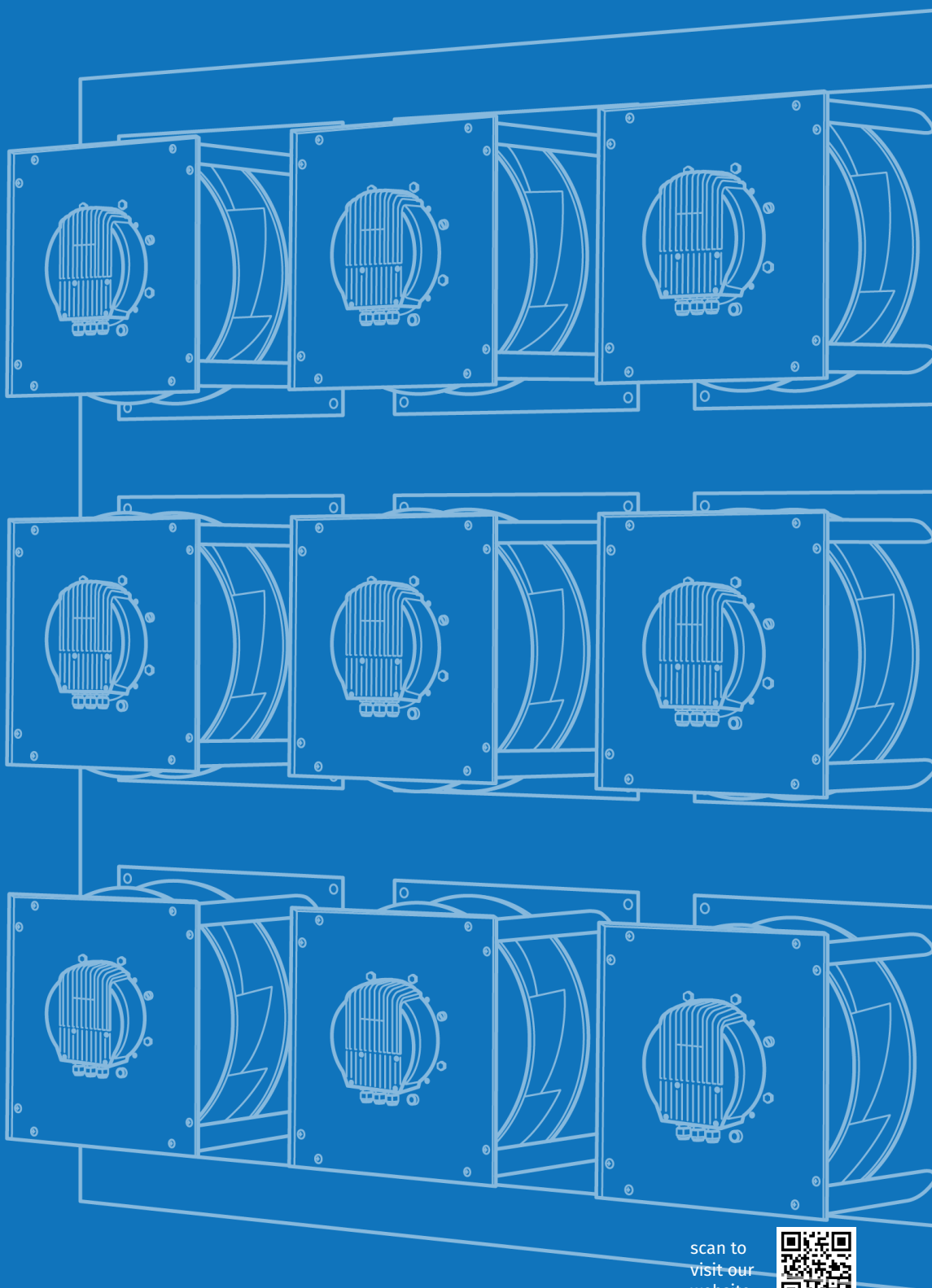
ECFanGrid
RETROFIT SOLUTIONS

EC Plug Fan Ranges



AXAIR
FANS UK LIMITED

scan to
visit our
website

E-Series Plug Fans with Generation 3 EC Motor*

The E Series range of plug fans produce significant increases in energy efficiency and a major reduction in operating noise in high flow and low-medium pressure applications. Available from stock or on short lead times, in multiple single & three phase EC variants.

E-Series Modular EC Plug Fans (CIE)

Compact, efficient and optimally designed, the E-series range of EC modular plug fans feature a lightweight (1.22kg/m2) black UV stabilised, long fibre reinforced polypropylene impeller, therefore reducing the mass of inertia and start up resistance to a minimum. Designed with computer fluid dynamics, the profiled blades and diffuser wheel produces less vibration while significantly reducing noise levels.

Generation 3 EC Motor*

The Generation 3 EC motor from Rosenberg is 30% more powerful than the previous generation 2 motor. As standard, the Gen3 motors input voltage range is 200-480 VAC (50/60Hz) and offers additional upgrades such as an integrated inspection LED to visualise the motors condition, improved ModBus RTU functionality, electronic quick change technology (EQC), IT network support. The maximum electrical input power is 4.7kW. *Gen 3 & Gen 3+ motors are available on 3 phase fans only.

The E Wheel is geared for maximum performance and efficiency. The optimised inlet conditions reduce the motor interaction with the airflow path, resulting in an increased airflow and pressure.

Key Features & Benefits

Expertly designed and manufactured to the highest standards by The Rosenberg Group in Germany, the GKHM E-Series blends efficiency, performance and costs perfectly. A full range of datasheets are available upon request, contact us for more information.

Energy Efficient E-Wheel (CIE)

The E-Wheel is manufactured from state-of-the-art materials and developed in house by the Rosenberg Group. The E series produces class leading performance in a backward curve offering. Efficiency is optimised by using 7 profiled blades and a narrow radial diffuser to maximise static regain through the fan discharge.

Higher Performance (IE)

E-series plug fans are geared for maximum performance and efficiency. To achieve this we have optimised inlet conditions by reducing the motor interaction with the airflow path as much as possible, this has resulted in increased airflow and pressure vs our non-optimised solution.

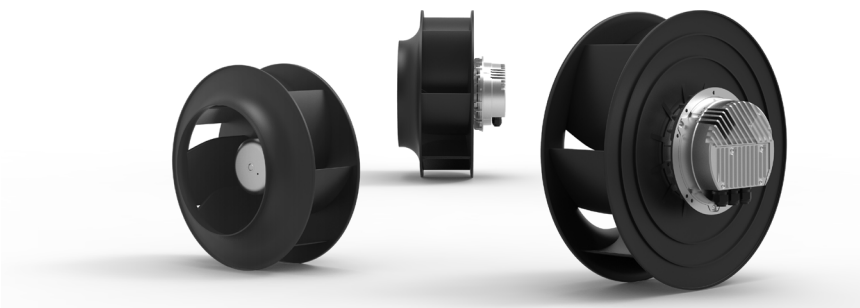
EC Generation 3 Motor (Gen 3)

The Gen 3 EC motor from Rosenberg is 30% more powerful than the Gen 2 equivalent and allows for an input voltage of 200-480 VAC, 50/60Hz in the same reference.

Low Cost & Low Noise

Competitively priced, the E-Wheel is a cost effective, low noise solution that is adopted by many UK air handling manufacturers & OEM's.

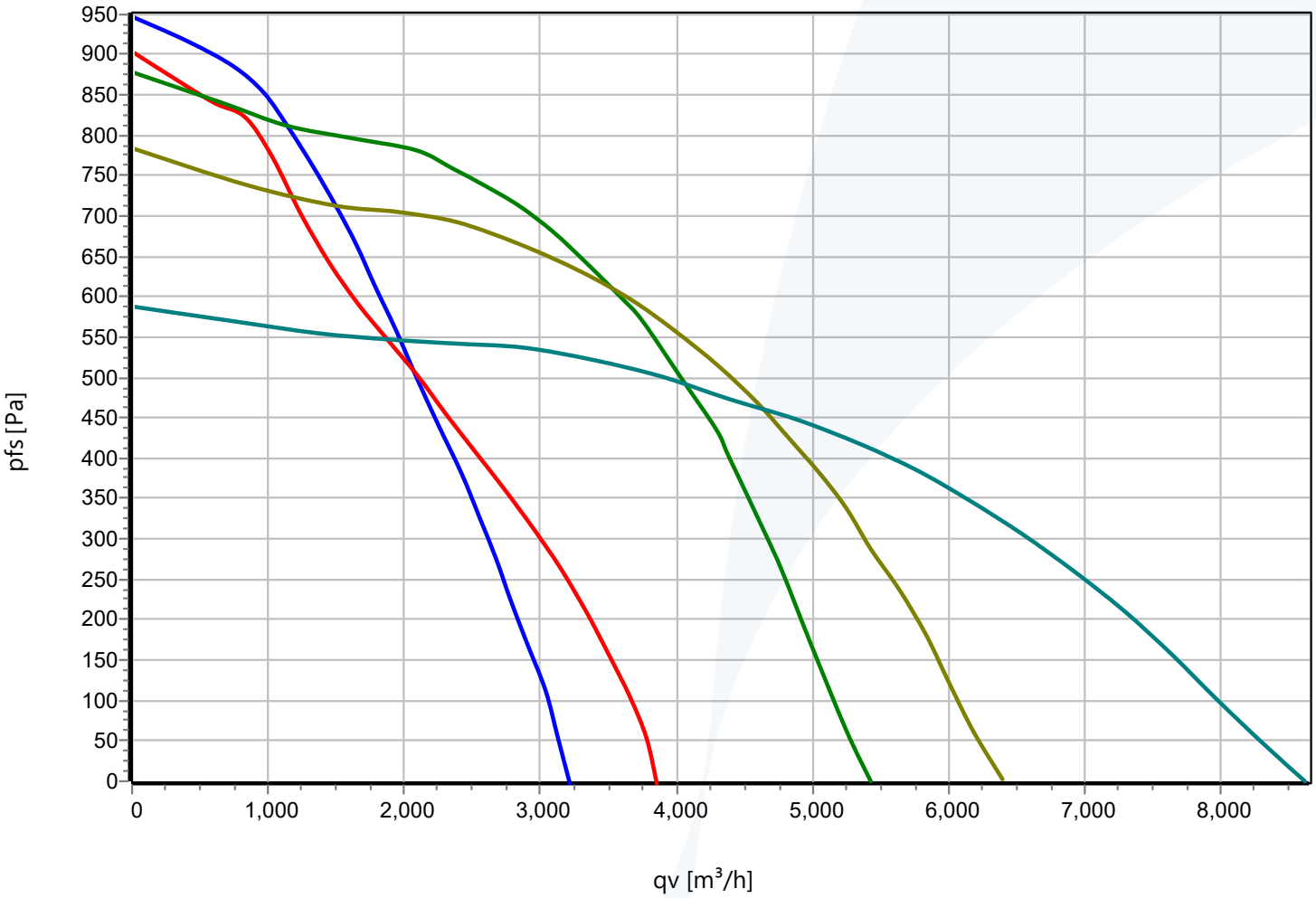
"The Generation 3 motor allows for an input voltage of 200-480 VAC in the same reference."



E-Series Material:

Black UV stabilised long fibre reinforced polypropylene.

GKHM 280-CIE.065.4EA IE HP	N43-28001
GKHM 315-CIE.088.4EA HP	N43-31508
GKHM 355-CIE.112.5FA IE	N43-35509
GKHM 400-CIE.125.5FA IE	N43-40007
GKHM 500-CIE.154.5HF IE	N43-50014



Download our fan selection software RoVent 10 for fast & simple data comparisons.

Single Phase EC

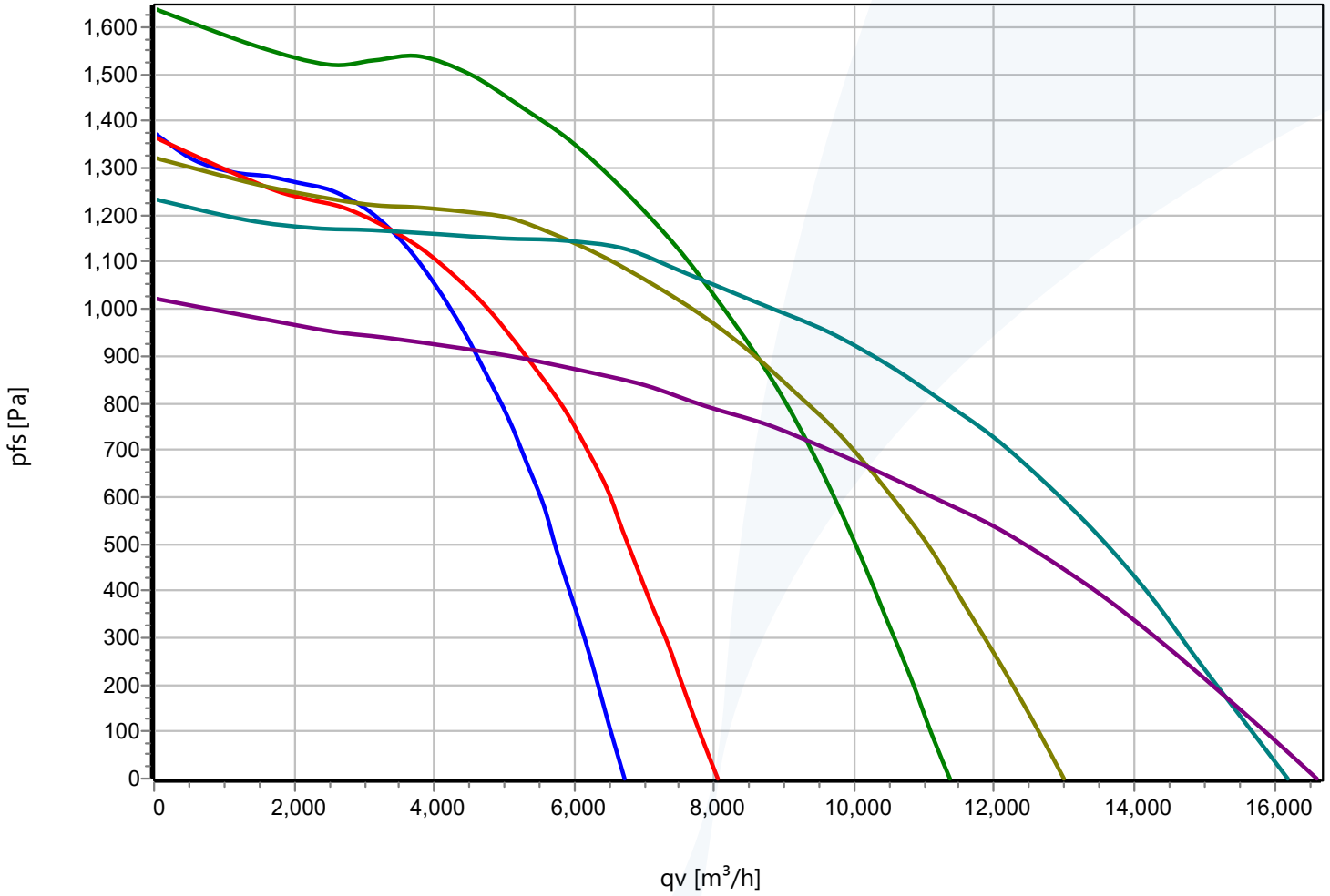
Single phase EC plug fans come complete with a P5 wiring interface via cable for supply and controlling in addition to integrated active Power factor correction (PFC). Low motor noise. Unlike our 3 phase variants, the single phase EC plug fans feature a Generation 2 motor.

Download Datasheets

E-Series Material:

Black UV stabilised long fibre reinforced polypropylene.

GKHM 355-CIE.112.5FA IE Gen3	N43-35513
GKHM 400-CIE.125.5HF Gen3	N43-40009
GKHM 450-CIE.136.6FF IE Gen3	N43-45019
GKHM 500-CIE.154.6FF IE Gen3	N43-50021
GKHM 560-CIE.175.6IF IE Gen3	N43-56010
GKHM 630-CIE.155.6IF IE Gen3	N43-63001



Our three phase EC plug fans are available from stock in sizes 355-630ø.

Three Phase EC

Three phase EC plug fans come complete with integrated terminal box and environmental resistant cable glands (3x M20x1.5). 100% speed controllable with integrated motor protection. ModBus RTU interface integrated. Busconfiguration possible on site, soft start, potential-free alarm contact and integrated 24V supply for accessories. Low motor noise.

Download Datasheets

B-Series Plug Fans with Generation 3 EC Motor*

The B Series range of aluminium plug fans are designed for medium to high pressure applications. Available from stock or on short lead times, in multiple single & three phase EC variants.

B-Series Modular EC Plug Fans (CIB)

The B-Series range of plug fans feature a seven blade design (instead of the standard eight) with a unique wheel geometry that provides for impeller efficiencies up to 78% while reducing noise by up to three dBA when compared to standard W impellers. The enhanced wheel design increases airflow compared to standard impellers operating at the same speed. B-Series impellers feature an all aluminium construction and robot assisted welding. All Rosenberg plug fan motors are CE, UL & RoHS approved.

Generation 3 EC Motor*

The Generation 3 EC motor from Rosenberg is 30% more powerful than the previous generation. As standard, the motors input voltage range is 200-480 VAC (50/60Hz) and offers additional upgrades such as an integrated inspection LED to visualise the motors condition, improved ModBus RTU functionality, electronic quick change technology (EQC), IT network support. The maximum electrical input power is 4.7kW. *Gen 3 motors are available on 3 phase fans only.

On the B-Series impeller, the blade diameter is smaller than the outside diameter of the cover and support plate, which acts as a rotating outlet diffuser, allowing for efficiencies up to 78%.

Key Features & Benefits

The B-Series range of modular plug fans, manufactured by Rosenberg in Germany, are optimised for high pressure applications where hygiene is important. A full range of datasheets are available upon request, contact us for more information.

Energy Efficient B-Wheel (CIB)

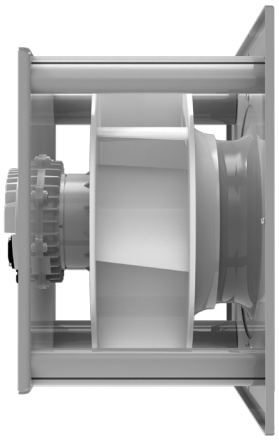
Aluminium B-Series plug fans feature a unique seven blade design in which the blade diameter is smaller than the outside diameter of the cover and support plate, allowing it to act as a rotating outlet diffuser. This wheel geometry provides for impeller efficiencies up to 78% while reducing noise. Fluid optimised inlet cone made of galvanised sheet metal.

High Pressure

In contrast to it's younger sibling, the E-Series, the B-Series can offer more air at a higher pressure. Multiple configurations of motor and electronic combinations are available to acheive improved performance where needed. Talk to our in-house team of fan engineers for more guidance on fan selection.

EC Generation 3 Motor (Gen 3)

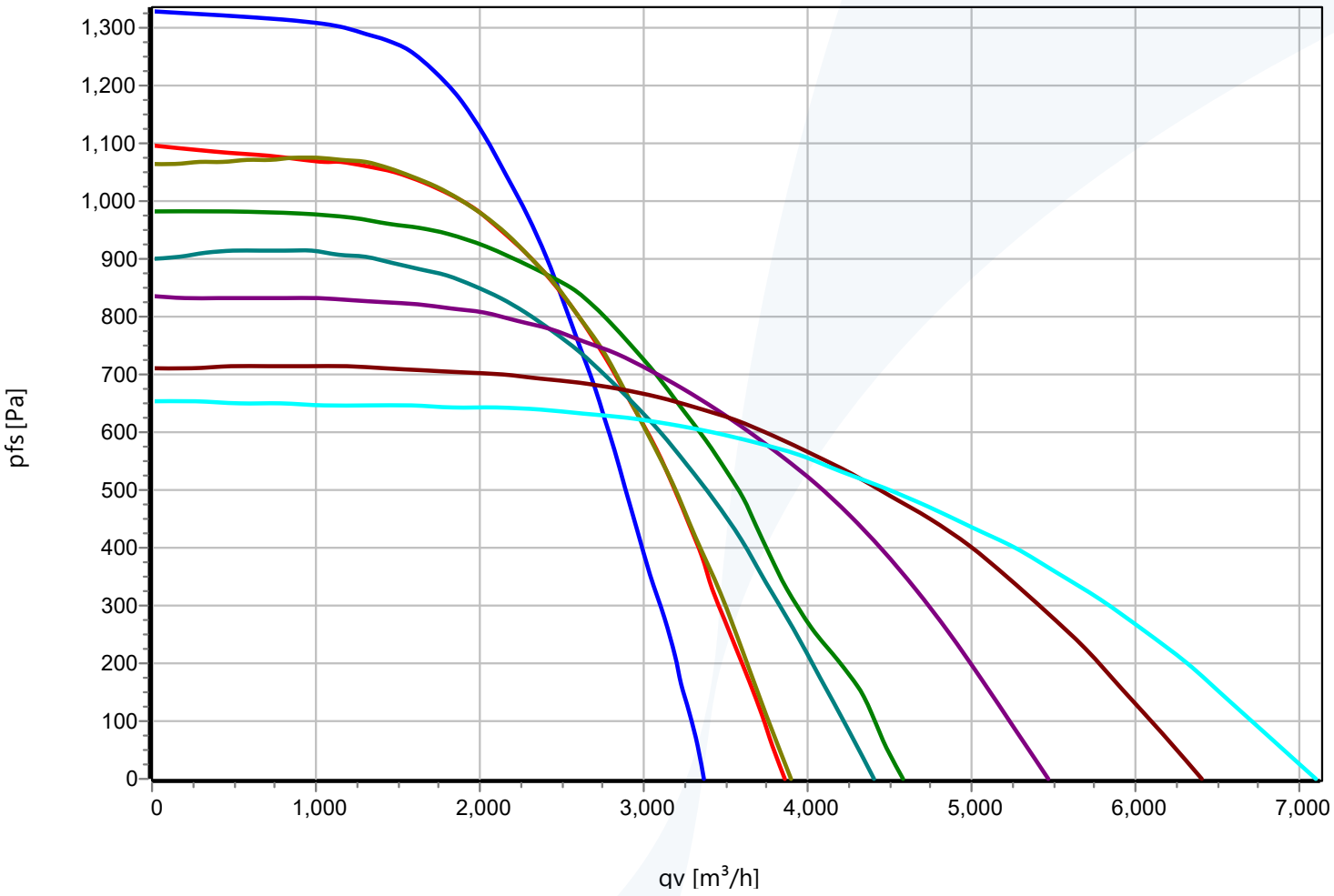
While previous EC motor generations were designed for either 200-230VAC or 380-480VAC input, the Gen 3 motor automatically adjusts to the actual input power across the entire range, allowing reduced inventory cost and easier design-in. The 3-phase, 50-60Hz motors are rated IP54 and UL-R motor class F. They are 30% more powerful than the previous "Generation 2" motors of the same size. The operating temperature range is -25°C to +40°C at full speed.



GKHR 250-CIB.080.4EA IE MX	N86-25315
GKHR 280-CIB.090.4EA IE MX	N86-28321
GKHR 315-CIB.100.4FF IE MX	N43-35509
GKHR 280-CIB.090.5FA IE	N43-40007
GKHR 315-CIB.110.5FA IE	N43-50014
GKHR 355-CIB.112.5FA IE	N86-35811
GKHR 400-CIB.125.5FA IE	N86-40305
GKHR 450-CIB.125.5FA	N86-45303

B-Series Material:

High efficiency aluminium (AlMg3) impeller



B Series aluminium impellers offer more air at a higher pressure.

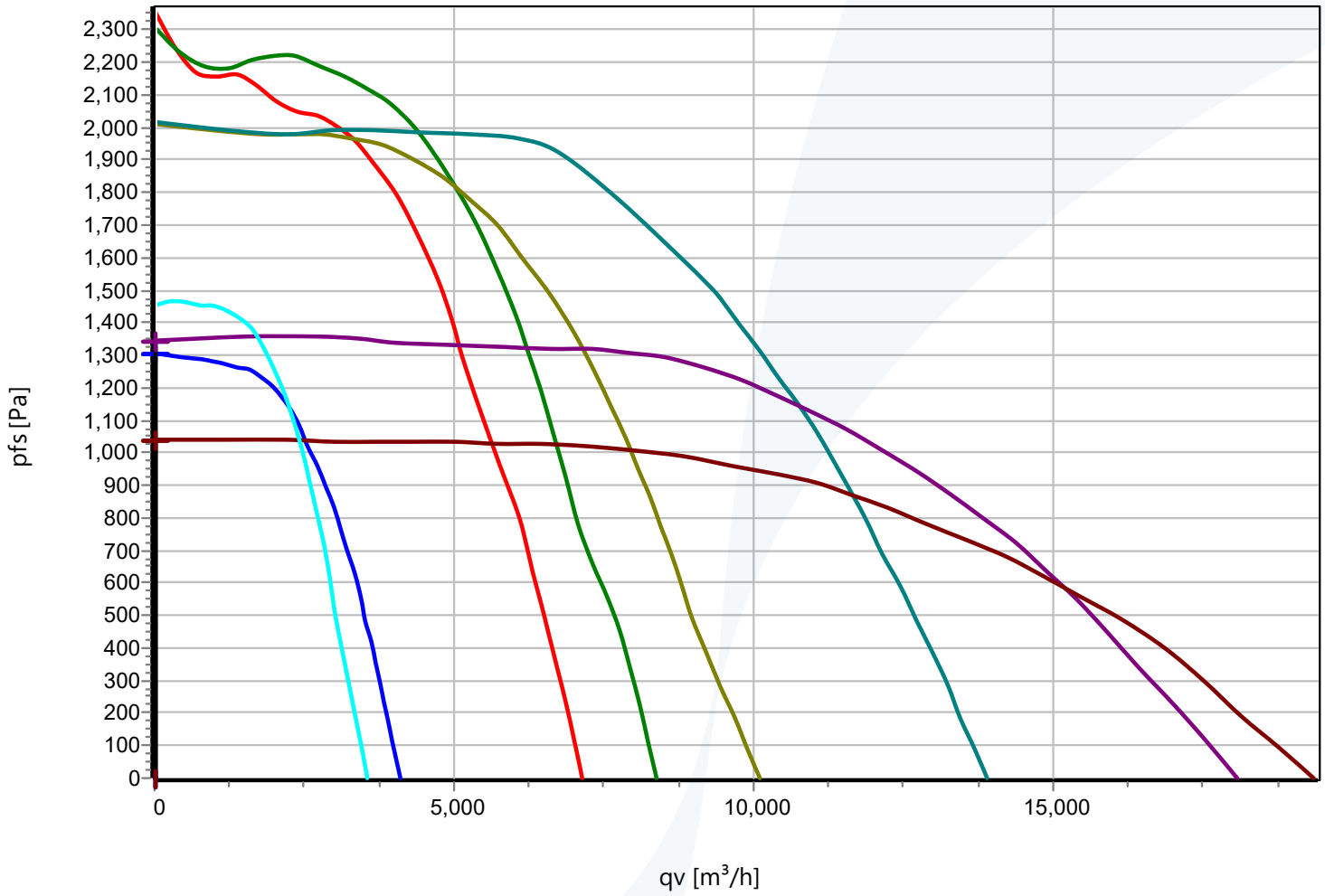
Single Phase EC

Generation 2 Energy saving EC external - rotor motor exceeds IE4 Super Premium Efficiency. Maintenance free ball bearings, closed on both sides with long-term lubrication. Magnets without rare earth elements. Motor coated black and/or die casted aluminum. Protection Class IP54 and insulation class F. For supply and controlling and integrated active PFC (Power Factor Correction).

GKHR 280-CIB.090.4FF IE MX	N86-28323
GKHR 315-CIB.112.6FF IE Gen3	N86-31815
GKHR 355-CIB.125.6FF IE Gen3	N86-35814
GKHR 400-CIB.125.6FF IE Gen3	N86-40306
GKHR 450-CIB.140.6NA IE Gen3+	N86-45309
GKHR 560-CIB.180.6NA IE Gen3+	N86-56306
GKHR 630-CIB.200.6NA IE Gen3	N86-63303
GKHR 250-CIB.080.4EA IE MX	N86-25317

B-Series Material:

High efficiency aluminium (AlMg3) impeller



Gen 3 motors exceed in accordance with IEC 60034-30-2 minimum requirements for IE5 Ultra Premium Efficiency.

Three Phase EC

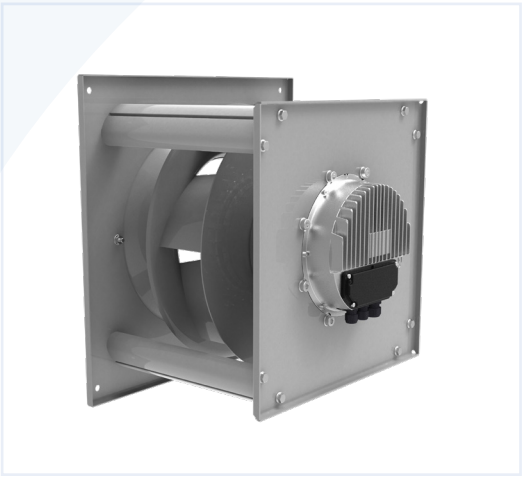
3~ types with integrated terminal box and environmental resistant cable glands (3x M20x1,5). 100% speed controllable with integrated Motor Protection. ModBus RTU Interface integrated. Busconfiguration possibile on site by customer. Soft Start. Potential -free Alarm. Contact and integrated 24V Supply for Accessories. Gen 3 motors exceed IE5 efficiency.

G-Series Plug Fans with Generation 3 EC Motor

The G Series offers a range of high efficiency, high pressure backward curved metal plug fans with generation 3 EC motors. Available in three phase variants from stock or on short lead times.

G-Series Modular EC Plug Fans (CIG)

G series plug fans combined with electronically commutated motors (EC-motors), form a very compact, efficient and optimised fan unit. The high pressure optimised impeller is manufactured from sheet steel metal coated in quartz grey and features 6 backward curved, profiled blades and an efficiency optimised diffuser wheel. The range impresses with a low depth for a simple installation and fast start-up is ensured because of well-integrated components.



Generation 3 EC Motor

The Generation 3 EC motor from Rosenberg is 30% more powerful than the previous generation. As standard, the motors input voltage range is 200-480 VAC (50/60Hz) and offers additional upgrades such as an integrated inspection LED to visualise the motors condition, improved ModBus RTU functionality, electronic quick change technology (EQC), IT network support. The maximum electrical input power is 4.7kW.

The G-Series offers constant volume while providing the high pressure requirements of sensitive market applications."

Key Features & Benefits

Expertly designed and manufactured to the highest standards by The Rosenberg Group in Germany, the high pressure optimised G series range of plug fans are available in 3~. A full range of datasheets are available upon request, contact us for more information.

Sheet Steel Metal Impeller (CIG)

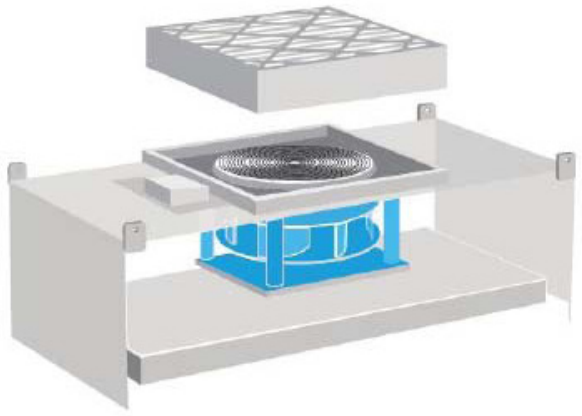
The quartz grey (RAL 7039) sheet steel metal impeller of the G-wheel features 6 backward curved, profiled blades and an efficiency optimised diffuser wheel for sound and pressure optimised behaviour. Mounting either horizontally or vertically.

EC Generation 3 Motor (Gen 3)

The Gen 3 EC motor from Rosenberg exceeds in accordance with IEC 60034-30-2 minimum requirements for IE5 and is 30% more powerful than the Gen 2 equivalent. Gen 3 motors allow for an input voltage of 200-480VAC, 50/60Hz in the same reference.

Fan Applications

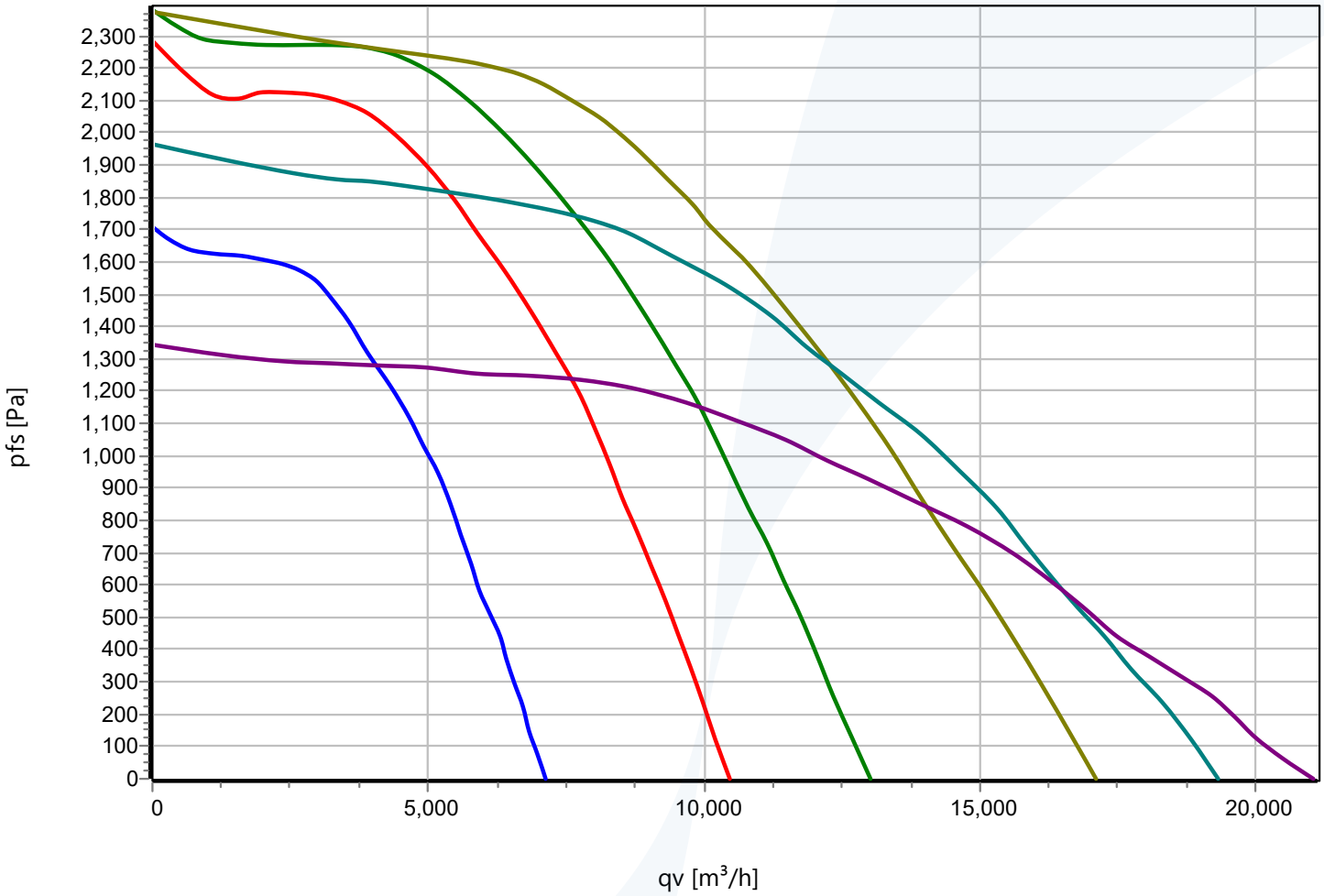
G series plug fans are ideal for containment, cleanroom and other sensitive high pressure applications.



G-Series Material:

Galvanised sheet steel in quartz grey (RAL 7039)

GKHR 355-CIG.102.5HF IE Gen3	N86-35601
GKHR 400-CIG.114.6FF IE Gen3	N86-40602
GKHR 450-CIG.128.6IF IE Gen3+	N86-45603
GKHR 500-CIG.143.6NA IE Gen3+	N86-50604
GKHR 560-CIG.160.6NA IE Gen3+	N86-56604
GKHR 630-CIG.180.6NA IE Gen3+	N86-63601



Download our fan selection software RoVent 10 for fast & simple data comparisons.

Fan Selection Software

All Rosenberg EC plug fan information such as operating duties and performance curves can be found on the bespoke RoVent 10 selection software. Simple to download and easy to use. Find the right fan for your application. Request a code by scanning the QR code.

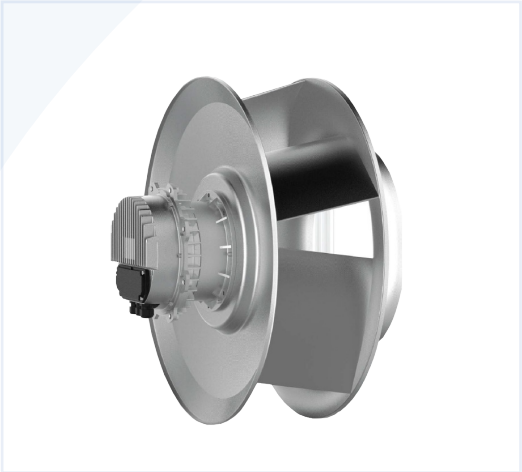
Download RoVent 10

I-Series Plug Fans with Generation 3 EC Motor*

The aluminium I-Series motorised impeller and plug type module, in combination with the high efficiency Generation 3+ EC motor gives class leading performance with optimum noise efficiency. Three phase variants available on short lead times.

I-Series Modular EC Plug Fans (CII)

The latest high efficiency, high volume airflow orientated I-impeller features 5 backward curved, hollow profiled, aerofoil section blades, contoured in sheet aluminium. The new design significantly reduces the turbulent downstream air produced by traditional backward curved impellers. The effect of this reduction is significantly reduced noise and increased in-application efficiency. I Series EC plug fans are optimised for high airflow applications.



Generation 3+ EC Motor*

The Generation 3+ EC motor from Rosenberg is 30% more powerful than the previous generation. As standard, the motors input voltage range is 200-480VAC (50/60Hz) and offers additional upgrades such as an integrated inspection LED to visualise the motors condition, improved ModBus RTU functionality, electronic quick change technology (EQC), IT network support. The maximum electrical input power is 4.7kW. *Featured on 3 phase fans only.

I-Series EC plug fans are designed to reduce turbulent downstream air, ideally suited to high airflow applications

Key Features & Benefits

To complement the existing range of energy efficient EC backward curved plug fans, Rosenberg have manufactured the latest in high efficiency plug fan: The I-series.

Optimised for Airflow

5 backward curved, hollow profiled, aerofoil section blades, contoured in sheet aluminium. I-series blades are positioned diagonally and top flared to enable the discharge airflow direction to be optimised for the highest efficiency and flow rates.

Aluminium Impeller

Aluminium (AlMg3) motorised impeller, statically and dynamically balanced according to DIN ISO 21940 - 11 at least with quality level G6.3.

EC Generation 3+ Motor (Gen 3 & Gen3+)

The Gen 3 EC motor from Rosenberg exceeds in accordance with IEC 60034-30-2 minimum requirements for IE5 and is 30% more powerful than the Gen 2 equivalent. Gen 3 motors allows for an input voltage of 200-480 VAC, 50/60Hz in the same reference. Motor made of die cast aluminium. Protection class IP54 and insulation class F.

Significantly Reduced Noise

The effect of reduced turbulent downstream air is a significant reduction in noise and increased in-application efficiency. The I series offers a significant reduction in sound when compared with the high pressure B series.

Integrations & Configurations

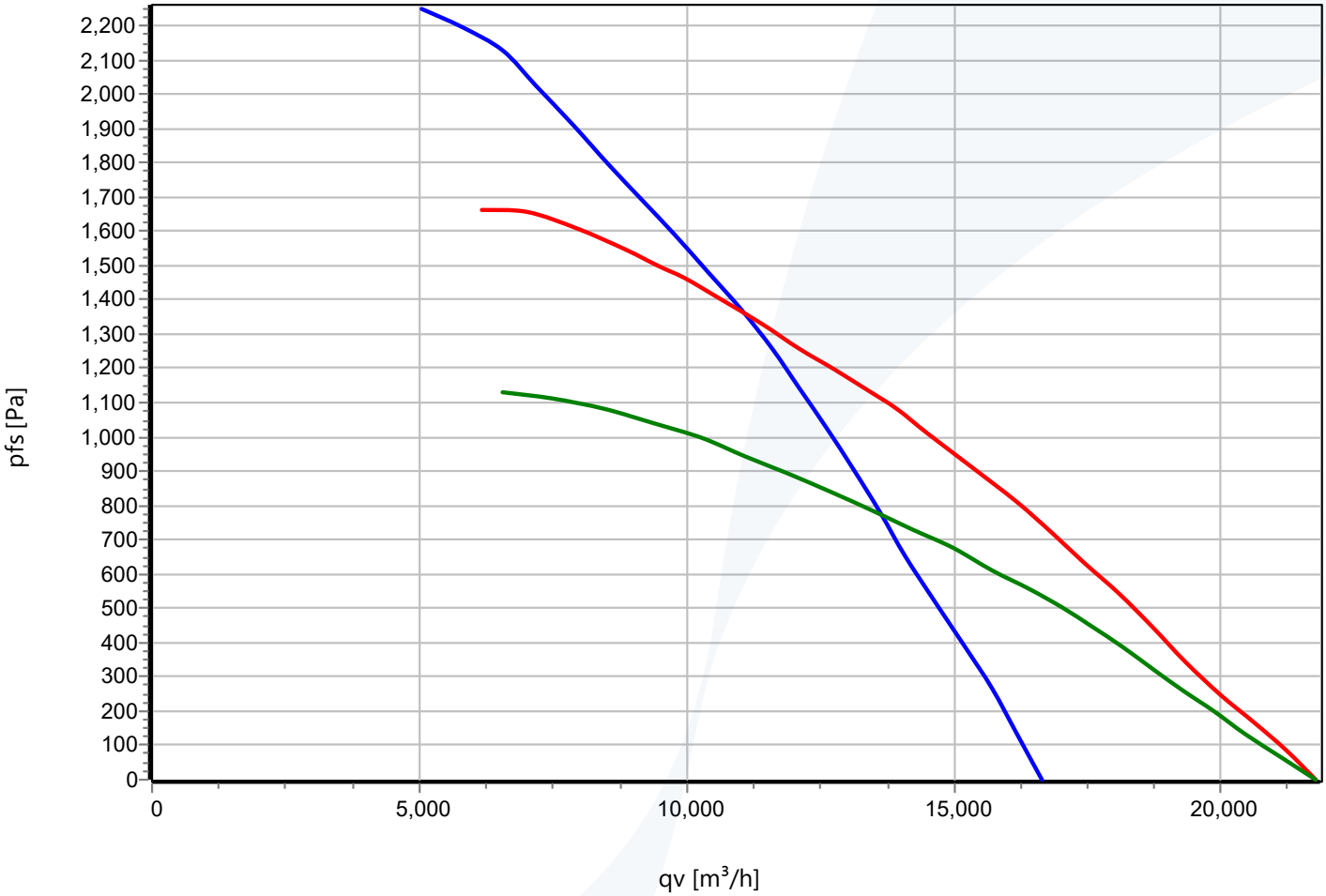
Electronic with integrated terminal box and environmental resistant cable glands. 100% speed controllable with integrated Motor Protection and Soft Start. ModBus RTU Interface integrated. Busconfiguration possible on site.

I-series blades are positioned diagonally and top flared for the highest efficiency & flow rates.

I-Series Material:

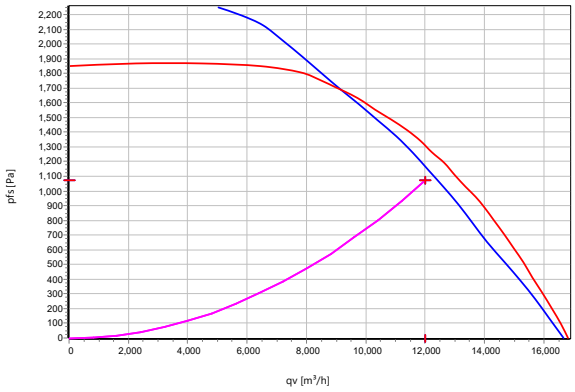
Hollow profiled, aerofoil section blades contoured in sheet aluminium (AIMg3).

GKHR 450-CII.147.6IF IE Gen 3+	N86-45702
GKHR 560-CII.183-6NA IE Gen 3+	N86-56700
GKHR 630-CII.200.6NA IE Gen 3	N86-63700



B & I Wheel Comparisons

Using a smaller impeller, with a smaller motor can result in a cost saving of up to 10% when compared with the B series, with very similar operating characteristics. This can be seen in the comparison to the right. The I wheel shows a 450Ø, while the B wheel shows a 500Ø and a motor one size up. Sound power is also significantly reduced.



Fan	V	m3/h	Pa	kW	r/min	A	%	500	dB
GKHM 450-CII.147.6IF IE Gen3+	3x 380-480V	11996	1073	5.79	2747	8.9	62	1.33	92
GKHM 500-CIB.160.6NA IE Gen3+	3x 380-480V	11996	1073	5.88	2112	9	61	1.31	95

Work with us

We've been working with air handling manufacturers & OEM's for over 30 years. We understand the key issues and frustrations that occur in the UK fan market and we're here to support you when you need us.

"We understand you, your market and what's important to your business. We're here to support you when you need us."

Competitive Quotes

As the UK market introduces price rises due to increased import or export costs, Axair always strives to offer a cost competitive industrial fan offer. We'll advise on price increases within an agreed notice period so you're not let down.

Product Selector

All Rosenberg EC Plug fan information such as operating duties and performance curves can be found on the bespoke RoVent 10 selection software. Simple to download and easy to use. Find the right fan for your application.

Fan Specification

Our Internal team of technical engineers are industry specialists and can help to select the right fan for your application. Talk to our OEM team to discuss your air handling system requirements.

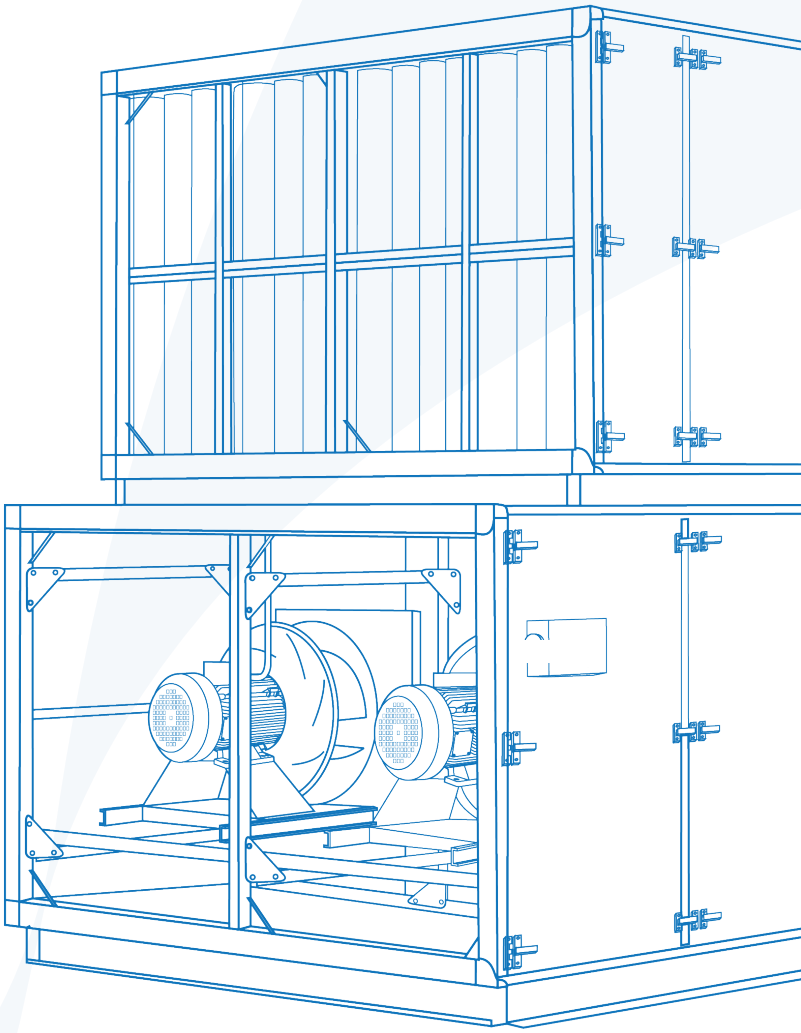
OUR STOCK POLICY

In 2020 we extended our warehouse to enable us to increase our stock holding of our most popular industrial fans for the air handling market.

This means we now have regular stock deliveries of the most energy efficient and cost effective modular plug fans to service our UK customers.

Our customers benefit from short lead times and greater in-stock availability while the rest of the market struggles with price increases and long unprecedented lead times.

We're confident that our stock and logistics policy enables us to maintain a position that will provide continuity of business and a cost effective solution to industrial fan procurement for our ever growing customer base.



Technical Understanding

We understand key influencing factors affecting the air handling market such as specific fan power, noise calculations, calculating system resistance and ensuring we meet the total specification of your project.

Regular Stock Deliveries

Wehave regular deliveries on a wide range of 1 and 3~ EC plug fan variants in addition to an extensive range of other industrial fans for common UK market sectors. We pledge to ensure our stock levels are maintained for our customers.

Short Lead Times

With stock available for immediate despatch we can ensure short lead times on popular lines. Those with scheduled orders continue to rely on Axair to manage their delivery schedules. On non stocked lines our lead times are competitive.