

AEH 1201 ... 6108 magnetic coupling

TECHNICAL DATA

output:	max. 35 m³/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.

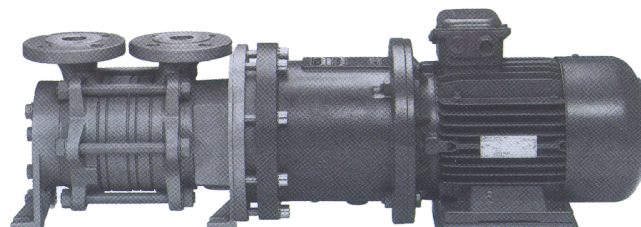
AEH pumps are applied in the chemical and petrochemical industry, in the pharmaceutical industry, in the plastic and rubber industry, in the surface finishing and hardening, in the food, beverage and tobacco industry.

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

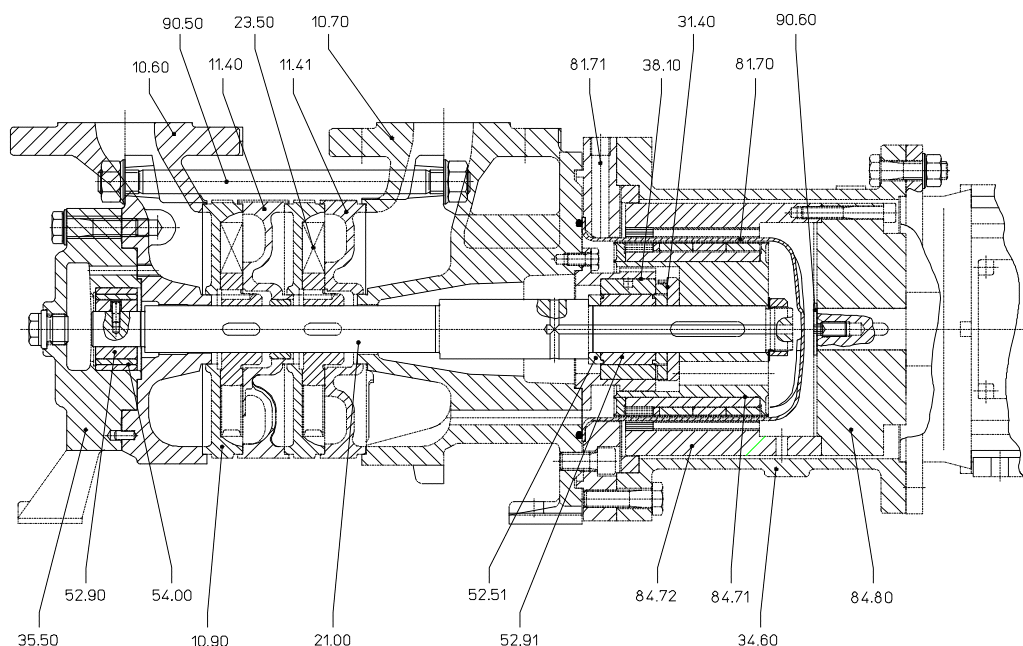
Series **ZTKA** volute casing pump for medium temperatures up to 400°C

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:

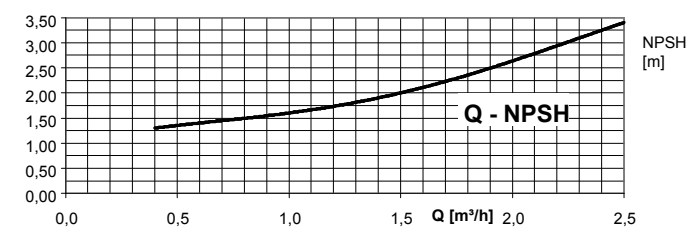
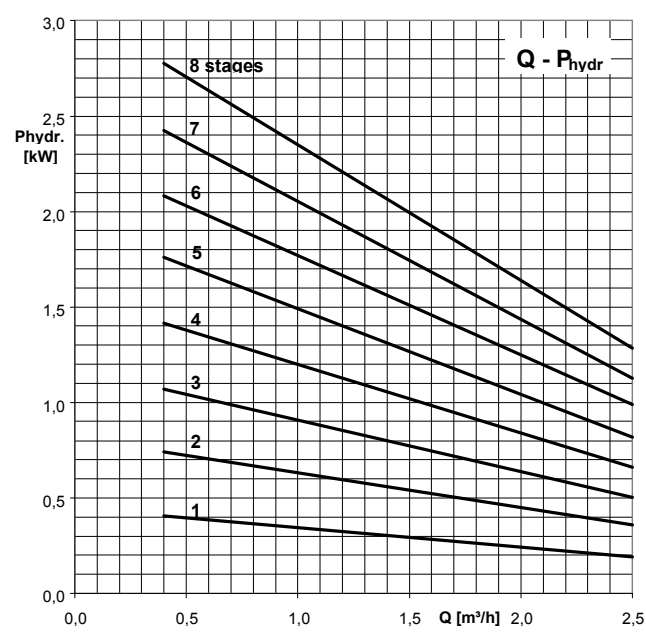
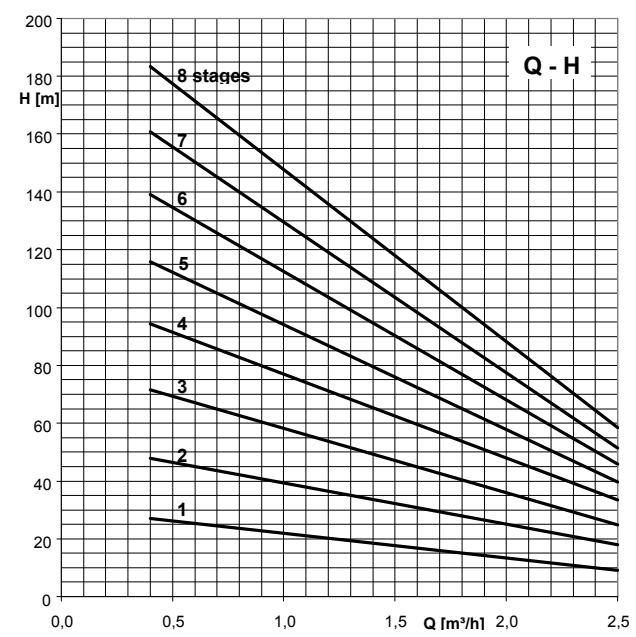
The magnetic bell is directly fixed on the motor shaft. The load on the bearings resulting from this is relatively slight and therefore a damage to the bearings very improbable. In order to protect the isolation shroud against internal or external damages by rotating parts, a stationary seat is installed 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.

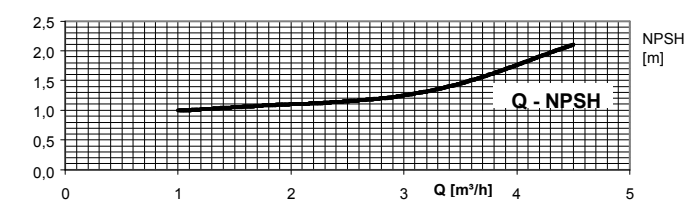
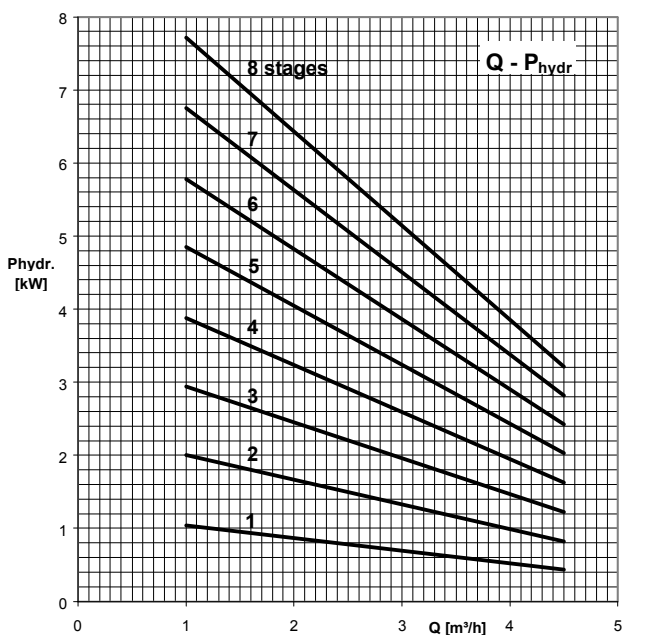
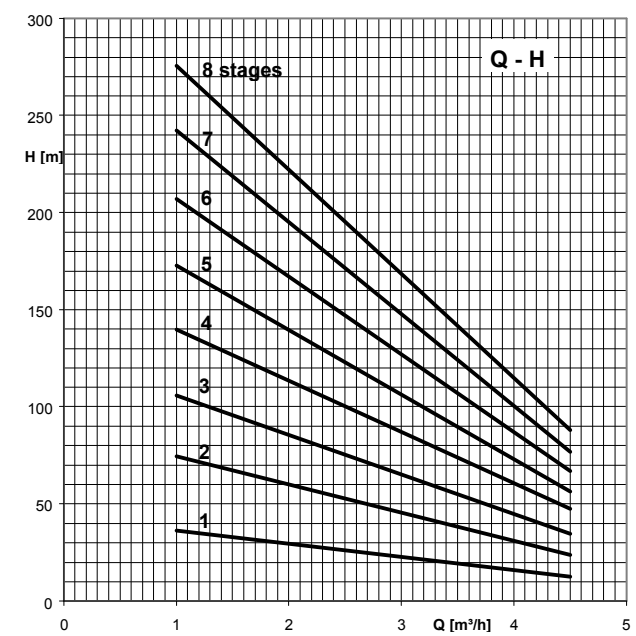
VARIANTS

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

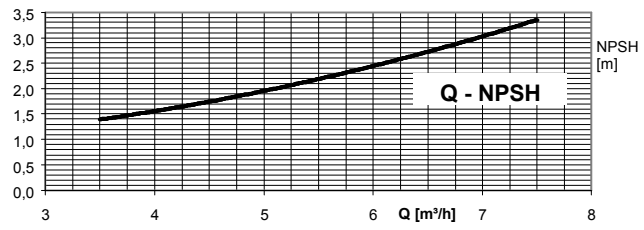
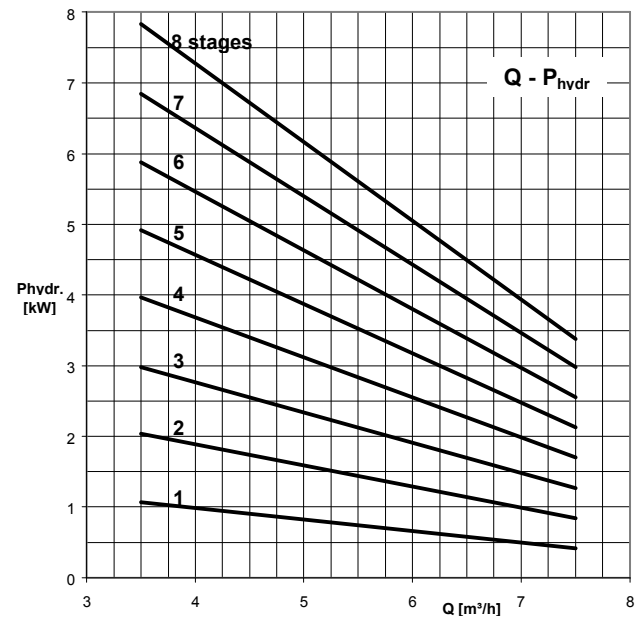
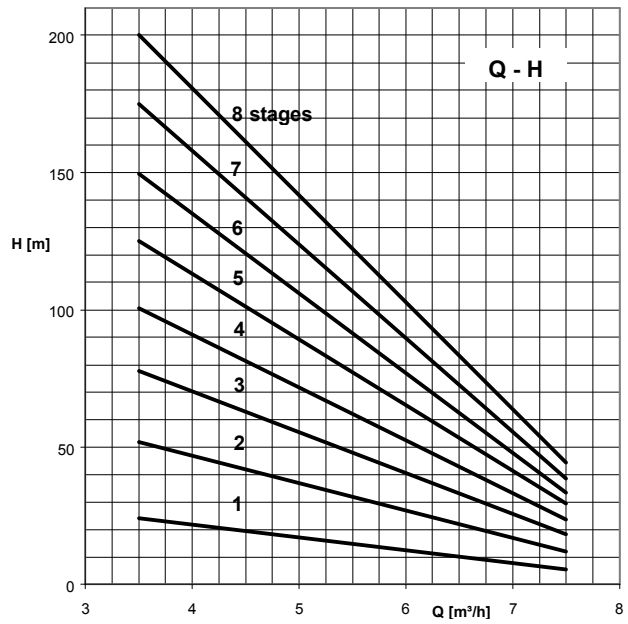


AEH 1200 with magnetic coupling
speed 1450 rpm, Visc.= 1 mm²/s, spec. grav. = 1 kg/dm³



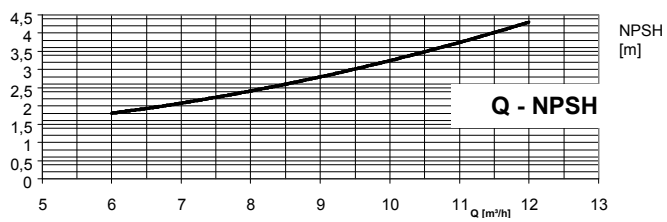
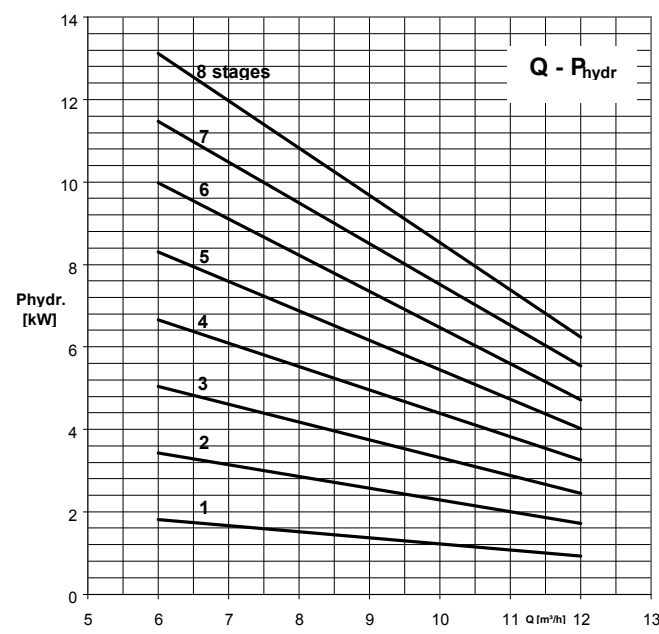
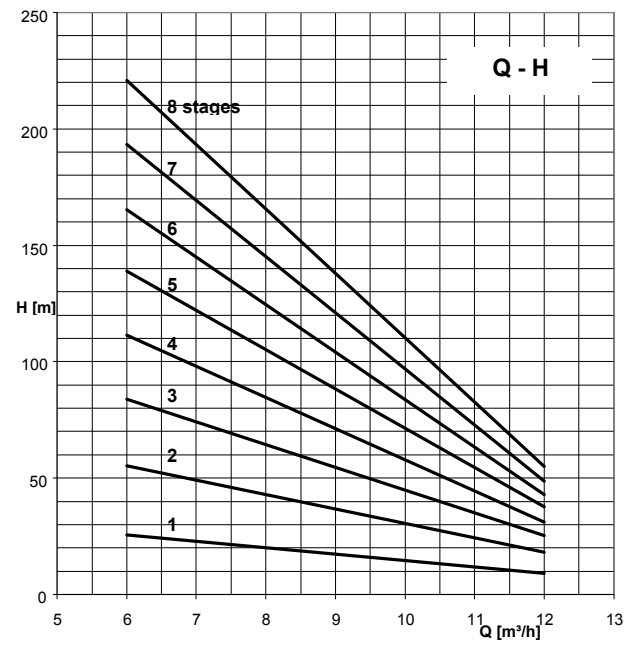
AEH 3100 with magnetic coupling
speed 1450 rpm, Visc. 1 mm²/s, spec.grav. 1 kg/dm³

Characteristic curves



AEH 3600 with magnetic coupling

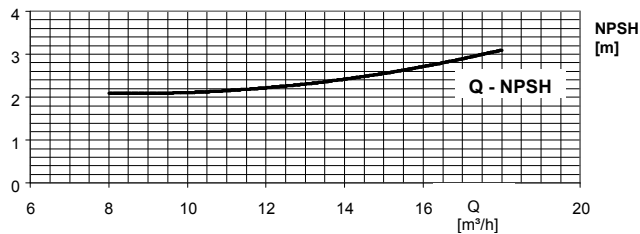
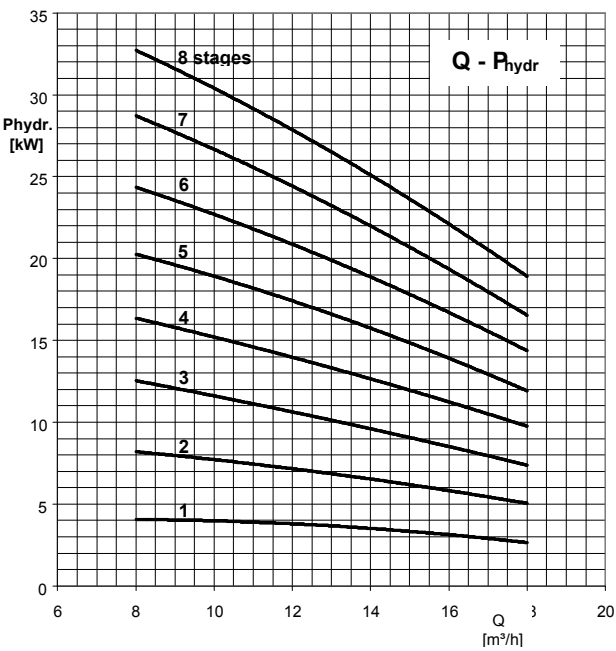
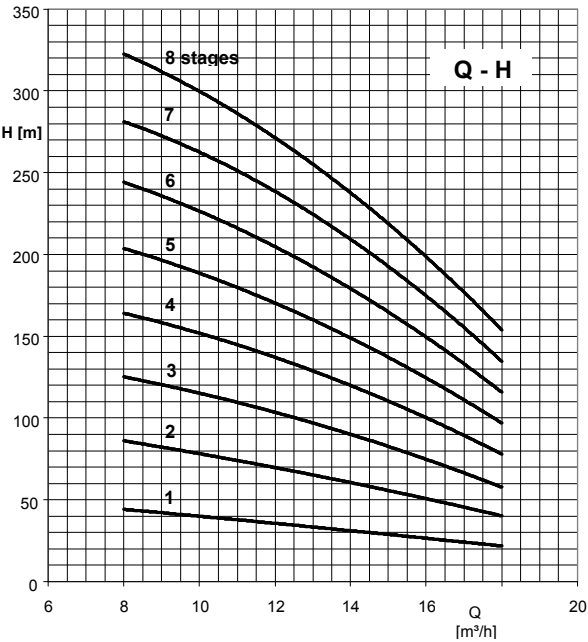
speed 1450 rpm, Visc. 1 mm²/s, spec.grav. 1 kg/dm³



AEH 4100 with magnetic coupling

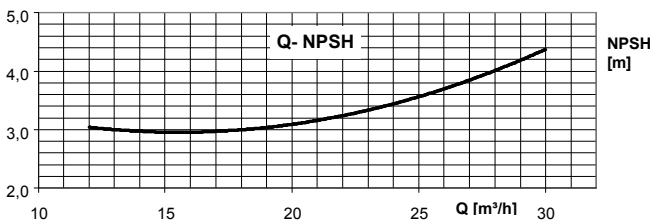
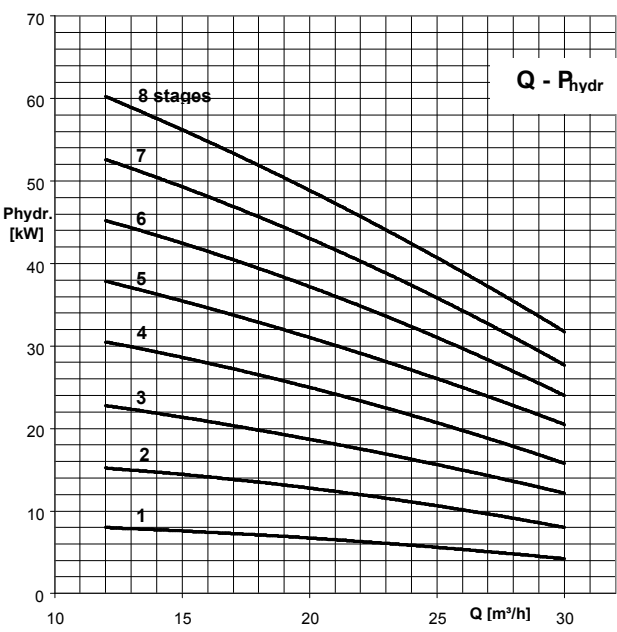
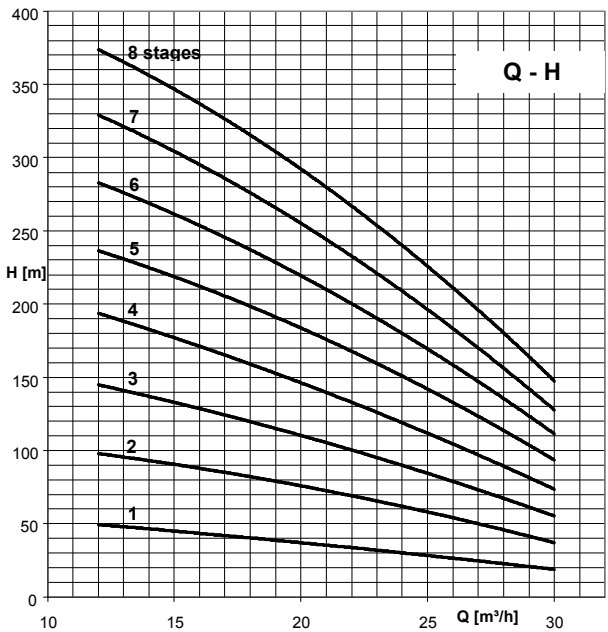
speed 1450 rpm, Visc. 1 mm²/s, spec.grav. 1 kg/dm³

Characteristic curves



AEH 5100 with magnetic coupling

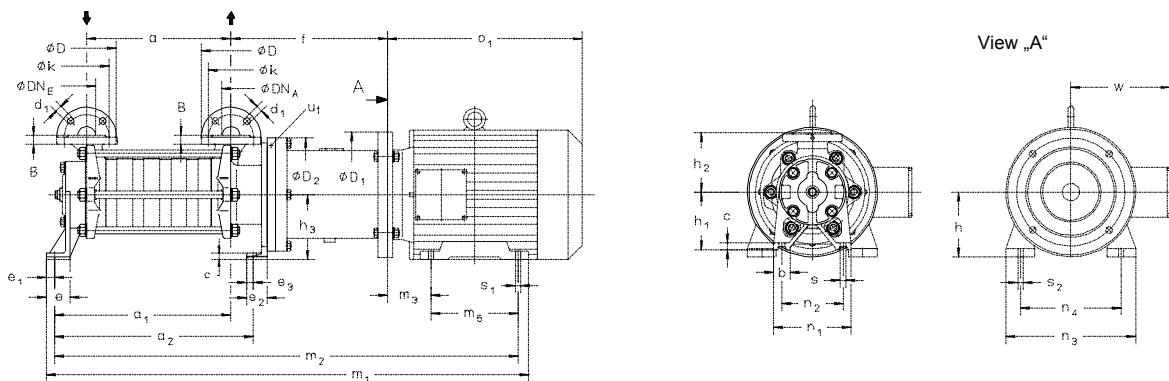
speed 1450 rpm, Visc. 1 mm²/s, spec.grav. 1 kg/dm³



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	mm										
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

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	
1201	0,55	0,55	K	20	20	120	178	228	32	10	182	44	17	34	17	227	100	100	100	585	555	140	105	13	46
	0,75	0,75																		51					
0,75	0,75	62																							
1,1	1																				65				
1,5	1,35					67																			
0,75	0,75						70																		
1,1	1							73																	
1,5	1,35																			76					
2,2	2	76																							
1,1	-																				76				
1,5	1,35		76																						
2,2	2					76																			
3	2,5						76																		
1,5	1,35							76																	
-	2	76																							
2,2	-															76									
3	2,5		76																						
-	3,6					76																			
-	1,35						76																		
-	2							76																	
2,2	-	76																							
3	2,5			76																					
4	3,6		76																						
-	2				76																				
2,2	-					76																			
3	2,5						76																		
4	3,6	76																							
-	2			76																					
2,2	-		76																						
3	2,5				76																				
4	3,6					76																			
-	5						76																		

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		
3101 3601	1,1	1	T	32	32	146	213	270									112	132	132	696	664	170	135	13	122	
	1,5	1,35																		721	689					130
	2,2	2																		753	721					
1,5	1,35	721																		689	138					
2,2	2	753																		721						
3	2,5	763																		728						
4	3,6	793																		761						
2,2	2	803																		768						
3	2,5	847																		807						
4	3,6	833																		801						
-	5	843																		808						
5,5	-	887																		847						
3	2,5	843	808																							
-	3,6	887	847																							
-	5	843	808																							
4	-	887	847																							
5,5	-	925	885																							
-	6,8	873	841																							
3	-	883	848																							
-	3,6	927	887																							
-	5	883	848																							
4	-	927	887																							
5,5	-	965	925																							
-	6,8	923	888																							
3	-	967	927																							
-	3,6	1005	965																							
4	-	1086	1046																							
-	5	963	928																							
5,5	-	1007	967																							
7,5	-	1045	1005																							
11	10	1126	1086																							
4	-	1047	1007																							
-	5	1085	1045																							
5,5	5	1166	1126																							
7,5	6,8	1210	1170																							
11	10																									
-	13,5																									
3102 3602	1,1	1	T	32	32	146	213	270									112	132	132	696	664	170	135	13	122	
	1,5	1,35																		721	689					130
	2,2	2																		753	721					
1,5	1,35	721																		689	138					
2,2	2	753																		721						
3	2,5	763																		728						
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11	10																									
-	13,5																									
3103 3603	1,1	1	T	32	32	146	213	270									112	132	132	696	664	170	135	13	122	
	1,5	1,35																		721	689					130
	2,2	2																		753	721					
1,5	1,35	721																		689	138					
2,2	2	753																		721						
3	2,5	763																		728						
4	3,6	793																		761						
2,2	2	803																		768						
3	2,5	847																		807						
4	3,6	833																		801						
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5,5	-	887																		847						
3	2,5	843	808																							
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-	6,8	923	888																							
3	-	967	927																							
-	3,6	1005	965																							
4	-	1086	1046																							
-	5	963	928																							
5,5	-	1007	967																							
7,5	-	1045	1005																							
11	10	1126	1086																							
4	-	1047	1007																							
-	5	1085	1045																							
5,5	5	1166	1126																							
7,5	6,8	1210	1170																							
11	10																									
-	13,5																									
3104 3604	1,1	1	T	32	32	146	213	270									112	132	132	696	664	170	135	13	122	
	1,5	1,35																		721	689					130
	2,2	2																		753	721					
1,5	1,35	721																		689	138					
2,2	2	753																		721						
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4	3,6	793																		761						
2,2	2	803																		768						
3	2,5	847																		807						
4	3,6	833																		801						
-	5	843																		808						
5,5	-	887																		847						
3	2,5	843	808																							
-	3,6	887	847																							
-	5	843	808																							
4	-	887	847																							
5,5	-	925	885																							
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3	-	883	848																							
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-	5	883	848																							
4	-	927	887																							
5,5	-	965	925																							
-	6,8	923	888																							
3	-	967	927																							
-	3,6	1005	965																							
4	-	1086	1046																							
-	5	963	928																							
5,5	-	1007	967																							
7,5	-	1045	1005																							
11	10	1126	1086																							
4	-	1047	1007																							
-	5	1085	1045																							
5,5	5	1166	1126																							
7,5	6,8	1210	1170																							
11	10																									
-	13,5																									
3105 3605	1,1	1	T	32	32	146	213	270									112	132	132	696	664	170	135	13	122	
	1,5	1,35																		721	689					130
	2,2	2																		753	721					
1,5	1,35	721																		689	138					
2,2	2	753																		721						
3	2,5	763																		728						
4	3,6	793																		761						
2,2	2	803																		768						
3	2,5	847																		807						
4	3,6	833																		801						
-	5	843																		808						
5,5	-	887																		847						
3	2,5	843	808																							
-	3,6	887	847																							
-	5	843	808																							
4	-	887	847																							
5,5	-	925	885																							
-	6,8	873	841																							
3	-	883	848																							
-	3,6	927	887																							
-	5	883	848																							
4	-	927	887																							
5,5	-	965	925																							
-	6,8	923	888																							
3	-	967	927																							
-	3,6	1005	965																							
4	-	1086	1046																							
-	5	963	928																							
5,5	-	1007	967																							
7,5	-	1045	1005																							
11	10	1126	1086																							
4	-	1047	1007																							
-	5	1085	1045																							
5,5	5	1166	1126																							
7,5	6,8	1210	1170																							
11	10																									
-	13,5																									
3106 3606	1,1	1	T	32	32	146	213	270									112	132	132	696	664	170	135	13	122	
	1,5	1,35																		721	689					130
	2,2	2																		753	721					
1,5	1,35	721																		689	138					
2,2	2	753																		721						
3	2,5	763																		728						
4	3,6	793																		761						
2,2	2	803																		768						
3	2,5	847																		807						
4	3,6	833																		801						
-	5	843																		808						
5,5	-	887																		847						
3	2,5	843	808																							
-	3,6	887	847																							
-	5	843	808																							
4	-	887	847																							
5,5	-	925	885																							
-	6,8	873	841																							
3	-	883	848																							
-	3,6	927	887																							
-	5	883	848																							
4	-	927	887																							
5,5	-	965	925																							
-	6,8	923	888																							
3	-	967	927																							
-	3,6	1005	965																							
4	-	1086	1046																							
-	5	963	928																							
5,5	-	1007	967																							
7,5	-	1045	1005																							
11	10	1126	1086																							
4	-	1047	1007																							
-	5	1085	1045																							
5,5	5	1166	1126																							
7,5	6,8	1210	1170																							
11	10																									
-	13,5																									
3107 3607	1,1	1	T	32	32	146	213	270									112	132	132	696	664	170	135	13	122	
	1,5	1,35																		721	689					130
	2,2	2																		753	721					
1,5	1,35	721																		689	138					
2,2	2	753																		721						
3	2,5	763																		728						
4	3,6	793																		761						
2,2	2	803																		768						
3	2,5	847																		807						
4	3,6	833																		801						
-	5	843																		808						
5,5	-	887																		847						
3	2,5	843	808																							
-	3,6	887	847																							
-	5	843	808																							
4	-	887	847																							
5,5	-	925	885																							
-	6,8	873	841																							
3	-	883	848																							
-	3,6	927	887																							
-	5	883	848																							
4	-	927	887																							
5,5	-	965	925																							
-	6,8	923	888																							
3	-	967	927																							
-	3,6	1005	965																							
4	-	1086	1046																							
-	5	963	928																							
5,5	-	1007	967																							
7,5	-	1045	1005																							
11	10	1126	1086																							
4	-	1047	1007																							
-	5	1085	1045																							
5,5	5	1166	1126																							
7,5	6,8	1210	1170																							
11	10																									
-	13,5																									
3108 3608	1,1	1	T	32	32	146	213	270									112	132	132	696	664	170	135	13	122	
	1,5	1,35																		721	689					130
	2,2	2																		753	721					
1,5	1,35	721																		689	138					
2,2	2	753																		721						
3	2,5	763																		728						
4	3,6	793																		761						
2,2	2	803																		768						
3	2,5	847																		807						
4	3,6	833																		801						
-	5	843																		808						
5,5	-	887																		847						
3	2,5	843	808																							
-	3,6	887	847																							
-	5	843	808																							
4	-	887	847																							
5,5	-	925	885																							
-	6,8	873	841																							
3	-	883	848																							
-	3,6	927	887																							
-	5	883	848																							
4	-	927	887																							
5,5	-	965	925																							
-	6,8	923	888																							
3	-	967	927																							
-	3,6	1005	965																							
4	-	1086	1046																							
-	5	963	928																							
5,5	-	1007	967																							
7,5	-	1045	1005																							
11	10	1126	1086																							
4	-	1047	1007																							
-	5	1085	1045																							
5,5	5	1166	1126																							
7,5	6,8	1210	1170																							
11	10																									
-	13,5																									

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																		-	-				
4	-	W	-			-																			
2,2	2	T	-			-																			
3	2,5	-	-																						
4	3,6	W	-			-																			
5,5	5	Z	-			-																			
3	-	T	-			-																			
-	3,6	W	-			-																			
4	-	Z	-			-																			
5,5	5	-	-																						
7,5	6,8	A	-			-																			
-	10	-	-																						
-	5	Z	-			-																			
5,5	-	-	-			-																			
7,5	6,8	A	-			-																			
-	10	-	-																						
11	-	C	-			-																			
-	5	-	-			-																			
5,5	-	-	-			-																			
-	6,8	-	-			-																			
7,5	-	-	-			-																			
11	10	-	-			-																			
-	13,5	-	-	-																					
-	6,8	-	-	-																					
7,5	-	-	-	-																					
-	10	-	-	-																					
11	-	-	-	-																					
15	13,5	-	-	-																					
-	15	-	-	-																					
7,5	6,8	-	-	-																					
-	10	-	-	-																					
11	-	-	-	-																					
15	13,5	-	-	-																					
18,5	15	-	-	-																					
7,5	-	-	-	-																					
-	10	-	-	-																					
11	-	-	-	-																					
15	13,5	-	-	-																					
18,5	15	-	-	-																					
-	17,5	-	-	-																					

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	260	65	18	57	19	318	160	165	160	808	774	215	170	15	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								338				937	895					235	
	5,5	-	A																	368	975						933
	7,5	6,8	1056																		1114						
	11	10	C																		1100						1058
5103	-	13,5	D			325	403	465								338					1107					1058	254
	-	15	368																	1050	1008						
	-	6,8																		A	1131					1089	
	7,5	-																		C	1175					1133	
5104	-	10				D	400	478								540				368	1182					1133	315
	11	-	434			1206															1164						
	15	13,5				1250															1208						
	18,5	15				1257															1208						
5105	-	17,5				F	475	553								615				434	1295					1246	366
	-	24	F			1333															1284						
	-	10	434			1347															1305						
	11	-				1391															1349						
15	13,5	1397				1349																					
18,5	15	1435				1387																					
5106	-	17,5	on request			550	628	690								434				1474	1425					378	
	22	-																		1466	1424						
	-	24																		1472	1424						
	30	-																		1510	1462						
5107	-	30				625	703	765								464				1549	1500					389	
	-	30																		1588	1527						
	15	-																		1541	1499						
	18,5	15																		1547	1499						
5108	-	17,5				700	778	840								434				1585	1537					401	
	22	-																		1624	1575						
	-	24																		1663	1602						
	30	-																		1660	1610						
5109	-	30				700	778	840								464				1696	1650					401	
	37	-																		1738	1677						
	-	36																		1763	1702						
	45	-																		1813	1759						
5110	-	44				700	778	840								464				1813	1759					401	
	-	44																		1813	1759						
	-	44																		1813	1759						
	-	44																		1813	1759						

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									180	180	180	969	928	245	195	15	298	
	7,5	6,8																		1007	966					
	-	10																		1089	1047					
	11	-																		1133	1091					
-	13,5	E	1098			1056																				
7,5	-	A	1179			1137																				
-	10	B	1223			1181																				
11	-	F	1229			1181																				
15	13,5		1267			1219																				
18,5	15		1313			1271																				
-	17,5		1319			1271																				
6102	15	13,5	F			376	466	533												443	1357				1309	335
	18,5	15																			1396				1347	
	-	17,5																			1403				1361	
	22	-																			1409				1361	
6103	-	24	H			1447	1399	349																		
	30	-	1486			1437																				
	-	13,5	1525			1464																				
	18,5	15	1550			1489																				
6104	-	17,5	H			466	556	623												473	1537				1489	368
	22	-																			1576				1527	
	-	30																			1615				1554	
	37	-																			1640				1579	
6105	-	36	J			556	646	713												443	1690				1636	382
	-	44																			1628				1579	
	22	-																			1666				1617	
	30	-																			1705				1644	
6106	-	24	on request			646	736	803												473	1730				1669	397
	37	-		1780	1726																					
	-	30		1756	1707																					
	45	-		1795	1734																					
6107	-	44	736	826	893	443	1820	1759	415																	
	55	-					1870	1816																		
	30	-					1846	1797																		
	37	-					1885	1824																		
6108	-	30	826	916	983	473	1910	1849																		
	-	36					1960	1906																		
	45	-																								
	-	44																								

Data regarding pump size - order hints

series + size	hydraulics + bearings	shaft sealing + magnetic coupling	material design	casing seal
		1 • • coupling system 1 2 • • coupling system 2 3 • • coupling system 3 4 • • coupling system 4 isolation shroud of: • A • Hastelloy C (2.4610) torque of desynchronization [Nm] for system 12 / 3 4 • • 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	1A main parts of spheroidal cast iron, vane wheel impeller of brass 1B main parts of spheroidal cast iron, vane wheel impeller of chrome steel 1F main parts of spheroidal cast iron, vane wheel impeller of PAEK 4B stainless steel 4F stainless steel vane wheel impeller PAEK	4 soft PTFE and PTFE O-ring at isolation shroud
1201	AF	1AK	alternatively 1A 1B 1F 4B 4F	4
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		

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				
	IP 54 EEx e II T3 (Ex e G3)		IP 54 and IP 54 EEx d II T3 (TEF)	
size	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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