

Panasonic



MULTI-ZONE
Wall-mounted heat pumps,
cassettes and slim ducts

UP TO
22
SEER2

UP TO
10.1
HSPF2

HEATING
UP TO
-20°C

10 YR
WARRANTY

EXTERIOS **E**

ECONAVI

INVERTER



Exclusive distributor in Quebec

DESCAIR

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What is a heat pump?

A heat pump is an electrical device that extracts heat from one place and transfers it to another. It allows you to heat in winter and to cool in summer. Heat pumps transfer heat by circulating a substance called a refrigerant through a cycle of evaporation and condensation. A compressor pumps the refrigerant between two heat exchanger coils. In one coil, the refrigerant is evaporated at low pressure and absorbs heat from its surroundings. The refrigerant is then compressed en route to the other coil, where it condenses at high pressure. At this point, it releases the heat it absorbed earlier in the cycle.

The heat pump cycle is fully reversible, and it can provide year-round climate control for your home – heating in winter and cooling and dehumidifying in summer. Since the ground and air outside always contain some heat, a heat pump can supply heat to a house even on cold winter days. In fact, air at -18°C contains about 85% of the heat it contained at 21°C.

What is a SEER?

The seasonal energy efficiency ratio (SEER) measures the cooling efficiency of the heat pump over the entire cooling season. The SEER is based on a climate with an average summer temperature of 28°C. A higher SEER rating means greater energy efficiency for cooling.

What is a HSPF?

The heating seasonal performance factor (HSPF) is a measure of the total heat output in BTU of a heat pump over the entire heating season divided by the total energy in watt hours it uses during that time. Weather data characteristic of long-term climatic conditions are used to represent the heating season in calculating the HSPF. The higher the HSPF rating or a unit, the more energy efficient it is.

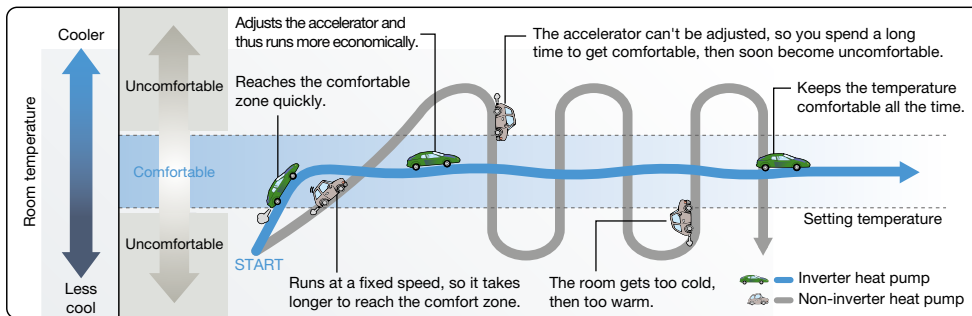
Source: Natural Resources Canada's Office of Energy Efficiency (2004)

INVERTER Technology

High efficiency operation

Panasonic Inverter technology provides optimum power control and extremely efficient operation by modulating the compressor capacity. The result is efficient and flexible operation using less electricity. With accumulated production of 200 million compressors, extremely high quality and reliability are proven.

Advantages of Inverter technology Comparing inverter and non-inverter air conditioners to cars



*Image of output power fluctuation

Reduces electricity consumption

Panasonic Inverter heat pumps are designed to give you exceptional energy savings while ensuring you stay comfortable at all times.

Constant comfort

Precise temperature control with a wide power output range enables an inverter heat pump to meet different room occupancy levels, providing constant comfort.

Quick cooling and heating

Higher cooling/heating power during the start-up period allows cooling/heating the room faster.

Whisper quiet operation

The indoor operating noise has been reduced to 5 dB as the inverter constantly varies its output power to enable more precise temperature control.

ECONAVI

ECONAVI with intelligent eco sensors

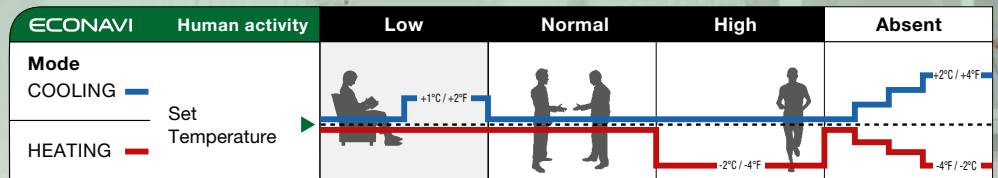
Panasonic has employed ECONAVI™ (Human Detection Technology) on its air conditioner in 2007 and perfected the feature since its launch. This smart technology monitors and senses when there are people in the room and determine how much activity is occurring, then automatically adjusts the temperature setting accordingly for optimum operation.

The area search mode uses sensors that can detect activity in the room and direct cooling to the occupied area. The low activity detection mode monitors the room, decreasing cooling or heating when there is less movement, while the absence detection feature switches to a slightly less powerful cooling mode when there is no one in the room at all.

How does ECONAVI human activity work?

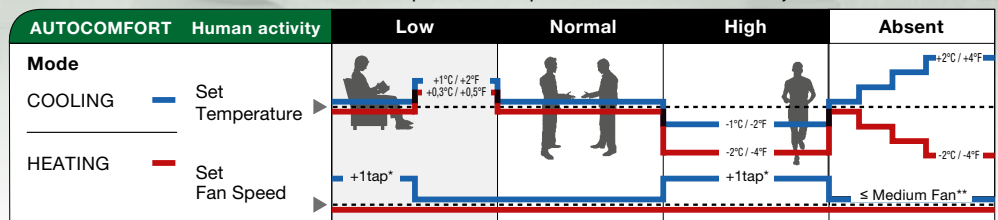
ECONAVI Mode

The unit controls room temperature to save energy.



AUTOCOMFORT Mode

The unit controls room temperature to keep human comfortable consistently.



* During low activity, fan speed 1 tap up for first 15 minutes or until set temperature is reached.

** During human absence, maximum fan speed for cooling mode is medium fan.

Features

ECO NAVI

The unit controls room temperature to save energy.

AUTO COMFORT

The unit controls room temperature to keep human comfortable consistently.

Microprocessor controlled operation

Microprocessor control ensures that the temperature and humidity levels in the room are always comfortable.

Wireless remote control

Panasonic's infrared remote control with an easy to read LCD display gives the user the capability to adjust and set: temperature, sweep (louver control), fan speeds, timer and more, for complete automatic operation.

DRY

Dry mode

By coupling compressor and fan operation, intermittent operation can be precisely controlled according to room temperature, so that air is sufficiently dehumidified.

5 fan speeds and automatic fan operation

Convenient microprocessor control automatically adjusts fan speed to High, Medium or Low, according to room temperature to maintain a comfortable airflow throughout the room.

Self-diagnosing function

Unit is equipped with self-diagnosing function with remote control. This makes it easier to diagnose malfunctions, thus reducing service labor.

Louver control

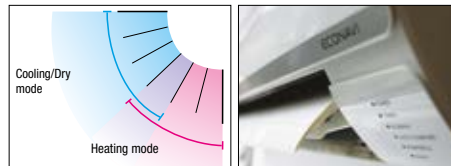
Louver can be manually set to the desired angle by remote control.

Cooling only mode

Can be changed at installation for cooling only.

Air sweep control

The air sweep function moves the louver up and down in the air outlet, directing air in a "sweeping" motion around the room and providing comfort in every corner.



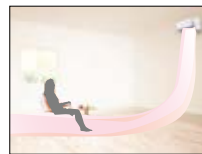
2 air guides to improve the air flow direction

Cooling mode



Cool air doesn't reach you directly; hands and feet won't be cold.

Heating mode



Warm feet and no direct breeze on your face; more comfort.

Automatic heating and cooling changeover

After setting the temperature and functions you desire, just relax. If the room temperature is higher than the set temperature, cooling operation begins. If the room temperature is lower than the set temperature, heating operation begins. During normal thermostat cycle operation, cooling and heating operations automatically change in accordance with set temperature, time and room temperature. (Single zone heat pump unit only)

24-hour clock with ON/OFF program timer

The remote control allows you to set a wide variety of timer-based operations. Such functions include automatic ON/OFF with a timer setting, save time ON/OFF every day, ON timer, OFF timer and Combination timer.

Automatic restart function after power failure

This feature allows the system to automatically resume operation at its reset program, after power is restored from a power failure when the remote control is in the room.

Hot start heating system

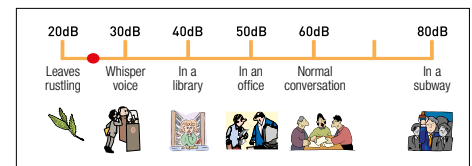
Right from the start, air is warm and comfortable. The hot start heating system prevents any cold blasts at the beginning while the heat pump is warming up.

Electric refrigerant control valve

The circulation volume of the refrigerant is controlled by a pulse type electric control valve. In order to attain optimum efficiency, when the power is switched ON, the opening degree of the electric control valve is controlled between 90 and 480 steps.

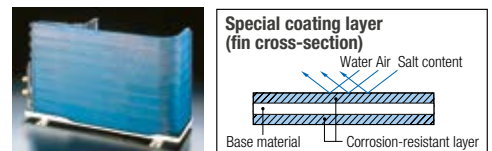
Quiet mode

Low fan speed for extra quiet operation.



Blue Fin Condenser

Condensers can take a beating from exposure to salty air, rain and other corrosive factors. Panasonic has extended the life of its condensers with an original anti-rust coating.



R-410A

The unit runs with refrigerant type R-410A.

Anti-microbial filter

The anti-microbial filter by 3M is treated to inhibit the growth of mold and mildew, and helps create clean air.

Wi-Fi and BACnet

The unit is compatible with Wi-Fi and BACnet. Additional parts required (optional).

EXTERIOS E



Wall-mounted model N°			CS-ME5RKUA	CS-ME7RKUA	CS-E9RKUAW	CS-E12RKUAW	CS-E18RKUAW	CS-E24RKUAW
Performance and electrical ratings,								
Capacity	Cooling	BTU/hr.	5,500 (4,400 – 7,800)	6,900 (6,100 – 9,900)	9,000 (4,100 – 10,200)	11,500 (4,100 – 13,300)	17,200 (5,800 – 19,800)	24,000 (5,800 – 27,200)
	Heating	BTU/hr.	8,900 (4,100 – 10,900)	10,900 (4,100 – 14,000)	12,000 (4,100 – 14,100)	13,800 (4,100 – 16,300)	21,600 (5,800 – 22,000)	28,800 (5,800 – 29,200)
Moisture removal	High	Pt./hr.	0.6	0.8	1.3	1.7	3.0	7.6
Dry air flow	High	ft ³ /min.	415	425	430	475	680	715
Power supply	V, Phase, Hz		230/208 V, 1 Ph, 60 Hz	230/208 V, 1 Ph, 60 Hz	230/208 V, 1 Ph, 60 Hz	230/208 V, 1 Ph, 60 Hz	230/208 V, 1 Ph, 60 Hz	230/208 V, 1 Ph, 60 Hz
Running amps	Cooling	A	2.0 / 2.3	2.5 / 2.8	3.2 / 3.6	4.2 / 4.7	6.3 / 7.0	10.8 / 11.9
	Heating	A	3.0 / 3.4	3.7 / 4.1	5.1 / 5.7	5.6 / 6.3	8.3 / 9.3	11.4 / 12.6
Power input	Cooling	W	400 (250 – 640)	500 (340 – 810)	690 (250 – 850)	920 (250 – 1,150)	1,300 (430 – 1,600)	2,350 (430 – 2,720)
	Heating	W	600 (300 – 960)	740 (300 – 1,230)	1 120 (200 – 1 500)	1,250 (200 – 1,710)	1,750 (380 – 1,800)	2,500 (380 – 2,660)
Operating noise level (Hi/Mid/Lo)	Cooling	db(A)	40 / 25 / 20	40 / 25 / 20	40 / 25 / 20	43 / 28 / 20	47 / 39 / 36	48 / 40 / 37
	Heating	db(A)	42 / 29 / 26	42 / 29 / 26	42 / 29 / 26	44 / 35 / 32	46 / 39 / 36	48 / 40 / 37
Tube diameter	Discharge/Suction	in	1/4" and 3/8"	1/4" and 3/8"	1/4" and 3/8"	1/4" and 1/2"	1/4" and 1/2"	1/4" and 5/8"
Dimensions and weight								
H x W x D		in	11-7/16 x 34-9/32 x 8-7/16	11-7/16 x 34-9/32 x 8-7/16	11-7/16 x 34-9/32 x 8-7/16	11-7/16 x 34-9/32 x 8-7/16	11-7/16 x 42-5/32 x 9-15/32	11-7/16 x 42-5/32 x 9-15/32
Net weight		lb	20	20	20	20	26	26

Cassette model N°			CS-ME9SB4U	CS-E12RB4UW	CS-E18RB4UW
Performance and electrical ratings					
Capacity	Cooling	BTU/hr.	8,600 (6,100 – 9,900)	11,900 (4,100 – 13,100)	17,500 (4,400 – 1,700)
	Heating	BTU/hr.	12,300 (4,100 – 14,700)	13,600 (4,100 – 16,300)	20,400 (4,400 – 21,000)
Moisture removal	High	Pt./hr.	2.5	4.0	6.1
Dry air flow	High	ft ³ /min.	370 (cool.), 390 (heat.)	370 (cool.), 390 (heat.)	450 (cool.), 495 (heat.)
Power supply	V, Phase, Hz		230/208 V, 1 Ph, 60 Hz	230/208 V, 1 Ph, 60 Hz	230/208 V, 1 Ph, 60 Hz
Running amps	Cooling	A	3.2 / 3.5	5.2 / 6.0	7.7 / 9.1
	Heating	A	4.7 / 5.2	6.1 / 6.9	10.7 / 12.5
Power input	Cooling	W	630 (340 – 810)	1,150 (250 – 1,320)	1,700 (250 – 1,850)
	Heating	W	940 (300 – 1,230)	1,360 (230 – 1,710)	2,340 (270 – 2,500)
Operating noise level (Hi/Mid/Lo)	Cooling	db(A)	36 / 30 / 27	34 / 28 / 25	44 / 30 / 27
	Heating	db(A)	36 / 32 / 29	34 / 30 / 37	44 / 31 / 28
Tube diameter	Discharge/Suction	in	1/4" and 3/8"	1/4" and 1/2"	1/4" and 1/2"
Dimensions and weight					
H x W x D		in	10-1/4 x 22-21/32 x 22-21/32	10-1/4 x 22-3/4 x 22-3/4	10-1/4 x 22-3/4 x 22-3/4
Net weight		lb	40	40	40



Slim duct model N°			CS-ME5SD3UA	CS-ME7SD3UA	CS-E9SD3UAW	CS-E12SD3UAW	CS-E18SD3UAW
Performance and electrical ratings							
Capacity	Cooling	BTU/hr.	5,500 (4,400 – 7,800)	6,900 (6,100 – 9,900)	9,000 (4,100 – 10,200)	11,500 (4,100 – 13,300)	17,200 (5,800 – 19,400)
	Heating	BTU/hr.	8,900 (4,100 – 10,900)	10,900 (4,100 – 14,000)	12,000 (4,100 – 14,100)	13,800 (4,100 – 16,300)	20,800 (5,800 – 24,200)
Moisture removal	High	Pt./hr.	0.8	1.1	1.3	1.7	4.6
Dry air flow	High	ft ³ /min.	484	494	475	475	540
Static pressure	Std / Switch to Hi in. w.g		0.10 / 0.022	0.10 / 0.022	0.10 / 0.022	0.10 / 0.022	0.10 / 0.023
Power supply	V, Phase, Hz		230/208 V, 1 Ph, 60 Hz	230/208 V, 1 Ph, 60 Hz	230/208 V, 1 Ph, 60 Hz	230/208 V, 1 Ph, 60 Hz	230/208 V, 1 Ph, 60 Hz
Running amps	Cooling	A	2.3 / 2.0	2.8 / 2.5	3.2 / 3.6	4.2 / 4.7	7.6 / 8.5
	Heating	A	3.4 / 3.0	4.1 / 3.7	5.1 / 5.7	5.6 / 6.3	8.7 / 9.8
Power input	Cooling	W	400 (250 – 640)	500 (340 – 810)	690 (250 – 850)	920 (250 – 1,150)	1,580 (430 – 1,820)
	Heating	W	600 (300 – 960)	740 (300 – 1,230)	1,120 (200 – 1,500)	1,250 (200 – 1,710)	1,830 (380 – 2,180)
Operating noise level (Hi/Mid/Lo)	Cooling	db(A)	35 / - / 28	36 / - / 29	35 / 28 / 25	35 / 28 / 25	41 / 30 / 27
	Heating	db(A)	35 / - / 28	36 / - / 29	35 / 28 / 25	35 / 28 / 25	41 / 32 / 29
Tube diameter	Discharge/Suction	in	1/4" and 3/8"	1/4" and 3/8"	1/4" and 3/8"	1/4" and 1/2"	1/4" and 1/2"
Dimensions and weight							
H x W x D		in	7-7/8 x 29-17/32 x 25-7/32	7-7/8 x 29-17/32 x 25-7/32	7-7/8 x 29-17/32 x 25-7/32	7-7/8 x 29-17/32 x 25-7/32	7-7/8 x 29-17/32 x 25-7/32
Net weight		lb	42	42	42	42	42





Heat pump outdoor unit – Multi-zone

Panasonic



2 ZONES



CU-2E18SBU-5
16,700 BTU/hr. (1.5 T)  



3 ZONES



CU-3E19RBU-5
19,000 BTU/hr. (1.5 T)  *



4 ZONES











CU-4E24RBU-5
24,000 BTU/hr. (2.0 T)  

5 ZONES



CU-5E36QBU-5
36,000 BTU/hr. (3.0 T)  

Unit model	CU-2E18SBU-5  		CU-3E19RBU-5   *		CU-4E24RBU-5  		CU-5E36QBU-5  				
	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating			
Performance and electrical ratings											
Capacity	BTU/hr. 16,700 (7,200 ~ 20,000)		20,200 (7,200 ~ 24,600)		19,000 (6,100 ~ 24,800)		26,000 (5,500 ~ 28,400)		24,000 (10,200 ~ 31,400)		
Dry air flow	High	CFM 1,447		1,447		1,634		1,963		2,330	
Number of connectable indoor units	2		2-3		2-4		2-5				
SEER / SEER2	Non-Ducted	19.0 / 19.0		---		22.0 / 22.0		---		18.5 / 18.5	
EER / EER2		12.55 / 12.55		---		12.55 / 12.55		---		9.60 / 9.60	
HSPF / HSPF2 (Region IV)	Non-Ducted	---		10.0 / 9.1		---		10.5 / 10.1		---	
COP	W/W	---		3.38 (5.28 ~ 3.30)		---		3.70 (5.00 ~ 3.61)		---	
Temperature	°C °F	-10.0°C ~ 46.0°C 14.0°F ~ 114.8°F		-20.56°C ~ 24.0°C -5.0°F ~ 75.2°F		-10.0°C ~ 46.0°C 14.0°F ~ 114.8°F		-20.56°C ~ 24.0°C -5.0°F ~ 75.2°F		-10.0°C ~ 46.0°C 14.0°F ~ 114.8°F	
Power supply	V, Phase, Hz	230/208 V, 1 Ph, 60 Hz		230/208 V, 1 Ph, 60 Hz		230/208 V, 1 Ph, 60 Hz		230/208 V, 1 Ph, 60 Hz			
Running amps	A	6.0 / 6.6		7.8 / 8.5		6.7 / 7.4		9.1 / 10.1		8.9 / 9.9	
Power input	W	1,330 (360 ~ 1,690)		1,750 (400 ~ 2,180)		1,510 (360 ~ 2,420)		2,060 (320 ~ 2,300)		1,910 (530 ~ 2,870)	
MCA/MOP	A	20 / 25		20 / 30		30 / 45		30 / 45			
Features											
Controls	Microprocessor		Microprocessor		Microprocessor		Microprocessor				
Fan speed	Automatic		Automatic		Automatic		Automatic				
Compressor	DC Inverter		DC Inverter		DC Inverter		DC Inverter				
Refrigerant / Amount charged at shipment	oz	R-410A / 78.7 oz		R-410A / 93.2 oz		R-410A / 120.0 oz		R-410A / 120.0 oz			
Refrigerant control	Electric expansion valve		Electric expansion valve		Electric expansion valve		Electric expansion valve				
Noise level	High	db(A) 48		49		50		52		55	
Tubing connection	Type	Flare		Flare		Flare		Flare			
Max. allowable tubing length	ft.	Max. 164' (Min. 9.8' / Max. 82.0' per unit) with additional refrigerant		Max. 164' (Min. 9.8' / Max. 82' per unit) with additional refrigerant		Max. 229.6' (Min. 9.8' / Max. 82' per unit) with additional refrigerant		Max. 262' (Min. 9.8' / Max. 82' per unit) with additional refrigerant			
Tube diameter	Discharge	in. 1/4"		1/4" x 3		1/4" x 4		1/4" x 5			
	Suction	in. 3/8"		3/8" x 3		3/8" x 4		3/8" x 5			
Precharged	in.	65.6		98.4		147.6		147.6			
Additional charge for each ft.	oz/ft.	0.2		0.2		0.2		0.2			
Dimensions and weight											
Height	in.	31-5/16		31-5/16		39-11/32		39-11/32			
Width	in.	34-15/32 + 3-3/4		34-15/32 + 3-3/4		37-1/32		37-1/32			
Depth	in.	12-5/8		12-5/8		13-13/32		13-13/32			
Net weight	lb.	157		159		183		183			

A minimum of 2 indoor units must be connected. Test conditions based on AHRI 210/240 Standards.

* NEEP for non-ducted match-up




All multi-zone outdoor units operate within a Minimum – Maximum capacity range. Combination of indoor units that are not within the Min. – Max capacity range will generate an H12 error code and the system will not operate.


How to select capacity and combinations of indoor units

- Step 2a.** Select the indoor unit and number of units.
- Step 2b.** Multiply the number of units by cooling demand to calculate total demand for each model.
*Always use cooling demand to determine Min. – Max.
- Step 2c.** Calculate the total number of indoor units and their total demand.
- Step 2d.** Select an outdoor unit capacity range that satisfies the total indoor demand.

Note: If total indoor units load exceeds nominal capacity of outdoor unit, the practical output capacity of every indoor unit will be correspondingly attenuated. This situation is more noticeable during heating mode.

Rules: Outdoor unit capacity x 0.5 ≤ Indoor units total capacity ≤ Outdoor unit capacity x 1.33

System demand		System capacity	Indoor combinations			
		Unit demand Cooling	Number of indoor units needed (Step 2a.)	Cooling capacity (BTU)	Total capacity (BTU) (Step 2b.)	
Indoor units						
	CS-ME5RKUA	5,500	x	5,500	=	
	CS-ME7RKUA	6,900	x	6,900	=	
	CS-E9RKUA	8,600	x	8,600	=	
	CS-E12RKUA	10,900	x	10,900	=	
	CS-E18RKUA	17,100	x	17,100	=	
	CS-E24RKUA	24,000	x	24,000	=	
	CS-E12RB4UW	10,900	x	10,900	=	
	CS-E18RB4UW	17,100	x	17,100	=	
	CS-E9SD3UAW	9,000	x	9,000	=	
	CS-E12SD3UAW	11,500	x	11,500	=	
	CS-E18SD3UAW	17,200	x	17,200	=	
Total combined indoor unit capacity (Step 2c.)						

System capacity	System supply Cooling	Total number of indoor units	Min./Max. Indoor connected cooling capacity range (BTU)	Select condensers within min./max. range (Step 2d.)
Outdoor units				
	CU-2E18SBU-5	16,700	2 zones	7,200 ~ 20,000
	CU-3E19RBU-5	19,000	2 - 3 zones	15,300 ~ 30,600
	CU-4E24RBU-5	24,000	2 - 4 zones	15,300 ~ 46,400
	CU-5E36QBU-5	36,000	2 - 5 zones	15,300 ~ 59,500



Use of the AHRI Certified™ mark indicates a manufacture's participation in the certification program. For verification of certification for individual products, go to www.ahridirectory.org

Quality Management System Certificate			Certified to ISO 9001: 2008 Panasonic HA Air-Conditioning (M) Sdn.Bhd. Cert. No.: MY-AR 1010
	 Certified to ISO 9001: 2008 Cert. No.: MY-AR 1010		

Environmental Management System Certificate			Certified to ISO 14001: 2004 Panasonic HA Air-Conditioning (M) Sdn.Bhd. Cert. No.: MY-ER 0112
	 Certified to ISO 14001: 2004 Cert. No.: MY-ER 0112		



Serving the North American air conditioning market since 1983

Exclusive distributor in Quebec



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*Panasonic basic warranty (residential): 10 years compressor and 10 years parts. 10 years labor warranty is offered by Descair in Quebec only.

Because its products are subject to continuous improvements, Panasonic reserves the right to modify product design and specifications without notice and without incurring any obligations.

CAUTION Do not add or replace refrigerant other than the specified type. Manufacturer is not responsible for the damage and deterioration in safety due to usage of other refrigerant.