SunStar®
INFRARED GAS HEATERS

HEAT LOSS ESTIMATING CHART FOR RESIDENTIAL GARAGES

Garage Size	Building Data	Btu/hr per Sq. Ft. Based on Temperture Differential - Fahrenheit						
Sq. Ft.		35°ΔT	45°ΔT	55°ΔT	65°ΔT	75°ΔT	85°ΔT	95°ΔT
1 Car								
264	12' X 22' - Ceiling Height = 9ft. 3" Insulation in Walls and Roof Est. Air Change/Hr. = 1.25 One 8'X8' Overhead Door	26	33	40	48	55	62	70
308	14' X 22' - Ceiling Height = 10ft. 3" Insulation in Walls and Roof Est. Air Change/Hr. = 1.25 One 10'X10' Overhead Door	25	32	39	46	53	61	68
2 Car								
576	24' X24' - Ceiling Height = 10ft. 3" Insulation in Walls and Roof Est. Air Change/Hr. = 1.25 Two 8'X8' Overhead Doors	22	28	34	40	46	52	58
3 Car								
988	38' X 26' - Ceiling Height = 10ft. 3" Insulation in Walls and Roof Est. Air Change/Hr. = 1 Three 10'X10' Overhead Doors	20	25	31	36	42	48	53
1200	40' X 30' - Ceiling Height = 10ft. 3" Insulation in Walls and Roof Est. Air Change/Hr. = 1 Three 10'X10' Overhead Doors	18	23	28	33	38	43	49

To estimate the heat loss of a garage/building, locate the line that is closest to the square footage of the garage. Follow the line across to the column that corresponds to the temperture differential (the desired inside design temperature less the outside design temperture) for that garage. Multiply the area of the garage by the Btu/hr per sq. ft. listed in that column. EXAMPLE: 24' X24' Garage with 3" insulation in the roof and walls, located in Columbus, Ohio. Inside Design Temperture of 65˚F. Outside Design Temperture of 0˚F. For a 576 sq.ft. garage the chart indicates 40 Btu/hr per sq.ft. at a Temperture Differential of 65˚F . The estimated garage heat loss would be 23,040 Btu/hr (24' X24' X 40 Btu/hr per sq. ft.) Therefore, an infrared heating system equal to or exceeding 23,040 Btu/hr should be selected. Definition of Delta T (ΔT) - Difference in Temperture. Example: If the Inside design temperture is 65°F, and the outside design temperture is 30°F, the (ΔT) Delta T is (65°F - 30°F =) 35°F.

This chart should be used as a guidline for sizing the infrared heating system using SunStar heaters and is based on certain data and assumptions. The designer should adjust the recommendation if the building usage and characteristics vary significantly from examples. Deleted or inaccurate information and other factors that are not included within the data and assumptions could have a bearing on the results. The heat loss projection provided is intended only as an illustration and is provided as a service to SunStar customers.

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