

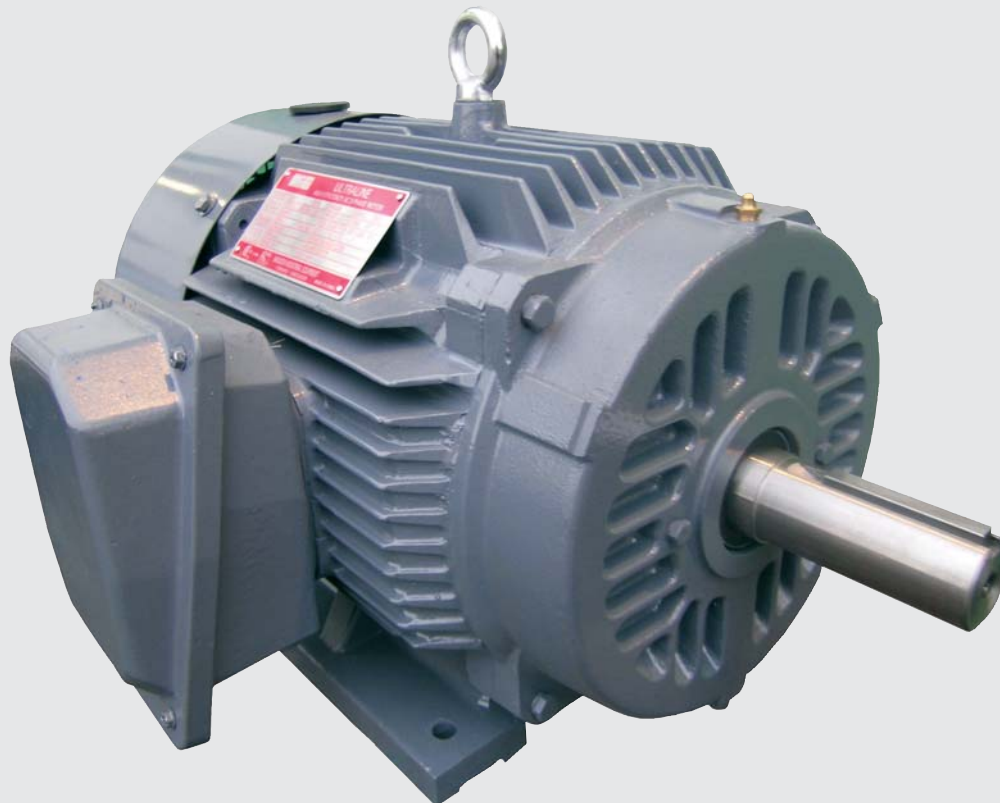
1 THRU 200HP
NEMA 140T THRU 449T
HIGH EFFICIENCY

ISO9001
CERTIFIED

Powerful + Efficient + Reliable

ULTRAline

CAST IRON EPACT HIGH EFFICIENCY ELECTRIC MOTORS



TEFC

CAST IRON FRAMES

CLASS F INSULATED

1.15 SERVICE FACTOR

OVER SIZED BEARINGS

LOW-LOSS ELECTRICAL GRADE LAMINATION STEEL

DOUBLE LIP SEAL KEEPS OUT MOISTURE AND CONTAMINATION

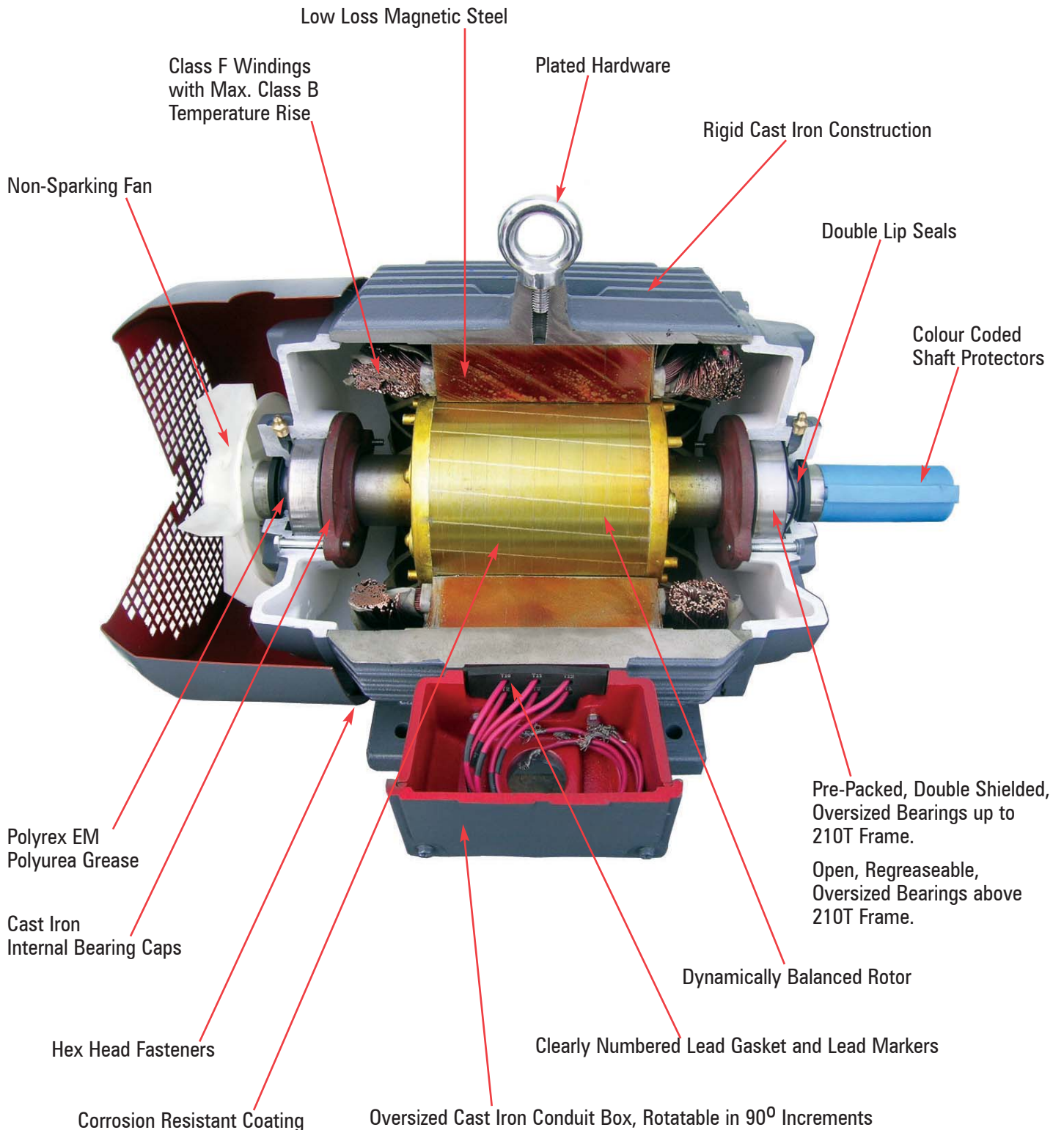
FULL GASKETS AND GROUND LUG IN CONDUIT BOX

MADISON ELECTRIC MOTORS

www.madisonelectricmotors.com

THINK QUALITY

ULTRAline Cross-Section View



Note: Construction Varies With Frame Size.

THINK  **ULTRAline** 

THINK TOUGH



ULTRAline Construction Features

Optimized Design For Long Life and High Performance

- AC, 3-phase, squirrel cage induction motor.
- Totally enclosed fan cooled.
- 60 hertz, 208-230/460 Volts and 575 Volts, at 1.15 SF.
- 50 hertz, 380/415 Volts at 1.0 SF.
- Supply voltage +/- 10%, supply frequency +/- 5%.
- Useable at altitudes to 1000 metres without de-rate.
- Rigid cast iron frame, end brackets, and conduit box.
- NEMA MG.1, EEMAC M1-6, CSA C390.
- Continuous duty, 1.15 service factor.
- Colour coded shaft covers and rust inhibitor coating protects the shaft.
- Stainless Steel, 4 Rivet Nameplate.
- Wye-Delta start capability from Frame 210T and higher.
- High efficiency with high power factor.
- Bi-directional rotation.
- F1 mounting, field modifiable to F2 orientation.
- Standard ground lug in terminal box plus additional ground lug on motor foot for frames 324T and higher.
- Polyrex EM polyurea grease for -40° C to +40° C Ambient Temperatures.
- Oversized vacuum degassed bearings.
- Up to frame 210T are pre-packed double shielded ZZ bearings which are greased for life at the factory and do not need re-lubrication.
- Frames 254T and higher use open bearings, re-greasable while running, with integral grease fittings & drains, and cast iron internal bearing caps.
- Double lip shaft seal protects bearing against moisture and contaminants.
- Class B or lower temperature rise ensures cool running and increased insulation life.
- Non-hygroscopic, vacuum pressure impregnated, Class F rated insulation system ensures lots of temperature reserve under all operating conditions.
- Polypropylene non-static, non-sparking external cooling fan, bi-directional.
- All fasteners are plated Hex Head bolts or Philips multi-head bolts.
- Plated eye-bolts accessible through the crate for lifting with the crate intact (except 140 frames).
- All internal surfaces coated with alkyd primer for corrosion protection.
- Rotor surface coated with a rust inhibitor treatment.
- Corrosion resistant primer and paint system on all external surfaces.

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THINK RELIABLE



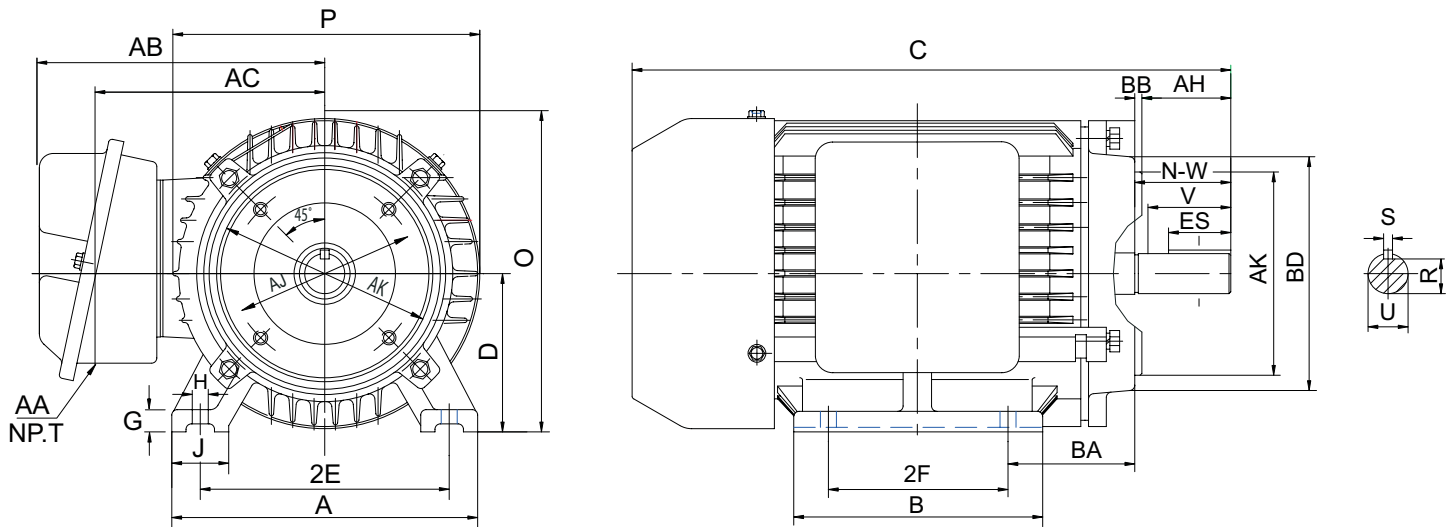
ULTRAline Features & Benefits

Optimized Design For Quality, Efficiency, and Reliability

- High efficiency per CSA C390 & EPACT.
- 2 year warranty.
- Quiet running with minimum noise and vibration.
- NEMA Design B or C torques.
- Cool running with low temperature rise.
- Class F insulation with Class B or less temperature rise ensures long life.
- CSA approved and EEV verified.
- Oversize bearings with specially formulated Polyrex EM polyurea bearing grease for smooth running, long life, and wide temperature range.
- Double lip shaft seal keeps out moisture and contamination.
- Low loss insulated electro-magnetic steel laminations for controlled core loss and maximum efficiency.
- Heavy enamel coated copper windings with precise winding process ensures consistent motor performance and extended insulation life.
- Superior class F non-hygroscopic, vacuum pressure impregnated insulation system resists heat, contaminants, and coil movement.
- Die cast rotor of high conductivity aluminum eliminates variations in rotor bar and end ring resistance thereby assuring consistent motor performance.
- Dynamically balanced rotor with half key meets or exceeds NEMA standards ensuring smooth running with no vibration.
- Clearly numbered, high visibility lead markers make connections easy.
- Clearly numbered lead gasket ensures lead numbers are always identifiable even if the lead markers are lost or dirty.
- Thick neoprene lead gasket between conduit box and motor protects against moisture, dirt, or dust entering the motor.
- Oversized, diagonally split, full gasket conduit box, fully rotatable at 90 degree increments for ease of installation wiring.
- Non-sparking, corrosion resistant polypropylene external cooling fan assures best motor cooling and quiet operation.
- Rotor surface is coated for outstanding corrosion resistance.
- External surfaces are coated with a corrosion resistant primer and paint system designed to protect the motor against severe environments.
- Plated hardware and non-corrodible 4-rivet stainless steel nameplate for further corrosion protection and readability under severe conditions.
- Flange kits available.

THINK  **ULTRAline** 

THINK DEPENDABLE



ULTRAline TEFC C-Face Dimension Data (inches)

FRAME	AJ	AK	BA	MIN BB	BC	MAX BD	NUMBER OF HOLES	SCREW	DEPTH OF HOLE	U	AH	R	ES	S
143TC.145TC	5.875	4.500	2.75	0.16	0.12	6.50	4	3/8-16	0.56	0.875	2.12	0.771	1.41	0.188
182TC.184TC	7.250	8.500	3.50	0.25	0.12	9.00	4	1/2-13	0.75	1.125	2.62	0.986	1.78	0.250
182TC.184TC	5.875	4.500	3.50	0.16	0.12	6.50	4	3/8-16	0.56	1.125	2.62	0.986	1.78	0.250
213TC.215TC	7.250	8.500	4.25	0.25	0.25	9.00	4	1/2-13	0.75	1.375	3.12	1.201	2.41	0.312
254TC.256TC	7.250	8.500	4.75	0.25	0.25	10.00	4	1/2-13	0.75	1.625	3.75	1.416	2.91	0.375
284TC.286TC	9.000	10.500	4.75	0.25	0.25	11.25	4	1/2-13	0.75	1.875	4.38	1.591	3.28	0.500
284TSC.286TSC	9.000	10.500	4.75	0.25	0.25	11.25	4	1/2-13	0.75	1.625	3.00	1.416	1.91	0.375
324TC.326TC	11.000	12.500	5.25	0.25	0.25	14.00	4	5/8-11	0.94	2.125	5.00	1.845	3.91	0.500
324TSC.326TSC	11.000	12.500	5.25	0.25	0.25	14.00	4	5/8-11	0.94	1.875	3.50	1.591	2.03	0.500
364TC.365TC	11.000	12.500	5.88	0.25	0.25	14.00	8	5/8-11	0.94	2.375	5.62	2.021	4.28	0.625
364TSC.365TSC	11.000	12.500	5.88	0.25	0.25	14.00	8	5/8-11	0.94	1.875	3.50	1.591	2.03	0.500
404TC.405TC	11.000	12.500	6.62	0.25	0.25	15.50	8	5/8-11	0.94	2.875	7.00	2.450	5.65	0.750
404TSC.405TSC	11.000	12.500	6.62	0.25	0.25	15.50	8	5/8-11	0.94	2.125	4.00	1.845	2.78	0.500
444TC.445TC	14.000	16.000	7.50	0.25	0.25	18.00	8	5/8-11	0.94	3.375	8.25	2.880	6.91	0.875
444TSC.445TSC	14.000	16.000	7.50	0.25	0.25	18.00	8	5/8-11	0.94	2.375	4.50	2.021	3.03	0.625
447TC.449TC	14.000	16.000	7.50	0.25	0.25	18.00	8	5/8-11	0.94	2.375	8.25	2.880	6.91	0.875
447TSC.449TSC	14.000	16.000	7.50	0.25	0.25	18.00	8	5/8-11	0.94	2.375	4.50	2.021	3.03	0.625

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Powerful + Efficient + Reliable

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CAST IRON EPACT HIGH EFFICIENCY ELECTRIC MOTORS

MADISON ELECTRIC MOTORS has been engineering, designing, and supplying electric motors to the Canadian market since 1980. Our main distribution centres are located in Vancouver and Toronto with additional local stocks maintained at our distribution partners in each major Canadian city (see map).

Over the years we've prided ourselves in bringing to the Canadian market, motors that are rugged, dependable, practical, and designed for Canada's unique environments. We don't add unnecessary features that mainly just add cost to the motor. Our motors are workhorses. It is with this tradition of solid value that we proudly present to you our new **ULTRAline** series of electric motors.

Based upon many years of experience with electric motors of all types, Madison's own engineers developed the exacting specifications for the **ULTRAline** motor.

The motors are then designed, built, and assembled with the utmost precision.

It is this combination of comprehensive design, specification, and assembly that ensures a superb electric motor which will give long-term customer satisfaction.

From our large inventories, we can ship **ULTRAline** motors promptly at all times. Inquiries for custom built or special purpose motors are also welcomed.

Our involvement does not stop with the sale. We service what we sell. Every motor is backed up by our extensive network of service shops across the country. Any problem is attended to immediately.

This brochure contains construction, performance, and dimension information. For further questions, please do not hesitate to contact us.



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