ECONAVI with Intelligent Eco Sensors

Panasonic has employed ECONAVI (Human Detection Technology) on its air conditioner beginning in 2007 and perfected the feature since its launch. Panasonic is now introducing ECONAVI air conditioner to the US market.

ECONAVI's smart technology monitors and senses when there are people in the room and determines how much activity is occurring, then automatically adjusts the temperature setting accordingly for optimum operation.

The low activity detection mode monitors the room, decreasing cooling 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.

Absence Detection

ECONAVI detects human absence in the room and raises the target temperature.

No one is in the room. Detects absence.

Gradually modulates cooling power by setting the new target temperature (set temp +4°F)

Activity Detection

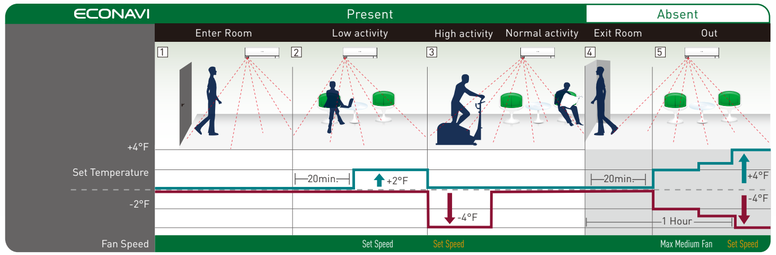
ECONAVI detects changes in activity levels and reduces the cooling power by adjusting set temperature.

Level of activity is decreased. Detects low activity.

Reduces cooling power by setting new target temperature (set temp +2°F)

ECONAVI in cooling mode: *The target temperature set by ECONAVI will be restored automatically to the set temperature when a new condition is detected.

HOW DOES ECONAVI HUMAN ACTIVITY WORK?



Remark: Set temperature on remote control display remains unchanged.

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

Panasonic

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Air Conditioning Group
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WWW.PANASONIC.COM/AIRCON

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

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

30 YEARS Anniversary

Serving the US Ductless market since 1983

Caution Related to Safety 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.

JUNE 2013

Panasonic

EXTERIOS

ROOM AIR CONDITIONING

SEER 28.5

June 2013

Panasonic Adds a "NEW Air Conditioner" Line-up...
Setting Another Milestone in the History of Ductless Split.

Indoor Unit
CS-XE9PKUA / CS-XE12PKUA

SEER 28.5

No.1* High Energy Efficiency*

Breakthrough technology such as the inverter, enables the highest energy efficiency* in the industry. Thanks to this exceptional performance, you can enjoy more comfort.
*CS/CU-XE9PKUA as of March 2013

LOW AMBIENT OPERATION

Powerful Heating at Low Ambient

Heating is still possible even if the temperature drops as low as 0°F for reliable heating in the middle of the harshest winter.

INVERTER

Inverter Technology

Panasonic's inverter technology provides optimum power control and extremely efficient operation by changing the power supply frequency. The result is speedy, flexible operation using less electricity.

Innovative Inverter Technology

The inverter constantly adjusts the compressor rotation speed to provide optimum performance at all times. After reaching the set temperature, an inverter air conditioner continues to operate with minimum power to avoid unnecessary electricity consumption. Conventional non-inverter air conditioners can only operate at a constant speed, switching the compressor ON and OFF to maintain the set temperature, which wastes electricity.

■ **Advantages of Inverter Control**
Comparing inverter and non-inverter air conditioners to cars.

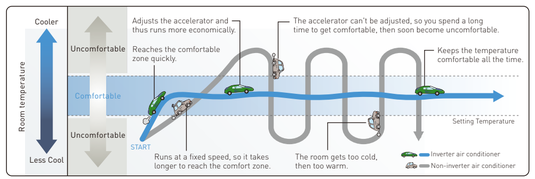
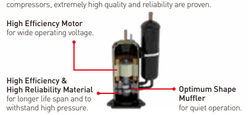
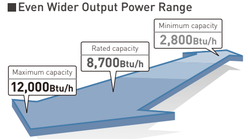


*Image of output power fluctuation

Inverter Compressor
Panasonic's Inverter Compressor can achieve high efficiency under high load conditions. With accumulated production of 200 Million compressors, extremely high quality and reliability are proven.



■ **Even Wider Output Power Range**



The graph shows CS-XE9PKUA's wide power output range during cooling.

Wireless Remote Controller

Room Freeze Protection

Outdoor Unit
CU-XE9PKUA
CU-XE12PKUA

Specifications

Model No.			XE9PKUA		XE12PKUA	
Unit Model No.			Indoor Unit	Outdoor Unit	Indoor Unit	Outdoor Unit
			CS-XE9PKUA	CU-XE9PKUA	CS-XE12PKUA	CU-XE12PKUA
Performance & Electrical Ratings						
Capacity	Cooling	Btu/h	8,700(2,800~12,000)		11,500(2,800~14,000)	
	Heating	Btu/h	12,000(3,000~18,000) (10,600 at 17°F)		13,800(3,000~23,000) (13,500 at 17°F)	
Moisture Removal	High	Pints/H	1.3		2.3	
Dry Air Flow	High	CFM	405		530	
SEER	Cooling		28.5		25.5	
EER	Cooling		16.1		14.35	
HSPF	Heating		12.5		12.0	
Power Supply		V, Phase, Hz	230/208V, 1PH, 60Hz		230/208V, 1PH, 60Hz	
Running Amps	Cooling	A	2.5/2.8		3.8/4.2	
	Heating	A	4.0/4.5		5.2/5.8	
Power Input	Cooling	W	540(150-850)		800(150-1,050)	
	Heating	W	860(150-1,650)		1,150(150-2,100)	
Back-up Heater		kW	---		---	
Fuse or Circuit Breaker Capacity		A	15		20	
Features						
Controls			Microprocessor		Microprocessor	
Low Ambient Control			Equipped		Equipped	
Wireless Remote Controller			Included		Included	
Wired Remote Controller (optional)			CZ-RD516C		CZ-RD516C	
Fan Speeds			5 Speeds + Auto		5 Speeds + Auto	
Timer			24hr Program		24hr Program	
Air Deflection	Horizontal		Manual		Manual	
	Vertical		Automatic		Automatic	
Air Filter			Washable + Anti Microbial Filter		Washable + Anti Microbial Filter	
Refrigerant			R-410A		R-410A	
Refrigerant Control			Electric Expansion Valve		Electric Expansion Valve	
Operation Sound	In(Hi / Lo/ Q-Lo)	dB-A	42 / 25 / 20		45 / 28 / 20	
	Outdoor(Hi)	dB-A	48		49	
Refrigerant Piping	Type		Flare		Flare	
	Discharge	in.	1/4"		1/4"	
	Suction	in.	3/8"		1/2"	
Refrigerant Pipe Length		Ft.	Max. 66		Max. 66	
Elevation Difference*	Outdoor Above	Ft.	Max. 49		Max. 49	
	Outdoor Below	Ft.	Max. 49		Max. 49	
Dimensions & Weight			Indoor Unit	Outdoor Unit	Indoor Unit	Outdoor Unit
Height		in.	11-5/8"	27-3/8"	11-5/8"	27-3/8"
Width		in.	34-9/32"	34-15/32"	34-9/32"	34-15/32"
Depth		in.	10-1/16"	12-5/8"	10-1/16"	12-5/8"
Net Weight		Lbs.	24	97	24	97

* This is maximum elevation difference when the indoor unit is located above the outdoor unit.

Features

ECONAVI

ECONAVI features intelligent Human Activity Sensor and new technologies that can detect human activity and absence, and optimize air conditioner operation according to room conditions.

Room Freeze Protection

Room Freeze Protection mode helps prevent plumbing damage due to sub-Freezing Temperature. This mode automatically turns on the compressor for heat pump operation if the room temperature falls to about 46°F.

*This function may not be performed if the unit is not powered, or if the unit is unable to operate such as in protection mode. Please consult with the HVAC installers.

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 and easy-to-read LCD Display, gives the user the capability to adjust & set: temperature, sweep (louver control), fan speeds, timer and more, for complete automatic operation.

Dry Mode

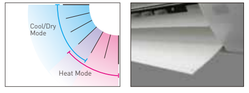
By coupling compressor and fan operation, intermittent operation can be precisely controlled according to room temperature, so that air is efficiently dehumidified.

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.

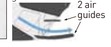
Air Sweep Control

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 so your hands and feet don't get cold.



Heating Mode
Warm feet and no direct breeze on your face mean even more comfort.

Louver Control

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

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 unit allows you to set a wide variety of timer-based operations. Such functions include automatic ON/OFF with a timer setting, same 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 preset program, after power is restored from a power failure when the remote control is in the room.

Hot Start Heating System

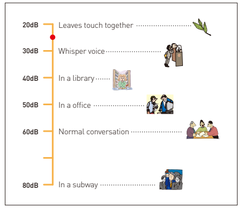
Right from the start, air is warm and comfortable. The Hot Start Heating System prevents any cold blasts at the beginning while the heat pump is warming up (Heat pump unit only).

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 step.

Quiet Mode

LOW, low fan speed for extra quiet operation.



Self-Diagnosing Function

Unit is equipped with Self-Diagnosing Function with remote controller. This makes it easier to diagnose malfunctions, reducing service labors.

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.