WOLONG

Power your future

EMPORIUM ENERGY



EMR-Bulldozer® Series

IE5 Efficient
Integrated Drive LV Motors

Ultra High Efficiency
Industrial-Duty Performance



Ferrite assisted synchronous reluctance motor (Fe-SynRM) technology has come into its own over the last few years for several industrial applications especially in the low voltage power ranges. Having delivered this solution to countless global customers, Wolong is now offering a new line to American industry. Fe-SynRM's have outstanding power density, with proven strong reluctance torque and ultra high efficient profiles for industrial-grade applications.

Wolong's EMR-Bulldozer line of top-integrated drive system products drive variable speed loads at a wide operational range, from low speed settings to high rated speeds, and even an extended constant power control range above rated speed.

Comparisons to Induction Motors

- EMR motors are 3-5% more efficient at 25-100% load in VFD applications. This gives a very quick payback in energy savings.
- The innovative low component rotor results in 40% lower energy losses and less noise.
- Easy to maintain.
- Cooler running core, stator, and bearing temperatures.
- Accurate speed and torque control through VFD's lead to more system reliability and longevity.
- Standard NEMA sizes for easy drop in replacements.
- Lower cost of required drive equipment - Near unity power factor enables the use of smaller-rating VFD's by supplying reduced motor currents.
- Non-rare earth ferrite compound permanent magnet are made mostly of common iron oxide, and have excellent corrosion resistance.
- Higher power density for all frames. Smaller footprint for the same output.

Technical Features	
NEMA Frames	184T - 286T
Poles	4, 6
Horsepower Range	3 - 50
Voltage	480 V
Speed	1200, 1800 RPM
Agency Approvals	UR, UL, CSA
Altitude	3300 ft
Maximum Ambient	60°C
VFD	Integrated top mount, DFC control
Efficiency	Equivelent to IE5
Service Factor	1.0
Enclosure	TEFC, IP55
Frame / Conduit Box	Aluminum, Cast Iron (286T Frame)
Frequency	60Hz or variable through drive
Insulation	Class F Non-Hygroscopic and Anti-Fungus



Typical Applications







EMR-Bulldozer Series permanent-magnet synchronous reluctance motors are ideal for pump, fan, compressor, extruder, and conveyor applications in several heavy industries.

Drop-in Replacement

Ultra efficient EMR motors are ideal for motor retrofits. They are the same size as induction motors, eliminating mechanical modifications.

High-Performance

With virtually no rotor losses, EMR motors are cool running and extremely power dense (up to three frame sizes smaller than conventional IE2 motors). They also deliver up to twice the output of induction motors the same size.

Potential energy savings for a wide variety of commercial and industrial applications				
Air Handling		Liquid Handling		
Centrifigul and Axial Fans		Pumps		
Arrays	Exhaust	Booster	Jockey	Refiner
Condensers	Cooling	Liquid Cooling	Transfer	Washing
Handlers		Water Injection	Evaporator	Bleaching

Nomenclature

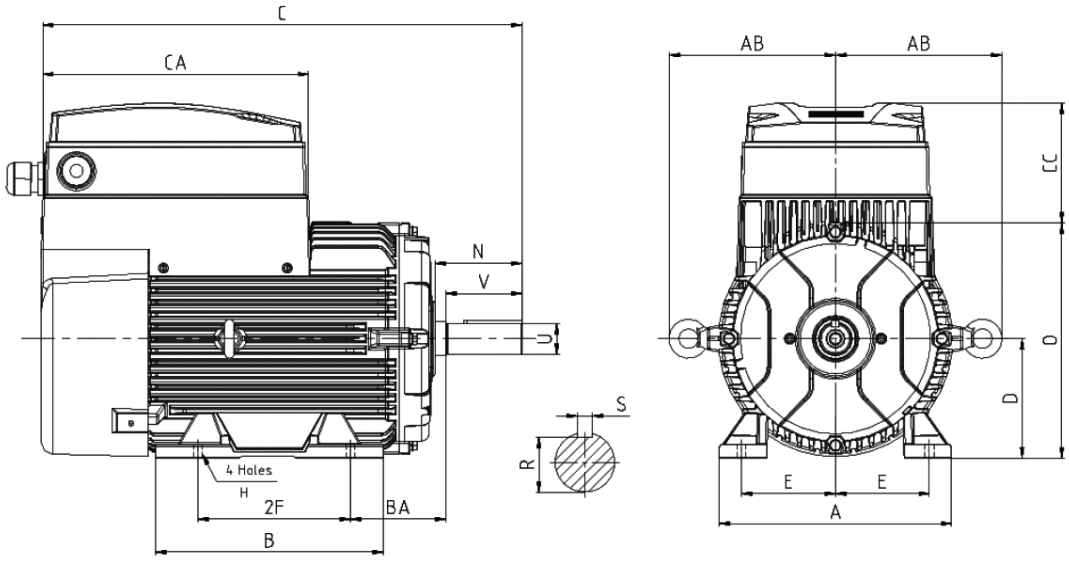
EMR 184 HP 10 S18 5 T 4 F A

Frame Material	A: Aluminum C: Cast Iron S: Rolled Steel
Mounting	B: C-Face Foot C: C-Face Foot Less D: D-Flange F: Foot Mount J: 56J Stainless Threaded Shaft M: JM Pumpshaft and Face P: JP Pump Close Coupled S: Square Flange Pump Mount
Voltage	0: 230/460V (Motor Only) 2: 200 - 240V 4: 480V 5: 575V
Version	M: Motor Only T: Top Mount Drive A: Axial Mount Drive
Efficiency Class	5: IE5 6: IE6
Base Speed	S12: 1200 RPM S18: 1800 RPM S36: 3600 RPM
Power Rating	03: 3HP 05: 5HP 07: 7.5HP 10: 10HP 50: 50HP
Power HP:	Horsepower
Frame Size NEMA	145 / 184 / 215 / 286
Product Series	EMR

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Model Characteristics

Wolong Model No.	WEA Model No.	HP	RPM	Frame	Tq (ft.lbs)	Eff. %	Amps	Wgt (lbs)
EMR184HP03S185T4FA	5SK184BWD201	3	1800	184T	8.8	91.4	3.7	64
EMR184HP05S185T4FA	5SK184BWD202	5	1800	184T	14.6	92.8	5.6	82
EMR215HP07S185T4FA	5SK215BWD201	7.5	1800	215T	21.9	93.4	8.6	95
EMR215HP10S185T4FA	5SK215BWD202	10	1800	215T	29.2	94.0	11.3	128
EMR256HP15S185T4FA	5SK256BWD201	15	1800	256T	43.1	94.6	18.6	181
EMR256HP20S185T4FA	5SK256BWD202	20	1800	256T	58.5	95.1	25.8	224
EMR256HP25S185T4FA	5SK256BWD203	25	1800	256T	73.0	95.3	32.0	231
EMR286HP30S185T4FC	5SK286BWE201	30	1800	286T	87.6	95.5	37.4	427
EMR286HP40S185T4FC	5SK286BWE202	40	1800	286T	116.7	95.9	48.6	488
EMR286HP50S185T4FC	5SK286BWE203	50	1800	286T	146.1	96.1	58.1	510



Dimensions in Inches

Frame	A	D	E	2F	B	BA	H	U	V	N	R	S	O	AB	CA	C	CC
184T	9.08	4.50	3.75	5.50	7.80	2.75	0.41	1.13	2.75	2.95	0.99	0.25	8.54	5.73	10.32	17.91	4.62
215T	10.31	5.25	4.25	7.00	9.84	3.50	0.41	1.38	3.38	3.62	1.20	0.31	10.13	6.93	10.72	19.88	4.51
256T	12.21	6.25	5.00	10.01	11.98	4.25	0.53	1.63	4.00	4.57	1.42	0.38	12.32	8.75	14.03	25.26	6.30
286T	13.74	7.00	5.50	11.00	13.45	4.75	0.53	1.88	4.62	4.78	1.59	0.50	14.00	10.20	17.72	30.51	9.48

Emporium Energy, C.A.

ventas@emporiumve.com
VEN: +58 4223052313 · USA: +1 3054908787
www.emporiumve.com