

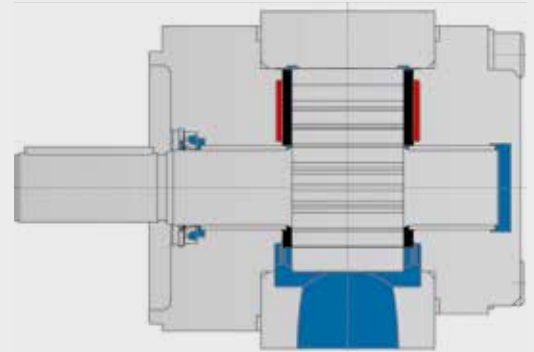
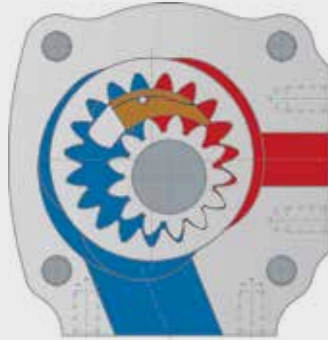
Internal gear pump

Type EIPC6 for industrial applications with constant displacement volume

EIPC6

Characteristics

- Internal gear pump with axial and radial gap compensation
- Radial compensation with segments
- Suction and pressure port radial
- Field of application: Industrial hydraulic
- Low noise
- Long time life
- Low pulsation (pressure pulsation ~2 %)
- Multi flow combinations on request



Technical Data

Rated Size	125	160	200	250
Spec. volume Vth [cm ³ /rev] ^{***}	125,7	160,1	200,9	249,9
Continuous operating pressure [bar] ^{**}	250		160	140
Peak operating pressure [bar] max. 10 sec 15 % duty cycle ^{**}	280		210	150
Cut-in pressure peak [bar] ^{**}	300		220	160
Nominal speed [min ⁻¹] ^{****}	400 – 2.500		400 – 2.000	
Max. speed [min ⁻¹]	2.800		2.200	
Operating viscosity [mm ² /s]	10 – 300			
Starting viscosity [mm ² /s]	2.000			
Operating temperature [°C]	-20 to +100			
Operating medium	HL – HLP DIN 51 524 part 1/2			
Max. medium temperature [°C]	80			
Min. medium temperature [°C]	-20			
Max. ambient temperature [°C]	80			
Min. ambient temperature [°C]	-20			
Max. admission pressure (intake side) [bar]	2 bar absolute			
Min. admission pressure (intake side) [bar]	0.8 bar absolute (Start 0.6)			
Weight appr. [kg]	27,5	30	43	54
Degree of filtration	Class 20/18/15 due to ISO 4406			
Life expectancy	not less than 1x 10 ⁷ load cycles against peak operating pressure			
Efficiency η vol:	94	94	93	93
Efficiency η hm:	90		91	
Pump noise* (measured in sound chamber) dB[A]	76	77	77	78

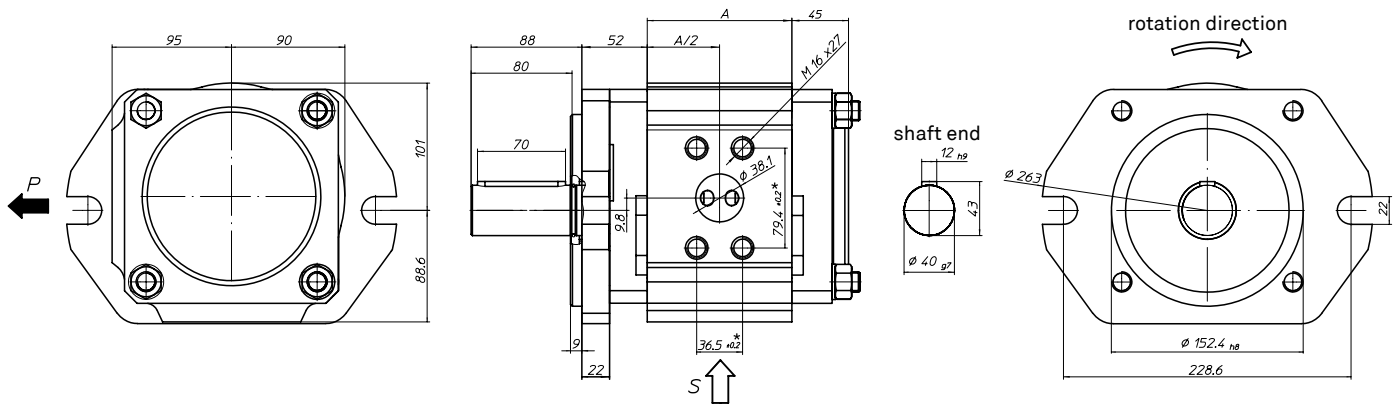
n = 1.450 min⁻¹ Δ p = 250 bar (160 bar at size 200 and 140 bar at size 250) T = 50 °C Medium: HLP 46

* Measured in anechoic room of Eckerte Hydraulic Division; Axial microphone distance 1.0 m
 ** For acceptable pressure at 400–1.800 rpm. Further rpm on request.
 *** Due to manufacturing tolerances the displacement volume could vary.
 **** Further rpm on request.

The pumps have no corrosion protection. The max. permissible values must not be applied cumulatively. Please contact us.

Pump with SAE-D-2-hole flange and cylindrical shaft

Order example: EIPC6-___RA23-1X



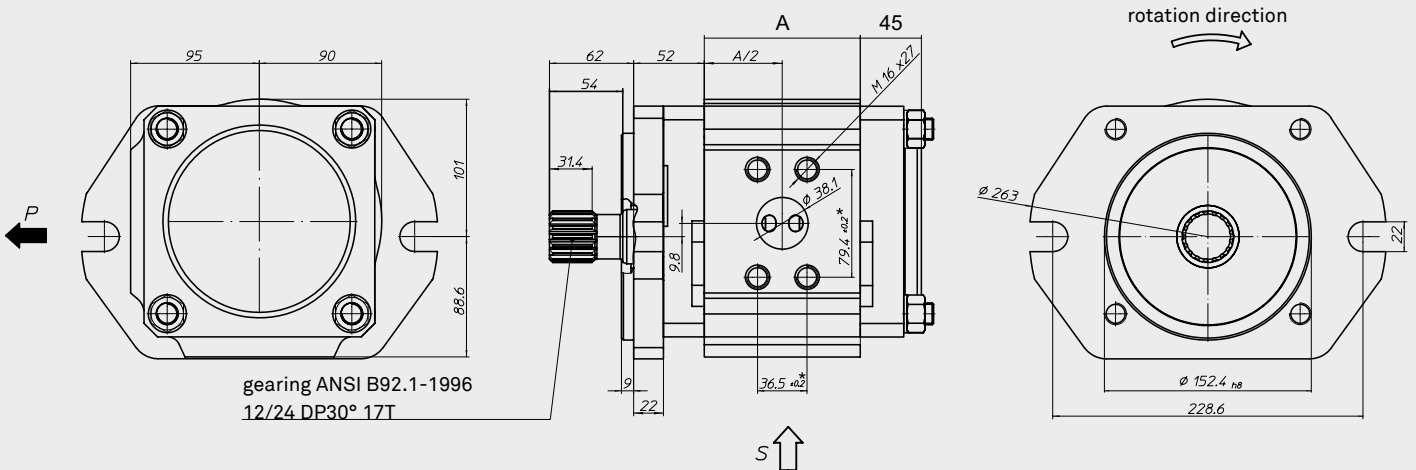
Size	A	L**	M**	N	P
125	115	88,9	50,8	63,5	M12x22
160	136	106,4	61,9	76,2	M16x25
200	161	120,7	69,9	88,9	M16x25
250	191	120,7	69,9	88,9	M16x25

* Pressure port: SAE J518, high pressure series (code 62)

** Suction port: SAE J518, standard pressure series (code 61)

Pump with SAE-D-2-hole flange and spline shaft

Order example: EIPC6-___RB23-1X



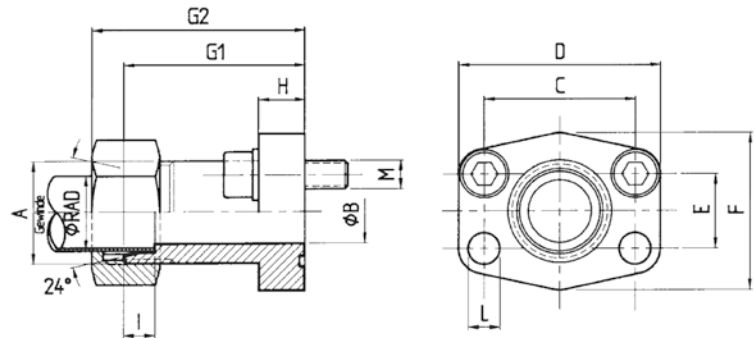
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* Pressure port: SAE J518, high pressure series (code 62)

** Suction port: SAE J518, standard pressure series (code 61)

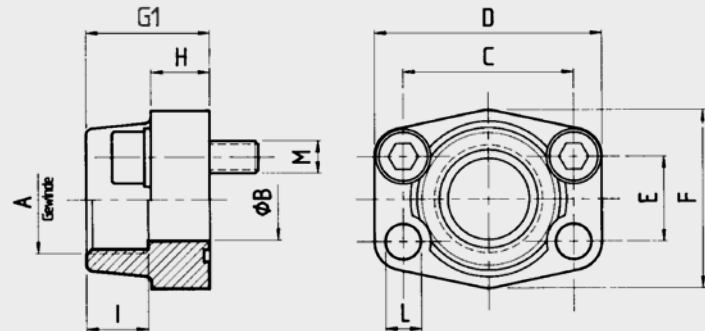
SAE flange metric tapped

Version a



SAE pipe threaded flange

Version b



Nr.	Article number	Type	pmax	AD	A	B	C	D	E	F	G1	G2	H	I	L	M
1a	07 07 04 0030	AD15-SAE12M22x1,5	315	15	M22x1,5	12	38,1	54	17,48	46	52	60	13	7	9	M8x25
1b	07 07 04 0026	EFG1/2-SAE12	350		G1/2"	13	38,1	54	17,48	46	36		19	19	9	M8x30
2a	07 07 04 0031	AD22-SAE34M30x2	160	22	M30x2	19	47,63	65	22,23	50	60	69	14	7,5	11,5	M10x30
2b	07 07 04 0027	EFG3/4-SAE34	350		G3/4"	19	47,63	65	22,23	50	36		18	19	11	M10x35
3a	07 07 04 0032	AD28-SAE100M36x2	160	28	M36x2	24	52,37	70	26,19	55	63	72	16	7,5	11,5	M10x30
3b	07 07 04 0028	EFG1-SAE100	315		G1"	25	52,37	70	26,19	55	38		18	22	11	M10x35
4a	07 07 04 0033	AD35-SAE114M45x2	160	35	M45x2	29	58,72	79	30,18	68	65	76	14	10,5	11,5	M10x30
4b	07 07 04 0029	EFG1 1/4-SAE114	250		G1 1/4"	32	58,72	79	30,18	68	41		21	22	11,5	M10x40
5a	07 07 04 0037	AD42-SAE112M52x2	160	42	M52x2	36	69,85	94	35,71	78	70	82	16	11	13,5	M12x35
5b	07 07 04 0034	EFG1 1/2-SAE112	200		G1 1/2"	38	69,85	94	35,71	78	45		25	24	13,5	M12x45
6b	07 07 04 0036	EFG2-SAE200	200		G2"	51	77,77	102	42,88	90	45		25	30	13,5	M12x45
7b	07 07 04 0041	EFG2 1/2-SAE212	160		G2 1/2"	63	88,9	114	50,8	105	50		25	30	13,5	M12x45
8a	07 07 04 0042	AD30-SAE100M42x2HD	400	30	M42x2	25	57,2	81	27,8	70	82	95	24	13,5	13	M12x45
9a	07 07 04 0043	AF6-404M/S38M	400	38	M52x2	29	66,6	95	31,8	78	92		27	16	15	M14x50
10b	07 07 04 0050	EFG3-SAE300-C	160		G3"	73	106,4	134	61,9	116	50		27	38	17,5	M16x50

Summary of SAE Pressure- and Suction flange SAE J518C, ISO 6162

Type	Inlet	Nr.	Version		Outlet	Nr.	Version	
			a	b			a	b
EIPC3-020-032	1 1/4"	4	•	•	3/4"	2	•	•
EIPC3-040-064	1 1/4"	4	•	•	1"	3	•	•
EIPC3-040-064	2"	6		•	1"	3	•	•
EIPC5-064	2"	6		•	1"*	8	•	
EIPC5-080	2"	6		•	1 1/4"*	9	•	
EIPC5-100	2 1/2"	7		•	1 1/4"*	9	•	
EIPC6-125	2 1/2"	7		•	1 1/2"*		◦	◦
EIPC6-160	3"	10		•	1 1/2"*		◦	◦
EIPC6-200	3 1/2"		◦	◦	1 1/2"*		◦	◦
EIPC6-250	3 1/2"		◦	◦	1 1/2"*		◦	◦

* High pressure range

1) EIPC3-063 not available with 1 1/4" suction flange

2) Pumps with enlarged suction ports

Suction flange for Intermediate housing

Type	Inlet	Nr.	Version	
			a	b
EIPC3/3 till size 032	1 1/2"	5	•	•
EIPC3/3 from size 040	2"	6		•

• = available ◦ = on request

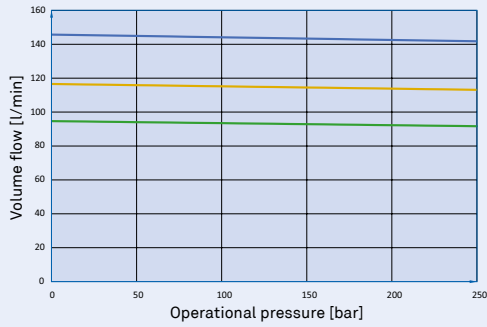
EIP C3 - 016 RK23 - 1X SXXX

- Special version number
(not applicable with standard pumps or when the type key is unambiguous)
- Revision code
1st number: Change of mounting dimensions
2nd number: Change of pump with same mounting dimensions
- Intake and outlet connection
3: According to SAE J 518
6: According to SAE J 518 for enlarged suction port for speed controlled drive applications
0: suction port closed; common inlet
– other flanges on request –
- Fastening flange
2: SAE/B 2-hole flange, centring collar Ø 101,6 / at EIPC3
2: SAE/C 2-hole flange, centring collar Ø 127 / at EIPC5
2: SAE/D 2-hole flange, centring collar Ø 152,4 / at EIPC6
3: Direct fixture
5: VDMA on request
– other flanges on request –
- Shaft end
A: Cylindrical
K: Cylindrical with spigot
B: SAE gear
L: SAE gear with spigot
P: Spigot tooth system on both sides
(Spigot = add-on facility for additional pumps to create multiple-flow pumps)
- Rotation direction
R: Clockwise (S: CW size 5/3 | T: CW size 5/2)
L: Anticlockwise
- Rated size
Three digits
- Overall size
3, 5 or 6
- Type
C: Industrial pump with aluminium housing
Eckerle internal gear pump

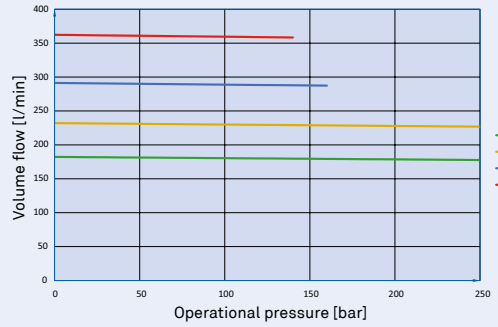
Order example
EIPC3-032 RK23-1X

for industrial applications
overall size 3 with 32.1 cm³/U
clockwise rotation
cylindrical shaft with cone
SAE/B-2-hole flange
SAE flange connection
revision code 1X

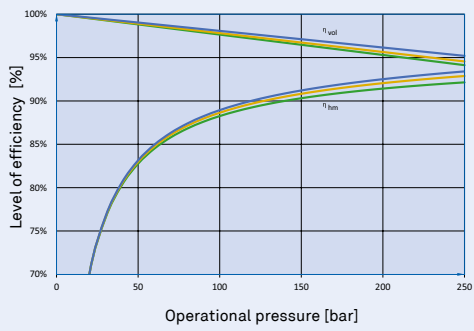
Volume flow



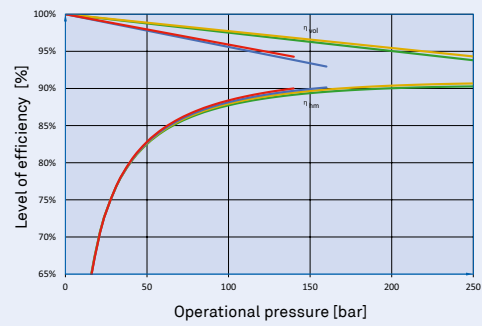
Volume flow



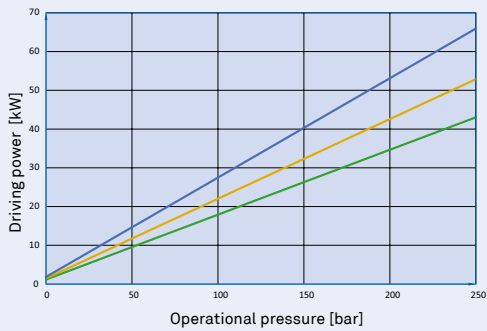
Level of efficiency



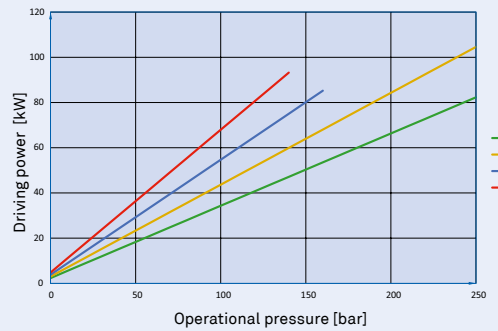
Level of efficiency



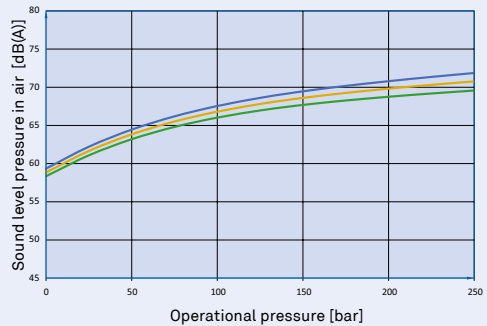
Driving power



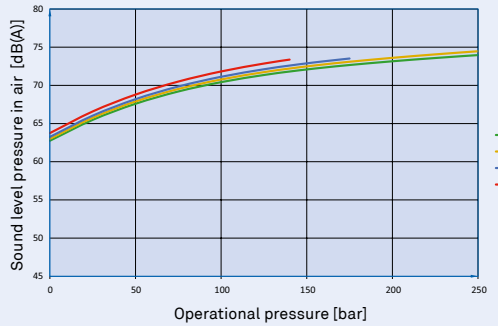
Driving power



Sound level pressure in air



Sound level pressure in air

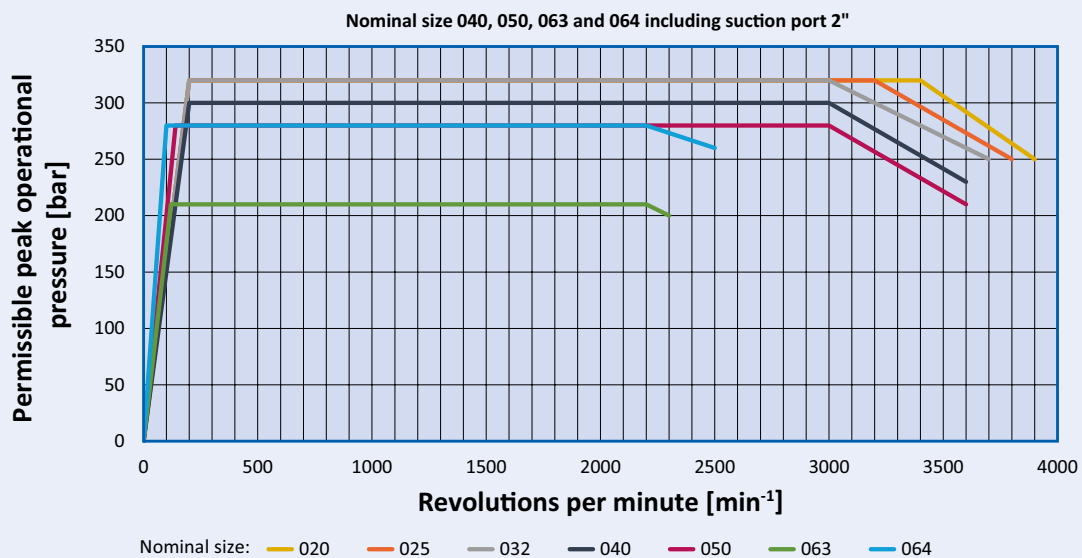


Measurement conditions: Speed 1450 rpm, viscosity 46 mm²/sec., operating temperature 40 °C, Sound pressure measured in low-reflection anechoic room in accordance with DIN 45 635 sheet 26; Microphone distance 1.0 m axial.

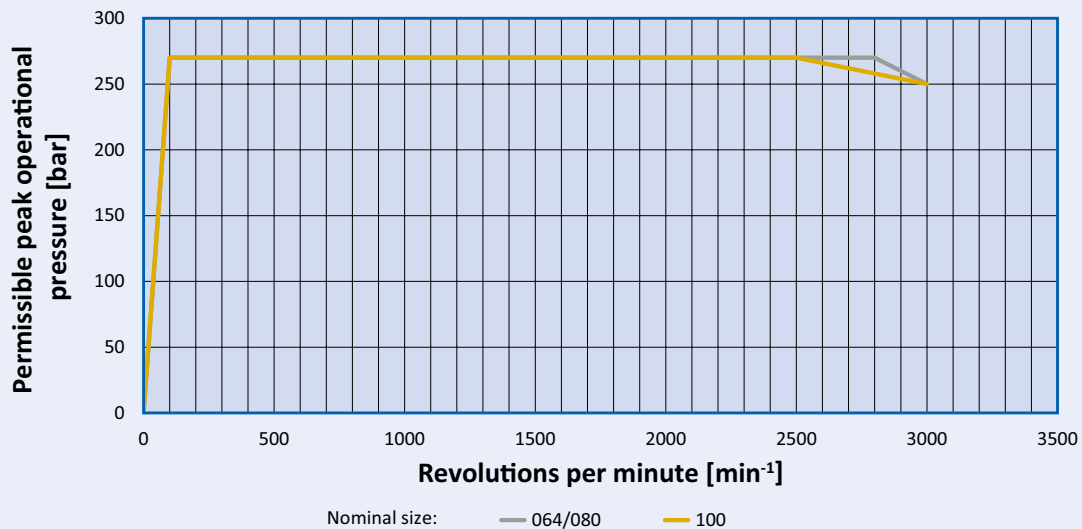
Characteristics

Permissible peak operational pressure dependent on speed

EIPC3



EIPC5



Peak operating pressures are permitted for a maximum of 10 seconds or 15% of the duty cycle

EIPC6

