

AEH 1201 ... 6108 magnetic coupling

TECHNICAL DATA

output:	max. 35 m ³ /h
delivery head:	max. 354 m (at 1450 rpm)
speed:	max. 1800 rpm
temperature:	max. 180°C high temperature on request
casing pressure:	PN 40 / PN 25
shaft sealing:	glandless due to magnetic coupling
flange connection:	DIN 2501 PN 40
sense of rotation:	clockwise when seen on the pump from the drive

APPLICATION

AEH pumps are side channel pumps, are applied in order to handle problem-free and without any leakage and economically clear or turbid, aggressive, valuable toxic or ill-smelling liquids which do not contain any solid particles or abrasive components.

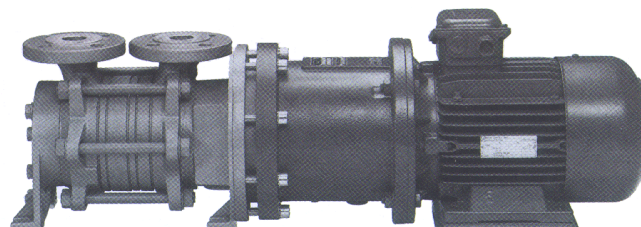
AEH pumps are applied in the chemical and petrochemical industry, in the pharmaceutical industry, in the plastic and rubber industry, in the surface finishing and hardening, in the food, beverage and tobacco industry.

BAUART

Horizontal, selfpriming side channel pumps, handling entrained gas, of segmental type construction with open vane wheel impellers. The sealing to atmosphere is effected glandless by isolation shroud; the drive power is transmitted contactless by a magnetic coupling. The use of stable permanent magnetic material ensures the transmission of the nominal torque and given protection against overload..

On the basis of the compact close coupled design has been created a pumping unit that is easily to be installed. All IEC standard motors of the construction type IM B 35 are applicable. This design permits the operation of the pump without any additional coupling. Thus the alignment, a source of trouble, can be omitted.

The simple construction of the pump allows the assembly or disassembly without special tools.



CONSTRUCTION

Casing pressure:

Sizes 1200, 3100, 3600, 4100, 5101 to 5104: PN 40;
Sizes 5105 to 5108, 6100: PN 25

Please observe:

Casing pressure = zero head + inlet pressure
Test pressure 52 bar resp. 33 bar

Position of the branches:

Suction and discharge branches pointing radially upwards.

Flanges:

The flanges comply with DIN 2535 / PN 40
Flanges according to DIN 2512 with groove and bored to ANSI 150 or 300 as well as BS Table F is possible.

Hydraulic:

First hydraulics, designation of this construction type: A•

Bearing:

The pump shaft runs in two sleeve bearings of pure silicon carbide (SiC), lubricated by the pumping medium.
The remaining axial forces are absorbed by axial sleeve bearings. Optionally available a friction reducing coating of the bushings to avoid critical operation.
The outer magnet is directly fixed on the motor shaft consequently the external bearing becomes unnecessary.
Designation of this construction type: •F

Shaft sealing:

Without shaft seals by an isolation shroud. Transmission of the driving moment by a magnetic coupling.

Designation of this construction type: see last page.

Material design:

Item	COMPONENTS	MATERIAL DESIGN *				
		1A	1B	1F ***	4B	4F ***
10.60 10.70 10.80, 10.90 11.40, 11.41	suction casing discharge casing intermediate piece	GGG 40.3 (0.7043)			G-X 6 Cr Ni Mo 18 10 (1.4408)	
21.00	shaft	up to 4-stufig: 1.4462; from 5-stufig: 1.4021			X 2 Cr Ni Mo N 22 5 (1.4462)	
23.50	vane wheel impeller	Cu Zn 40 Al 2 (2.0550)	G-X 20 Cr 14 (1.4027 05)	PAEK	G-X 3 Cr Ni Mo Cu 26 6 (1.4517)	PAEK
0242	bearing bush	from 5-stufig: special carbon			special carbon	
31.40 52.90, 52.91 54.00, 54.01	thrust bearing radial bearing radial bearing	silicon carbide (SiC) **				
34.60	stool	GG 25 (0.6025) or St 52-3 (1.0570)				
81.70	sealing shroud	Hastelloy C4 (2.4610)				
81.71	flange for can	St 52-3 (1.0570)				
84.71	internal magnet	Sm Co-magnets on St 52-3 (1.0570), jacketed with X 6 Cr Ni Mo Ti 17 12 2 (1.4571)				
84.72	external magnet	Sm Co-magnets on St 52-3 (1.0570)				
84.80	driving flange	St 52-3 (1.0570)				

* Special materials upon request, e.g..
Hastelloy B/C
titanium
Monel
1.4500

** Optionally - coating to diminish the friction energy.

*** Only for the construction sizes 1200, 3100, 3600, 4100. Larger vane wheel impellers of PAEK are not available at present.

Casing sealing:

The casing sealing is made by soft Teflon and O-ring PTFE. Designation of this construction type: 4

Drive:

By commercial three-phase A.C. motors, construction type IM B35. The selection is depending on the power consumption of the hydraulics, taking into consideration the density and viscosity of the pumping medium. For the motor rating the eddy current losses are to be added to the pump performance.

Motors controlled by frequency converters are admissible. The motors and magnetic couplings indicated in the delivery programme are selected for a mains frequency of max. 50 Hz and are applicable for watery liquids. In case of differing speeds other magnetic dipole moments are necessary for the couplings. It is recommendable to check the selection with Sterling SIHI.

Position:

Usually the pump units are installed horizontally. The operation with vertically installed pump units is possible, but should be made only in consultation with Sterling SIHI because of the special instructions for starting-up, the support and thermal load of the drive motor.

General remarks:

The following pump series with magnetic couplings are available:

Side channel pump with NPSH inducer stage:

Series **CEHB** with axial inlet and low NPSH

Volute casing pumps:

Sterling SIHI-MAT-system e.g.:

Series **CBMD** volute casing pump **as per DIN EN 22858 bearing bracket design**

Series **CBED** volute casing pump **as per DIN EN 22858 close coupled construction**

Series **ZLKD** volute casing pump close coupled construction - branches **as per DIN 24255 / EN 733**

Series **ZLID** inline pump

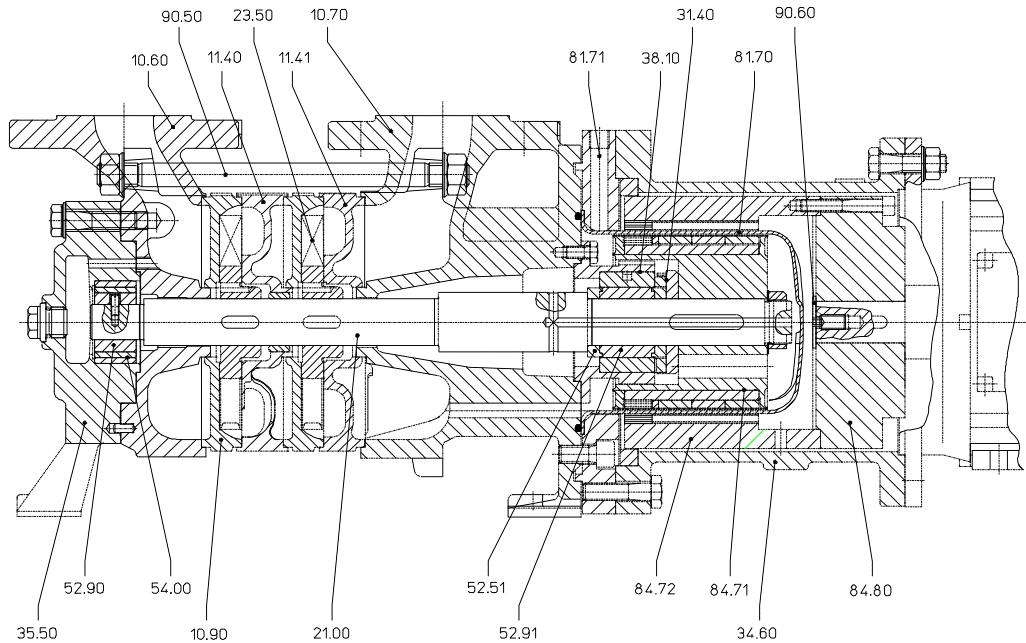
Series **ZTKA** volute casing pump for medium temperatures up to 400°C

For lower delivery heads:

Series **AKLA /AKVA** single-stage inline side channel pump

Technical documentation on these programmes is available on request.

Sectional drawing and nomenclature



10.60	suction casing	23.50	vane wheel impeller	54.00	bearing bush
10.70	discharge casing	31.40	thrust bearing	81.70	isolation shroud
10.80	intermediate piece	34.60	stool	81.71	flange of can
10.90, 10.91	suction piece	35.50	bearing bracket casing	84.71	interior magnet
11.40, 11.41	discharge piece	38.10	bearing carrier	84.72	exterior magnet
21.00	shaft	52.51	spacer ring	84.80	driving flange
23.10	impeller	52.90, 52.91	sleeve	90.60	shaft screw

FUNCTION

Partial flow:

For the cooling of the isolation shroud, heated up by eddy currents, a partial flow is derived which at the same time serves as lubricant for the ceramic sleeve bearings. The partial flow flows through two longitudinal bores in the discharge casing into the isolation shroud and is led back through the hollow bored shaft and the balance bores of the rear vane wheel impeller to its suction side. By the pumping capability of the inner magnet, inside the isolation shroud a circulation flow is created which flows through the longitudinal bores of the inner magnet towards the bottom of the isolation shroud and in the gap between inner magnet and isolation shroud back to the front side of the inner magnet. This circulation flow is nearly independent of the operating point of the pump. Consequently the cooling of the isolation shroud is guaranteed over the entire characteristic.

By the pumping capability of the lubricating grooves in the thrust bearing disk a further flow is created through the bearing gap of the radial bearing over the thrust bearing towards the longitudinal bores of the inner magnet. Thus, also independent of the operating point of the pump, the lubrication of the bearings is guaranteed.

Bearing:

The SiC bushings are clamped axially on the shaft. The material combination secures that the clamping power is maintained also in

case of high temperatures. The sleeve at suction side is secured on the shaft by a shoulder stud. The stationary bearing inserts are screwed to the discharge casing or pressed into the bearing bracket casing. Alternatively bearings coated with adamantine carbon are available. Hereby are considerably reduced the coefficients of friction during dry operation and danger to the pump can be prevented. This coating is applicable up to 250°C.

Safety:

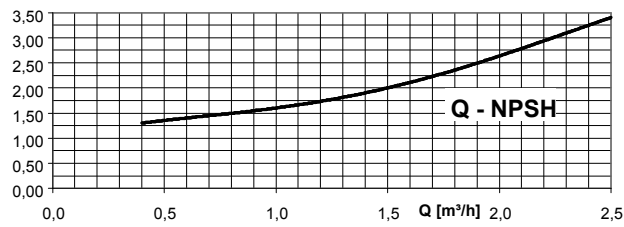
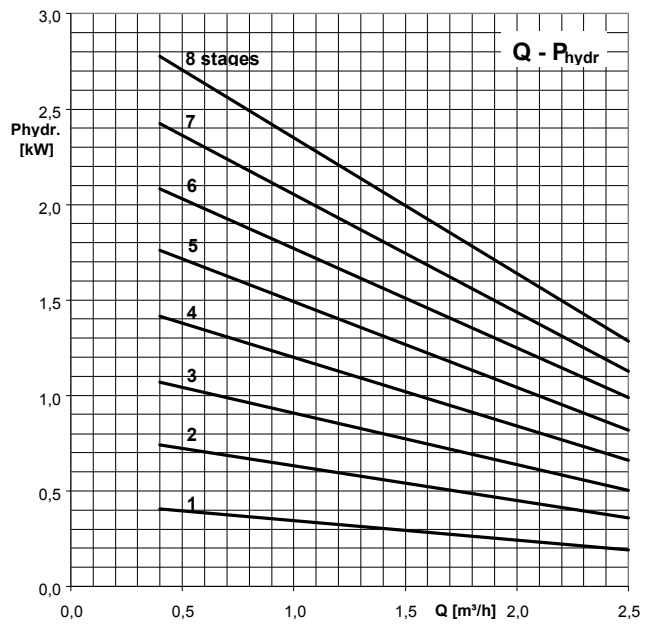
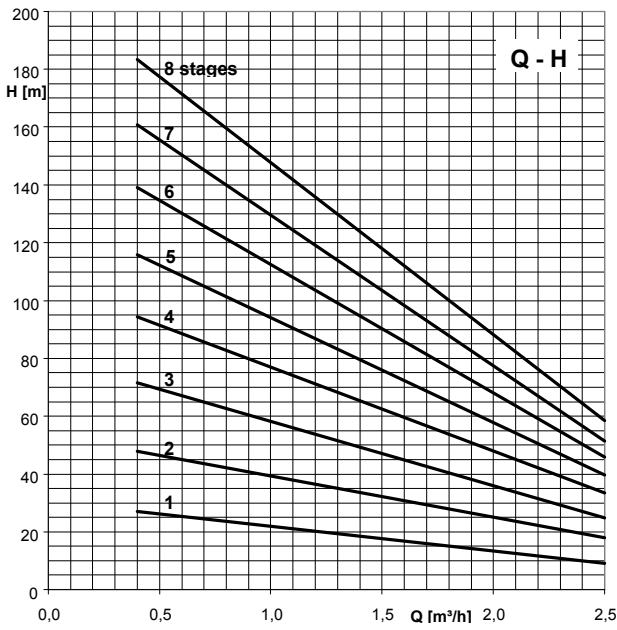
The magnetic bell is directly fixed on the motor shaft. The load on the bearings resulting from this is relatively slight and therefore a damage to the bearings very improbable. In order to protect the isolation shroud against internal or external damages by rotating parts, a stationary seat is installed in the stool and at the bearing insert. The distance from the rotors is smaller than that of the rotors from the isolation shroud. In order to obtain double leakproofness the application of fanless motors which withstand flooding, is possible. Then the sealed stool chamber serves to control the function of the isolation shroud.

The pump has to be run with a motor load detector. It protects the machine against dry operation and operation beyond the range of the characteristic curves.

VARIANTS

Pumps with heating or cooling chambers for the handling of smeltings or boiling media also are available. For such cases special heating stages, instead of normal stages, are installed in the pump and thus offering the heating or cooling by means of liquid or vapour.

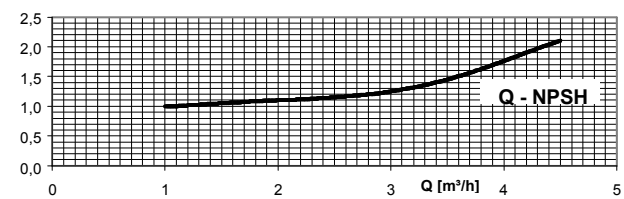
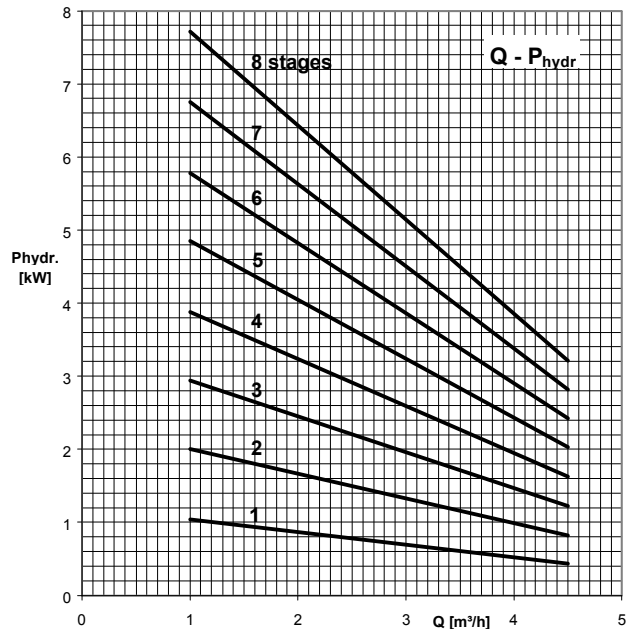
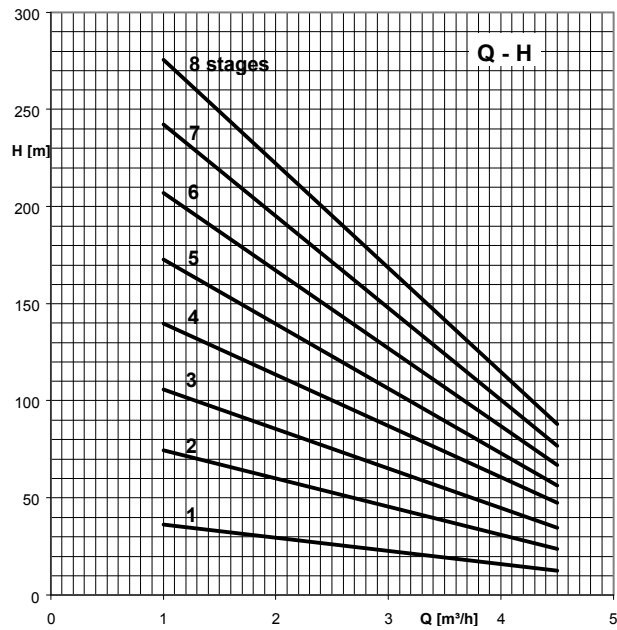
Characteristic curves



NPSH [m]

AEH 1200 with magnetic coupling

speed 1450 rpm, Visc.= 1 mm²/s, spec. grav. = 1 kg/dm³

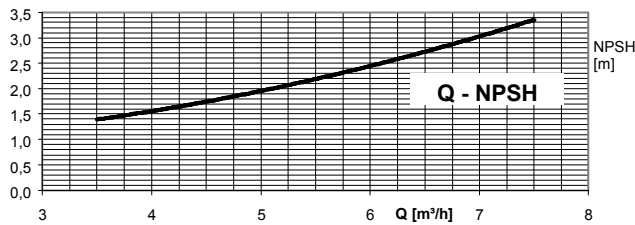
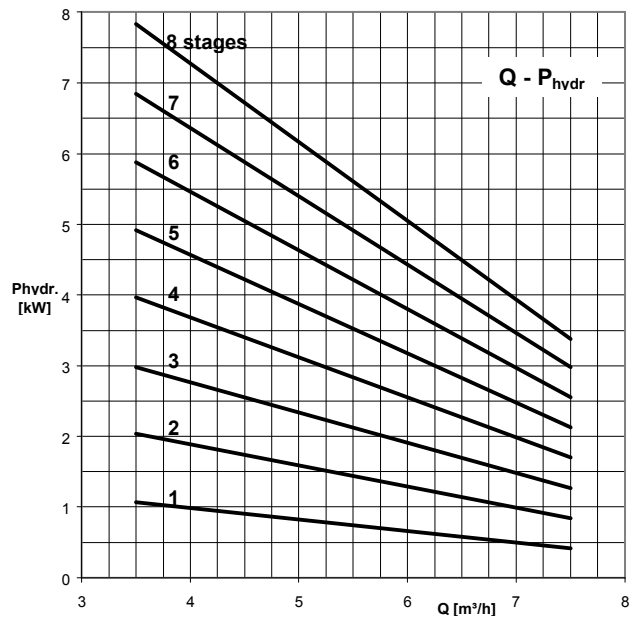
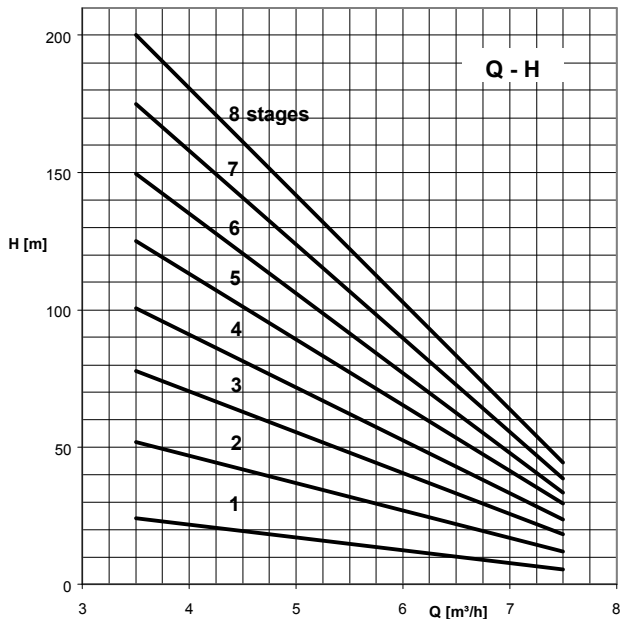


NPSH [m]

AEH 3100 with magnetic coupling

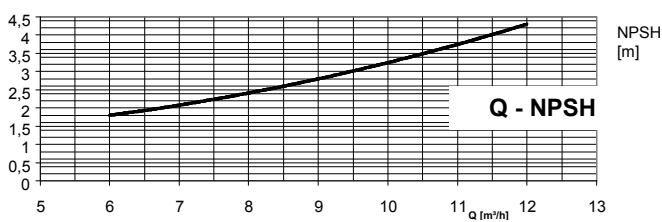
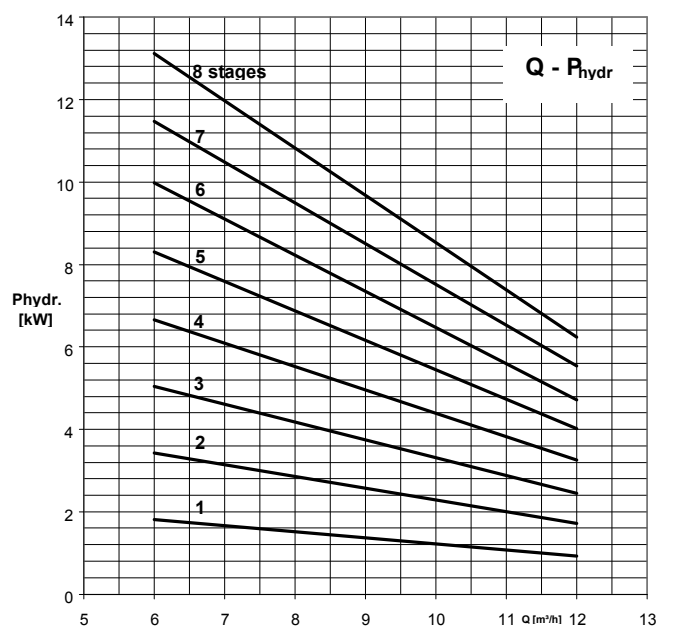
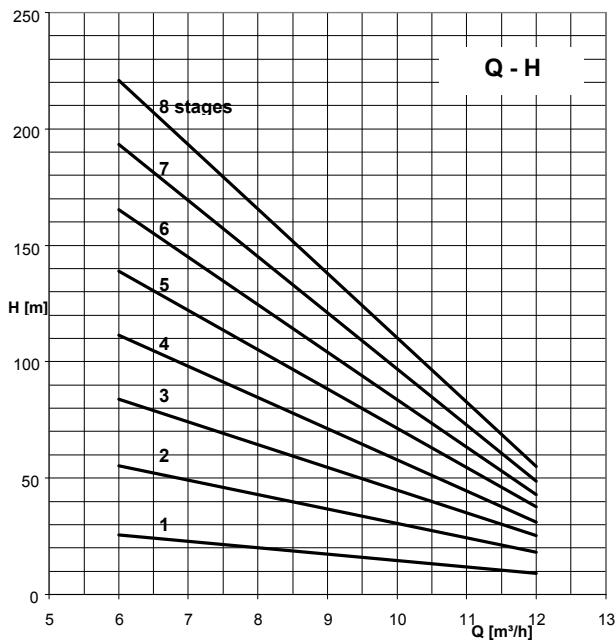
speed 1450 rpm, Visc. 1 mm²/s, spec.grav. 1 kg/dm³

Characteristic curves



AEH 3600 with magnetic coupling

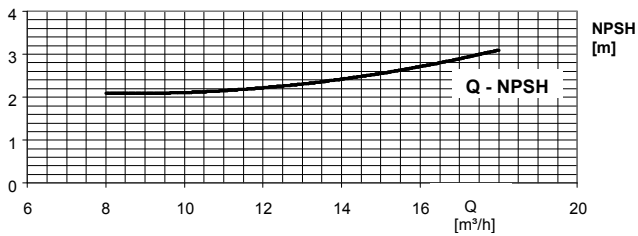
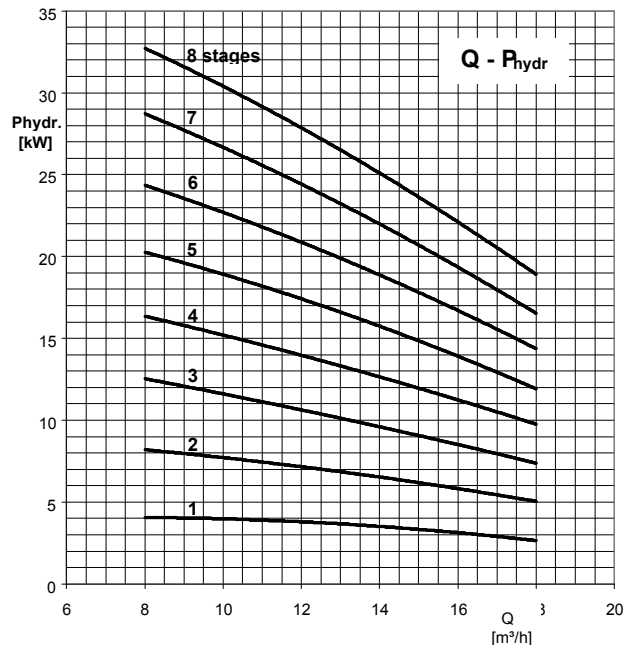
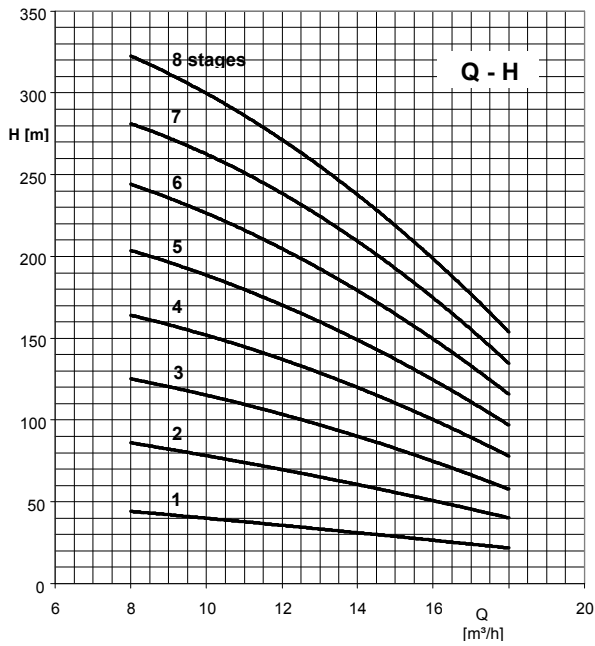
speed 1450 rpm, Visc. 1 mm²/s, spec.grav. 1 kg/dm³



AEH 4100 with magnetic coupling

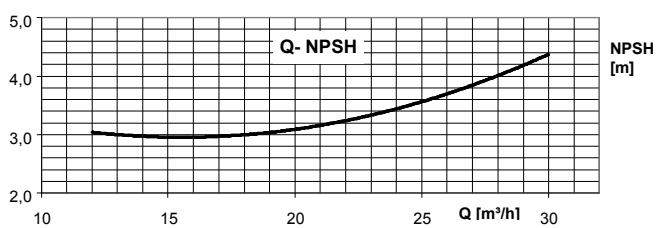
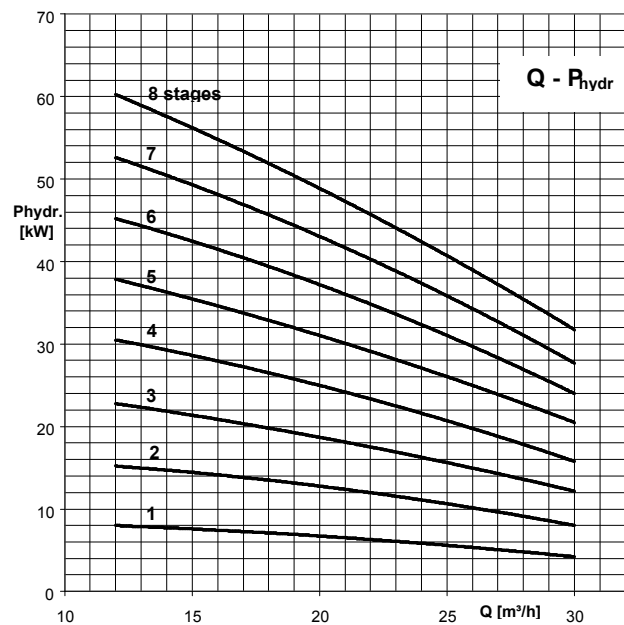
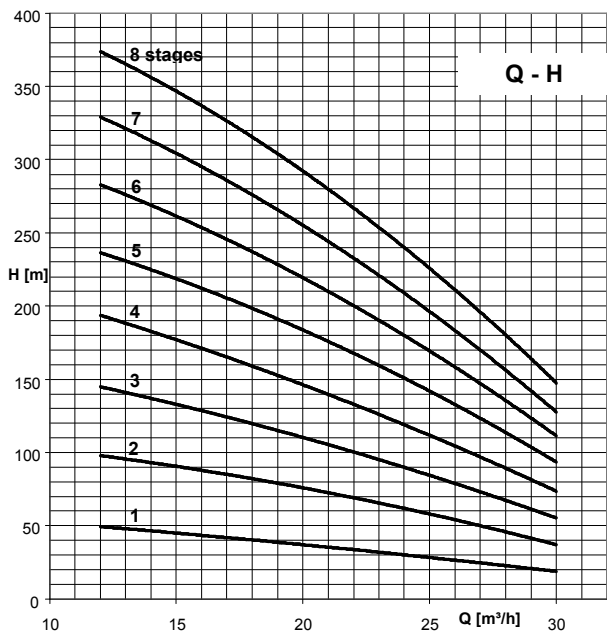
speed 1450 rpm, Visc. 1 mm²/s, spec.grav. 1 kg/dm³

Characteristic curves



AEH 5100 with magnetic coupling

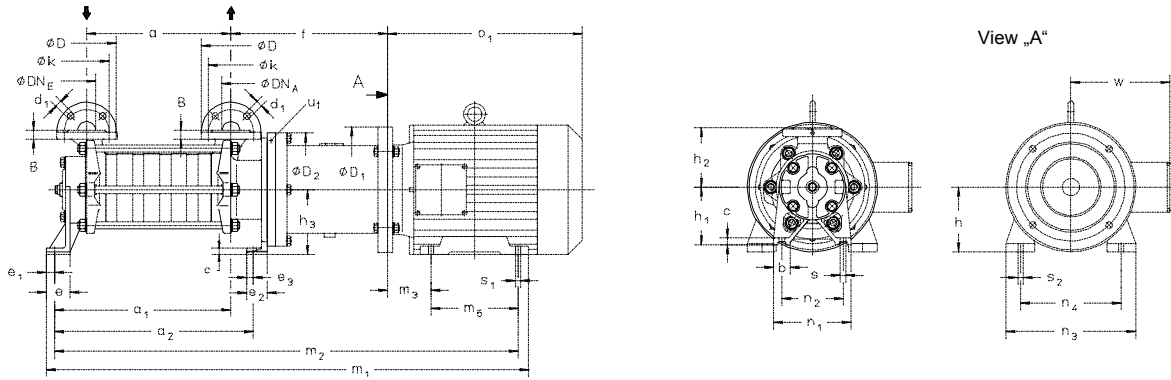
speed 1450 rpm, Visc. 1 mm²/s, spec.grav. 1 kg/dm³



AEH 6100 with magnetic coupling

speed 1450 rpm, Visc. 1 mm²/s, spec.grav. 1 kg/dm³

Dimension table



u_1 : connection for temperatur probe G $\frac{1}{4}$

flanges acc. to DIN 2501 PN 40					
DN _{A/E}	20	32	40	50	65
D	115	140	154	165	190
k	75	100	110	125	145
d ₁ x number	14 X 4	18 x 4	18 x 4	18 x 4	18 x 8

flanges acc. to ANSI 300 RF					
DN _{A/E}	20	32	40	50	65
D	115	140	154	165	190
k	82,5	98,4	114,3	127	149,2
d ₁ x number	19 x 4	19 x 4	22,2 x 4	19 x 8	22,2 x 8

Dimensions of the motor

size	nominal power		D ₁	h	m ₃	m ₅	n ₃ *	n ₄	o ₁ *	s ₁ *	s ₂ *	w*	weight abt. kg
	IP54 resp. EExde	EExe											
80A	0,55	0,55	200	80	50	100	151	125	229	8,5	15	121	8,3
80B	0,75	0,75	200	80	50	100	151	125	229	8,5	15	121	10
90 S	1,1	1,0	200	90	56	100	180	140	250	10,5	-	167	14
90 L	1,5	1,35	200	90	56	125	180	140	275	10,5	-	167	18
100 L 1	2,2	2,0	250	100	63	140	205	160	323	12	-	175	23
100 L 2	3,0	2,5	250	100	63	140	205	160	323	12	-	175	25
112 M	4,0	3,6	250	112	70	140	230	190	329	12	18	191	38
132 S	5,5	5,0	300	132	89	140	266	216	361	12	18	213	59
132 M	7,5	6,8	300	132	89	178	266	216	399	12	18	213	69
160 M	11,0	10,0	350	160	108	210	310	254	470	15	22	245	108
160 L	15,0	13,5	350	160	108	254	310	254	514	15	22	245	130
180 M	18,5	15,0	350	180	121	241	345	279	536	15	25	280	162
180 L	22,0	17,5	350	180	121	279	345	279	574	15	25	280	176
200 L	30,0	24,0	400	200	133	305	400	318	656	20	26	302	254
225 S	37,0	30,0	450	225	149	286	450	356	678	20	26	353	305
225 M	45,0	36,0	450	225	149	311	450	356	703	20	26	353	335
250 M	55,0	44,0	550	250	168	349	505	406	790	25	36	406	425

* dimension dependent on motor make

Dimensions of the pump

size	IP 54	EExe II T3	torque of the magnetic coupling	DN _A	DN _E	a	a ₁	a ₂	b	c	D ₂	e	e ₁	e ₂	e ₃	f	h ₁	h ₂	h ₃	m ₁ *	m ₂ *	n ₁	n ₂	s	weight of the pump																								
	kW	kW																							abt. kg																								
1201	0,55	0,55	K	20	20	120	178	228			182	44	17	34	17	237	100	100	100	585	555	140	105	13	46																								
1202	0,75	0,75																							593	561	51																						
1203	1,1	1																							154	212	262																				62		
	1,5	1,35																																														618	586
	0,75	0,75																																														619	589
1204	1,1	-																							188	246	296																				65		
	1,5	1,35																																														627	595
	2,2	2																																														652	620
	3	2,5																																														684	652
1205	1,5	1,35																							222	280	330	32	10	182	44	17	34	17													67		
	-	2																																														720	688
	2,2	-																																														752	720
	3	2,5																																														762	727
	-	3,6																																														762	727
1206	-	1,35																							256	314	364																				70		
	-	2																																														754	722
	2,2	-																																														786	754
	3	2,5																																														796	761
1207	2,2	-																							290	348	398																				73		
	3	2,5																																														820	788
	4	3,6	830	795																																													
1208	2,2	2	324	382	432																				76																								
	3	2,5																								854	822																						
	4	3,6																								864	829																						
	-	5																								908	868																						

size	IP 54	EExe II T3	torque of the magnetic coupling	DN _A	DN _E	a	a ₁	a ₂	b	c	D ₂	e	e ₁	e ₂	e ₃	f	h ₁	h ₂	h ₃	m ₁ *	m ₂ *	n ₁	n ₂	s	weight of the pump																										
	kW	kW																							abt. kg																										
3101	1,1	1	T	32	32	146	213	270			260	42	17	50	17	295	112	132	132	696	664	170	135	13	122																										
3601	1,5	1,35																							721	689																									
3102	2,2	2																							186	253	310																				130				
	1,5	1,35																																														295	721	689	
	2,2	2																																														305	753	721	
3103	3	2,5																							226	293	350																				138				
	4	3,6																																														305	763	728	
	2,2	2																																														305	793	761	
	3	2,5																																														325	803	768	
3104	4	3,6																							266	333	390	35	12	260	42	17	50	17														142			
	-	5																																															305	833	801
	5,5	-																																															305	843	808
	-	3,6																																															325	887	847
	4	-																																															305	843	808
3105	5,5	-																							266	333	390	35	12	260	42	17	50	17													146				
	-	6,8																																														325	887	847	
	3	-																																														305	925	885	
	-	3,6																																														305	873	841	
	-	5																																														325	883	848	
	4	-																																														305	927	887	
3106	5,5	-	306	373	430																				157																										
	-	6,8																								305	923	888																							
	4	-																								325	967	927																							
	7,5	-																								355	1005	965																							
	11	10																								305	1086	1046																							
3107	4	-	346	413	470																				161																										
	-	5																								305	963	928																							
	5,5	-																								325	1007	967																							
	-	6,8																								355	1045	1005																							
3108	7,5	-	386	453	510																			165																											
	11	10																							325	1126	1086																								
	-	13,5																							355	1047	1007																								
	-	13,5																							355	1085	1045																								

Dimensions of the pump

size	IP 54	EExe II T3	torque of the magnetic coupling	DN _A	DN _E	a	a ₁	a ₂	b	c	D ₂	e	e ₁	e ₂	e ₃	f	h ₁	h ₂	h ₃	m ₁ *	m ₂ *	n ₁	n ₂	s	weight of the pump																																																																																									
	kW	kW																								mm																				abt. kg																																																																				
4101	2,2	2	T	40	40	159	214	275	36	15	260	43	17	49	17	311	132	140	132	760	728	195	155	13	113																																																																																									
	3	2,5																		770	735																																																																																													
	-	3,6																		815	783																																																																																													
4	-	W	40			40	214	269								330				36	15				260	43	17	49	17	311	132	140	132	825	790	195	155	13	140																																																																											
2,2	2																																	869	829																																																																															
3	2,5																																	870	838																																																																															
4	3,6	W					40	40								269														324				385	36				15	260	43	17	49	17	331	132	140	132	880	845	195	155	13	156																																																												
5,5	5																																												924				884																																																																	
-	-																																												962				922																																																																	
3	-	T														40														40				269											324				385	36				15	260	43	17	49	17	311	132	140	132	1043	1003	195	155	13	156																																													
-	3,6																																																											1098				1058																																																		
4	-																																																											1127				1087																																																		
5,5	5	Z																																40											40				324											379				440	36				15	260	43	17	49	17	331	132	140	132	979	939	195	155	13	204																														
-	-																																																																										1208				1168																																			
7,5	6,8																																																																										1252				1212																																			
-	10	A																																															40											40				324											379				440	36				15	260	43	17	49	17	361	132	140	132	1017	977	195	155	13	204															
11	-																																																																																									1182				1142																				
-	-																																																																																									1237				1197																				
-	5	Z																																																														40											40				379											434				495	36				15	260	43	17	49	17	331	132	140	132	1034	994	195	155	13	211
5,5	-																																																																																																								1153				1113					
-	6,8			1197	1157																																																																																																													
7,5	-	on request		40	40				379	434	495	36	15	260	43		17	49	17			361	132	140																																																							132											1072				1032											195				155	13				211
11	10																					1208																																																																				1168																								
-	13,5		1252			1212																																																																																																												
-	6,8	on request	40			40			434	489	550									36	15	260			43	17	49	17	331		132	140	132			1127	1087	195																																																				155				13																				218
7,5	-																												1237							1197																																																																														
-	10						1263	1223																																																																																																										
11	-	on request					40	40	434	489	550																		36						15	260	43		17	49	17	361	132	140		132	1208	1168			195	155	13																																																													218
15	13,5																																									1252					1212																																																																			
-	15															1259														1212																																																																																				
7,5	6,8	on request							40	40	489					544														605												36					15	260		43				17	49	17	331	132	140		132	1182	1142			195	155	13																																														225
-	10																																																								1237					1197																																																				
11	-																																	1263											1223																																																																					
15	13,5	on request									40					40														489				544											605												36					15	260		43				17	49	17	361	132	140		132	1263	1223			195	155	13																															225
18,5	15																																																																							1307					1267																																					
-	-																																																1314											1267																																																						
7,5	-	on request																												40				40											544				599											660												36					15	260		43				17	49	17	331	132	140		132	1237	1197			195	155	13																235
-	10																																																																																						1318					1278																						
11	-																																																															1362											1322																																							
15	13,5	on request																																											40				40											544				599											660												36					15	260		43				17	49	17	361	132	140		132	1318	1278			195	155	13	235
18,5	15																																																																																																					1362					1322							
-	17,5			1407	1360																																																																																																													

Dimensions of the pump

size	IP 54	EExe II T3	torque of the magnetic coupling	DN _A	DN _E	a	a ₁	a ₂	b	c	D ₂	e	e ₁	e ₂	e ₃	f	h ₁	h ₂	h ₃	m ₁ *	m ₂ *	n ₁	n ₂	s	weight of the pump																	
	kW	kW																							abt. kg																	
5101	3	-	T	50	50	175	253	315	45	17	65	18	57	19	160	165	160	215	170	15	318	808	774	200																		
	4	3,6	W																		818	781																				
	5,5	5	Z																		862	820																				
	7,5	6,8	A																		900	858																				
5102	-	5	Z			250	328	390													260	338	368		338	368	368	368	368	368	368	368	368	368	368	368	368	368	368	235		
	5,5	-	A																																						937	895
	7,5	6,8	-																																						975	933
	11	10	C																																						1056	1114
5103	-	13,5	D			325	403	465													315	338	368		338	368	368	368	368	368	368	368	368	368	368	368	368	368	368	254		
	-	15	-																																						1100	1058
	-	6,8	A																																						1107	1058
	7,5	-	C																																						1050	1008
5104	-	10	D			400	478	540													315	338	368		338	368	368	368	368	368	368	368	368	368	368	368	368	368	368	315		
	11	-	-																																						1131	1089
	15	13,5	F																																						1175	1133
	18,5	15	-																																						1182	1133
5105	-	10	D			475	553	615													315	338	368		338	368	368	368	368	368	368	368	368	368	368	368	368	368	368	366		
	11	-	-																																						1206	1164
	15	13,5	-																																						1250	1208
	18,5	15	-																																						1257	1208
5106	-	17,5	-			550	628	690													315	338	368		338	368	368	368	368	368	368	368	368	368	368	368	368	368	368	378		
	-	24	-																																						1295	1246
	22	-	-																																						1333	1284
	-	30	-																																						1347	1305
5107	-	24	-			625	703	765													315	338	368		338	368	368	368	368	368	368	368	368	368	368	368	368	368	368	389		
	30	-	-																																						1391	1349
	-	30	-																																						1397	1349
	37	-	-																																						1435	1387
5108	-	30	-	700	778	840	315	338	368	338	368	368	368	368	368	368	368	368	368	368	368	368	368	368	401																	
	-	30	-																							1474	1425															
	37	-	-																							1466	1424															
	-	44	-																							1472	1424															

Dimensions of the pump

size	IP 54	EEExe II T3	torque of the magnetic coupling	DN _A	DN _E	a	a ₁	a ₂	b	c	D ₂	e	e ₁	e ₂	e ₃	f	h ₁	h ₂	h ₃	m ₁ *	m ₂ *	n ₁	n ₂	s	weight of the pump																																																																																																																																																
	kW	kW																							mm																					abt. kg																																																																																																																											
6101	5,5	5	A	65	65	196	286	353	50	20	315	63	19	65	20	413	180	180	180	245	195	15	969	928	298																																																																																																																																																
	7,5	6,8																					1007	966																																																																																																																																																	
	-	10																					1089	1047																																																																																																																																																	
6102	11	-	B			65	65	286								376							443	50		20	315	63	19	65	20	443	180	180	180	245	195	15	1133	1091	320																																																																																																																																
	-	13,5																																					1098	1056																																																																																																																																	
	7,5	-																																					1179	1137																																																																																																																																	
6103	-	10	A					65								65							376									466							533	50		20	315	63	19	65	20	413	180	180	180	245	195	15	1223	1181	335																																																																																																																
	-	10																																																					1229	1181																																																																																																																	
	11	-																																																					1267	1219																																																																																																																	
6104	-	13,5	E																				65									65							466									556							623	50		20	315	63	19	65	20	443	180	180	180	245	195	15	1313	1271	349																																																																																																
	18,5	15																																																																					1319	1271																																																																																																	
	-	17,5																																																																					1357	1309																																																																																																	
6105	-	17,5	F																																				65									65							556									646							713	50		20	315	63	19	65	20	443	180	180	180	245	195	15	1403	1361	368																																																																																
	22	-																																																																																					1409	1361																																																																																	
	-	24																																																																																					1447	1399																																																																																	
6106	30	-	H																																																				65									65							646									736							803	50		20	315	63	19	65	20	443	180	180	180	245	195	15	1486	1437	382																																																																
	-	13,5																																																																																																					1525	1464																																																																	
	18,5	15																																																																																																					1550	1489																																																																	
6107	-	17,5	E																																																																				65									65							736									826							893	50		20	315	63	19	65	20	443	180	180	180	245	195	15	1537	1489	397																																																
	22	-																																																																																																																					1576	1527																																																	
	-	24																																																																																																																					1615	1554																																																	
6108	30	-	H																																																																																				65									65							826									916							983	50		20	315	63	19	65	20	443	180	180	180	245	195	15	1640	1579	415																																
	-	13,5																																																																																																																																					1690	1636																																	
	18,5	15																																																																																																																																					1628	1579																																	
6109	-	17,5	F																																																																																																				65									65							826									916							983	50		20	315	63	19	65	20	443	180	180	180	245	195	15	1666	1617	382																
	22	-																																																																																																																																																					1705	1644																	
	-	24																																																																																																																																																					1730	1669																	
6110	37	-	J																																																																																																																				65									65							826									916							983	50		20	315	63	19	65	20	443	180	180	180	245	195	15	1780	1726	397
	-	36																																																																																																																																																																					1756	1707	
	-	30																																																																																																																																																																					1795	1734	
6111	-	36	on request	65	65				826	916	983	50	20	315	63		19	65	20	443	180	180			180																																																																																																														245									195							15									1820							1759	415	
	45	-																																																																																																																																																														1870							1816		
	-	44																																																																																																																																																														1846							1797		
6112	55	-	on request			65	65		826	916	983									50				20		315	63	19	65	20	443		180	180	180	245	195	15			1885																																																																																																																							1824							415		
	-	30																																							1910																																																																																																																							1849									
	37	-																																							1960																																																																																																																							1906									

Data regarding pump size - order hints

series + size	hydraulics + bearings	shaft sealing + magnetic coupling	material design	casing seal																																																																																
	<p>A• first hydraulics</p> <p>•F two liquid surrounded sleeve bearing</p>	<p>1 •• coupling system 1 2 •• coupling system 2 3 •• coupling system 3 4 •• coupling system 4</p> <p>isolation shroud of: • A • Hastelloy C (2.4610)</p> <p>torque of desynchronization [Nm] for system 12 / 3 4</p> <table border="0"> <tr> <td>••A</td> <td>78</td> <td>69</td> </tr> <tr> <td>••B</td> <td></td> <td>83</td> </tr> <tr> <td>••C</td> <td>100</td> <td></td> </tr> <tr> <td>••D</td> <td>112</td> <td></td> </tr> <tr> <td>••E</td> <td>158</td> <td>133</td> </tr> <tr> <td>••F</td> <td>179</td> <td>178</td> </tr> <tr> <td>••H</td> <td></td> <td>212</td> </tr> <tr> <td>••J</td> <td></td> <td>255</td> </tr> <tr> <td>••K</td> <td>14</td> <td>293</td> </tr> <tr> <td>••L</td> <td></td> <td>330</td> </tr> <tr> <td>••M</td> <td></td> <td>380</td> </tr> <tr> <td>••P</td> <td>23</td> <td></td> </tr> <tr> <td>••T</td> <td></td> <td>33</td> </tr> <tr> <td>••V</td> <td>38</td> <td></td> </tr> <tr> <td>••W</td> <td></td> <td>41</td> </tr> <tr> <td>••Z</td> <td></td> <td>54</td> </tr> </table>	••A	78	69	••B		83	••C	100		••D	112		••E	158	133	••F	179	178	••H		212	••J		255	••K	14	293	••L		330	••M		380	••P	23		••T		33	••V	38		••W		41	••Z		54	<p>1A main parts of spheroidal cast iron, vane wheel impeller of brass</p> <p>1B main parts of spheroidal cast iron, vane wheel impeller of chrome steel</p> <p>1F main parts of spheroidal cast iron, vane wheel impeller of PAEK</p> <p>4B stainless steel</p> <p>4F stainless steel vane wheel impeller PAEK</p>	<p>4 soft PTFE and PTFE O-ring at isolation shroud</p>																																
••A	78	69																																																																																		
••B		83																																																																																		
••C	100																																																																																			
••D	112																																																																																			
••E	158	133																																																																																		
••F	179	178																																																																																		
••H		212																																																																																		
••J		255																																																																																		
••K	14	293																																																																																		
••L		330																																																																																		
••M		380																																																																																		
••P	23																																																																																			
••T		33																																																																																		
••V	38																																																																																			
••W		41																																																																																		
••Z		54																																																																																		
AEH	AF	<table border="0"> <tr><td>1201</td><td>1AK</td></tr> <tr><td>1202</td><td>1AK</td></tr> <tr><td>1203</td><td>1AK, 1AP</td></tr> <tr><td>1204</td><td>1AK, 1AP, 1AV</td></tr> <tr><td>1205</td><td>1AP, 1AV</td></tr> <tr><td>1206</td><td>1AP, 1AV</td></tr> <tr><td>1207</td><td>1AP, 1AV</td></tr> <tr><td>1208</td><td>1AV</td></tr> <tr><td>3101 and 3601</td><td>2AT</td></tr> <tr><td>3102 and 3602</td><td>2AT</td></tr> <tr><td>3103 and 3603</td><td>2AT, 2AW</td></tr> <tr><td>3104 and 3604</td><td>2AT, 2AW, 2AZ</td></tr> <tr><td>3105 and 3605</td><td>2AT, 2AW, 2AZ, 2AA</td></tr> <tr><td>3106 and 3606</td><td>2AT, 2AW, 2AZ, 2AA</td></tr> <tr><td>3107 and 3607</td><td>2AW, 2AZ, 2AA</td></tr> <tr><td>3108 and 3608</td><td>2AZ, 2AA, 2AC</td></tr> <tr><td>4101</td><td>3AT, 3AW</td></tr> <tr><td>4102</td><td>3AT, 3AW, 3AZ</td></tr> <tr><td>4103</td><td>3AT, 3AW, 3AZ, 3AA</td></tr> <tr><td>4104</td><td>3AZ, 3AA, 3AC</td></tr> <tr><td>4105</td><td>3AZ, 3AA, 3AC, 3AD</td></tr> <tr><td>4106</td><td>3AA, 3AC, 3AD, 3AE</td></tr> <tr><td>4107</td><td>3AC, 3AD, 3AE</td></tr> <tr><td>4108</td><td>3AC, 3AD, 3AE</td></tr> <tr><td>5101</td><td>3AT, 3AW, 3AZ, 3AA</td></tr> <tr><td>5102</td><td>3AZ, 3AA, 3AC, 3AD</td></tr> <tr><td>5103</td><td>3AA, 3AC, 3AD, 3AE</td></tr> <tr><td>5104</td><td>3AD, 3AE, 3AF</td></tr> <tr><td>5105</td><td>4AA, 4AB, 4AE, 4AF, 4AH</td></tr> <tr><td>5106</td><td>4AE, 4AF, 4AH</td></tr> <tr><td>5107</td><td>4AE, 4AF, 4AH, 4AJ</td></tr> <tr><td>5108</td><td>4AE, 4AF, 4AH, 4AJ, 4AK; 4AL</td></tr> <tr><td>6101</td><td>4AA, 4AB, 4AE</td></tr> <tr><td>6102</td><td>4AA, 4AB, 4AE</td></tr> <tr><td>6103</td><td>4AE, 4AF, 4AH</td></tr> <tr><td>6104</td><td>4AE, 4AF, 4AH, 4AJ</td></tr> <tr><td>6105</td><td>4AE, 4AF, 4AH, 4AJ, 4AK; 4AL</td></tr> <tr><td>6106</td><td>4AF, 4AH, 4AJ, 4AK; 4AL, 4AM</td></tr> <tr><td>6107</td><td>4AF, 4AH, 4AJ, 4AK; 4AL, 4AM</td></tr> <tr><td>6108</td><td>4AH, 4AJ, 4AK; 4AL, 4AM</td></tr> </table>	1201	1AK	1202	1AK	1203	1AK, 1AP	1204	1AK, 1AP, 1AV	1205	1AP, 1AV	1206	1AP, 1AV	1207	1AP, 1AV	1208	1AV	3101 and 3601	2AT	3102 and 3602	2AT	3103 and 3603	2AT, 2AW	3104 and 3604	2AT, 2AW, 2AZ	3105 and 3605	2AT, 2AW, 2AZ, 2AA	3106 and 3606	2AT, 2AW, 2AZ, 2AA	3107 and 3607	2AW, 2AZ, 2AA	3108 and 3608	2AZ, 2AA, 2AC	4101	3AT, 3AW	4102	3AT, 3AW, 3AZ	4103	3AT, 3AW, 3AZ, 3AA	4104	3AZ, 3AA, 3AC	4105	3AZ, 3AA, 3AC, 3AD	4106	3AA, 3AC, 3AD, 3AE	4107	3AC, 3AD, 3AE	4108	3AC, 3AD, 3AE	5101	3AT, 3AW, 3AZ, 3AA	5102	3AZ, 3AA, 3AC, 3AD	5103	3AA, 3AC, 3AD, 3AE	5104	3AD, 3AE, 3AF	5105	4AA, 4AB, 4AE, 4AF, 4AH	5106	4AE, 4AF, 4AH	5107	4AE, 4AF, 4AH, 4AJ	5108	4AE, 4AF, 4AH, 4AJ, 4AK; 4AL	6101	4AA, 4AB, 4AE	6102	4AA, 4AB, 4AE	6103	4AE, 4AF, 4AH	6104	4AE, 4AF, 4AH, 4AJ	6105	4AE, 4AF, 4AH, 4AJ, 4AK; 4AL	6106	4AF, 4AH, 4AJ, 4AK; 4AL, 4AM	6107	4AF, 4AH, 4AJ, 4AK; 4AL, 4AM	6108	4AH, 4AJ, 4AK; 4AL, 4AM	<p>alternatively</p> <p>1A 1B 1F 4B 4F</p>	<p>4</p>
1201	1AK																																																																																			
1202	1AK																																																																																			
1203	1AK, 1AP																																																																																			
1204	1AK, 1AP, 1AV																																																																																			
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3104 and 3604	2AT, 2AW, 2AZ																																																																																			
3105 and 3605	2AT, 2AW, 2AZ, 2AA																																																																																			
3106 and 3606	2AT, 2AW, 2AZ, 2AA																																																																																			
3107 and 3607	2AW, 2AZ, 2AA																																																																																			
3108 and 3608	2AZ, 2AA, 2AC																																																																																			
4101	3AT, 3AW																																																																																			
4102	3AT, 3AW, 3AZ																																																																																			
4103	3AT, 3AW, 3AZ, 3AA																																																																																			
4104	3AZ, 3AA, 3AC																																																																																			
4105	3AZ, 3AA, 3AC, 3AD																																																																																			
4106	3AA, 3AC, 3AD, 3AE																																																																																			
4107	3AC, 3AD, 3AE																																																																																			
4108	3AC, 3AD, 3AE																																																																																			
5101	3AT, 3AW, 3AZ, 3AA																																																																																			
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5107	4AE, 4AF, 4AH, 4AJ																																																																																			
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6105	4AE, 4AF, 4AH, 4AJ, 4AK; 4AL																																																																																			
6106	4AF, 4AH, 4AJ, 4AK; 4AL, 4AM																																																																																			
6107	4AF, 4AH, 4AJ, 4AK; 4AL, 4AM																																																																																			
6108	4AH, 4AJ, 4AK; 4AL, 4AM																																																																																			

Possible pump-magnetic coupling-motor combinations please take from the dimensions table on the page 7 - 11.

Order hints

selection table - 3-phase AC motors, speed: = 1450 rpm				
size	IP 54 EEx e II T3 (Ex e G3)		IP 54 and IP 54 EEx d II T3 (TEF)	
	nominal power [kW]	SIHI designation	nominal power [kW]	SIHI designation
80A	0,55	FK	0,55	FB
80B	0,75	GK	0,75	GB
90 S	1,0	HK	1,1	HB
90 L	1,35	JK	1,5	JB
100 L 1	2,0	KK	2,2	KB
100 L 2	2,5	LK	3,0	LB
112 M	3,6	MK	4,0	MB
132 S	5,0	NK	5,5	NB
132 M	6,8	PK	7,5	PB
160 M	10,0	SK	11,0	SB
160 L	13,5	UK	15,0	UB
180 M	15,0	VK	18,5	VB
180 L	17,5	WK	22,0	WB
200 L	24,0	XK	30,0	XB
225 S	30,0	ZK	37,0	ZB
225 M	36,0	AK	45,0	AB
250 M	44,0	BK	55,0	BB

Example of order

A two stage pump of size 3100 in material design 4B, equipped with a T-magnet and a 1,35 kW motor, protection type EEx e II T3 has the complete order number:

AEH- 3102 AF 2AT 4B 4 JK

On delivery, the point (•) in the fourth place of the type designation is replaced by a letter in the factory.

Any changes in the interest of the technical development reserved.

Sterling SIHI GmbH

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