

# AMETEK

## LAMB ELECTRIC

## Model: 121119-00

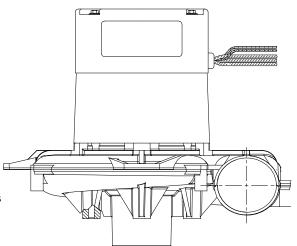


### **DESCRIPTION**

- Brushless Motor
- Switch Reluctance (SR) Technology
- One-stage High Flow Fan design
- 230 volts, 50/60 Hz
- 9.1" / 231 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**

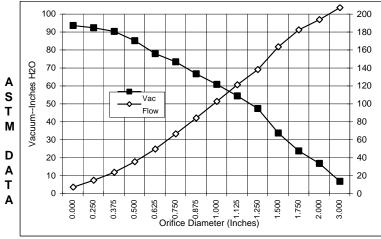
- "Generation II" (DIGITAL) Controller: no external low-voltage control power required. (See "INFIN-A-TEK Application Notes")
- UL component recognized (pending)
- IP Rating: 1.0
- Speed control capability
- High CFM fan system
- Thermally protected motor design
- Aluminum fan end bracket designed to 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.

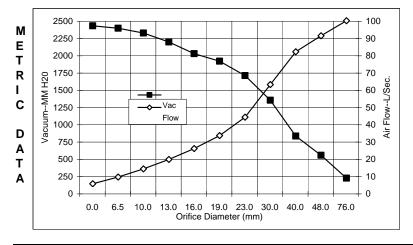


## TYPICAL MOTOR PERFORMANCE.\*

(At 230 volts, 60Hz, test data is corrected to standard conditions of 29.92 Hg, 68° F.)



Orifice	Amps	Watts	RPM	Vac	Flow	Air
(Inches)		(In)		(In.H2O)	(CFM)	Watts
3.000	8.0	1600	28100	3.2	200.0	76
2.000	8.1	1619	28046	13.2	186.6	290
1.750	8.2	1637	28046	20.1	175.2	415
1.500	8.3	1654	28046	30.2	156.3	555
1.250	8.3	1651	28046	43.8	131.0	675
1.125	8.1	1629	28095	50.8	114.0	682
1.000	7.8	1577	28243	57.2	95.6	643
0.875	7.4	1500	28538	63.1	77.1	572
0.750	7.2	1430	29423	69.8	59.4	488
0.625	6.5	1314	29915	74.4	42.5	372
0.500	6.4	1271	30703	81.6	28.4	273
0.375	5.8	1149	32966	86.7	16.6	169
0.250	5.2	1038	33507	88.8	7.8	81
0.000	4.6	904	33655	90.1	0.0	0



Orifice	Amps	Watts	RPM	Vac	Flow	Air
(mm)		(ln)		(mm H2O)	(L/Sec)	Watts
76.2	8.0	1600	28100	81	94.4	75
48.0	8.1	1627	28046	413	85.7	345
40.0	8.2	1649	28046	690	76.5	513
30.0	8.2	1639	28073	1210	57.4	678
23.0	7.5	1519	28464	1565	38.6	590
19.0	7.1	1428	29433	1775	27.9	486
16.0	6.6	1319	29895	1884	20.4	376
13.0	6.4	1275	30624	2054	14.1	282
10.0	5.9	1167	32627	2184	8.7	184
6.5	5.2	1044	33480	2253	3.9	85
0.0	4.6	904	33655	2287	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: 230v	Minimum Sealed Vacuum: TBD	ORIFICE: 7/8"	Minimum Vacuum: TBD	Maximum Watts: TBD
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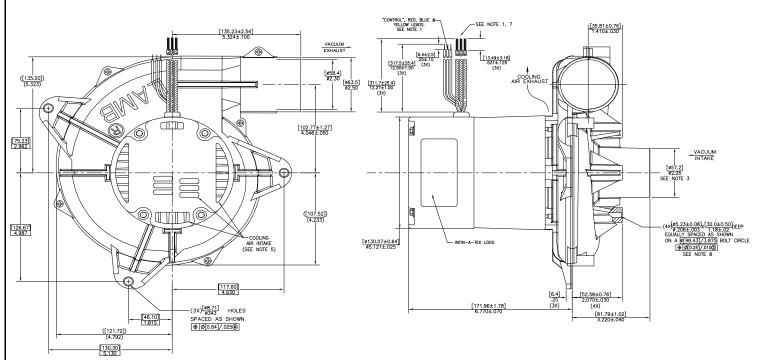
PRODUCT BULLETIN 121019-00







### **DIMENSIONS**



### NOTES

- 1. Leads: 18ga, stranded power leads; one black and one white, ground lead green with yellow stripe. Leads: 22ga, control leads: one red, one blue (or orange) 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.
- 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 4 of "INFIN-A-TEK Application Notes" for implementing the "control" feature (red, blue (or orange) & 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 AC voltage. The INFIN-A-TEK (SR) blower features an integral electronic control module that rectifies the "AC line voltage" to obtain the DC voltage required to power the motor. 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) of 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.