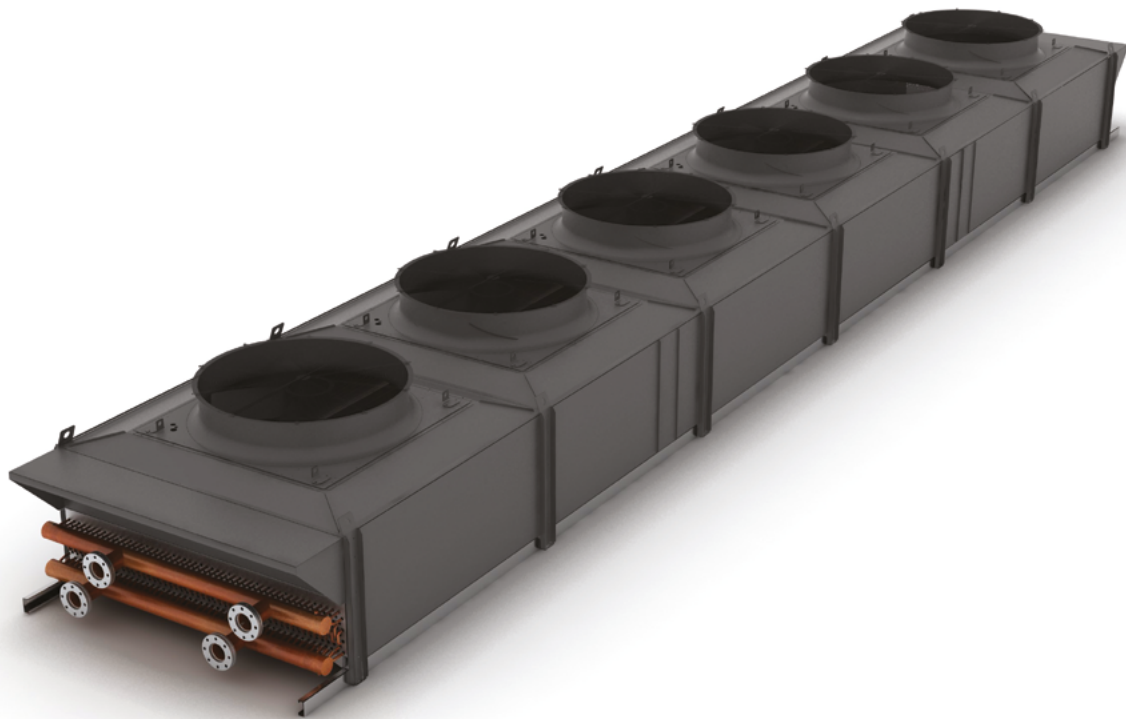


# PowerGen Radiator

COOLING SOLUTION  
FOR POWER-GENERATION INDUSTRY



## APPLICATIONS

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The PowerGen Radiator is designed to meet the specific needs of the electricity production market, which requires particularly rigorous quality standards.

ThermoKey develops and applies the best industrial solutions, which combine a mix of expertise, market knowledge, and technological development, to ensure maximum customer satisfaction. Our technical staff individually analyzes the customer's specific requirements and the environment in which the radiator will be installed in order to optimize the products to meet every need.

The following are some of the possible applications for this system:

- **Large electricity production plants**
- **Small electricity generators** for limited energy use
- **Small biogas plants** for agricultural producers
- **Geothermal plants.**

PowerGen Radiators would be the ideal solution for power plant owners and contractors.



The units are stackable for containerized transport by two.

## Casing and fins

The standard casing of the heat exchanger is made of galvanized metal sheets, and it has a double-layer coating to ensure greater durability in very aggressive environments (color RAL 7012).

Standard aluminium fins can be treated with a pre-painted double-layer coating to last even the most severe environmental conditions.

Supplies the PowerGen Radiator with hot galvanized lifting supports to make it will be resistant to corrosion.

## Electric wiring

Each motor is wired to a repair switch disconnect, which is then wired to a common connection box.

This ensures maximum safety and an easy connection to the power supply, while the long-lasting materials used for the unit's components guarantee maximum durability and performance over time.

## Fan units

The PowerGen Radiator is equipped with fan motors fully compliant with the strict ErP 2015/2022 directives. Their double-layer coating of the components meets requirements set by ISO 12944:5: Category C5.

Fan units are available with anti-condensation heaters to protect motors even in particularly wet environments and extreme temperature changes.

In case the PowerGen Radiator has to be installed in residential areas, it can be equipped with electronically commutated fan motor to control the speed therefore energy consumption and noise.

## Benefits

- High efficiency fan motors and heat exchanger
- High Mechanical strength and corrosion resistance
- High cooling capacity
- Compact - suitable for containerization units
- Different fan speeds
- Low energy consumption
- Different materials and fins available
- Low maintenance costs



## TECHNICAL DATA

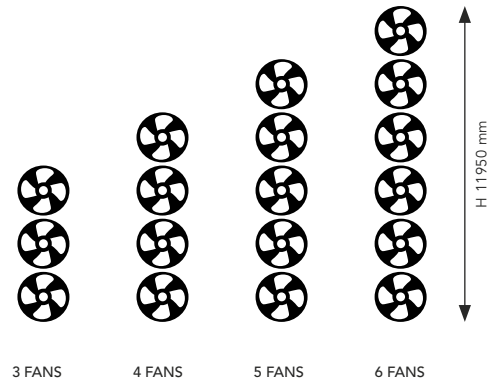
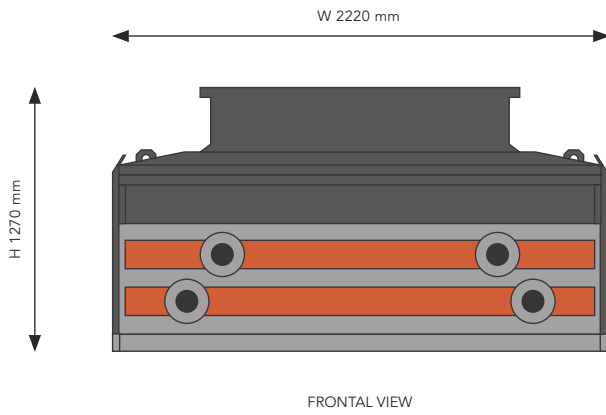
|                              |  |
|------------------------------|--|
| <b>Max working pressure:</b> | 10 MPa   |
| <b>Working temperature:</b>  | -10°C ÷ +80°C                                  |
| <b>Performance range:</b>    | Capacity up to 3MW at ambient temperature 35°C |
| <b>HT-LT</b>                 | Circuits heat exchanger                        |

Cooling radiators for Rolls Royce engine - **capacity 1665KW for HT circuit - 980KW for LT circuit**





# CONFIGURATION AND DIMENSIONS



## HEAT EXCHANGER

|                      |  |
|----------------------|--|
| Fin type             | Corrugated high efficiency   |
| Standard fin spacing | From 2.1 to 3.0 mm   |
| Fin material         | <ul style="list-style-type: none"> <li>▪ Aluminium 8000</li> <li>▪ Double Layer black 8000</li> <li>▪ AlMg 5000</li> </ul> |
| Tube diameter        | 15,87 mm   |
| Tube material        | Copper   |

## FANS Ø 1250 MM

|    |   |
|----|---|
| AC | High temperatures powerful fan motors                   |
| EC | For variable speed, high efficiency and low noise level |

## CASING

|             |  |
|-------------|--|
| Casing      | FeZ 275 and FeZ 275 painted RAL 7012, Stainless steel (option) |
| Manifolds   | Copper with flanges galvanized carbon steel or stainless steel |
| Fans motors | Guard grille: carbon steel high grade painting                 |

## CONTROLS OPTIONS

|                                |                   |
|--------------------------------|-------------------|
| OPTION                         |                   |
| Repair switch                  | on each fan motor |
| Main fan motors electrical box |                   |