

Closed Circuit. Variable Displacement Pump. HPV-02.

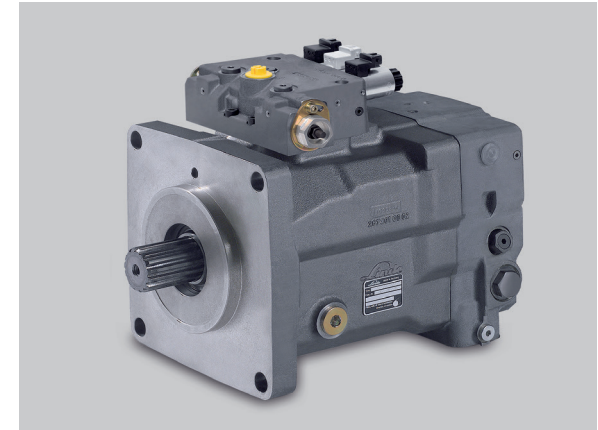
Design characteristics

- Axial piston pump in swashplate design
- Clockwise or counter clockwise rotation
- Integrated high pressure relief valves with charge function
- Hydrostatic plain bearing of the swashplate

Product advantages

- Precise and load-independent
- High power density
- Long service life

All the controls used in the Series 02 are based on a load-independent control mechanism. No matter which control is used: identical commands always result in the same response in the machine. The sensitive and precise machine control makes work easier and increases productivity. Various customer system options for mechanical, hydraulic and electric input solutions are available. Further special regulating features like torque control and pressure cut-off are also available. The reliable control of the pump can easily be integrated into any kind of vehicle management control system.



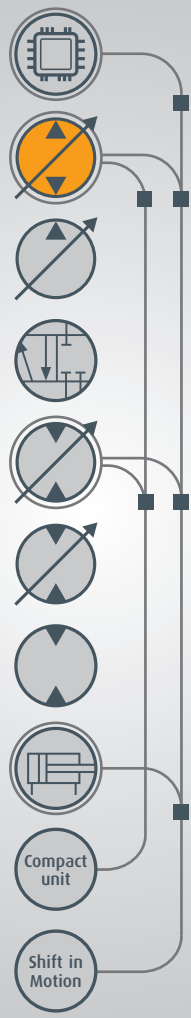
General technical data

| HPV-02 | | | | | | | | | | |
|-----------------------|--|--|------|------|------|-------|-------|-------|-------|------|
| Nominal size | | | 55 | 75 | 105 | 135 | 165 | 210 | 280 | |
| Displacement | Max. displacement | cc/rev | 54.7 | 75.9 | 105 | 135.7 | 165.6 | 210.1 | 281.9 | |
| | Max. operating speed | rpm | 3900 | 3400 | 3200 | 3000 | 2750 | 2300 | 2400 | |
| Speed | Max. speed* | rpm | 4150 | 3600 | 3400 | 3200 | 2950 | 2500 | 2550 | |
| | Nominal pressure | bar | 450 | 450 | 450 | 450 | 450 | 450 | 450 | |
| Pressure | Max. pressure** | bar | 500 | 500 | 500 | 500 | 500 | 500 | 500 | |
| | Max. housing pressure | bar | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | |
| | Torque | Torque ($\Delta p=430$ bar; charge press.=20 bar) | Nm | 374 | 519 | 719 | 929 | 1133 | 1438 | 1929 |
| Corner power (theor.) | $(V_{max} \times n_{max} \times \Delta p / 430 \text{ bar})$ | | kW | 153 | 185 | 241 | 292 | 326 | 346 | 485 |
| Weight (approx.)*** | (with H1-control, without oil) | | kg | 46 | 49 | 66 | 72 | 113 | 132 | 164 |

Customer interfaces

| | Control options**** | | | | | Sensors | | Flanges | | | | | | Shafts**** | | | PTO | Ports | | |
|-------------------|---------------------|------------|------------------|-----------------|----------------|-------------|----------|---------|----------------------------------|----------------------------------|-------------------------------------|--------|--------------------------------------|----------------------------------|----------|----------------|------------|------------------------------|------------|--|
| | Proportional | 3-Position | Pressure cut-off | Enable function | Torque Control | Swash angle | Pressure | 2 hole | 2 hole, 4 additional threads M12 | 2 hole, 4 additional threads M16 | 2 hole, additional holes (d=17,5mm) | 4 hole | ISO 3019-1 (SAE)744) ANSI B92.1-1970 | Companion flange SAE J1946 Typ A | DIN 5480 | Power take-off | Work ports | ISO 6162-2 Radial twin ports | ISO 6149-1 | |
| Electro-hydraulic | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | ✓ | ✓ | ✓ | | ✓ | | |
| Hydraulic | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | | | | | | | | |
| Mechanic | ✓ | | | ✓ | | | | | | | | ✓ | | | | | | | ✓ | |

* highest transient speed, that can temporarily occur | ** highest transient pressure, that can temporarily occur | *** inclusive internal gear pump (size 55-135) or external gear pump (size 165-280) | **** Availability depends on nominal size



LEARN MORE
HPV-02