AMETEK

Product Bulletin

LAMB ELECTRIC

Models: 117582-00

24 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 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.

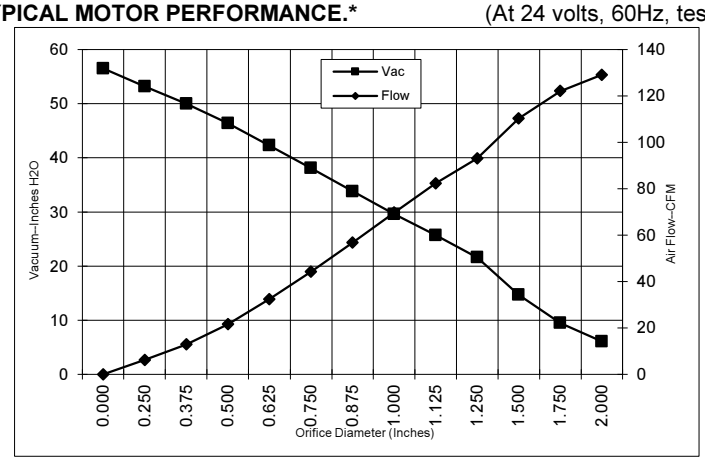
Class II, Group E--Atmospheres containing metal dust, including magnesium, aluminum, and their commercial alloys.

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

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.

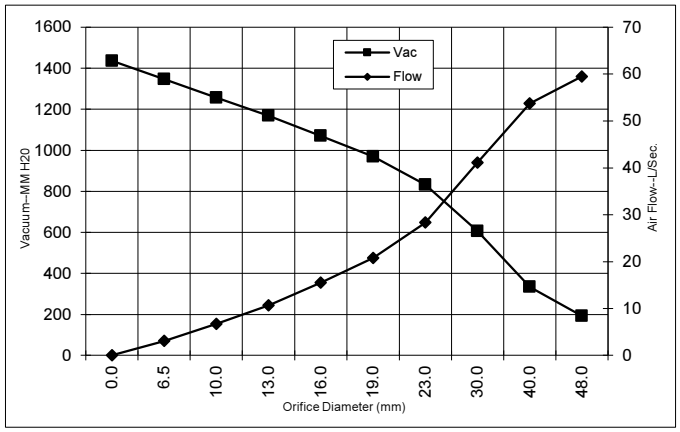
TYPICAL MOTOR PERFORMANCE.* (At 24 volts, 60Hz, test data is corrected to standard conditions of 29.92 Hg, 68° F.)

ASTM DATA



Orifice (Inches)	Amps	Watts (In)	RPM	Vac (In.H2O)	Flow (CFM)	Air Watts
2.000	43.7	1048	11663	6.1	129.0	94
1.750	44.2	1060	11480	9.5	122.1	137
1.500	44.9	1078	11366	14.7	110.3	191
1.250	45.6	1094	11376	21.6	93.1	236
1.125	45.2	1084	11460	25.7	82.3	249
1.000	43.9	1054	11563	29.6	69.7	243
0.875	42.5	1021	11776	33.8	56.8	225
0.750	40.9	981	12016	38.1	44.3	199
0.625	38.9	934	12380	42.3	32.4	161
0.500	36.9	885	12763	46.4	21.6	118
0.375	34.8	835	13133	50.0	12.9	76
0.250	33.2	797	13446	53.2	6.2	39
0.000	32.2	773	13723	56.5	0.0	0

METRIC DATA



Orifice (mm)	Amps	Watts (In)	RPM	Vac (mm H2O)	Flow (L/Sec)	Air Watts
48.0	43.9	1053	11582	193	59.5	113
40.0	44.7	1073	11400	334	53.7	175
30.0	45.4	1089	11422	606	41.1	243
23.0	42.9	1029	11723	832	28.3	230
19.0	40.9	980	12023	970	20.8	198
16.0	39.0	936	12365	1070	15.5	163
13.0	37.1	890	12725	1168	10.7	122
10.0	35.1	843	13078	1256	6.7	82
6.5	33.3	799	13430	1347	3.1	41
0.0	32.2	773	13723	1435	0.0	0

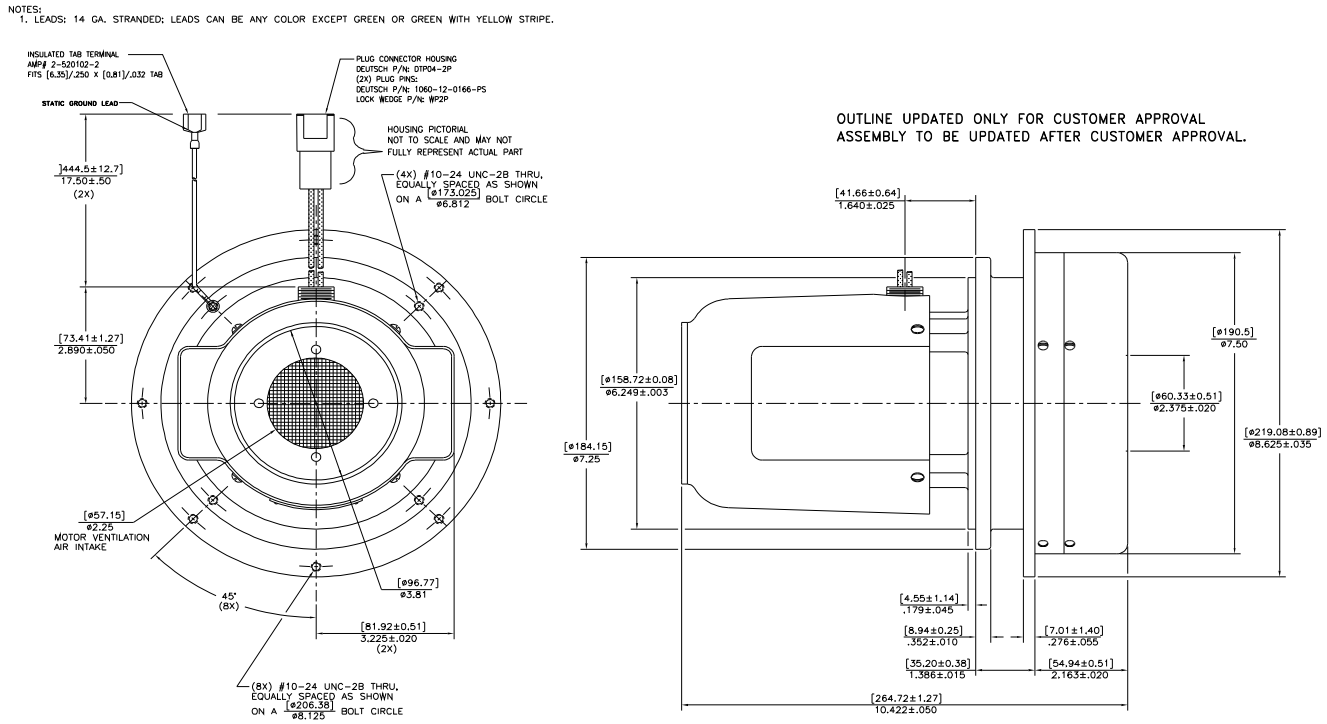
Note: Metric performance data is calculated from the ASTM data above.

* 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:	24 volts	**Minimum Sealed Vacuum:**	55"	**ORIFICE:**	7/8 "	**Minimum Vacuum: 34"**	**Maximum Watts:**	1150

PRODUCT BULLETIN **MODELS: 117582-00**

DIMENSIONS



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.

AMETEK Dynamic Fluid Solutions
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