

# Mission Critical

Designed to go beyond

## Motor and drive all in one

Active Front End (AFE) Integrated variable frequency drive (VFD) with HRG and ceramic bearings facilitates mission critical applications.

## Power more with less

50% lighter, 30% quieter, and up to 25% more efficient, averaging \$2,300 in energy savings per motor\*

Using our innovative PC stator technology, Aircore mission critical motors offer class-leading efficiency in a smaller package. This family of motors provides the market's most comprehensive range of power and frame sizes for a wide range of heavy duty applications.



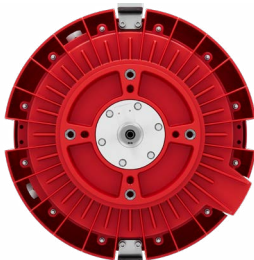
## Integrated AFE

- Incorporates wideband harmonic mitigation using an Active Front End (AFE) technology
- Lowers harmonic content well below IEEE-519 levels across the motor's operating range while maintaining unity power factor further improving system performance limiting insertion losses below 1% at high efficiency
- As an integrated solution, the AFE eliminates additional wiring and infrastructural costs typically associated with passive filters or other solutions



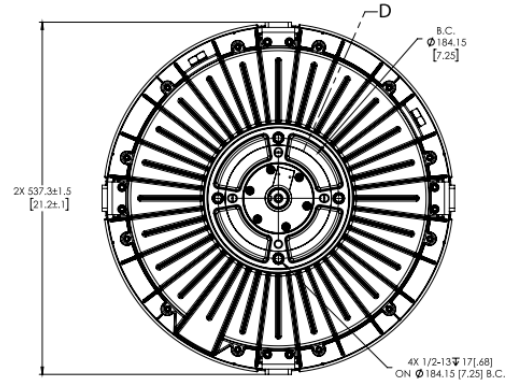
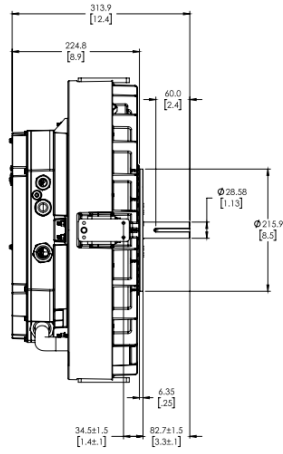
## Optimized efficiency and reliability

- Meets highest efficiency standards at a wide range of load conditions.
- State-of-the-art VFD allows precise speed control, and reduces energy usage.
- Increased operational efficiency by eliminating torque ripple, cogging, stator hysteresis and eddy current losses.
- High Resistance Ground (HRG) capability for increased reliability
- Hybrid ceramic bearings for increased longevity



## Sustainable solutions

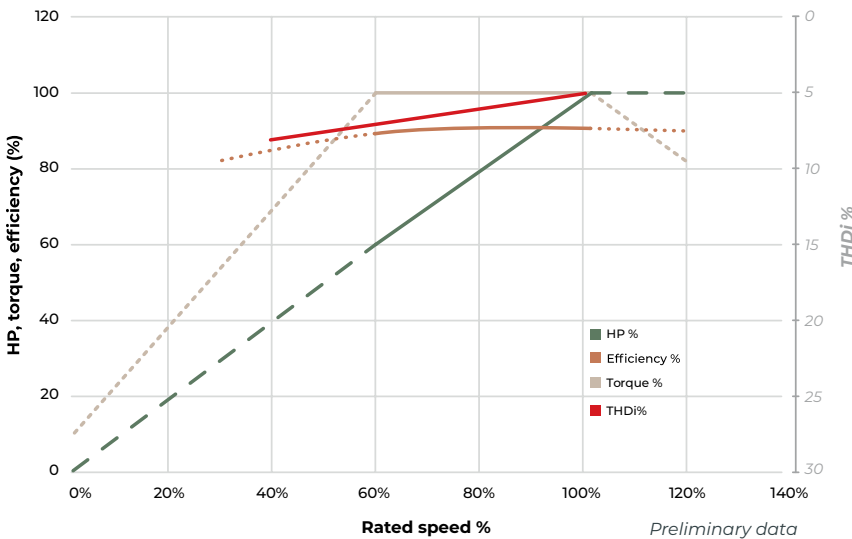
- Maximum power density in a smaller and lighter package.
- PCB stator uses 66% less copper and has proven to be 10x more reliable than traditional iron-core, copper-wound stators.
- Smaller and lighter housing reduces transportation emissions by 30%.
- Easy serviceability through our modular design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



Dimensions shown for AM20 frame.

Catalog number	Power	Speed (RPM)	Torque (Nm)	Diameter	Motor + drive length	Motor + drive weight
AM20-1000-1800-AAA-43	10 HP 7.46 kW	1800	40	21.0in 53.3cm	10.6in 22.1cm	146.8lb 66.6kg
AM18-1000-2400-AAA-43	10 HP 7.46 kW	2400	30	18.6in 47.2cm	8.7in 22.1cm	106.3lb 48.2kg
AM18-0750-1800-AAA-43	7.5 HP 5.59 kW	1800	30	18.6in 47.2cm	8.7in 22.1cm	110.2lb 50.0kg
AM15-0500-1800-AAA-43	5 HP 3.77 kW	1800	20	16.4in 41.7cm	8.7in 22.1cm	85.6lb 38.8kg

## Aircore mission critical operating range



### Electrical

Voltage	460 VAC (± 10%), 3Φ, 60Hz
Speed control	Modbus RTU, BACnet MSTP, Analog
Input/Outputs	4x Digital Inputs and 2x Digital Outputs
Aux Power Supply	24 VDC, 250mA
Grounding Scheme	Solid Y or Corner Grounded Delta (HRG)
Power Factor	Unity

### Mechanical

Enclosure	TEFC/IP54
Mounting options	Peripheral, C-Face
Bearings	6206, Hybrid Ceramic
Shaft Grounding	Grounding Brush (NDE)



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