



Frame 13
1-5 HP (.75-3.73 kW)



Frame 15
5-7.5 HP (3.73-5.6 kW)



Frame 18
7.5-10 HP (5.6-7.46 kW)



Frame 20
10-15 HP (7.46-11.19 kW)



Comprehensive service,
maintenance & components



5 dB quieter than
conventional motors



Average \$2,300 in energy
savings per motor*

Applications



Fans



HVAC

Aircore EC+ Do More With Less.

Comprehensive, customizable power

Outperform

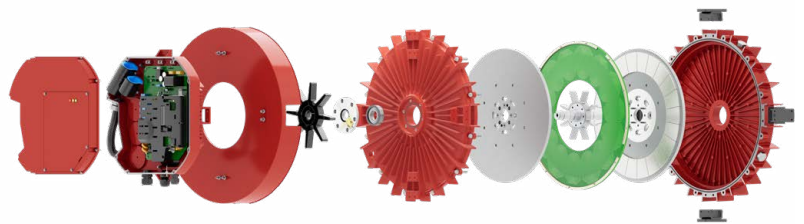
- Up to 25% higher efficiency than conventional systems
- Direct-mount design eliminates belts and mechanical losses
- Integrated VFD for precise variable speed control
- Optimized energy use during off-peak and peak loads
- Reduces total energy consumption
- Future-ready design for sustainable, high-performance HVAC

Maximize Uptime

- Fast installation — modular, lightweight design
- Easy maintenance — field-replaceable components
- Built-in redundancy — enhances system reliability
- Smart monitoring — VFD + motor control software
- Lower lifecycle costs — replace components, not full systems

Reduce Emissions

- Less copper — lightweight PCB stator reduces material use
- Smaller & lighter — minimizes material requirements and footprint
- Designed for circularity — remanufactured to reuse components and reduce landfill waste
- Unlock capital — redirect energy savings to fund other critical infrastructure initiatives

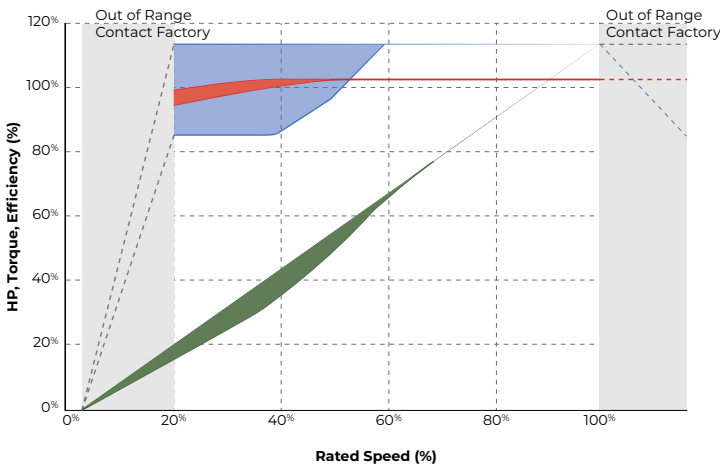


**Customize your motor system and instantly
generate a tailored datasheet using our
Motor Selection Tool (MST).**



Preview power, amperage, energy
savings, and more.

mst.goinfinitum.com

Performance


The recommended RPM range for this motor is 360-2160 RPM. Operating below 360 RPM is not advised except during coasting or ramp-up. For operation outside of this recommended range, please contact Infinitum for a customized solution. These curves are for reference only; actual performance may vary.

- Torque (Nm)
- Power
- Efficiency

General Information

Motor Technology	Axial Flux, PCB Stator
VFD Technology	Integrated, SiC based High Efficiency Drives
System Efficiency* (Motor + VFD)	91.8% (460 V), 90.4% (415 V)
Rated Speed	1800 RPM
Minimum Speed	360 RPM
Maximum Speed	2160 RPM
Duty Cycle	Continuous
Service Factor	1.0
Cooling	TEFC
Thermal Protection	Electronically Protected (EP-L)
IP Rating	IP65
Mounting	Peripheral Mount C-Face 182-TC
Mounting Orientation	Horizontal Vertical

*Calculated

Mechanical Information

Rotation	CW, CCW
Bearing (DE & NDE)	6206 Hybrid Ceramic
Grease	Permanent Mobil Polyrex
Rotor Inertia	0.49 kg.m ²
Grounding Brush	Included, DE


Electrical Information

Supply Voltage	415/460 VAC ±10% 575 VAC +/- 10%
Rated Amps*	12.0 A ±10% (460 VAC), 13.0 A ±10% (415 VAC)
Maximum Voltage Imbalance	+/-3% Phase-Phase Voltage
Short Circuit Rating (SCCR)	5kA
Insulation Class	MOT150 Class B
Grounding	Delta, HRG, Grounded Wye

Power, Speed

Frame Size	Rated Torque (Nm)	Rated Power (HP)	Rated Speed (RPM)	Weight (Lbs)
AE20-x	60	15	1800	135
AE20-x	40	15	3600	130
AE20-x	40	15	2700	130
AE20-x	40	10	1800	130
AE18-x	20	10	3600	100
AE18-x	30	10	2400	100
AE18-x	30	7.5	1800	100
AE15-x	22	7.5	2400	86
AE15-x	15	7.5	3600	86
AE15-x	20	5	1800	86
AE15-x	15	5	2400	86
AE13-x	10	5	3600	73
AE13-x	8.5	5	4200	73

Controls & Communication

Harmonics Mitigation	Not Included
	MODBUS TCP for I-con (Desktop or Mobile)
Analog Input	0-10V, 4-20mA
Analog Output	10V for Potentiometer
Digital Input	4x
Digital Outputs	2x
Relay	Analog Input
Aux Power	250mA, 24VDC

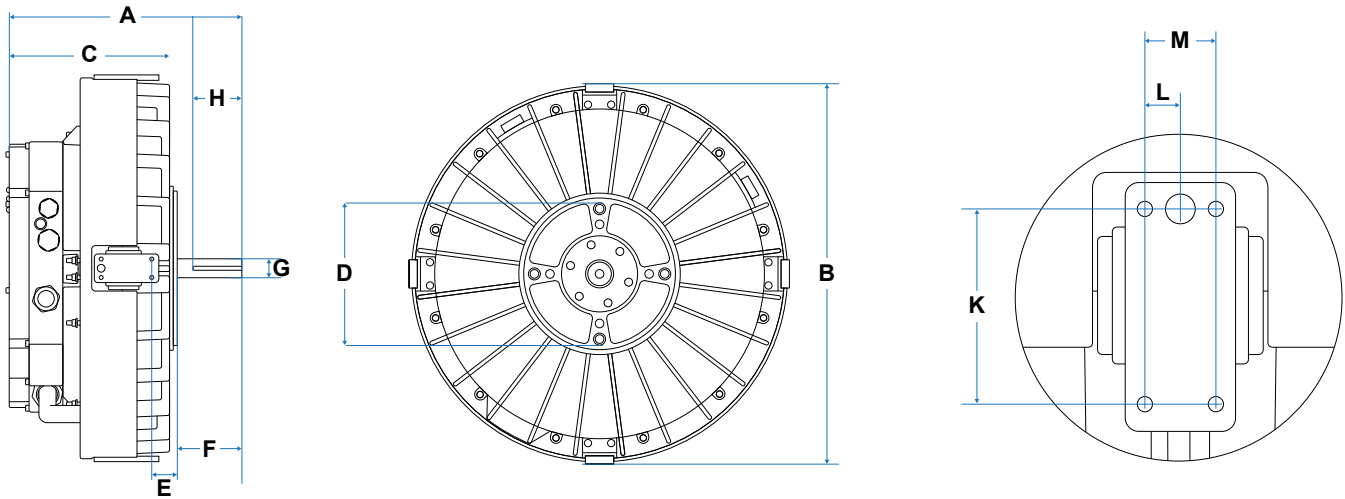
Ambient Conditions

Ambient Temp (Operation)	-13F to 104F (-25C to 40C) 2% Power Derate per 1C up to 50C
Ambient Temp (Storage)	-40F to 185F (-40 to 85C)
Altitude	0 to 3300 ft. (0-1000M) 9% Power Derate per 1000 M up to 4000 M
Humidity (Operation & Storage)	95% RH, No Condensation
Contamination (Operation & Storage)	No conductive dust



Certifications

UL 1004-7 UL 1004-1 UL 61800-5-1 CSA 22.2 N077



Frame Size	A	B	C	D	E	F	G	H	K	L	M
AE20-X	313.9	537.3	224.8	184.1	34.5	82.7	28.6	60.0	69.9	12.7	25.4
AE18-X	309.0	472.0	220.6	184.1	29.4	82.1	28.6	60.0	69.9	12.7	25.4
AE15-X	311.9	417.3	221.6	184.1	36.2	82.3	28.6	60.0	69.9	12.7	25.4
AE13-X	318.0	367.8	230.7	184.1	33.1	81.0	28.6	60.0	69.9	12.7	25.4

All measurements in mm

Mounting & dimensions

There are four mounting pad locations.

Each pad is spaced 90° apart, containing 4 mounting holes and one lifting eye hole.

The DE face of the mounting block has threaded holes for four bolts (1/2"-13).

All bolt holes should be used for secure mounting of the motor to equipment

Catalog Number Decoder

AE20-1000-1800-AAAH-AA63 Example

Family	Frame	HP	Rated Speed	Product Code
AE	20	1000	1800	AAAH - AA63
			1 2 3 4	5 6 7 8

Family	Name
AE	Aircore EC+
AM	Aircore EC+ (AFE)

Frame	Motor Diameter
13	Refer to Dimensions
15	Refer to Dimensions
18	Refer to Dimensions
20	Refer to Dimensions

HP	Motor Power
XXXX	(Example) XX.XX
1000	(Example) 10HP
0590	(Example) 5.90HP
List is not exhaustive	

Rated Speed	RPM
1225	(Example) 1225 RPM
List is not exhaustive	

Product Code

Postion 1	Voltage
A	415V/460V* 3-phase
C	575V* 3-phase

*Check the Motor Selection Tool (MST) for compatible models.

Product Code

Postion 2	Communication
A	MODBUS RTU/Analog
B (Optional)	BACnet MS/TP/Analog

Postion 3	VFD
A	All Features

*Contact Infinitum for Custom Parameters.

Position 4	Bearings
H	Hybrid Ceramic 6206

Position 5	Shaft
A	L 3.3", D 1.13"
B (Special)	L 4.0", D 1.13"

Postion 6	Cable Harness
A	None

*Contact Infinitum for Cable Options.

Position 7	Ingress Protection
6	IP65

Position 8	Miscellaneous
0	Grounded Wye, EP-L
3	Grounded Wye, HRC, Delta, EP-L

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