

# ***PAS 100HF 250 DATA SHEET***

*Sustainable Productivity*

*Atlas Copco*



# PAS 100HF 250

Diesel - Qmax 280 m<sup>3</sup>/h (1,230 USgpm) - Hmax 50 m (164 ft)



PAS 100HF 250 Liquid cooled engine

## PAS MF - Vacuum prime centrifugal pumps

The pump system consists of a centrifugal pump and a separator, which enables air to be separated from the liquid and be sucked by a vacuum pump - making automatic priming possible. Even with suction heights of several meters the machine rapidly evacuates the air from the suction pipe and starts to pump. Additionally, thanks to the semi-open impeller, the PAS HF range is also suitable for pumping liquids with solids in suspension.

## Applications

Both Atlas Copco and Varisco have decades of experience in designing and producing pumps. We have put those years of expertise into providing a solutions portfolio that works across multiple applications. The PAS HF (high flow) range is packed with features that not only meet, but exceed the needs of the market. We are focused on an efficient, extremely versatile pump that is suitable for many industries, including construction, general dewatering and emergency applications, such as flood clean up.

## Benefits

### Pump

High efficiency: 70% (B.E.P.)

### Rapid "dry" priming

Up to a height of 8.5 m (27.5 ft)

### High resistance

To abrasive liquids and turbid sandy waters

### Semi-open impeller

Solids handling up to 76 mm (3")

### Easy maintenance

Without lifting devices: hinged cover for direct access to the impeller

### Diaphragm vacuum pump

Oil free suitable for dry running: no contamination of the environment

### Wear plate

Cast iron or stainless steel (F11) wear plate, that are easily replaceable

# PAS 100HF 250

## Performance curves

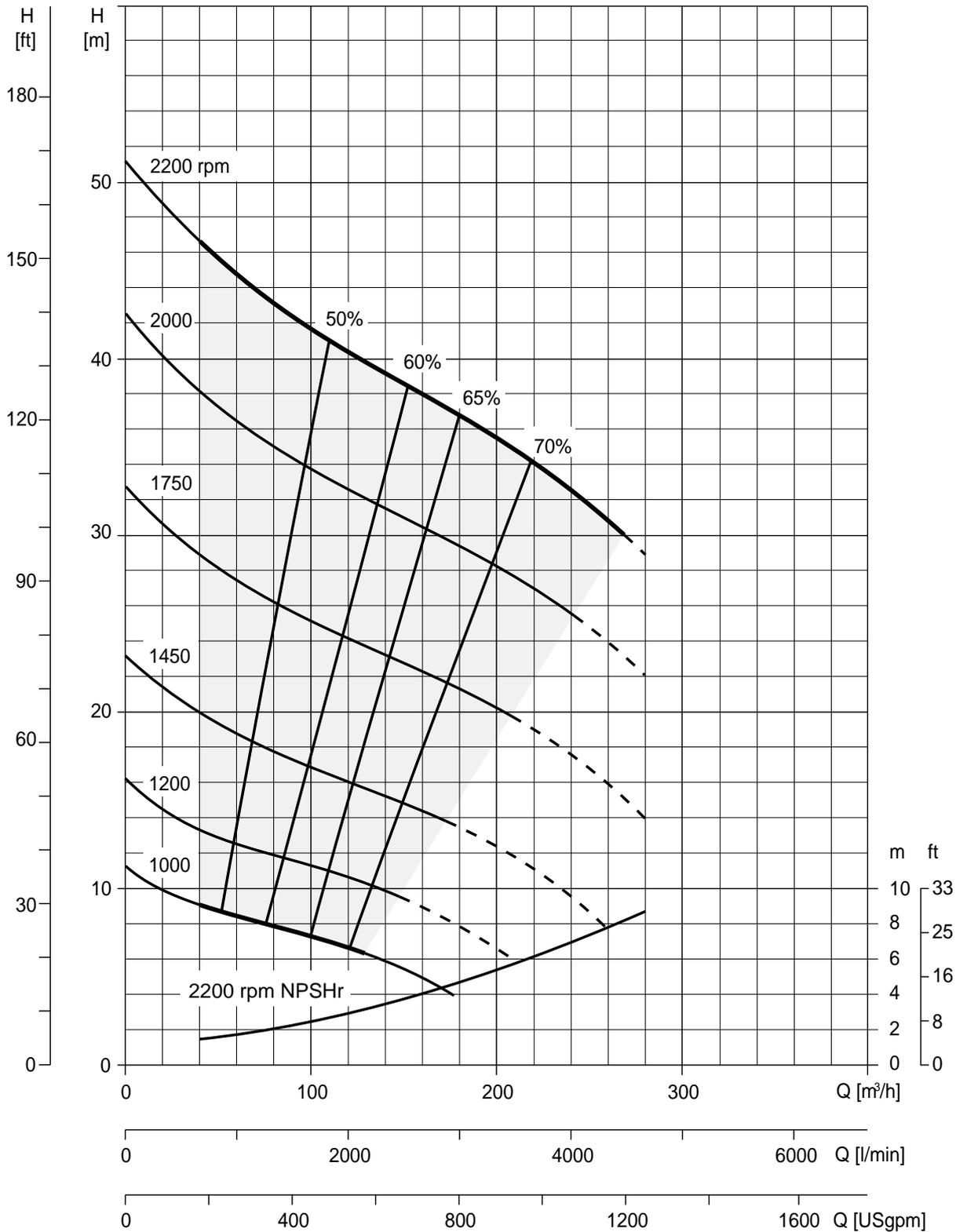
Test according to UNI EN ISO 9906 standard - level 2

Test liquid: clean water, density 1,000 kg/m<sup>3</sup>

Spherical solids handling: D.76 mm (3")

Priming time: 30 s from 1,5 m (4.9 ft)

Max absorbed power: 29,0 kW - 38.9 HP (2.200 rpm)



Recommended operating range

# PAS 100HF 250

## Technical data

### Pump

|                         |   |                                     |
|-------------------------|---|-------------------------------------|
| <b>Model</b>            | PAS 100HF 250                                     |                                     |
| <b>Qmax</b>             | 280 m <sup>3</sup> /h - 4.670 l/min (1,200 USgpm) |                                     |
| <b>Hmax</b>             | 50 m (164 ft)                                     |                                     |
| <b>Q max eff.</b>       | 220 m <sup>3</sup> /h - 3.670 l/min (1,000 USgpm) |                                     |
| <b>Eff. max</b>         | 70 %  |                                     |
| <b>Suction port</b>     | Flanged - DIN 100                                 |                                     |
| <b>Delivery port</b>    | Flanged - DIN 100                                 |                                     |
| <b>Impeller type</b>    | Semi-Open, 2 vane                                 |                                     |
| <b>Solids handling</b>  | 76 mm (3.0 ")                                     |                                     |
| <b>Material</b>         | <b>G11</b>  | <b>F11</b>                          |
| <b>Casing</b>           | EN-GJL-200 cast iron                              | EN-GJL-200 cast iron                |
| <b>Impeller</b>         | EN-GJS-500 cast iron                              | CF8M stainless steel                |
| <b>Wear plates</b>      | EN-GJL-200 cast iron                              | CF8M stainless steel                |
| <b>Number of plates</b> | 1   | 2                                   |
| <b>Shaft</b>            | 39NiCrMo4 steel                                   | 39NiCrMo4 steel                     |
| <b>Flushing</b>         | Yes   | Yes                                 |
| <b>Mechanical seal</b>  | Tungsten carbide / Tungsten carbide               | Tungsten carbide / Tungsten carbide |
| <b>Elastomers</b>       | VITON   | VITON                               |

### Priming system

|                             |                                 |
|-----------------------------|---------------------------------|
| <b>Vacuum pump</b>          | V20                             |
| <b>Vacuum pump type</b>     | Diaphragm                       |
| <b>Nominal air capacity</b> | 50 m <sup>3</sup> /h (29.4 cfm) |
| <b>Max vacuum</b>           | 0,9 bar                         |
| <b>Separator type</b>       | Valmatic                        |
| <b>Separator material</b>   | EN-GJL-200 cast iron            |
| <b>Drives</b>               | Link belt                       |

### Engines

|                                       |  |             |             |             |
|---------------------------------------|--|-------------|-------------|-------------|
| <b>Make</b>                           | Deutz  |             |             |             |
| <b>Model</b>                          | D 2.9 L4 (ZD53)                              |             |             |             |
| <b>Type</b>                           | Diesel direct injection, aspirated           |             |             |             |
| <b>Displacement</b>                   | 2.900 cm <sup>3</sup> (177 in <sup>3</sup> ) |             |             |             |
| <b>No. cylinders</b>                  | 4  |             |             |             |
| <b>Cooling</b>                        | Liquid with radiator                         |             |             |             |
| <b>Rpm type</b>                       | Variable                                     |             |             |             |
| <b>Standard speed</b>                 | 2.200 rpm                                    |             |             |             |
| <b>EU emissions</b>                   | 2002/88/CE Stage IIIB                        |             |             |             |
| <b>US emissions</b>                   | EPA Tier 4 final                             |             |             |             |
| <b>Starting</b>                       | Electric                                     |             |             |             |
| <b>Starting voltage</b>               | 12 V   |             |             |             |
| <b>Oil change interval</b>            | 1000 h                                       |             |             |             |
| <b>Emissions reduction technology</b> | DOC  |             |             |             |
| <b>Speed [rpm]</b>                    | <b>1600</b>                                  | <b>1800</b> | <b>2000</b> | <b>2200</b> |
| <b>Consumption [l/h]</b>              | 5,8  | 6,4         | 7           | 7,8         |
| <b>Power [kW]</b>                     | 23,3   | 25,6        | 27,9        | 31          |
| <b>Power [HP]</b>                     | 31.2   | 34.3        | 37.4        | 41.6        |

### Control panel

|              |                                       |
|--------------|---------------------------------------|
| <b>Model</b> | CP DEUTZ ATS25 TCD                    |
|              | Manual operation                      |
|              | Backlighted LCD display               |
|              | Protection rating - IP65              |
|              | Digital hour meter                    |
|              | Digital rev counter                   |
|              | Battery voltmeter                     |
|              | Automatic engine shutdown in case of: |
|              | - low oil pressure                    |
|              | - water overheating                   |
|              | - lack of battery charging            |
|              | - low fuel level                      |
|              | Up/down throttle                      |

# PAS 100HF 250

## Arrangements

| Technical data |  |
|----------------|--|
| Material       | S275JR EN 10025-2 carbon steel   |
| Coatings       | Epoxy powder, average thickness of 80 µm   |
| Color          | Yellow and grey Atlas Copco (standard)   |
| Features       | Modular and demountable framework, hot dip galvanised steel skid and lifting beam. Mudguards with galvanised steel walkable surface. Tow bar, adjustable support feet. Lockable battery box. Fuel level indicator. |
| Battery        | Acid charge Pb-Ca maintenance free<br>12 V - 100 Ah - 400 A  |
| Tank           | 355 l (93.8 USG)   |
| Locking keys   | Fuel cap   |

**BLOCK PAS 100HF**



|                |  |
|----------------|--|
| Dimensions     | 995 x 2080 x 1800 mm<br>39 x 82 x 71 " |
| H suction port | 0,58 m (1.9 ft)                        |
| Weight (ZD53)  | 1180 kg (2,600 lb)                     |

**TRAILER PAS 100HF**



|                |  |
|----------------|--|
| Dimensions     | 1410 x 3150 x 2150 mm<br>56 x 124 x 85 " |
| H suction port | 1 m (3.3 ft)                             |
| Weight (ZD53)  | 1330 kg (2,930 lb)                       |

**SKID02 PAS 100HF**



|                |  |
|----------------|--|
| Dimensions     | 1070 x 2730 x 1960 mm<br>42 x 107 x 77 " |
| H suction port | 0,73 m (2.4 ft)                          |
| Weight (ZD53)  | 1330 kg (2,930 lb)                       |

# PAS 100HF 250

## Arrangements

### CNP PAS 100HF



|                           |   |
|---------------------------|---|
| <b>Dimensions</b>         | 1100 x 2560 x 1705 mm (43 x 101 x 67 ")                   |
| <b>Material</b>           | S235JR EN 10025-2 carbon steel                            |
| <b>Coatings</b>           | Epoxy powder, average thickness of 80 µm                  |
| <b>Color</b>              | Yellow and grey Atlas Copco (standard)                    |
| <b>Features</b>           | Hot dip galvanised steel base; stackable frame            |
| <b>Battery</b>            | Acid charge Pb-Ca maintenance free, 12 V - 100 Ah - 400 A |
| <b>Tank</b>               | 355 l (93.8 USG)  |
| <b>Drip pan</b>           | 390 l (103.0 USG) (110% of the total volume of the tank)  |
| <b>Emergency stop</b>     | Outside the canopy  |
| <b>Locking keys</b>       | Control panel door and canopy doors                       |
| <b>H suction port</b>     | 0,72 m (2.4 ft)   |
| <b>Weight (ZD53)</b>      | 1380 kg (3,040 lb)  |
| <b>Noise level (ZD53)</b> | 65-70 dB(A) @10 m (32 ft)                                 |

## Engines

|                                       |  |             |             |             |
|---------------------------------------|--|-------------|-------------|-------------|
| <b>Make</b>                           | <b>Deutz</b>                                 |             |             |             |
| <b>Model</b>                          | D 2.9 L4 (ZD53)                              |             |             |             |
| <b>Type</b>                           | Diesel direct injection, aspirated           |             |             |             |
| <b>Displacement</b>                   | 2.900 cm <sup>3</sup> (177 in <sup>3</sup> ) |             |             |             |
| <b>No. cylinders</b>                  | 4  |             |             |             |
| <b>Cooling</b>                        | Liquid with radiator                         |             |             |             |
| <b>Rpm type</b>                       | Variable                                     |             |             |             |
| <b>Standard speed</b>                 | 2.200 rpm                                    |             |             |             |
| <b>EU emissions</b>                   | 2002/88/CE Stage IIIB                        |             |             |             |
| <b>US emissions</b>                   | EPA Tier 4 final                             |             |             |             |
| <b>Starting</b>                       | Electric                                     |             |             |             |
| <b>Starting voltage</b>               | 12 V   |             |             |             |
| <b>Oil change interval</b>            | 1000 h                                       |             |             |             |
| <b>Emissions reduction technology</b> | DOC  |             |             |             |
| <b>Speed [rpm]</b>                    | <b>1600</b>                                  | <b>1800</b> | <b>2000</b> | <b>2200</b> |
| <b>Consumption [l/h]</b>              | 5,8  | 6,4         | 7           | 7,8         |
| <b>Power [kW]</b>                     | 23,3   | 25,6        | 27,9        | 31          |
| <b>Power [HP]</b>                     | 31.2   | 34.3        | 37.4        | 41.6        |

## Control panel

|              |  |
|--------------|--|
| <b>Model</b> | <b>CP CNP 01</b>   |
|              | Manual operation, automatic operation (startstop with floats), emergency operation |
|              | Hour meter   |
|              | Rev counter  |
|              | Battery voltmeter  |
|              | Fuel level indicator   |
|              | Vacuum gauge   |
|              | Emergency stop button  |
|              | Display with 6 languages   |
|              | Automatic engine shutdown in case of:  |
|              | - low oil pressure   |
|              | - water overheating  |
|              | - lack of battery charging   |
|              | (engine failure alarms with LED lights and display message)                        |
|              | GSM communication module (optional)  |
|              | Throttle rod   |



# Portable Energy Solutions Portfolio

## AIR COMPRESSORS

### READY TO GO

- 1-5 m<sup>3</sup>/min
- 7-12 bar



### VERSATILITY

- 7-22 m<sup>3</sup>/min
- 7-20 bar



### PRODUCTIVITY PARTNER

- 19-116 m<sup>3</sup>/min
- 10-345 bar



Diesel and electric options available.

## GENERATORS

### PORTABLE

- 1,6-13,9 kVA



### MOBILE

- 9-1250\* kVA



### INDUSTRIAL

- 10-1250\* kVA



\*Multiple configurations available to produce power for any size application.

## DEWATERING PUMPS

### ELECTRIC SUBMERSIBLE

- 275-16.500 l/min



### CENTRIFUGAL DIESEL DRIVEN

- 833-9833 l/min



### SMALL PORTABLE

- 210-2500 l/min



## LIGHT TOWERS

### LED



### METAL HALIDE



### ELECTRIC



## Committed to sustainable productivity

Atlas Copco's Portable Energy division has a forward-thinking philosophy. For us, creating customer value is all about anticipating and exceeding your future needs – while never compromising our environmental principles. Looking ahead and staying ahead is the only way we can ensure we are your long term partner.

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