

Diaphragm Pumps

MODELS



FEATURES

- Oil-less
- Maintenance free
- Smooth running
- Low sound level
- Long lifetime
- Sealed tight
- Large choice in material
- Pressure or vacuum

TYPICAL APPLICATIONS

- Medical devices
- Analysis
- Air collector
- Inhalators
- Level surveillance
- Autoclaves



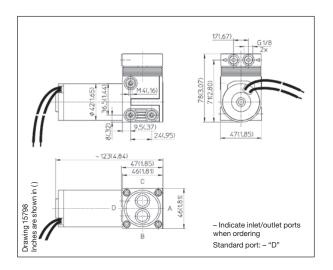


Diaphragm Pump 7006 DC

| Flow | 7,5 l/min |
|---------------|-----------|
| Max. pressure | 2,5 bar |
| Max. vacuum | 85 % |





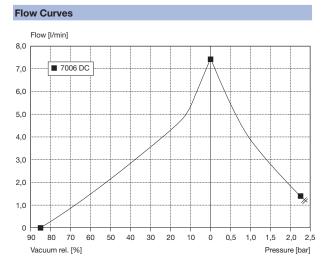


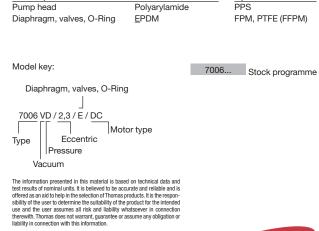
| Pneumatic Data | | |
|--------------------|----------|-----------------|
| Description | | 7006VD/2,3/E/DC |
| Part number | 12 V DC | 70060050 |
| | 24 V DC | 70060052 |
| Max. flow | | 7,5 l/min |
| Max. intermittent | duty | 2,5 bar |
| Max. continuous p | oressure | 0,8 bar |
| Max. restart press | sure | 2,5 bar |
| Max. vacuum | | 85 % |
| Max. continuous v | /acuum | 85 % |
| Max. restart vacuu | um | 85 % |

| Electrical Data | | |
|------------------------|------------------|--|
| Motor type | Permanent magnet | |
| Nominal voltage | 12/24 V DC | |
| Nominal speed | 2800 rpm | |
| Current consumption | 2,3/1,15 A | |
| Starting current | 5,4/2,7 A | |
| Power consumption | 28 W | |
| Motor insulation class | В | |
| Protection class | IP20 | |

| General Data | | |
|---------------------|-------------|--|
| Ambient temperature | 15 to 40 °C | |
| Media temperature | 15 to 60 °C | |
| Weight | 0,66 kg | |
| Port direction | D | |

Wetted parts







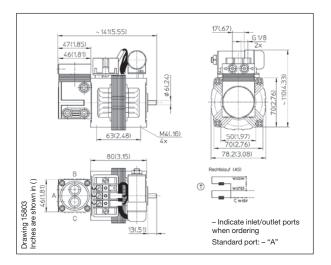
Options

Diaphragm Pump 7006 AC

| Flow | 7,5 l/min |
|---------------|-----------|
| Max. pressure | 2,5 bar |
| Max. vacuum | 85 % |



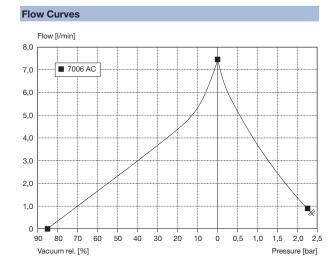




| Pneumatic Data | | | |
|---------------------|-------------|-----------------|--|
| Description | | 7006VD/2,3/E/AC | |
| Part number | 230 V/50 Hz | 70060053 | |
| Max. flow | | 7,5 l/min | |
| Max. intermittent d | luty | 2,5 bar | |
| Max. continuous p | ressure | 0,8 bar | |
| Max. restart pressu | ure | 2,5 bar | |
| Max. vacuum | | 85 % | |
| Max. continuous va | acuum | 85 % | |
| Max. restart vacuu | m | 85 % | |

| Electrical Data | |
|------------------------|-------------|
| Motor type | Capacitor |
| Nominal voltage | 230 V/50 Hz |
| Nominal speed | 2800 rpm |
| Current consumption | 0,5 A |
| Starting current | 0,7 A |
| Power consumption | 20 W |
| Motor insulation class | F |
| Protection class | IP00 |
| Thermal switch | 150 °C |

| General Data | | |
|---------------------|-------------|--|
| Ambient temperature | 15 to 40 °C | |
| Media temperature | 15 to 40 °C | |
| Weight | 1,6 kg | |
| Port direction | A | |



| Wetted parts | Options | |
|---------------------------|---------------|------------------|
| Pump head | Polyarylamide | PPS |
| Diaphragm, valves, O-Ring | EPDM | FPM. PTFE (FFPM) |

Model key:

Diaphragm, valves, O-Ring

7006 VD / 2,3 / E / AC

Type Eccentric Motor type
Pressure

Vacuum

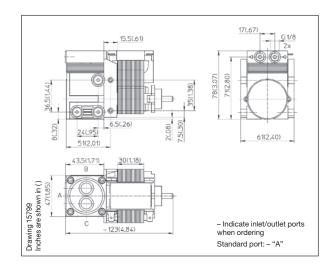


Diaphragm Pump 7006 AC

| Flow | 9,0 l/min |
|---------------|-----------|
| Max. pressure | 2,5 bar |
| Max. vacuum | 85 % |





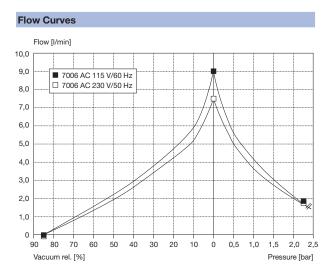


| Pneumatic Data | | | |
|----------------------|-------------|-------------------|-------------------|
| Description | | 7006VD/2,3/E/AC | 7006VD/2,3/E/AC |
| Part number | 115 V/60 Hz | 70060063 | |
| | 230 V/50 Hz | | 70060051 |
| Max. flow | | 9,0 l/min | 7,5 l/min |
| Max. intermittent of | duty | 2,5 bar | 2,5 bar |
| Max. continuous p | pressure | 0,8 bar | 0,8 bar |
| Max. restart press | ure | Ambient pressure* | Ambient pressure* |
| Max. vacuum | | 85 % | 85 % |
| Max. continuous v | /acuum | 85 % | 85 % |
| Max. restart vacuu | ım | Ambient pressure* | Ambient pressure* |

| Electrical Data | | |
|------------------------|-------------|-------------|
| Motor type | Shaded pole | Shaded pole |
| Nominal voltage | 115 V/60 Hz | 230 V/50 Hz |
| Nominal speed | 3300 rpm | 2800 rpm |
| Current consumption | 1,3 A | 0,55 A |
| Starting current | 1,7 A | 0,7 A |
| Power consumption | 67 W | 62 W |
| Motor insulation class | Н | F |
| Protection class | IP00 | IP00 |
| Thermal switch | 150 °C | 150 °C |

| General Data | | | |
|---------------------|-------------|-------------|--|
| Ambient temperature | 15 to 40 °C | 15 to 40 °C | |
| Media temperature | 15 to 40 °C | 15 to 40 °C | |
| Weight | 1,1 kg | 1,1 kg | |
| Port direction | A | A | |

^{*} Part numbers change when restart is required with vacuum or pressure.



| Wetted parts | | Op | tions |
|--|---|------|-----------------|
| Pump head P | Polyarylamide | PPS | |
| Diaphragm, valves, O-Ring E | PDM | FP | M, PTFE (FFPM) |
| Mar della | | | |
| Model key: | | 7006 | Stock programme |
| Diaphragm, valves, O-Ring | | | |
| | | | |
| 7006 VD / 2,3 / E / AC | | | |
| | | | |
| Type Eccentric Motor type Pressure | | | |
| Vacuum | | | |
| The information presented in this material is based on I test results of nominal units. It is believed to be accurate offered as an aid to help in the selection of Thomas products oblifly of the user to determine the suitability of the produce and the user assumes all risk and liability whatsom therewith Thomas does not warrant ouerantee no results of the products | and reliable and is cts. It is the respon- act for the intended ever in connection | | |

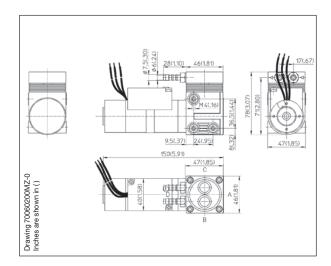


Diaphragm Pump 7006 BLDC

| Flow | 10,0 l/min |
|---------------|------------|
| Max. pressure | 2,5 bar |
| Max. vacuum | 85 % |







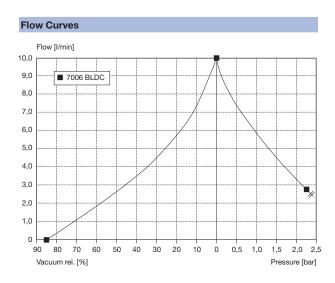
| Pneumatic Data | | | |
|-----------------------|----------|-------------------------|--|
| Description | | 7006VD/2,3/E/BLDC | |
| Part number | 12 V DC | 70060200 | |
| | 24 V DC | 70060071 | |
| Max. flow | | 10,0 l/min [©] | |
| Max. intermittent | duty | 2,5 bar | |
| Max. continuous | pressure | 0,8 bar | |
| Max. restart press | sure | Ambient pressure* | |
| Max. vacuum | | 85 % | |
| Max. continuous v | vacuum | 85 % | |
| Max. restart vacuu | um | 85 % | |

| Electrical Data | | Wiring | g diagram | | |
|------------------------|------------------------------|--------|---------------|--------|--|
| Motor type | Brushless | | Function | Colour | Control |
| Nominal voltage | 12/24 V DC | Pin 1 | V Supply | Red | 12 VDC (max. voltage range: 1016 VDC) 24 VDC (max. voltage range: 1028 VDC) |
| Nominal speed | 1000/3500 rpm ⁽¹⁾ | Pin 2 | Ground | Black | Ground |
| Current consumption | 3,9/2,1 A | Pin 3 | Speed Control | Brown | 012 VDC (03500 rpm) 024 VDC (03500 rpm) |
| Starting current | 10,4 A | | | | 024 VDC (05500 rpm) |
| Power consumption | 28 W | | • | • | • |
| Motor insulation class | Е | | | | |
| Protection class | IP20 | | | | |

| General Data | | |
|---------------------|-------------|--|
| Ambient temperature | 15 to 40 °C | |
| Media temperature | 15 to 60 °C | |
| Weight | 0,66 kg | |
| Port direction | D | |

- ⁽¹⁾ For external speed control 1 to 10 V.
- © Flow at 3500 rpm.

 * Part numbers change when restart is required with vacuum or pressure.



| Wetted parts | | Options |
|---------------------------|---------------|------------------|
| Pump head | Polyarylamide | PPS |
| Diaphragm, valves, O-Ring | EPDM | FPM. PTFE (FFPM) |

Model key:

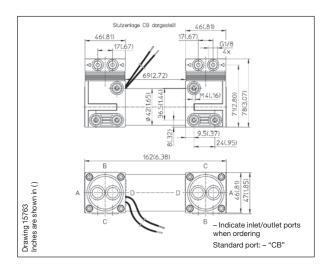
Diaphragm, valves, O-Ring 7006 VD / 2,3 / E / BLDC Eccentric Motor type Pressure



Diaphragm Pump 7006ZP/ZVR DC

| Flow | 15,0 l/min |
|---------------|------------|
| Max. pressure | 2,5 bar |
| Max. vacuum | 95 % |

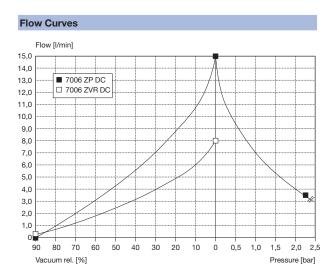




| Pneumatic Data | | | |
|--------------------|---------|-------------------|------------------|
| Description | | 7006ZVDP/2,3/E/DC | 7006ZVR/2,3/E/DC |
| Part number | 12 V DC | 70060054 | 70060057 |
| | 24 V DC | 70060055 | 70060058 |
| Max. flow | | 15,0 l/min | 8,0 l/min |
| Max. intermittent | duty | 2,5 bar | |
| Max. continuous p | ressure | 0,8 bar | |
| Max. restart press | ure | 2,5 bar | |
| Max. vacuum | | 85 % | 95 % |
| Max. continuous v | acuum/ | 85 % | 95 % |
| Max. restart vacuu | ım | 85 % | 95 % |

| Electrical Data | | |
|------------------------|------------------|------------------|
| Motor type | Permanent magnet | Permanent magnet |
| Nominal voltage | 12/24 V DC | 12/24 V DC |
| Nominal speed | 2800 rpm | 2800 rpm |
| Current consumption | 4,0/2 Å | 3,7/2 Å |
| Starting current | 8,7/4,7 A | 8,7/4,7 A |
| Power consumption | 48 W | 48 W |
| Motor insulation class | В | В |
| Protection class | IP20 | IP20 |

| General Data | | | |
|---------------------|-------------|-------------|--|
| Ambient temperature | 15 to 40 °C | 15 to 40 °C | |
| Media temperature | 15 to 60 °C | 15 to 60 °C | |
| Weight | 0,9 kg | 0,9 kg | |
| Port direction | СВ | DD | |
| Configuration | Parallel | Series | |



| Wetted parts | | Op | otions |
|--|--|------|-----------------|
| Pump head | Polyarylamide | PP | S |
| Diaphragm, valves, O-Ring | <u>E</u> PDM | FP | M, PTFE (FFKM) |
| Model key: | | 7006 | Stock programme |
| Double head Diaphragm, va | lves, O-Ring tor type | | |
| The information presented in this material is baset test results of nominal units. It is believed to be acco offered as an aid to help in the selection of Thomas po- sibility of the user to determine the suitability of the use and the user assumes all risk and liability with the rewith. Thomas does not warrant, guarantee or a liability in connection with this information. | urate and reliable and is roducts. It is the respon- product for the intended natsoever in connection | | |

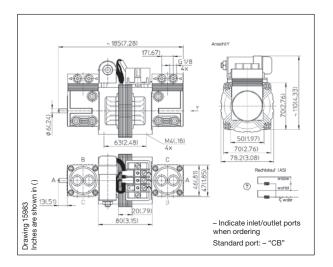


Diaphragm Pump 7006ZP AC

| Flow | 14,0 l/min |
|---------------|------------|
| Max. pressure | 2,5 bar |
| Max. vacuum | 85 % |







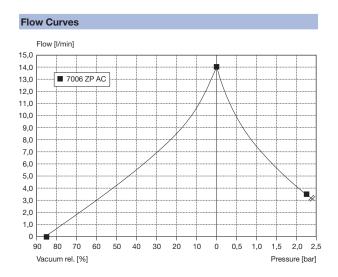
| Pneumatic Data | | | |
|--------------------|-------------|-------------------|--|
| Description | | 7006ZVDP/2,3/E/AC | |
| Part number | 230 V/50 Hz | 70060056 | |
| Max. flow | | 14,0 l/min | |
| Max. intermittent | duty | 2,5 bar | |
| Max. continuous p | oressure | 0,8 bar | |
| Max. restart press | sure | Ambient pressure* | |
| Max. vacuum | | 85 % | |
| Max. continuous v | /acuum | 85 % | |
| Max. restart vacuu | um | 85 % | |

| Electrical Data | |
|------------------------|-------------|
| Motor type | Capacitor |
| Nominal voltage | 230 V/50 Hz |
| Nominal speed | 2800 rpm |
| Current consumption | 0,5 A |
| Starting current | 0,7 A |
| Power consumption | 20 W |
| Motor insulation class | F |
| Protection class | IP00 |
| Thermal switch | 150 °C |

| General Data | | |
|---------------------|-------------|--|
| Ambient temperature | 15 to 40 °C | |
| Media temperature | 15 to 40 °C | |
| Weight | 1,8 kg | |
| Port direction | СВ | |
| Configuration | Parallel | |

^{*} Part numbers change when restart is required with vacuum or pressure.

Pneumatic data are measured at 50 Hz. At 60 Hz the performance is increased by 20 %.



| Wetted parts | | Options |
|---------------------------|---------------|------------------|
| Pump head | Polyarylamide | PPS |
| Diaphragm, valves, O-Ring | EPDM | FPM, PTFE (FFKM) |

Model key:

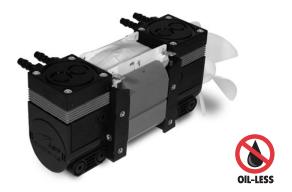
Double head Diaphragm, valves, O-Ring

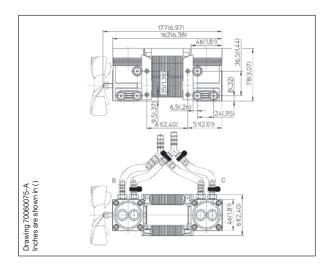
| P = Parallel |
R = Series |
7006ZVDP / 2,3 / E / AC |
| Pressure | Motor type
Type Vacuum Eccentric



Diaphragm Pump 7006ZP AC

| Flow | 13,5 l/min |
|---------------|------------|
| Max. pressure | 2,5 bar |
| Max. vacuum | 95 % |



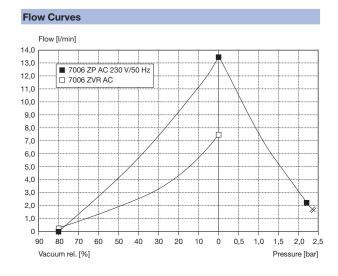


| Pneumatic Data | | | | |
|-----------------------|-------------|-------------------|------------------|--|
| Description | | 7006ZVDP/2,3/E/AC | 7006ZVR/2,3/E/AC | |
| Part number | 230 V/50 Hz | 70060075 | 70060076 | |
| Max. flow | | 13,5 l/min | 7,5 l/min | |
| Max. intermittent of | duty | 2,5 bar | | |
| Max. continuous p | ressure | 0,8 bar | | |
| Max. restart press | ure | Ambient pressure | | |
| Max. vacuum | | 85 % | 95 % | |
| Max. continuous v | acuum | 85 % | 95 % | |
| Max. restart vacuu | ım | Ambient pressure | Ambient pressure | |

| Electrical Data | | |
|------------------------|-------------|-------------|
| Motor type | Shaded pole | Shaded pole |
| Nominal voltage | 230 V/50 Hz | 230 V/50 Hz |
| Nominal speed | 2500 rpm | 2500 rpm |
| Current consumption | 0,7 A | 0,7 A |
| Starting current | 1,1 A | 1,1 A |
| Power consumption | 180 W | 180 W |
| Motor insulation class | Н | Н |
| Protection class | IP00 | IP00 |
| Thermal switch | 180 °C | 180 °C |

| General Data | | | |
|---------------------|-------------|-------------|--|
| Ambient temperature | 15 to 40 °C | 15 to 40 °C | |
| Media temperature | 15 to 40 °C | 15 to 40 °C | |
| Weight | 1,8 kg | 1,8 kg | |
| Port direction | CB | CB | |
| Configuration | Parallel | Series | |

Pneumatic data are measured at 50 Hz. At 60 Hz the performance is increased by 20 %.



| Wetted parts | | Options |
|---------------------------|---------------|------------------|
| Pump head | Polyarylamide | PPS |
| Diaphragm, valves, O-Ring | EPDM | FPM, PTFE (FFKM) |

Model key:

Double head Diaphragm, valves, O-Ring

P=Parallel
R=Series

7006ZVDP / 2,3 / E / AC

Pressure Motor type

Type Vacuum Eccentric

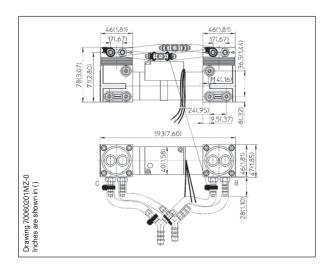


Diaphragm Pump 7006ZP/ZVR BLDC

| Flow | 18,0 I/min |
|---------------|------------|
| Max. pressure | 2,5 bar |
| Max. vacuum | 95 % |







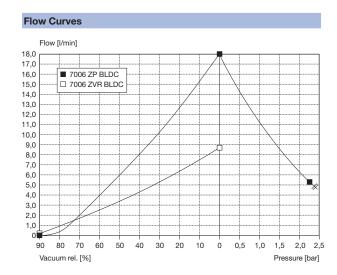
| Pneumatic Data | | | |
|----------------------|---------|---------------------------|--------------------------|
| Description | | 7006ZVDP/2,3/E/BLDC | 7006ZVR/2,3/E/BLDC |
| Part number | 12 V DC | 70060201 | 70060074 |
| | 24 V DC | 70060016 | 70060073 |
| Max. flow | | 18,0 l/min ⁽²⁾ | 8,7 l/min ⁽²⁾ |
| Max. intermittent of | duty | 2,5 bar | |
| Max. continuous p | ressure | 0,5 bar | |
| Max. restart press | ure | Ambient pressure* | |
| Max. vacuum | | 85 % | 95 % |
| Max. continuous v | acuum | 85 % | 95 % |
| Max. restart vacuu | ım | Ambient pressure* | Ambient pressure* |

| Electrical Data | | | Wiring diagram |
|------------------------|------------------------------|------------------------------|--|
| Motor type | Brushless | Brushless | Function Colour Control |
| Nominal voltage | 12/24 V DC | 12/24 V DC | Pin 1 V Supply Red 12 VDC |
| Nominal speed | 1000/3500 rpm ⁽¹⁾ | 1000/3500 rpm ⁽¹⁾ | (max. voltage range: 1016 VDC |
| Current consumption | 3,9/2,1 A | 3,9/2,1 A | (max. voltage range: 1028 VDC |
| Starting current | 10,5 A | 10,5 A | Pin 2 Ground Black Ground |
| Power consumption | 50 W | 30 W | Pin 3 Speed Brown 012 VDC (03500 rpm) Control 024 VDC (03500 rpm) |
| Motor insulation class | Е | Е | Control 024 VDC (03500 rpm) |
| Protection class | IP20 | IP20 | |

| General Data | | | |
|---------------------|-------------|-------------|--|
| Ambient temperature | 15 to 40 °C | 15 to 40 °C | |
| Media temperature | 15 to 60 °C | 15 to 60 °C | |
| Weight | 0,9 kg | 0,9 kg | |
| Port direction | CB | CB | |
| Configuration | Parallel | Series | |

⁽¹⁾ For external speed control 1 to 10 V. (2) Flow at 3500 rpm.

^{*} Part numbers change when restart is required with vacuum or pressure.



| Wetted parts | Options | |
|---------------------------|---------------|------------------|
| Pump head | Polyarylamide | PPS |
| Diaphragm, valves, O-Ring | EPDM | FPM, PTFE (FFKM) |

Model key:

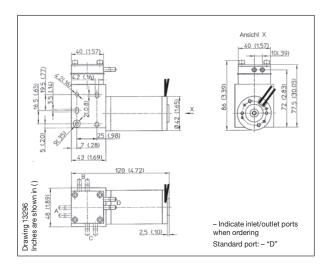


Diaphragm Pump 7010 DC

| Flow | 6,5 l/min |
|---------------|-----------|
| Max. pressure | 2,2 bar |
| Max. vacuum | 73 % |



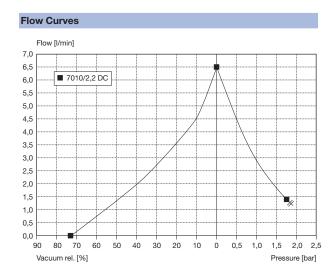




| Pneumatic Data | | |
|------------------------|----------|-----------------|
| Description | | 7010VD/2,2/N/DC |
| Part number | 12 V DC | 70102502 |
| | 24 V DC | 70102514 |
| Max. flow | | 6,5 I/min |
| Max. intermittent | duty | 2,2 bar |
| Max. continuous p | oressure | 1,0 bar |
| Max. restart press | sure | 1,0 bar |
| Max. vacuum | | 73 % |
| Max. continuous vacuum | | 73 % |
| Max. restart vacuum | | 73 % |

| Electrical Data | | |
|------------------------|------------------|--|
| Motor type | Permanent magnet | |
| Nominal voltage | 12/24 V DC | |
| Nominal speed | 2800 rpm | |
| Current consumption | 1,3/0,65 A | |
| Starting current | 5,9/3,4 A | |
| Power consumption | 16 W | |
| Motor insulation class | E | |
| Protection class | IP00 | |

| General Data | | |
|---------------------|-------------|--|
| Ambient temperature | 15 to 40 °C | |
| Media temperature | 15 to 60 °C | |
| Weight | 0,6 kg | |
| Port direction | D | |





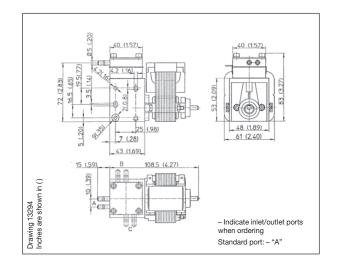


Diaphragm Pump 7010 AC

| Flow | 5,5 l/min |
|---------------|-----------|
| Max. pressure | 2,3 bar |
| Max. vacuum | 73 % |





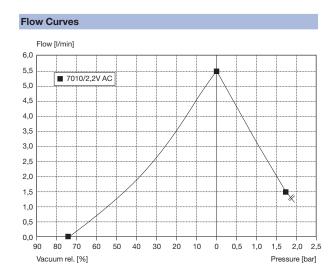


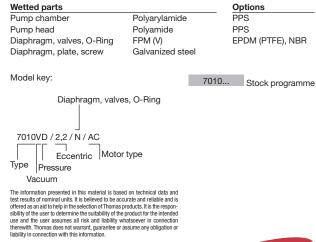
| Pneumatic Data | | | |
|------------------------|-------------|-------------------|--|
| Description | | 7010VD/2,2/V/AC | |
| Part number | 230 V/50 Hz | 70102532 | |
| Max. flow | | 5,5 l/min | |
| Max. intermittent | duty | 2,3 bar | |
| Max. continuous | oressure | 1,2 bar | |
| Max. restart press | sure | Ambient pressure* | |
| Max. vacuum | | 73 % | |
| Max. continuous vacuum | | 73 % | |
| Max. restart vacuum | | Ambient pressure* | |

| Electrical Data | | |
|------------------------|-------------|--|
| Motor type | Shaded pole | |
| Nominal voltage | 230 V/50 Hz | |
| Nominal speed | 2300 rpm | |
| Current consumption | 0,54 A | |
| Starting current | 0,62 A | |
| Power consumption | 52 W | |
| Motor insulation class | E | |
| Protection class | IP00 | |
| Thermal switch | no | |

| General Data | |
|---------------------|-------------|
| Ambient temperature | 15 to 40 °C |
| Media temperature | 15 to 40 °C |
| Weight | 0,95 kg |
| Port direction | A |

^{*} Part numbers change when restart is required with vacuum or pressure.





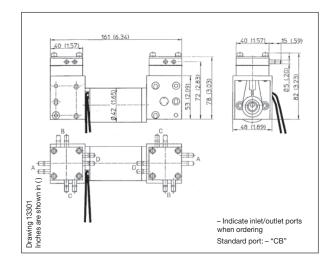


Diaphragm Pump 7010Z DC

| Flow | 12,0 l/min |
|---------------|------------|
| Max. pressure | 2,0 bar |
| Max. vacuum | 90 % |





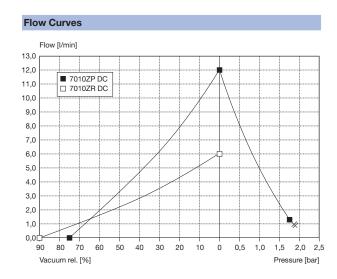


| Pneumatic Data | | | |
|---------------------------------------|---------|--------------------|--------------------|
| Description | | 7010ZDP/2,2/NVN/DC | 7010ZVR/2,2/NVN/DC |
| Part number | 12 V | 70102167 | |
| | 24 V | 70102133 | 70100043 |
| Max. flow | | 12,0 l/min | 6,0 l/min |
| Max. intermittent duty 2,0 bar | | 2,0 bar | |
| Max. continuous p | ressure | 0,8 bar | |
| Max. vacuum 75 % | | 75 % | 90 % |
| Max. continuous vacuum 75 % | | 75 % | 90 % |
| Max. restart vacuum Ambient pressure* | | Ambient pressure* | 90 % |

| Electrical Data | | |
|------------------------|----------------|----------------|
| Motor type | Direct current | Direct current |
| Nominal voltage | 12/24 V DC | 12/24 V DC |
| Nominal speed | 2800 rpm | 2800 rpm |
| Current consumption | 1,7/0,9 A | 0,9 A |
| Starting current | 4,5/3,5 A | 3,5 A |
| Power consumption | 20 W | 20 W |
| Motor insulation class | E | E |
| Protection class | IP00 | IP00 |

| General Data | | | |
|---------------------|-------------|-------------|--|
| Ambient temperature | 15 to 40 °C | 15 to 40 °C | |
| Media temperature | 15 to 60 °C | 15 to 60 °C | |
| Weight | 0,75 kg | 0,75 kg | |
| Port direction | СВ | CB | |
| Configuration | Parallel | Series | |

^{*} Part numbers change when restart is required with vacuum or pressure.



| Wetted parts | | Options |
|---------------------------|------------------|------------|
| Pump chamber | Polyarylamide | PPS |
| Pump head | Polyamide | PPS |
| Diaphragm, valves, O-Ring | FPM (V), NBR | EPDM, PTFE |
| Diaphragm, plate, screw | Galvanized steel | |

Model key:

Double head Diaphragm, valves, O-Ring

| P = Parallel | R = Series | |
| 7010ZDP / 2,2 / NVN / DC | |
| Type Pressure Eccentric Motor type

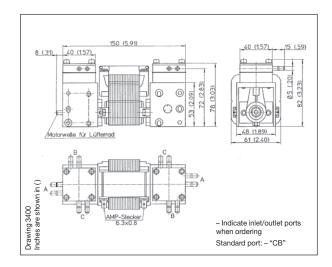


Diaphragm Pump 7010Z AC

| Flow | 12,5 l/min |
|---------------|------------|
| Max. pressure | 2,3 bar |
| Max. vacuum | 90 % |





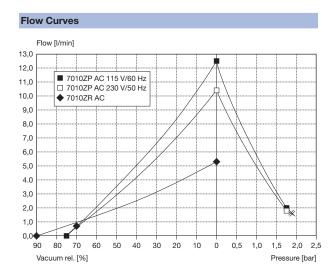


| Pneumatic Data | | | | |
|---------------------------|-------------|-------------------|---------------------|--------------------|
| Description | | 7010ZVDP/2,2/N/AC | 7010ZVDP/2,2/NVN/AC | 7010ZVR/2,2/NVN/AC |
| Part number | 115 V/60 Hz | 70101813 | | |
| | 230 V/50 Hz | | 70100196 | 70100448 |
| Max. flow | | 12,5 l/min | 10,4 l/min | 5,3 l/min |
| Max. intermittent duty | | 2,0 bar | 2,3 bar | |
| Max. continuous pressure | | 0,8 bar | 0,8 bar | |
| Max. restart pressure | | Ambient pressure* | Ambient pressure* | |
| Max. vacuum | | 75 % | 75 % | 90 % |
| Max. continuous vacuum 75 | | 75 % | 75 % | 90 % |
| Max. restart vacuum | | 75 % | Ambient pressure* | 90 % |

| Electrical Data | | | | |
|------------------------|-------------|-------------|-------------|--|
| Motor type | Shaded pole | Shaded pole | Shaded pole | |
| Nominal voltage | 115 V/60 Hz | 230 V/50 Hz | 230 V/50 Hz | |
| Nominal speed | 2900 rpm | 2300 rpm | 2300 rpm | |
| Current consumption | 0,9 A | 0,5 A | 0,38 A | |
| Starting current | 1,1 A | 0,6 A | 0,6 A | |
| Power consumption | 67 W | 60 W | 60 W | |
| Motor insulation class | В | В | В | |
| Protection class | IP00 | IP00 | IP00 | |
| Thermal switch | 130 °C | no | no | |

| General Data | | | |
|---------------------|-------------|-------------|-------------|
| Ambient temperature | 15 to 40 °C | 15 to 40 °C | 15 to 40 °C |
| Media temperature | 15 to 40 °C | 15 to 40 °C | 15 to 60 °C |
| Weight | 1,45 kg | 1,45 kg | 1,45 kg |
| Port direction | СВ | СВ | CB |
| Configuration | Parallel | Parallel | Series |

 $^{^{\}star}$ Part numbers change when restart is required with vacuum or pressure.



| Wetted parts | | Options |
|---------------------------|------------------|-----------|
| Pump chamber | Polyarylamide | PPS |
| Pump head | Polyamide | PPS |
| Diaphragm, valves, O-Ring | FPM (V), NBR | EPDM, PTF |
| Diaphragm, plate, screw | Galvanized steel | |

Model key:

Double head Diaphragm, valves, O-Ring

P=Parallel
R=Series

7010ZVDP / 2,2 / NVN / AC

Type Eccentric Motor type
Pressure
Vacuum

The information presented in this material is based on technical data and

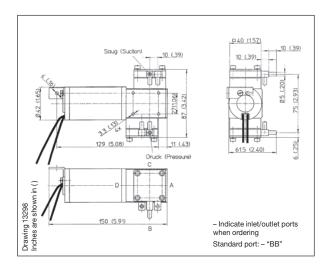


Diaphragm Pump 7011 DC

| Flow | 11,0 l/min |
|---------------|------------|
| Max. pressure | 2,3 bar |
| Max. vacuum | 90 % |





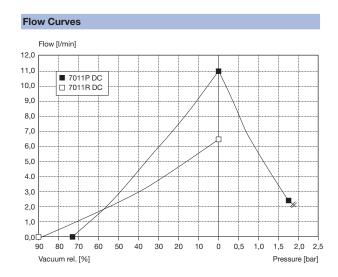


| Pneumatic Data | | | |
|------------------------------------|---------|--------------------|-----------------|
| Description | | 7011VDP/2,2/NVN/DC | 7011VR/2,2/N/DC |
| Part number | 12 V DC | 70110008 | 70110252 |
| | 24 V DC | 70110042 | |
| Max. flow | | 11,0 l/min | 6,5 l/min |
| Max. intermittent duty 2,3 bar | | 2,3 bar | |
| Max. continuous pressure 0,8 b | | 0,8 bar | |
| Max. restart pressure Am | | Ambient pressure* | |
| Max. vacuum 73 % | | 73 % | 90 % |
| Max. continuous vacuum 73 % | | 73 % | 90 % |
| Max. restart vacuum Ambient pressu | | Ambient pressure* | 90 % |

| Electrical Data | | |
|------------------------|----------------|----------------|
| Motor type | Direct current | Direct current |
| Nominal voltage | 12/24 V DC | 12/24 V DC |
| Nominal speed | 3100 rpm | 3100 rpm |
| Current consumption | 2,0/1,0 A | 1,7 A |
| Starting current | 4,5/3,5 A | 4,5 A |
| Power consumption | 24 W | 20 W |
| Motor insulation class | E | E |
| Protection class | IP20 | IP20 |

| General Data | | | |
|---------------------|-------------|-------------|--|
| Ambient temperature | 15 to 40 °C | 15 to 40 °C | |
| Media temperature | 15 to 60 °C | 15 to 60 °C | |
| Weight | 0,85 kg | 0,85 kg | |
| Port direction | BB | BB | |
| Configuration | Parallel | Series | |

^{*} Part numbers change when restart is required with vacuum or pressure.



| Wetted parts | | 0 | ptions |
|---------------------------|------------------|------|----------------|
| Pump chamber | Polyarylamide | PF | PS |
| Pump head | Polyamide | PF | PS |
| Diaphragm, valves, O-Ring | FPM (V), NBR | EF | PDM, PTFE |
| Diaphragm, plate, screw | Galvanized steel | | |
| Model key: | | 7011 | Stock programs |

Vacuum Diaphragm, valves, O-Ring

| P = Parallel |
R = Series |
7011VDP / 2,2 / NVN / DC

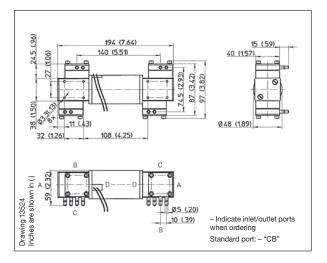
| Type Pressure Eccentric Motor type



Diaphragm Pump 7011Z DC

| Flow | 24,0 l/min 2,5 bar | |
|---------------|-----------------------|--|
| Max. pressure | | |
| Max. vacuum | 98 % | |



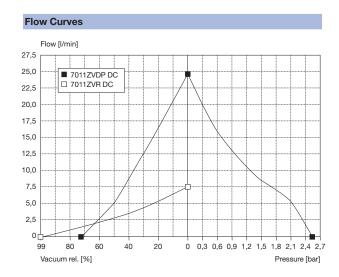


| Pneumatic Data | | | |
|-----------------------|----------|---------------------|--------------------|
| Description | | 7011ZVDP/2,2/VVN/DC | 7011ZVR/2,2/VVN/DC |
| Part number | 12 V DC | 70110520 | 70110037 |
| | 24 V DC | 70110521 | 70110069 |
| Max. flow | | 24,0 l/min | 7,5 l/min |
| Max. intermittent | duty | 2,5 bar | |
| Max. continuous p | oressure | 0,5 bar | |
| Max. restart press | ure | Ambient pressure* | |
| Max. vacuum | | 73 % | 98 % |
| Max. continuous v | /acuum | 73 % | 98 % |
| Max. restart vacuu | ım | Ambient pressure* | 98 % |

| Electrical Data | | | |
|------------------------|----------------|----------------|--|
| Motor type | Direct current | Direct current | |
| Nominal voltage | 12/24 V DC | 12/24 V DC | |
| Nominal speed | 3200 rpm | 3200 rpm | |
| Current consumption | 3,8/1,9 A | 3,8/1,9 A | |
| Starting current | 11,7/8,2 A | 11,7/8,2 A | |
| Power consumption | 46 W | 46 W | |
| Motor insulation class | E | E | |
| Protection class | IP20 | IP20 | |

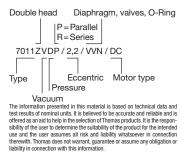
| General Data | | | |
|---------------------|-------------|-------------|--|
| Ambient temperature | 15 to 40 °C | 15 to 40 °C | |
| Media temperature | 15 to 60 °C | 15 to 60 °C | |
| Weight | 1,4 kg | 1,4 kg | |
| Port direction | СВ | CB | |
| Configuration | Parallel | Series | |

^{*} Part numbers change when restart is required with vacuum or pressure.



| Wetted parts | | Options |
|---------------------------|------------------|------------|
| Pump chamber | Polyarylamide | PPS |
| Pump head | Polyamide | PPS |
| Diaphragm, valves, O-Ring | FPM (V), NBR | EPDM, PTFE |
| Diaphragm, plate, screw | Galvanized steel | |

Model key:



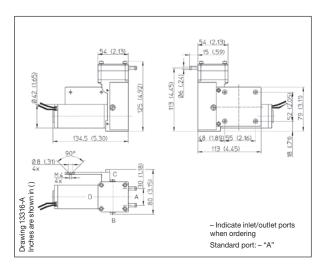


Diaphragm Pump 7015 DC

| Flow | 14,0 l/min |
|---------------|------------|
| Max. pressure | 2,5 bar |
| Max. vacuum | 80 % |





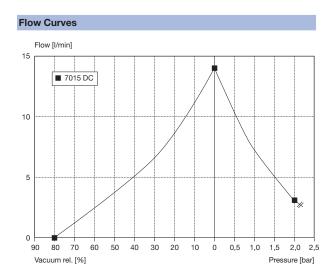


| Pneumatic Data | | | | |
|-----------------------|----------|-------------------|-------------------|--|
| Description | | 7015VD/2,5/V/DC | 7015VD/2,5/V/DC | |
| Part number | 12 V DC | 70152005 | | |
| | 24 V DC | | 70152006 | |
| Max. flow | | 14,0 l/min | 14,0 l/min | |
| Max. intermittent | duty | 2,5 bar | 2,5 bar | |
| Max. continuous p | oressure | 1 bar | 1 bar | |
| Max. restart press | ure | Ambient pressure* | Ambient pressure* | |
| Max. vacuum | | 80 % | 80 % | |
| Max. continuous v | /acuum | 80 % | 80 % | |
| Max. restart vacuu | ım | Ambient pressure* | 80 % | |

| Electrical Data | | |
|------------------------|----------------|----------------|
| Motor type | Direct current | Direct current |
| Nominal voltage | 12/24 V DC | 12/24 V DC |
| Nominal speed | 2800 rpm | 2800 rpm |
| Current consumption | 2,2/0,91 A | 2,2/0,91 A |
| Starting current | 8,7/5,3 A | 8,7/5,3 A |
| Power consumption | 27 W | 27 W |
| Motor insulation class | E | E |
| Protection class | IP20 | IP20 |

| General Data | | |
|---------------------|-------------|-------------|
| Ambient temperature | 15 to 40 °C | 15 to 40 °C |
| Media temperature | 15 to 60 °C | 15 to 60 °C |
| Weight | 1,1 kg | 1,1 kg |
| Port direction | A | A |

^{*} Part numbers change when restart is required with vacuum or pressure.



| Wetted parts | | Options |
|---------------------------|------------------|------------|
| Pump head | Polyarylamide | PPS |
| Diaphragm, valves, O-Ring | FPM (V) | EPDM, PTFE |
| Dianhragm plate screw | Galvanized steel | |

Model key:



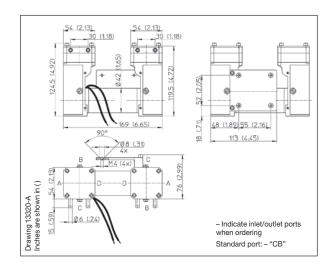


Diaphragm Pump 7015Z DC

| Flow | 25,0 l/min | | |
|---------------|------------|--|--|
| Max. pressure | 2,5 bar | | |
| Max. vacuum | 95 % | | |





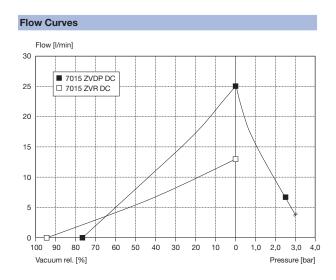


| Pneumatic Data | | | | |
|-----------------------|----------|-------------------|------------------|--|
| Description | | 7015ZVDP/2,5/V/DC | 7015ZVR/2,5/V/DC | |
| Part number | 12 V DC | 70152009 | 70152015 | |
| | 24 V DC | 70152010 | 70152016 | |
| Max. flow | | 25,0 l/min | 12,0 l/min | |
| Max. intermittent | duty | 2,5 bar | | |
| Max. continuous p | oressure | 1,0 bar | | |
| Max. restart press | ure | Ambient pressure* | | |
| Max. vacuum | | 80 % | 95 % | |
| Max. continuous v | /acuum | 80 % | 95 % | |
| Max. restart vacuu | ım | 80 % | 95 % | |

| Electrical Data | | | |
|------------------------|----------------|----------------|--|
| Motor type | Direct current | Direct current | |
| Nominal voltage | 12/24 V DC | 12/24 V DC | |
| Nominal speed | 2800 rpm | 2800 rpm | |
| Current consumption | 6,0/3,0 A | 6,0/3,0 A | |
| Starting current | 18,0/9,0 A | 18,0/9,0 A | |
| Power consumption | 72 W | 72 W | |
| Motor insulation class | E | E | |
| Protection class | IP20 | IP20 | |

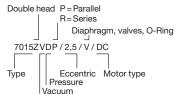
| General Data | | | | |
|---------------------|-------------|-------------|--|--|
| Ambient temperature | 15 to 40 °C | 15 to 40 °C | | |
| Media temperature | 15 to 60 °C | 15 to 60 °C | | |
| Weight | 1,5 kg | 1,5 kg | | |
| Port direction | CB | СВ | | |
| Configuration | Parallel | Series | | |

^{*} Part numbers change when restart is required with vacuum or pressure.



| Wetted parts | Options | |
|---------------------------|------------------|------------|
| Pump head | Polyarylamide | PPS |
| Diaphragm, valves, O-Ring | FPM (V) | EPDM, PTFE |
| Diaphragm plate screw | Galvanized steel | |

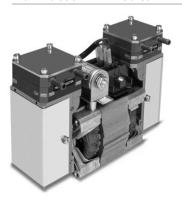
Model key:



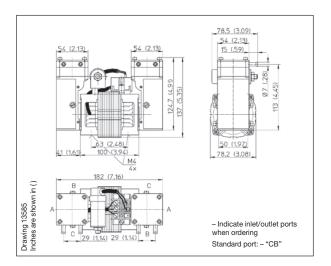


Diaphragm Pump 7015Z AC

| Flow | 22,0 I/min | | |
|---------------|------------|--|--|
| Max. pressure | 2,5 bar | | |
| Max. vacuum | 90 % | | |





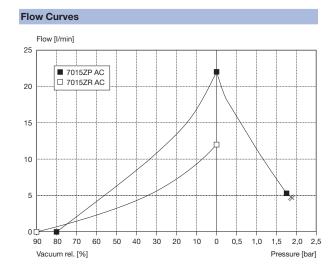


| Pneumatic Data | | | | |
|-----------------------|-------------|-------------------|--------------------|--|
| Description | | 7015ZVDP/2,5/V/AC | 7015ZVR/2,5/EVV/AC | |
| Part number | 230 V/50 Hz | 70152008 | 70150132 | |
| Max. flow | | 22,0 l/min | 12,0 l/min | |
| Max. intermittent | duty | 2,5 bar | | |
| Max. continuous p | oressure | 1,0 bar | | |
| Max. restart press | ure | Ambient pressure* | | |
| Max. vacuum | | 80% | 90% | |
| Max. continuous v | /acuum | 80% | 90% | |
| Max. restart vacuu | ım | Ambient pressure* | 90% | |

| Electrical Data | | |
|------------------------|-------------|-------------|
| Motor type | Capacitor | Capacitor |
| Nominal voltage | 230 V/50 Hz | 230 V/50 Hz |
| Nominal speed | 2700 rpm | 2700 rpm |
| Current consumption | 0,38 A | 0,38 A |
| Starting current | 0,5 A | 0,5 A |
| Power consumption | 67 W | 67 W |
| Motor insulation class | В | В |
| Protection class | IP00 | IP00 |

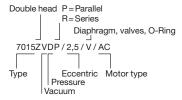
| General Data | | | |
|---------------------|-------------|-------------|--|
| Ambient temperature | 15 to 40 °C | 15 to 40 °C | |
| Media temperature | 15 to 40 °C | 15 to 40 °C | |
| Weight | 2,4 kg | 2,4 kg | |
| Port direction | СВ | CB | |
| Configuration | Parallel | Series | |

^{*} Part numbers change when restart is required with vacuum or pressure.



| Wetted parts | | Options | |
|---------------------------|------------------|---------|--|
| Pump head | Polyarylamide | PPS | |
| Diaphragm, valves, O-Ring | FPM (V), EPDM | PTFE | |
| Diaphragm plate screw | Galvanized steel | | |

Model key:





References

Material choice for 7010 / 7011 / 7015 single and double head

| | Abbreviation | Air | Air | Ozone | Gases | Alcohols | Temperature limits |
|----------------------------------|--------------|-------------|------------|-------|------------------|----------|--------------------|
| Diaphragm, valves, O-Rings | | inert gases | aggressive | | Humid aggressive | gas | °C |
| NBR | N | + | 0 | - | - | - | -10/+90 |
| EPDM | Е | + | +/0 | + | +/0 | +/0 | -20/+90 |
| FKM/FPM | V | + | + | 0 | +/0 | -/0 | +15/200 |
| FFKM/FFPM | K | + | + | + | + | + | 200 |
| PTFE | Р | + | + | + | + | + | 250 |
| | | | | | | | |
| Pump chamber, Pump head, | | | | | | | |
| Fixating plate (Diaphragm plate) | | | | | | | |
| Polyarylamide | | + | 0 | 0 | 0 | + | 130 |
| PVDF | | + | + | + | + | + | 90 |
| PVC | | + | + | + | + | + | 80 |
| PA | | + | 0 | _ | 0 | 0 | 90 |
| PPS | | + | + | + | + | + | 160 |
| Stainless steel 1.4571 | VA | + | + | + | 0 | + | |
| Aluminium (7015) | | + | 0/- | + | _ | + | |

Exact data can be obtained on request. We recommend tests with materials in case of critical or unclear applications.

+=good

0 = critical, tests necessary

-= not recommended

Abbreviations:

"P" = Parallel connections of several single heads

"R" = Serial connections of several single heads

"V" = Vacuum restart

"D" = Pressure restart

"Z" = Double head version (Note: type 7011 already has two heads, therefore type 7011Z is a 4 – headed pump)

Additional descriptions:

The additives "D" and "V" are only relevant for the restart against pressure/vacuum.

Every version can build pressure and vacuum restart against atmospheric pressure.



