

Part number:

**HYDROMA**

HYDRAULICKÉ SYSTÉMY

**HIDROMA  
SISTEMS**

UKŁADY HYDRAULICZNE

**HYDROMA**

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

**Features**

- High volumetric efficiency
- Self-priming and venting
- Low pulsation
- Low noise level
- Specially suitable for demanding applications with continuous pressures up to 1000 bar

**Radial piston pumps**

**up to 1000 bar**

**Type BRK**

**up to 8,14 cm<sup>3</sup>/rev**



The valve controlled radial pump is of modular construction and can be supplied with 3, 5, 7 or 9 pistons per bank.

Multi outlet, other displacements, pressure- or revolution ranges on request. Combination with gear pumps as per separate data sheet for BKP.

**Technical data**

Hydraulic fluid	mineral oil according to DIN 51524 (other fluids on request)		
Fluid temperature range	NBR: -30 to 80 °C FPM: -20 to 80 °C		
Ambient temperature range	-30 to 50 °C		
Viscosity range	5 to 220 mm <sup>2</sup> /s (optimal: 15 – 35)		
Operating pressure at suction port	-0,2 to 0,5 bar gauge pressure		
Filtration	according to NAS 1638 class 8 or ISO/DIN 4406 16/14/12		
Material	pressure flange	1000 bar	steel
		700 bar	cast steel
	driving shaft		steel
	cover		cast alu.
Weight	see table		
Installation position	any		
Radial force / Axial force onto driving shaft	not allowed		
Direction of rotation	any		
Suction height	max. 500 mm		

<b>Radial piston pumps</b>	<b>Type BRK</b>
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**Calculation of driving motor power**

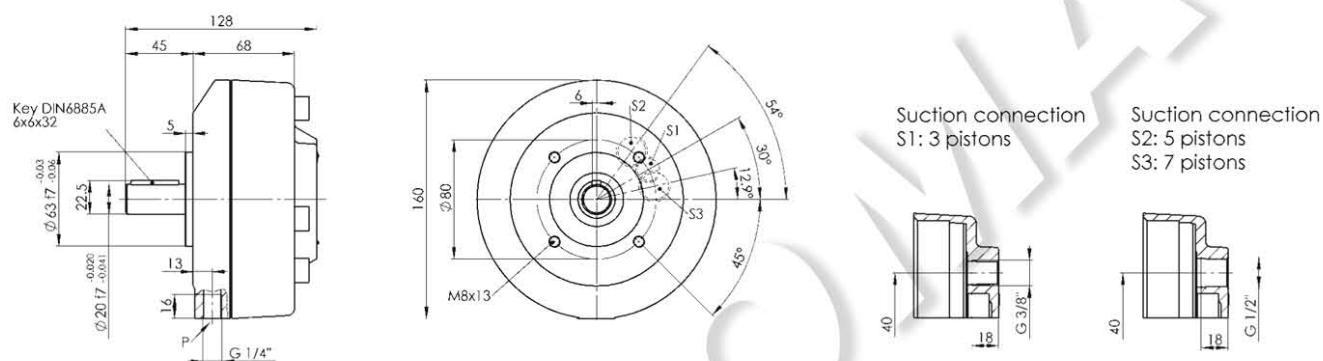
$$P = \frac{p \cdot V_g \cdot n \cdot k}{\eta_t \cdot 600 \cdot 10^3}$$

P = Driving power [kW]  
 p = Operating pressure [bar]  
 V<sub>g</sub> = Displacement [cm<sup>3</sup>/rev]  
 n = Speed [rpm]  
 η<sub>t</sub> = Overall efficiency approx. 0,9

k = Pulsation factor  
 - with 3 pistons: k approx. 1,05  
 - with 5 pistons: k approx. 1,0  
 - with 7 pistons: k approx. 1,0  
 - with 9 pistons: k approx. 1,0

**Dimension drawing 1 size 11 up to 700 bar**

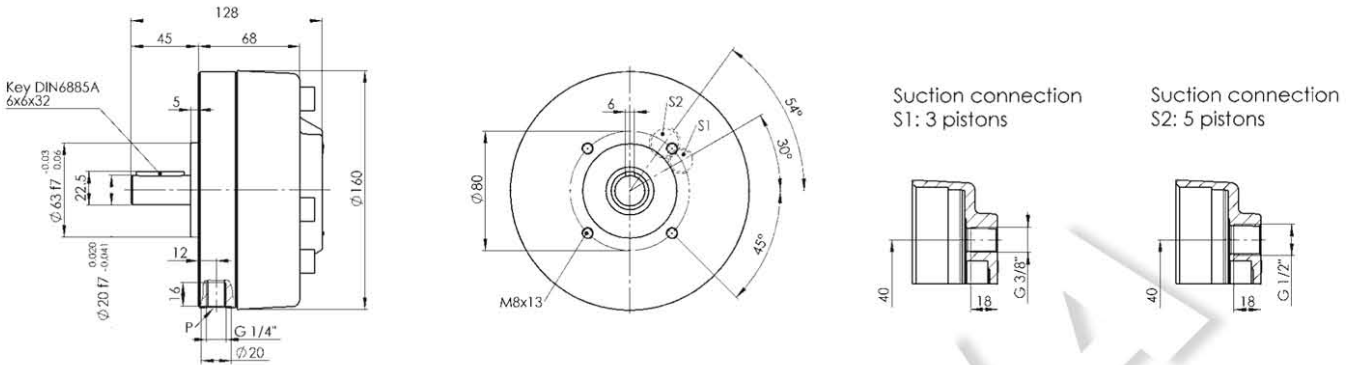
Design revision B

**Radial piston pumps BRK size 11 (dimension drawing 1) up to 700 bar**

Displacement [cm <sup>3</sup> /rev]	Operating pressure max. [bar]	Number of pistons	Speed max. [rpm]	Weight [kg]	Article no. [NBR]	Article no. [FPM]
0.47	700	3	2000	5,6	69635	69635.01
0.68	700	3	2000	5,6	69636	69636.01
0.79	700	5	2000	6,2	69637	69637.01
1.03	700	3	2000	5,6	69638	69638.01
1.10	700	7	2000	6,7	69639	69639.01
1.13	700	5	2000	6,2	69640	69640.01
1.21	700	3	2000	5,6	69641	69641.01
1.53	700	3	2000	5,6	64580	64580.01
1.58	700	7	2000	6,7	69643	69643.01
1.66	700	3	2000	5,6	68623	68623.01
1.88	700	3	2000	5,6	64587	64587.01
2.01	700	5	2000	6,2	64582	64582.01
2.54	700	5	2000	6,2	64589	64589.01
2.71	700	3	2000	5,6	64588	64588.01
2.81	700	7	2000	6,7	64584	64584.01
3.14	700	5	2000	6,2	64593	64593.01
3.56	650	7	2000	6,7	64591	64591.01
4.40	500	7	2000	6,7	64595	64595.01
4.52	500	5	2000	6,2	64594	64594.01
6.33	350	7	2000	6,7	64596	64596.01

**Dimension drawing 2 size 11 up to 1000 bar**

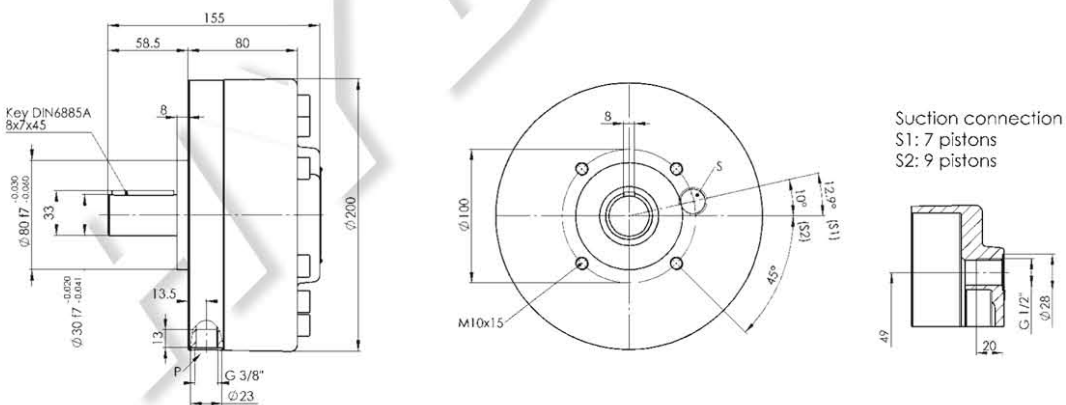
Design revision B

**Radial piston pumps BRK size 11 (dimension drawing 2) up to 1000 bar**

Displacement [cm <sup>3</sup> /rev]	Operating pressure max. [bar]	Number of pistons	Speed max. [rpm]	Weight [kg]	Article no. [NBR]	Article no. [FPM]
0.47	1000	3	2000	7	69681	69681.01
0.68	1000	3	2000	7	69682	69682.01
0.79	1000	5	2000	7.5	69691	69691.01
1.13	1000	5	2000	7.5	69692	69692.01
1.21	1000	3	2000	7	64581	64581.01
1.53	1000	3	2000	7	64590	64590.01
1.88	900	3	2000	7	64597	64597.01
2.01	1000	5	2000	7.5	64583	64583.01
2.54	900	5	2000	7.5	64592	64592.01
2.71	850	3	2000	7.5	69683	69683.01

**Dimension drawing 3 size 12 up to 1000 bar**

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**Radial piston pumps BRK size 12 (dimension drawing 3) up to 1000 bar**

Displacement [cm <sup>3</sup> /rev]	Operating pressure max. [bar]	Number of pistons	Speed max. [rpm]	Weight [kg]	Article no. [NBR]	Article no. [FPM]
1.10	1000	7	2000	12.5	69704	69704.01
1.58	1000	7	2000	12.5	69705	69705.01
2.81	1000	7	2000	12.5	69706	69706.01
3.56	1000	7	2000	12.5	64585	64585.01
4.40	900	7	2000	12.5	64616	64616.01
5.65	700	9	2000	12.5	69874	69874.01
6.33	650	7	2000	12.5	64617	64617.01
8.14	500	9	2000	12.5	69878	69878.01

<b>Radial piston pumps</b>	<b>Type BRK</b>
<b>up to 1000 bar</b>	<b>up to 8,14 cm<sup>3</sup>/rev</b>

Ordering code: Example

BRK	11	-	0,47	-	1000	-	P	-			00
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Radial piston pump

Size

Displacement [cm<sup>3</sup>/rev]

Operating pressure max. [bar]

**Seals**      P (NBR)  
                   V (FPM)

**Special design**

01 ... 99  
 (00 for standard)

**Part index**

Please leave it blank  
 (small letters a-z;  
 different letters do  
 not effect  
 interchangeability)

**Design revision**

see dimension drawings  
 (capital letters A-Z; identical  
 letters equal same connecting  
 dimensions)