



The GSUJ High Efficiency Ground Source Heat Pump

Unbeatable Comfort Teamed with Geothermal Technology

Trane's geothermal units are among the most efficient and environmentally responsible, residential heating and cooling units in the industry. With the feature packed, vertical configuration, you can expect effortless comfort for years to come.

The GSUJ model spotlights such options as: internal electric back-up heat, an ICM blower motor for optimum energy efficiency, a desuperheater hot water system, and a cabinet design that allows access to all major components.

The compact unit design may be installed just about anywhere indoors. The unit is available in a left or right-side return-air configuration; and sizes that range from 1 1/2 to 6-tons. The unit is constructed from heavy gauge steel with an electrostatic powder-paint finish.

Each unit is specifically designed for service and maintainability. It includes features such as: a three-piece front panel, swivel water fittings, and a hinged filter rack. A high efficiency scroll compressor is provided on all GSUJ models. It comes equipped with an internal over load safety device. HIGH and LOW pressure safety cutouts are also placed on the refrigeration circuit.

Each GSUJ model contains a co-axial water-to-refrigerant heat exchanger. This heat exchanger is engineered for maximum heat transfer, and minimum fouling and scaling. All low-side tubing in the refrigeration circuit is insulated to prevent condensation from forming in the unit.

A desuperheater option provides heat recovery of the system. This feature offers a low cost means of heating water while in the heating mode, and virtually free hot water heating while in the cooling mode.

The standard PSC blower motor offers flexibility to the contractor to change blower speeds easily allowing it to adapt to various duct designs. An optional ICM variable speed blower motor offers increased efficiency, better humidity control, and reduced air noise, while providing higher comfort levels to the home owner.



Design Advances

ICM Air Flow Options

The ICM blower motor option is capable of increasing or decreasing (dependent upon capacity demand) the nominal air flow by 10 or 20%. That means an increase from 400 cfm to 440 cfm per ton, or 400 cfm to 480 cfm per ton, or a decrease of 400 cfm to 360 cfm per ton, or 400 cfm to 320 cfm per ton.



Internal Electric Heat Kit Option

Back-up heat for the GSUJ is available in all unit sizes for field installation. It is available in 5, 10, 15 and 20 kW options.

Desuperheater Option

The factory installed desuperheater package uses heat rejected from the unit to preheat a home's domestic hot water.



Accessible Control Box

The unit controls are accessible by sliding out the control box drawer. This design allows diagnostic testing while the unit is in operation.

Drain Pan

Each unit contains a removable, cleanable drain pan to improve indoor air quality. This condensate pan discourages condensate build-up and microbial growth.

Co-axial Heat Exchanger

The co-axial water-to-refrigerant heat exchanger is a tube-within-a-tube design in which the inner tube contains a deep fluted curve to enhance heat transfer while making it more resistant to corrosion. This heat exchanger is available in a copper, or cupro-nickel selection to fit various installation conditions.



Table 1: PSC Blower Motor Performance at GLHP Conditions

Model Number GSUJ	Cooling		Heating	
	EER	Mbtuh	COP	Mbtuh
018	16.10	18.80	3.20	14.30
024	16.00	22.90	3.40	18.90
030	16.20	28.40	3.70	23.20
036	17.30	34.90	3.90	27.00
042	17.20	42.20	3.40	29.80
048	15.20	44.90	3.50	37.90
060	15.30	61.80	3.30	45.20
072	14.30	66.70	3.20	50.60

Table 2: ICM Blower Motor Performance at GLHP Conditions

Model Number GSUJ	Cooling		Heating	
	EER	Mbtuh	COP	Mbtuh
018	16.00	18.90	3.30	14.30
024	16.00	23.10	3.30	18.40
030	18.10	29.10	3.80	22.50
036	17.80	34.80	3.90	26.60
042	17.50	42.10	3.40	29.70
048	17.20	46.80	3.90	36.80
060	16.50	63.10	3.50	44.40
072	15.00	67.70	3.40	49.50



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For more information, contact your local district office or e-mail us at comfort@trane.com

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