

Mobile High Pressure Compressor Unit for Compressing Air and Breathing Air

Types:

PE100-TB | PE100-TE | PE100-TW

Production status: F02



PE100-TE

| General | |
|---------------------------------------|---|
| Medium | Air |
| Intake Pressure | Atmospheric |
| Filling pressure | PN200 or PN300 |
| Nominal pressure | 225 bar or 330 bar |
| Working pressure | 220 bar or 320 bar |
| Permissible ambient temperature range | +5...+45°C |
| Permissible altitude | 0...2000 m AMSL |
| Max. permissible tilt | 5° |
| System design | Open |
| Standard operating voltage | 400 V; 50 Hz |
| Other operating voltage | On request |
| Compressor oil standard | Synthetic |
| Oil change interval | Synthetic: every 2 years/ 2.000 h Mineral: 1x per year/ 1000 h |
| Finish | RAL 1028 (front) RAL 7024 (base plate) |

| Compressor system | PE100-TB | PE100-TE | PE100-TW ³ |
|---------------------------------|-------------------------|-----------------------|-----------------------|
| Charging rate ¹ | 100 l/min | | |
| Purification System | P11/350 | | |
| Cooling air flow, min. | 1,512 m ³ /h | 792 m ³ /h | 792 m ³ /h |
| Sound pressure level | 87 dB(A) | 86 dB(A) | 86 dB(A) |
| Weight in kg ² | 42 kg | 44 kg | 44 kg |
| Dimensions (LxWxH) ² | 740 x 340 x 420 mm | 660 x 340 x 420 mm | 660 x 340 x 420 mm |

1 Measured during cylinder filling from 0-200 bar tolerance +/- 5% at + 20°C ambient temperature.

2 Standard model. Weight and dimensions may vary depending on accessories.

3 Breathing air and shooting version.

| Drive system | PE100-TB | PE100-TE | PE100-TW ² |
|--|------------------|--------------|-----------------------|
| Type | Pertrol 4-stroke | Three-phase | Mono-phase |
| Power | 4.2 kW | 2.2 kW | 2.2 kW |
| Operating voltage / frequency ¹ | - | 400 V, 50 Hz | 230 V, 50 Hz |
| Speed | 3,600 1/min | 2,850 1/min | 2,850 1/min |
| Protection class | IP54 (TEFC) | | |

1 Different voltage / different frequency available at extra charge on request.

2 Breathing air and shooting version.

STANDARD SCOPE OF SUPPLY:

➤ **Compressor block with following features**

- Splash lubrication
- Micronic intake filter: 10 µm
- Intermediate coolers, air cooled
- Aftercooler, air cooled, outlet temperature approx. 10-15 °C above cooling air temperature
- Intermediate separators after each stage (except 1st stage)
- Final separator for oil and water condensate after last stage
- Sealed safety valves after each stage
- TÜV approved final pressure safety valve
- Pressure maintaining and check valve after the final stage



| Compressor block | |
|--|----------------------|
| Charging rate ¹ | 100 l/min |
| Speed | 2,300 1/min |
| Number of stages | 3 |
| Number of cylinder | 3 |
| Cylinder bore 1st stage | 60 mm |
| Cylinder bore 2nd stage | 28 mm |
| Cylinder bore 3rd stage | 12 mm |
| Stroke | 24 mm |
| Direction of rotation (from flywheel side) | Left |
| Drive type | V-belt |
| Intermediate pressure 1st stage | 6 - 7 bar |
| Intermediate pressure 2nd stage | 40 - 60 bar |
| Amount of oil | 360 ml |
| Oil pressure | 4.5 bar ± 1.5 bar |
| Intake pressure | 1.0 bar _a |

¹ Measured during cylinder filling from 0-200 bar tolerance +/- 5% at + 20°C ambient temperature.

➤ **Purification System P11/350**

- Final mechanical separator for the removal of oil-/ water condensate
- TRIPLEX long-life filter cartridge processing in 4 stages (drying, neutralization, CO-removal, micro filtering)
- Final safety valve, fitted to filter housing
- Pressure maintaining / non return valve, fitted to filter housing



Air quality as per DIN/EN 12021:2014

Purification System P11/350

| Contamination | Maximum content as per DIN EN 12021:2014 | Air quality of BAUER |
|------------------|--|--|
| H ₂ O | 25 mg/m ³ | ≤ 10 mg/m ³ |
| CO | 5 ppm(v) | Depending on filter cartridge ¹ |
| CO ₂ | 500 ppm(v) | Depending on intake air ² |
| Oil | 0.5 mg/m ³ | ≤ 0.1 mg/m ³ |

1 Only with BAUER special filter cartridge with hopcalite and up to a maximum concentration of 25 ppm CO in intake air. The compressed clean breathing air then contains a maximum of 5 ppm CO.

2 The level of CO₂ in the intake air must not exceed the maximum level of CO₂ as per DIN EN 12021:2014!

| Purification System | P11/350 |
|--|---|
| Operating pressure (Standard) | PN200 or PN300 |
| Operating pressure max. (PS) | 330 bar |
| Pressure dew point | < -20 °C, equivalent 3 mg/m ³ at 300 bar |
| Filter housing volume | 0.57 l |
| DGRL 97/23/EG | Vessel category II |
| Air purification capacity (at ambient temperature 20°C and 300 bar) ¹ | 130 m ³ |

1 When using a BAUER P11/350 filter cartridge without hopcalite. When using a cartridge with CO-removal the air purification capacity is reduced by ca. 4 %.

➤ **PN200 filling device**

| Filling device | PN 200 |
|----------------------------------|---|
| Nominal pressure (PN) | 200 bar |
| Valve design | 1 filling valve with integrated ventilation, with German cylinder connector G 5/8" according to DIN EN 144-2 and DIN 477 and manometer, PN200 |
| Filling hose | 1 Unimam high pressure filling hose, 1 m length |
| International cylinder connector | 1 international cylinder connection |



International cylinder connection

or

➤ **PN300 filling device**

| Filling device | PN 300 |
|-----------------------|---|
| Nominal pressure (PN) | 300 bar |
| Valve design | 1 filling valve with integrated ventilation, with German cylinder connector G 5/8" according to DIN EN 144-2 and DIN 477 and manometer, PN300 |
| Filling hose | 1 Unimam high pressure filling hose, 1 m length |



Filling hose PN200 (black) PN300 (red)

or

➤ **Filling device shooting sports PE100-TW**

When choosing the shooting sports version the filling valve will be without automatic vent and an adapter for connecting cartridge adapters will be supplied in the standard scope of supply.

| Filling device shooting sports | PN200 or PN300 |
|--------------------------------|---|
| Nominal pressure (PN) | 200 bar or 300 bar |
| Valve design | 1 filling valve without ventilation, with German cylinder connector G 5/8" (200 bar) and R 5/8" (300 bar) according to DIN EN 144-2 and DIN 477 and manometer, PN200 or PN300 |
| Filling hose | 1 Unimam high pressure filling hose, 1 m length |
| Adapter shooting sports | 1 Adapter 2 x G5/8 |

OPTIONS:

➤ **ON/OFF switch with motor protection for PE 100**

consisting of:

- On/off switch
- Cable, length 5 m
- CEE - plug (only with operating voltage 400 V / 50 Hz)



Motor protection switch

Relevant EC Directives (where applicable)

- › EC Machinery Directive (2006/42/EC)
- › EC Pressure Equipment Directive (97/23/EC)
- › EC Low Voltage Directive 2006/95/EC
- › EC Electromagnetic Compatibility (EMC) 2004/108/EC

Applied national standards and technical specifications, in particular

- › Betriebssicherheitsverordnung (German Industrial Safety Regulation) of 27 September 2002
- › AD 2000
- › Unfallverhütungsvorschrift (BGR; German Accident Prevention Regulations) BGR 500
- › All BAUER filter housings are designed, manufactured and tested in line with Accident Prevention Regulations and regulations under AD-2000 provisions and DGRL97/23EG.

Documentation: 1x operating manual and parts list with exploded view drawing on DVD

Design: In line with the state of the art according to DIN, VDE, TÜV and Accident Prevention regulations

Testing: In line with Bauer Standard as per DIN EN 10204 - 3.1

Otherwise the **General Terms and Conditions of BAUER KOMPRESSOREN (AGB)** in the version valid at the time of contract conclusion apply. These Terms & Conditions can be viewed and downloaded at the website www.bauer-kompressoren.com, or sent by BAUER on request.

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