

## NEW: The APP **SEPA EUROPE**



Use this App:

- To convert units
- To dimension fans
- To dimension chip coolers

... and receive extensive technical information relating to electronics cooling

You can find our new App on our website:  
[www.sepa-europe.com](http://www.sepa-europe.com)

## We are certified according to the current version of ISO 9001:2015



## The latest member of our team:

Christoph Zäh joined our team in October 2015



He is our new support of the departments Quality Control and Developments. As quality manager, he regularly uses oscilloscope, noise measuring device and temperature chamber. In cooperation with the sales department, he develops ready-for-connection assemblies or customized cooling solutions.

In his free time sport has top priority. He is an ambitious runner and has just successfully participated in the Munich marathon. Being a football fan, he spends the rest of his free time watching the games of SC Freiburg or travelling.



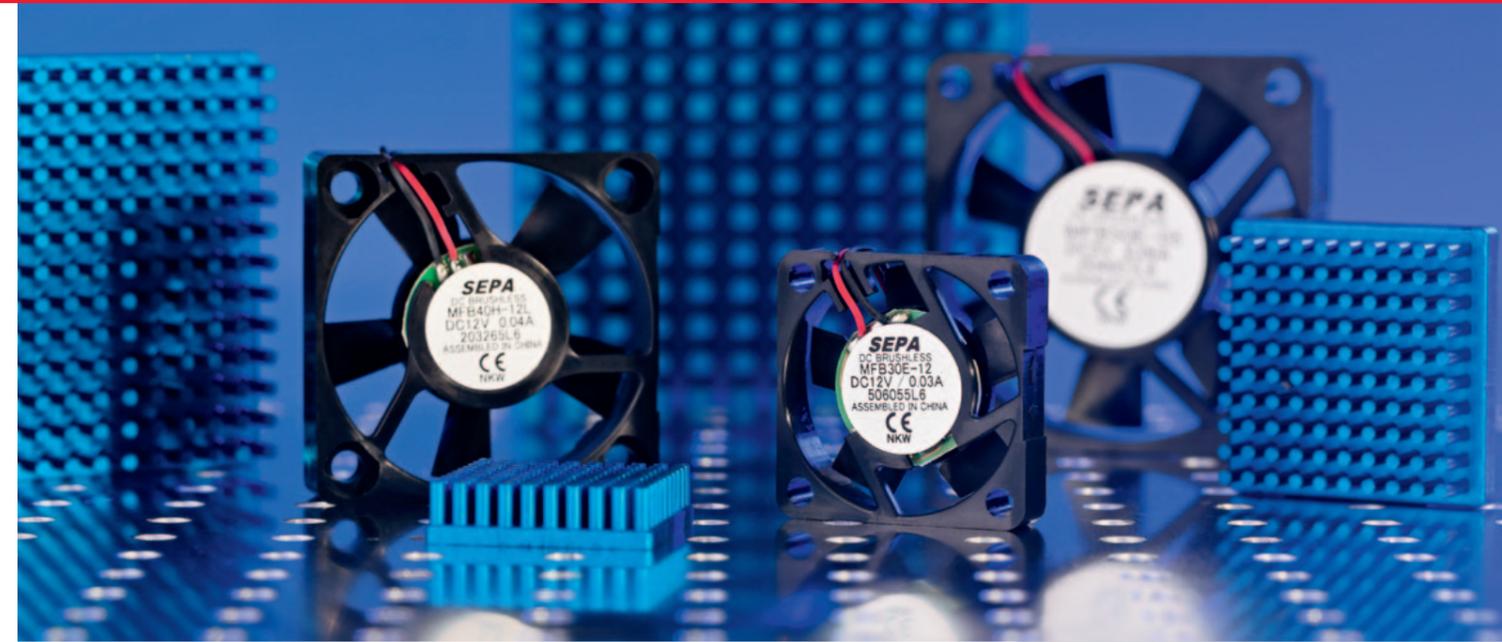
## Die neue Lüfter-generation



SEPA EUROPE ist führender Partner für Lüfter, Kühlkörper und Lüfterzubehör. Wenn Sie für Ihre Kühlaufgabe die optimale Lösung suchen, sind Sie bei uns genau richtig.

Besuchen Sie uns:  
**electronica 2016**  
Halle B1 Stand 269

**SEPA-EUROPE.COM**



## Welcome to **SEPA EUROPE**

### **SEPA EUROPE and its new location**

An exciting new chapter in the history of the company began this year for **SEPA EUROPE**. The specialist for electronics cooling moved into its own building in the industrial zone Breisgau in Eschbach. The rented premises in Freiburg-Hochdorf were no longer large enough to handle the continuous growth over the past years. The solution to this situation was the new, multi-storey building that was adapted to meet the specific requirements of **SEPA EUROPE**.

A total of 12 employees have a modern workplace in the administration building and adjoining logistics warehouse.

The optimum inventory logistics at the new headquarters facilitate incoming goods and despatch. The new, well-equipped laboratories have state-of-the-art facilities for use not only in the development of customer-specific solutions but also in the electrical, thermal and acoustic examination of components for quality assurance purposes. The assembly development with our own CAD program complements the services offered.

The move to the new building in the industrial zone Breisgau in Eschbach coincides with the 25th anniversary of **SEPA EUROPE**.



### \*\*\* Editorial \*\*\*



Our last Editorial dealt with our construction project and the forthcoming move to our own new building. We have now spent virtually two years at our new site and have in no way regretted our decision.

In addition to the clearly more convenient and efficient logistics that provide more storage space for various fans or fan assemblies, the new laboratory is our absolute highlight and is subject to intensive use. It is the room where not only diverse measurements from temperature stability to noise measurement take place but also where more fascinating new cooling solutions and ready-to-connect assemblies are created in cooperation with our customers. Slimline, tailor-made, milled pin-fin heat sinks combined with our fans and adapted to the heat to be dissipated constitute the most sought-after projects of our customers.

In addition to the standard products, we will be focussing in the years to come on "complete solutions". We already have a host of new ideas and combinations and together with the latest member of our technology staff whom we present over-leaf, we are looking forward to tackling further interesting customer projects.

We look forward to your visit!

  
Robert Cap

## Slimline and efficient cooling solution

**Kühligel® with SEPA radial fans achieve a thermal resistance of a mere 0.95 K/W**



In many applications with high-performance FPGAs power dissipation occurs (>30W) but yet there is very little space above the chip to ensure adequate cooling. The existing space must therefore be used as effectively as possible. In this case pin-fin heat sinks known as Kühligel® that are only 10 mm high together with a radial fan provide a cooling solution with a sensationally low thermal resistance of 0.95 K/W. The distinguishing features of the pin-fin

heat sink „Kühligel®“ are its low production costs and high effectivity, the same applies to the renowned blower HY60Q05P. This is supplied with a tacho, PWM input and the long-lasting Magfix bearing technology. The heat sinks can be adapted in all parameters (size, pin space, thickness of the base plate, height of the pins) whereby it is important to reach the right compromise between the longest possible pins and a base plate that is not too thin.

## Modular Systems

**Control cabinet cooling with filter fans**

Air cooling enables the effective air conditioning of control cabinets – this includes products such as filter fans, roof fans, fan shelves, inlet and exhaust filters. Housings of plastic or painted die-cast aluminium that are developed specially for outdoor applications are available. The aluminium or plastic filters can be combined with both AC and DC fans. A variety of replaceable filter pads depending on the degree of application and filtration comple-

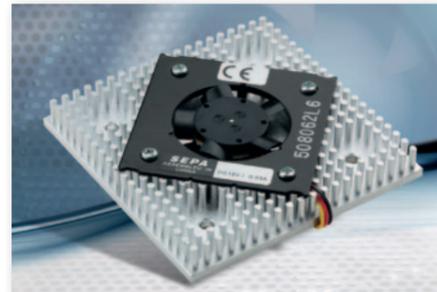
ment the modular system. The plastic units are also available in RAL 7035 or 7032.

SEPA EUROPE develops customized solutions, e.g. fan/cooling combinations with heat pipes or Peltier elements, ready-for-connection, assembled fans with customized stranded wire lengths and connectors as well as fully assembled customized fans.



## Powerbloc Kühligel® 2. Generation

**A new generation pin-fin heat sinks with high thermal conductivity**



The new generation of the Powerbloc Kühligel® produced by Alutronic is made from pure aluminium (Al 99.5 DIN EN1050) and thus has an exceptionally high thermal conductivity. In comparison to extruded heat sinks, the thermal conductivity is 30% higher, in comparison to die-cast heat sinks it is even 40% higher. The cooling pins are manufactured by extrusion. The low-waste manufacturing method is simple and economical.

In addition to standard sizes, special shapes can be realized at predictable tool costs.

The effectivity of the Kühligel is increased significantly by screw mounting the fan. With the new generation of heat sinks, special screws are used to mount the fans without involving expensive mechanical processing.

## Reduction of noise holds considerable potential

**Fan available as temperature-controlled version**

A sensor at the hub of the motor (see photo) controls the speed which changes linearly with the rise in temperature.

This type of fan control is not only simple but ingenious. When the air flow on the outlet side is below 25°C, the fan rotates moderately at around half the subsequent nominal speed. This is achieved at a warm air flow of approx. 50°C. The speed increases linearly and infinitely variably be-

tween room temperature and 50°C. The resulting effects are immense, as notably both the noise and the current consumption decrease considerably when the speed is reduced and the full performance is only required when absolutely necessary.



## Fixing screws

**for fans with a plastic housing**



The distinguishing feature of the fixing screws is their optimised thread geometry for thermoplastics which provides the optimized fixation for fans with a plastic housing. The hexalobular drive ensures excellent transmission when mounting and is particularly suitable for automated production.

The outstanding features comprise: Avoidance of relaxation, self-locking effect, high load capacity, low tapping torques.

The screws are available either in bulk or packed in plastic bags containing 4 pcs. each.

Varying sizes are available from 3.5 x10; 4 x10 to 5 x10 mm either galvanized or black passivated. Stainless steel versions and other dimensions are also available on request.

## Silicone-free thermal conduction paste containing silver

**Thermal conductivity of 9 W/mK**

The new SWP9-x thermal conduction paste by SEPA EUROPE scores highly thanks to its silicone-free material with 9 W/mK which contains over 85% of thermally conductive filler. In addition to micronized silver, it also contains zinc oxide, aluminium oxide and boron nitride.

The paste-like material which is non-con-

ducting has excellent processing properties. The temperature-stable thermal conduction paste is suitable for long-term use at temperatures from -50°C up to +130 °C. The thermal interface material is also suitable for short-term use at temperatures of up to approx.180°C. The mean particle size of the thermally active materials is 5 µm.



## Eco Axial with more air

**New fan generation with up to 30% more air volume at the operating point**



With the new Eco Axial fan series a 30% higher air volume is achieved at the operating point. This new fan generation is slowly but surely replacing the sleeve bearing fans.

The outstanding improvements to the new series include the aerodynamically optimized, thinner rotors and a more efficient motor design. Several sizes are now available.

In addition to being used for LED cooling, SEPA EUROPE offers the fans as a complete cooling solution with pin-fin heat sink, thermally conductive material and connector and thus further extends the successfully established complete cooler of the HXB series.

**Visit our new website!**

[www.sepa-europe.com](http://www.sepa-europe.com)

