

Radiant Heater Technology

Commercial | Hospitality | Industrial | Residential



Solaira[°].

Table of Contents

About Us	
Why Solaira	
Heat Spec	
Solaira Radiant Heater Series	
Alpha Series	
ICR Series	pg11
XL Slim Series	
Industrial Series	
Ziro Series	
Cosy Series	
Malibu Series	
Heater Applications	
Hospitality Sector	
Industrial Sector	pg23-26
Commercial Sector	pg27-30
Residential Sector	pg31-34
Solaira Controls	
SMaRT Variable Control	
SMaRT Push Timer Control	
SMaRT Occupancy Control	
Omnis Control	
Omnis Custom Control	



About Us

Proud association with members of:



American Society of Landscape Architects The sun is the ultimate source of energy. It makes life on earth possible – delivering light that allows plants to grow, and heat that supports a livable environment. A beam of sunlight contains spectrum wavelengths of energy which has long been a topic of research. This scientific research led to the discovery of a set of wavelengths of energy that were close to the visible light spectrum, but different in that they provided invisible heat to whatever the wavelengths touched.

These wavelengths became known as the infrared spectrum and scientists found that shorter wavelengths within the infrared spectrum provided extremely efficient radiant heating capabilities. While the science has been understood for some time, commercialization of the technology took much longer.

Solaira[™] was established in 2004 with the vision to utilize the latest high performance radiant technology in engineered heating systems and control solutions. Our technologies are centered on providing comfort through high efficiency, top performance and premium quality products.

Our technologies are utilized around the world and in the most severe environments as required by our military, commercial, industrial and residential customers. Our designs are built on performance, yet designed with the architect and engineer in mind for the most discerning commercial hospitality, residential or industrial applications.





Why Solaira

Solaira infrastructure grade heaters are designed with performance and longevity as guiding principles. Our heaters use high intensity, ultra-low light infrared emitters and deliver heat you can feel the instant the heaters are switched on. Consider a cool, cloudy day that becomes instantly warm when the clouds move, and you are in full sunshine. The air temperature did not change, but what you are feeling is the shortwave infrared rays produced by the sun - as engineered in our Solaira Heaters.

Solaira technology outperforms medium and long wave radiant technologies in outdoor or breezy environments, as up to 86% of the consumed energy is converted into directional radiant heat compared with 40% to 60% by medium and long wavelength products.

So why does this matter?

- Solaira emitters deliver greater radiant efficiency (more radiant heat per consumed watt of power) meaning less power required than comparable medium and long wave products
- 4th generation light filter technology for reduced glare
- Directional and virtually unaffected by wind
- Instant on and no warm up time
- Infinitely dimmable and can be controlled

In combination with our emitters, Solaira utilizes an engineered parabolic reflector fabricated from highly polished aluminum to transfer the radiant energy to the target surface. To stand the test of time, the emitter and reflector are built into an infrastructure grade fixture constructed of aircraft grade aluminum extrusion, finished with UV resistant powder coating, and assembled using all stainless-steel hardware. Solaira heaters are rated to IP55 for fully wet exposed environments and can operate in temperatures to -31°F.

Solaira, Industrial Series H3 (x2), Castell Lounge, New York, NY

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Solaira, Alpha Series H3, Meat on Ocean Steakhouse, Santa Monica, CA



Solaira





Data-driven heater layouts

Solaira's HEAT SPEC tool delivers elevated heater coverage visualizations. Our coverage areas are test-bench validated and represent the measured radiant heat delivered to the target space. Paired with our ambient temperature normalization graphs, HEAT SPEC layouts deliver superior heat coverage and heat rise predictions.

Using a combination of propriety data acquisition methods and radiant energy simulations, Solaira HEAT SPEC delivers specific heater layouts and heat densities. Depending on the ambient temperature and wind exposure in the target space, we'll apply modifying factors to our calculation and supply a coverage layout plan and provide an approximate heat rise in your target space.

Based on the results, we work with you or your engineer to optimize the layout design to deliver an estimated heat rise. HEAT SPEC layouts can be provided to customers and bring confidence to heating projects of all sizes.



Why request a HEAT SPEC Layout?

Bring confidence to your heating layouts. Requesting a HEAT SPEC layout removes the guesswork of heater placement and allows you to define and specify heat rise for a target area.





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Solaira radiant heater series

State-of-the-art engineered radiant heating system and control experts.

Through extended investment in our technology, Solaira's engineers continue to successfully develop radiant heating solutions that offer both cutting-edge heating performance and architectural design.

Solaira heaters and controls are the preferred choice for engineers, architects and designers and are specified globally within some of the most prestigious venues. Our commitment allows our customers to have a positive and informed experience while exploring their heating and control options.





Alpha Series

Next evolution of engineered short wave heating technology in an infrastructure grade fixture.

Alpha series heaters produce short wavelength infrared heat—86% of consumed energy is transferred into instant, controllable, directional heat. Our most versatile heater.

- Modern, euro design
- Extruded aircraft aluminum body
- Wind load grills



Ceiling Wall Custom Mount Mount Colors

Solaira[°].

Shown: ICR H3, H2, H1, black color.



ICR Series

High performance, output and efficiency with a multitude of mounting options.

The ICR Series is passively cooled allowing installation with tight clearances and constructed for recessed installation. Integrate the ICR heater into ceilings allowing designers and architects to maintain a clean look.

- UL/CSA approved for integrated recessed applications
- High mounting heights
- Low ceiling/sidewall clearance





The Architects and Engineers Choice





XL Slim Series

The XL Slim Series is a design focused heater with unrivaled performance, robust construction and unmatched controllability.

The XL Slim Series combines elegance and performance.

- Available in 316 Marine grade stainless steel or Polyester powder coating
- Ultra slim profile
- Extruded 6061 aircraft aluminum
- Commercial umbrella integrable







Shown: Industrial H3 (x2), H2 (x3), H1 (x2), grey color.



Industrial Series

High heat output with instant delivery. Industrial series utilize alpha heaters mounted in an array for unlimited coverage flexibility, and unrivaled heat distribution at extreme mounting heights.

- Multi mount design with adjustable direction
- Loads up t<mark>o 12,000W/40,9</mark>00BTU
- High mounting heights





Ceiling

Mount

Wall

Mount

No Visible

Light



Ziro Series

Sleek radiant heater series with far-infrared ceramic technology and zero visible light. Rated for any indoor or covered outdoor application.

Ziro series heaters are best in class performance no-light radiant heaters.

- Ideal for enclosed, semi-enclosed locations
- No visible light
- Wall and ceiling mount options









Cosy Series

A robust, compact and powerful radiant heater ideal for residential patios and under awnings and gazebos.

The Cosy Series radiant heater delivers a comfortable warmth in space limited areas requiring a small heater.

- For lower ceiling areas
- Compact and powerful
- Wall moun<mark>t and commerc</mark>ial umbrella applications







Shown: Malibu Series, Alpha H1, black color.



Malibu Series

Fixed location, post mounted heaters for any outdoor patio or seating area. Generate ultimate comfort for your guests with 360 degrees of uniform heat coverage.

The Malibu radiant heater series is a fixed location post unit powered by three Alpha series heaters.

- Fixed location patio heater
- Elegant design
- Multi directional





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Alpha Series	XL Slim Series	ICR Series
Features Modular, Euro Design, High Output • Modular mount system up to 12,000w • High mounting height • Ceiling suspended, wall mount or post mount • Fully exposed environments, IP55 rated	Features Sleek, Slim Design, High Output • Slim, efficient & powerful • Under awning, tent, gazebo • Ceiling suspended or wall mount • Fully exposed environments, IP55 rated	Features Recessable, High Output • Low mounting clearance (6") to ceiling • High mounting height • Ceiling recessed, ceiling suspended, or wall mount • Fully exposed environments, IP55 rated
Applications Restaurants Industrial applications Stadiums and sporting venues Ski resorts Warehouses Post mounted applications 	Applications • Restaurants • Hotels • Pergolas, awnings, gazebos • Residential homes • Outdoor structures	Applications • Integrated applications • Hotels • Restaurants • Stadiums and sporting venues • Residential homes

Solaira







Hospitality Sector

Since 2004, Solaira has been the Architect and Engineers choice for radiant infrared heating solutions within the hospitality and tourism industry.

Owners and operators demand high performance, high efficiency and above all, superior reliability for their heating needs. Maintaining a comfortable climate is essential for customer retention. Solaira's 4th generation filtered shortwave emitters produce dominant radiant heat with the lowest visible light since Solaira's inception.

Solaira, Alpha Series H3, Joey's Restaurant, Manhattan Beach, CA

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Industrial Sector

Engineered for high mounting heights and high watt density requirements with maximum heat output and instant heat distribution.

Solaira heaters and controls are utilized across North America in a variety of industrial zones, creating a comfortable climate for staff, passengers and product goods by managing heat output and energy consumption in desired areas.

Benefit from advanced short wave radiant heating, controls and most importantly, reliability.









Solaira, ICR Series H1, Carleton University Bus Shelter, Ottawa, ON











Commercial Sector

Engineered to perform and deliver comfort and convenience, Solaira heaters and controls are widely recognized by designers, architects and engineers as industry leaders.

Our vision to deliver high efficiency electric radiant heaters is made possible through our product design and specification. Our technologies are applied in various markets in the commercial sector – from sporting venues, clubs and resorts to institutional applications.













Residential Sector

Re-imagine your design possibilities with outdoor engineered heating systems.

Designers and homeowners continue to look for innovative solutions that make their patios and balconies more functional. Solaira heaters provide the opportunity to expand usable living spaces with best-in-class heating performance. Small outdoor spaces can be heated and conditioned to users' likings with the use of electric outdoor infrared heaters.











Solaira commercial control series

Heating management made easy.

Solaira commercial controls provides designers a variety of options in both on/off and variable output to control their heating systems, from simple, stand-alone control to fully integrated systems. Integrate leading smart Building Management Systems like Lutron, Creston or Control 4, or connect via BACnet for larger, commercial spaces.





SMaRT Variable Control

A simple variable output, single zone option for heating control.

The Solaira SMaRT 34A and 16A Dual Voltage Variable Controllers are part of a family of IP65 rated, water-resistant controllers engineered to control Solaira infrared radiant heaters.

- 6 Stage, stand-alone variable control, up to 34A
- Timed temperature lockout options
- Optional occupancy monitoring accessories
- Optional remote control or wall
 switch accessories









SMaRT Push Timer Control

Engineered to reduce energy consumption and cost, while providing a simple control solution for a predetermined time period set by the user.

Reliable and convenient. With the Solaira SMaRT 60 and 40, 208/240V, control multiple heaters in a single zone, available in 4000W and 6000W sizes.

- 5-60min stand-alone timer
- Soft start technology
- Water-Res<mark>istant IP65</mark>









SMaRT Occupancy Control

Reduce energy costs and prolong the life of your heater while keeping your customers comfortable.

The Solaira SMaRT 60 and 40, 208/240V, Occupancy Controller is engineered to reduce energy consumption, activating heaters only when the zone is occupied. With a timed operation, the PIR sensor activates the heating system when it detects people within its designated zone, available in 4000W and 6000W sizes.

- Passive occupancy sensor with up to 16' detection range
- Stand-alone, timer control
- Water-Resistant IP65









Omnis Control

Meet the demands of any heating system. You have the capability of controlling your determined area.

The Solaira Omnis single zone, variable controller allows for up to 165A of heater management. Omnis Control provides off-the-shelf, variable voltage output for your Solaira heaters. Conveniently integrate with leading smart home automation systems like Lutron, Crestron & Control 4 or building automation with 0-10Vdc & 4-20mA ready inputs on all Omnis Control models.

- Single zone, 100% Variable SCR control
- Universal 0-10Vdc input
- Included 0-100% dimmable potentiometer
- 120, 208, 240, 277V, single phase up to 165A
- BACnet integration, occupancy monitoring, temperature lockout accessories



Universal integration with building management systems:

Required Control (Control) Con

The Architects and Engineers Choice

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Omnis Custom Control

Bespoke control systems engineered to meet the demands of your site.

The Solaira Omnis Custom Control allows for Multiple Zone, Variable Control with fused outputs. With the Omnis Custom Control, you define the heater load for your selected heating zone(s). Conveniently integrate with leading smart building management systems with 0-10Vdc, 4-20mA or BACnet integration based on your site requirements and specifications.

- Fully customized control solution
- 1-3 phase, 120-600V
- Single to multiple zone with fused outputs per heaters





Universal integration with building management systems:

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Driven by Engineering, Design and Performance.







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Suitability of controls and heaters are determined by the engineer, specifier and licensed installer per local and National Electrical Code (NEC) requirements. There may be other structural, mechanical or applicable code requirements that must be considered.