**One-stop shopping**

**A coherent concept**

RadiPac stands for...

**Real Information** - The performance documentation for the entire fan, consisting of high performance impeller, GreenTech EC motor and control electronics, is based on real laboratory measurements, rather than just calculations.

**Effective Logistics** - A single RadiPac part number encompasses all the components required to perform your specific air movement task. One-stop shopping at it’s best!

**Simple Startup and commissioning** - All necessary functions for operation are already on board and perfectly optimized.

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**Simple and safe**

Together, the electronics and motor form one unit. This not only saves space, but also ensures easy installation. The integrated electronics system for commutation and control replaces an external VFD (variable frequency drive). The motor and electronics in the system are perfectly matched, making additional electronic filters and shielded cables unnecessary. Even the motor overload protection is included. The result: no more cost-intensive adjustments before commissioning and no need for grounding and shielding measures. All you need is – Plug and Play!
Efficiency comes down to the system

“What counts is the result!” – this also applies to efficiency. After all, it is not just the efficiency of individual components which is decisive, but rather the result of their interaction. This is where RadiPac truly excels, beating anything on the market. The impeller, motor and electronics system are all optimally matched, resulting in a market-leading efficiency of well above 60%. The GreenTech EC motor is an AC line powered permanent magnet (PM) synchronous motor with electronic commutation (EC) and speed control. It’s efficiency exceeds super-premium levels while using widely available and cost-effective ferrite magnets. The unique motor design yields high magnetic flux density without using rare-earth metals. Other permanent magnet motors of comparable efficiency with internal rotor designs require the use of these rare-earth magnets. These PM motors are also less compact and more difficult to install, requiring additional peripherals. Not so with the RadiPac – here, efficiency is easy and uncompromising!

Compact design

The high-performance impeller is mounted directly onto the rotor of the external motor. This saves space and allows the entire rotating unit to be balanced at the same time.

Unrivaled compactness – the GreenTech EC fan …

the GreenTech EC fan can be installed quickly with all features already on board. … in contrast to conventional fans.
**High Fan Efficiency Grade**
- Aerodynamically optimized blade duct
- Integrated diffusor extension
- Inlet nozzle adjusted to impeller

**Low noise emissions**
- Trailing edge angled for optimized flow control
- Integrated diffusor extension
- Inlet nozzle adjusted to impeller

**Low vibration**
- Entire motor and impeller dynamically balanced
- Low residual imbalance
- Low bearing load and minimized structure-borne noise

**Robust design**
- Suitable for long term operation at high impeller tip speeds
- Corrosion-resistant aluminium
- Robot welded blades

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**Unrivaled compactness**
- Impeller is directly mounted on motor
- External rotor motor with integrated variable speed drive

**High efficiency**
- Synchronous motor without slip losses
- Permanent magnets prevent magnetization losses in rotor

**Economical operation**
- Optimized electronic commutation for high operational efficiency at part load
- At least 10:1 modulation range

**Low noise emissions**
- Unique commutation scheme and armature composition for low sound stator excitation
- Acoustically imperceptible switching frequency

**Long service life**
- Maintenance-free ball bearings
- Brushless commutation

**Safe operation**
- Insulated bearing system to avoid bearing currents
Optimized interaction ensures that the whole is more than the sum of its parts

**Electronics and terminals**

- **Versatile**
  - Continuously variable speed settings
  - Control signal 0-10 VDC and MODBUS
  - Integrated PID controller

- **Universal applicability**
  - Various voltage types for worldwide use
  - Suitable for 50 and 60 Hz mains

- **Safe operation**
  - Integrated locked-rotor and over-temperature protection
  - Active PFC for 1~ powered motors
  - Outdoor-rated fittings

- **Simple commissioning**
  - Central terminal connection area for power supply, alarm relay, control and communication
  - Safe separation of terminal connection area and electronics
  - High quality terminal
  - No need for complex coordination
RadiPac benefits at a glance

The better the interaction works, the more impressive the result. RadiPac modules are precisely matched for the highest possible system efficiency. The basis for this is a combination of highly-developed components and innovative technology.

In a class of their own: the new RadiPac models completely cover the air performance spectrum depicted below.

Air performance range of the RadiPac series
No matter which variant you choose, RadiPac EC radial impellers always fit the bill with sizes from 250 mm to 1,250 mm and versions from support brackets to a cube design.

Robust and stable: RadiPac in cube design
- Easy handling during transport and installation
- Allows vibration decoupling
- Protects motor system and impeller
- Installation with horizontal AND vertical motor shaft positions
- Optimized positioning of the nozzle
- No need for packaging material
- Inlet nozzle precisely factory-mounted
Available in 400, 450, 500, 560, 630, 710, 800, 900 and 1,250 mm sizes

Quick mounting: RadiPac in support bracket design
- Quick and easy installation
- Aerodynamic
- Installation with horizontal AND vertical motor shaft positions
- Inlet nozzle precisely factory-mounted
Available in 250, 280, 310, 355, 400, 450, 500 and 560 mm sizes

Quiet operation: RadiPac in support bracket Plus design
- Allows vibration decoupling
- Inlet nozzle precisely factory-mounted
- Installation with horizontal motor shaft position
Available in 250, 280, 310, 355 and 400 mm sizes

Fan only: RadiPac impeller design
- Installation with horizontal AND vertical motor shaft positions
Available in 250, 280, 310, 355, 400, 450, 500, 560 and 630 mm sizes