Room Heat Pumps 2.0

Cooling and Heating in a Small Package

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Go Electric! - benefits for homeowners

Lower energy bills
Cleaner indoor air
More comfort
Increased safety
Lower air pollution and carbon pollution

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What is a Room Heat Pump?

DIY Installed, self contained products
Heat and cool individual rooms or small apartments
Require ventilation through a window

	Active Defrost	Minimum Outside Temp for Heating	Maximum Outside Temp for Cooling	
Mild Climate Room Heat Pump	No	~40°F	95°F-110°F	Available
All Climate Room Heat Pump	Yes	5° F and below	~110°F	Available
Moderate Climate Room Heat Pump	Yes	10°F-20°F	~110°F	Coming Soon

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Mild Climate Room Heat Pumps

Air Conditioner with Supplemental Heat

Window Mounted

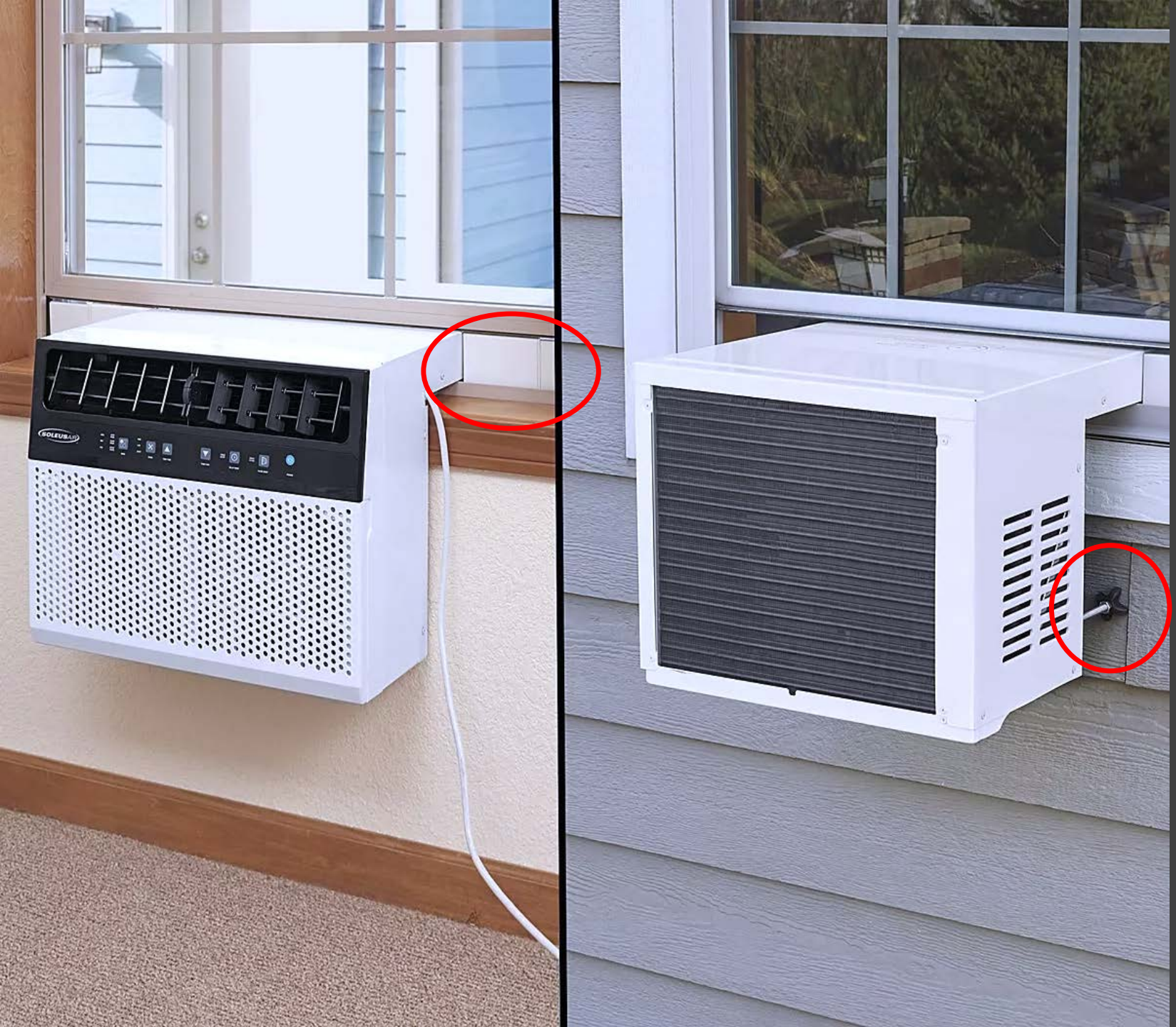
Saddle Mounted

Portable

$500-$800
Powerful cooling, heating, de-humidifying
Twice as efficient as electric resistance heating
3 times the heat output of a space heater
Standard 120V plug in
Do not provide heat when outside temps fall below 40° F - no defrost cycle
Do not qualify for Federal Tax credits

Window Mounted

- Sits inside window opening
- Vertical sliding windows only
- Screwed to window frame
- May need external support
- Window not operable
- Blocks view through window
- Large window sealing area
- 120V and 240V models – be sure you get the right one!
- AVOID MODELS WITH ELECTRIC RESISTANCE HEAT – only 3500BTU/hr versus 10,000BTU/hr for HP models

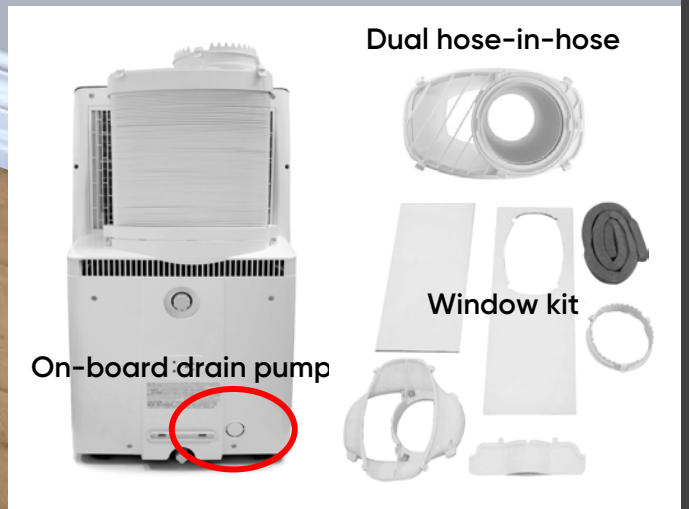


Saddle Mounted

- Straddles external wall
- Vertical sliding windows only
- No permanent fixtures
- Window remains operable
- Does not block view
- Quieter – condenser outside
- Much smaller window sealing area
- Wall thickness limitations - check before buying!

Portable

- Entire unit is inside
- Window kits work with vertical and horizontal sliding windows
- Large window sealing area
- No permanent fixtures
- Easiest installation
- Window remains operable
- Single and dual hose models
- Dual hose prevents negative pressure – more efficient
- SINGLE HOSE MODELS NOT RECOMMENDED
- Condensate created in heat mode
- On-board drain pump recommended



Key Features for Mild Climate Room Heat Pumps

How to get the best product for the money

120V Power

Some window units are 240V – check before you buy! Needs a plug near the installation

Heat Pump Heating

3,500 BTU/hr means electric resistance heat!

Energy Efficiency

Look for 12+ CEER or Energy Star rating

Noise Level

Look for 45 dBA or less on low power setting

Dual Hose & Drain Pump

Portable models should have both features for efficiency and convenience

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120V Mild Climate Room Heat Pump Model Comparison

	Window Mounted				Saddle Mounted		Dual Hose Portable w/ Drain Pump		
									
	Midea MAW08HV1CWT	Midea MAW12HV1CWT	Frigidaire FHWH124WB2	Friedrich KHVS10B11A	Soleus WS5-10HW-301	Soleus WS5-12HW-301	Midea Duo MAP14HS1TBL	Cooper Hunter CH-STLS-14AC	Whynter ARC-122DHP
Room Size	350	550	550	450	475	550	550	550	400
Price[1]	$379	$479	$659	$1,649	$699	$789	$699	$599	$559
Operating Temp[2]	41°F-109°F	41°F-109°F	40°F-109°F	40°F-115°F	40°F-115°F	40°F-115°F	41°F-95°F	41°F-95°F	45°F-90°F
Cooling BTU/hr	8,000	12,000	12,000	10,200	10,000	12,000	14,000	14,000	12,000
CEER	14.5	13.3	10.9	14	13	13	14.2	8.9	6.9
Heating BTU/hr	7,000	10,000	11,000	8,700	10,000	10,000	12,000	12,000	10,000
Energy Star	Yes	Yes	No	Yes	Yes[3]	Yes[3]	Yes[3]	No	No
Inverter	Yes	Yes	?	Yes	Yes	Yes	Yes	Yes	?
Drain Pump	NA	NA	NA	NA	NA	NA	Yes	Yes	Yes
Loudness (on low)	45 dBA	45 dBA	54 dBA	? dBA	38 dBA	38 dBA	42 dBA	47 dBA	47 dBA
WiFi / App	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No

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1. Prices as of 6/25 – actual prices may vary
2. Outside minimum and maximum temperature for effective heating and cooling
3. Meets or exceeds minimum Energy Star requirement for cooling efficiency (Ceer 12)

All Climate Room Heat Pumps

Portable, Year-round Heating and Air Conditioning

Gradient All Weather Window HP

Midea Packaged Window HP

Gree Ultra Heat Window AC

$3,000-$4,000
Heating down to -13° F
Super High efficiency COP 1.8-4.0 similar to ductless systems
Standard 120V plug in 15A
Just becoming available now
May qualify for federal IRA tax credits – 30% of cost up to $2,000

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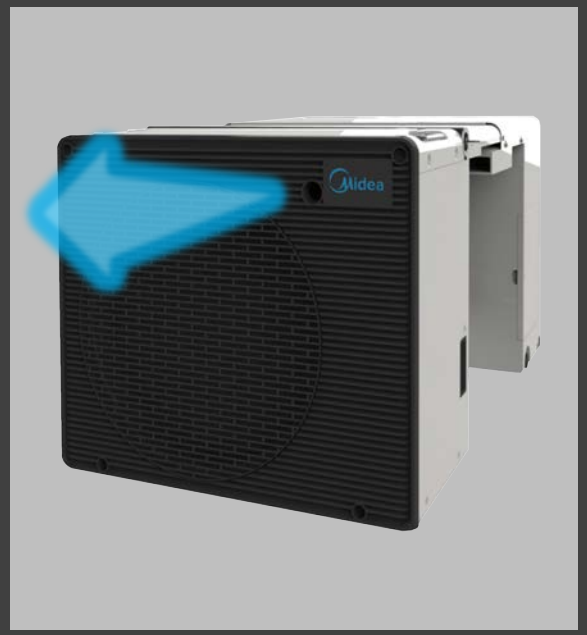
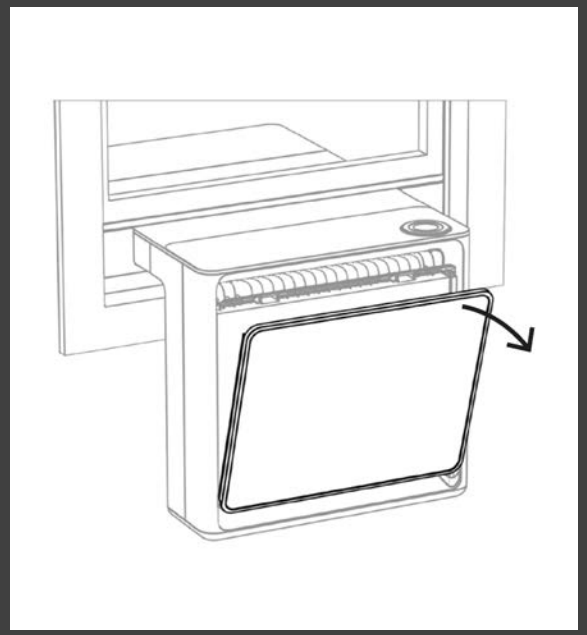
Key Features for All Climate Room Heat Pumps

110 - 140 lbs
2 people to install
Mounting brackets,
Window sealing
included

27" - 29" minimum
window width
Vertical sliders only
Needs plug nearby



Onboard atomizer
disperses condensate
automatically
Gradient/Midea



MERV 13 air filter
Available for
Gradient model

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120V All Climate Room Heat Pump Model Comparison

	Saddle Mounted		Window Mounted
			
	Gradient All Weather Window HP	Midea Packaged Window HP MWCUPWHP-09HEFN8-BCL1	GREE Ultra Heat Window AC GJH09BW-A6DRNL1A
Price[1]	~$3,500	~$3,000	~$3,000 – $3,500
Operating Temperature[2]	-13°F to 115°F	-13°F to 112°F	-8°F to 110°F
Cooling BTU/hr	9,300	9,000	9,000
CEER / HSPF	16.8 / 9.3	17.6 / 10.12	15.2 / ?
Heating BTU/hr, COP @ 47°F	9,000 – 4.0	9,000 – 3.8	9,900 – 3.2
Heating BTU/hr, COP @ 17°F	9,000 – 2.4	9,000 – 2.5	9,000 – 2.0
Heating BTU/hr, COP @ 5°F	7,200 – 2.0	9,000 – 2.0	?
Heating BTU/hr, COP @ -13°F	7,000 – 1.6	6,200 -1.4	?
Unit Size and Weight	25.5"W x 24"H x 37"D 140 lbs	25" W x 21"H x 33"-41"D 130lbs	26"W x 15"H x 27.5"D 110 lbs
Wall Thickness	6.25" – 20"	6.15" – 15.75"	NA
Loudness Low/High	38/47 dBA	29/51 dBA	43/? dBA
Condensate Management	On board atomizer	On board atomizer	Internal Tank
Qualifies for IRA 25CTax Credit	YES	YES	?
Air Filter	MERV 13	Mesh	Mesh

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2. Outside minimum and maximum temperature for effective heating and cooling

Guest Panelists

Christopher Dymond – Northwest Energy Efficiency Alliance (NEEA)
Christopher is a Senior Product Manager at NEEA and a co-founder of the Advanced Heat Pump Coalition. His research focuses on variable speed heat pumps technologies for space heating and cooling. He has a master's degree in building systems engineering and over 25 years of experience in energy efficiency and solar energy technologies.

Sean Armstrong - Managing Principal, Redwood Energy
Sean is a leading building efficiency and electrification expert in North America and has co-authored five user-friendly guides to building electrification including the **Pocket Guide to All Electric Retrofits of Single Family Homes**. His firm, **Redwood Energy**, has led the nation in residential Zero Net Energy design since 2011 .

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