GreenTech EC centrifugal fans.

The energy-saving solution for fan coil units and air curtains.

ebmpapst

The engineer's choice

The ideal combination: Fan coil units and air curtains with GreenTech EC fans.

Our EC fans are ideal for use with fan coil units and air curtains. Their highly efficient GreenTech EC technology ensures not only extremely low running costs, but also completely reliable, maintenance-free operation over an exceptionally long service life – which reduces the life cycle costs still further.

Unbeatable technology.
Manufacturers of fan coil units face a difficult choice when deciding on the right fan: In addition to the necessary power, low operating noise and the installation conditions in the fan coil unit housing, it is important to select the right fan drive operating principle to suit requirements. After all, this has a crucial influence on energy consumption and hence the operating costs.

At ebm-papst we have thought of all these things – and even gone one step further. In the past, the parallel operation of several fans was hindered by interference from harmonics. These are now filtered out by the optional Active PFC (Power Factor Correction) specially developed by ebm-papst and no additional measures are then required to deal with this problem!

Virtually imperceptible running noise.
Fan coil units are mostly used in offices and hotel rooms – places where people spend a lot of time. This makes noise emissions a particularly important issue. With their intelligent, aerodynamically optimised design, ebm-papst fans can be relied upon for extremely quiet and efficient operation. What's more, infinitely variable speed control guarantees just the right air flow to suit every situation.
As well as in fan coil units, our GreenTech EC centrifugal fans are also used in air curtains – where they again supply exactly the right amount of air.

Single, twin and triple fans are all available with GreenTech EC technology. These attain an air performance of up to 2,500 m³/h in the power range up to 245 W. Installation could not be simpler thanks to the Plug & Play concept and particularly compact dimensions.

Maximum comfort.
GreenTech EC centrifugal fans are highly efficient, use up to 70 % less energy than conventional AC fans and are also extremely quiet.

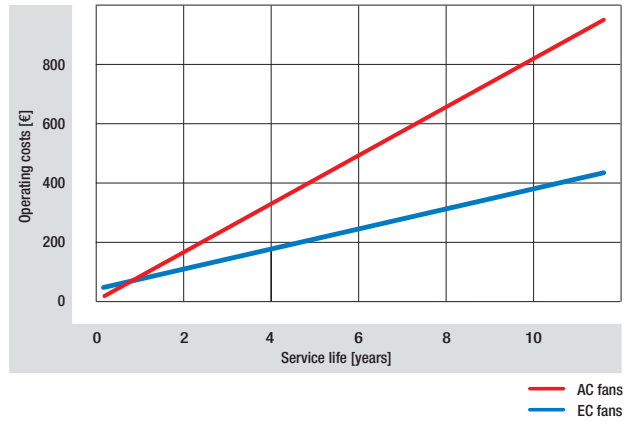
Given so many advantages, planners, manufacturers and owners can all sleep soundly.

An investment that soon pays for itself.

Fan coil units generally have a long service life. Which makes a high efficiency level a particularly valuable asset. So it comes as no surprise that building planners and owners are always on the look-out for efficient solutions – just like our GreenTech EC technology.

Thanks to an extremely low power consumption, investments in GreenTech EC technology pay for themselves in less than two years. Maintenance-free operation and a very long service life reduce the life cycle costs still further.

Comparison of costs for EC and AC technology

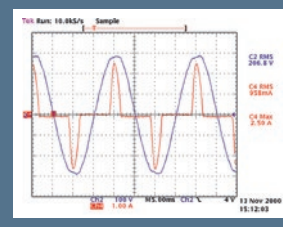


Optimised operation.

Benefit from newly developed electronics with Active Power Factor Correction in the power range up to 170 W: Active PFC filters out unwanted harmonics and helps to achieve excellent power factors of up to $\lambda = 0.99$. Current peaks are also reduced by up to 50 %. The connection of several fans in parallel is then no problem. Active PFC from ebm-papst thus opens up completely new perspectives for operating air conditioning systems!

Example

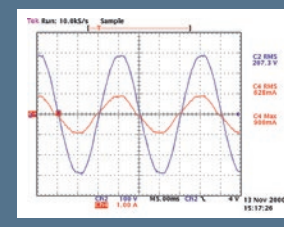
Without Active PFC



Power factor $\lambda = 0.53$

Current $I_{RMS} = 958$ mA

With Active PFC



Power factor $\lambda = 0.99$

Current $I_{RMS} = 628$ mA

Distinguished partners.

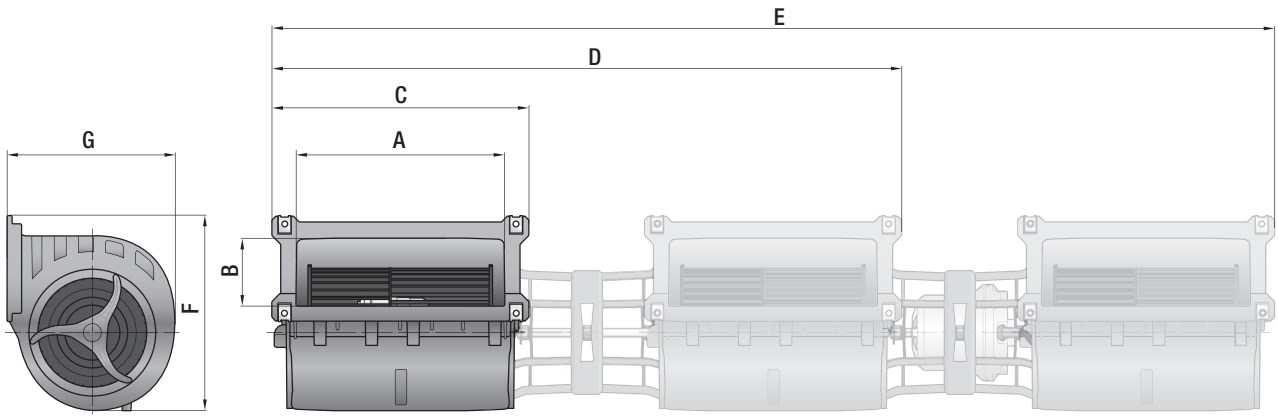
Many renowned fan coil manufacturers use GreenTech EC fans. They all bear the “Certified Fan Coil Partner” logo, which we award to companies who install our ebm-papst GreenTech EC fans in their fan coil units.

Why not become another of our Fan Coil Partners – find out more at: **hotel.ebmpapst.com/pages/en/partner.html**

Certified Fan Coil Partner

ebmpapst

New dimensions.



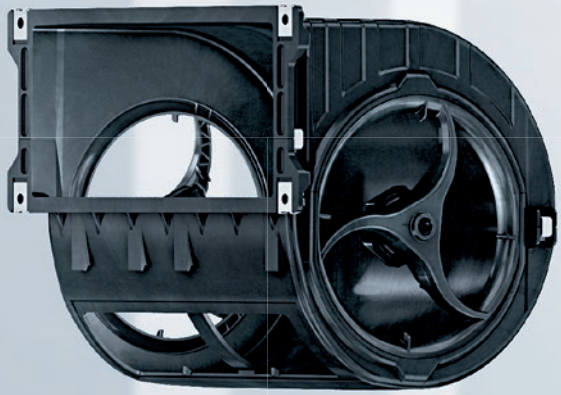
Single, twin or triple.

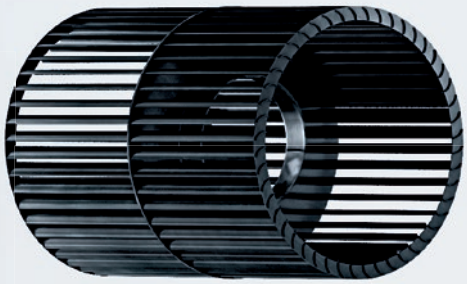
Whatever your requirements, you will find just the right product for every installation situation in our range.

Article number	Active PFC	A	B	C	D	E	F	G
Single fan								
D3G 133-LT13-01		215	70	264	–	–	200	173
D3G 133-LU01-01		215	70	264	–	–	200	173
D3G 133-LV05-31	X	215	70	264	–	–	200	173
D3G 133-LV13-30		215	70	264	–	–	200	173
D1G 146-LU01-01		226	98	272	–	–	216	202
D1G 146-LV03-01		226	98	272	–	–	216	202
D3G 146-LT13-30		226	98	272	–	–	216	202
D3G 146-LU03-30		226	98	272	–	–	216	202
D3G 146-LU09-31	X	226	98	272	–	–	216	202
D3G 146-LV05-31	X	226	98	272	–	–	216	202
D3G 146-LV13-30		226	98	272	–	–	216	202
D3G 160-LV05-31	X	223	97	284	–	–	261	223
D3G 160-LV13-30		223	98	284	–	–	261	223
Multiple fan								
K3G 133-LR15-01		215	70	–	647	–	200	173
K1G 146-AC01-01		226	98	–	677	–	216	202
K3G 146-AC15-01		226	98	–	677	–	216	202
K3G 146-AD01-01		226	98	–	677	–	216	202
K3G 146-AD03-02	X	226	98	–	677	–	216	202
K3G 146-AE01-01		226	98	–	–	1,082	216	202
K3G 146-AE03-02	X	226	98	–	–	1,082	216	202
K3G 160-AD01-01		223	97	–	723	–	261	223
K3G 160-AD03-02	X	223	97	–	723	–	261	223

All specifications in mm. Data sheets available on request.

Top quality – in every respect.





Housing

Robust design
- Strong plastic housing
- Aerodynamic housing contour
- Proven, hard-wearing design

Flexible installation
- With horizontal or vertical motor shaft

Easy to fit
- Sheet metal nuts pre-assembled on housing flange
- Adapter plate if required by customer

Quiet operation
- Special motor mount isolates housing from vibrations
- Aeroacoustically optimised suspension

Safe operation
- Flame-proof version optionally available

Impeller

Quiet operation
- Impeller rotor unit dynamically balanced in two planes
- High balance quality

Great efficiency
- Optimised aerodynamics

Flexible configuration
- Available as single, twin or triple fan
- Parallel connection for increased air flow

GreenTech EC motor

High efficiency
- Low copper and iron loss
- No slip loss thanks to synchronous running
- No magnetic hysteresis loss in the rotor thanks to the use of permanent magnets
- Maintenance of high efficiency level

Optimised commutation
- Permits part load operation up to 1:10

Low noise emissions
- Optimised actuation and adapted stator design

Active PFC – optional
- Active Power Factor Correction minimises harmonic interference
- Achieves power factor of up to $\lambda = 0.99$

Electronics

Simple commissioning
- Motor, electronics and control system all from a single source, so no need for complex coordination
- Central connection area for mains and control input

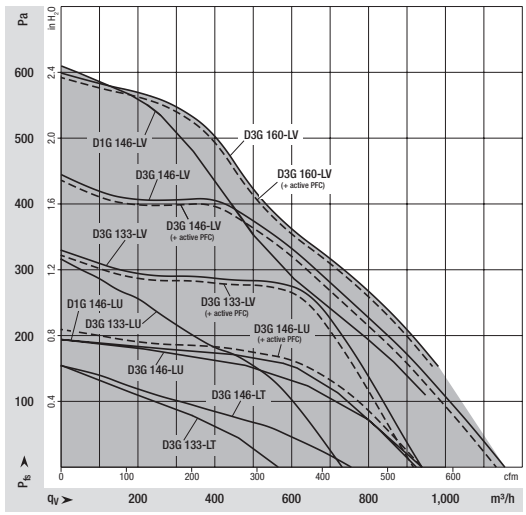
Flexible control
- Infinitely variable speed control
- Control signal PWM (D1G and K1G) and 0–10 V DC / PWM (D3G and K3G)

Safe operation
- Integrated locked rotor and excess temperature protection
- Safe shutdown even in the event of a fault
- Speed and optional alarm output

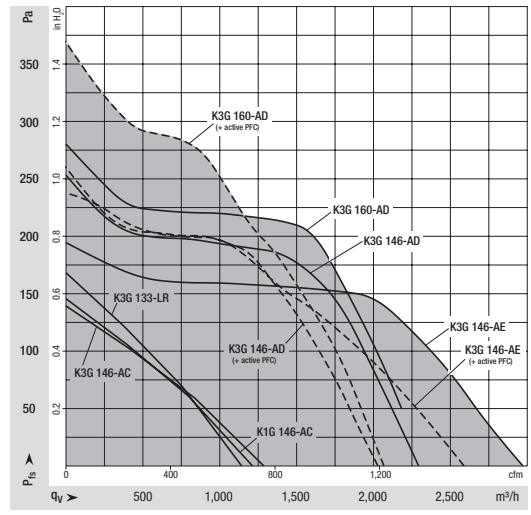
Universal use
- Suitable for 50 and 60 Hz systems
- Option of different voltage configurations for worldwide use

Impressive figures.

Single fan



Multiple fan



Nominal data				Nominal voltage range	Frequency	Speed	Max. input power	Max. input current	Perm. ambient temperature	Weight
Article number	**Active PFC**	**Control signal**	**Motor**	**VAC**	**Hz**	**rpm**	**W**	**A**	**°C**	**kg**
Single fan										
D3G 133-LT13-01		0–10 V DC/PWM	M3G055-BI	1~200–240	50/60	1,330	56	0.5	–25…+55	1.9
D3G 133-LU01-01		0–10 V DC/PWM	M3G055-DF	1~200–240	50/60	1,620	82	0.7	–25…+40	2.2
D3G 133-LV05-31	X	0–10 V DC/PWM	M3G055-DF	1~200–240	50/60	2,030	170	0.8	–25…+60	2.6
D3G 133-LV13-30		0–10 V DC/PWM	M3G055-DF	1~200–240	50/60	2,050	170	1.4	–25…+60	2.2
D1G 146-LU01-01		PWM	M1G055-CF	1~200–240	50/60	1,300	100	0.82	–25…+50	6.3
D1G 146-LV03-01		PWM	M1G055-DF	1~200–240	50/60	1,780	170	1.35	–25…+50	3.0
D3G 146-LT13-30		0–10 V DC/PWM	M3G055-BI	1~200–240	50/60	1,060	57	0.5	–25…+60	2.2
D3G 146-LU03-30		0–10 V DC/PWM	M3G055-CF	1~200–240	50/60	1,300	95	0.8	–25…+55	2.2
D3G 146-LU09-31	X	0–10 V DC/PWM	M3G055-CF	1~200–240	50/60	1,300	100	0.5	–25…+60	2.8
D3G 146-LV05-31	X	0–10 V DC/PWM	M3G055-DF	1~200–240	50/60	1,560	170	0.8	–25…+60	2.8
D3G 146-LV13-30		0–10 V DC/PWM	M3G055-DF	1~200–240	50/60	1,550	167	1.3	–25…+60	2.9
D3G 160-LV05-31	X	0–10 V DC/PWM	M3G055-DF	1~200–240	50/60	1,650	170	0.8	–25…+60	3.4
D3G 160-LV13-30		0–10 V DC/PWM	M3G055-DF	1~200–240	50/60	1,650	170	1.4	–25…+60	3.4
Multiple fan										
K3G 133-LR15-01		0–10 V DC/PWM	M3G055-DF	1~200–240	50/60	1,280	69	0.56	–25…+50	3.3
K1G 146-AC01-01		PWM	M1G055-DF	1~200–240	50/60	800	50	0.44	–25…+50	3.4
K3G 146-AC15-01		0–10 V DC/PWM	M3G055-DF	1~200–240	50/60	910	60	0.5	–25…+50	3.4
K3G 146-AD01-01		0–10 V DC/PWM	M3G074-DF	1~200–240	50/60	1,400	243	1.8	–25…+40	4.2
K3G 146-AD03-02	X	0–10 V DC/PWM	M3G074-DF	1~200–240	50/60	1,280	170	0.8	–25…+50	4.2
K3G 146-AE01-01		0–10 V DC/PWM	M3G074-DF	1~200–240	50/60	1,250	245	1.9	–25…+40	5.8
K3G 146-AE03-02	X	0–10 V DC/PWM	M3G074-DF	1~200–240	50/60	1,120	170	0.8	–25…+40	5.5
K3G 160-AD01-01		0–10 V DC/PWM	M3G074-DF	1~200–240	50/60	1,300	240	1.8	–25…+40	6.3
K3G 160-AD03-02	X	0–10 V DC/PWM	M3G074-DF	1~200–240	50/60	1,090	170	0.8	–25…+50	6.3

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