

Electric Drives
and Controls

Hydraulics

Linear Motion and
Assembly Technologies

Pneumatics

Service

Rexroth
Bosch Group

Motor-pump group

RE 51171/07.12

1/16

Type ABAPG and ABHPG

with pump type: PV7
Electric motor frame size 90S to 250M
max. pressure up to 160 bar
max. flow up to 162.5 l/min

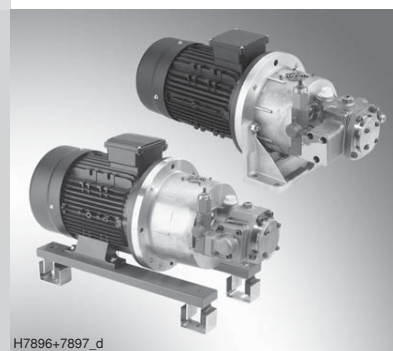


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Features

- In the motor-pump groups, electric energy is converted into hydraulic energy.
- They have been designed for hydrostatic drives in the open circuit.
 - Electric motor design IM B5 (ABHPG) and/or IM B3/B5 (ABAPG)
 - Pump fastened at the electric motor with rigid pump carrier and coupling
 - Low operating noise
 - Versatile possible applications on tank, base frame or separate installation
 - Clear, maintenance-friendly set-up
 - With vane pump PV7 (variable displacement pump)

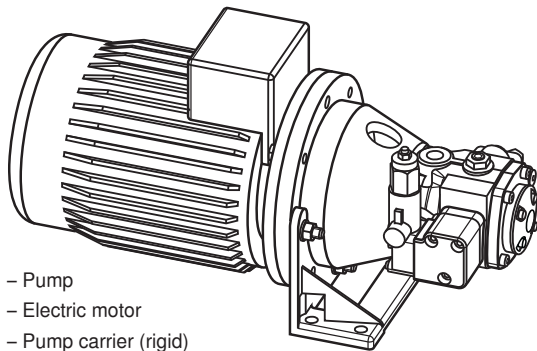
Ordering code

-V7-		M	0-	/	4	5	2	3/S	E	HOY
Assembly with motor design... B35 = ABAPG B5 = ABHPG					Motor supplier HOY = Hoyer Motors (preferred) SIE = Siemens VEM = VEM					
Pump type Vane pump PV7 = V7 according to data sheet 10515 and 10522					Damping bearing design E = elastic damping bearing (only ABAPG)					
Frame size/size 10 ... 118 cm ³ per rotation = 06-10 ... 100-118					Pump carrier design S = rigid pump carrier AB 03337					
Seal material (according to DIN ISO 1629) NBR = M					Motor protection 3 = PTC resistor with 3 temperature sensors					
Controller type direct operated = A Pressure controller = C					Efficiency class 2 = IE 2					
Controller option Standard = 0					Rated frequency 5 = 50 Hz					
Zero stroke pressure range 160 bar = 16					Number of pole pairs 4 = 4-pole					
					Rated voltage CA = 230/400 V at 50 Hz (up to 3 kW) CB = 400/690 V at 50 Hz (from 4 kW)					
					Motor power (in kW) 1.1 ... 55.0 = 1.1 ... 55.0 kW					

Order example:
ABAPG-V7-63-71MA0-16/30,0CB4523/SE HOY

Set-up of the motor-pump group

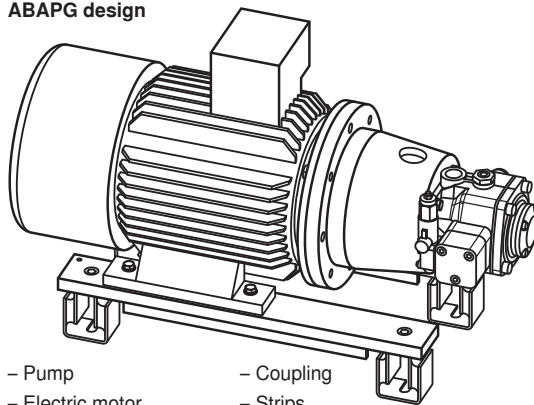
ABHPG design



- Pump
- Electric motor
- Pump carrier (rigid)
- Coupling
- Pump base

Use of this design is recommended for restricted installation conditions (e. g. on oil tanks)
Max. performance range 7.5 kW

ABAPG design



- Pump
- Electric motor
- Pump carrier (rigid)
- Coupling
- Strips
- Damping bearing

Use of this design is particularly recommended for requirements on low noise levels
Min. performance range 5.5 kW


STEP files of the relevant assemblies on request

Technical data (For applications outside these parameters, please consult us!)

Line connections	See table Line connections on page 13		
Hydraulic fluid	Mineral oil HLP according to DIN 51524; part 2 e.g. with operating temperature 50 °C ISO VG46 DIN ISO 3448 (other fluids on request!) • Please observe our specifications according to data sheet 90220. • Different oil types must not be mixed as this might result in degradation and deterioration of the lubricity. • According to the operating conditions, the fluid must be renewed at certain intervals.		
Pump type	PV7 frame size 6 according to data sheet 10522 PV7 frame size 10-100 according to data sheet 10515 R = clockwise		
Operating pressure, absolute			
– Input	$\rho_{\min-\max}$	bar	0.8 to 2.5
– Output	ρ_{nom}	bar	up to 160 (depending on the frame size)
– Leakage port	ρ_{\max}	bar	2
Hydraulic fluid temperature range, observe viscosity range	\varnothing		–10 to +70
– T_{optimal} with HLP 46 (DIN 51524)	\varnothing	°C	+45 to +55
– T_{max} in continuous operation	\varnothing	°C	< +65
For start-up at low temperatures a heating can be provided. For cooling, you can either provide an oil/water or an oil/air cooler. See data sheet 50126 (ABUKG) and 50112 (KOL/KOLP).			
Cleanliness classes according to ISO code	Maximum admissible degree of contamination of the hydraulic fluid according to ISO 4406 (c). ¹⁾ At least cleanliness class 19/16/13 with size 10 to 25 and/or cleanliness class 20/18/15 with size 14 to size 150		
Viscosity range	\varnothing	mm ² /s	16 to 160 optimal Max. 200 in case of start-up in zero stroke operation. Max. 800 in case of start-up in delivery operation. (See data sheet 10515, 10522)
Electric motor – Motor type	Three-phase asynchronous motor		
– Efficiency class	IE2		
– Number of pole pairs	4		
– Voltage according to IEC 38 U	V	230/400 at 50 Hz (CA), 400/690 at 50 Hz (CB)	
– Speed	$n \text{ min}^{-1}$	1450 at 50 Hz	
– Protection class	IP	55	
– Installation position	Horizontal		
Surface treatment	By default, all steel components and components are at least provided with temporary corrosion protection (e.g. for transport).		

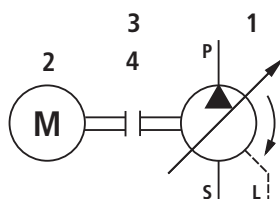
¹⁾ The cleanliness classes specified for the components must be adhered to in hydraulic systems. Effective filtration prevents faults and at the same time increases the life cycle of the components.

For selecting the filters, see data sheet 51501.

 **Notice:** For assembly, commissioning and maintenance of hydraulic systems please observe the data sheet 07900. The motor-pump group is constructed and manufactured in accordance with the harmonized EN standards/specifications.

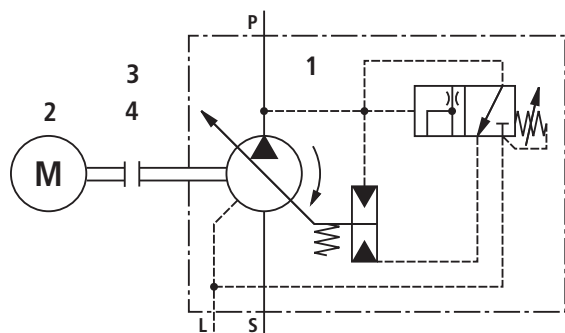
Circuit diagrams

Vane pump direct operated (frame size 6)



- 1 Vane pump PV7
- 2 Electric motor
- 3 Pump carrier (rigid)
- 4 Coupling

Vane pump pilot operated (frame size 10-100)



- 1 Vane pump PV7
- 2 Electric motor
- 3 Pump carrier (rigid)
- 4 Coupling

Standard program incl. preferred types ABHPG-PV7

Frequency	50 Hz 1450 min ⁻¹	$q_{v \max}$ in l/min	$p_{\max.}$ in bar	50 Hz 1450 min ⁻¹	Power in kW	Electric motor Frame size	ABHPG material no. (motor B5)				
							HOYER MOTORS	MKZ ¹⁾	VEM	MKZ ¹⁾	SIEMENS
PV7-1X/6-10 RA01MA0-10	13.8		38	1.10	90S	R901313084	A3	R901313063	A3	R901313107	A3
			52	1.50	90L	R901313085	A3	R901313064	A3	R901313108	A3
			79	2.20	100L	R901313086	A3	R901313065	A3	R901313109	A3
			100	3.00	100L	R901313092	A3	R901313066	A3	R901313110	A3
PV7-1X/10-14 RE01MC0-16	19.3		36	1.50	90L	R901313093	A3	R901313067	A3	R901313111	A3
			53	2.20	100L	R901313094	A3	R901313068	A3	R901313112	A3
			74	3.00	100L	R901313095	A2	R901313070	A3	R901313113	A3
			100	4.00	112M	R901313096	A2	R901313071	A3	R901312476	A3
			137	5.50	132S	R901313098	A3	R901313072	A3	R901313114	A3
			160	7.50	132M	R901313099	A3	R901313074	A3	R901313116	A3
PV7-1X/16-20 RE01MC0-16	27.6		30	2.20	100L	R901313100	A3	R901313076	A3	R901313117	A3
			44	3.00	100L	R901313101	A3	R901313077	A3	R901313118	A3
			59	4.00	112M	R901313102	A3	R901313079	A3	R920011826	A3
			85	5.50	132S	R901307490	A2	R901307482	A3	R901307498	A3
			118	7.50	132M	R901307491	A3	R901307483	A3	R901307499	A3
PV7-1X/25-30 RE01MC0-16	41.3		28	3.00	100L	R901313103	A3	R901313080	A3	R901313120	A3
			40	4.00	112M	R901313105	A3	R901313081	A3	R901313122	A3
			59	5.50	132S	R901307492	A2	R901307484	A3	R901307500	A3
			83	7.50	132M	R901307493	A2	R901307485	A3	R901307501	A3
PV7-1X/40-45- RE37MC0-16	62.0		28	4.00	112M	R901313106	A3	R901313083	A3	R901313123	A3
			39	5.50	132S	R901307494	A2	R901307486	A3	R901307502	A3
			55	7.50	132M	R901307495	A3	R901307487	A3	R901307503	A3
PV7-1X/63-71- RE07MC0-16	97.8		25	5.50	132S	R901307496	A3	R901307488	A3	R901307505	A3
			33	7.50	132M	R901307497	A3	R901307489	A3	R901307506	A3

¹⁾ MKZ = Material mark

A2 = Preferred delivery range

A3 = Standard delivery range

Device dimensions see page 7-12

Standard program incl. preferred types ABAPG-PV7

Frequency	50 Hz 1450 min ⁻¹	P _{max.} in bar	50 Hz 1450 min ⁻¹	Electric motor	ABAPG material no. (motor B35)					
					Pump	q _{v max} in l/min	Power in kW	Frame size	HOYER MOTORS	MKZ ¹⁾
PV7-1X/10-14- RE01MC0-16	19.3	137	5.50	132S	R901313140	A3	R901313127	A3	R901313150	A3
		160	7.50	132M	R901313141	A3	R901313128	A3	R901313152	A3
PV7-1X/16-20- RE01MC0-16	27.6	85	5.50	132S	R901305578	A2	R901305557	A3	R901305597	A3
		118	7.50	132M	R901305579	A3	R901305558	A3	R901305598	A3
		160	11.00	160M	R901313142	A3	R901313129	A3	R901313153	A3
PV7-1X/25-30- RE01MC0-16	41.3	59	5.50	132S	R901305580	A2	R901305559	A3	R901305599	A3
		83	7.50	132M	R901305581	A2	R901305560	A3	R901305600	A3
		128	11.00	160M	R901306934	A3	R901313130	A3	R901313154	A3
		160	15.00	160L	R901313143	A3	R901313131	A3	R901313156	A3
PV7-1X/40-45- RE37MC0-16	62.0	39	5.50	132S	R901305582	A2	R901305561	A3	R901305601	A3
		55	7.50	132M	R901305583	A3	R901305562	A3	R901305602	A3
		79	11.00	160M	R901305584	A2	R901305563	A3	R901305603	A3
		110	15.00	160L	R901305585	A3	R901305564	A3	R901305604	A3
		136	18.50	180M	R901313144	A3	R901313133	A3	R901313157	A3
		160	22.00	180L	R901313145	A3	R901313134	A3	R901313158	A3
PV7-1X/63-71- RE07MC0-16	97.8	25	5.50	132S	R901305586	A3	R901305565	A3	R901305605	A3
		33	7.50	132M	R901305587	A3	R901305566	A3	R901305606	A3
		50	11.00	160M	R901305588	A3	R901305568	A3	R901305607	A3
		70	15.00	160L	R901305589	A3	R901305569	A3	R901305608	A3
		86	18.50	180M	R901305590	A3	R901305570	A3	R901305609	A3
		104	22.00	180L	R901305591	A3	R901305571	A3	R901305610	A3
		144	30.00	200L	R901313146	A3	R901313135	A3	R901313159	A3
		160	37.00	225S	R901304861	A3	R901313136	A3	R901313160	A3
PV7-1X/100-118- RE07MC0-16	162.5	30	11.00	160M	R901305592	A3	R901305572	A3	R901305611	A3
		43	15.00	160L	R901305593	A3	R901305574	A3	R901305612	A3
		54	18.50	180M	R901305594	A2	R901305575	A3	R901305613	A3
		65	22.00	180L	R901305595	A3	R901305576	A3	R901305614	A3
		89	30.00	200L	R901305596	A3	R901305577	A3	R901305615	A3
		110	37.00	225S	R901313147	A3	R901313137	A3	R901313161	A3
		137	45.00	225M	R901313148	A3	R901313138	A3	R901313162	A3
		160	55.00	250M	R901313149	A3	R901313139	A3	R901313163	A3

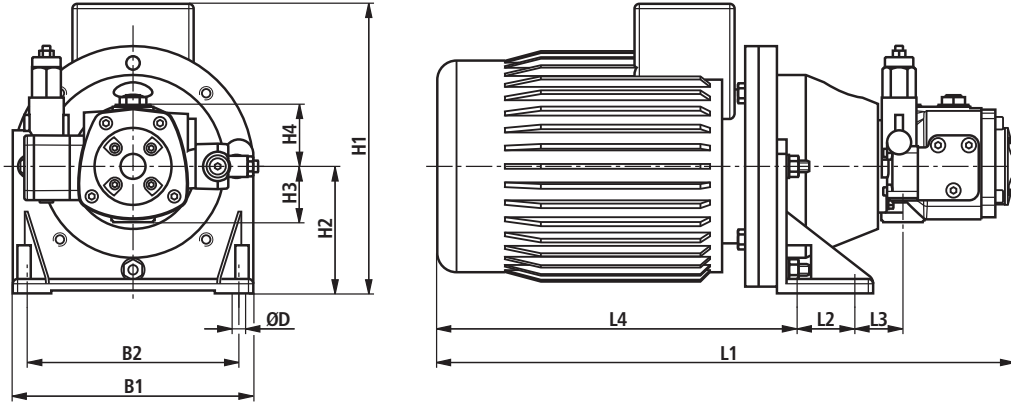
¹⁾ MKZ = Material mark

A2 = Preferred delivery range

A3 = Standard delivery range

Device dimensions see page 7-12

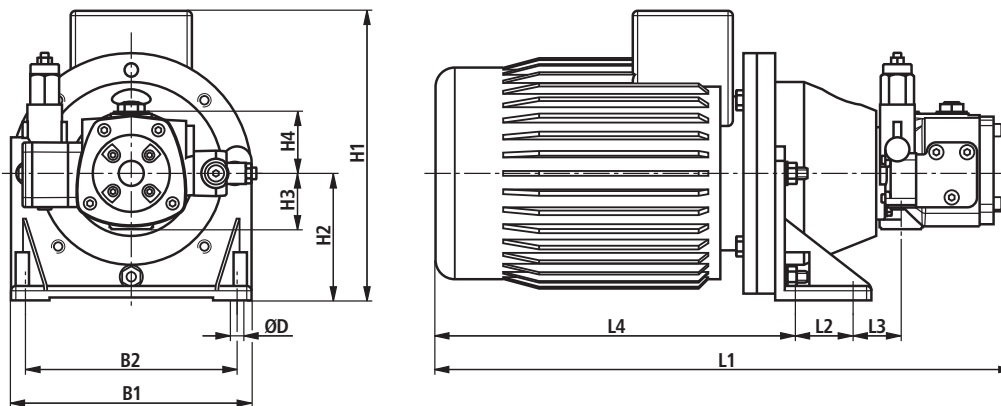
Device dimensions: Type ABHPG-V7 (motor supplier HOYER-MOTORS)
(dimensions in mm)



ABHPG-V7 with motor supplier HOYER-MOTORS

Pump	Electric motor	Dimensions										
	kW / frame size	B1	B2	ØD	H1	H2	H3	H4	L1	L2	L3	L4
PV7/6-10	1.1 / 90S	210	180	11	244	112	56.5	56.5	452	60	86.5	305
	1.5 / 90L	210	180	11	244	112	56.5	56.5	478	60	86.5	331
	2.2 / 100L	250	220	14	279	132	56.5	56.5	521	60	80.5	380
	3.0 / 100L	250	220	14	279	132	56.5	56.5	521	60	80.5	380
PV7/10-14	1.5 / 90L	210	180	11	244	112	58	64	485	60	88	331
	2.2 / 100L	250	220	14	279	132	58	64	528	60	82	380
	3.0 / 100L	250	220	14	279	132	58	64	528	60	82	38
	4.0 / 112M	250	220	14	301	132	58	64	522	60	82	374
	5.5 / 132S	300	260	14	348	160	58	64	590	80	82	422
PV7/16-20	7.5 / 132M	300	260	14	348	160	58	64	653	80	82	485
	2.2 / 100L	250	220	14	279	132	68	72	536	60	92	380
	3.0 / 100L	250	220	14	279	132	68	72	536	60	92	380
	4.0 / 112M	250	220	14	301	132	68	72	530	60	92	374
PV7/25-30	5.5 / 132S	300	260	14	348	160	68	72	609	80	103	422
	7.5 / 132M	300	260	14	348	160	68	72	672	80	103	485
	3.0 / 100L	250	220	14	279	132	92	80	544	60	116	380
	4.0 / 112M	250	220	14	301	132	92	80	538	60	116	374
PV7/40-45	5.5 / 132S	300	260	14	348	160	92	80	617	80	127	422
	7.5 / 132M	300	260	14	348	160	92	80	680	80	127	485
	4.0 / 112M	250	220	14	301	132	89	94	552	60	113	374
PV7/63-71	5.5 / 132S	300	260	14	348	160	89	94	644	80	137	422
	7.5 / 132M	300	260	14	348	160	89	94	707	80	137	485
	5.5 / 132S	300	260	14	348	160	105	100	650	80	153	422
	7.5 / 132M	300	260	14	348	160	105	100	713	80	153	485

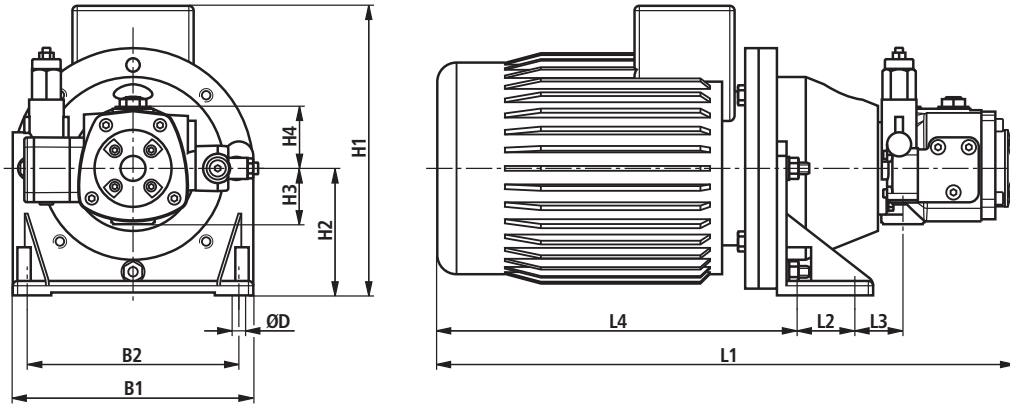
Device dimensions: Type ABHPG-V7 (motor supplier VEM)
(dimensions in mm)



ABHPG-V7 with motor supplier VEM

Pump	Electric motor	Dimensions										
	kW / frame size	B1	B2	ØD	H1	H2	H3	H4	L1	L2	L3	L4
PV7/6-10	1.1 / 90S	210	180	11	240	112	56.5	56.5	438	60	86.5	291
	1.5 / 90L	210	180	11	232	112	56.5	56.5	479	60	86.5	332
	2.2 / 100L	250	220	14	269	132	56.5	56.5	513	60	80.5	372
	3.0 / 100L	250	220	14	268	132	56.5	56.5	542	60	80.5	401
PV7/10-14	1.5 / 90L	210	180	11	232	112	58	64	486	60	88	332
	2.2 / 100L	250	220	14	269	132	58	64	520	60	82	372
	3.0 / 100L	250	220	14	268	132	58	64	549	60	82	401
	4.0 / 112M	250	220	14	310	132	58	64	587	60	82	439
	5.5 / 132S	300	260	14	259	160	58	64	657	80	82	489
PV7/16-20	7.5 / 132M	300	260	14	259	160	58	64	657	80	82	489
	2.2 / 100L	250	220	14	269	132	68	72	528	60	92	372
	3.0 / 100L	250	220	14	268	132	68	72	557	60	92	401
	4.0 / 112M	250	220	14	310	132	68	72	595	60	92	439
PV7/25-30	5.5 / 132S	300	260	14	359	160	68	72	676	80	103	489
	7.5 / 132M	300	260	14	359	160	68	72	676	80	103	489
	3.0 / 100L	250	220	14	268	132	92	80	565	60	116	401
	4.0 / 112M	250	220	14	310	132	92	80	603	60	116	439
PV7/40-45	5.5 / 132S	300	260	14	359	160	92	80	684	80	127	489
	7.5 / 132M	300	260	14	359	160	92	80	684	80	127	489
	4.0 / 112M	250	220	14	310	132	89	94	617	60	113	439
PV7/63-71	5.5 / 132S	300	260	14	359	160	89	94	711	80	137	489
	7.5 / 132M	300	260	14	359	160	89	94	711	80	137	489
	5.5 / 132S	300	260	14	359	160	105	100	717	80	153	489
	7.5 / 132M	300	260	14	359	160	105	100	717	80	153	489

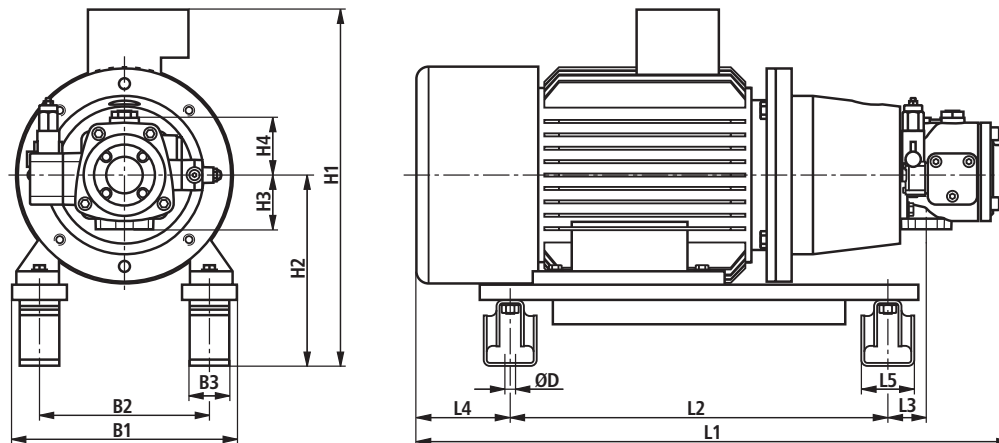
Device dimensions: Type ABHPG-V7 (motor supplier SIEMENS)
(dimensions in mm)



ABHPG-V7 with motor supplier SIEMENS

Pump	Electric motor	Dimensions										
	kW / frame size	B1	B2	ØD	H1	H2	H3	H4	L1	L2	L3	L4
PV7/6-10	1.1 / 90S	210	180	11	240	112	56.5	56.5	438	60	86.5	291
	1.5 / 90L	210	180	11	232	112	56.5	56.5	479	60	86.5	332
	2.2 / 100L	250	220	14	269	132	56.5	56.5	513	60	80.5	372
	3.0 / 100L	250	220	14	268	132	56.5	56.5	542	60	80.5	401
PV7/10-14	1.5 / 90L	210	180	11	232	112	58	64	486	60	88	332
	2.2 / 100L	250	220	14	269	132	58	64	520	60	82	372
	3.0 / 100L	250	220	14	268	132	58	64	549	60	82	401
	4.0 / 112M	250	220	14	310	132	58	64	587	60	82	439
	5.5 / 132S	300	260	14	359	160	58	64	657	80	82	489
	7.5 / 132M	300	260	14	359	160	58	64	657	80	82	489
PV7/16-20	2.2 / 100L	250	220	14	269	132	68	72	528	60	92	372
	3.0 / 100L	250	220	14	268	132	68	72	557	60	92	401
	4.0 / 112M	250	220	14	310	132	68	72	595	60	92	439
	5.5 / 132S	300	260	14	359	160	68	72	676	80	103	489
	7.5 / 132M	300	260	14	359	160	68	72	676	80	103	489
PV7/25-30	3.0 / 100L	250	220	14	368	132	92	80	565	60	116	401
	4.0 / 112M	250	220	14	310	132	92	80	603	60	116	439
	5.5 / 132S	300	260	14	359	160	92	80	684	80	127	489
	7.5 / 132M	300	260	14	359	160	92	80	684	80	127	489
PV7/40-45	4.0 / 112M	250	220	14	310	132	89	94	617	60	113	439
	5.5 / 132S	300	260	14	359	160	89	94	711	80	137	489
	7.5 / 132M	300	260	14	359	160	89	94	711	80	137	489
PV7/63-71	5.5 / 132S	300	260	14	359	160	105	100	717	80	153	489
	7.5 / 132M	300	260	14	359	160	105	100	717	80	153	489

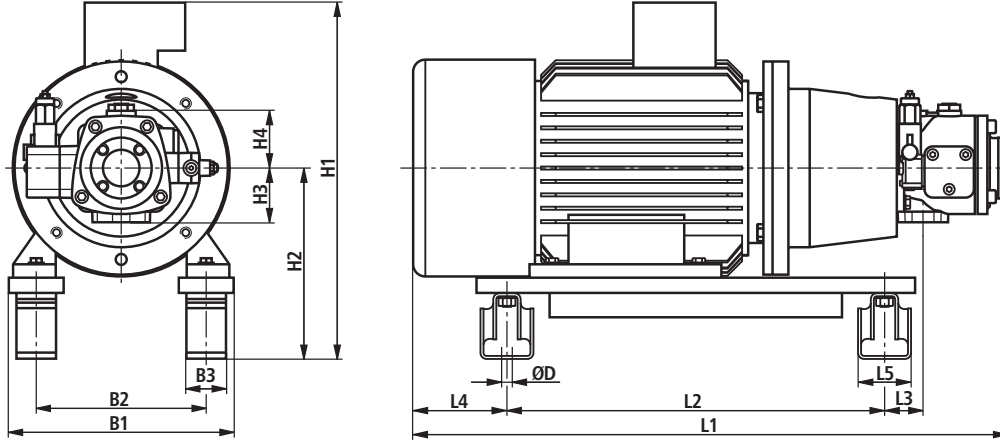
Device dimensions: Type ABAPG-V7 (motor supplier HOYER-MOTORS)
(dimensions in mm)



ABAPG-V7 with motor supplier HOYER-MOTORS

Pump	Electric motor	Dimensions												
	kW / frame size	B1	B2	B3	ØD	H1	H2	H3	H4	L1	L2	L3	L4	L5
PV7/10-14	5.5 / 132S	300	216	50	13.5	423	235	58	64	675	480	-6	78	79
	7.5 / 132M	300	216	50	13.5	423	235	58	64	738	480	-6	141	79
PV7/16-20	5.5 / 132S	300	216	50	13.5	423	235	68	72	702	480	16	78	79
	7.5 / 132M	300	216	50	13.5	423	235	68	72	765	480	16	141	79
	11.0 / 160M	350	254	50	13.5	523	263	68	72	874	580	59	107	79
PV7/25-30	5.5 / 132S	300	216	50	13.5	423	235	92	80	714	480	17	78	79
	7.5 / 132M	300	216	50	13.5	423	235	92	80	777	480	17	141	79
	11.0 / 160M	350	254	50	13.5	523	263	92	80	886	580	60	107	79
	15.0 / 160L	350	254	50	13.5	523	263	92	80	941	580	60	162	79
PV7/40-45	5.5 / 132S	300	216	50	13.5	423	235	89	94	737	480	35	78	79
	7.5 / 132M	300	216	50	13.5	423	235	89	94	800	480	35	141	79
	11.0 / 160M	350	254	50	13.5	523	63	89	94	896	580	65	107	79
	15.0 / 160L	350	254	50	13.5	523	263	89	94	951	580	65	162	79
	18.5 / 180M	369	279	65	17.5	588	313	89	94	9581	620	63	154	87
PV7/63-71	22.0 / 180L	369	279	65	17.5	610	313	89	94	1021	620	63	194	87
	5.5 / 132S	300	216	50	13.5	423	235	105	100	761	480	43	78	79
	7.5 / 132M	300	216	50	13.5	423	235	105	100	824	480	43	141	79
	11.0 / 160M	350	254	50	13.5	523	263	105	100	920	580	73	107	79
	15.0 / 160L	350	254	50	13.5	523	263	105	100	975	580	73	162	79
	18.5 / 180M	369	279	65	17.5	588	313	105	100	1005	620	71	154	87
	22.0 / 180L	369	279	65	17.5	610	313	105	100	1045	620	71	194	87
30.0 / 200L	418	318	80	17.5	665	360	105	100	1075	700	38	177	100	
PV7/100-118	37.0 / 225S	456	356	80	17.5	720	385	105	100	1120	800	-6	166	100
	11.0 / 160M	350	254	65	17.5	553	293	126	111	975	580	107	107	87
	15.0 / 160L	350	254	65	17.5	553	293	126	111	1030	580	107	162	87
	18.5 / 180M	369	279	65	17.5	588	313	126	111	1060	620	105	154	87
	22.0 / 180L	369	279	65	17.5	610	313	126	111	1100	620	105	194	87
	30.0 / 200L	418	318	80	17.5	665	360	126	111	1130	700	71.5	177	100
	37.0 / 225S	456	356	80	17.5	720	385	126	111	1179	800	31.5	166	100
45.0 / 225M	456	356	80	17.5	720	385	126	111	1209	800	31.5	196	100	
55.0 / 250M	550	406	80	17.5	785	420	126	111	1282	850	52.5	198	100	

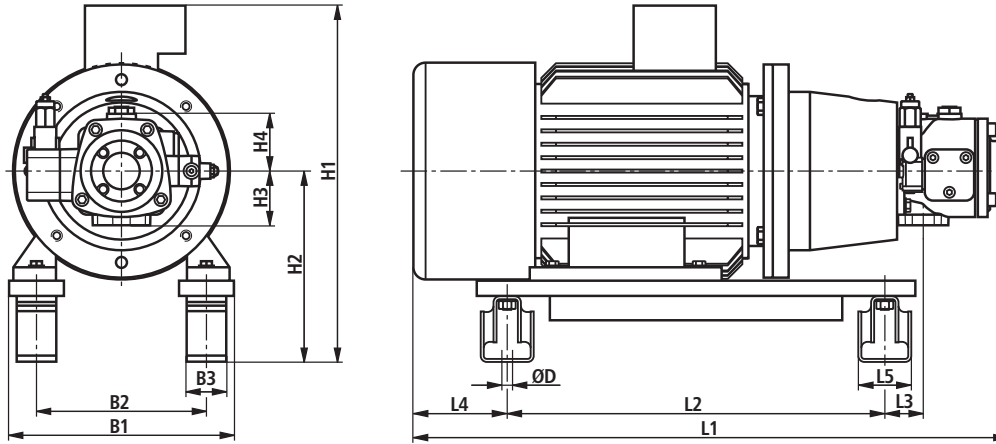
Device dimensions: Type ABAPG-V7 (motor supplier VEM)
(dimensions in mm)



ABAPG-V7 with motor supplier VEM

Pump	Electric motor	Dimensions												
	kW / frame size	B1	B2	B3	ØD	H1	H2	H3	H4	L1	L2	L3	L4	L5
PV7/10-14	5.5 / 132S	300	216	50	13.5	434	235	58	64	742	480	-6	145	79
	7.5 / 132M	300	216	50	13.5	434	235	58	64	742	480	-6	145	79
PV7/16-20	5.5 / 132S	300	216	50	13.5	434	235	68	72	769	480	16	145	79
	7.5 / 132M	300	216	50	13.5	434	235	68	72	769	480	16	145	79
	11.0 / 160M	350	254	50	13.5	505	263	68	72	830	580	59	63	79
PV7/25-30	5.5 / 132S	300	216	50	13.5	434	235	92	80	781	480	17	145	79
	7.5 / 132M	300	216	50	13.5	434	235	92	80	781	480	17	145	79
	11.0 / 160M	350	254	50	13.5	505	263	92	80	842	580	60	63	79
	15.0 / 160L	350	254	50	13.5	505	263	92	80	938	580	60	159	79
PV7/40-45	5.5 / 132S	300	216	50	13.5	434	235	89	94	804	480	35	145	79
	7.5 / 132M	300	216	50	13.5	434	235	89	94	804	480	35	145	79
	11.0 / 160M	350	254	50	13.5	505	63	89	94	852	580	65	63	79
	15.0 / 160L	350	254	50	13.5	505	263	89	94	948	580	65	159	79
	18.5 / 180M	369	279	65	17.5	574	313	89	94	961	620	63	134	87
PV7/63-71	22.0 / 180L	369	279	65	17.5	574	313	89	94	961	620	63	134	87
	5.5 / 132S	300	216	50	13.5	434	235	105	100	828	480	43	145	79
	7.5 / 132M	300	216	50	13.5	434	235	105	100	828	480	43	145	79
	11.0 / 160M	350	254	50	13.5	505	263	105	100	876	580	73	63	79
	15.0 / 160L	350	254	50	13.5	505	263	105	100	972	580	73	159	79
	18.5 / 180M	369	279	65	17.5	574	313	105	100	985	620	71	134	87
	22.0 / 180L	369	279	65	17.5	574	313	105	100	985	620	71	134	87
30.0 / 200L	418	318	80	17.5	660	360	105	100	1032	700	38	134	100	
PV7/100-118	37.0 / 225S	456	356	80	17.5	685	385	105	100	1062	800	-6	108	100
	11.0 / 160M	350	254	65	17.5	535	293	126	111	931	580	107	63	87
	15.0 / 160L	350	254	65	17.5	535	293	126	111	1027	580	107	159	87
	18.5 / 180M	369	279	65	17.5	574	313	126	111	1040	620	105	134	87
	22.0 / 180L	369	279	65	17.5	574	313	126	111	1040	620	105	134	87
	30.0 / 200L	418	318	80	17.5	660	360	126	111	1087	700	71.5	134	100
	37.0 / 225S	456	356	80	17.5	685	385	126	111	1121	800	31.5	108	100
45.0 / 225M	456	356	80	17.5	709	385	126	111	1226	800	31.5	213	100	
55.0 / 250M	550	406	80	17.5	806	420	126	111	1291	850	52.5	207	100	

Device dimensions: Type ABAPG-V7 (motor supplier SIEMENS)
(dimensions in mm)



ABAPG-V7 with motor supplier SIEMENS

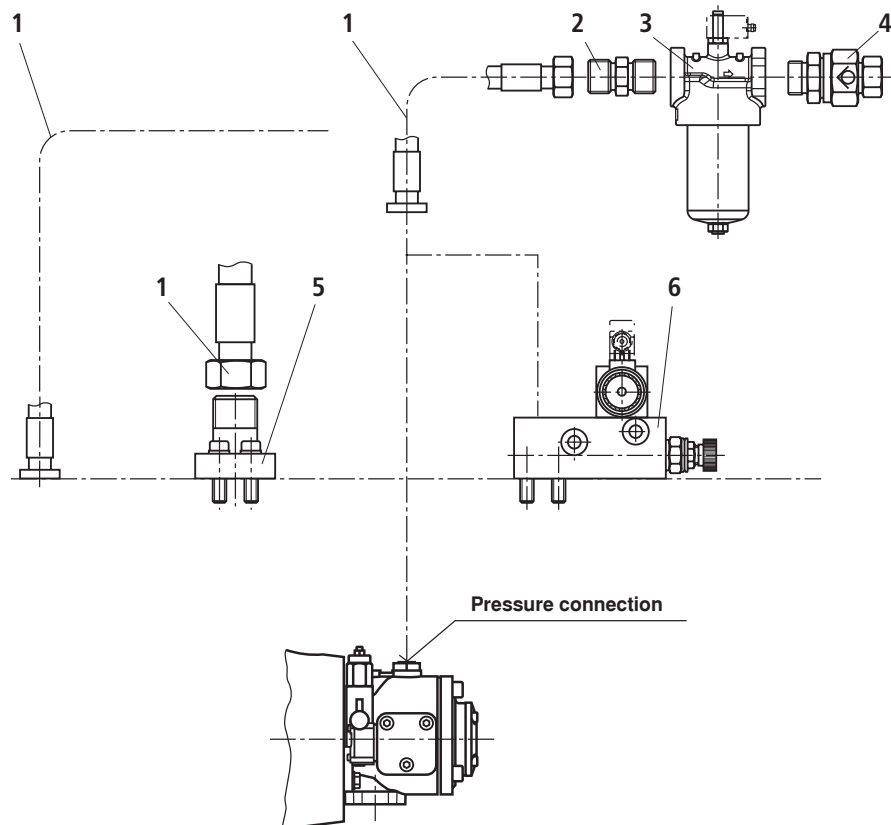
Pump	Electric motor kW / frame size	Dimensions												
		B1	B2	B3	ØD	H1	H2	H3	H4	L1	L2	L3	L4	L5
PV7/10-14	5.5 / 132S	300	216	50	13.5	437	235	58	64	678	480	-6	81	79
	7.5 / 132M	300	216	50	13.5	437	235	58	64	678	480	-6	81	79
PV7/16-20	5.5 / 132S	300	216	50	13.5	437	235	68	72	705	480	16	81	79
	7.5 / 132M	300	216	50	13.5	437	235	68	72	705	480	16	81	79
	11.0 / 160M	350	254	50	13.5	500	263	68	72	863	580	59	96	79
PV7/25-30	5.5 / 132S	300	216	50	13.5	437	235	92	80	717	480	17	81	79
	7.5 / 132M	300	216	50	13.5	437	235	92	80	717	480	17	81	79
	11.0 / 160M	350	254	50	13.5	500	263	92	80	875	580	60	96	79
	15.0 / 160L	350	254	50	13.5	500	263	92	80	875	580	60	96	79
PV7/40-45	5.5 / 132S	300	216	50	13.5	437	235	89	94	740	480	35	81	79
	7.5 / 132M	300	216	50	13.5	437	235	89	94	740	480	35	81	79
	11.0 / 160M	350	254	50	13.5	500	63	89	94	885	580	65	96	79
	15.0 / 160L	350	254	50	13.5	500	263	89	94	885	580	65	96	79
	18.5 / 180M	369	279	65	17.5	575	313	89	94	950	620	63	123	87
PV7/63-71	22.0 / 180L	369	279	65	17.5	575	313	89	94	1001	620	63	174	87
	5.5 / 132S	300	216	50	13.5	437	235	105	100	764	480	43	81	79
	7.5 / 132M	300	216	50	13.5	437	235	105	100	764	480	43	81	79
	11.0 / 160M	350	254	50	13.5	500	263	105	100	909	580	73	96	79
	15.0 / 160L	350	254	50	13.5	500	263	105	100	909	580	73	96	79
	18.5 / 180M	369	279	65	17.5	575	313	105	100	974	620	71	123	87
	22.0 / 180L	369	279	65	17.5	575	313	105	100	1025	620	71	174	87
PV7/100-118	30.0 / 200L	418	318	80	17.5	660	360	105	100	1025	700	38	127	100
	37.0 / 225S	456	356	80	17.5	713	385	105	100	1094	800	-6	140	100
	11.0 / 160M	350	254	65	17.5	530	293	126	111	964	580	107	96	87
	15.0 / 160L	350	254	65	17.5	530	293	126	111	964	580	107	96	87
	18.5 / 180M	369	279	65	17.5	575	313	126	111	1029	620	105	123	87
	22.0 / 180L	369	279	65	17.5	575	313	126	111	1080	620	105	174	87
	30.0 / 200L	418	318	80	17.5	660	360	126	111	1080	700	71.5	127	100
37.0 / 225S	456	356	80	17.5	713	385	126	111	1156	800	31.5	140	100	
45.0 / 225M	456	356	80	17.5	713	385	126	111	1213	800	31.5	200	100	
55.0 / 250M	550	406	80	17.5	812	420	126	111	1318	850	52.5	234	100	

Line connections

Pump type	Line connections		
	Pressure connection P	Suction port S	Leakage oil connection L / L1
PV7-1X/6-10	ISO 228/1 G 3/8	ISO 228/1 G 1/2	ISO 228/1 G 1/4
PV7-1X/10-14	ISO 228/1 G 1/2	ISO 228/1 G 1	ISO 228/1 G 1/4
PV7-1X/16-20	ISO 228/1 G 3/4	ISO 228/1 G 1 1/4	ISO 228/1 G 3/8
PV7-1X/25-30	ISO 228/1 G 1	ISO 228/1 G 1 1/2	ISO 228/1 G 3/8
PV7-1X/40-45	ISO 228/1 G 1	DIN ISO 6162-1 SAE 1 1/2" ¹⁾	ISO 228/1 G 1/2
PV7-1X/63-71	DIN ISO 6162-2 SAE 1 1/4" ¹⁾	DIN ISO 6162-1 SAE 2" ¹⁾	ISO 228/1 G 1/2
PV7-1X/100-118	DIN ISO 6162-2 SAE 1 1/2" ¹⁾	DIN ISO 6162-1 SAE 2 1/2" ¹⁾	ISO 228/1 G 3/4

¹⁾ Standard pressure SAE flange figure with metric mounting screws

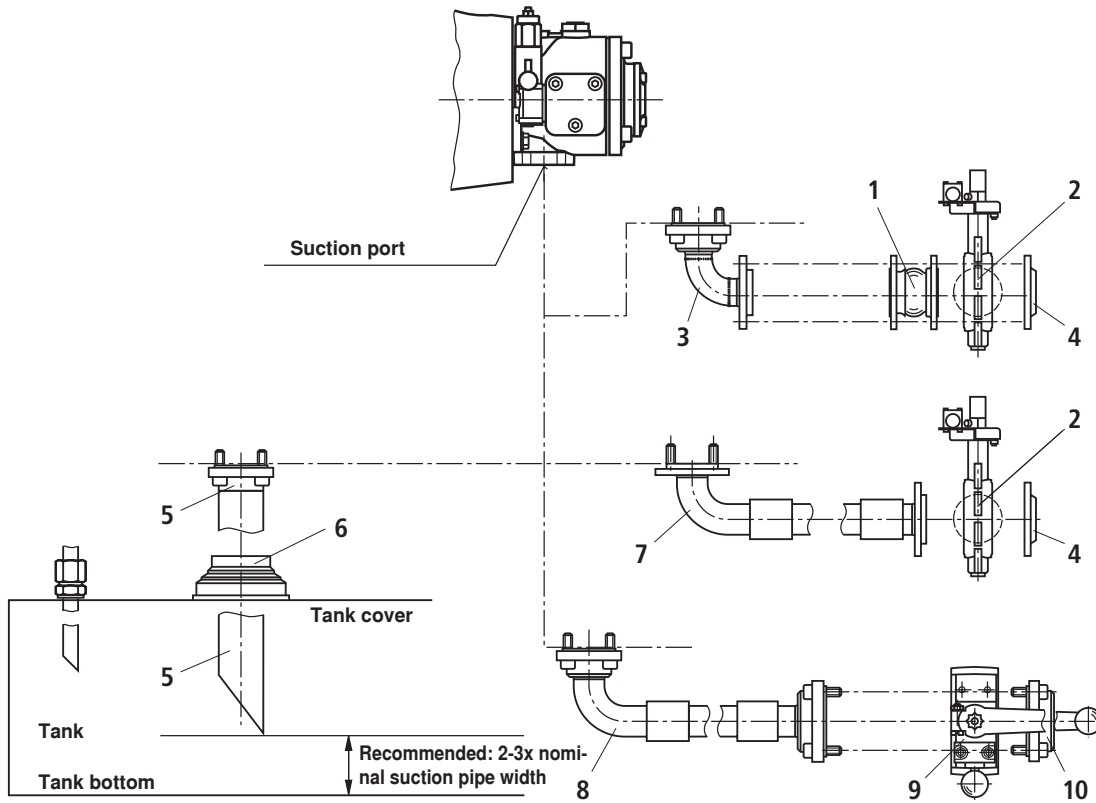
Optional accessories at the pressure connection



- 1 Hose line AB 02314, AB 02316
- 2 Fitting AB 02012
- 3 Inline filter data sheet 51421; 51422
- 4 Check valve AB 020112
- 5 SAE flange AB 02214
- 6 Intermediate flange only necessary for size 63 and 100

Items 1 to 5 as optional accessories upon request.
Hydraulic start-up aid pump safety block according to data sheet 25891 (only for size 63 and 100, intermediate flange might be necessary) or pump with controller option 5 (K plate). All figures are examples.

Optional accessories at the suction port



- 1 Compensator DIN AB 02231
- 2 Shut-off valve DIN AB 02129
- 3 Flange bend SAE-DIN AB 02229
- 4 DIN flange AB 02204
- 5 Suction pipe AB 02303
- 6 Elastic pipe fitting AB 01203

- 7 Suction tube SAE-DIN AB 02315
- 8 Suction tube SAE-SAE AB 02315
- 9 Shut-off valve SAE (on request)
- 10 SAE flange AB 02215

Items 1 to 10 as optional accessories upon request. All figures are examples.

Installation information

Fluid tank

- Adjust useful volume of the tank to the operating conditions.
- The admissible fluid temperature must not be exceeded; use coolers, if necessary.
- Suction and return line are to be designed so that the largest distance possible between these two lines is guaranteed. Return fluid must not be directly sucked in again.
- The return flow exit must always be below the oil level.

Lines and connections

- Remove the protective plug at the pump.
- Select the inner width of the pipes according to the connections.
- Pipelines and fittings must be carefully cleaned before the assembly. Observe the installation information of the manufacturers.
- Ensure tight assembly of the pipelines.

Filtration of the hydraulic fluid

- The finer the filtration, the better the achieved cleanliness class of the hydraulic fluid, the longer the life cycle of the vane pump (cleanliness classes see page 3).

Hydraulic fluid

- Please observe the notice according to data sheet 90220 and 90223.
- Brand-name hydraulic oils are recommended. In order to guarantee functional safety, at least cleanliness class 20/18/15 in accordance with ISO 4406 is necessary.
- Different oil types must not be mixed as this might result in degradation and deterioration of the lubricity.
- We recommend checking the hydraulic fluid at regular intervals by means of an oil analysis. The measures resulting therefrom are to be implemented.

Commissioning, maintenance and operating instructions

In this connection, please observe the notices contained in the following documents:

- Data sheet 07009
- Data sheet 07009-MON
- Data sheet 10515
- Data sheet 10522

Legal provisions

- In Germany, the Ordinance on Industrial Safety and Health (BetrSichV) applies.
- The EU Regulation 640/2009 on the environmentally friendly design of electric motors.

Notice in the sense of the EC Machinery Directive 2006/42/EC, according to annex II part 1, section A, manufacturer's declaration:

- The assemblies were manufactured in accordance with the harmonized standards DIN EN ISO 4413, DIN EN ISO 12100 and DIN EN 60204-1.
- The commissioning is prohibited until it was confirmed that the machine into which the assemblies are to be integrated complies with the regulations laid down in the EC Directives.

Installation position

- Horizontal according to the dimensional drawing – deviating designs only after coordination with the manufacturer.
- Exclusive use in stationary systems.

Notes

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