

Features

- High overall efficiency at very low speed
- Low noise
- High speed range
- Above-average lifetime
- Optimal price / performance ratio
- Continuous self lubrication and cooling through the inflow

Axial piston pumps	Type AKP
up to 500 bar	up to 0,3 cm³/rev



Applications

Particularly suitable for use where low flow rates and extreme speeds require a high overall efficiency.

Principal construction

- 3- and 5 piston models
- valve controlled on pressure and suction side
- swash shaft with large dimensioned rolling bearings
- rotation possible in either direction

Technical data

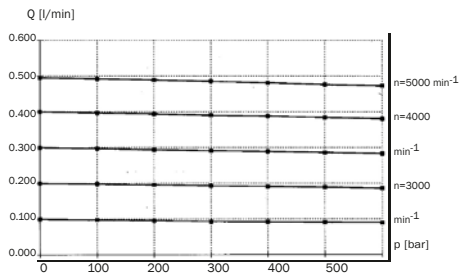
Type without flange	AKP103-0,1-500-P-A*00	AKP105-0,3-500-P-A*00
Displacement volume	0,1 cm ³ /rev	0,3 cm ³ /rev
Operating pressure	500 bar	500 bar
Peak pressure	550 bar	550 bar
Number of pistons	3	5
Hydraulic fluid	mineral oil according to DIN 51524 (other fluids on request)	
Fluid temperature range	NBR: -20 to 80 °C	
Ambient temperature range	-30 to 50 °C	
Viscosity range	5 to 220 mm ² /s	
Speed	100–5000 rpm	
Filtration	according to NAS 1638 class 8 or ISO/DIN 4406 16/14	
Material	housing: light metal anodised pump head: steel blued	
Weight	0,9 kg	
Installation	any	
Flange 45911	to be ordered separately	

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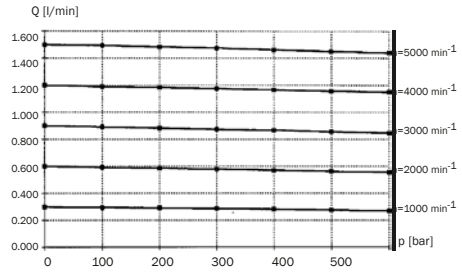
Characteristic

measured at
 $v = 30 \text{ mm}^2/\text{s}$, $T = 40^\circ\text{C}$

AKP103-0,1



AKP105-0,3



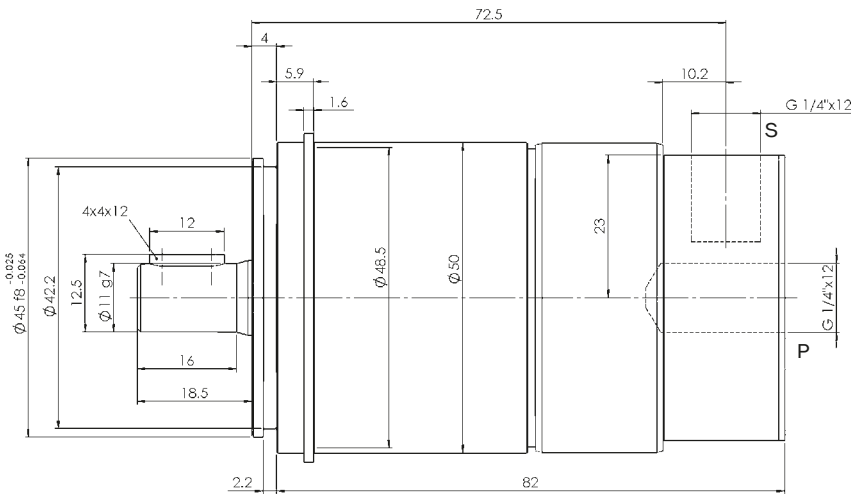
Calculation of driving motor power

$$P = \frac{p \cdot V_g \cdot n \cdot k}{\eta_t \cdot 600 \cdot 10^3}$$

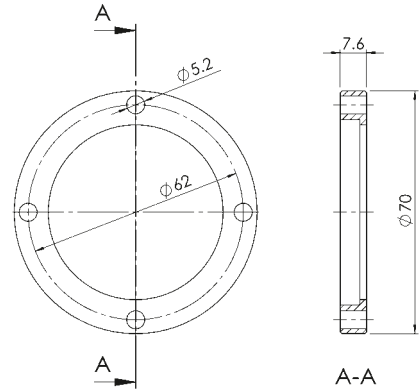
- P = Driving power [kW]
- p = Operating pressure [bar]
- V_g = Displacement [cm³/rev]
- n = Speed [rpm]
- η_t = Overall efficiency approx. 0,9

- k = Pulsation factor
- with 3 pistons: k approx. 1,1
- with 5 pistons: k approx. 1,0
- with 7 pistons: k approx. 1,0

Dimension drawing



Assembling flange

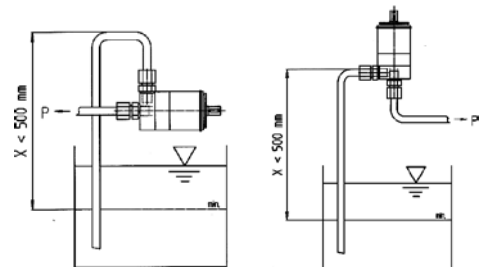


Installation and commissioning

Self venting can be done by raising and lowering the pressure or by switching the motor on and off several times.

The venting time can be shortened through a prefilling.

Retaining ring 907016 included in delivery.



As we are constantly improving our products, we keep us the right to change the technical specifications without prior notice.

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