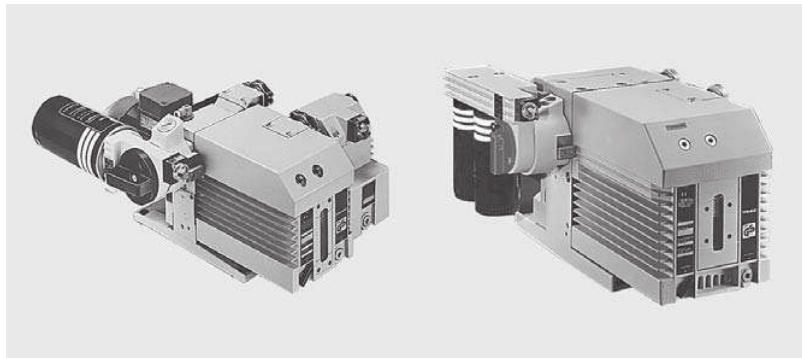
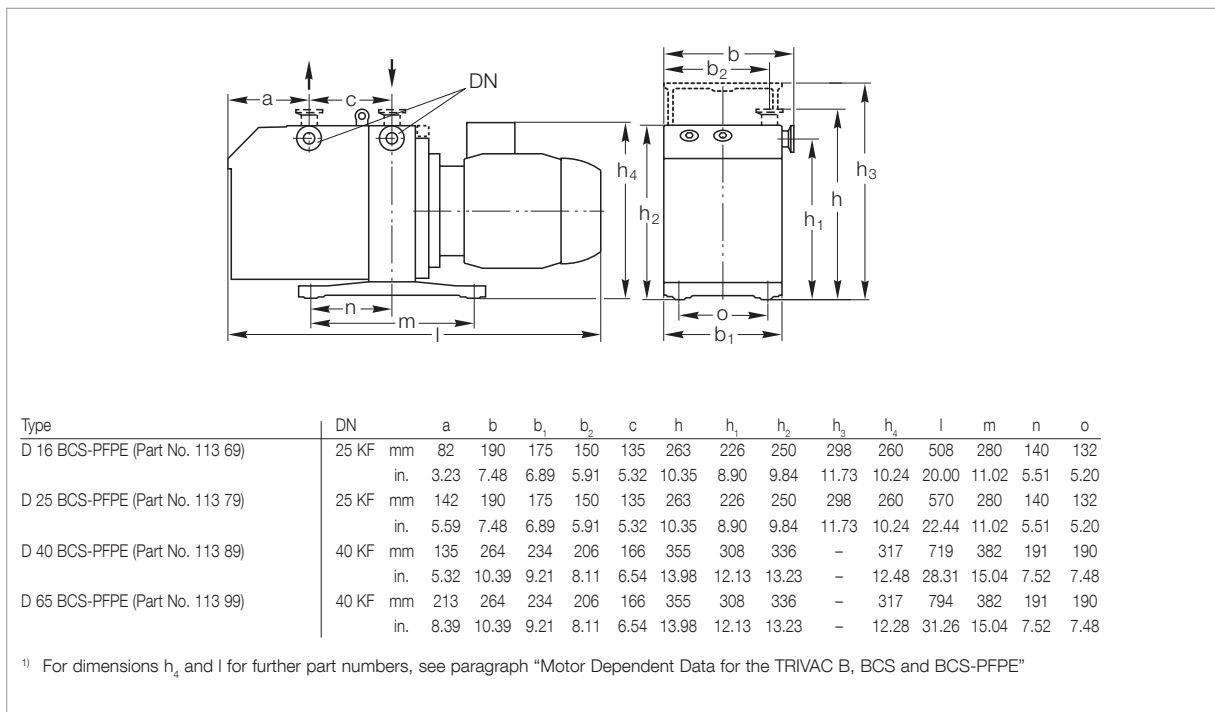


# TRIVAC D 16 BCS-PFPE to D 65 BCS-PFPE



TRIVAC D 25 BCS-PFPE with CFS 16-25 and ARS 16-25 (left) and  
TRIVAC D 65 BCS-PFPE with CFS 40-65 (right)



Dimensional drawing for the TRIVAC D 16 to D 65 BCS-PFPE

**Technical Data**

**TRIVAC**

**D 16 BCS-PFPE  
two-stage**

**D 25 BCS-PFPE  
two-stage**

|   |                         | <b>50 Hz</b>                                       | <b>60 Hz</b>                                       | <b>50 Hz</b>                                       | <b>60 Hz</b>                                       |
|---|-------------------------|--|--|--|--|
| Nominal pumping speed <sup>1)</sup>   | m <sup>3</sup> /h (cfm) | 18.9 (11.1)  | 22.7 (13.4)  | 29.5 (17.4)  | 35.4 ( 20.9)                                       |
| Pumping speed <sup>1)</sup>   | m <sup>3</sup> /h (cfm) | 16.5 (9.7)   | 19.8 (11.7)  | 25.7 (15.1)  | 30.8 (18.2)  |
| Ultimate partial pressure without gas ballast <sup>1)</sup>                             | mbar (Torr)             | < 8 x 10 <sup>-4</sup> (< 6 x 10 <sup>-4</sup> )   | < 8 x 10 <sup>-4</sup> (< 6 x 10 <sup>-4</sup> )   | < 8 x 10 <sup>-4</sup> (< 6 x 10 <sup>-4</sup> )   | < 8 x 10 <sup>-4</sup> (< 6 x 10 <sup>-4</sup> )   |
| Ultimate total pressure with gas ballast <sup>1)</sup>                                  | mbar (Torr)             | < 5 x 10 <sup>-3</sup> (< 3.8 x 10 <sup>-3</sup> ) | < 5 x 10 <sup>-3</sup> (< 3.8 x 10 <sup>-3</sup> ) | < 5 x 10 <sup>-3</sup> (< 3.8 x 10 <sup>-3</sup> ) | < 5 x 10 <sup>-3</sup> (< 3.8 x 10 <sup>-3</sup> ) |
| Ultimate total pressure with reduced gas ballast, 200 l x h <sup>-1</sup> <sup>1)</sup> | mbar (Torr)             | < 2 x 10 <sup>-3</sup> (< 1.5 x 10 <sup>-3</sup> ) | < 2 x 10 <sup>-3</sup> (< 1.5 x 10 <sup>-3</sup> ) | < 2 x 10 <sup>-3</sup> (< 1.5 x 10 <sup>-3</sup> ) | < 2 x 10 <sup>-3</sup> (< 1.5 x 10 <sup>-3</sup> ) |
| Lubricant filling min. / max. upon delivery   | l (qt)                  | 0.45 / 1.0 (0.5 / 1.1)                             | 0.45 / 1.0 (0.5 / 1.1)                             | 0.6 / 1.4 (0.6 / 1.5)                              | 0.6 / 1.4 (0.6 / 1.5)                              |
|   | l (qt)                  | 0.2 (0.2)  | 0.2 (0.2)  | 0.4 (0.4)  | 0.4 (0.4)  |
| Noise level <sup>2)</sup> to DIN 45 635, without / with gas ballast                     | dB(A)                   | 54 / 56  | 54 / 56  | 54 / 56  | 54 / 56  |
| Admissible ambient temperature  | °C (°F)                 | +12 to +40 (+54 to +104)                           | +12 to +40 (+54 to +104)                           | +12 to +40 (+54 to +104)                           | +12 to +40 (+54 to +104)                           |
| Motor rating <sup>2)</sup>  | W (HP)                  | 750 (1)  | 750 (1)  | 750 (1)  | 750 (1)  |
| Nominal speed <sup>2)</sup>   | rpm                     | 1500   | 1800   | 1500   | 1800   |
| Type of protection  | IP                      | 3)   | 3)   | 3)   | 3)   |
| Weight <sup>2)</sup>  | kg (lbs)                | 30.8 (67.8) <sup>4)</sup>                          | 30.8 (67.8) <sup>4)</sup>                          | 35.3 (77.7) <sup>4)</sup>                          | 35.3 (77.7) <sup>4)</sup>                          |
| Connections, Intake and Exhaust   | DN                      | 25 KF  | 25 KF  | 25 KF  | 25 KF  |

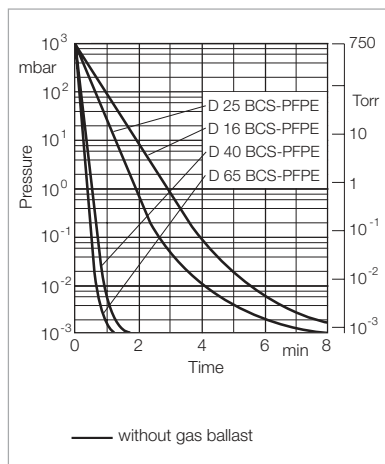
<sup>1)</sup> To DIN 28 400 and following numbers

<sup>2)</sup> Motor rating and noise levels for the pumps with AC motor 50 Hz.

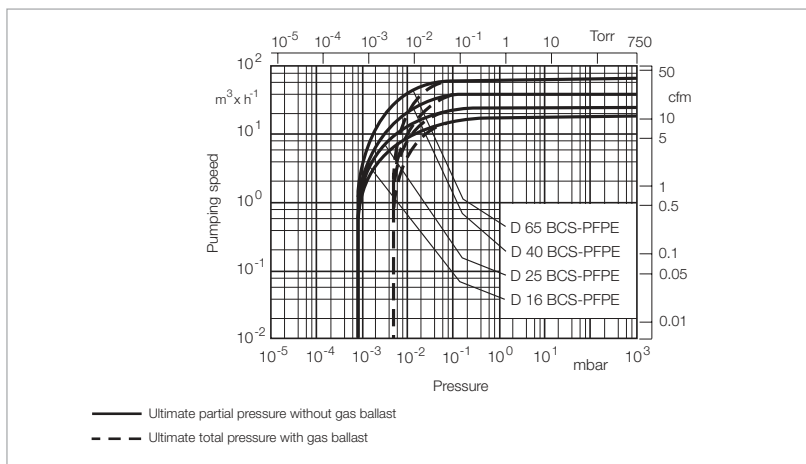
Any data that deviate from the above for pumps with other motors, and other motor-dependent data are given in chapter "Products", paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

<sup>3)</sup> See paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

<sup>4)</sup> Upon delivery



Pump-down characteristics of a 100 l vessel at 50 Hz



Pumping speed characteristics at 50 Hz (60 Hz curves at the end of the chapter)

## Technical Data

## TRIVAC

### D 40 BCS-PFPE two-stage

### D 65 BCS-PFPE two-stage

|  |                         | 50 Hz  | 60 Hz  | 50 Hz  | 60 Hz  |
|--|-------------------------|--|--|--|--|
| Nominal pumping speed <sup>1)</sup>                                    | m <sup>3</sup> /h (cfm) | 46 (27)  | 55 (32.5)  | 75 (44)  | 90 (53)  |
| Pumping speed <sup>1)</sup>  | m <sup>3</sup> /h (cfm) | 40 (24)  | 48 (28)  | 65 (38)  | 78 (46)  |
| Ultimate partial pressure<br>without gas ballast <sup>1)</sup>         | mbar (Torr)             | < 8 x 10 <sup>-4</sup> (< 6 x 10 <sup>-4</sup> )   | < 8 x 10 <sup>-4</sup> (< 6 x 10 <sup>-4</sup> )   | < 8 x 10 <sup>-4</sup> (< 6 x 10 <sup>-4</sup> )   | < 8 x 10 <sup>-4</sup> (< 6 x 10 <sup>-4</sup> )   |
| Ultimate total pressure<br>with gas ballast <sup>1)</sup>              | mbar (Torr)             | < 5 x 10 <sup>-3</sup> (< 3.8 x 10 <sup>-3</sup> ) | < 5 x 10 <sup>-3</sup> (< 3.8 x 10 <sup>-3</sup> ) | < 5 x 10 <sup>-3</sup> (< 3.8 x 10 <sup>-3</sup> ) | < 5 x 10 <sup>-3</sup> (< 3.8 x 10 <sup>-3</sup> ) |
| Lubricant filling<br>min. / max.                                       | l (qt)                  | 1.7 / 2.6 (1.8 / 2.7)                              | 1.7 / 2.6 (1.8 / 2.7)                              | 2.0 / 3.3 (2.1 / 3.5)                              | 2.0 / 3.3 (2.1 / 3.5)                              |
| upon delivery  | l (qt)                  | 0.6 (0.6)  | 0.6 (0.6)  | 0.75 (0.8)   | 0.75 (0.8)   |
| Noise level <sup>2)</sup> to DIN 45 635,<br>without / with gas ballast | dB(A)                   | 57 / 59  | 57 / 59  | 57 / 59  | 57 / 59  |
| Admissible ambient temperature   | °C<br>(°F)              | +12 to +40<br>(+54 to +104)                        | +12 to +40<br>(+54 to +104)                        | +12 to +40<br>(+54 to +104)                        | +12 to +40<br>(+54 to +104)                        |
| Motor rating <sup>2)</sup>   | W (HP)                  | 2200 (3)   | 2200 (3)   | 2200 (3)   | 2200 (3)   |
| Nominal speed <sup>2)</sup>  | rpm                     | 1500   | 1800   | 1500   | 1800   |
| Type of protection   | IP                      | <sup>3)</sup>                                      | <sup>3)</sup>                                      | <sup>3)</sup>                                      | <sup>3)</sup>                                      |
| Weight <sup>2)</sup>   | kg (lbs)                | 71.3 (157) <sup>4)</sup>                           | 71.3 (157) <sup>4)</sup>                           | 80.2 (176) <sup>4)</sup>                           | 80.2 (176) <sup>4)</sup>                           |
| Connections, Intake and Exhaust  | DN                      | 40 KF  | 40 KF  | 40 KF  | 40 KF  |

<sup>1)</sup> To DIN 28 400 and following numbers

<sup>2)</sup> Motor rating and noise levels for the pumps with AC motor 50 Hz.

Any data that deviate from the above for pumps with other motors, and other motor-dependent data are given in chapter "Products", paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

<sup>3)</sup> See paragraph "Motor Dependent Data for the TRIVAC B, BCS and BCS-PFPE"

<sup>4)</sup> Upon delivery

## Ordering Information

## TRIVAC

|  | D 16 BCS-PFPE<br>two-stage | D 25 BCS-PFPE<br>two-stage | D 40 BCS-PFPE<br>two-stage | D 65 BCS-PFPE<br>two-stage |
|--|----------------------------|----------------------------|----------------------------|----------------------------|
|  | Part No.                   | Part No.                   | Part No.                   | Part No.                   |
| TRIVAC BCS-PFPE<br>with 3-phase motor<br>200-240 V (200 V IE2) /<br>380-400 V (380-400 V IE 2), 50 Hz /<br>200-240 (208-240 V EPact) /<br>380-480 V (416-480 V EPact), 60 Hz | <b>113 69</b>              | <b>113 79</b>              | <b>113 89</b>              | <b>113 99</b>              |
| <b>Accessories</b>   |                            |                            |                            |                            |
| Roots pump adaptor   | -                          | -                          | <b>168 30</b>              | <b>168 30</b>              |
| Exhaust filter with lubricant return   |                            |                            |                            |                            |
| ARS 16-25  | <b>189 56</b>              | <b>189 56</b>              | -                          | -                          |
| ARS 40-65  | -                          | -                          | <b>189 57</b>              | <b>189 57</b>              |
| Condensate trap  |                            |                            |                            |                            |
| AK 16-25   | <b>188 11</b>              | <b>188 11</b>              | -                          | -                          |
| AK 40-65   | -                          | -                          | <b>188 16</b>              | <b>188 16</b>              |
| Chemical filter with<br>safety isolation valve   |                            |                            |                            |                            |
| CFS 16-25  | <b>101 76</b>              | <b>101 76</b>              | -                          | -                          |
| CFS 40-65  | -                          | -                          | <b>101 77</b>              | <b>101 77</b>              |
| Inert gas system   |                            |                            |                            |                            |
| IGS 16-25  | <b>161 76</b>              | <b>161 76</b>              | -                          | -                          |
| IGS 40-65  | -                          | -                          | <b>161 68V</b>             | <b>161 68V</b>             |
| Limit switch system  |                            |                            |                            |                            |
| LSS 16-25  | <b>161 06</b>              | <b>161 06</b>              | -                          | -                          |
| LSS 40-65  | -                          | -                          | <b>161 07</b>              | <b>161 07</b>              |
| <b>Spare Parts</b>   |                            |                            |                            |                            |
| Major maintenance kit, LVO 400 (without oil)   | <b>EK110002644</b>         | <b>EK110002645</b>         | <b>EK110002637</b>         | <b>EK110002638</b>         |
| Shaft sealing replacement kit  | <b>EK110002650</b>         | <b>EK110002650</b>         | <b>EK110002643</b>         | <b>EK110002643</b>         |
| Small parts kit  | -                          | -                          | <b>EK110002651</b>         | <b>EK110002651</b>         |
| Seal kit   | <b>197 41</b>              | <b>197 41</b>              | <b>197 42</b>              | <b>197 42</b>              |
| For further accessories see section<br>"Accessories for TRIVAC E, B and BCS"   |                            |                            |                            |                            |

Oil Sealed  
Vacuum Pumps

# Only available for purchase in North and South America

## Ordering Information

## TRIVAC

|   | D 16 BCS-PFPE<br>two-stage | D 25 BCS-PFPE<br>two-stage |
|---|----------------------------|----------------------------|
|   | Part No.                   | Part No.                   |
| TRIVAC BCS-PFPE<br>with 1-phase motor<br>220-230 V, 50/60 Hz, NEMA plug | -                          | <b>913 79-2</b>            |