**Aircore EC**

**Designed to go beyond**

**Motor and drive all in one**
Integrated variable frequency drive (VFD) facilitates variable speed applications, reducing overall energy usage.

**Power more with less**
The Aircore EC’s reduced size and weight unlock infinite design potential making any machine lighter, quieter, and more efficient.

66% Less copper

50% Less weight and size

30% Fewer emissions

Using our innovative PC stator technology, Aircore EC motors offer class-leading efficiency in a smaller package. The Aircore EC provides the market’s most comprehensive range of power and frame sizes along with IoT capabilities, bringing smart motor technology to a wide range of HVAC and industrial applications.

**Powerful intelligence**
- State-of-the-art VFD allows precise speed control, reduces energy usage, and operates at a frequency to minimize audible noise.
- I-con (motor control software) enables users to fine tune operational parameters to their specific applications.
- Maximum power density in a 50% smaller and lighter package.

**Optimized efficiency**
- Meets highest efficiency standards at a wide range of load conditions.
- Increased operational efficiency by eliminating torque ripple, cogging, stator hysteresis and eddy current losses.
- Compact form factor reduces wiring and facilitates direct mounting to fan applications, increasing efficiency by 10-15%.

**Sustainable solutions**
- PCB stator uses 66% less copper and has proven to be 10x more reliable than traditional iron-core, copper-wound stators.
- Smaller and lighter housing reduces transportation emissions by 30%.
- Easy serviceability through our modular design enables the reuse and extended lifespan of components, keeping them out of the landfill.
Applications

Driving efficient fans
Aircore EC motors offer a remarkable advantage over traditional iron core motors as they are smaller, lighter, and enable direct mounting on the fan. This advancement allows original equipment manufacturers (OEMs) to create more compact systems that boast enhanced efficiency. By utilizing our motors, applications like fan arrays become much simpler to ship, install, and maintain.

Our motors come equipped with a VFD, granting you optimal operational control. Through this feature, you can effectively curtail energy costs by over 50 percent, a significant benefit that adds to the overall efficiency and eco-friendliness of the system.

Efficient, sustainable data center solutions designed with flexibility in mind
Infinitum’s high efficiency motors and environmentally-forward technology support lower carbon emissions through modular design. Our circular design strategy is centered around reliability, serviceability, and remanufacturing.

Maximize pump performance
In industrial and commercial settings, robust and reliable pumps are essential for tasks ranging from HVAC systems to water treatment facilities. Aircore EC motors are purposefully designed to meet the demands of these challenging environments, by providing exceptional durability and power. Our motors are equipped to resist dust ingress and water splashing, ensuring continuous operation even in harsh conditions.

Additionally, the Aircore EC motors boast a compact and disc-like design, making them the ideal choice for applications with limited space, allowing for more flexible and versatile installation options.

Revolutionizing material handling
Offering exceptional performance and efficiency across a broad spectrum of operating speeds, Aircore EC motors are the ideal choice for industrial conveyor and materials handling applications requiring substantial torque and power at lower RPMs. With a remarkable ability to maintain reliability, our motors can operate seamlessly within a temperature range of -25°C to 40°C and under 95 percent relative humidity.

Designed to endure the demanding conditions often encountered in industrial settings, Infinitum motors are engineered to withstand rigorous operating conditions. Their robust construction guarantees long-lasting performance while significantly reducing the risk of mechanical failures.
### Aircore EC motor efficiency

![Efficiency Chart](image)

**Legend:**
- Super Premium AC Induction Motor & VFD
- Leading EC Motor
- Infinitum Aircore EC Motor

### Aircore EC motor operation range

![Operation Range Graph](image)

### Catalog Specifications

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Power (HP/kW)</th>
<th>Speed (RPM)</th>
<th>Torque (Nm)</th>
<th>Diameter (in/cm)</th>
<th>Motor + drive length (in/cm)</th>
<th>Motor + drive weight (lb/kg)</th>
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<tr>
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<td>15 / 11.19</td>
<td>3600</td>
<td>30</td>
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<td>9.1in / 23.1cm</td>
<td>62.8lb / 28.5kg</td>
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Note: The letters S and H in the catalog number indicate supported bearing types.

### Electrical

- **Voltage:** 460 VAC (± 10%), 3Φ
- **Input frequency:** 60 Hz
- **Analog references:** 0-10 V, 0-20 mA
- **Digital inputs:** 24 VDC

### Mechanical

- **Enclosure:** TEFC/IP54
- **Mounting:** Frame, C-face
- **Relative humidity:** 95% non-condensing
- **Maximum elevation:** Up to 1000m, de-rate above 1000m

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**Infinitum**

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Infinitum 20231023

PRELIMINARY

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