

## 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.



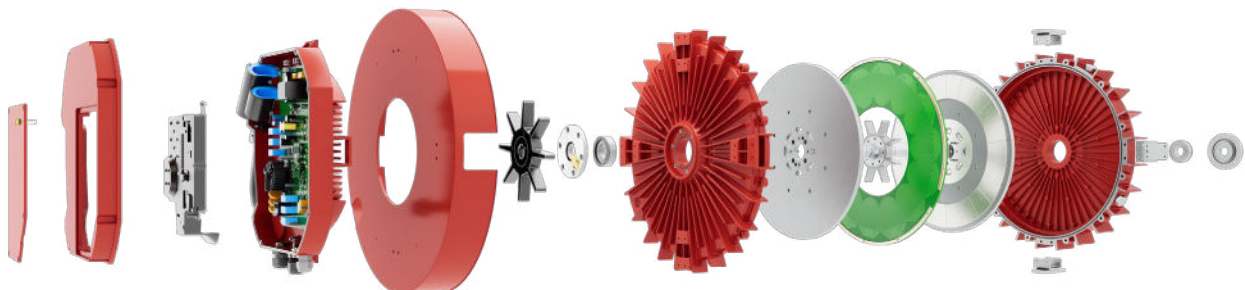
### Optimized efficiency

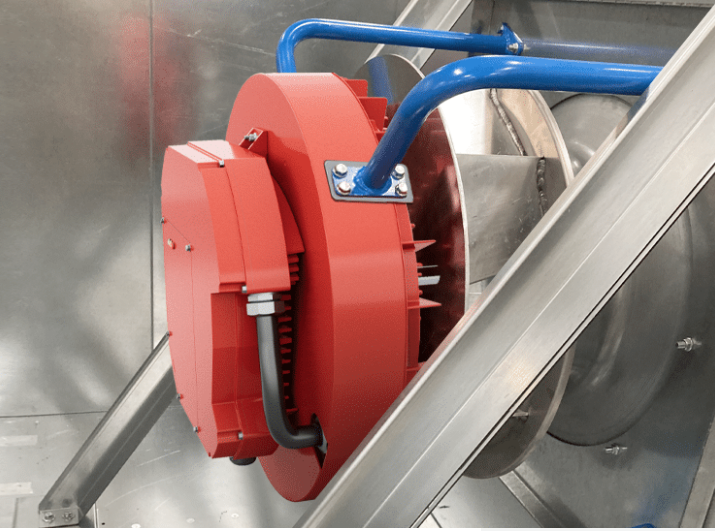
- Meets highest efficiency standards at a wide range of load conditions.
- Increased operational efficiency by eliminating torque ripple, cogging, stator hysteresis and eddy current losses.
- Compact form factor reduces wiring and facilitates direct mounting to fan applications, increasing efficiency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

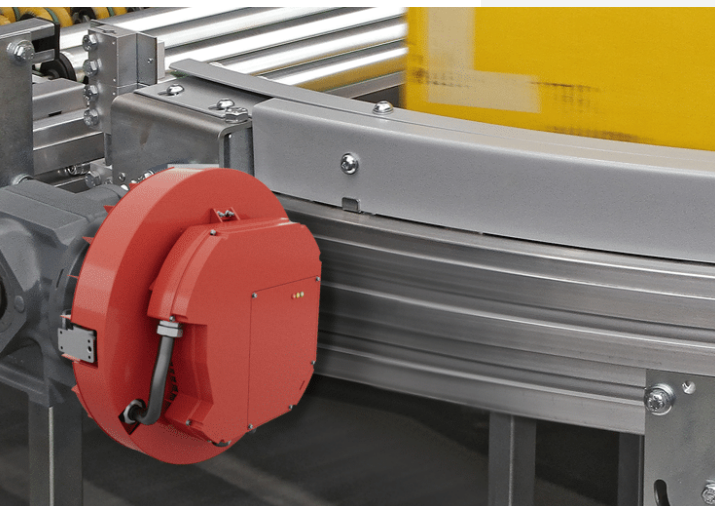
Aircore EC motors offer a remarkable advantage over traditional iron core motors as they are smaller, lighter, and enable direct mounting on the fan. This advancement allows original equipment manufacturers (OEMs) to create more compact systems that boast enhanced efficiency. By utilizing our motors, 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

Infinitem'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.

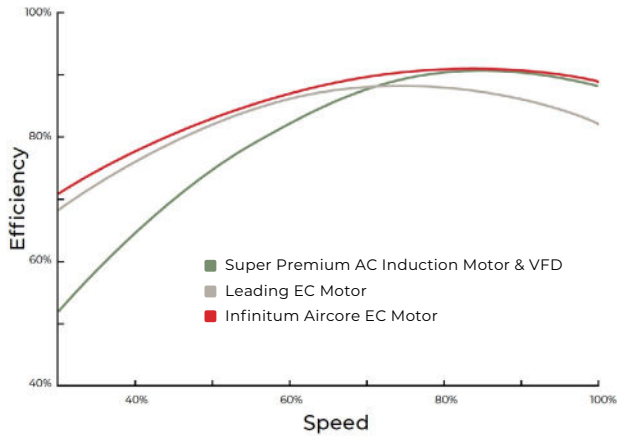


### Revolutionizing material handling

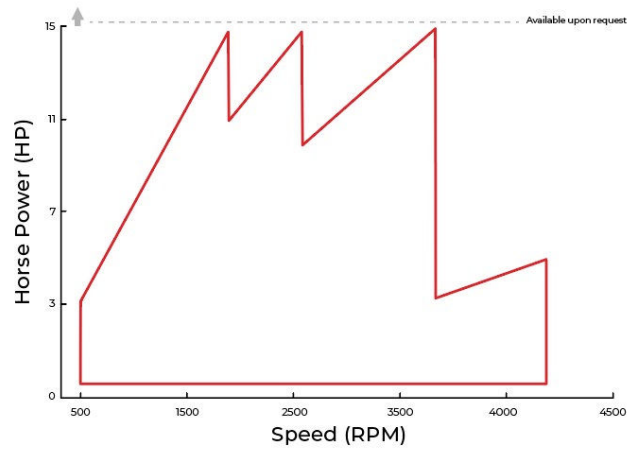
Offering exceptional performance and efficiency across a broad spectrum of operating speeds, Aircore EC motors are the ideal choice for industrial conveyor and materials handling applications requiring substantial torque and power at lower RPMs. With a remarkable ability to maintain reliability, our 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, Infinitem 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



## Aircore EC motor operation range



Catalog number	Power (HP/kW)	Speed (RPM)	Torque (Nm)	Diameter (in/cm)	Motor + drive length (in/cm)	Motor + drive weight (lb/kg)
AE20-1500-3600-AAAS-AA40 AE20-1500-3600-AAAH-AA40	15 / 11.19	3600	30	21.1in / 53.7cm	8.9in / 22.5cm	128.1lb / 58.1kg
AE20-1500-2700-AAAS-AA40 AE20-1500-2700-AAAH-AA40	15 / 11.19	2700	40	21.1in / 53.7cm	8.9in / 22.5cm	128.1lb / 58.1kg
AE20-1500-1800-AAAS-AA40 AE20-1500-1800-AAAH-AA40	15 / 11.19	1800	60	21.1in / 53.7cm	8.9in / 22.5cm	128.1lb / 58.1kg
AE20-1000-1800-AAAS-AA40 AE20-1000-1800-AAAH-AA40	10 / 7.46	1800	40	21.1in / 53.7cm	8.9in / 22.5cm	128.1lb / 58.1kg
AE18-1000-3600-AAAS-AA40 AE18-1000-3600-AAAH-AA40	10 / 7.46	3600	20	18.6in / 47.2cm	8.7in / 22.1cm	96.1lb / 43.6kg
AE18-1000-2400-AAAS-AA40 AE18-1000-2400-AAAH-AA40	10 / 7.46	2400	30	18.6in / 47.2cm	8.7in / 22.1cm	96.1lb / 43.6kg
AE18-0750-1800-AAAS-AA40 AE18-0750-1800-AAAH-AA40	7.5 / 5.59	1800	30	18.6in / 47.2cm	8.7in / 22.1cm	96.1lb / 43.6kg
AE15-0750-3600-AAAS-AA40 AE15-0750-3600-AAAH-AA40	7.5 / 5.59	3600	15	16.4in / 41.7cm	8.7in / 22.1cm	81.4lb / 36.9kg
AE15-0750-2400-AAAS-AA40 AE15-0750-2400-AAAH-AA40	7.5 / 5.59	2400	22.5	16.4in / 41.7cm	8.7in / 22.1cm	81.4lb / 36.9kg
AE15-0500-2400-AAAS-AA40 AE15-0500-2400-AAAH-AA40	5 / 3.73	2400	25	16.4in / 41.7cm	8.7in / 22.1cm	81.4lb / 36.9kg
AE15-0500-1800-AAAS-AA40 AE15-0500-1800-AAAH-AA40	5 / 3.73	1800	20	16.4in / 41.7cm	8.7in / 22.1cm	81.4lb / 36.9kg
AE13-0500-4200-AAAS-AA40 AE13-0500-4200-AAAH-AA40	5 / 3.73	4200	8.5	14.5in / 36.7cm	9.1in / 23.1cm	62.8lb / 28.5kg
AE13-0500-3600-AAAS-AA40 AE13-0500-3600-AAAH-AA40	5 / 3.73	3600	10	14.5in / 36.7cm	9.1in / 23.1cm	62.8lb / 28.5kg

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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