— Electric Heating Solutions —

A BLANKET OF WARMTH FOR HARD TO HEAT AREAS

INFRARED HEAT



BERKO®

A Marley Engineered Products Brand

Comfort Heat. For any Space.

Our infrared heaters provide unmatched warmth, longevity, energy efficiency, and sleek design to seamlessly integrate into any space. Say goodbye to cold spots and high energy bills, and say hello to comfort heat. For any space.

FRP/FRS Metal Sheath Offering *High Traffic Areas*	**FRP/FRS — Flush Mount** Quartz Offering *Localized Heating, Snow Melting*	**Thermazone** High Density Ceramic *Localized & Area Heating*	**Thermazone Thin** High Density Ceramic *Localized, Luxury Heating*
Impact ✓✓✓	Impact ✓	Impact ✓✓	Impact ✓
Vibration ✓✓✓	Vibration ✓	Vibration ✓✓✓	Vibration ✓✓✓
Splashing ✓✓✓	Splashing ✓✓✓	Splashing ✓	Splashing ✓
Wind ✓	Wind ✓✓	Wind ✓✓	Wind ✓✓

RESPONSE TIME, DESIGN TO SPEC, INTENSITY/OUTPUT, EFFICIENCY

Infrared technology permits the heating of areas where it is impractical, either economically or physically, to heat air. The physics that causes warm air to rise and cool air to fall are constantly working against forced air heating systems, particularly in outdoor or high ceiling areas. The radiant heat energy emitted by infrared heaters is transferred directly to the people and objects under them. It is the same principle that allows the sun to make a clear, cold day feel warm. The radiant energy from infrared heaters can be directed and focused in any direction to evenly blanket people and equipment with comforting warmth, free from drafts and noisy fans or blowers.

INSTANT & TARGETED HEAT
Infrared energy delivers direct, uniform and localized heat — heating people and objects rather than the air, just like the sun.

CLEAN & SAFE HEAT
No fumes, odors or combustion. Does not circulate dust or other irritants and allergens.

LOW MAINTENANCE
No filters or moving parts to service.

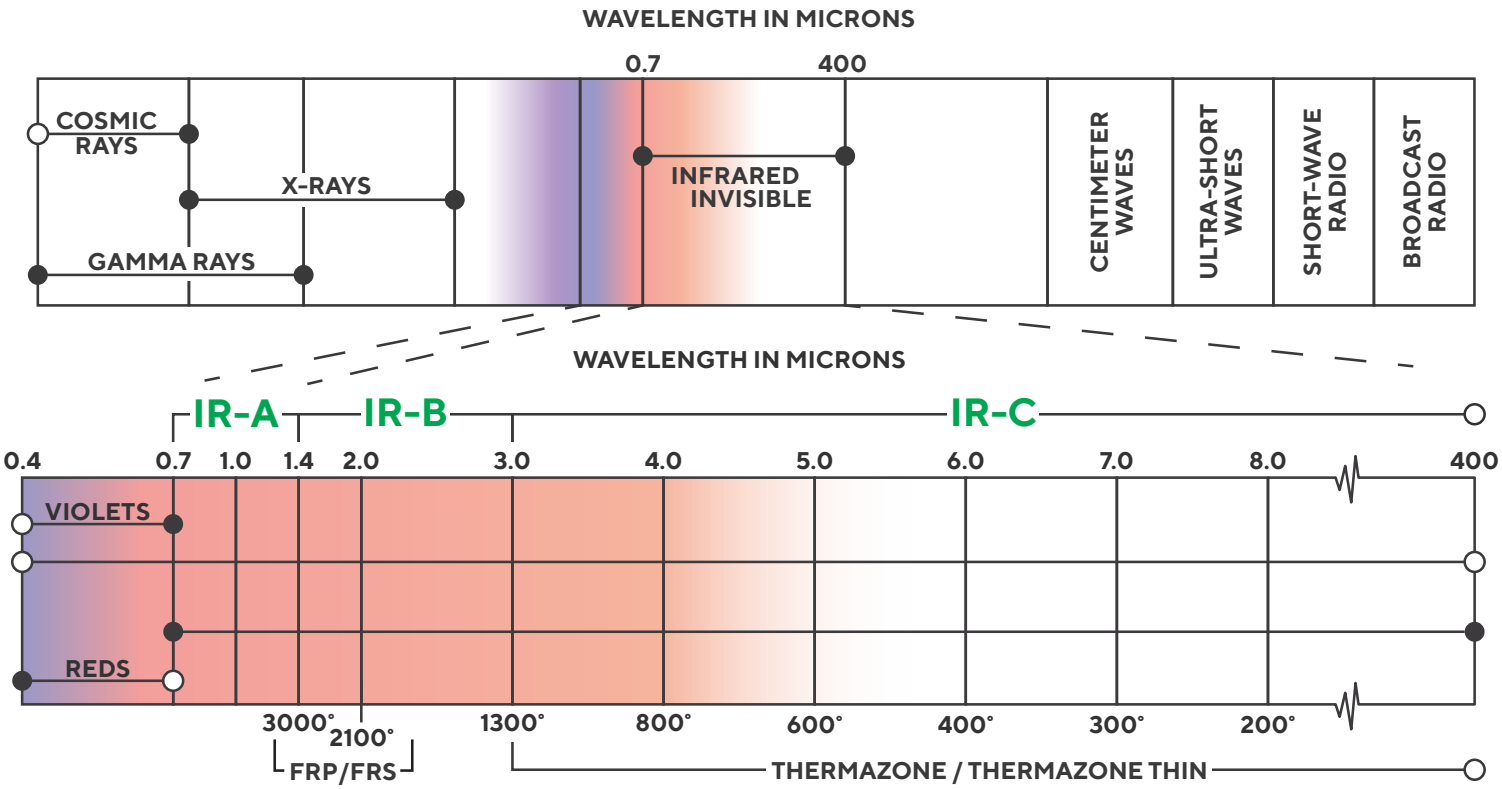
EASY TO INSTALL
No need for gas lines, ducting or venting.

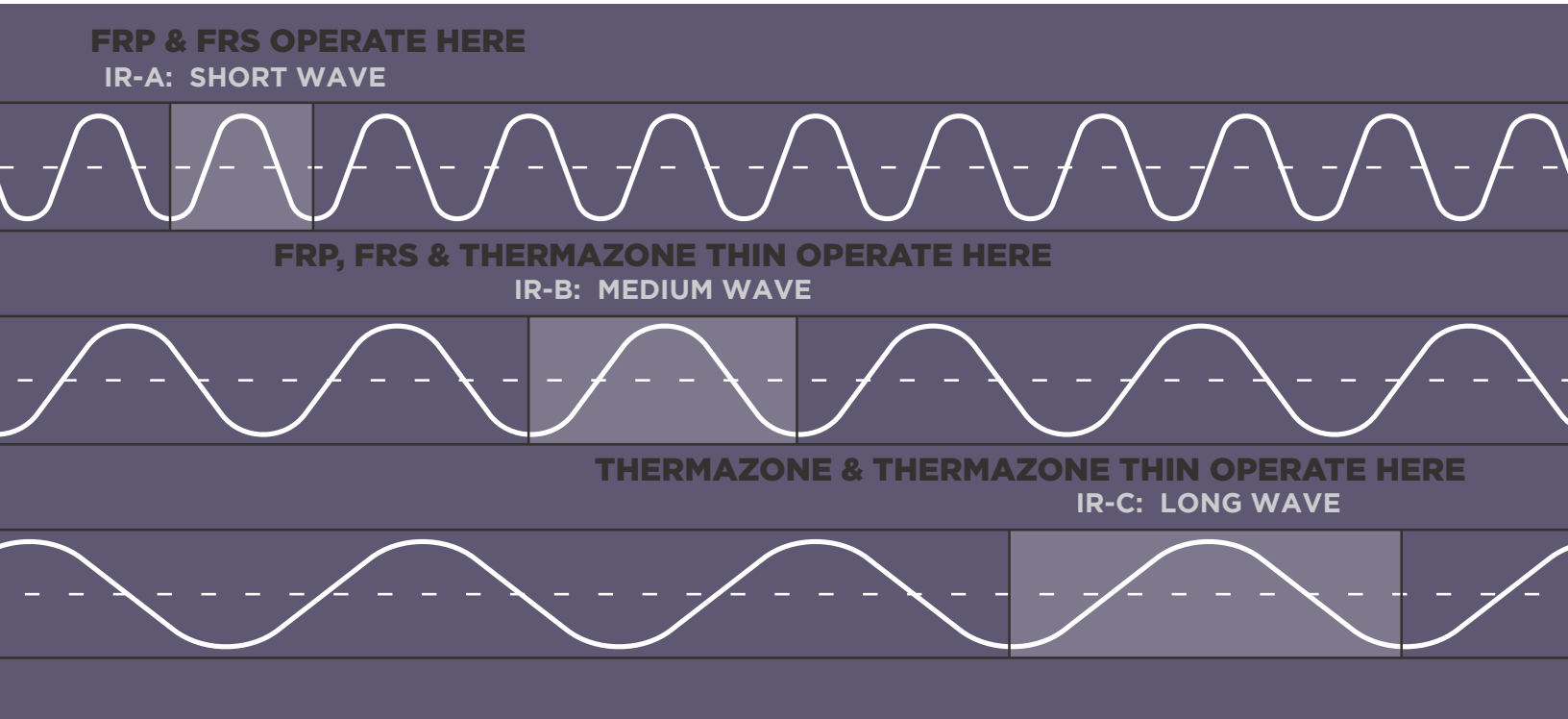
ENERGY EFFICIENT
Optimized shortwave infrared energy delivers continuous comfort efficiently without energy waste due to the wind and heating of the surrounding air.

MONEY SAVINGS
Minimal upfront costs due to material and labor. Minimal energy usage and no need to purchase propane or other fuels to maintain operation.

Research Shows the Infrared Waveband Produces Ideal Comfort Heat

The infrared or IR waveband is often subdivided into three regions: IR-A (.7–1.4 µm), IR-B (1.4–3 µm), and IR-C (3–1000µm). IR causes a heating effect when it strikes a surface. In the case of comfort heating, this is normally the skin. However, not all IR is converted to heat. IR can be absorbed or reflected. In the comfort heating world, we want to fall into the absorption range as much as possible. Good absorption directly correlates to better comfort heat. Generally, the longer the IR wave, the more absorption will occur (IR-C) and the shorter the wave, the more IR is reflected off of the skin (IR-A & IR-B).





Where Aesthetics Meet Efficiency

Berko produces heating elements that span the full range of the IR waveband, designed to meet the specific heat requirements of your space. Utilizing the full width of the IR spectrum maximizes our ability to blend response time, intensity and efficiency while giving you the flexibility to choose the best heater for your application. Berko's line of Infrared Heaters produces absorbable heat that spreads throughout the space. Once in the space, objects such as the floor, walls and furniture act as a thermal mass to absorb and store this heat, gently releasing it back into the space to continue warming the room. By producing heat that can be easily absorbed by our bodies, as well as other surfaces in the space, we are translating every penny you spend on energy into usable comfort heat.



THERMAZONE



THERMAZONE THIN®

NO MOVING PARTS

Nothing to break or wear out means the Thermazone is maintenance free.

NO REFLECTORS TO CLEAN

No bulbs mean no need for reflectors. Another reason Thermazone heaters require zero maintenance.

NO ORANGE GLOW

Every Thermazone has a clean, black face which does not give off any light, meaning it neatly blends into the background.

NO BULBS

Save yourself money and frustration by never having to replace a bulb.

100% ELECTRIC

No flames or noxious gasses means Thermazone heaters are odor free and do not require ventilation.

95% ENERGY EFFICIENT

Virtually all of the energy provided to the heater is converted into useful heat.

For Spaces that Require High Output and Optimal Design Flexibility

The Berko infrared heater line is designed with multiple configurations and options to meet the unique requirements of any environment. Whether you need targeted spot heating or snow melting solutions for harsh winter conditions, our systems deliver exceptional performance and reliability. With a focus on flexibility, our products adapt seamlessly to your specific needs, ensuring optimal efficiency and comfort. Ideal for residential, commercial and industrial applications, our solutions provide the perfect balance of functionality and design.



FRP & FRS INFRARED

Elevate the safety and comfort of your outdoor spaces with infrared heat from Berko. The 2- or 3-element models provide concentrated heating capacity in a single infrared radiant heater. Specifically designed for high output and rapid response, these heaters are the perfect solution for supplemental or spot heating target areas.



FRP & FRS INFRARED WITH RECESSED FRAME

Keep visitors warm and comfortable with our recessed infrared heater. This heater combines an FRP or FRS infrared unit with an additional trim kit accessory that enables the heater to be used in spaces with overhangs without consequence of wind or inclement weather adversely affecting the installation of the heater or obscuring the surrounding views.

Preserve sight lines and reclaim space with a mostly hidden heat source that installs right in the ceiling.









		Thermazone	Thermazone Thin	FRP & FRS
FEATURES	kW Range	Up to 6.5 kW	Up to 4.3 kW	Up to 10.9 kW
	Phase	1 or 3	1	1 or 3
	Standard Control Voltage	120–600V	120–240V	208–600V
	Mounting Options	Wall, Ceiling, or Hung	Wall or Ceiling	Wall, Ceiling, or Recessed
	Reflection Angles	60° Symmetrical	60° Symmetrical	30° Symmetrical, 60° Symmetrical, 60° Asymmetrical, or 90° Symmetrical
	Wavelength	Long	Long or Medium	Medium or Short
	Warranty	Workmanship: 1 Year Element: 5 Years	Workmanship: 1 Year Element: 5 Years	Workmanship: 1 Year Quartz Tube: 2 Years Quartz Lamp: 2 Years Metal Sheath: 5 Years
	Maintenance	None	None	Low
	Agency Approvals	c UL us CE	c UL us CE	ETL Intertek
CONSTRUCTION	Housing Material	16- and 20-Gauge Steel	16- and 20-Gauge Steel	20-Gauge Galvannealed Steel
	Heating Element Type	High-Density Ceramic Fiber	High-Density Ceramic Fiber	Metal Sheath, Quartz Tube, Quartz Lamp
	Emitter Type	Flat Panel	Flat Panel	High Density Bulbs (2 or 3)
	Reflectors	None	None	Heavy-Gauge Gold Anodized
	Finish	Black or Stainless Steel	Black or Stainless Steel	Bronze or Stainless Steel
	Moving parts	No	No	No
	Protective Options	Stainless Steel Grid	—	Wire Guard



		Thermazone	Thermazone Thin	FRP & FRS
DIMENSIONS	Height	Heater Alone: 5 ½″ With Bracket: 14 ½″	Heater Alone: 4″ With Bracket: 9″	2 Element: 9″ 3 Element: 9 ¼″
	Width	12″	8″	2 Element: 20″ 3 Element: 26 ¼″
	Length	Model 1x: 12 ¼″ Model 2x: 24 ¼″ Model 4x: 48 ¼″	18″ Model: 23 ¾″ 36″ Model: 41 ¾″	24″ Model: 24 ½″ 33″ Model: 33 ½″ 46″ Model: 46 ½″
CLEARANCES	Between Heaters	36″	36″	36″ Side-by-Side 0″ End–to–End
	To Side Walls	Wall Mounted: 4″ Ceiling Mounted Vertical: 36″ Ceiling Mounted Angled Away: 4″ Ceiling Mounted Angled Toward: 72″	Wall Mounted: 7″ Ceiling Mounted Vertical: 36″ Ceiling Mounted Angled Away: 7″ Ceiling Mounted Angled Toward: 72″	24″
	To Ceiling	Wall Mounted: 4″ Ceiling Mounted Vertical: 4″ Ceiling Mounted Angled Away: 4″ Ceiling Mounted Angled Toward: 4″	Wall Mounted: 7″ Ceiling Mounted Vertical: 4″ Ceiling Mounted Angled Away: 7″ Ceiling Mounted Angled Toward: 4″	6″
	To Floor	72″	72″	84″
	To Overhang	18″	12″	no restrictions
HIDDEN AESTHETICS	Recessed Ability	—	—	★★★
	Silent	★★★	★★★	★★
	Ceiling Mounted	★★★	★★★	★★★
	Wall Mounted	★★★	★★★	★★★
	Suspended	★★★	★★	★★★
	Blend into Environment	★★	★★	★★
	Zero Light	★★★	★★★	—
	Odor Free	★★★	★★★	★★★
	Zone Control	★★★	★★★	★★★
	Instant Heat	★★	★★	★★★
PERFORMANCE	100% Electric	★★★	★★★	★★★
	Efficiency	90%+	95%+	Metal Sheath Element: 60%+ Quartz Tube Element: 80%+ Quartz Lamp Element: 80%+
	Zone Control	★★★	★★★	★★★

★★★ Ideal | ★★ Suitable | — Not Recommended

Application Environments

		Thermazone	Thermazone Thin	FRP & FRS	
				Standard	with Recessed Frame
INDUSTRIAL	Airports	★★	—	★★★	—
	Airplane Hangars	★★	★★	★★★	—
	Autobody Shops	★★★	—	★★★	—
	Animal Pens* (Ventilated)	★★★	★★	—	—
	Barns* (Ventilated)	★★★	—	★★	—
	Factories	★★★	★★	★★★	—
	Garages	★★★	★★★	—	—
	Greenhouses	★★★	★★★	★★★	—
	Loading Docks	★★★	★★★	★★	—
	Parking Garages	★★★	—	★★★	—
	Repair Shops	★★★	★★★	★★★	—
	Stables* (Ventilated)	★★★	★★	★★	—
	Transportation Terminals	★★★	★★	★★★	—
	Warehouses / Storage Facilities:	★★★	★★★	★★★	—
	Water* & Other Treatment Facilities	★★★	—	★★★	—
	Workshops/ Work Stations	★★★	★★★	★★★	—
	Zoo Pens* (Ventilated)	★★★	★★	—	—
HOSPITALITY	Car Rental Stations	★★★	★★★	★★★	—
	Hotel Entryway Foyers	★★	★★	★★	★★★
	Outdoor Patios	★★	★★	★★	★★★
	Restaurants	★★	★★★	—	—
	Retail Stores	★★	★★★	—	★★★
	Showrooms	★★	★★★	★★	★★
	Smoking Areas	★★	★★★	★★	—
	Walkways	★★	★★★	★★	★★★
RECREATIONAL	Stadiums/Arenas	★★★	★★★	★★★	—
	Driving Ranges	★★★	★★★	★★★	—
	Fitness Studios	★★★	★★★	—	★★★
	Gymnasiums	★★	★★	—	—
	Ski Resorts	★★	★★	★★	—
	Swimming Pools	★★	★★	★★★	—
	Valet Stands	★★	★★★	★★	—

★★★ Ideal | ★★ Suitable | — Not Recommended

Infrared Products for Harsher Environments

Designed for durability and efficiency, our infrared products for harsher environments are ideal for locations where traditional heating methods fall short. Whether it's extreme temperatures, dust, or moisture, trust our technology to deliver reliable warmth and comfort when you need it most.

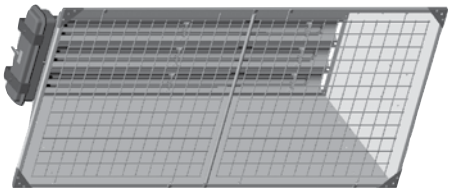


HRK SERIES

Commercial/Industrial Infrared Heater

This infrared heater's steel internal parts and high-quality finish make it a reliable, easy to maintain choice for industrial environments where durability is key. Ideal for personalized comfort at workstations, toll booths and other locations where harsher conditions exist.

Element Type: Quartz Lamp
Reflection Angles: 60° Symmetrical
Output Range: 1.5kW–3.0kW



BRM SERIES

Industrial Washdown Infrared Heater

Industrial stainless steel infrared heaters provide fan-free warmth in open areas like repair bays, walkways, assembly areas, foundries and loading docks.

Element Type: Metal Sheath
Reflection Angles: 90° Symmetrical
Output Range: 2.0kW–13.0kW



Find out how you can incorporate Infrared Heat into your next supplemental heating spec.

Visit us at MarleyMEP.com or contact your Berko representative.

Selecting the Right Heater for Your Space.

Evaluating several key factors can help you identify the best product and model for your space. Keep these elements in mind when selecting the right infrared heater for your needs, or **consult your MEP sales representative for additional design assistance**.

TYPE OF APPLICATION
Area heating, snow melting, or spot heating

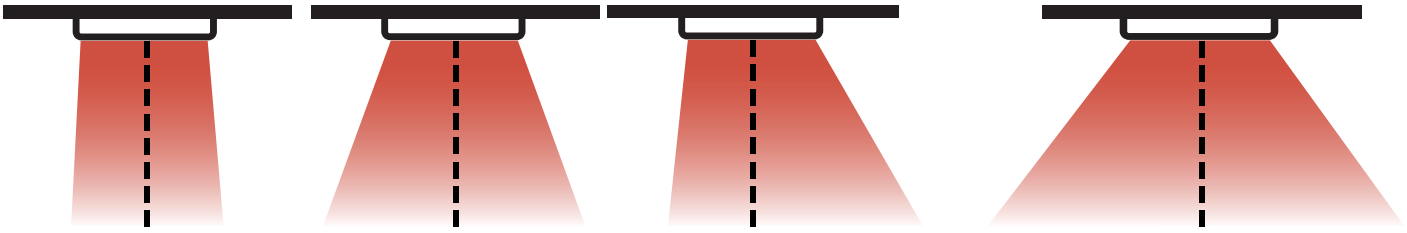
TYPE OF ENVIRONMENT
Outdoors, indoors, marine or corrosive atmospheres

DESIGN AREA
Square footage, objects/people standing or sitting

WATTAGE REQUIREMENT
Calculated by the area size and desired temperature rise

MOUNTING HEIGHT
Mounting height will be determined by the application restrictions and requirements. The higher a heater is mounted the more area it covers, but the less intense the heat will feel. Multiple heaters can be overlapped in high mounting applications to increase the intensity at the floor.

HEATING ANGLE



30° SYMMETRICAL | 60° SYMMETRICAL | 60° ASYMMETRICAL | 90° SYMMETRICAL

HEATING ELEMENTS

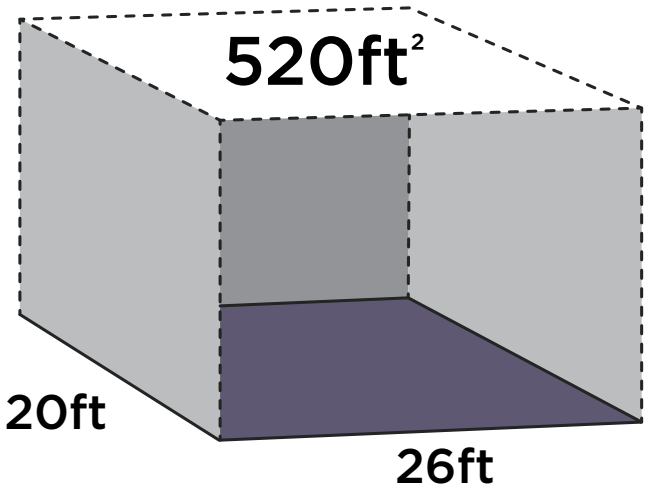
Metal Sheath *High Traffic Areas*	**Quartz Tube** *Indoor/Outdoor Area/Spot Heating*	**Quartz Lamp** *High Bays, Snow Melting*	**Flat Panel Emitter** *Indoor/Outdoor Area/Invisible Heating*
Impact ✓✓✓	Impact ✓	Impact ✓	Impact ✓✓
Vibration ✓✓✓	Vibration ✓	Vibration ✓	Vibration ✓✓✓
Splashing ✓✓✓	Splashing ✓✓✓	Splashing ✓✓	Splashing ✓
Wind ✓	Wind ✓✓	Wind ✓✓✓	Wind ✓✓

RESPONSE TIME, DESIGN TO SPEC, INTENSITY/OUTPUT, EFFICIENCY

ASSESS THE ZONES WITHIN YOUR SPACE
Areas within your space have different heating and aesthetic requirements. You do not need to implement a one-heater-fits-all approach! To achieve optimal comfort in each area, divide your space into smaller zones to select the optimal heater for each section.

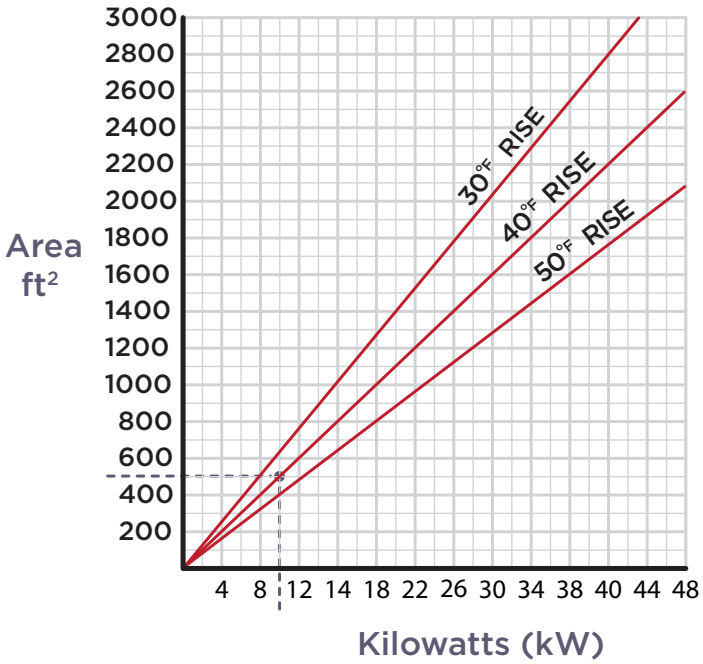
Calculating the Heating Needs of Your Space.

Not too cold, not too hot. A single Berko infrared heater can be used in smaller spaces, or multiple heaters can be used together to heat a larger area. Take the guesswork out of ordering and create a customized zone of comfort.



SIZE

Determine the approximate square footage of the area. For example, a 20 x 26 foot area is 520 square feet.



TEMPERATURE RISE

Identify the maximum temperature increase needed for the space (the lowest current temperature subtracted from the desired temperature). Using the following table, triangulate between the area's square footage with the necessary temperature rise to determine the kilowatts needed. For example, a 520ft² area needs about 11kW.

PRODUCT SELECTION

Factoring in the voltage, phase, and wattage requirement for the area, select appropriately sized heaters for your space. The number of heaters needed will be determined by their output and total kilowatts needed. Berko designs heaters suitable for wall or ceiling, suspended by chain or threaded rod, and flush mount kits to install in your ceiling.

CONTROLS

Berko offers a variety of controls based on your needs. In a smaller space, you might choose to manage each heater individually, but in larger spaces, its helpful to tie multiple heaters into a unified controller.

NEED HELP?

There are multiple combinations available, but which one is best for your space? Contact your Berko sales representative to discuss product combinations, placements, and controls for your unique space.

Controls

All Marley infrared heater models are capable of being regulated or “cycled” to control their heat output. Different methods of control offer different levels of efficiency so each application should be examined to determine which control method is most suitable. See below for a summary of controls and their key functions and options.



TIMER

This 120V/240V 20 Amp In-Wall Timer allows precise control over heater usage. Turn the dial to set the desired time, and the heater will automatically shut off when the time expires. Ideal for frequently used areas, but not for long durations.

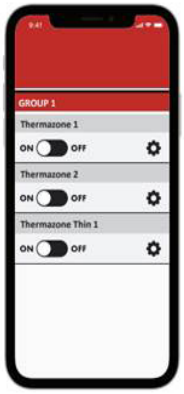
Product Compatibility: Thermazone, Thermazone Thin, and FRP/FRS



PERCENT TIMER

This 120V/240V 20 Amp Percent Timer offers easy control by cycling heater output. Two dials let you set the cycle time and the percentage of time the heater is on within that cycle. For example, if set to a 1-minute cycle at 75%, the heater will be on for 45 seconds and off for 15 seconds. This ensures precise temperature control and optimal efficiency, perfect for maintaining consistent temperatures in any area.

Product Compatibility: Thermazone and Thermazone Thin



Z-WAVE HUB

Berko’s Z Wave devices and technology provide a customizable control experience for residential and light commercial installations. Z-Wave devices use a hub and controller to create a mesh network, providing greater range and compatibility for area coverage. Heater output can be controlled by mobile applications or by wireless hand held or wall-switch controllers. Contact your Berko representative to help layout your area!

Product Compatibility: Thermazone, Thermazone Thin and FRP/FRS

*All controls mentioned above may be paired with Berko’s line of control panels for expanded use and zone control.



CONTACTOR & SSR cULus-LISTED CONTROL PANELS

Berko Contactor and SSR Panels are compatible with all heater models, configurations, and voltages. They allow for field designation of one or multiple zones, enabling customized control of individual or grouped heaters.

Each 30A or 60A circuit can support one or more heaters. These panels can be paired with thermostats, on/off switches, timers, and other low-voltage controllers. Berko's control panels come factory-wired for quick, efficient installation and offer an affordable solution for any project. Control options include SSR control, programmable color touch screen, potentiometer, and other low voltage controls. Custom designs are also available.

Product Compatibility: Thermazone, Thermazone Thin, and FRP/FRS



Recessed Trim Kit
for FRP & FRS
infrared heaters

The Hidden Comfort of Infrared Heat

without compromising
your building's aesthetics
for luxury applications

Two Twisted Posts Winery | Purcellville, Virginia

COMMON PROBLEM:

Heat outdoor areas for guests without the use of ventilation or fans.

UNIQUE VISION:

Enhance guest comfort and extend outdoor usability with efficient, discreet infrared heaters.



Solution

INFRARED HEATERS FROM MARLEY ENGINEERED PRODUCTS:

To heat the outdoor spaces, Berko infrared heaters from Marley Engineered Products were installed in covered areas including a crush pad with three open sides and on a covered porch along the length of the building. Ideal for indoor/outdoor, total or spot heating use, the infrared heaters feature heavy gauge bright anodized aluminum reflectors and a steel enclosure.

New Era Field | Buffalo, New York

COMMON PROBLEM:

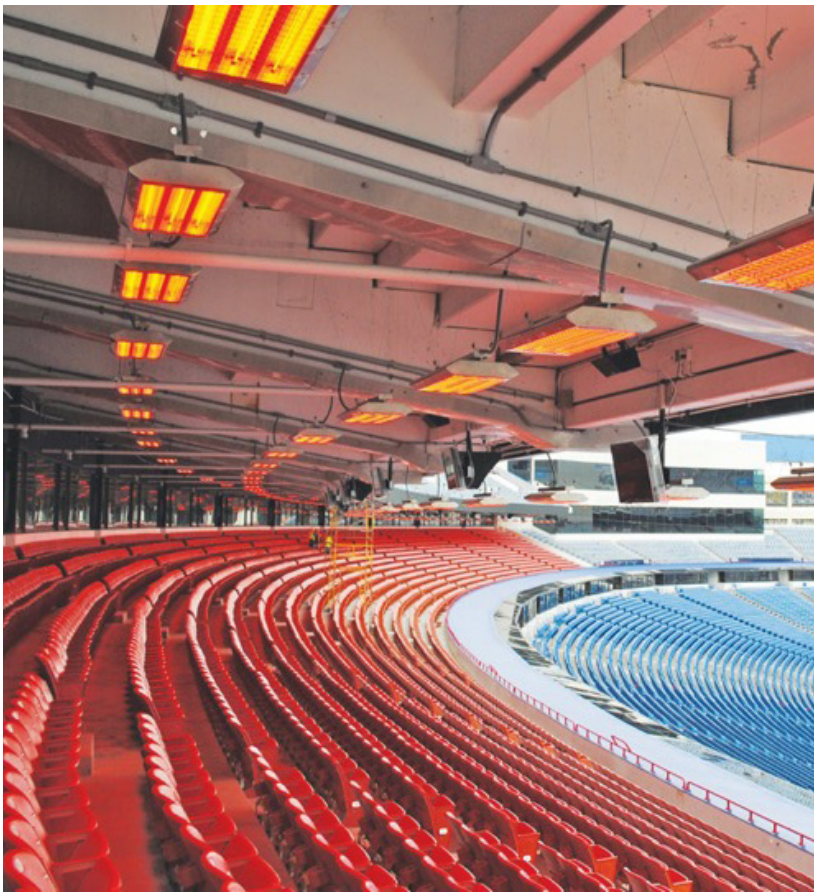
Delivering efficient heat in an extreme-temperature environment.

UNIQUE VISION:

A stadium seating area that stays comfortable even in late winter.







Solution

CUSTOM DESIGN AND SETUP:

Marley designed over 200 FRP infrared heaters in a precisely calculated pattern to keep fans warm on sub-zero days.

Sections not under the heaters were covered in snow, while fans in the heated sections stayed dry and comfortable!

BERKO®
A Marley Engineered Products Brand

HEAT. ANYTIME. ANYWHERE.

When comfort is paramount and space is at a premium.



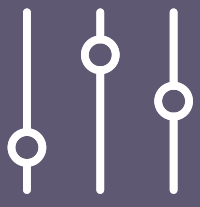
SAFE OPERATION



LOW/ZERO MAINTENANCE



LUXURY AESTHETICS



OPTIMAL CONTROL

BerkoMEP.com | 470 Beauty Spot Road East, Bennettsville, South Carolina

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