



Model: 121116-13

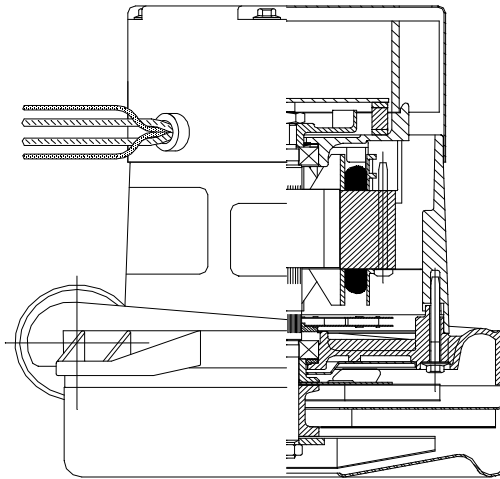


DESCRIPTION

- Brushless Motor
- Switch Reluctance (SR) Technology
- Two stage Fan System
- 36 VDC
- 7.2" / 183 mm diameter
- Dual 10mm ball bearings
- Tangential discharge
- All aluminum die cast housings used in motor construction
- Life expectancy: 5 -10 times more than the brush-motor equivalent.

DESIGN APPLICATION

- Equipment operating in environments requiring separation of working air from motor ventilating air
- Designed to handle clean, dry, filtered air only



SPECIAL FEATURES

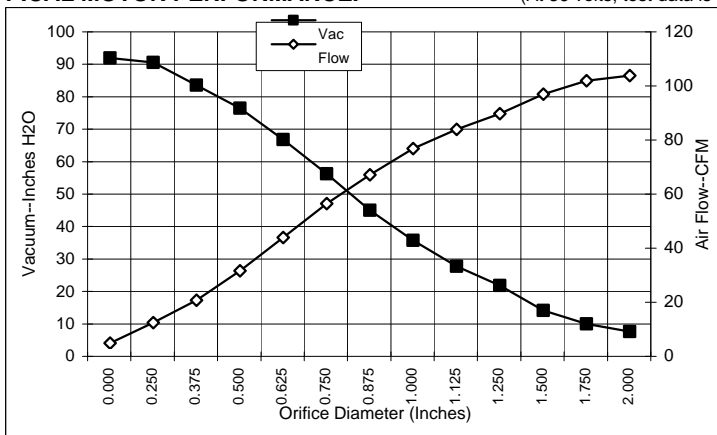
- "Generation II" (DIGITAL) Controller: no external low-voltage control power required. (See "INFIN-A-TEK Application Notes")
- UL component recognized (pending)
- IP Rating: 1.0
- **Speed control capability**
- Tapered fan system
- Thermally protected motor design
- Patented air seal bearing construction (U.S. Patent # 4,088,424)
- Epoxy painted
- Aluminum fan end bracket designed to dampen vibration and improve durability

Please refer to INFIN-A-TEK Application Notes for details on the operation and wiring of this switched-reluctance motor.

TYPICAL MOTOR PERFORMANCE.*

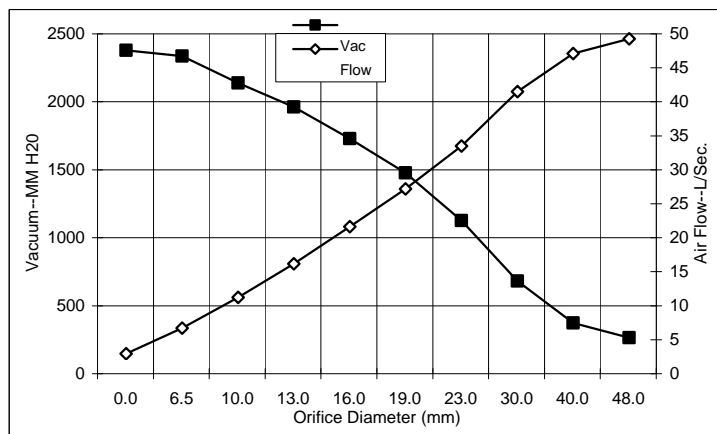
(At 36 volts, test data is corrected to standard conditions of 29.92 Hg, 68° F.)

ASTM DATA



Orifice (Inches)	Amps	Watts (In)	RPM	Vac (In.H ₂ O)	Flow (CFM)	Air Watts
2.000	26.1	935	19020	3.6	98.9	42
1.750	26.1	937	19000	5.9	97.1	68
1.500	25.2	903	18740	10.1	92.1	110
1.250	25.5	914	18650	17.8	84.9	178
1.125	25.5	915	18650	23.7	79.0	220
1.000	25.4	910	18710	31.7	71.9	268
0.875	25.0	899	18790	40.9	62.3	300
0.750	25.2	905	19240	52.2	51.6	317
0.625	24.0	858	19700	62.7	39.1	288
0.500	23.0	825	20600	72.4	26.8	228
0.375	20.6	741	21450	79.5	15.9	148
0.250	17.7	635	21860	86.5	7.6	77
0.000	16.4	587	22410	87.9	0.0	0

METRIC DATA



Orifice (mm)	Amps	Watts (In)	RPM	Vac (mm H ₂ O)	Flow (L/Sec)	Air Watts
48.0	26.1	936	19011	117	46.3	53
40.0	25.5	913	18818	225	44.2	97
30.0	25.5	915	18650	535	38.5	201
23.0	25.1	902	18770	980	30.5	292
19.0	25.2	904	19249	1331	24.2	316
16.0	24.0	860	19682	1582	18.7	289
13.0	23.1	828	20510	1814	13.2	234
10.0	21.0	754	21323	1992	8.3	160
6.5	17.9	640	21840	2188	3.8	81
0.0	16.4	587	22410	2233	0.0	0

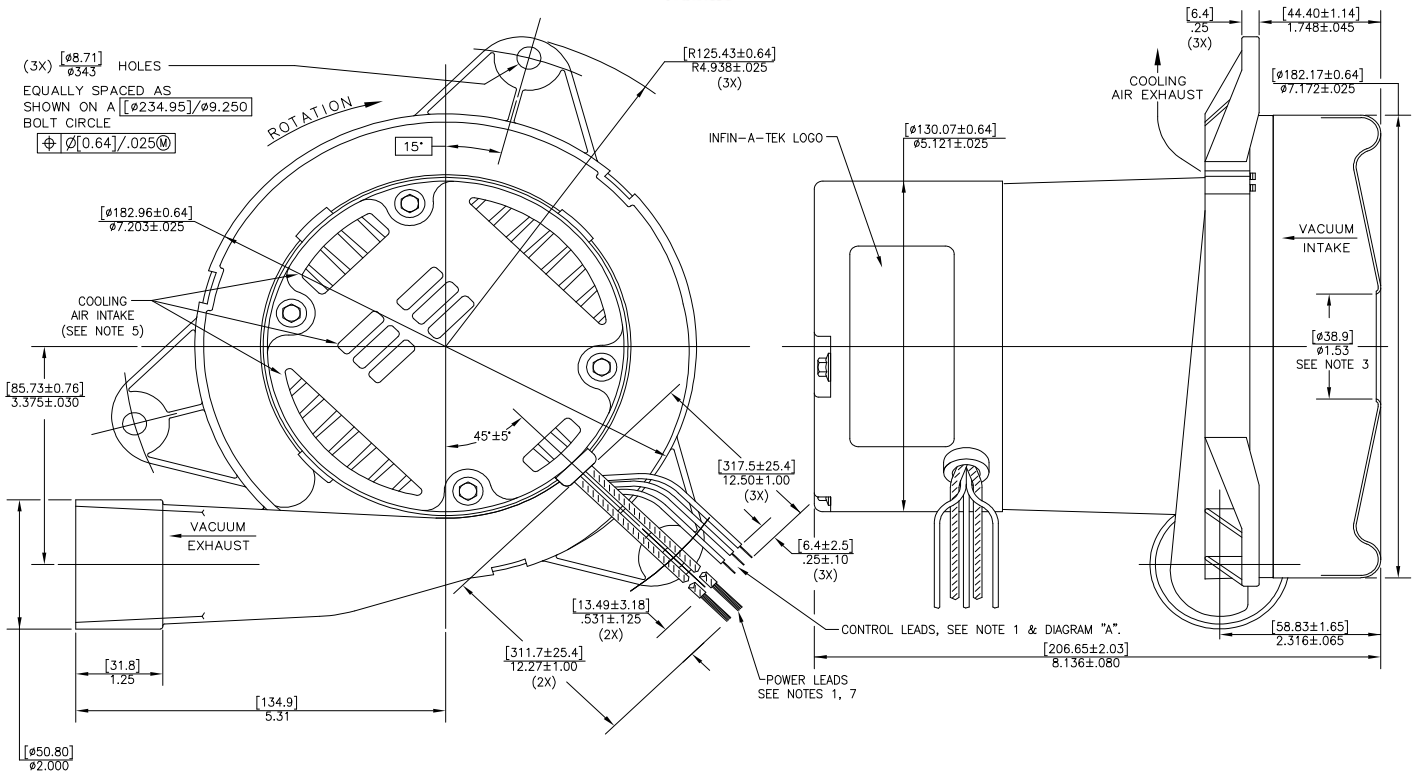
Note: Metric performance data is calculated from the ASTM data above.

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

Test Specs: 36V	Minimum Sealed Vacuum: 80.0"	ORIFICE: 7/8"	Minimum Vacuum: 35.0"	Maximum Watts: 959
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DIMENSIONS



NOTES

1. Leads: 12ga, stranded power leads; one black and one red.
Leads: 22ga, control leads: one red, one blue and one yellow.
2. Motor Identification: Manufacturer's name, model number, voltage, frequency, inspection code, date of manufacture, agency recognition code, plant code, "Thermally Protected L 16.0A", "Made in the USA" and the following information: "Manufactured under patent nos: US5789893, TW81933, SG38957, ZA96/2766, US5760519, EP0702448B1, ZA95/7123 under license from Switched Reluctance Drive Ltd. Other U.S. and foreign patents pending, copyright code 1998, all rights reserved."
3. Mounting must not restrict this diameter.
4. **Allow (0.0026 Sq M) / 4.8" Sq In. (min) for cooling air intake and exhaust.**
5. Cooling air intake must be separated from cooling air exhaust.
6. Cooling air exhaust must be separated from vacuum exhaust.
7. Observe NEC wiring convention (black-line and white neutral) to insure proper placement of control module fuse in the circuit.
See wiring options 1 thru 5 of "INFIN-A-TEK Application Notes" for implementing the "control" feature (red, blue & yellow leads).
8. The INFIN-A-TEK blower utilizes a switched reluctance (SR) brushless motor, which is commutated electronically. Similar to a brush type series universal motor, this INFIN-A-TEK (SR) blower operates on DC voltage. The INFIN-A-TEK (SR) blower features an integral electronic control module. All switched reluctance motors are thermally protected using an auto-reset device.

IMPORTANT NOTES: 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 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 motors should be submitted to appropriate organizations or agencies for testing specifically related to the safety of your equipment.