



120 Volt Two-Stage Totally Enclosed Vacuum Motors

For Commercial and Industrial Vacuum Equipment Used in Hazardous Locations

DESCRIPTION

This single-phase, two-pole universal motor series is totally enclosed, externally fan-cooled, and is combined with a centrifugal blower to produce vacuum airflow characteristics suited for vacuum blower applications. The motors are available in both 120- and 230-volt AC models and incorporate class B insulation in the armature and field windings.

The vacuum air is drawn into the bottom of the fan case and is discharged through openings between the upper and lower mounting flanges. Motor cooling air is drawn in the top of the die cast aluminum shell and is directed over the outside of the enclosed motor. An internal fan circulates air through the electrical parts to properly transfer heat to the outside housing of the motor.

APPLICATION

These motors have been listed by Underwriters Laboratories Inc. Guide PTDR, File E-25653 for use in hazardous locations with respect to safety of operation as follows:

Class I, Group D--Atmospheres containing gasoline, petroleum, naphtha, benzene, butane, propane, alcohols, acetone, benzol, lacquer solvent vapors, or natural gas.

Class II, Group E--Atmospheres containing metal dust, including magnesium, aluminum, and their commercial alloys.

Class II, Group F--Atmospheres containing carbon black, coal, or coke dust.

Class II, Group G--Atmospheres containing flour, starch, or grain dusts.

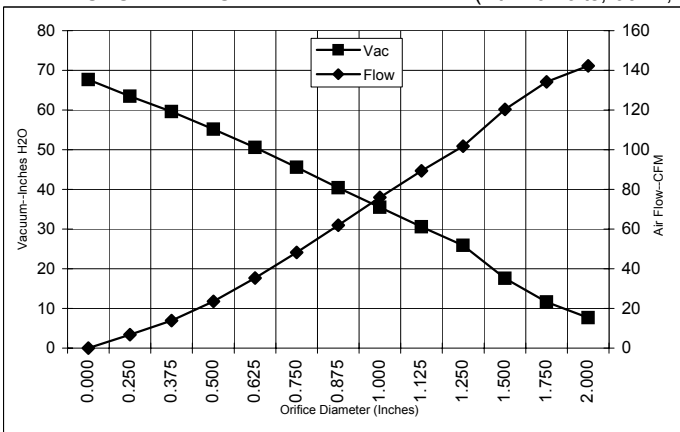
These motors are designed for use in commercial and industrial vacuum equipment which employ filters to remove dirt from the air stream before reaching the vacuum fans. While these vacuum motors are listed for use in hazardous locations, that in itself does not mean that the end product has hazardous duty characteristics. The design of the equipment must be evaluated by Underwriters Laboratories Inc. or other listing or regulatory agency to determine if the end product is suitable for use in hazardous locations.

TYPICAL MOTOR PERFORMANCE.*

(At 120 volts, 60Hz, test data is corrected to standard conditions of 29.92 Hg, 68° F.)

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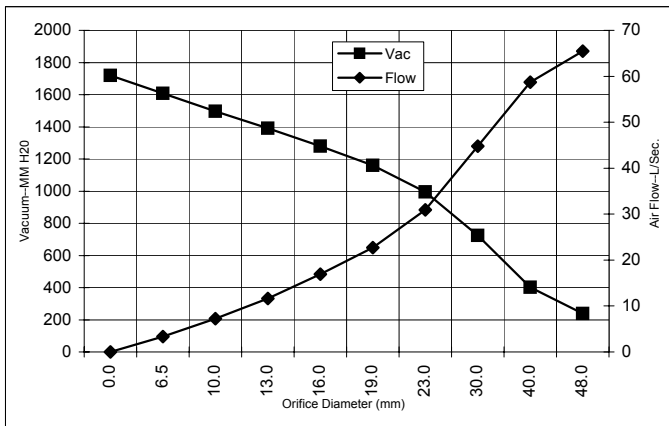
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Orifice (Inches)	Amps	Watts (In)	RPM	Vac (In.H ₂ O)	Flow (CFM)	Air Watts
2.000	11.5	1248	12596	7.7	142.3	126
1.750	11.7	1267	12453	11.6	134.2	183
1.500	11.9	1286	12363	17.6	120.3	249
1.250	12.0	1293	12300	25.9	101.7	310
1.125	11.8	1279	12373	30.6	89.4	321
1.000	11.5	1248	12530	35.5	75.9	316
0.875	11.1	1207	12763	40.4	62.0	294
0.750	10.6	1158	13040	45.6	48.3	259
0.625	10.1	1103	13390	50.6	35.3	210
0.500	9.5	1041	13810	55.2	23.5	152
0.375	8.9	984	14203	59.6	13.9	97
0.250	8.5	939	14560	63.5	6.7	50
0.000	8.2	914	14840	67.7	0.0	0

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Orifice (mm)	Amps	Watts (In)	RPM	Vac (mm H ₂ O)	Flow (L/Sec)	Air Watts
48.0	11.6	1256	12533	239	65.5	151
40.0	11.8	1280	12390	401	58.7	229
30.0	11.9	1285	12340	724	44.8	316
23.0	11.2	1217	12705	995	30.9	300
19.0	10.6	1157	13047	1161	22.7	258
16.0	10.1	1105	13376	1280	16.9	212
13.0	9.6	1047	13768	1390	11.6	158
10.0	9.0	993	14144	1497	7.2	105
6.5	8.5	941	14542	1608	3.3	52
0.0	8.2	914	14840	1720	0.0	0

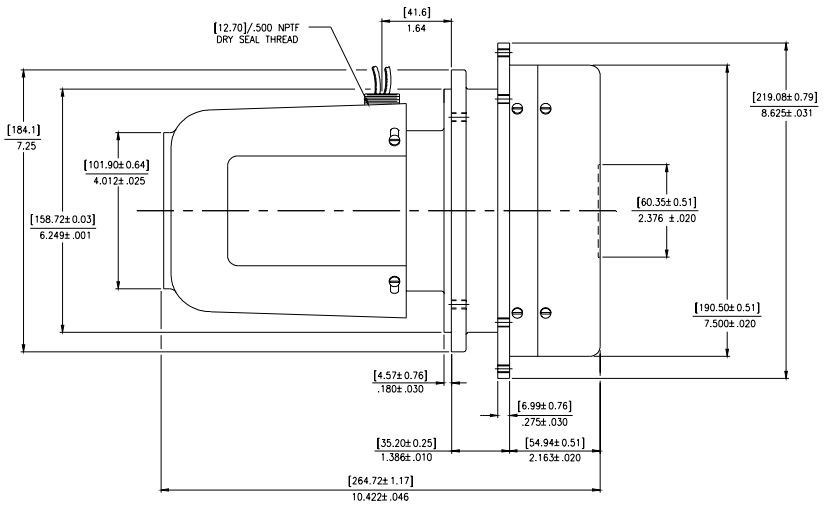
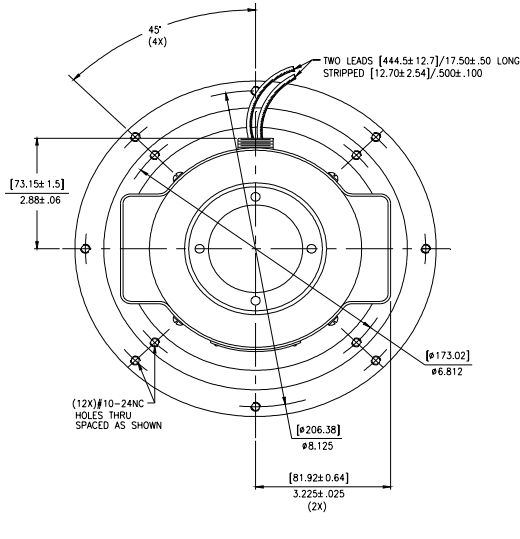
Note: Metric performance data is calculated from the ASTM data above.

* Data represents performance of a typical motor sampled from a large production quantity. Individual motor data may vary due to normal manufacturing variations.

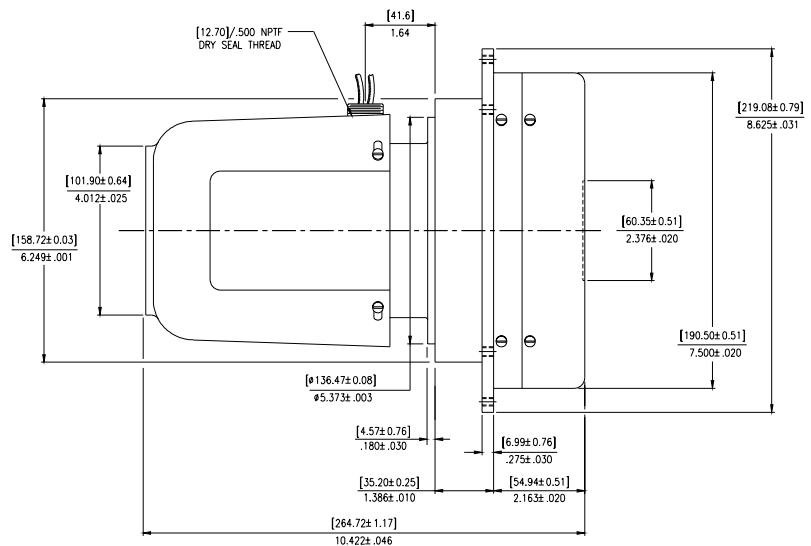
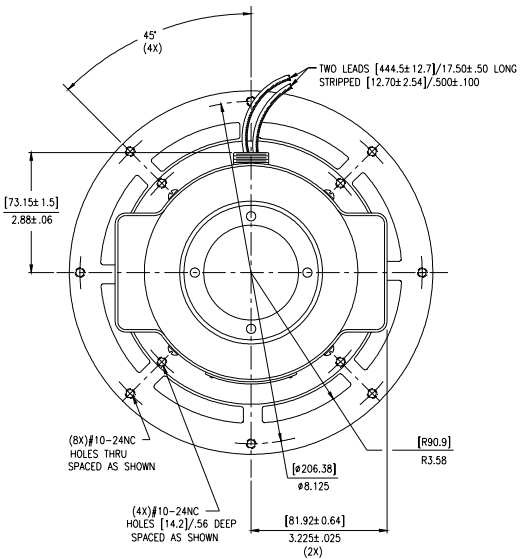
Test Specs: 120 volts	Minimum Sealed Vacuum: N/A	ORIFICE: 7/8 "	Minimum Vacuum: 38.0"	Maximum Watts: 1300
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DIMENSIONS

114560



114586



IMPORTANT NOTE: Pictorial and dimensional data are subject to change without notice. Contact factory for current revision levels.

WARNING - When using AMETEK Lamb Electric bypass motors in machines that come in contact with foam, liquid (including water), or other foreign substances, the machine must be designed and constructed to prevent those substances from reaching the fan system, motor housing, and electrical components. Lamb Electric vacuum motors other than hazardous duty models should not be applied in machines that come in contact with dry chemicals or other volatile materials. Failure to observe these precautions could cause flashing (depending on volatility) or electrical shock which could result in property damage and severe bodily injury, including death in extreme cases. All applications incorporating Lamb Electric motors should be submitted to appropriate organizations or agencies for testing specifically related to the safety of your equipment.

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