

Motor/pump group

RE 51170/03.12

1/18

Type ABAPG and ABHPG

with pump type: A10VSO
 Series 52: Size 10
 Series 31: Sizes 18 to 140
 Electric motor frame size 100L to 315S



H7890+7894

Table of contents

Contents	Page
Features	1
Ordering code	2
Set-up of the motor/pump group	2
Technical data	3
Circuit diagrams	4, 5
Performance characteristic	6
Standard program incl. preferred types	6...8
Unit dimensions	9...15
Pressure line connections	16
Optional accessories	16, 17
Installation information	18
Commissioning, maintenance and operating instructions	18

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) 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 axial piston pump A10VSO (variable displacement pump)
 - Adjustment DFR1 (pressure flow controller) and DFLR (pressure flow power controller)

Ordering code

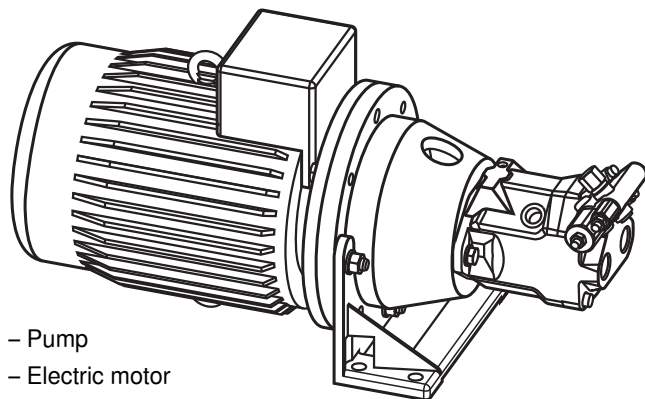
-A10VSO		V P	/	CB	4	5	2	3/S	E	HOY
Assembly with motor design... B35 = ABAPG B5 = ABHPG										Motor supplier HOY = Hoyer Motors (preferred) SIE = Siemens VEM = VEM
Pump type Axial piston pump A10VSO = A10VSO according to data sheet 92703 with size 10 and 92711 size 18-140										Version damping bearing E = elastic damping bearing
Displacement 10 ... 140 cm ³ per rotation = 10 ... 140										Pump carrier design S = rigid pump carrier AB 03337
Control and adjustment device e. g. Pressure/flow controller = DFR1 Pressure/flow power controller = DFLR										Motor protection 3 = PTC resistor with 3 temperature sensors
Seal material (according to DIN ISO 1629) FKM = V										Efficiency class 2 = IE 2
Shaft end version Cylindrical with key DIN 6885 = P										Rated frequency 5 = 50 Hz
Connection flange ISO 2-hole = A ISO 4-hole = B										Rated voltage CB = 400 / 690 at 50 Hz
										Motor power 3 ... 110 = 3 kW ... 110 kW

Order example:

ABAPG-A10VSO 28DFR1VPA/18,5CB4523/SE HOY

Set-up of the motor/pump group

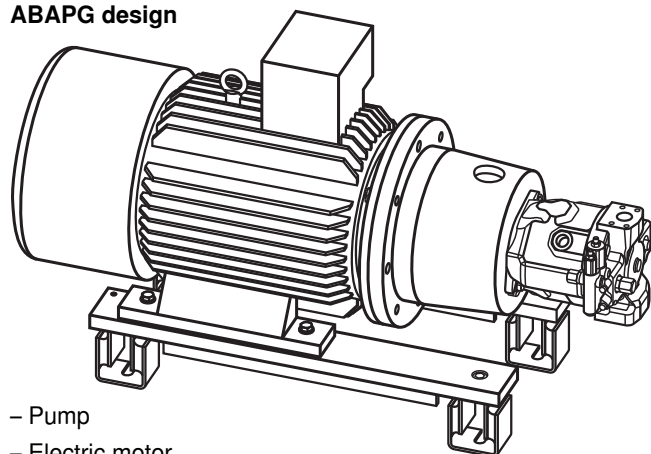
ABHPG design



- Pump
- Electric motor
- Pump carrier
- Coupling
- Pump base

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

ABAPG design



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

Use of this design is particularly recommended for requirements on low noise levels
 Min. power 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 16		
Hydraulic fluid	Mineral oil HLP according to DIN 51524; part 2 e. g. with operating temperature 50 °C ISO VG46 DIN 3448 (other hydraulic fluids upon request!) <ul style="list-style-type: none"> • Please observe our specifications according to data sheet 90220, 90221, 90223. • Different oil types must not be mixed as this may result in degradation and deterioration of the lubricity. • According to the operating conditions, the fluid must be renewed at certain intervals. 		
Pump type	A10VS010 series 52 according to data sheet 92703 A10VSO18-140 series 31 according to data sheet 92711 R = clockwise		
Operating pressure, absolute			
– Input	$p_{\min\text{-max}}$	bar	0.8 to 10
– Output	p_{nom}	bar	280 and/or 250 for A10VS010
– Peak pressure	p_{max}	bar	350 and/or 315 for A10VSO18-140
– Leakage port	p_{max}	bar	2
Hydraulic fluid temperature range, observe viscosity range	ϑ		–25 to +90
– T_{optimal} with HLP 46 (DIN 51524)	ϑ	°C	+45 to +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 50126 (ABUKG) and 50111 (KOL/KOLP).			
Cleanliness classes according to ISO code	Maximum admissible degree of contamination of the hydraulic fluid according to ISO 4406 (c) according to the pump type used ¹⁾ . At least cleanliness class 20/18/15 must be achieved.		
Viscosity range	ϑ	mm ² /s	16 to 36 optimal 10 to 1000 shortly (see data sheets 92703, 92711)
Electric motor	– Motor type	Three-phase asynchronous motor	
	– Efficiency class	IE2	
	– Number of pole pairs	4	
	– Voltage according to IEC 38 U	V	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 parts and components are at least provided with a 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 service life of the components.

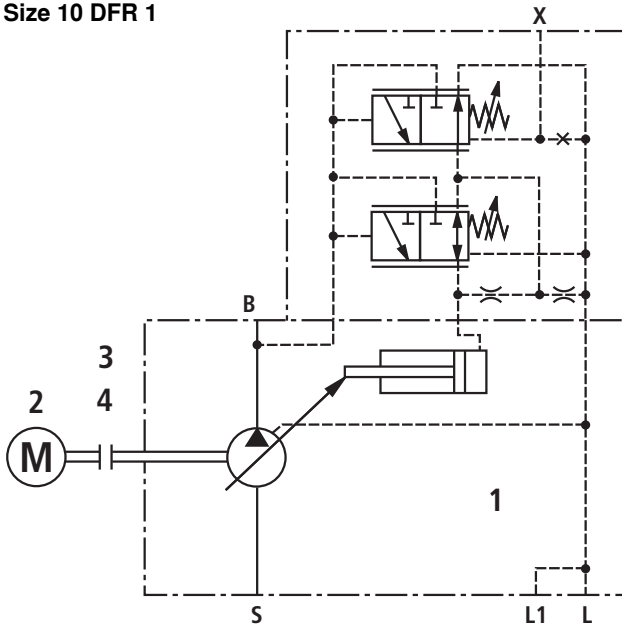
For selecting the filters, see data sheet 51501.

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

Circuit diagrams

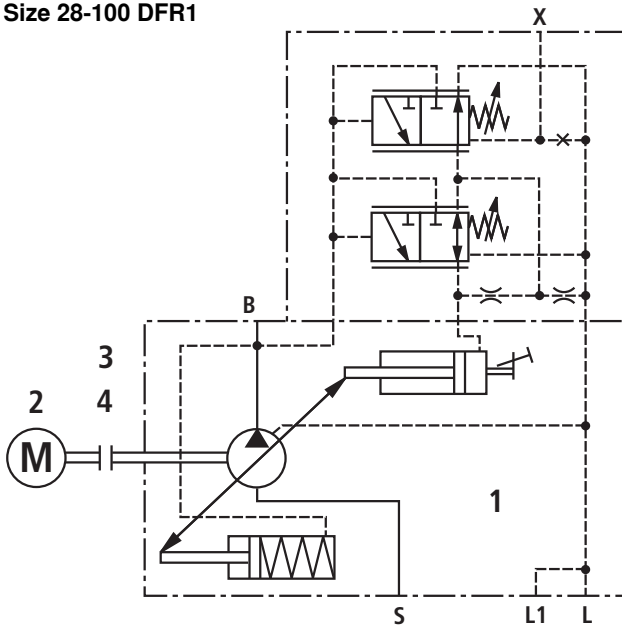
Axial piston pump (basic design)

Size 10 DFR 1

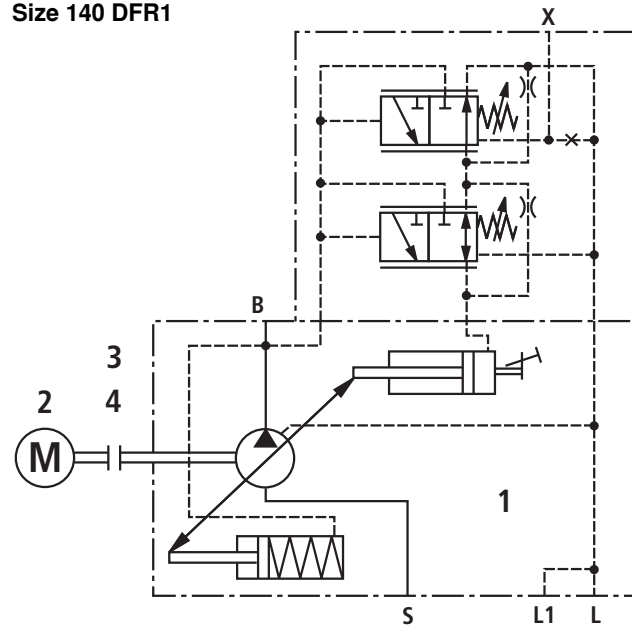


- 1 Axial piston pump A10VSO
- 2 Electric motor
- 3 Pump carrier
- 4 Coupling

Size 28-100 DFR1



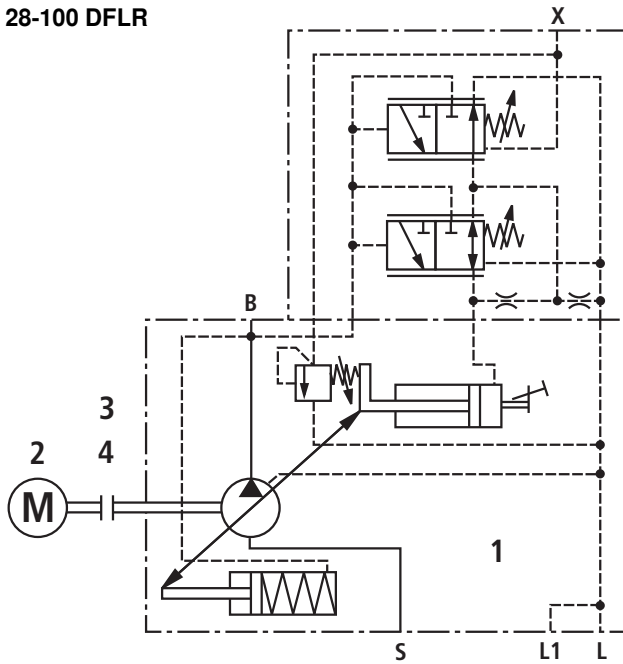
Size 140 DFR1



Circuit diagrams

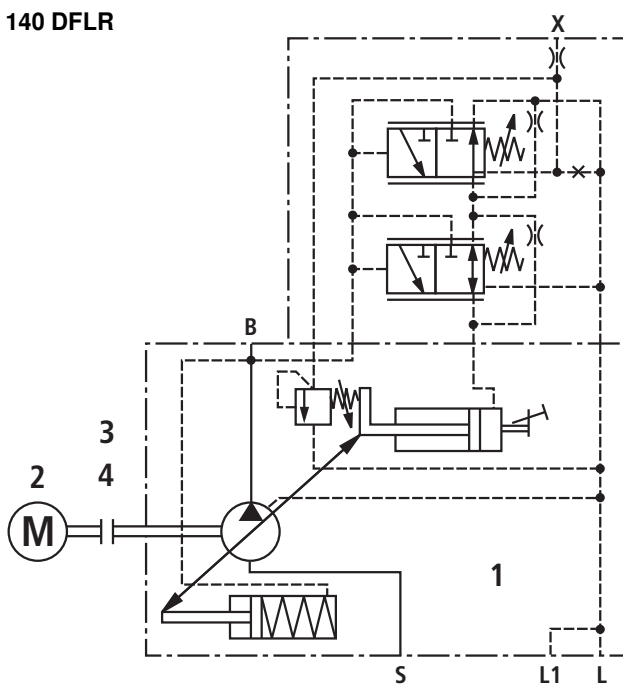
Axial piston pump with pressure/flow power controller (basic design)

28-100 DFLR



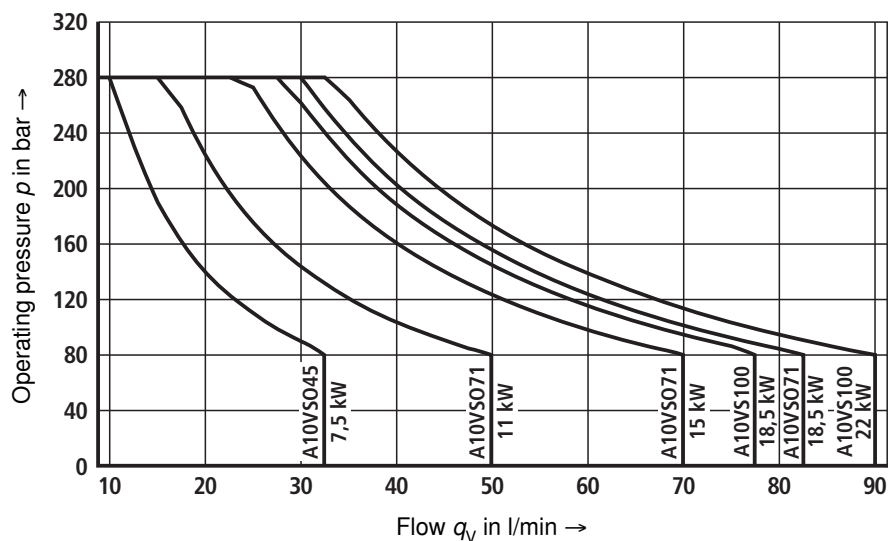
- 1 Axial piston pump A10VSO
- 2 Electric motor
- 3 Pump carrier
- 4 Coupling

140 DFLR



Performance characteristic

Axial piston pump with power controller measured at $n = 1450 \text{ min}^{-1}$
(factory setting)



☞ For the project planning, please use the performance characteristic from data sheet 92711.

Standard program incl. preferred types ABHPG-A10VSO ¹⁾

Frequency	50 Hz		Electric motor frame size	ABHPG material no. (motor B5)						
	1450 min ⁻¹			50 Hz		HOYER-MOTORS	MKZ ²⁾	VEM	MKZ ²⁾	SIEMENS
Pump	$q_{v \max}$ in l/min	p_{\max} in bar	Power in kW							
A10VSO10DFR1	14	60	3.00	100L	R901305003	A3	R901304991	A3	R901305015	A3
		92	4.00	112M	R901305004	A3	R901304992	A3	R901305016	A3
		139	5.50	132S	R901305006	A3	R901304993	A3	R901305018	A3
		203	7.50	132M	R901305007	A3	R901304994	A3	R901305019	A3
A10VSO18DFR1	25	41	3.00	100L	R901305008	A3	R901304995	A3	R901305020	A3
		58	4.00	112M	R901305009	A2	R901304996	A3	R901305021	A3
		98	5.50	132S	R901305010	A3	R901304997	A3	R901305022	A3
		137	7.50	132M	R901305011	A3	R901304998	A3	R901305023	A3
A10VSO28DFR1	38	66	5.50	132S	R901305012	A3	R901304999	A3	R901305024	A3
		93	7.50	132M	R901305013	A3	R901305000	A3	R901305025	A3
A10VSO45DFR1	62	48	7.50	132M	R901305014	A3	R901305002	A3	R901305026	A3
A10VSO45DFLR	62	48	7.50	132M	R901305911	A3	R901305913	A3	R901305912	A3

¹⁾ Pump manifold possible without special design.

²⁾ MKZ = Material mark

A2 = Preferred delivery range

A3 = Standard delivery range unit dimensions see page 9-15

Standard program incl. preferred types ABAPG-A10VSO

Frequency	50 Hz 1450 min ⁻¹	50 Hz 1450 min ⁻¹	Electric motor frame size	ABAPG material no. (motor B35)						
				Pump	$q_{v \max}$ in l/min	p_{\max} in bar	Power in kW	HOYER- MOTORS	MKZ 1)	VEM
A10VSO10DFR1	14	139	5.50	132S	R901305071	A3	R901305027	A3	R901305115	A3
		203	7.50	132M	R901305072	A3	R901305028	A3	R901305116	A3
A10VSO18DFR1	25	98	5.50	132S	R901305073	A3	R901305029	A3	R901305117	A3
		137	7.50	132M	R901305074	A2	R901305030	A3	R901305118	A3
		229	11.00	160M	R901305075	A2	R901305031	A3	R901305119	A3
		280	15.00	160L	R901305076	A3	R901305032	A3	R901305120	A3
A10VSO28DFR1	39	66	5.50	132S	R901305077	A3	R901305033	A3	R901305121	A3
		93	7.50	132M	R901305079	A3	R901305034	A3	R901305122	A3
		150	11.00	160M	R901305080	A2	R901305035	A3	R901305123	A3
		212	15.00	160L	R901305081	A2	R901305037	A3	R901305124	A3
		263	18.50	180M	R901305082	A3	R901305038	A3	R901305125	A3
		280	22.00	180L	R901305083	A3	R901305039	A3	R901305126	A3
A10VSO45DFR1	62	48	7.50	132M	R901305084	A3	R901305040	A3	R901305127	A3
		79	11.00	160M	R901305085	A3	R901305041	A3	R901305128	A3
		117	15.00	160L	R901305086	A2	R901305042	A3	R901305129	A3
		147	18.50	180M	R901305087	A3	R901305043	A3	R901305130	A3
		182	22.00	180L	R901305088	A3	R901305044	A3	R901305131	A3
		262	30.00	200L	R901305089	A3	R901305045	A3	R901305132	A3
		280	37.00	225S	R901305090	A3	R901305046	A3	R901305133	A3
A10VSO71DFR1	98	48	11.00	160M	R901305091	A3	R901305047	A3	R901305134	A3
		72	15.00	160L	R901305092	A3	R901305048	A3	R901305135	A3
		91	18.50	180M	R901305093	A3	R901305049	A3	R901305136	A3
		109	22.00	180L	R901305094	A2	R901305050	A3	R901305137	A3
		156	30.00	200L	R901305095	A3	R901305051	A3	R901305138	A3
		197	37.00	225S	R901305096	A3	R901305052	A3	R901305139	A3
		244	45.00	225M	R901305097	A3	R901305053	A3	R901305140	A3
		280	55.00	250M	R901305098	A3	R901305054	A3	R901305141	A3
A10VSO100DFR1	138	61	18.50	180M	R901305099	A3	R901305055	A3	R901305142	A3
		73	22.00	180L	R901305100	A3	R901305056	A3	R901305143	A3
		107	30.00	200L	R901305101	A3	R901305057	A3	R901305144	A3
		136	37.00	225S	R901305102	A3	R901305058	A3	R901305145	A3
		170	45.00	225M	R901305103	A2	R901305059	A3	R901305146	A3
		208	55.00	250M	R901305104	A3	R901305060	A3	R901305147	A3
		280	75.00	280S	R901305105	A3	R901305061	A3	R901305148	A3
		280	90.00	280M	R901305106	A3	R901305062	A3	R901305150	A3
A10VSO140DFR1	193	53	22.00	180L	R901305107	A3	R901305063	A3	R901305152	A3
		74	30.00	200L	R901305108	A3	R901305064	A3	R901305153	A3
		94	37.00	225S	R901305109	A3	R901305065	A3	R901305154	A3
		119	45.00	225M	R901305110	A3	R901305066	A3	R901305155	A3
		146	55.00	250M	R901305111	A3	R901305067	A3	R901305156	A3
		205	75.00	280S	R901305112	A3	R901305068	A3	R901305157	A3
		246	90.00	280M	R901305113	A3	R901305069	A3	R901305158	A3
		280	110.00	315S	R901305114	A3	R901305070	A3	R901305159	A3
A10VSO45DFLR	62	48	7.50	132M	R901305869	A3	R901305863	A3	R901305875	A3
A10VSO71DFLR	98	48	11.00	160M	R901305870	A3	R901305864	A3	R901305876	A3
		72	15.00	160L	R901305871	A3	R901305865	A3	R901305878	A3
		91	18.50	180M	R901305872	A3	R901305866	A3	R901305879	A3
A10VSO100DFLR	138	61	18.50	180M	R901305873	A3	R901305867	A3	R901305880	A3
		73	22.00	180L	R901305874	A3	R901305868	A3	R901305881	A3

1) MKZ = Material mark

A3 = Standard delivery range unit dimensions see page 9-15

A2 = Preferred delivery range;

Standard program incl. preferred types ABAPG-A10VSO designed for pump manifold block ¹⁾

Frequency	50 Hz 1450 min ⁻¹		50 Hz 1450 min ⁻¹	Electric motor frame size	ABAPG material no. (motor B35) for PSBD					
	Pump	$q_{v \max}$ in l/min			p_{\max} in bar	Power in kW	HOYER- MOTORS	MKZ 2)	VEM	MKZ 2)
A10VSO18DFR1	25	98	5.50	132S	R901305222	A3	R901305167	A3	R901305264	A3
		137	7.50	132M	R901305223	A3	R901305169	A3	R901305265	A3
		229	11.00	160M	R901305224	A3	R901305170	A3	R901305266	A3
		280	15.00	160L	R901305225	A3	R901305171	A3	R901305267	A3
A10VSO28DFR1	39	66	5.50	132S	R901305226	A3	R901305172	A3	R901305268	A3
		93	7.50	132M	R901305227	A3	R901305174	A3	R901305269	A3
		150	11.00	160M	R901305228	A3	R901305175	A3	R901305270	A3
		212	15.00	160L	R901305229	A3	R901305176	A3	R901305271	A3
		263	18.50	180M	R901305230	A3	R901305178	A3	R901305272	A3
		280	22.00	180L	R901305231	A3	R901305180	A3	R901305273	A3
A10VSO45DFR1	62	48	7.50	132M	R901305232	A3	R901305181	A3	R901305274	A3
		79	11.00	160M	R901305233	A3	R901305182	A3	R901305275	A3
		117	15.00	160L	R901305234	A3	R901305184	A3	R901305277	A3
		147	18.50	180M	R901305235	A3	R901305185	A3	R901305278	A3
		182	22.00	180L	R901305236	A3	R901305186	A3	R901305279	A3
		262	30.00	200L	R901305237	A3	R901305187	A3	R901305280	A3
		280	37.00	225S	R901305239	A3	R901305189	A3	R901305281	A3
A10VSO71DFR1	98	48	11.00	160M	R901305240	A3	R901305190	A3	R901305282	A3
		72	15.00	160L	R901305241	A3	R901305192	A3	R901305283	A3
		91	18.50	180M	R901305242	A3	R901305193	A3	R901305284	A3
		109	22.00	180L	R901305243	A3	R901305194	A3	R901305285	A3
		156	30.00	200L	R901305244	A3	R901305196	A3	R901305286	A3
		197	37.00	225S	R901305245	A3	R901305199	A3	R901305287	A3
		244	45.00	225M	R901305246	A3	R901305200	A3	R901305288	A3
280	55.00	250M	R901305247	A3	R901305202	A3	R901305289	A3		
A10VSO100DFR1	138	61	18.50	180M	R901305248	A3	R901305203	A3	R901305290	A3
		73	22.00	180L	R901305249	A3	R901305204	A3	R901305291	A3
		107	30.00	200L	R901305250	A3	R901305205	A3	R901305292	A3
		136	37.00	225S	R901305251	A3	R901305206	A3	R901305294	A3
		170	45.00	225M	R901305252	A3	R901305207	A3	R901305295	A3
		208	55.00	250M	R901305253	A3	R901305208	A3	R901305296	A3
		280	75.00	280S	R901305254	A3	R901305209	A3	R901305298	A3
A10VSO140DFR1	193	53	22.00	180L	R901305256	A3	R901305212	A3	R901305300	A3
		74	30.00	200L	R901305257	A3	R901305213	A3	R901305301	A3
		94	37.00	225S	R901305258	A3	R901305214	A3	R901305302	A3
		119	45.00	225M	R901305259	A3	R901305215	A3	R901305303	A3
		146	55.00	250M	R901305260	A3	R901305216	A3	R901305304	A3
		205	75.00	280S	R901305261	A3	R901305217	A3	R901305305	A3
		246	90.00	280M	R901305262	A3	R901305218	A3	R901305306	A3
		280	110.00	315S	R901305263	A3	R901305219	A3	R901305307	A3
A10VSO45DFLR	62	48	7.50	132M	R901305888	A3	R901305882	A3	R901305894	A3
A10VSO71DFLR	98	48	11.00	160M	R901305889	A3	R901305883	A3	R901305895	A3
		72	15.00	160L	R901305890	A3	R901305884	A3	R901305896	A3
		91	18.50	180M	R901305891	A3	R901305885	A3	R901305897	A3
A10VSO100DFLR	138	61	18.50	180M	R901305892	A3	R901305886	A3	R901305898	A3
		73	22.00	180L	R901305893	A3	R901305887	A3	R901305899	A3

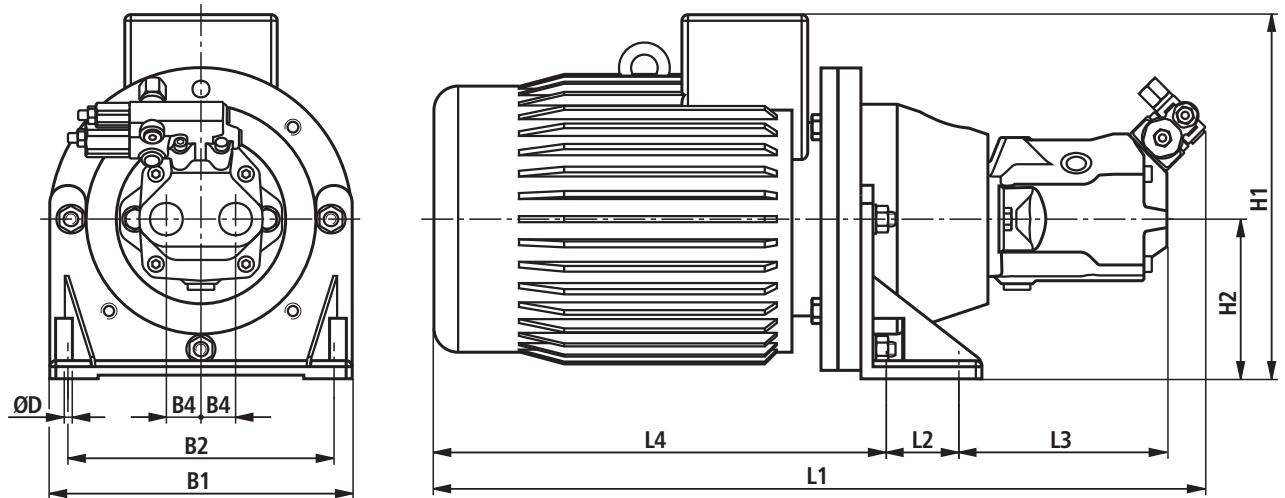
¹⁾ Pump manifold block must be ordered separately.²⁾ MKZ = Material mark

A2 = Preferred delivery range

A3 = Standard delivery range unit dimensions see page 9-15

Unit dimensions: Type ABHPG A10VSO 10 HOYER-MOTORS, VEM, SIEMENS

(nominal dimensions in mm)



ABHPG with motor supplier HOYER-MOTORS

Pump	Electric motor	Dimensions									
	kW / frame size	B1	B2	B4	ØD	H1	H2	L1	L2	L3	L4
A10VSO 10	3.0 / 100L	250	220	28.6	14.0	279	132	644	60	172	380
	4.0 / 112M	250	220	28.6	14.0	301	132	638	60	172	374
	5.5 / 132S	300	260	28.6	14.0	348	160	706	80	172	422
	7.5 / 132M	300	260	28.6	14.0	348	160	769	80	172	505

ABHPG with motor supplier VEM

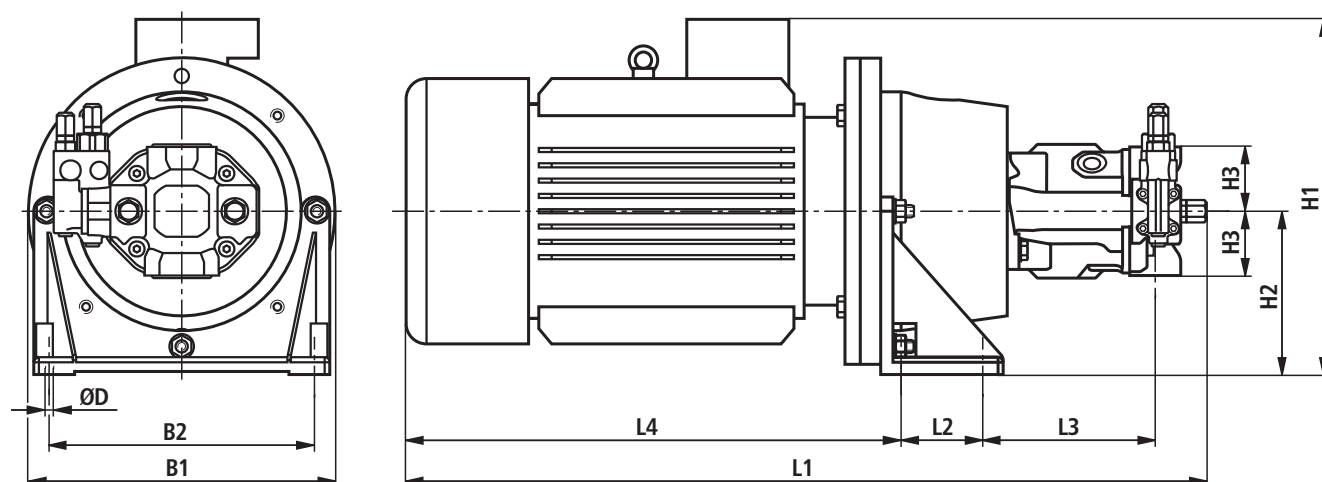
Pump	Electric motor	Dimensions									
	kW / frame size	B1	B2	B4	ØD	H1	H2	L1	L2	L3	L4
A10VSO 10	3.0 / 100L	250	220	28.6	14.0	256	132	665	60	172	401
	4.0 / 112M	250	220	28.6	14.0	310	132	703	60	172	419
	5.5 / 132S	300	260	28.6	14.0	359	160	773	80	172	509
	7.5 / 132M	300	260	28.6	14.0	359	160	773	80	172	509

ABHPG with motor supplier SIEMENS

Pump	Electric motor	Dimensions									
	kW / frame size	B1	B2	B4	ØD	H1	H2	L1	L2	L3	L4
A10VSO 10	3.0 / 100L	250	220	28.6	14.0	298	132	640	60	172	376
	4.0 / 112M	250	220	28.6	14.0	309	132	633	60	172	369
	5.5 / 132S	300	260	28.6	14.0	362	160	709	80	172	445
	7.5 / 132M	300	260	28.6	14.0	362	160	709	80	172	445

Unit dimensions: Type ABHPG A10VSO 18 – 45 HOYER-MOTORS, VEM, SIEMENS

(nominal dimensions in mm)

**ABHPG with motor supplier HOYER-MOTORS**

Pump	Electric motor	Dimensions									
	kW / frame size	B1	B2	ØD	H1	H2	H3	L1	L2	L3	L4
A10VSO 18	3.0 / 100L	250	220	14.0	279	132	63	659	60	169	380
	4.0 / 112M	250	220	14.0	301	132	63	653	60	169	374
	5.5 / 132S	300	260	14.0	348	160	63	721	80	169	422
	7.5 / 132M	300	260	14.0	348	160	63	784	80	169	485
A10VSO 28	5.5 / 132S	300	260	14.0	348	160	80	743	80	199	422
	7.5 / 132M	300	260	14.0	348	160	80	806	80	199	485
A10VSO 45	7.5 / 132M	300	260	14.0	348	160	90	824	80	219	485

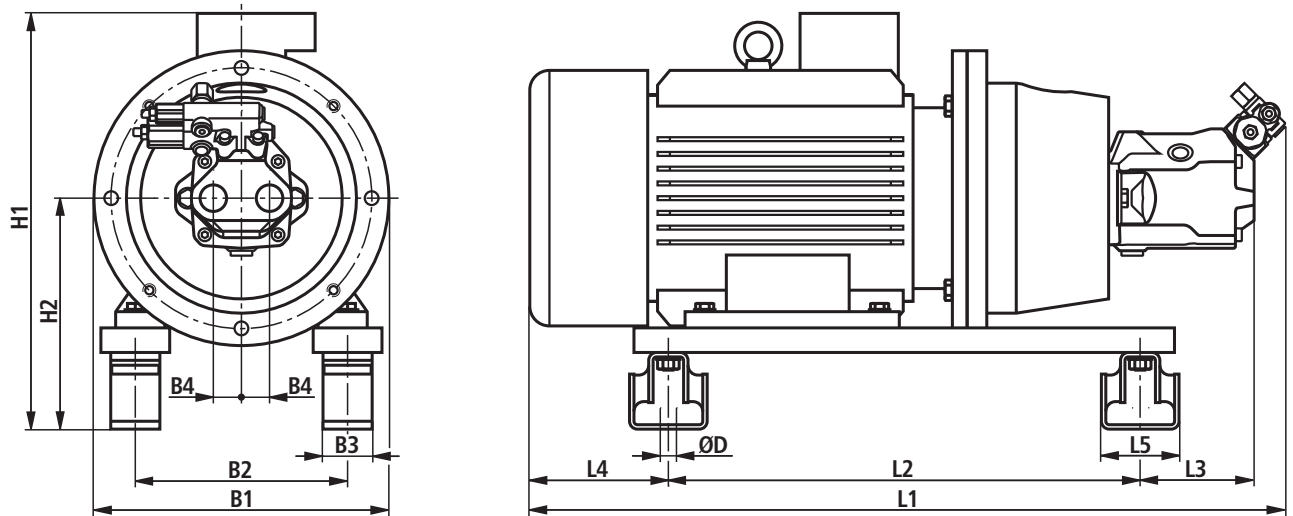
ABHPG with motor supplier VEM

Pump	Electric motor	Dimensions									
	kW / frame size	B1	B2	ØD	H1	H2	H3	L1	L2	L3	L4
A10VSO 18	3.0 / 100L	250	220	14.0	256	132	63	680	60	169	401
	4.0 / 112M	250	220	14.0	310	132	63	718	60	169	439
	5.5 / 132S	300	260	14.0	359	160	63	788	80	169	489
	7.5 / 132M	300	260	14.0	359	160	63	788	80	169	489
A10VSO 28	5.5 / 132S	300	260	14.0	359	160	80	810	80	199	489
	7.5 / 132M	300	260	14.0	359	160	80	810	80	199	489
A10VSO 45	7.5 / 132M	300	260	14.0	359	160	90	828	80	219	489

ABHPG with motor supplier SIEMENS

Pump	Electric motor	Dimensions									
	kW / frame size	B1	B2	ØD	H1	H2	H3	L1	L2	L3	L4
A10VSO 18	3.0 / 100L	250	220	14.0	298	132	63	655	60	169	376
	4.0 / 112M	250	220	14.0	309	132	63	648	60	169	369
	5.5 / 132S	300	260	14.0	362	160	63	724	80	169	425
	7.5 / 132M	300	260	14.0	362	160	63	724	80	169	425
A10VSO 28	5.5 / 132S	300	260	14.0	362	160	80	746	80	199	425
	7.5 / 132M	300	260	14.0	362	160	80	746	80	199	425
A10VSO 45	7.5 / 132M	300	260	14.0	362	160	90	764	80	219	425

Unit dimensions: Type ABAPG A10VSO 10 HOYER-MOTORS, VEM, SIEMENS (nominal dimensions in mm)



ABAPG with motor supplier HOYER-MOTORS

Pump	Electric motor	Dimensions											
	kW / frame size	B1	B2	B3	B4	ØD	H1	H2	L1	L2	L3	L4	L5
A10VSO 10	5.5 / 132S	300	216	50	28.6	13.5	423	235	706	480	116	78	79
	7.5 / 132M	300	216	50	28.6	13.5	423	235	769	480	116	141	79

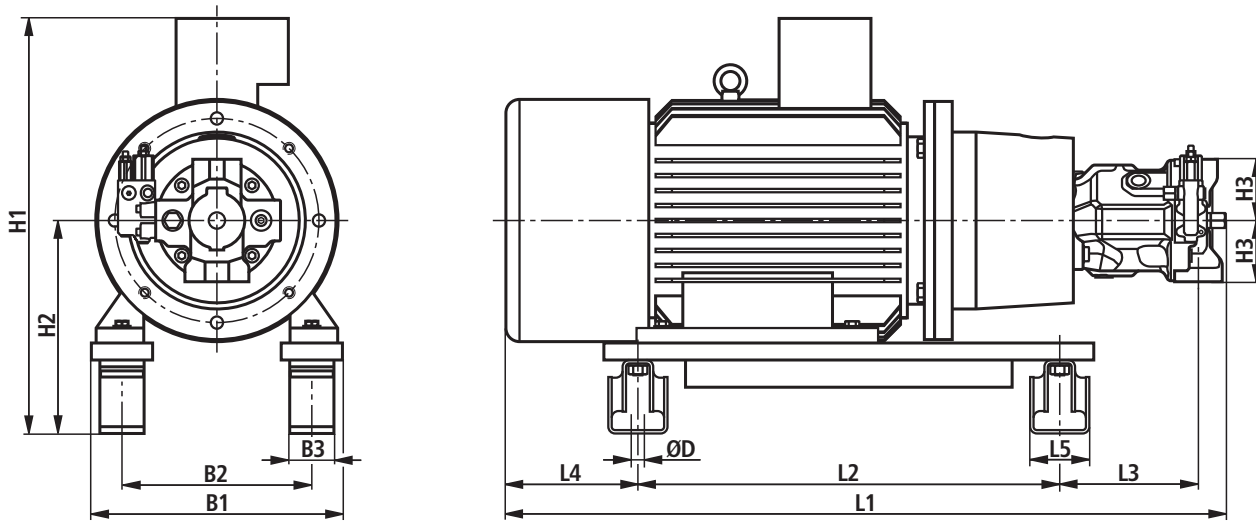
ABAPG with motor supplier VEM

Pump	Electric motor	Dimensions											
	kW / frame size	B1	B2	B3	B4	ØD	H1	H2	L1	L2	L3	L4	L5
A10VSO 10	5.5 / 132S	300	216	50	28.6	13.5	434	235	773	480	116	145	79
	7.5 / 132M	300	216	50	28.6	13.5	434	235	773	480	116	145	79

ABAPG with motor supplier SIEMENS

Pump	Electric motor	Dimensions											
	kW / frame size	B1	B2	B3	B4	ØD	H1	H2	L1	L2	L3	L4	L5
A10VSO 10	5.5 / 132S	300	216	50	28.6	13.5	437	235	709	480	116	81	79
	7.5 / 132M	300	216	50	28.6	13.5	437	235	709	480	116	81	79

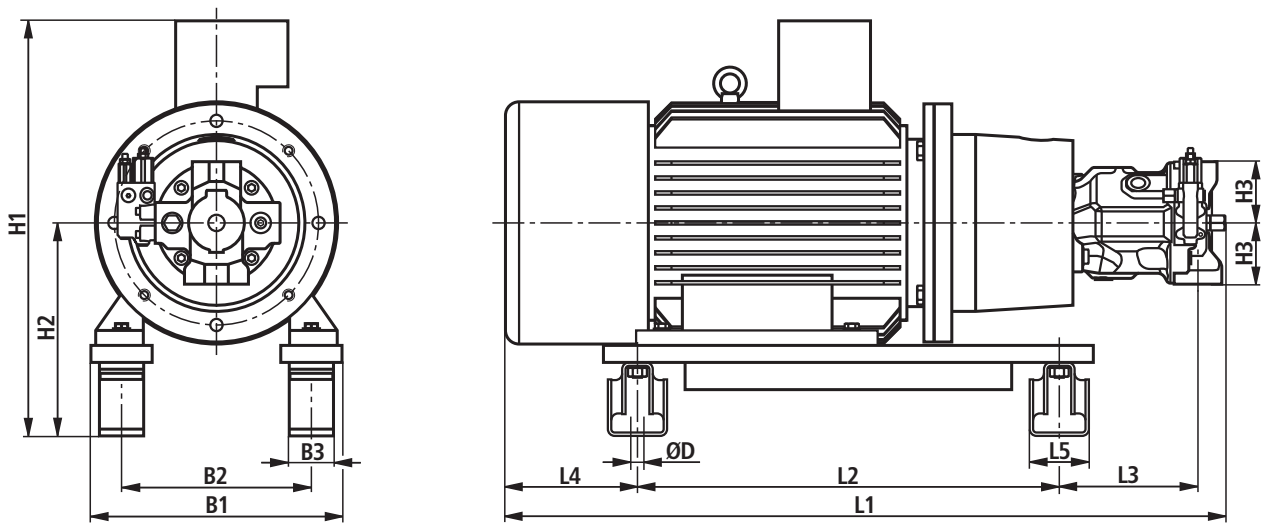
Unit dimensions: Type ABAPG A10VSO 18 – 140 HOYER-MOTORS up to 55 kW
(nominal dimensions in mm)



ABAPG with motor supplier HOYER-MOTORS

Pump	Electric motor kW / frame size	Dimensions											
		B1	B2	B3	ØD	H1	H2	H3	L1	L2	L3	L4	L5
A10VSO 18	5.5 / 132S	300	216	50	13.5	423	235	63	721	480	113	78	79
	7.5 / 132M	300	216	50	13.5	423	235	63	784	480	113	141	79
	11.0 / 160M	350	254	50	13.5	523	263	63	888	580	151	107	79
	15.0 / 160L	350	254	50	13.5	523	263	63	943	580	151	162	79
A10VSO 28	5.5 / 132S	300	216	50	13.5	423	235	80	743	480	143	78	79
	7.5 / 132M	300	216	50	13.5	423	235	80	806	480	143	141	79
	11.0 / 160M	350	254	50	13.5	523	263	80	899	580	170	107	79
	15.0 / 160L	350	254	50	13.5	523	263	80	954	580	170	162	79
	18.5 / 180M	269	279	65	17.5	588	313	80	1000	620	184	154	87
	22.0 / 180L	369	279	65	17.5	588	313	80	1040	620	184	194	87
A10VSO 45	7.5 / 132M	300	216	50	13.5	423	235	90	824	480	163	141	79
	11.0 / 160M	350	254	50	13.5	523	263	90	917	580	190	107	79
	15.0 / 160L	350	254	50	13.5	523	263	90	972	580	190	162	79
	18.5 / 180M	369	279	65	17.5	588	313	90	1018	620	204	154	87
	22.0 / 180L	369	279	65	17.5	588	313	90	1058	620	204	194	87
	30.0 / 200L	418	318	65	17.5	643	338	90	1088	700	171	177	87
	37.0 / 225S	456	356	80	17.5	720	385	90	1133	800	127	166	100
A10VSO 71	11.0 / 160M	350	254	50	13.5	523	263	104	966	580	239	107	79
	15.0 / 160L	350	254	65	13.5	553	293	104	1021	580	239	162	87
	18.5 / 180M	369	279	65	17.5	588	313	104	1051	620	237	154	87
	22.0 / 180L	369	279	65	17.5	588	313	104	1091	620	237	194	87
	30.0 / 200L	418	318	80	17.5	665	360	104	1121	700	204	177	100
	37.0 / 225S	456	356	80	17.5	720	385	104	1166	800	160	166	100
	45.0 / 225M	456	356	80	17.5	720	385	104	1196	800	160	196	100
	55.0 / 250M	550	406	80	17.5	785	420	104	1280	850	192	198	100
A10VSO100	18.5 / 180M	369	279	65	17.5	588	313	100	1123	620	295	154	87
	22.0 / 180L	369	279	65	17.5	588	313	100	1163	620	295	194	87
	30.0 / 200L	418	318	80	17.5	665	360	100	1217	700	286	177	100
	37.0 / 225S	456	356	80	17.5	720	385	100	1238	800	218	166	100
	45.0 / 225M	456	356	80	17.5	720	385	100	1268	800	218	196	100
	55.0 / 250M	550	406	80	17.5	785	420	100	1352	850	250	198	100
A10VSO140	22.0 / 180L	369	279	65	17.5	588	313	110	1195	620	319	194	87
	30.0 / 200L	418	318	80	17.5	665	360	110	1225	700	286	177	100
	37.0 / 225S	456	356	80	17.5	720	385	110	1274	800	246	166	100
	45.0 / 225M	456	356	80	17.5	720	385	110	1304	800	246	196	100
	55.0 / 250M	550	406	80	17.5	785	420	110	1377	850	267	198	100

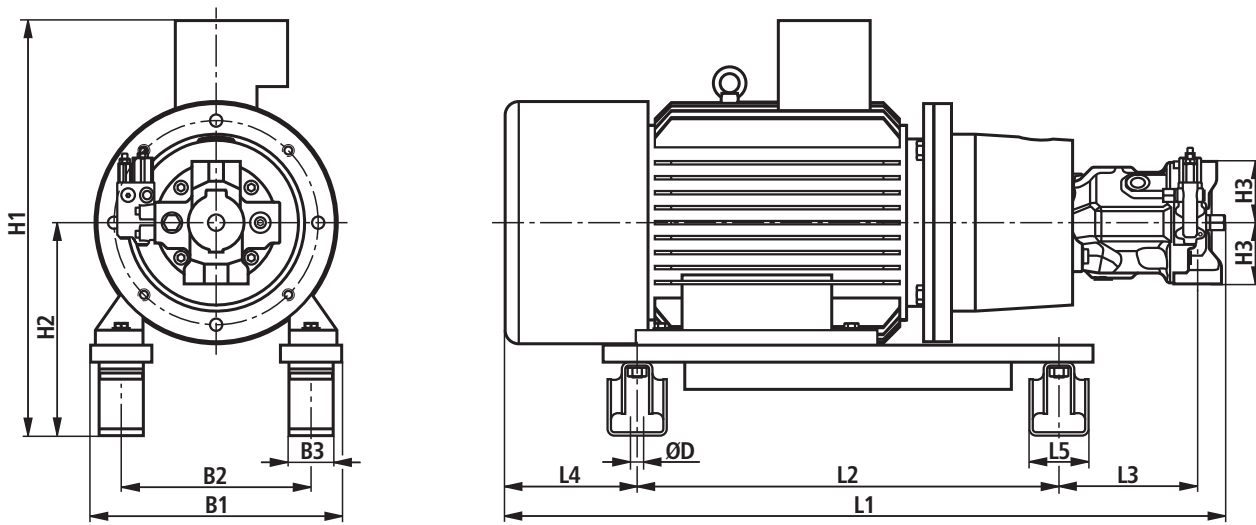
Unit dimensions: Type ABAPG A10VSO 18 – 140 VEM up to 55 kW
(nominal dimensions in mm)



ABAPG with motor supplier VEM

Pump	Electric motor	Dimensions											
	kW / frame size	B1	B2	B3	ØD	H1	H2	H3	L1	L2	L3	L4	L5
A10VSO 18	5.5 / 132S	300	216	50	13.5	434	235	63	788	480	113	145	79
	7.5 / 132M	300	216	50	13.5	434	235	63	788	480	113	145	79
	11.0 / 160M	350	254	50	13.5	505	263	63	844	580	151	63	79
	15.0 / 160L	350	254	50	13.5	505	263	63	940	580	151	159	79
A10VSO 28	5.5 / 132S	300	216	50	13.5	434	235	80	810	480	143	145	79
	7.5 / 132M	300	216	50	13.5	434	235	80	810	480	143	145	79
	11.0 / 160M	350	254	50	13.5	505	263	80	855	580	170	63	79
	15.0 / 160L	350	254	50	13.5	505	263	80	951	580	170	159	79
	18.5 / 180M	269	279	67	17.5	574	313	80	980	620	184	134	87
	22.0 / 180L	369	279	67	17.5	574	313	80	980	620	184	134	87
A10VSO 45	7.5 / 132M	300	216	50	13.5	434	235	90	928	480	163	145	79
	11.0 / 160M	350	254	50	13.5	505	263	90	973	580	190	63	79
	15.0 / 160L	350	254	50	13.5	505	263	90	969	580	190	159	79
	18.5 / 180M	369	279	67	17.5	574	313	90	998	620	204	134	87
	22.0 / 180L	369	279	67	17.5	574	313	90	998	620	204	134	87
	30.0 / 200L	418	318	67	17.5	638	338	90	1.045	700	171	134	87
	37.0 / 225S	456	356	80	17.5	685	385	90	1.075	800	127	108	100
A10VSO 71	11.0 / 160M	350	254	50	13.5	505	263	104	922	580	239	63	79
	15.0 / 160L	350	254	67	13.5	535	293	104	1018	580	239	159	87
	18.5 / 180M	369	279	67	17.5	574	313	104	1031	620	237	134	87
	22.0 / 180L	369	279	67	17.5	574	313	104	1031	620	237	134	87
	30.0 / 200L	418	318	80	17.5	660	360	104	1078	700	204	134	100
	37.0 / 225S	456	356	80	17.5	685	385	104	1108	800	160	108	100
	45.0 / 225M	456	356	80	17.5	709	385	104	1213	800	160	213	100
	55.0 / 250M	550	406	80	17.5	806	420	104	1289	850	192	207	100
A10VSO100	18.5 / 180M	369	279	65	17.5	574	313	100	1103	620	295	134	87
	22.0 / 180L	369	279	65	17.5	574	313	100	1103	620	295	134	87
	30.0 / 200L	418	318	80	17.5	660	360	100	1174	700	286	134	100
	37.0 / 225S	456	356	80	17.5	685	385	100	1180	800	218	108	100
	45.0 / 225M	456	356	80	17.5	709	385	100	1285	800	218	213	100
	55.0 / 250M	550	406	80	17.5	806	420	100	1361	850	250	207	100
A10VSO140	22.0 / 180L	369	279	65	17.5	574	313	110	1135	620	319	134	87
	30.0 / 200L	418	318	80	17.5	660	360	110	1182	700	286	134	100
	37.0 / 225S	456	356	80	17.5	685	385	110	1216	800	246	108	100
	45.0 / 225M	456	356	80	17.5	709	385	110	1321	800	246	213	100
	55.0 / 250M	550	406	80	17.5	806	420	110	1386	850	267	207	100

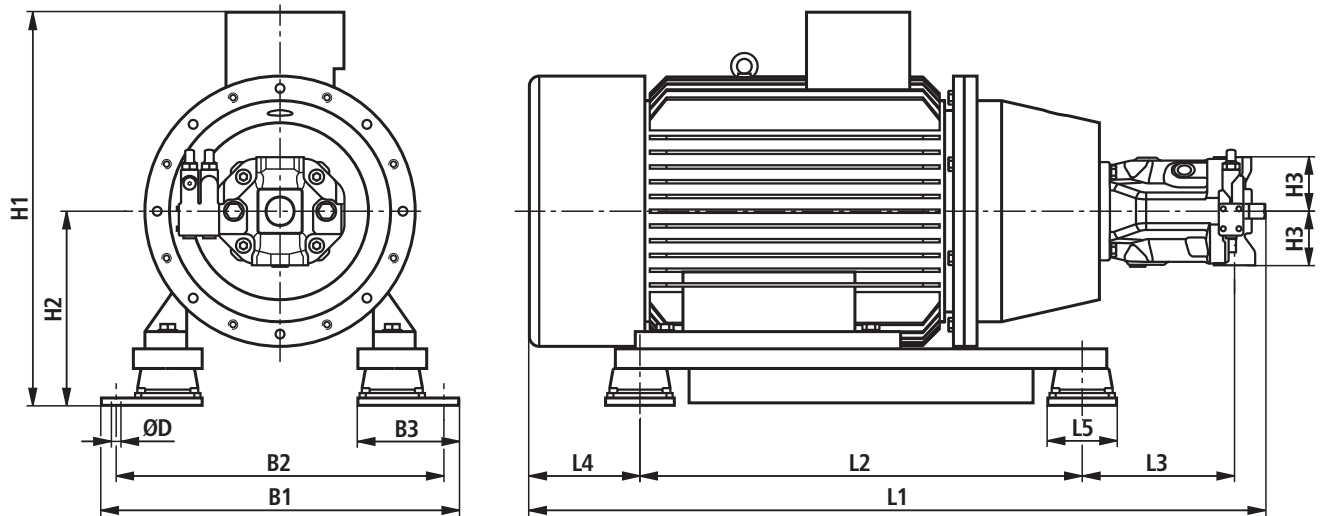
Unit dimensions: Type ABAPG A10VSO 18 – 140 SIEMENS up to 55 kW
(nominal dimensions in mm)



ABAPG with motor supplier SIEMENS

Pump	Electric motor	Dimensions											
	kW / frame size	B1	B2	B3	ØD	H1	H2	H3	L1	L2	L3	L4	L5
A10VSO 18	5.5 / 132S	300	216	50	13.5	437	235	63	724	480	113	81	79
	7.5 / 132M	300	216	50	13.5	437	235	63	724	480	113	81	79
	11.0 / 160M	350	254	50	13.5	500	263	63	877	580	151	106	79
	15.0 / 160L	350	254	50	13.5	500	263	63	877	580	151	96	79
A10VSO 28	5.5 / 132S	300	216	50	13.5	437	235	80	746	480	143	81	79
	7.5 / 132M	300	216	50	13.5	437	235	80	746	480	143	81	79
	11.0 / 160M	350	254	50	13.5	500	263	80	888	580	170	106	79
	15.0 / 160L	350	254	50	13.5	500	263	80	888	580	170	96	79
	18.5 / 180M	269	279	65	17.5	575	313	80	969	620	184	123	87
22.0 / 180L	369	279	65	17.5	575	313	80	1020	620	184	174	87	
A10VSO 45	7.5 / 132M	300	216	50	13.5	437	235	90	764	480	163	81	79
	11.0 / 160M	350	254	50	13.5	500	263	90	906	580	190	106	79
	15.0 / 160L	350	254	50	13.5	500	263	90	906	580	190	96	79
	18.5 / 180M	369	279	65	17.5	575	313	90	987	620	204	123	87
	22.0 / 180L	369	279	65	17.5	575	313	90	1038	620	204	174	87
	30.0 / 200L	418	318	65	17.5	638	338	90	1038	700	171	127	87
	37.0 / 225S	456	356	80	17.5	713	385	90	1107	800	127	140	100
A10VSO 71	11.0 / 160M	350	254	50	13.5	500	263	104	955	580	239	106	79
	15.0 / 160L	350	254	65	13.5	530	293	104	955	580	239	96	87
	18.5 / 180M	369	279	65	17.5	575	313	104	1020	620	237	123	87
	22.0 / 180L	369	279	65	17.5	575	313	104	1071	620	237	174	87
	30.0 / 200L	418	318	80	17.5	660	360	104	1071	700	204	127	100
	37.0 / 225S	456	356	80	17.5	713	385	104	1140	800	160	140	100
	45.0 / 225M	456	356	80	17.5	713	385	104	1200	800	160	200	100
	55.0 / 250M	550	406	80	17.5	812	420	104	1316	850	192	234	100
A10VSO100	18.5 / 180M	369	279	65	17.5	575	313	100	1092	620	295	123	87
	22.0 / 180L	369	279	65	17.5	575	313	100	1143	620	295	174	87
	30.0 / 200L	418	318	80	17.5	660	360	100	1167	700	286	127	100
	37.0 / 225S	456	356	80	17.5	713	385	100	1212	800	218	140	100
	45.0 / 225M	456	356	80	17.5	713	385	100	1272	800	218	200	100
55.0 / 250M	550	406	80	17.5	812	420	100	1388	850	250	234	100	
A10VSO140	22.0 / 180L	369	279	65	17.5	575	313	110	1175	620	319	174	87
	30.0 / 200L	418	318	80	17.5	660	360	110	1175	700	286	127	100
	37.0 / 225S	456	356	80	17.5	713	385	110	1248	800	246	140	100
	45.0 / 225M	456	356	80	17.5	713	385	110	1308	800	246	200	100
	55.0 / 250M	550	406	80	17.5	812	420	110	1413	850	267	234	100

Unit dimensions: Type ABAPG A10VSO 100 – 140 HOYER-MOTORS, VEM, SIEMENS from 75 kW (nominal dimensions in mm)



ABAPG with motor supplier HOYER-MOTORS

Pump	Electric motor	Dimensions											
	kW / frame size	B1	B2	B3	ØD	H1	H2	H3	L1	L2	L3	L4	L5
A10VSO100	75.0 / 280S	727	667	205	23.0	795	395	100	1429	900	300	175	140
	75.0 / 280S	727	667	205	23.0	795	395	110	1447	900	310	175	140
A10VSO140	90.0 / 280M	727	667	205	23.0	795	395	110	1497	900	310	225	140
	110.0 / 315S	828	768	250	23.0	992	462	110	1722	1100	216	344	180

ABAPG with motor supplier VEM

Pump	Electric motor	Dimensions											
	kW / frame size	B1	B2	B3	ØD	H1	H2	H3	L1	L2	L3	L4	L5
A10VSO100	75.0 / 280S	727	667	205	23.0	781	392	100	1378	900	300	124	140
A10VSO140	75.0 / 280S	727	667	205	23.0	781	395	110	1396	900	310	124	140
	90.0 / 280M	727	667	205	23.0	781	395	110	1442	900	310	170	140
	110.0 / 315S	828	768	250	23.0	878	462	110	1557	1100	216	179	180

ABAPG with motor supplier SIEMENS

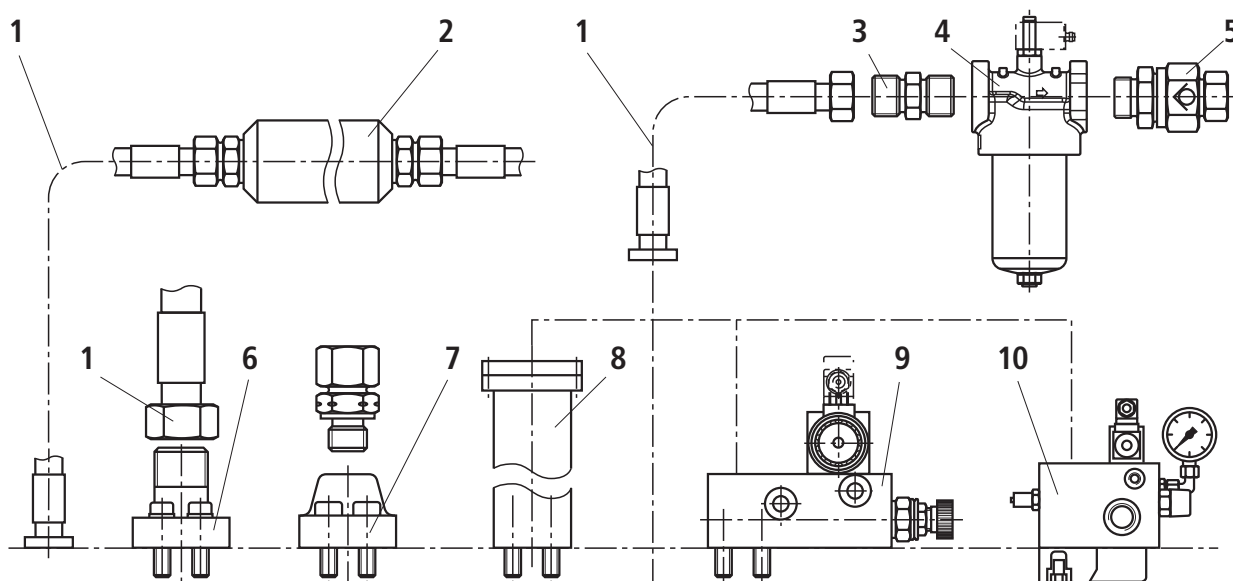
Pump	Electric motor	Dimensions											
	kW / frame size	B1	B2	B3	ØD	H1	H2	H3	L1	L2	L3	L4	L5
A10VSO100	75.0 / 280S	727	667	205	23.0	827	395	100	1414	900	300	160	140
	75.0 / 280S	727	667	205	23.0	827	395	110	1432	900	310	160	140
A10VSO140	90.0 / 280M	727	667	205	23.0	827	395	110	1542	900	310	270	140
	110.0 / 315S	828	768	250	23.0	962	462	110	1579	1100	216	201	180

Pressure line connections

Pump type	Line connections			
	Pressure port P(B)	Suction port S	Leakage oil connection L / L1	Pilot oil connection X
A10VSO 10	DIN 3852 – M27x2	DIN 3852 – M27x2	DIN 3852 – M16x1.5	DIN 3852 – M14x1.5
A10VSO 18	DIN/ISO 6162-1 3/4"	DIN/ISO 6162-1 1"	DIN 3852 – M16x1.5	DIN 3852 – M14x1.5
A10VSO 28	DIN/ISO 6162-1 3/4"	DIN/ISO 6162-1 1 1/4"	DIN 3852 – M18x1.5	DIN 3852 – M14x1.5
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 – M27x2	DIN 3852 – M14x1.5
A10VSO140	DIN/ISO 6162-2 1 1/4"	DIN/ISO 6162-1 2 1/2"	DIN 3852 – M27x2	DIN 3852 – M14x1.5

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

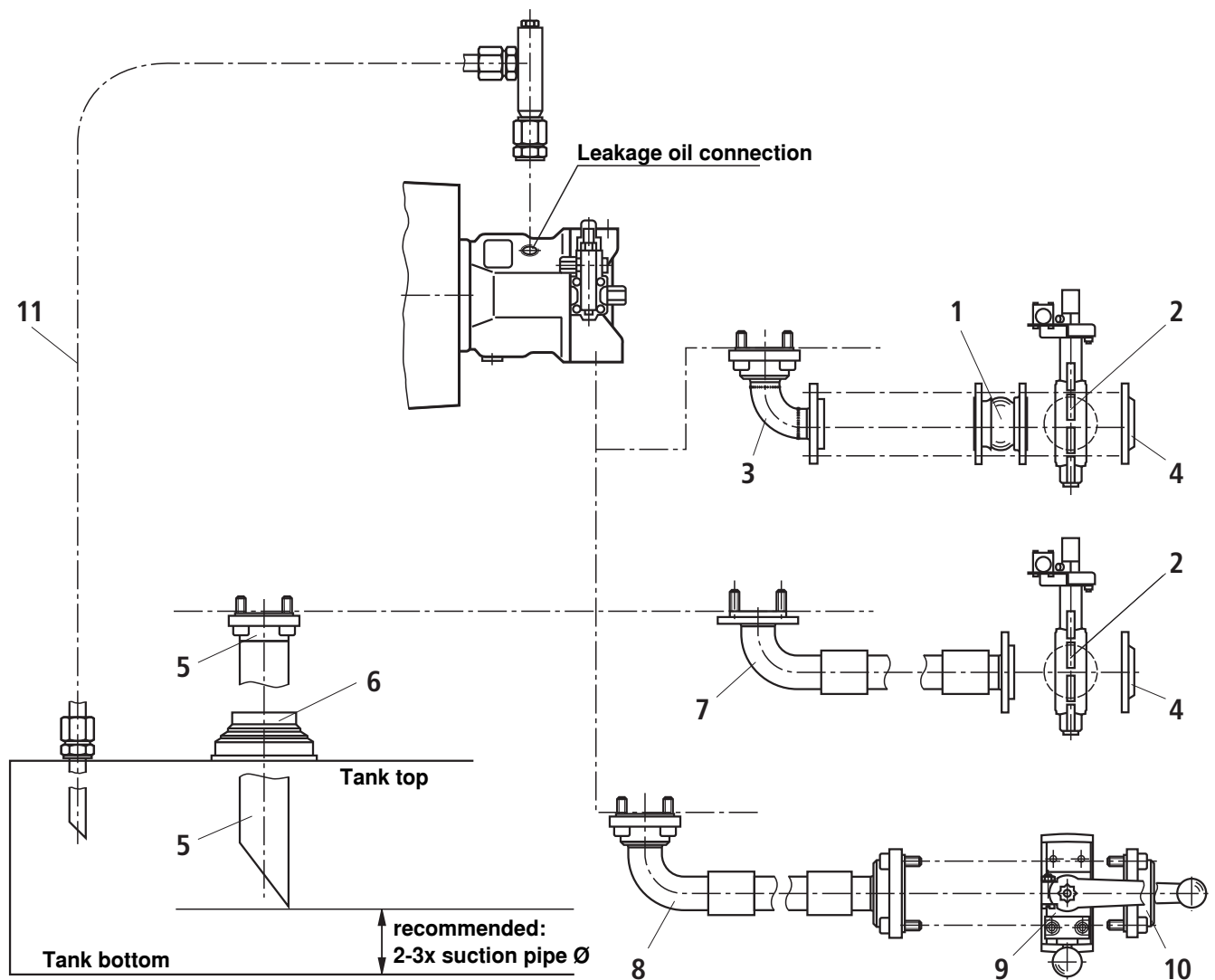
Optional accessories at the pressure port



- 1 Hose line AB 02314, AB 02316
- 2 Shock and vibration absorber data sheet 29253
- 3 Fitting AB 02012
- 4 Inline filter data sheet 51421; 51422
- 5 Check valve AB 020112
- 6 SAE flange AB 02214
- 7 SAE flange high pressure AB 02213
- 8 Shock and vibration absorber data sheet 50142
- 9 Pump shut-off block data sheet 25891
- 10 Pump control block with attachment filter AB 05101-002

Items 1 to 10 as optional accessories upon request

Optional accessories at the suction 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

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.

Lines and connections

- Remove the protective plug at the pump.
- Select the inner width of the pipes according to the connections (suction speed 0.8 m/s).
- Pipelines and fittings must be carefully cleaned before the assembly.
Observe the installation information of the manufacturers.

Filter

- Use return line and/or pressure filters.

Hydraulic fluid

- Please observe the notice according to data sheet 90220.
- 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.
- According to the operating conditions, the oil quality must be checked by means of an oil analysis at certain intervals and the oil must be replaced, if necessary. In this connection, it is also necessary to clean the fluid tank.
- Fluid flowing back must not be directly sucked in under any circumstances. The largest distance between suction and return line possible is to be selected.
- The return flow exit must always be below the oil level.
- Ensure tight assembly of the pipelines.

Commissioning, maintenance and operating instructions

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

- Data sheet 07009
- Data sheet 07009-MON
- Data sheet 92703-01
- Data sheet 92711

Legal provisions

- In Germany, the Ordinance on Industrial Safety and Health (BetrSichV) applies.
- The EU Regulation 640/2009 on the Ecodesign Requirements for 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 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.