

# L-BL2 N

## Data sheet 2BL2 281

### Compact circuit vacuum pump

**IE3**


#### General information

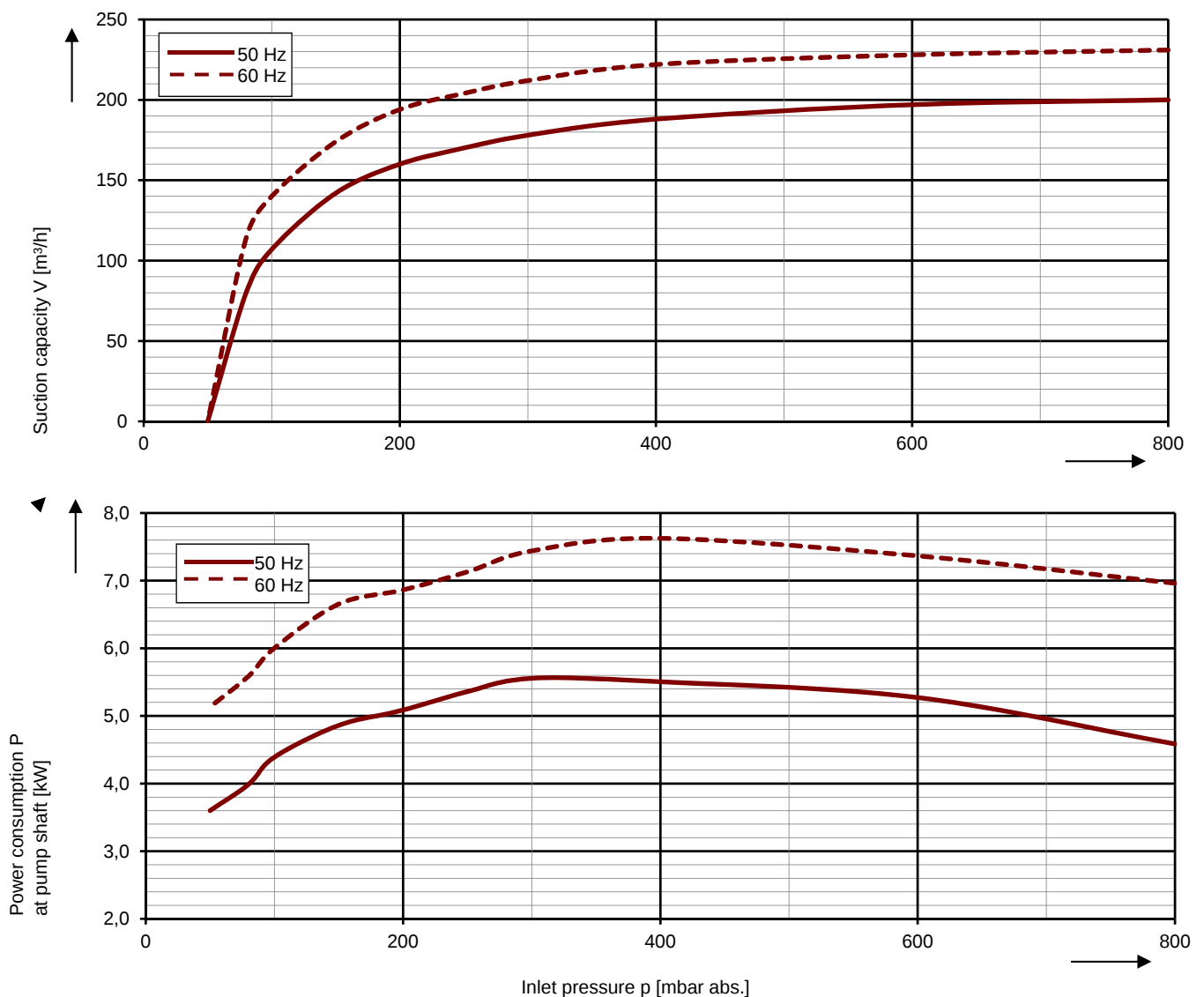
Elmo Rietschle vacuum pumps of the model range L-BL2 are Also known as the Elmo Rietschle "Pump in a Box", these portable units are oil free and air cooled. They include an L-BV liquid ring pump, industrial electric motor, discharge separator, seal water

Maintenance and wear are minimal thanks to contact free compression and a built-in discharge air cooler. Additional features include: quiet operation, continuous duty design and suitability for humid environments.



#### Performance curves

##### Vacuum operation



The characteristic curves are based on the evacuation of dry air and an intake temperature of 20 °C. At a suction pressure of 1013 mbar abs. (water as operating liquid) the characteristic curves will be achieved. The tolerance is ± 10 %.

The motors are supplied as standard for the input voltage ranges of 50 and 60 Hz and for the protection category IP55.

## Selection and ordering data

Typ 2BL2 281

| Fre-<br>quency                                                                                                   | Rated                  |                  |       | Service<br>factor | Efficiency | Sound pressure<br>level 2) | Weight<br>Approx. | Order No.          |
|------------------------------------------------------------------------------------------------------------------|------------------------|------------------|-------|-------------------|------------|----------------------------|-------------------|--------------------|
|                                                                                                                  | Voltage                | Current          | Power |                   |            |                            |                   |                    |
| Hz                                                                                                               | V                      | A                | kW    | SF                | -          | dB(A)                      | kg                |                    |
| 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239) |                        |                  |       |                   |            |                            |                   |                    |
| 50                                                                                                               | 190-210 Δ              | 29,9 Δ           | 5,5   | 1,36              | IE3        | 73                         | 228 *             | 2BL2281-0 □ K03-1B |
| 60                                                                                                               | 190-210 YY / 380-420 Y | 33,0 YY / 16,5 Y | 7,2   | 1,19              | IE3        | 78                         | 225 **            |                    |
|                                                                                                                  | 200 YY                 | 28,5 YY          | 7,2   | 1,19              | NP         | 78                         |                   |                    |
| 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239) |                        |                  |       |                   |            |                            |                   |                    |
| 50                                                                                                               | 220-240 Δ              | 25,0 Δ           | 5,5   | 1,36              | IE3        | 73                         | 228 *             | 2BL2281-0 □ K03-6B |
| 60                                                                                                               | 220-240 YY / 440-480 Y | 28,5 YY / 14,3 Y | 7,2   | 1,19              | IE3        | 78                         | 225 **            |                    |
|                                                                                                                  | 230 YY / 460 Y         | 25,0 YY / 12,4 Y | 7,2   | 1,19              | NP         | 78                         |                   |                    |
| 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239) |                        |                  |       |                   |            |                            |                   |                    |
| 50                                                                                                               | 500 Y                  | 11,4 Y           | 5,5   | 1,36              | IE3        | 73                         | 228 *             | 2BL2281-0 □ Q03-3B |
| 60                                                                                                               | 575 Y                  | 9,9 Y            | 7,2   | 1,20              | NP         | 78                         | 225 **            |                    |
| 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239) |                        |                  |       |                   |            |                            |                   |                    |
| 50                                                                                                               | 380-420 Δ / 660-725 Y  | 14,8 Δ / 8,5 Y   | 5,5   | 1,36              | IE3        | 73                         | 228 *             | 2BL2281-0 □ Q03-7B |
| 60                                                                                                               | 440-480 Δ              | 14,3 Δ           | 7,2   | 1,19              | IE3        | 78                         | 225 **            |                    |
|                                                                                                                  | 460 Δ                  | 12,4 Δ           | 7,2   | 1,20              | NP         | 78                         |                   |                    |

### Materials

Standard version Cast iron

K \*

Non-cast-iron version

R

Partially stainless steel version

B

Stainless steel version

H \*\*

- 2) Measuring surface sound pressure level acc. to EN ISO 3744, measured with an equivalent unit at a distance of 1 m. The pump is throttled to an average suction pressure, with piping connected, but no relief valves fitted, tolerance ±3 dB (A).

## Other voltages

| Voltage range                        |                                      | Efficiency                                                                            | C  US |           |                                                                                       |                                                                                       |
|--------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 50 Hz                                | 60Hz                                 |                                                                                       | 60 Hz                                                                                      | 2BL2....- |  |  |
| 3~                                   |                                      |                                                                                       |                                                                                            |           |                                                                                       |                                                                                       |
| 200 VΔ                               | 200 V YY / 230 VΔ / 400 VY           |  | •                                                                                          |           | K                                                                                     | 1                                                                                     |
| 190-210 VΔ                           | 190-210 VYY / 220-240 VΔ / 380-420VY |  | •                                                                                          |           | K                                                                                     | 1                                                                                     |
| 200 V YY / 230 VΔ / 400 VY           | 230 V YY / 460 VY                    |  | •                                                                                          |           | K                                                                                     | 6                                                                                     |
| 190-210 VYY / 220-240 VΔ / 380-420VY | 220-240 VYY / 440-480VY              |  | •                                                                                          |           | K                                                                                     | 6                                                                                     |
| 475-525 V Y                          | 550-600 V Y                          |  | •                                                                                          |           | Q                                                                                     | 3                                                                                     |
| 475-525 VΔ                           | 550-600 VΔ                           |  | •                                                                                          |           | Q                                                                                     | 5                                                                                     |
| 400 VΔ / 690 V Y                     | 460 VΔ                               |  | •                                                                                          |           | Q                                                                                     | 7                                                                                     |

All L-BL2 fulfil the 2006/42/EC (machinery) and 2006/95/EC (low voltage) directives and the EN 60034-1 norm "Rotating electrical machines". The motors comply with EN 60 034-1 / -2 / -30 (IEC 60034) and thermal class F. Voltage tolerances for three phase motors are +/-10%. The frequency tolerance is +/- 2 % maximum.



| Denomination                                               | K                                     | B                            | R                           | H                   |
|------------------------------------------------------------|---------------------------------------|------------------------------|-----------------------------|---------------------|
| Monobloc pump<br>Cover / Casing / Port Plate<br>/ Impeller | GG / GG+ARC / GG /<br>Bronze          | GG / GG+ARC / SS /<br>Bronze | SS / SS / SS / Bronze       | SS / SS / SS / SS   |
| Internal piping (suction-<br>and discharge side)           | Cast iron / EPDM / Brass /<br>Plastic | SS / EPDM / Brass / Plastic  | SS / EPDM / Brass / Plastic | SS / EPDM / Plastic |
| Water cooler / air-water<br>cooler                         | Pipes in copper                       | Pipes in copper              | Pipes copper                | Pipes in SS         |
| Condensation cooler                                        | Pipes in brass                        | Pipes in brass               | Pipes in brass              | Pipes in SS         |
| Throttle sleeves / injection<br>nozzle                     | Brass                                 | Brass                        | Brass                       | SS                  |
| Drain of seperator                                         | Polyamide (PA)                        | Polyamide (PA)               | Polyamide (PA)              | Polyamide (PA)      |
| Housing (2BL)                                              | Polyethylen (PE)                      | Polyethylen (PE)             | Polyethylen (PE)            | Polyethylen (PE)    |

Changes in particular of the quoted performance curve, data and weights may occur without prior notice. The data given do not constitute an obligation from our side to deliver as shown.

Elmo Rietschle is a brand of Gardner Denver

**Gardner  
Denver**

Your Ultimate Source for Vacuum and Pressure

**Gardner Denver Deutschland GmbH**

Industriestraße 26  
97616 Bad Neustadt - Germany

Tel.: +49 9771 6888-0

Fax: +49 9771 6888-4000

www.gd-elmoietschle.com ▪ er.de@gardnerdenver.com

**Gardner Denver Schopfheim GmbH**

Roggenbachstraße 58  
79650 Schopfheim - Germany

Tel.: +49 7622 392-0

Fax: +49 7622 392-300