

PRESS RELEASE

Stronger than the elements – Pfannenber's DTS 3000 series Outdoor Thermal Management Devices

No matter whether electrical enclosures are exposed to extreme heat, cold, wet or dust, safety in harsh environments is ensured

Hamburg, 30. August 2018. Pfannenber, specialists in the thermal management of electrical enclosures, have designed a range of cooling devices powered from 300W to 5800W and suitable for use in demanding outdoor locations: the DTS 3000 series. System integrators and planners often face problems with the thermal management of electrical enclosures in outdoor applications: extremes of temperature, moisture, and dust are particularly challenging, with some applications exposed to the elements 24/7. Cooling devices in the DTS 3000 range which are categorized in protection classes N3R and IP 56 extendible to NEMA Type 4X, represent a solution to these problems. Pfannenber also offers heaters, thermostats and hygrometers to prevent the formation of damaging condensation. Typically, these cooling devices are used in applications in demanding environments such as deserts or extreme cold, in building, traffic and energy technology, in sewage and water treatment plants and in metal production and processing. They are also found in manufacturing systems for cement and building materials, the timber industry, wind and water power generation and in photovoltaic applications. Users even rely on these versatile devices in mobile equipment. Pfannenber's 3000 series cooling devices are therefore making a contribution to the energy transition.

"Pfannenber is focusing on the growing global market for demanding outdoor cooling systems. We have already made a name for ourselves in the thermal management of electrical enclosures in indoor applications and our expertise has fed into the DTS 3000 series. With an extremely broad portfolio of devices which also meet the NEMA

standard, we can cover almost every application scenario," says Dipl.-Ing Jörg Achenbach, Product Manager, Thermal Management of Electrical Enclosures at Pfannenber. "Conditions outdoors are often extreme: wildly fluctuating weather situations, a damp climate, rain, frost and heat all present problems as do a high concentration of particles in the air, hail, snowstorms, aggressive vapors and cleaning with powerful water jets and cleaning materials. Pfannenber has equipment packages in the DTS 3000 series for all these environmental conditions, thus offering the largest possible area of application, in temperatures ranging from -40 °C to maximum +60 °C", explains Achenbach.

Robust and reliable

The outdoor thermal management devices in the DTS 3000 series have powder-coated steel or stainless steel covers graded up to V4A for use under the toughest conditions. A hermetically sealed cooling circuit not only ensures that there are no leaks, but also makes topping up with coolant unnecessary. Systems to protect against thermal overload, corrosion and excess pressure ensure that these outdoor cooling devices have a longer operational life.

Dust and moisture remain outside

To prevent ingress of foreign bodies, dust or water, the outdoor cooling devices from Pfannenber meet the requirements of IP 56 and N3R protection classes as standard. If required, versions in NEMA type 4X which feature extremely corrosion-resistant dip-painted heat exchangers, for example, are available. Dust presents another problem. The fins on the condensers in the outdoor thermal management devices in the DTS 3000 series are 3 mm apart which makes them less likely to trap dust. One of the advantages of this design is that the devices are almost completely maintenance free – even if the concentration of particles in the air is very high.

Low Ambient (LA) equipment package for low temperatures

The Low Ambient (LA) anti-frost package has an integrated enclosure heater and an intelligent fan control system to ensure that the machinery operates without interruption and provides excellent protection from condensation at temperatures as low as -40 °C.

The extracted moisture evaporates in the device before it can cause damaging short circuits in the enclosure. The package also includes a safety overflow and a thermostat which can be installed in the enclosure. The LA package is available in versions powered from 700W to more than 5kW for the DTS 3000 cooling devices. The integrated electrical enclosure heater, which is very easy to install, is offered in versions up to 3kW.

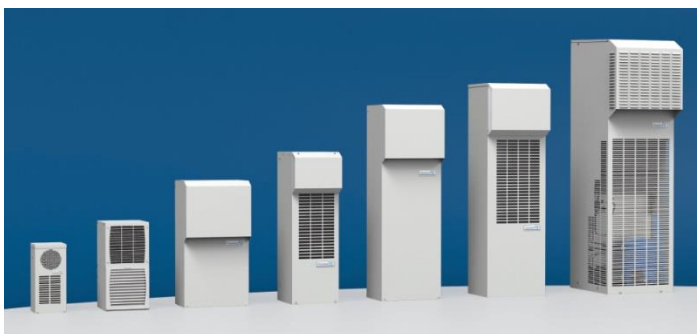
High Temperature (HT) package for extreme heat

The High Temperature (HT) package has a temperature-stable compressor and a large condenser for reliable protection of enclosure components at exceptionally high temperatures up to +60 °C. The HT package is available for compact 700W cooling devices and also for large, powerful solutions up to 3200W.

Even better equipped

As a useful addition to the outdoor cooling devices, Pfannenberg offers 200W - 1200W supplementary heaters, thermostats and hygrometers for monitoring relative humidity levels. Depending on the application, this additional equipment offers further protection from condensation and corrosion and helps to optimize the energy/cost ratio.

Photos and photo captions:



001517_Bild1: The DTS 3000 outdoor cooling devices are available in models from 300W - 5800W.



001517_Bild2: These Pfannenberg cooling devices are categorized in high IP classes, making them especially suitable for use in harsh environments.

About Pfannenberg

Pfannenberg is a medium-sized company which provides innovative and high-quality electro-technology for industry. Today, the company belongs to the global players of this industry with its headquarters in Hamburg, Germany and its locations in Brazil, China, England, France, Italy, Russia, Singapore and the USA. The product portfolio comprises components and system solutions for the thermal management of electrical enclosures, chillers, visible and audible signaling technology and custom solutions. A special highlight in the Pfannenberg portfolio is the designed illuminations which are commissioned by architects, designers, and urban and spatial planners (www.art-illumination.com).

You can find more information about Pfannenberg on: <http://www.pfannenberg.com>

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