

PRESS RELEASE

Thinking ahead about thermal management

Communication-enabled thermal management devices for electrical enclosures transmit operating data to be used in preventative maintenance.

Hamburg, 17 October 2016. Electro-technology specialists Pfannenber will be presenting communication-enabled thermal management devices for electrical enclosures at the SPS IPC Drives show in Nuremberg this year. Using a model created for the show, the company will demonstrate how users can display machine status, diagnostic information and alerts on a web-browser remotely and in real time or integrate the data directly in their applications. The 6301C thermal management devices to be presented for the first time at the show are particularly compact and powerful and can be parameterized with a multicontroller. From 22 to 24 November we will be in Hall 5 at Stand 339 where you can inspect the show model and see for yourself what modern device monitoring can deliver and find out about the benefits it offers users. The latest cooling units and chillers can provide a wide range of relevant data which users can use for predictive maintenance, for example, thus cutting machine downtime to a minimum.

Cutting-edge device monitoring

The show model consists of a two-chamber electrical enclosure with a chiller from the Compact series, a partially recessed air/water heat exchanger from the PWI series and a communication-enabled chiller from the X series. In each of the two electrical enclosures there are three heaters to simulate a thermal load. They can be activated individually with switches mounted on the door. Changes to the temperature, caused when an enclosure door is opened for example, are displayed in real time on an external screen.

Compact chillers

The new chillers in the Compact series are available in two sizes offering between them six power levels from 1 kW to 6.6 kW. They are of a particularly space-saving design. With this range of power levels, it is possible to choose a device which will not require major connections to be modified nor changes made to the space which it needs to occupy. The structure of the Compact chillers allows them to be mounted on the top of the electrical enclosure, making it easier to integrate them in systems where there is little space for their installation.

Compact cooling units

Compact cooling units for the standard range from 1,000 to 1,500 W in the εCool family will be on display for the first time. Their power, and their compact design in particular, make them suitable for use in a wide range of applications. They are available in versions fitted with standard controllers (SC) or multicontrollers (MC) and an energy-saving mode comes as standard. An additional temperature sensor allows the fan to be switched on and off in response to the temperature measured inside the electrical enclosure. The multimaster function of these controllers ensures that the temperature remains constant, even in large groups of electrical enclosures, by operating several cooling devices simultaneously. A service interface allows external parameterization and the fault memory to be read via a PC.

A pioneering role

The communication-enabled cooling units in the εCool X series were the first thermal management devices for electrical enclosures with the facility to be integrated in users' automation systems. If required, they can also provide relevant device parameters for remote maintenance via the Cloud. Users benefit from customized maintenance, cost-efficient service and better machine availability thanks to preventative maintenance.

More space, lower costs

The latest generation of the DTT top-mounted units will also be displayed at the show stand. They are particularly space-saving as they can be positioned on any commonly-available electrical enclosure. This frees up valuable space elsewhere and

allows small areas to be used to better effect. Furthermore, they also offer 100% protection from condensation and deliver an impressive performance with their optimized energy efficiency and effective cooling of the entire interior of the electrical enclosure.

Signaling device performance visualized

In their "3D-Coverage" Pfannenber is presenting a practical method for demonstrating the effective performance of audible and visual signaling devices in a given space. It provides designers and safety officers with reliable information about the size of the area actually covered by the signaling devices and this is illustrated in a 3-D graphic. The demonstration method offers certain protection from incorrect dimensioning, reliable compliance with industrial norms and regulations and optimum cost efficiency. Using these new parameters as a basis, the company has also thoroughly redesigned the signaling module of its Pfannenber Sizing Software (PSS) planning tool so that users can find their ideal signaling solution even more easily.

Multifunction light for industrial functions

The QUADRO LED-HI multifunction light will also be premièred at the show. This light is used for the visual signaling of hazardous situations and to indicate the status or fill level of machines and systems. The optical signals of the lights are created with LEDS with a high level of luminous efficacy. Thanks to robust mechanical construction and categorization in high protection classes (IP66, IP67 and IK08), the QUADRO LED-HI is suitable for indoor and outdoor use. Modular in design and multifunctional, it offers manufacturing companies, industrial installation and service firms, mechanical and systems engineering companies and the producers of lifting equipment and their service departments a cost-efficient, versatile and powerful signaling solution.

Even more power, even easier to install

There is a new addition coming to the tried and tested PYRA series which offers visual and visual/audible alerting for machine safety and fire and gas alerting applications. The PYRA-L ("Large") signaling device is available in two versions – as a flashing XENON light and as a sounder/flashing Xenon light combination. With a

coverage volume of up to 15 m (ceiling height), it is a more powerful addition to the existing range.

The practical installation kit for the PYRA and PATROL signaling devices is also new. This includes everything, from screws to seals, required for simple, partially recessed installation of the devices in the wall or door of an electrical enclosure – fast and space-saving. The metal box in which the kits are supplied not only protects the signaling devices, but also the fitters by shielding the devices from the other electronic equipment and cables in the interior of the enclosure.

Safe operation of systems and machines

By using the SIL/PL-compliant sounders in the DS series and the flashing lights in the QUADRO and PMF series, operators can ensure that their alerting systems comply with amended EU Directive Seveso III. This obliges users to undertake measures to prevent malfunctions and to fit a sufficient number of warning, alerting and safety systems in the areas where their machines operate.

For example, using the modular signaling towers BR50 and BR35 wherever there is a requirement to display machine statuses and provide warning signals, ensures that machinery is operated safely. Thanks to their robust IP54 housing (IP65 is also an option) they can be used both inside and outside and in harsh conditions. Monitored continuous light and AS-i bus modules provide even greater safety. The flexible modular design allows users to put together customized signaling towers from up to five modules and six cover colors.



Photo caption: The communication-enabled cooling units from Pfannenberg allow predictive maintenance and networking of devices in networked production environments (the photo shows a similar show model used at Smart Automation).

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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