen/family
- 2 Lounge/dining
- 3 Bedrooms



### Mr Slim LCD Microprocessor Remote Control

The convenient LCD monitor on the remote controller is easy to read and offers simple one-touch operation. Its icons and symbols make it very simple to understand. Once the desired temperature is set, the air conditioning unit switches automatically between cooling and heating – depending on room temperature – utilising the automatic cooling/heating change-over feature for maximum comfort all year-round. Additionally, the intelligent system control is designed to suit any system configurations.



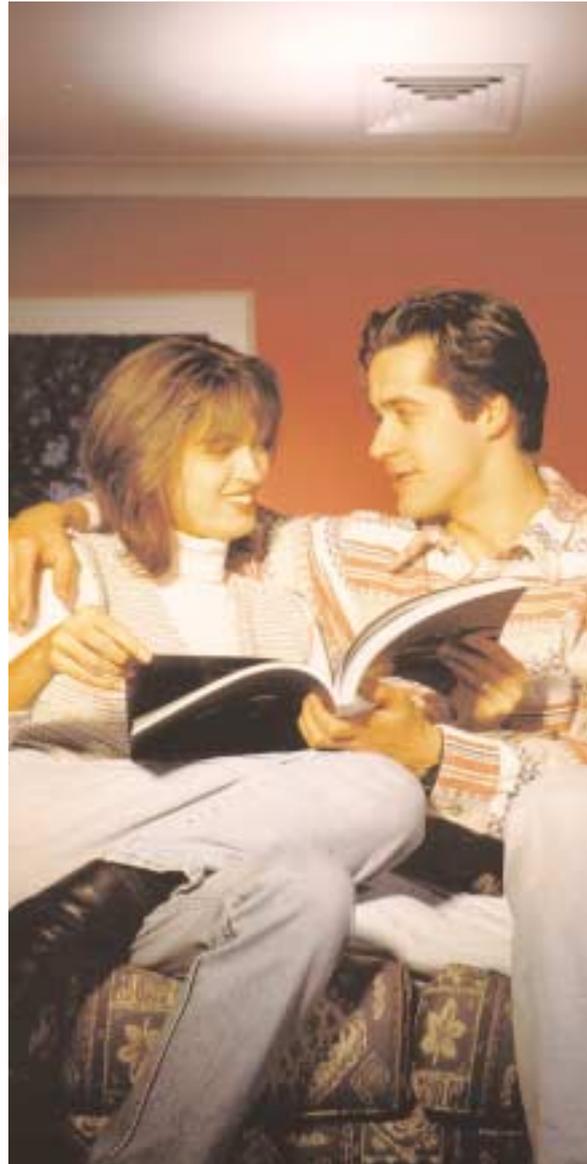
For extra convenience, the remote controller's microprocessor quickly detects problems and pinpoints the location via the self-diagnostic troubleshooting function. Plus, only two power wires are required to connect the remote controllers to an indoor unit.

### Ceiling Concealed Indoor Unit

The ultimate in out of sight comfort and performance, our lightweight indoor fan coil units have been specifically designed to function efficiently in your ceiling space. Easy installation, low maintenance and silent running means even greater year round comfort for you. An ideal solution for limited spaces.

### Outdoor Unit

The condensing or outdoor unit houses the compressor for the heat pump, and is normally located in an unobtrusive location in the garden. Mr Slim outdoor units can be installed up to 50 metres away from the indoor.

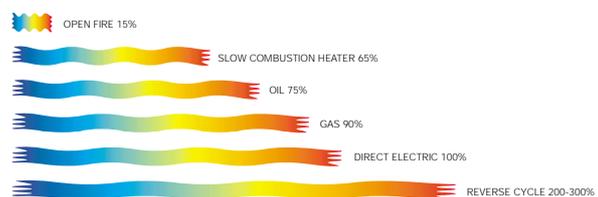


Size 2.5/3



Size 4/5/6

Typical Heating Appliance Efficiencies.  
Compare the amount of fuel used with the output of heat.



Efficiency at greater than 5°C: efficiency is reduced at lower temperatures.  
Source: Dept. of Energy Sydney NSW.

## The Perfect Large Home System For You!

### PEH/PUH 7,8,10,15,20

Mitsubishi Electric compliment their single, multi and whole of home ducted range with a range of three large capacity systems that are perfect for large homes. These systems are capable of maintaining ducted comfort conditions throughout large open plan areas as well as the bedrooms, study and music room.

For very large homes, your air conditioning specialist may recommend zoning your home with different systems. For example, you may have a single room bulk head unit in the master bedroom and study, a Mr Slim multi room system catering to the needs of your secondary bedrooms and a large home system serving the Rumpus, family and formal entertaining areas. Ultimately, the choice or combination of equipment must consider your families life style and your expectations of the system. If you wish to be comfortable in the extremes of seasons, then you need a system with sufficient capacity to do so. Remember, a system that is too small will not maintain conditions in extreme weather. A system that is too large will cycle too often and cost too much to operate.

Other considerations in system design include your investment in capital equipment, local council regulations, location of outdoor equipment with respect to your neighbours and running costs.

Our domestic range of large capacity machines are available up to 33k watts in capacity. These systems are provided with simplified Controls. Your designer can consider your homes specific control function needs and interface an option component for you. A standard electronic control similar to the Mr Slim system is available on special order. In general, our air conditioning specialists will custom design a system for you. Their considerations include selection and recommendation of appropriate Mitsubishi Electric indoor and outdoor units, design and selection of ductwork and fittings (supplied by them) for your application, the characteristics of your home, as well as the design of interconnecting refrigeration pipework, external electrical works and overall project management. At the end of this process your family will have the choice whether to operate your home on comfort heating, cooling, ventilation, simply at the push of a button.



The Perfect Single or Multi Room Solution			
Model	SEH-1.6AR	SEH-2AR	SEH-2.5AR
Function	cooling/heating	cooling/heating	cooling/heating
Nominal Capacity (watts)	4465/4800	6183/6640	7672/8015
Net Capacity (watts) ①	3,900/4,200	5,400/5,800	6,700/7,000
Indoor Components Fan Coil Unit + LCD Control			
Indoor Unit Air Flow (µs)	215	290	340
Sound Pressure Level dB(A) ②	low 30-35 high	low 31-39 high	low 32-43 high
Dimensions (mm) WxDxH	1,100x700x270	1,100x700x270	1,100x700x270
Horizontal Discharge Outdoor Unit			
Outdoor Unit ③	Single ph, 50HZ 240V	Single ph, 50Hz, 240V	Single ph, 50Hz, 240V
Sound Pressure Level dB(A) ②	50	52	51-53
Dimensions (mm) WxDxH	870x290x605	870x290x605	870x295x850

The Perfect Multi-Room or Whole Home Solution					
Model	PEH-2.5EKA	PEH-3EK[H]A	PEH-4EK[H]SA	PEH-5EK[H]SA	PEH-6EKS
Function	Cooling/Heating	Cooling/Heating	Cooling/Heating	Cooling/Heating	Cooling/Heating
Nominal Capacity (watts)	6,985/7,443	8,817/9,500	11,107/11,908	14,198/14,885	17,404/19,923
Net Capacity (watts) ①	6,100/6,500	7,700/8,300	9,700/10,400	12,400/13,000	15,200/17,400
Indoor Components					
Indoor Unit Air Flow (µs)	450	450	560	700	1030
Sound Pressure Level dB(A) ②	low 52-55 high	low 52-55 high	low 54-58 high	low 54-58 high	low 54-58 high
Dimensions (mm) WxDxH	785x690x428	785x690x428	1055x690x428	1255x690x428	1465x690x428
Horizontal Discharge Outdoor Unit					
Outdoor Unit ③	single ph, 50Hz, 240V	single/3ph, 50Hz, 240V	3ph, 50Hz, 415V	3ph, 50Hz, 415V	3ph, 50Hz, 415V
Sound Pressure Level dB(A) ②	52	52	54	55	56
Dimensions (mm) WxDxH	870x295x850	870x295x850	870x295x1258	970x345x1258	970x345x1258

The Perfect Large Home Solution					
Model	PEH 7	PEH 8	PEH 10	PEH 15	PEH 20
Function	cooling/heating	cooling/heating	cooling/heating	cooling/heating	cooling/heating
Nominal Capacity (watts) ①	20,495/21,520	25,190/25,190	32,900/32,900	44,000/57,600	57,600/57,600
Net Capacity (watts)	17,900/18,800	22,000/22,000	28,800/28,800	35,200/44,000	46,000/57,600
Indoor Components (Optional Controls)					
Indoor Unit Air Flow (µs)	1000	1170	1500	2333	3000
Sound Pressure Level dB(A) ②	54 high	56 high	59 high	61 high	62 high
Dimensions (mm) WxDxH	1415x650x428	1415x650x428	1615x650x428	1690x865x706	1993x865x706
Horizontal Discharge Outdoor Unit					
Outdoor Unit ③	3ph, 50Hz, 415V	3ph, 50Hz, 415V	3ph, 50Hz, 415V	3ph, 50Hz, 415V	3ph, 50Hz, 415V
Sound Pressure Level dB(A) ②	65	65	65	69	69
Dimensions (mm) WxDxH	14,00x700x980	14,00x700x980	14,00x700x980	1951X1080X1200	1951X1080X1200

**Note 1:** Net Capacity test conditions based on Australian Standards 1861 'Condition A': Cooling DB 27°C WB 19°C, outdoor DB 35°C WB 24°C. Heating Indoor DB 21°C, Outdoor DB 7°C WB 6°C. **Note 2:** Sound Pressure Band based at 1 metre from the source. **Note 3:** Data based on indicated voltage 1ph-240V-50Hz and 3ph-415V-50Hz. **Note 4:** Guaranteed operating range. Cooling operation -5°C to 46°C DB Heating operation -8.5°C DB to 21°C DB. **Note 5:** PEH 7, 8, 10 Warranty: 5 years residential, 2 years commercial; PEH 15, 20 Warranty: 2 years commercial.



### Mitsubishi Electric Quality

This logo is a guarantee. A guarantee that every Mitsubishi Electric Air Conditioner is the product of painstaking research, relentless testing and our continuing efforts to make them better than ever before. We believe it is our superior quality that will make your life more comfortable.

And quality, as Mitsubishi Electric sees it, takes many forms. From developing specific products that meet specific market needs to the total quality we aim for from production to after sales service, we're striving for quality in everything we do. Our emblem is a symbol of the efforts we've made to make our products the very best. Over the years, Mitsubishi Electric Air Conditioners have become quieter, more energy efficient, smaller, less costly to operate and better able to distribute air evenly throughout the home.

These are just some of the ways we're defining Mitsubishi Electric Quality. To back this we offer a 5 year warranty on Mitsubishi Electric Residential Ducted Air Conditioners.

Mitsubishi Electric Air Conditioning continues to perform in the most extreme conditions.



### FOR PEACE OF MIND

*5 year warranty on all parts, labour and compressor.*

For further information contact:

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