

The background of the advertisement is a close-up, low-angle shot of several industrial fans. The fans are arranged in a grid-like pattern, with their blades and grilles creating a strong sense of depth and perspective. The lighting is dramatic, with some areas in shadow and others brightly lit, highlighting the metallic textures and the curved shapes of the fan blades. A semi-transparent blue rectangular overlay is positioned in the upper right quadrant, containing the main text and logo.

Fans for *oil-cooled transformers.*

Full power for transformer cooling.

ebmpapst

engineering a better life

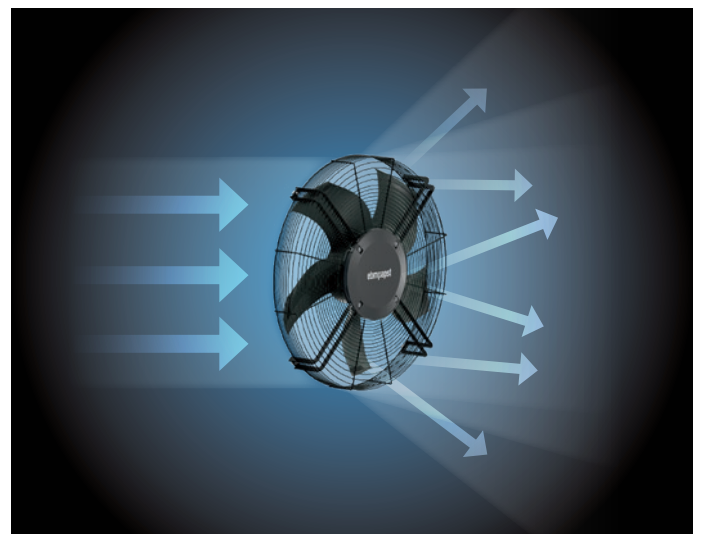
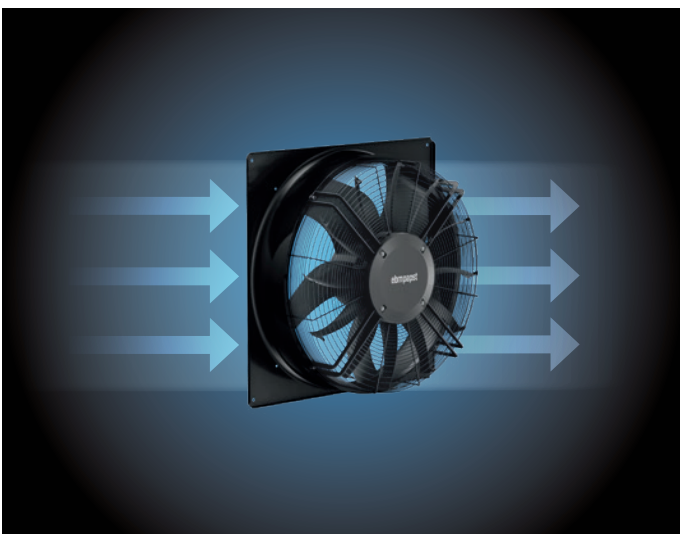


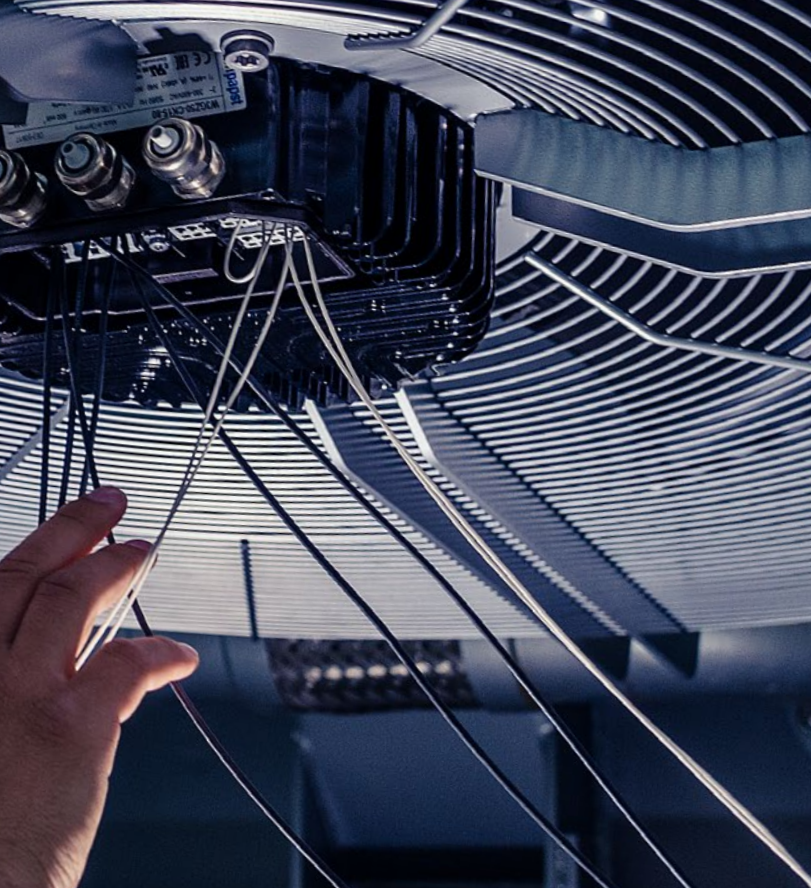
Transformers are increasingly installed in the vicinity of residential areas, where strict requirements related to noise apply. In order not to disturb residents, noise must be reduced to a minimum, especially at night. Fans for transformer cooling must therefore not only be robust and efficient, but also quiet and variable.

This is where fans featuring EC technology offer a significant advantage: They are infinitely variable. During the day, the fans, and the transformer, can work at full power, while at night when there is less demand they only operate at partial load.

The result is a substantial reduction in power consumption and noise, while service life is significantly extended.

Moreover, installing the axial fan in a housing significantly increases the air performance in the working area, because the air arrives exactly where it is needed.

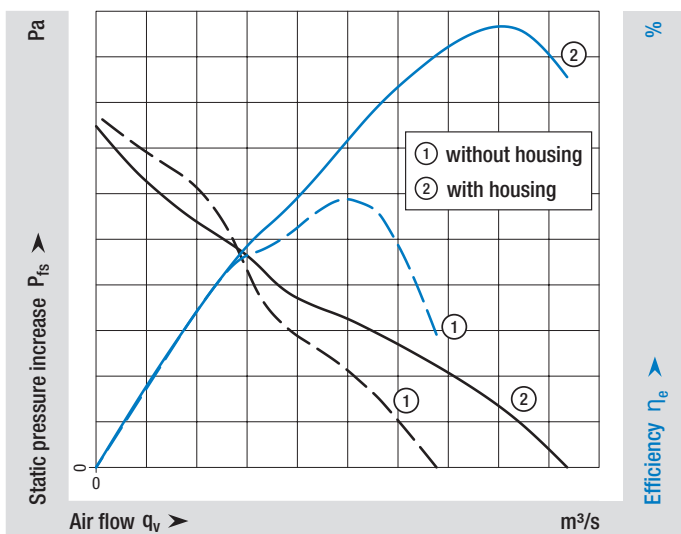




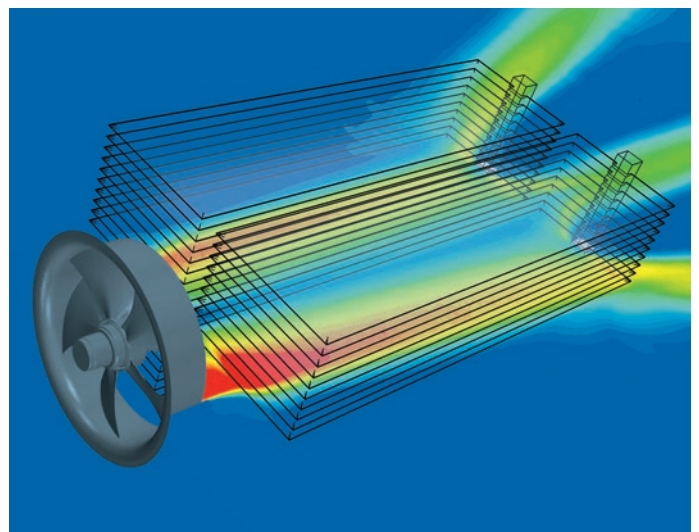
Performance in perfection. *Transformer cooling from ebm-papst.*

Everything you need for your transformer cooling.

The design of the fans was developed based on the requirements of the EN 50216-12 series of European standards, which stipulates fittings for power transformers – fans in particular. Their guard grills provide contact protection as per DIN EN ISO 13857 and OSHA. The fan housings are made of galvanized steel sheet. On the outlet side, they feature an integrated circumferential flange that enables easy, direct attachment to the application.



The ebm-papst solution offers significantly better air performance than fans with no housing, resulting in much higher system efficiency.



The CFD simulation shows the advantages of the fan housing.

Innovative down to the last bolt.

Fan housing

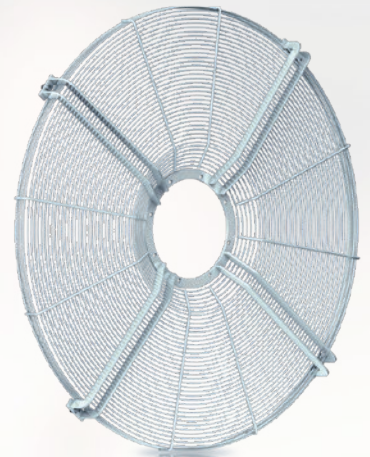
- + High efficiency**
 - Integrated nozzle on intake side
- + Rugged design**
 - Hot-dip galvanized sheet steel
 - Durable and resistant to salt spray as per DIN EN ISO 12944, class C5M (color RAL 9006)
- + Safe handling during transportation and assembly**
 - Motor system and impeller in housing
 - Direct attachment to application
- + Flexible installation**
 - Installation with horizontal and vertical motor shaft
 - Installation on intake and outlet sides
- + Rating label**
 - As per DIN EN 50216-12

Impeller

- + High efficiency**
 - More efficient than conventional fans thanks to profiled blade geometry and winglets
- + Quiet operation**
 - Aerodynamically optimized shape for significant noise reduction compared with conventional fans
- + Innovative materials**
 - Blades made of glass fiber reinforced composite material
 - Core of corrosion-resistant aluminum structure
 - UV-resistant

Intake-side guard grill

- + Safety**
 - DIN EN ISO 13857/OSHA contact protection
- + Rugged design**
 - Durable and resistant to salt spray as per DIN EN ISO 12944, class C5M (color RAL 9006)
- + Outlet-side guard grill**
 - Available as an option



GreenTech EC motor

- + Top energy efficiency**
 - High efficiency
 - High power density
- + Long service life**
 - Extremely durable thanks to maintenance-free ball bearings and brushless commutation
- + Extremely durable**
 - IP 55 protection class for top protection against splash water
- + Unrivalled compactness**
 - An axial fan unit: Direct integration of external rotor motor into axial impeller

Electronics

- + Precision control**
 - Infinitely variable speed control with 0–10 V DC / PWM control signal or MODBUS-RTU
 - Remote maintenance and monitoring using MODBUS-RTU interface
- + Universally deployable**
 - Suitable for use with 50 and 60 Hz networks
 - Worldwide voltage range and grid forms
- + Safe operation**
 - Safety provided by integrated locked rotor and thermal overload protection
- + Simple commissioning**
 - Simple hook-up via terminal box
 - Plug & play: no adjustment effort required



Quiet, compact, and *packed with high tech.*

Our transformer cooling fans.

Nominal data

Type	Item number	Blade dia	Overall height	Speed	Max. power consumption	Permitted ambient temperature	Max. back pressure	Free air		Sound power level in total (LwA)	
		mm		rpm	W	°C	Pa	m³/h	cfm	m³/s	dB(A)
Nominal voltage range 3~ 380–480 VAC, 50/60 Hz, IP55, RAL 9006											
VUR0450HTPKZ	W3G450CL03M8	450	248	1,625	500	–40...+60	130	7,055	4,155	1.96	83
VUR0500HTRLS	W3G500CD6380	500	275	1,770	960	–40...+60	240	10,965	6,455	3.05	89
VUR0500HTPMZ	W3G500CM03M8	500	283	1,450	560	–40...+60	140	8,880	5,230	2.47	82
VUR0630HTRNS	W3G630CG9880	630	315	1,160	730	–25...+60	180	13,300	7,830	3.69	83
VUR0630HTPMZ	W3G630CM07M8	630	323	970	330	–40...+60	90	10,005	5,890	2.78	75
VUR0800HTTPS	8300100517	800	409	1,020	1,650	–40...+70	160	25,000	14,715	6.90	84
VUR0910HTTPS	8300100389	910	406	970	2,000	–40...+60	160	30,440	17,920	8.46	87
VUR0990HTTPS	8300100390	990	385	780	1,550	–40...+60	150	30,925	18,200	8.59	85
VUR1250XTTRS	8300100388	1,250	330	600	1,780	–40...+60	70	46,515	27,380	12.92	83
Nominal voltage range 1~ 200–277 VAC, 50/60 Hz, IP55, RAL 9006											
VUR0450HSPKZ	W3G450CL03H8	450	231	1,625	500	–40...+60	130	7,270	4,280	2.02	83
VUR0500HSPMZ	W3G500CM06H8	500	271	1,370	490	–40...+60	120	8,440	4,970	2.34	81
VUR0630HSPMZ	W3G630CM07H8	630	269	970	330	–40...+60	90	9,920	5,840	2.76	77

Other colors on request.
Data sheets on request. Subject to technical changes.
Finger guard – pressure side available on request.
Country-specific approvals, like UL, CSA, ... are available on request.



Would you like to find out more?

For more design versions, and if you have any special requests, please consult your local contact or email info1@de.ebmpapst.com

GreenIntelligence. Making Engineers Happy.



Why do our customers look so happy? Because when it comes to digitalization and sustainability, we provide them with a clear competitive edge with GreenIntelligence. The intelligent control and networking of fans and drives makes applications more powerful and efficient. Together with a long product life and highly efficient EC technology, we achieve lasting reductions in energy costs and emissions.

For **industrial ventilation technology**, solutions are in demand that ensure top performance and operational reliability in every situation. GreenIntelligence gives you robust fan solutions with intelligent networking capabilities that provide reliable performance data and extensive control and monitoring functions. They ensure high levels of efficiency and system availability while guaranteeing maximum data security.

With our **comprehensive range of services**, we accompany you and your projects through every step in the process, from your application's planning to its deployment. Make use of our experts' product expertise to offer your customers new and advanced features. Or use our digital tools for optimal product selection. That will make your processes more efficient and get your products to market faster.

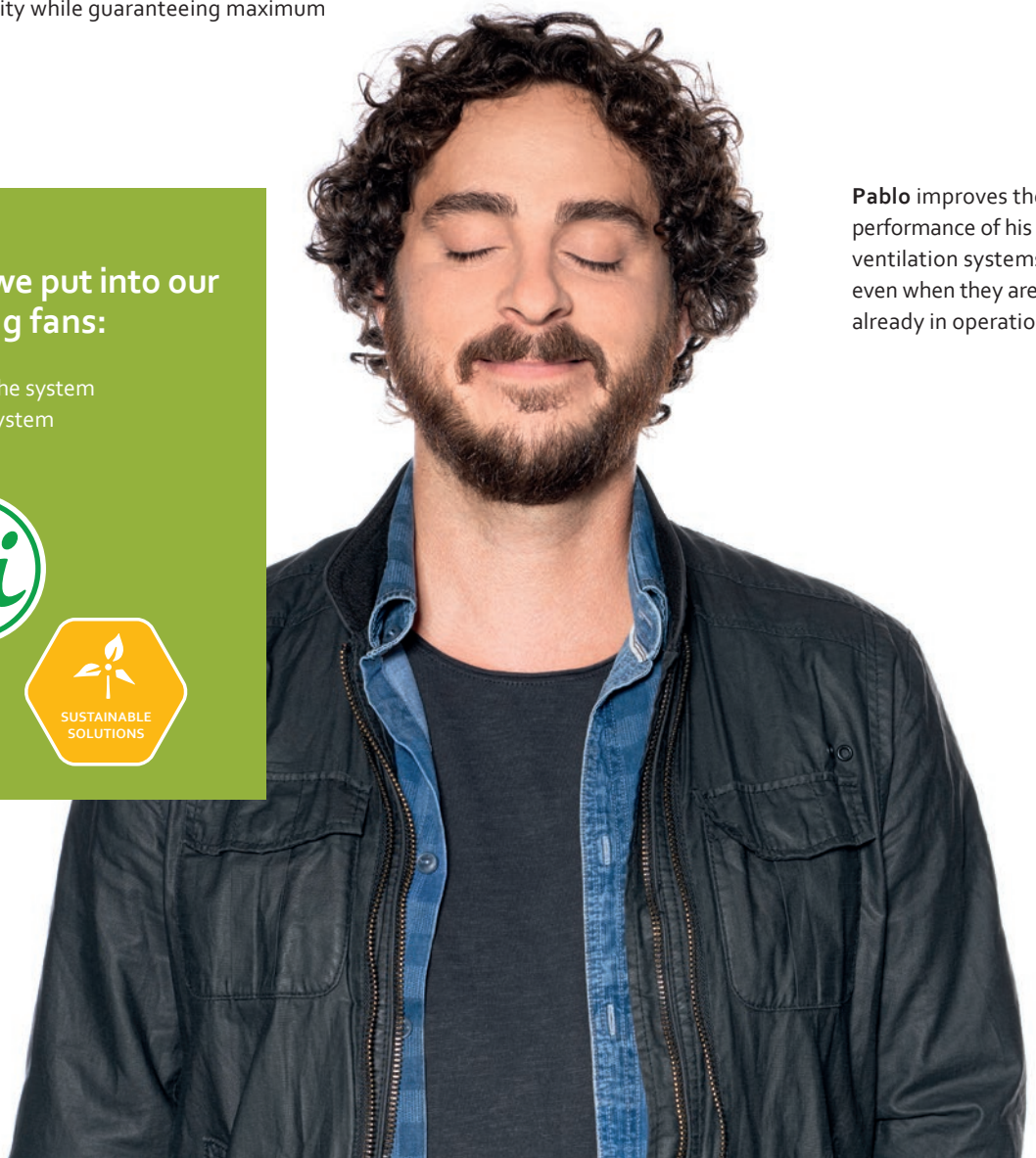
Now you know why ebm-papst makes engineers happy.

This is how much GreenIntelligence we put into our transformer cooling fans:

- Demand-driven control of the system
- Closed control loop in the system
- Easy condition monitoring



Pablo improves the performance of his ventilation systems even when they are already in operation.



About ebm-papst.

As the leading supplier of ventilation and drive technology, ebm-papst is a highly respected engineering partner in many industries. With around 20,000 different products, we provide the right solution for just about any requirement. As the logical next stage in the development of our high-efficiency GreenTech EC technology, we believe that industrial digitization offers the greatest future prospects for our customers.

With GreenIntelligence, ebm-papst already offers intelligently interconnected complete solutions that are second to none around the world.

We are there for you!

Let's find out how ebm-papst can work with you to make your company and your solutions even better. We look forward to it.

E-mail: info1@de.ebmpapst.com

ebmpapst

engineering a better life

Six reasons why we are your ideal partner:

- 1. Our systems expertise.**
As experts in advanced motor technology, electronics and aerodynamics, we provide ideal system solutions from a single source.
- 2. ebm-papst's spirit of invention.**
Our 600 engineers and technicians will develop a solution that precisely fits your needs.
- 3. Our cutting-edge technology.**
With our EC technology and GreenIntelligence, we unite top energy efficiency with the benefits offered by the IoT and digital connectivity.
- 4. Proximity to our customers.**
Thanks to numerous sales offices worldwide.
- 5. Our quality standards.**
Our quality management is uncompromising – at every step of the process.
- 6. Sustainability as a way of life.**
We take responsibility with our energy-saving products, environmentally friendly processes, and social commitment.



ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2
74673 Mulfingen
Germany
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com

www.ebmpapst.com