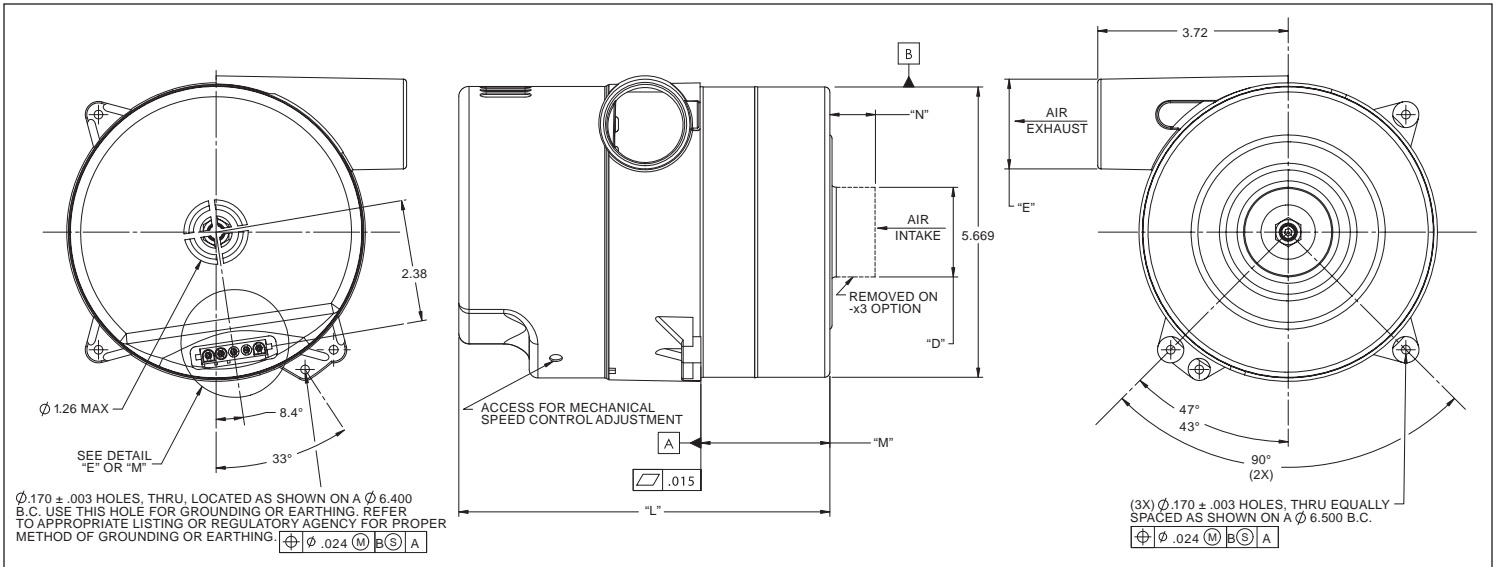


# BBA14-21 Series - Brushless DC Blower

## 240 Volt AC Input, Multistage Bypass



| MODEL        | AIR INLET AND OUTLET DIAMETER<br>mm / inches | LENGTH (L)<br>mm / inches | LENGTH (M)<br>mm / inches | LENGTH (N)<br>mm / inches | VACUUM (MAX)<br>mBar / in H <sub>2</sub> O | PRESSURE (MAX)<br>mBar / in H <sub>2</sub> O | FLOW (MAX)<br>m <sup>3</sup> /h / sCFM | PERFORMANCE CONTROL TYPE |
|--------------|--|---------------------------|---------------------------|---------------------------|--|--|--|--------------------------|
| BBA14-211SMB | 31.8 / 1.25                                  | 127 / 5.0                 | 127 / 5.0                 | 19.1 / 0.75               | 72.3 / 29.0                                | 73.4 / 29.5                                  | 113.8 / 67                             | Built in Potentiometer   |
| BBA14-211SEB | 31.8 / 1.25                                  | 127 / 5.0                 | 127 / 5.0                 | 19.1 / 0.75               | 72.3 / 29.0                                | 73.4 / 29.5                                  | 113.8 / 67                             | 1.5-10VDC signal         |
| BBA14-212SMB | 31.8 / 1.25                                  | 150 / 5.9                 | 150 / 5.9                 | 19.1 / 0.75               | 118.0 / 47.4                               | 113.0 / 53.4                                 | 109.6 / 64.5                           | Built in Potentiometer   |
| BBA14-212SEB | 31.8 / 1.25                                  | 150 / 5.9                 | 150 / 5.9                 | 19.1 / 0.75               | 118.0 / 47.4                               | 113.0 / 53.4                                 | 109.6 / 64.5                           | 1.5-10VDC signal         |
| BBA14-213SMB | 31.8 / 1.25                                  | 173 / 6.8                 | 173 / 6.8                 | 19.1 / 0.75               | 171.0 / 68.7                               | 191.0 / 76.7                                 | 78.3 / 46.1                            | Built in Potentiometer   |
| BBA14-213SEB | 31.8 / 1.25                                  | 173 / 6.8                 | 173 / 6.8                 | 19.1 / 0.75               | 171.0 / 68.7                               | 191.0 / 76.7                                 | 78.3 / 46.1                            | 1.5-10VDC signal         |
| BBA14-211HMB | 44.5 / 1.75                                  | 130 / 5.1                 | 130 / 5.1                 | 22.6 / 0.89               | 62.9 / 25.2                                | 70.3 / 28.2                                  | 191.1 / 112.5                          | Built in Potentiometer   |
| BBA14-211HEB | 44.5 / 1.75                                  | 130 / 5.1                 | 130 / 5.1                 | 22.6 / 0.89               | 62.9 / 25.2                                | 70.3 / 28.2                                  | 191.1 / 112.5                          | 1.5-10VDC signal         |
| BBA14-212HMB | 44.5 / 1.75                                  | 158 / 6.1                 | 158 / 6.1                 | 22.6 / 0.89               | 118.4 / 47.6                               | 129.8 / 52.1                                 | 159.9 / 94.1                           | Built in Potentiometer   |
| BBA14-212HEB | 44.5 / 1.75                                  | 158 / 6.1                 | 158 / 6.1                 | 22.6 / 0.89               | 118.4 / 47.6                               | 129.8 / 52.1                                 | 159.9 / 94.1                           | 1.5-10VDC signal         |
| BBA14-213HMB | 44.5 / 1.75                                  | 185 / 7.3                 | 185 / 7.3                 | 22.6 / 0.89               | 169.0 / 67.8                               | 194.2 / 78.0                                 | 154.7 / 91.0                           | Built in Potentiometer   |
| BBA14-213HEB | 44.5 / 1.75                                  | 185 / 7.3                 | 185 / 7.3                 | 22.6 / 0.89               | 169.0 / 67.8                               | 194.2 / 78.0                                 | 154.7 / 91.0                           | 1.5-10VDC signal         |

### SPECIFICATIONS

- Input Voltage: 240 Volts AC  $\pm 10\%$
- Working Environment: 0°C to 50°C, clean working air.
- Storage Temperature: -40°C to 80°C
- Refer to Northland Terms and Conditions for our standard conditions of sales

### OPTIONS (model suffix)

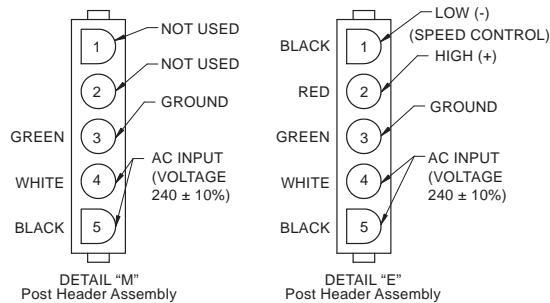
- x0 Standard product (with working air inlet tube)
- x1 Without working air inlet tube
- x2 With working air inlet tube, with inlet tube for cooling air
- x3 Without working air inlet tube, with inlet tube for cooling air
- 0x Standard control type (1.5 - 10 VDC signal)
- 1x 0.75 - 5 VDC signal
- 2x 4 - 20 mA signal

### ACCESSORIES

- BBA14-F125:  
Air inlet filter for use with 1.25" inlet pipes
- BBA14-F175:  
Air inlet filter for use with 1.75" inlet pipes

### WIRING DETAILS

Blower connector mates with AMP connector housing PN 1-480763 populated with pins AMP PN 35055-1.



### NOTICES AND CAUTIONS

- This document is for informational purposes only. Northland, a Scott Fetzer Company accepts no liability for the accuracy of the information contained in this document. Northland reserves the right to modify, revise or discontinue products without prior notice.
- All test data was obtained in laboratory conditions, using a laminar flow element. Performance will vary depending on environment conditions and by application.
- The Improper application of voltage will damage this product. Refer to wiring diagram above.
- Refer to Mercury User Guide (NMT part no. 25377) for proper installation, and use.

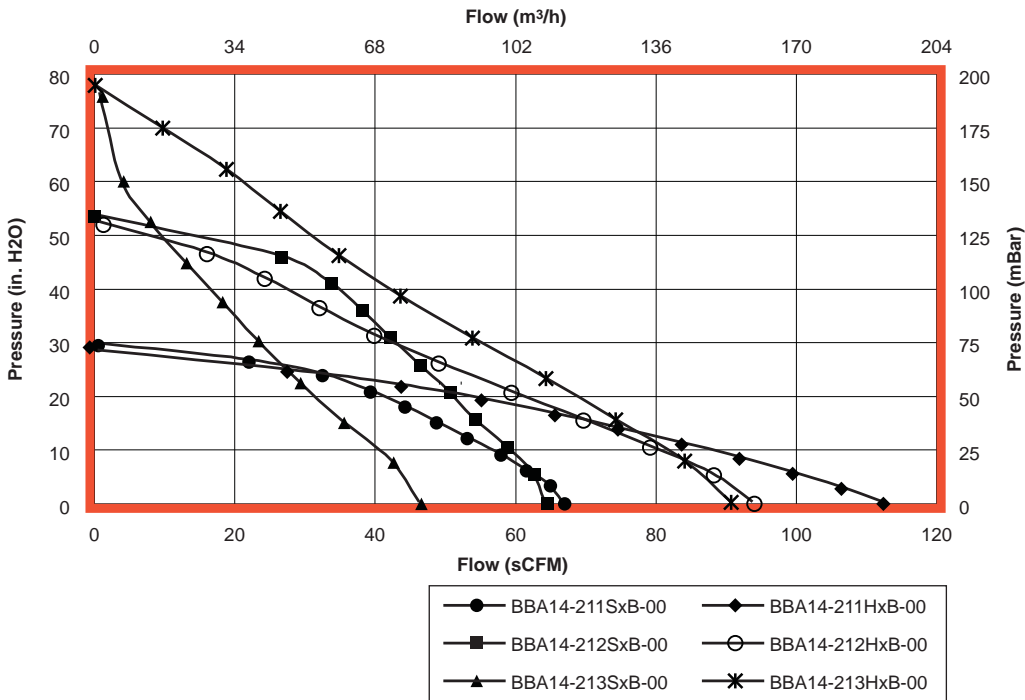


# BBA14-21 Series - Brushless DC Blower

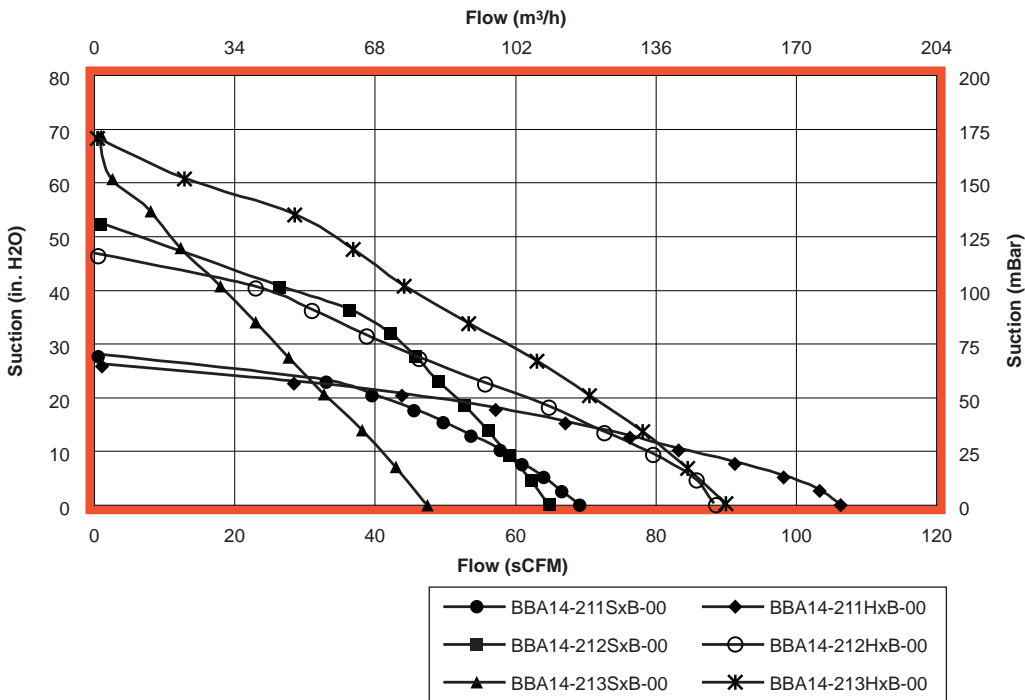
## 240 Volt AC Input, Multistage Bypass



**TYPICAL PRESSURE PERFORMANCE**



**TYPICAL VACUUM PERFORMANCE**



**NOTES**

- Product selection should be based on a performance curve that will supply at least 5% greater pressure (or suction) at the flow point for the application.
- Please contact your local factory Sales Representative for additional models and features.
- Refer to Mercury User Guide (NMT part no. 25377) for proper installation, and use.
- For pressure applications NMT recommends that blower should be installed in a manner that clamps the fan shell cover to the blower casting.
- NMT recommends that customer wiring to the blower as a minimum be 18AWG.

**EMISSIONS**

- This product may require a line filter or power factor correction module to meet specific emissions requirements. Please consult your local factory Sales Representative with the specific requirements for guidance and selection of the proper filter.

**TEST METHODOLOGY**

- CFM = SCFM.
- Standard air = clean, dry air.
- Density is corrected to 0.075 pounds mass per cubic foot.
- Barometric pressure is corrected to sea level of 29.92 inches of mercury.
- Temperature = 68°F.
- Measurement Device – Laminar Flow Element.

**AGENCY**

- UL 507 RECOGNIZED COMPONENT – ELECTRONICALLY CONTROLLED MOTORS (XDNW2, XDNW8)
- UL Standard for Overheating Protection for Motors UL 2111, First Edition, revised January 27, 2006 and UL Standard for Electric Motors, UL 1004, Fifth Edition, revised March 10, 2006.
- Canadian Standard for Motors and Generators, C22.2 NO. 100-04 and Canadian Standard for Motors with Inherent Overheating Protection, C22.2 77-95
- These motors were tested with controllers evaluated to the applicable requirements of UL 60730-1A and CAN/CSA-E60730-1:02
- Northland continuously submits products to various agencies for certification. For a complete list of agency certifications, or for specific requirements for your application, please contact your local factory Sales Representative.



968 BRADLEY STREET | WATERTOWN, NEW YORK 13601 USA  
 315.782.2350 | fax: 315.788.1180 | www.northlandmotor.com