Motor-pump groups

Type ABAPG

RE 51184
Edition: 2015-02

- With pump type: A10VSO
  – Series 32: Sizes 45 to 180
- Electric motor frame size 132L to 315M
  Efficiency class IE3

Features

Electric energy is converted into hydraulic energy via the motor-pump groups.
They have been designed for hydrostatic drives in open circuits.

- Electric motor, design 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 axial piston pump A10VSO (variable displacement pump), shock and vibration absorber type
- DRS (hydraulic flow controller) and LA6DS (power controller with pressure cut off) adjustment

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Ordering code

01		02	03	04	05	06	07		08	09	10	11	12	13		14	15		16
ABAPG	**–**	**A10VSO**			**V**	**S**	**B**	**/**		**CB**	**4**	**5**	**3**	**3**	**/**	**S**	**E**		**HOY**

Assembly

01	With motor design B35	**ABAPG**

Pump type

02	Axial piston pump A10VSO according to data sheet 92714	**A10VSO**

Displacement

03	10 ... 140 cm^3 per rotation	**10 ... 140**

Control and adjustment device

04	e.g. Pressure/flow controller, hydraulic X-T closed	**DRS**
	e.g. power controller with pressure cut off and hydraulic flow controller X-T closed	**LA6DS**

Seal material (according to DIN ISO 1629)

05	FKM	**V**

Shaft end version

06	Splined shaft (ANSI B92.1a standard shaft)	**S**

Mounting flange

07	ISO4-hole	**B**

Motor power

08	7.5 kW ... 132 kW	**7.5 ... 132**

Rated voltage

09	400/690 V at 50 Hz	**CB**

10	**Number of pole pairs**	**4**

Rated frequency

11	50 Hz	**5**

Efficiency class

12	IE3 according to IEC 60034-30	**3**

Motor protection

13	PTC resistor with 3 temperature sensors	**3**

Pump carrier design

14	Rigid pump carrier AB 03337	**S**

Damping bearing design

15	Elastic damping bearing	**E**

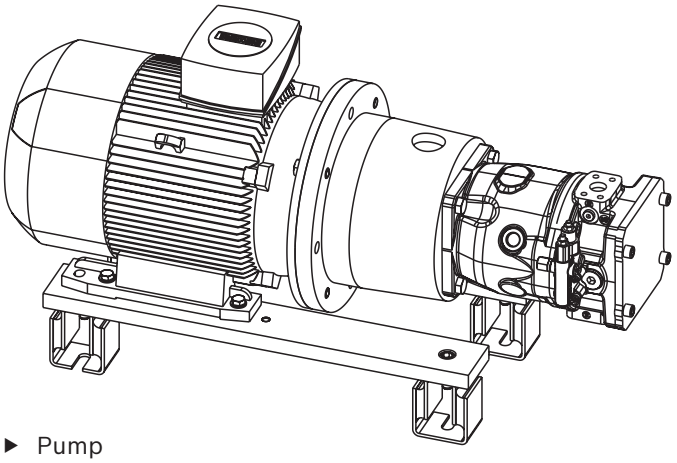
Motor supplier

16	Hoyer Motors (preferred)	**HOY**
	Siemens	**SIE**

Order example:
ABAPG-A10VSO 45DRSVSB/18.5CB4523/SE HOY

Set-up of the motor-pump group

ABAPG design



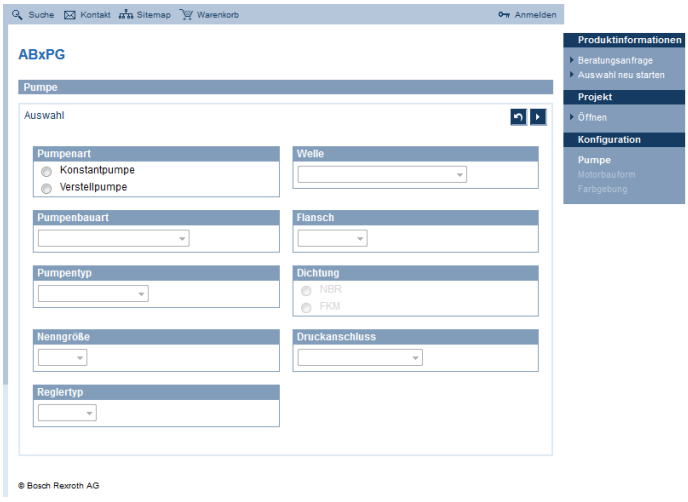
- Pump
- Electric motor
- Pump carrier
- Coupling
- Strips
- Damping bearing

STEP-files for the respective modules available on request or at www.boschrexroth.com/ics/abapg

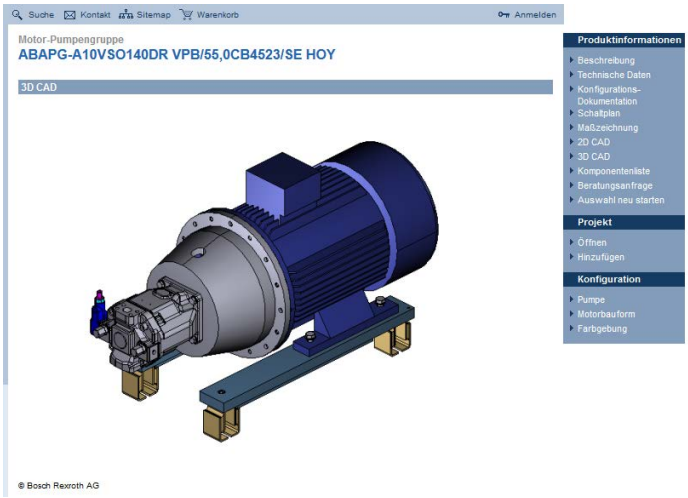
The motor-pump group configurator at www.boschrexroth.com/ics/abapg

Motor-pump groups can be put together quickly and easily with the APAPG configurator: The standard types defined in the data sheet enables users and sales people without detailed knowledge to individually configure the central drive unit for aggregates. A practical, product-neutral kit provides 3D data that can be immediately applied to applications. This saves time.
This is performed online by selecting the relevant product components or by specifying the operating conditions (flow rate, rated frequency, type of pump, operating pressure).

Thanks to the intuitive menu navigation, you are guided safely through the required configuration steps. Related features are clearly arranged on one page.



Associated features are clearly displayed on the same page.



When the configuration is finished, you can have the complete configuration documentation sent to you via email including material list, circuit diagram, 2D drawing and 3D model (STEP). This is done by way of an automatic request to your local distributor who will promptly contact you and send you an offer.

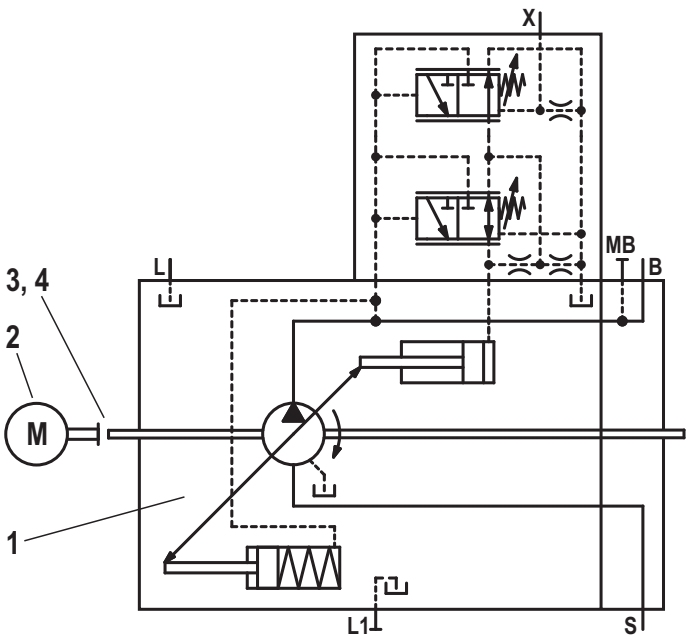
Technical data (For applications outside these parameters, please consult us!)

Line connections				see Line connections table on page 12
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 provisions according to data sheet 90220, 90221. ▶ 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				A10VSO series 32 according to data sheet 92714
	▶ Direction of rotation			Clockwise
Operating pressure, absolute				
	▶ Input	$p_{min-max}$	bar	0.8 ... 10 for sizes 45 to 100, 1 ... 10 from size 140
	▶ Output	p_{nom}	bar	280
	▶ Peak pressure	p_{max}	bar	350
	▶ Leakage port	p_{max}	bar	2
Hydraulic fluid temperature range, observe viscosity range		ϑ	°C	–25 ... +90
	▶ $T_{optimal}$ with HLP 46 (DIN 51524)	ϑ	°C	+45 ... +55
	▶ T_{max} in continuous operation	ϑ	°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 50125 (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) and according to the pump type used.[1)] At least cleanliness class 20/18/15 must be achieved.
Viscosity range		v	mm^2/s	16 ... 36 optimal 10 ... 1000 for a short time (see data sheet 92714)
Electric motor	▶ Motor type			Three-phase asynchronous motor
	▶ Efficiency class			IE3 according to IEC 60034-30
	▶ Number of pole pairs			4
	▶ Voltage according to IEC 38	U	V	400 / 690 at 50 Hz (CB)
	▶ Speed	n	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.

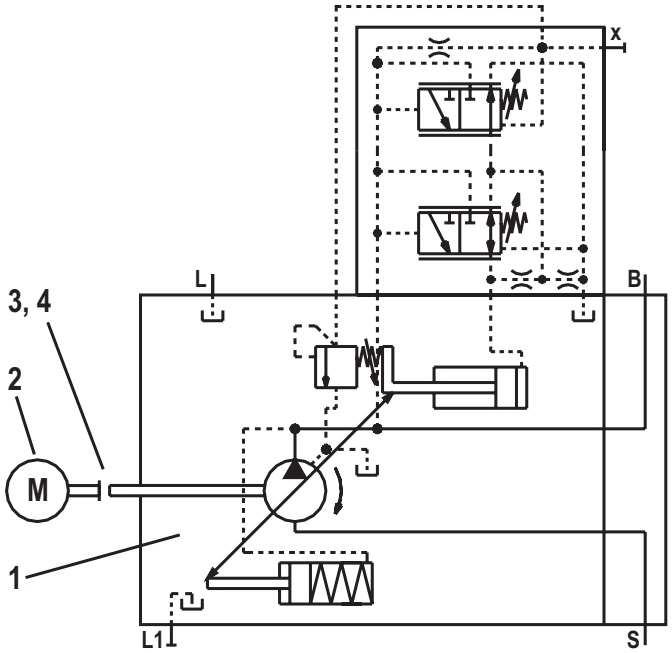
Circuit diagrams

Axial piston pump with flow controller, hydraulic (basic design), type ABAPG...DRS



1 Axial piston pump A10VSO
2 Electric motor
3 Pump carrier
4 Coupling

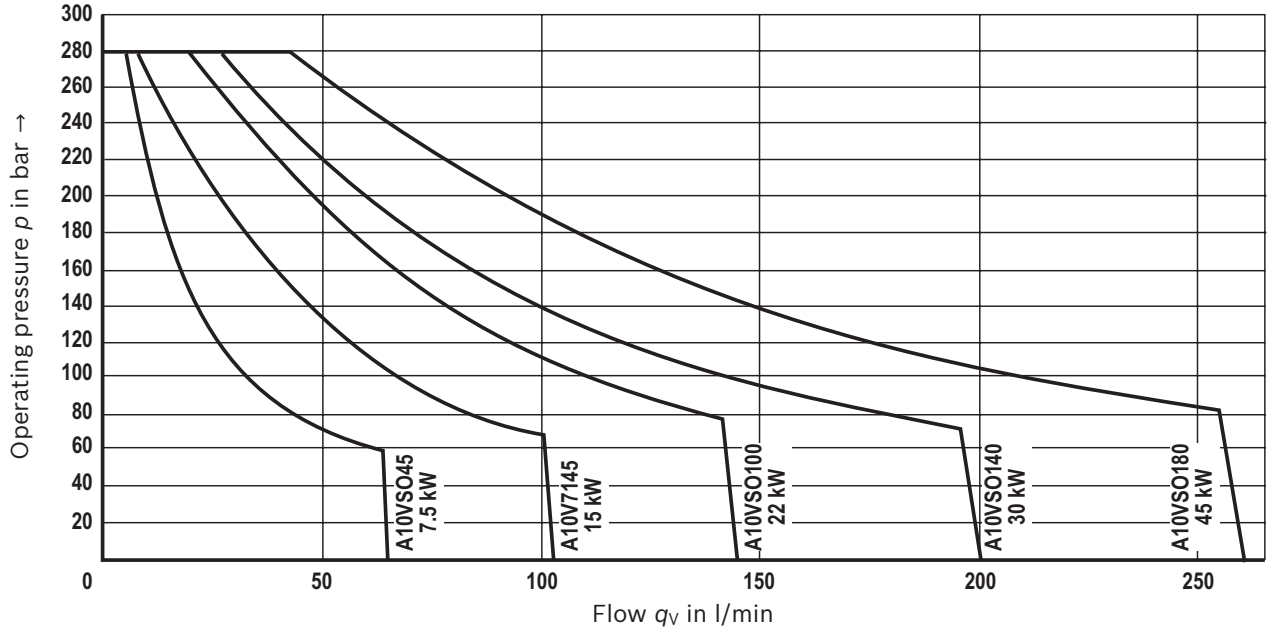
Axial piston pump with power controller with pressure cut off, type ABAPG...LA6DS



1 Axial piston pump A10VSO
2 Electric motor
3 Pump carrier
4 Coupling

Performance characteristic

Axial piston pump with power controller, type ABAPG...LA6DS measured at n = 1450 min^{-1} (factory setting)



☞ **For the project planning, please use the performance characteristic from data sheet 92714.**

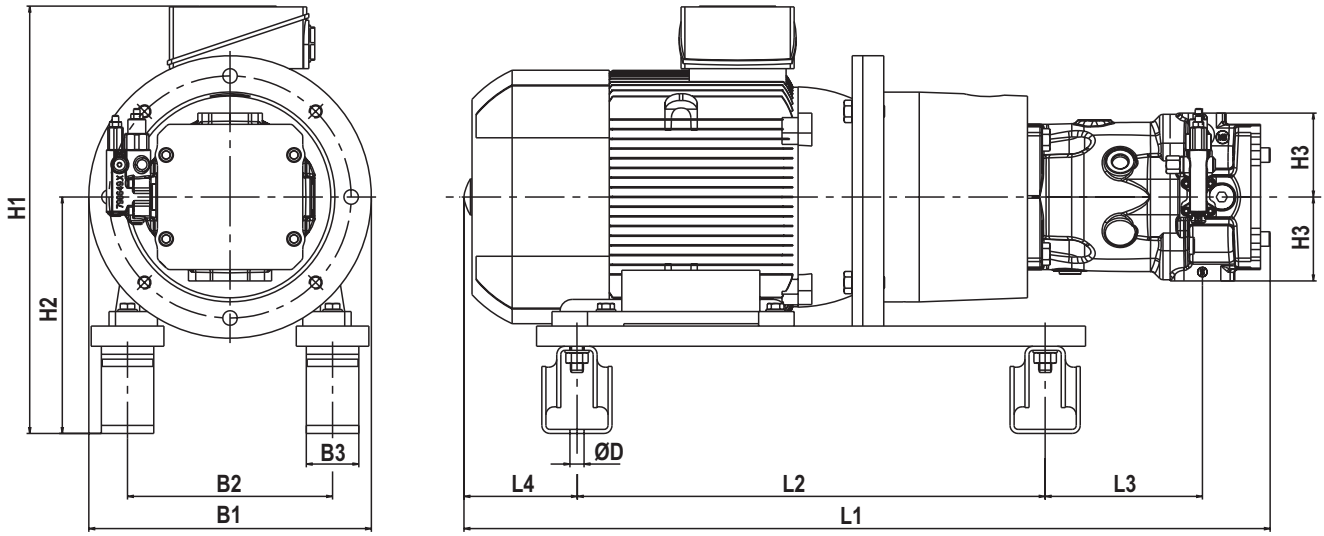
Standard program incl. preferred types ABAPG-A10VSO, series 32

Frequency	50 Hz 1450 min⁻¹		50 Hz 1450 min⁻¹	Electric motor size	ABHPG material no. (Motor B5)			
Pump	$q_{V\,max}$ in l/min	p_{max} in bar	Power in kW		HOY	MKZ [1]	SIE	MKZ [1]
A10VSO 45 ... 32	62	78	11.0	160M	**R901398187**	A3	**R901398240**	A3
		118	15.0	160L	**R901398188**	A3	**R901398241**	A3
		157	18.5	180M	**R901398192**	A3	**R901398248**	A3
		193	22.0	180L	**R901398189**	A3	**R901398242**	A3
		276	30.0	200L	**R901398190**	A3	**R901398245**	A3
		280	37.0	225S	**R901398191**	A3	**R901398247**	A3
A10VSO 71 ... 32	98	68	15.0	160L	**R901398193**	A3	**R901398249**	A3
		88	18.5	180M	**R901398200**	A3	**R901398257**	A3
		112	22.0	180L	**R901398194**	A3	**R901398250**	A3
		158	30.0	200L	**R901398195**	A3	**R901398252**	A3
		198	37.0	225S	**R901398196**	A3	**R901398253**	A3
		244	45.0	225M	**R901398198**	A3	**R901398254**	A3
		280	55.0	250M	**R901398199**	A3	**R901398256**	A3
A10VSO100 ... 32	138	57	18.5	180M	**R901398211**	A3	**R901398270**	A3
		72	22.0	180L	**R901398201**	A3	**R901398260**	A3
		101	30.0	200L	**R901398203**	A3	**R901398261**	A3
		129	37.0	225S	**R901398204**	A3	**R901398262**	A3
		160	45.0	225M	**R901398205**	A3	**R901398265**	A3
		196	55.0	250M	**R901398207**	A3	**R901398266**	A3
		273	75.0	280S	**R901398208**	A3	**R901398267**	A3
		280	90.0	280M	**R901398209**	A3	**R901398269**	A3
A10VSO140 ... 32	193	52	22.0	180L	**R901398212**	A3	**R901398271**	A3
		75	30.0	200L	**R901398213**	A3	**R901398272**	A3
		95	37.0	225S	**R901398214**	A3	**R901398289**	A3
		119	45.0	225M	**R901398216**	A3	**R901398290**	A3
		148	55.0	250M	**R901398217**	A3	**R901398291**	A3
		204	75.0	280S	**R901398219**	A3	**R901398292**	A3
		246	90.0	280M	**R901398220**	A3	**R901398293**	A3
		280	110.0	315S	**R901398221**	A3	**R901398294**	A3
A10VSO180 ... 32	248	62	30.0	200L	**R901398223**	A3	**R901398295**	A3
		77	37.0	225S	**R901398224**	A3	**R901398297**	A3
		95	45.0	225M	**R901398225**	A3	**R901398298**	A3
		120	55.0	250M	**R901398226**	A3	**R901398299**	A3
		167	75.0	280S	**R901398228**	A3	**R901398300**	A3
		203	90.0	280M	**R901398229**	A3	**R901398301**	A3
		251	110.0	315S	**R901398231**	A3	**R901398302**	A3
		280	132.0	315M	**R901398232**	A3	**R901398303**	A3
A10VSO 45LA6	62		7.5	132M	**R901398233**	A3	**R901398304**	A3
A10VSO 71LA6	98		15.0	160L	**R901398235**	A3	**R901398305**	A3
A10VSO100LA6	138		22.0	180L	**R901398236**	A3	**R901398306**	A3
A10VSO140LA6	193		30.0	200L	**R901398237**	A3	**R901398307**	A3
A10VSO180LA6	248		45.0	225M	**R901398238**	A3	**R901398308**	A3

[1] MKZ = material mark
A2 = preferred delivery range
A3 = Standard delivery range dimensions see page 9 ... 11

Dimensions: Type ABAPG A10VSO HOYER-MOTORS

(dimensions in mm)

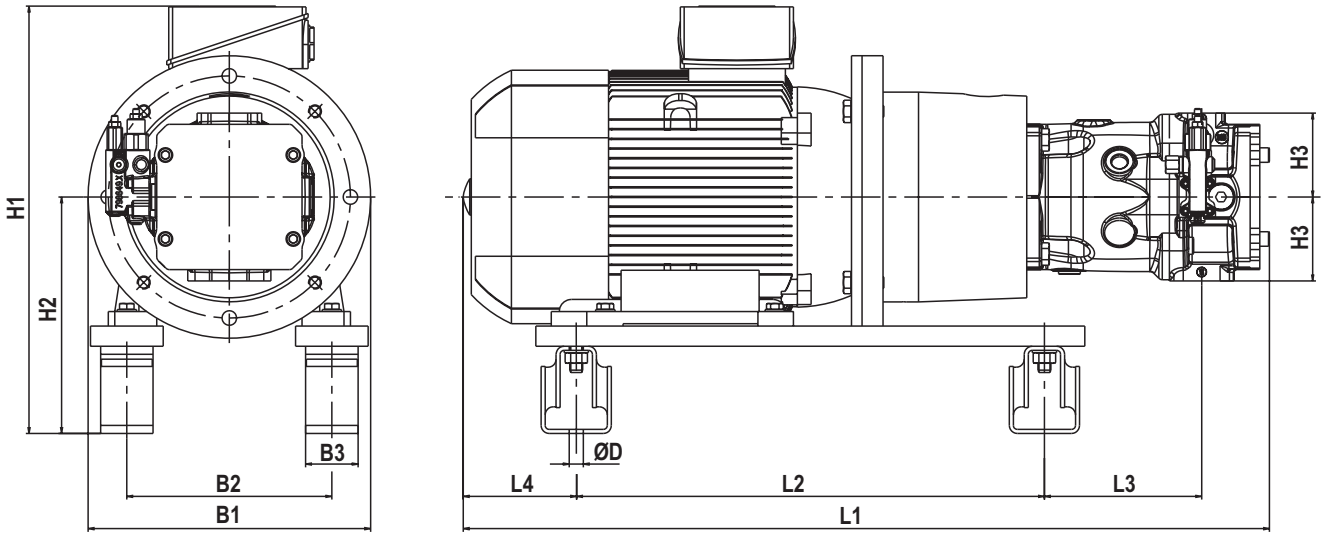


Pump	E-motor	Dimensions											Weight in kg
	KW / frame size	B1	B2	B3	ØD	H1	H2	H3	L1	L2	L3	L4	
A10VSO 45 DRS	11 / 160M	350	254	50	13.5	539	263	91	954	580	190	102	168
	15 / 160L	350	254	50	13.5	569	263	91	998	580	190	146	190
	18.5 / 180M	350	279	65	17.5	605	313	91	1045.5	620	204	139.5	234
	22 / 180L	350	279	65	17.5	605	313	91	1083.5	620	204	177.5	273
	30 / 200L	400	318	65	17.5	673	338	91	1129	700	171	176	341
	37 / 225S	450	356	80	17.5	721	385	91	1182.5	800	127	173.5	478
A10VSO 71 DRS	15 / 160L	350	254	65	17.5		293	104	1049	580	239	146	210
	18.5 / 180M	350	279	65	17.5	605	313	104	1080.5	620	237	139.5	249
	22 / 180L	350	279	65	17.5	605	313	104	1118.5	620	237	177.5	288
	30 / 200L	400	318	80	17.5	673	360	104	1164	700	204	176	358
	37 / 225S	450	356	80	17.5	721	385	104	1211.5	800	154	173.5	494
	45 / 225M	450	356	80	17.5	721	385	104	1236.5	800	154	198.5	502
	55 / 250M	550	406	80	17.5	794	420	104	1298	850	172	192	580
A10VSO100 DRS	18.5 / 180M	350	279	65	17.5	605	313	100	1139.5	620	295	139.5	269
	22 / 180L	350	279	65	17.5	605	313	100	1177.5	620	295	177.5	308
	30 / 200L	400	318	80	17.5	673	360	100	1223	700	262	176	364
	37 / 225S	450	356	80	17.5	721	385	100	1276.5	800	218	173.5	518
	45 / 225M	450	356	80	17.5	721	385	100	1301.5	800	218	198.5	526
	55 / 250M	550	406	80	17.5	794	420	100	1377	850	250	192	605
A10VSO140 DRS	22 / 180L	350	279	65	17.5	605	313	110	1218.5	620	319	177.5	313
	30 / 200L	400	318	80	17.5	673	360	110	1264	700	286	176	383
	37 / 225S	450	356	80	17.5	721	385	110	1307.5	800	232	173.5	521
	45 / 225M	450	356	80	17.5	721	385	110	1332.5	800	232	198.5	529
	55 / 250M	550	406	80	17.5	794	420	110	1394	850	250	192	610
A10VSO180 DRS	30 / 200L	400	318	80	17.5	673	360	110	1274	700	296	176	388
	37 / 225S	450	356	80	17.5	721	385	110	1317.5	800	242	173.5	526
	45 / 225M	450	356	80	17.5	721	385	110	1342.5	800	242	198.5	534
	55 / 250M	550	406	80	17.5	794	420	110	1404	850	260	192	615
A10VSO 45 LA6S	7.5 / 132M	300	216	50	13.5	422	235	91	875	480	196	117	209
A10VSO 71 LA6S	15 / 160L	350	254	65	17.5	569	293	104	1049	580	239	146	210
A10VSO100 LA6S	22 / 180L	350	279	65	17.5	605	313	100	1177.5	620	295	177.5	308
A10VSO140 LA6S	30 / 200L	400	318	80	17.5	673	360	110	1264	700	286	176	383
A10VSO180 LA6S	45 / 225M	450	356	80	17.5	721	385	110	1342.5	800	242	198.5	534

2D-drawing and 3D-model (STEP) available at http://www.boschrexroth.com/ics/abapg

Dimensions: Type ABAPG A10VSO SIEMENS

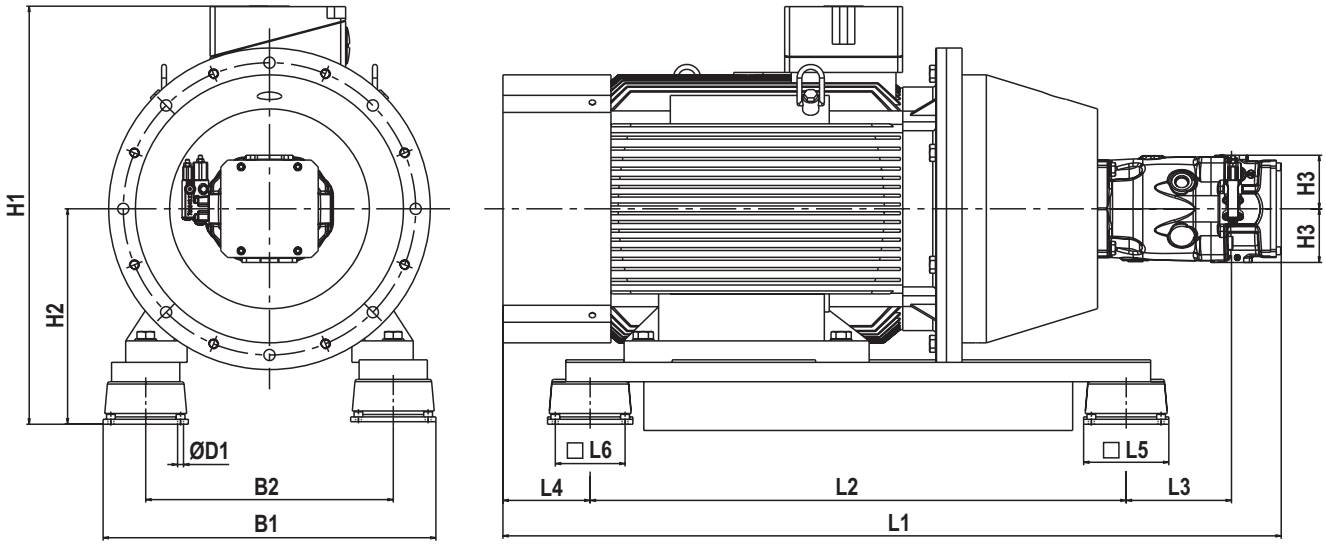
(dimensions in mm)



Pump	E-motor	Dimensions											Weight in kg
	KW / frame size	B1	B2	B3	ØD	H1	H2	H3	L1	L2	L3	L4	
A10VSO 45 DRS	11 / 160M	350	254	50	13.5	500	263	91	948	580	190	96	134
	15 / 160L	350	254	50	13.5	500	263	91	1008	580	190	156	131
	18.5 / 180M	350	279	65	17.5	575	313	91	1028	620	204	122	226
	22 / 180L	350	279	65	17.5	575	313	91	1058	620	204	152	261
	30 / 200L	400	318	65	17.5	638	338	91	1112.5	700	171	159.5	311
	37 / 225S	450	356	80	17.5	713	385	91	1123	800	127	114	385
A10VSO 71 DRS	15 / 160L	350	254	65	17.5	530	293	104	1059	580	239	156	151
	18.5 / 180M	350	279	65	17.5	575	313	104	1063	620	237	122	241
	22 / 180L	350	279	65	17.5	575	313	104	1093	620	237	152	276
	30 / 200L	400	318	80	17.5	660	360	104	1147.5	700	204	159.5	328
	37 / 225S	450	356	80	17.5	713	385	104	1152	800	154	114	401
	45 / 225M	450	356	80	17.5	713	385	104	1237	800	154	199	421
	55 / 250M	550	406	80	17.5	812	420	104	1276	850	172	170	552
A10VSO100 DRS	18.5 / 180M	350	279	65	17.5	575	313	100	1122	620	295	122	261
	22 / 180L	350	279	65	17.5	575	313	100	1152	620	295	152	296
	30 / 200L	400	318	80	17.5	660	360	100	1206.5	700	262	159.5	334
	37 / 225S	450	356	80	17.5	713	385	100	1217	800	218	114	425
	45 / 225M	450	356	80	17.5	713	385	100	1302	800	218	199	445
	55 / 250M	550	406	80	17.5	812	420	100	1355	850	250	170	577
A10VSO140 DRS	22 / 180L	350	279	65	17.5	575	313	110	1193	620	319	152	301
	30 / 200L	400	318	80	17.5	660	360	110	1247.5	700	286	159.5	353
	37 / 225S	450	356	80	17.5	713	385	110	1248	800	232	114	428
	45 / 225M	450	356	80	17.5	713	385	110	1333	800	232	199	448
	55 / 250M	550	406	80	17.5	812	420	110	1372	850	250	170	582
A10VSO180 DRS	30 / 200L	400	318	80	17.5	660	360	110	1257.5	700	296	127	358
	37 / 225S	450	356	80	17.5	713	385	110	1258	800	242	114	433
	45 / 225M	450	356	80	17.5	713	385	110	1343	800	242	199	453
	55 / 250M	550	406	80	17.5	812	420	110	1382	850	260	170	587
A10VSO 45 LA6S	7.5 / 132M	300	216	50	13.5	437	235	91	889	480	196	131	133
A10VSO 71 LA6S	15 / 160L	350	254	65	17.5	530	293	104	1059	580	239	156	151
A10VSO100 LA6S	22 / 180L	350	279	65	17.5	575	313	100	1152	620	295	152	296
A10VSO140 LA6S	30 / 200L	400	318	80	17.5	660	360	110	1247.5	700	286	159.5	353
A10VSO180 LA6S	45 / 225M	450	356	80	17.5	713	385	110	1343	800	242	199	453

2D-drawing and 3D-model (STEP) available at http://www.boschrexroth.com/ics/abapg

Dimensions: Type ABAPG A10VSO HOYER-MOTORS, SIEMENS from 75 kW
(dimensions in mm)



ABAPG with motor supplier HOYER-MOTORS

Pump	E-motor	Dimensions												Weight in kg
	KW / frame size	B1	B2	ØD1	H1	H2	H3	L1	L2	L3	L4	L5	L6	
A10VSO100 DRS	75 / 280S	590	457	11.9	783	380	100	1438	900	283	170	133	108	805
	90 / 280M	590	457	11.9	783	380	100	1490	900	283	222	133	108	905
A10VSO140 DRS	75 / 280S	590	457	11.9	783	380	110	1472	900	300	177	133	108	817
	90 / 280M	590	457	11.9	783	380	110	1524	900	300	222	133	108	917
	110 / 315S	683	508	13.5	989	442	110	1779	1100	201	376	175	143	1292
A10VSO180 DRS	75 / 280S	590	457	11.9	783	380	110	1482	900	310	170	133	108	822
	90 / 280M	590	457	11.9	783	380	110	1534	900	310	222	133	108	922
	110 / 315S	683	508	13.5	989	442	110	1789	1100	211	376	175	143	1297
	132 / 315M	683	508	13.5	989	442	110	1899	1100	211	486	175	143	1570

ABAPG with motor supplier Siemens

Pump	E-motor	Dimensions												Weight in kg
	KW / frame size	B1	B2	ØD1	H1	H2	H3	L1	L2	L3	L4	L5	L6	
A10VSO100 DRS	75 / 280S	590	457	11.9	812	380	100	1429	900	283	161	133	108	747
	90 / 280M	590	457	11.9	812	380	100	1539	900	283	271	133	108	747
A10VSO140 DRS	75 / 280S	590	457	11.9	812	380	110	1463	900	300	161	133	108	759
	90 / 280M	590	457	11.9	812	380	110	1573	900	300	271	133	108	759
	110 / 315S	683	508	13.5	942	442	110	1584	1100	201	181	175	143	1030
A10VSO180 DRS	75 / 280S	590	457	11.9	812	380	110	1473	900	310	161	133	108	764
	90 / 280M	590	457	11.9	812	380	110	1583	900	310	271	133	108	764
	110 / 315S	683	508	13.5	942	442	110	1594	1100	211	181	175	143	1035
	132 / 315M	683	508	13.5	942	442	110	1759	1100	211	346	175	143	1085

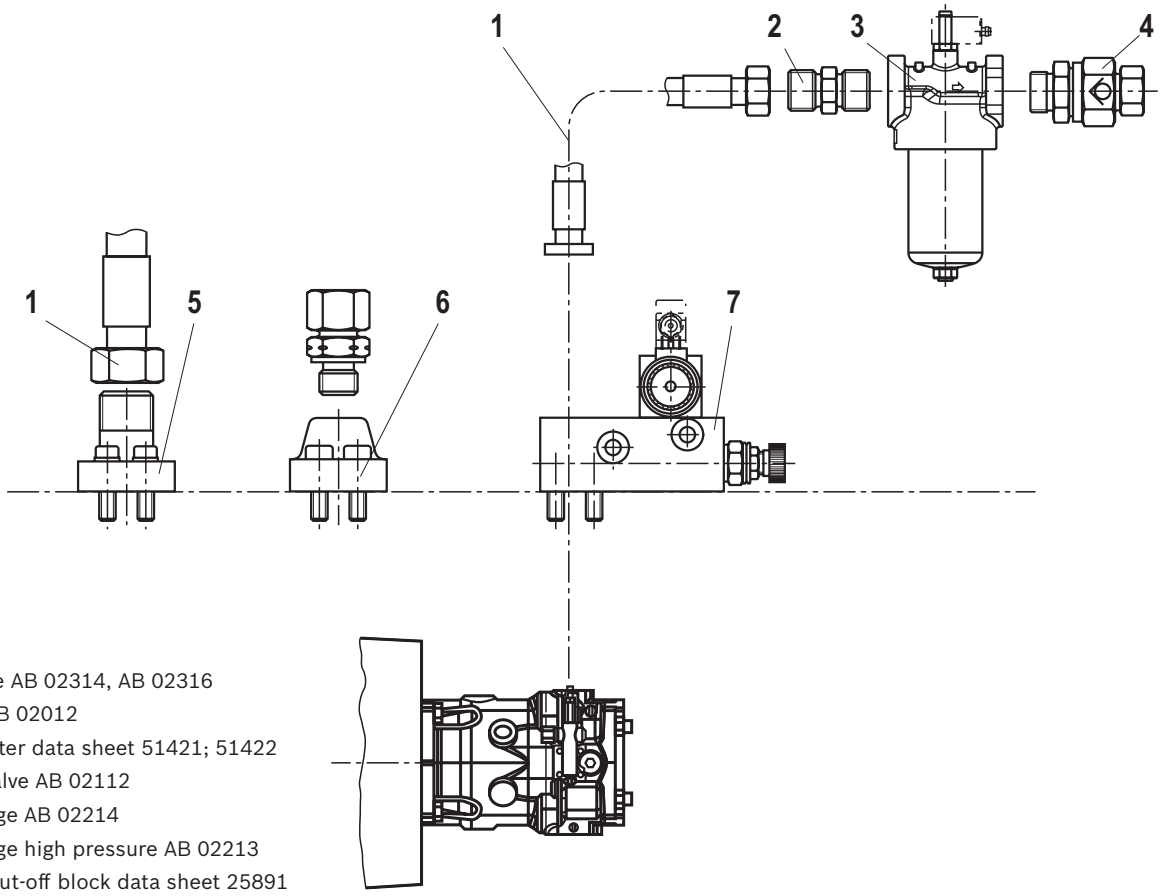
2D-drawing and 3D-model (STEP) available at http://www.boschrexroth.com/ics/abapg

Pressure line connections

Pump type	Line connections			
	Pressure connection P(B)	Suction port S	Leakage oil connection L / L1	Pilot oil port X
A10VSO 45	DIN/ISO 6162-1 1"	DIN/ISO 6162-1 1 1/2"	DIN 3852 – M22x1.5	DIN 3852 – M14x1.5
A10VSO 71	DIN/ISO 6162-1 1"	DIN/ISO 6162-1 2"	DIN 3852 – M22x1.5	DIN 3852 – M14x1.5
A10VSO100	DIN/ISO 6162-2 1 1/4"	DIN/ISO 6162-1 2 1/2"	DIN 3852 – M33x2	DIN 3852 – M14x1.5
A10VSO140	DIN/ISO 6162-2 1 1/4"	DIN/ISO 6162-1 2 1/2"	DIN 3852 – M33x2	DIN 3852 – M14x1.5
A10VSO180	DIN/ISO 6162-2 1 1/4"	DIN/ISO 6162-1 2 1/2"	DIN 3852 – M33x2	DIN 3852 – M14x1.5

Standard pressure SAE flange figure with metric mounting screws
High pressure SAE flange figure with metric mounting screws

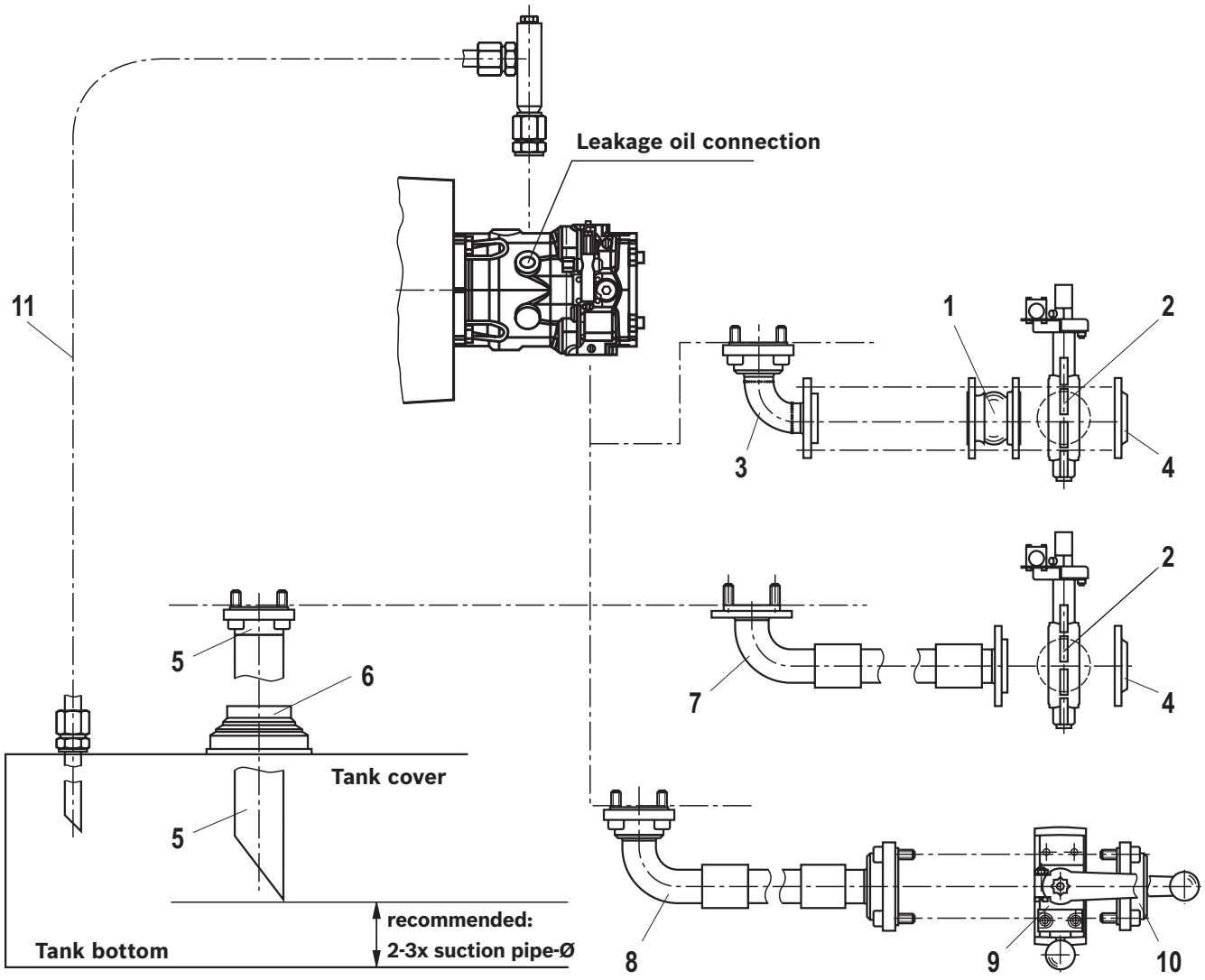
Optional accessories at the pressure connection



1 Hose line AB 02314, AB 02316
2 Fitting AB 02012
3 In-line filter data sheet 51421; 51422
4 Check valve AB 02112
5 SAE flange AB 02214
6 SAE flange high pressure AB 02213
7 Pump shut-off block data sheet 25891

Items 1 to 7 as optional accessories upon request

Optional accessories at the suction port and leakage oil connection

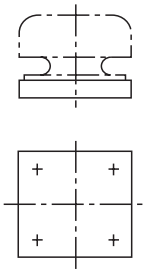


1 Compensator DIN AB 02231
2 Shut-off valve DIN AB 02129
3 Flange bend SAE–DIN AB 02229
4 DIN flange AB 02204
5 Suction pipe AB 02303
6 Elastic pipe fitting AB 01203
7 Suction tube SAE–DIN AB 02315
8 Suction tube SAE–SAE AB 02315
9 Shut-off valve SAE (on request)
10 SAE flange AB 02215
11 Drain line

Items 1 to 11 as optional accessories upon request

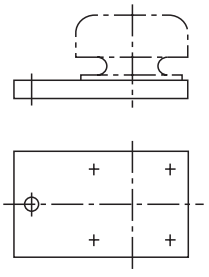
Optional accessories for damping bearing according to AB33-11 (from 75 kW)

Accessories: plate



Weld-on plate

Accessories: clip



Clip for foundation installation

Instructions for transport, installation, commissioning, operation and maintenance

1. General safety instructions

⚠ WARNING!	
Risk of injury and property damage due to improper handling of the product If the module is not properly installed, used and maintained, personal injury and damage can occur to the module or system.	▶ Installation, adjustment, maintenance and repair of the module may only be performed by authorized, trained and qualified personnel.

Please note:

- ▶ The module may only be used in accordance with the data described in the product documentation!
- ▶ Unauthorized modifications or changes which affect the safety and proper function are not permitted!
- ▶ Existing protective devices must not be removed.
- ▶ The general safety and accident prevention regulations must be observed!

2. Transportation and storage

Transport

⚠ WARNING!	
Risks of injury caused by tumbling, falling or uncontrolled movement of the module! The module can lose its stability in cases of improper transport and thereby tip over, fall or move in an uncontrolled manner. ▶ Be aware of the module weight. ▶ Place the product on a suitable foundation/ ground. ▶ Before removing the existing auxiliary structure make additional suitable measures (e.g. by fasteners or with the help of cranes) for the adequate stability of the module. ▶ Only the intended attachment points should be used for fastening or lifting the module (see Fig.). ▶ Modules are never to be are attached or raised on the established components (pipes, hoses, control blocks, accumulator, etc.). ▶ Observe the maximum load-bearing capacity of the attachment devices and floor conveyors. ▶ Ensure that no unauthorized persons are within the danger zone.	

- ▶ The module must not be raised on the fan cover of the motor.
- ▶ The eye bolts of the motor must not be used for lifting the module. They are only intended for lifting the motor without additional attachments.
- ▶ Auxiliary eyelets e.g. on fan covers and cooler attachments, are also suitable for lifting the corresponding items must not be used for the transport of the module.

Instructions for transport, installation, commissioning, operation and maintenance

Storage

In general it is recommended that the modules are stored as follows until actual installation date:

- in the original packaging
- dry and dust-free
- at room temperature
- free of vibrations and oscillations
- protected from light and direct sunlight

3. Assembly and installation

- Position the module as indicated in the dimensions.
- Attach the product to the designated locations as specified in the dimensions .
- Always depressurize and deenergize the relevant plant part before assembling the module.
- Ground the module before connecting and establish equipotential bonding using an equalization strip.
- Always ensure absolute cleanliness.

⚠ WARNING!

Risk of death by electric shock! Working in the areas of live parts is extremely dangerous.
Work at the electric system may only be performed by a specialized electrician. Electricians tools (VDE tools) are strictly required.

- Using a suitable measuring device, check before the beginning of the work whether parts of the system are still under residual voltage (e.g. with capacitors). Wait until they have discharged.

- Electrical wiring work must be performed by trained specialist personnel in accordance with local regulations!
- Before starting work, make sure that all electrical connections are switched off and cannot be switched back on again. This also applies to auxiliary circuits such as space heaters.
- The connections must be made such that a continuous and safe electrical connection is ensured. This applies equally to power and ground connections.
- Wiring diagrams for the power and accessory connections (e.g. PTC thermistors, heating) are located in the terminal box.
- Make sure that the terminal box is clean and dry.
- Unused cable entry glands must be closed off.
- Check the terminal box seal before refitting.

Instructions for transport, installation, commissioning, operation and maintenance

4. Commissioning

- Before initial operation the pump must be vented and primed in order to protect internal components from damage.
- When commissioning or re-commissioning machinery or a system, you should ensure that the tank, as well the suction line and the pressure line of the module are filled with oil according to the manufacturer's instructions and remain filled during operation.
- Check the direction of rotation of the motor.
- Ensure that the suction pressure does not fall below the specified minimum.

☞**Notice:**
The module will be damaged by polluted oil!
Polluted oil could result in wear and malfunctions.
In particular, foreign matter in the suction line such as welding globules and metallic swarf can damage the module.

- During commissioning, absolute cleanliness must be ensured.
- When connecting the measuring terminals ensure that no contaminants infiltrate the module.
- In order to guarantee functional safety, at least cleanliness class 20/18/15 in accordance with ISO 4406 is necessary.
  Brand-name hydraulic oils are recommended.

⚠ CAUTION!

Commissioning an incorrectly installed product!
Risk of injury and damage to property!

- Make sure that all electrical and hydraulic connections are either connected or closed.
- Only take a fully installed product with original accessories from Bosch Rexroth into operation.

5. Operation

The product is a module which does not require any settings or modifications during operation. As a result, this chapter of the instructions does not contain any information on adjustment options.

Only use the product within the performance range provided in the technical data. The machine manufacturer is responsible for the correct project planning of the module and its control.

6. Maintenance

Maintenance

- Only genuine spare parts from Bosch Rexroth are permitted.

Cleaning and care

- Always ensure absolute cleanliness when working at the product.
- Do not use high-pressure washers for cleaning.
- Tightly seal openings such as inspection holes with suitable protective devices and verify that all gaskets and seals on electrical connections are secure so that no detergent can penetrate into the product.
- Never use solvents or aggressive cleaning agents.
- Cleaning intervals depend on the degree of contamination occurring locally.

Necessary and amending documentation

▶ Axial piston-variable displacement pump A4VSO, A10VO, A10VSO, ...	Operating instructions	92714-01-B
▶ Axial piston variable displacement pumps A10VSO series 32	Data sheet	92714
▶ Pump control block PSBD 02	Data sheet	62300
▶ Pump safety block type DBA, DBAW	Data sheet	25880
▶ Pump control block PSBD 02	Data sheet	62300
▶ Pump safety block type DBA, DBAW	Data sheet	25880
▶ Motor-pump groups -IE2- A10VSO series 31/52	Data sheet	51170
▶ Motor-pump groups -IE2- PV7	Data sheet	51171
▶ Motor-pump groups -IE2- A4VSO series 10/30	Data sheet	51172
▶ Motor-pump groups -IE2- A10VSO series 32	Data sheet	51174
▶ Motor-pump groups -IE2- PGZ	Data sheet	51175
▶ Motor-pump groups -IE3- A10VSO series 31/52	Data sheet	51180
▶ Motor-pump groups -IE3- PV7	Data sheet	51181
▶ Motor-pump groups -IE3- A4VSO series 10/30	Data sheet	51182
▶ Motor-pump groups -IE3- A10VSO series 32	Data sheet	51184
▶ General Operating Instructions for Hydraulic Power Units and Assemblies	Operating instructions	07009-B

The documents are available in the Internet under www.boschrexroth.comin the area of Training/Media/Media Directory or from your local distributor.

Notes

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It must be remembered that our products are subject to a natural process of wear and aging.

Bosch Rexroth AG, RE 51184, edition: 2015-02

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