ALARKO

Submersible Pump
AL 6”-8” KPS Series

TECHNOLOGY GIVING LIFE TO WATER

Alarko submersible
pumps are

UNIQUE INDIVIDUAL and UNINTERRUPTED WATER SOURCE

in potable water status by
- Everytime being ready to use,
- With no trouble
- And with short reimbursement term.

Alarko submersible
pumps are

MULTIFUNCTIONAL

because of usable for
from detached houses
to skyscrapers and
because of obtained
advantage using it as a
water stocking
hydrophore.

Alarko submersible
pumps are

PROPER INVESTMENT

in providing using water
and process water in
industrial facilities and
administrations because of
- High efficiency
- And long life period.

ALARKO, ALWAYS **NUMBER ONE** IN SUBMERSIBLE PUMPS

Alarko submersible
pumps are

RELIABLE FRIENDS

of garden lovers and
farmers on horticulture,
agriculture and from
little house garden to
agricultural land as
thousands acres.

Alarko submersible
pump is a

UNIQUE RELIABLE WATER

SOURCE for touristic
facilities, which
especially need more
water in tourism term.

Alarko submersible
pumps are

PREEMINENT

because of

- High technology
- Economy
- Continual and quality service
- Quick procurement of spare part.

ADVANTAGES

- It does not have to be protected from open air conditions because motor works in the well water.
- No limitation for the depth of immersion. It can be come down to deep as total head.
- Any special tube or tool is not required.
- There is not fan adjustment problem.
- Shaft cutting or oil lack is not experienced.
- Mounting is easily and there is not any axle alignment problem.
- It is silent.
- It is not effected well inclines as pump with perpendicular shaft.
- Capability of using drill pipe of 6 5/8" instead of 8" for 70 m^3/h flowrate of up to 50 Hp motor power, 8 5/8" drill pipe instead of 10 3/4" for 118 m^3/h flowrate.

DESIGN

All Alarko 6" and 8" KPS pumps are made entirely of stainless steel AISI 304 (DIN W.-Nr.1.4301). For particulary aggressive liquids pumps are available in extra high grade stainless steel AISI 316 (DIN W.-Nr.1.4401). For handling slightly contaminated water such as oil containing water we can offer all rubber parts made of Viten® as an option.

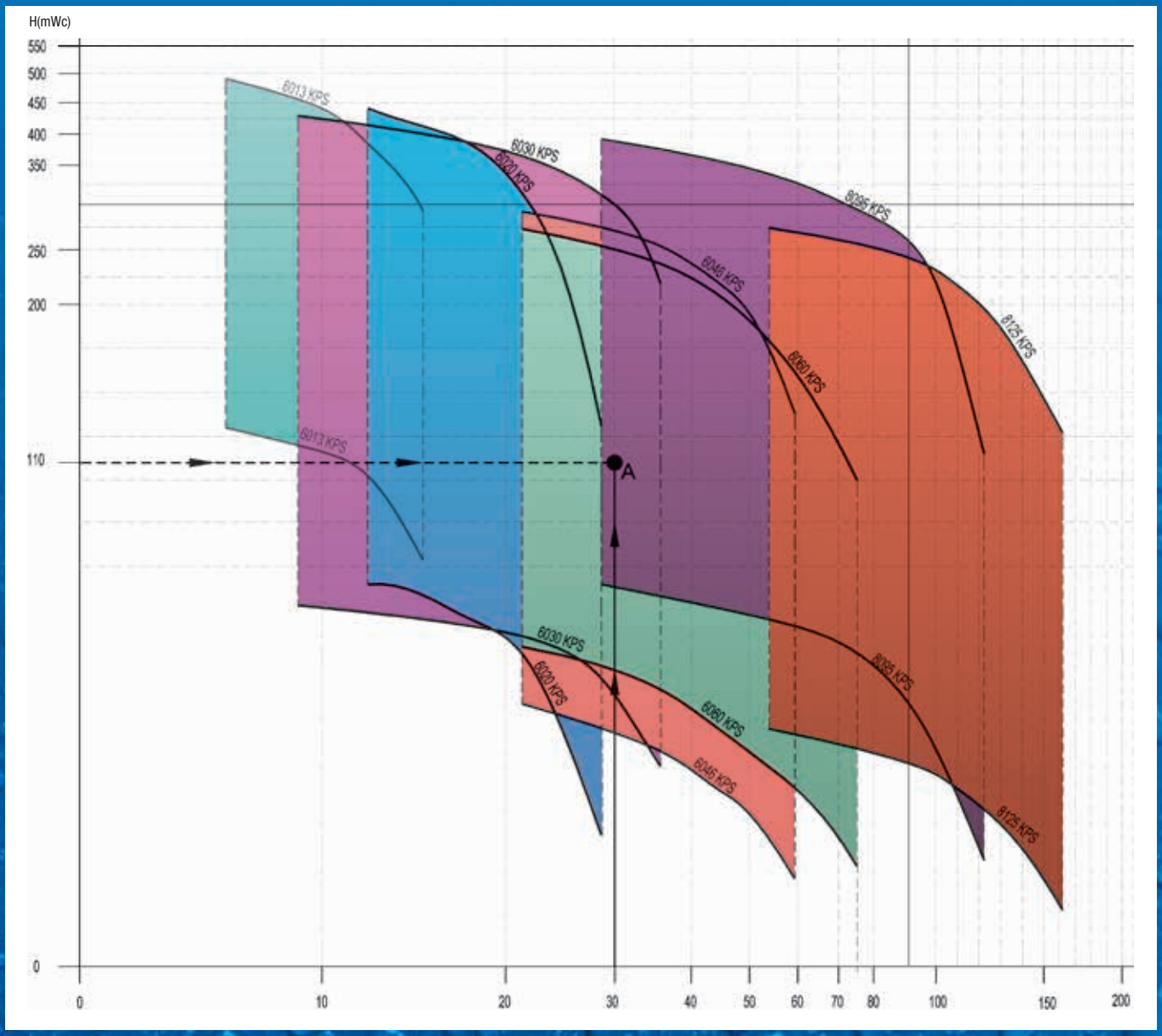
The octogonal rubber bearing and build in sand protection shields are designed to ensure that sand is removed from the pump and meter by the water that is being pumped.

APPLICATION DATAS

- Three-phase squirrel cage asynchronous water lubricated motors with powers between 10-180 HP.
- Special isolated stator which uses coil wire suitable to work under water.
- Horizontal bearing assembly that carries axial load and water lubricated radial bearing.
- Flat motor exit cable, cut in standard length, designed specially for working under water.
- Should give direct way up until 20 HP, and star-delta between 25-180 HP.
- Optional design in AL 6-8 motors suitable for Operation with different frequency and voltage values with soft starter.
- Automatic pump activation-deactivation control according to the well water level through water level relay.
- Protecting the motor against two-phase operation instabilities with phase control relay.
- Protection of the pump from short circuit through fuses.

APPLICATION LIMITS

- Five series of 6", 8" as per pump's nominal diameter.
- Total 7 models and 55 types between 10 and 180 HP

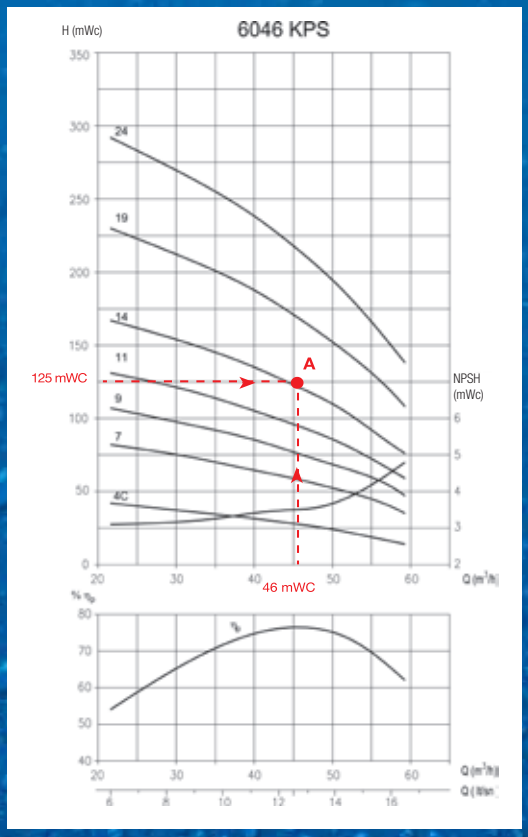


SELECTING PUMP

It is determined that requested intersection point (A) of flow and manometer height is remained in which pump's area from "General Selection Abac" In order to select pump, its "Independent Characteristic Curve" is checked Level number on the upper nearest curve to intersection point of flow and manometer head. According to determined pump type and level, motor type and power are defined from "Electrical Specifications, Dimensions and Weight Table" Pump according to "Order Notation" is demanded from Alarko Carrier vendor with determining electrical switchboard demand and electrical cable length.

SELECTION SAMPLE

Let the well diameter be 8 5/8", the flow-rate (Q) be 46 m^3/hour and manometric height (H) be 125 mWc. The points of the 46 m3/hour on the horizontal axis and 125 mWc on the vertical axis are intersected on the "General Selection Chart". The intersection point (A) stays in the region of 6046 KPS type of pump. This leads us to 6046 type pump "Independent Characteristic Curve". The intersection point of the values of 46 m3/hour and 125 mWc is on 15th stage curve. The pump stage is selected as 15. The efficiency of the pump is 74%. The pump type is specified as AL 6-30 using "Electrical Specification, Dimensions and Weights Table". The order notation is specified as 6046/15 KPS+AL 6-30.



MAIN PARTS

1- Valve Casing: The upper part of the pump. The pump outlet is connected to this part. Extra safety during installation thanks to specific type of ring and extended switch platform originated from material made up of precision cast 304 rustproof steel.

2-Check Valve: Prevents the water in pillar tube from reverse-flowing, which will cause the motor to overturn. Water-hammer reduces any risk of shock.

3-Upper Bearing: Coated with durable chrome material. It reduces abrasion in case the well is surrounded by harsh sand.

4-Labyrinth Rings: Contributes to the efficiency and robustness of high pumps. It has the self-aligning function. It is made up of Teflon.

5-Cable Housing: Made up of peculiarly thinned rustproof steel. It facilitates installation in the wells with less tolerance.

6-In-Pump "Upthrust" Protection: Prevents the pump from getting damaged in case of requirement of much water and in initial launches. It maintains high durability against failures in cases of open valve and frequent stop/launch.

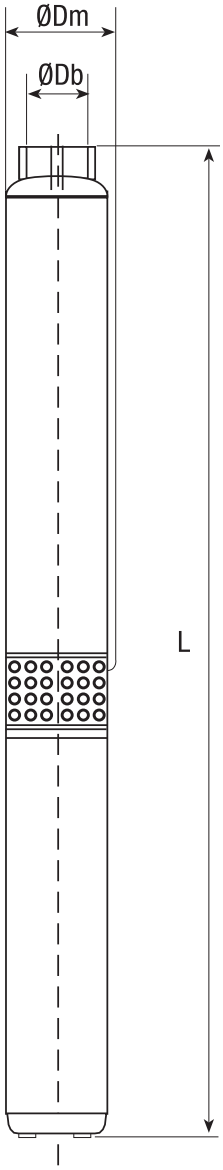
7-Suction Filter: Ensures that the pump is not damaged in case of requirement of much water and in initial launches by preventing the abrasive parts from entering into the pump. It is made up of 304 rustproof steel.

8-Coupling Protective Filter: Prevents the abrasive components from damaging coupling and motor shaft. It is made up of 304 rustproof steel.

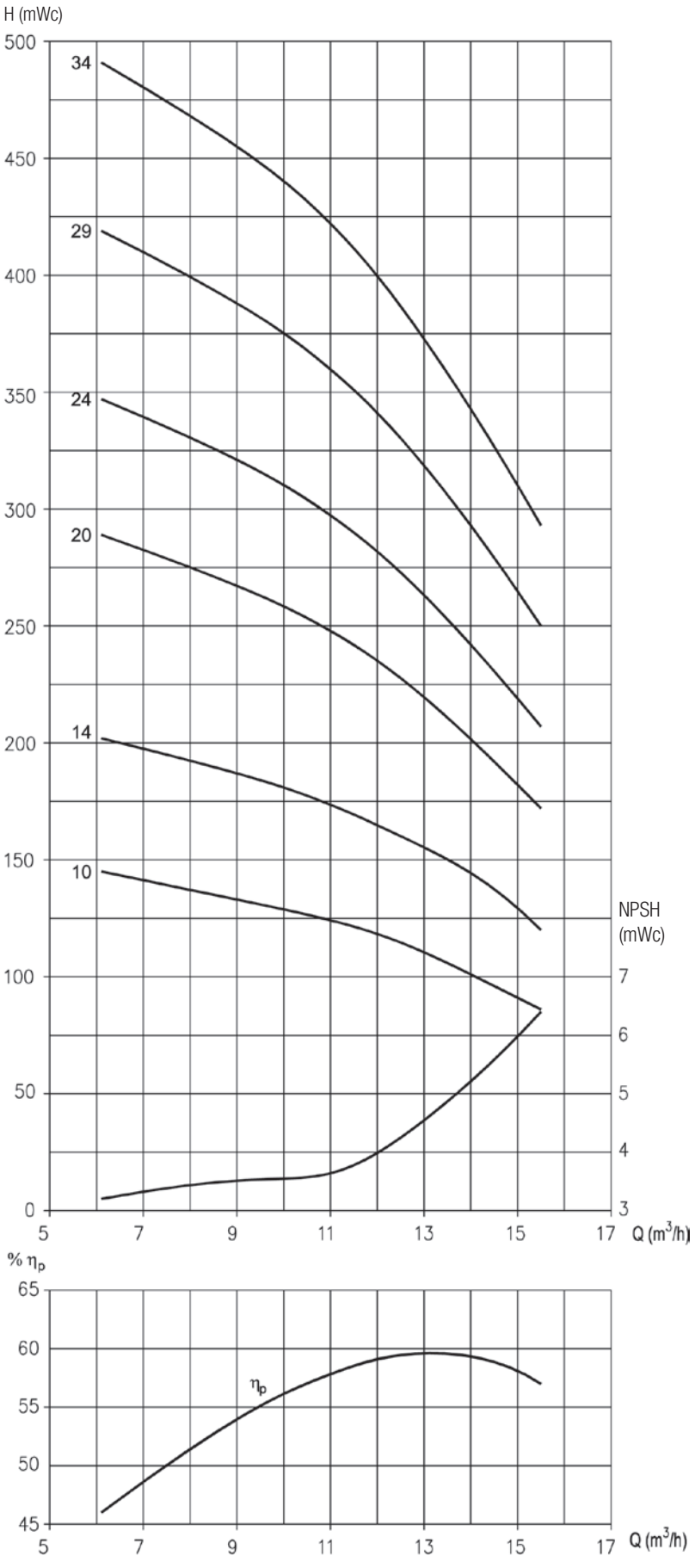
9-Suction Case: Ensures that the pump and the motor are interconnected. It ensures excellent pump-motor connection through any type of plunger motor with NEMA standard. The water enters into the pump through the suction opening. It has a suction strainer on the upper side of it, which blocks the chunks.

ELECTRICAL SPECIFICATIONS, DIMENSIONS AND WEIGHTS

TYPE Pump + Motor		MOTOR POWER (BG)	MOTOR POWER (kW)	MOTOR CURRENT (A)	PUMP OUTLET DIAMETER ØDdelivery	PUMP+MOTOR LENGTH L (mm)	PUMP BODY OUTER DIAMETER ØDmotopump (mm)	WEIGHT (Kg)
6013 KPS /10	+ AL6" ECO-10	10	7,5	17,8	BSP G2 1/2	1455	148	9
6013 KPS /14	+ AL6" ECO-15	15	11	26,4		1700		83
6013 KPS /20	+ AL6" ECO-20	20	15	34,6		2100		107
6013 KPS /24	+ AL6" ECO-25	25	18,5	42,7		2345	149	125
6013 KPS /29	+ AL6" ECO-30	30	22	54,7		2635		140
6013 KPS /34	+ AL6" ECO-40	40	30	67		2995		163
6020KPS /7	+ AL6" ECO-7,5	7,5	5,5	13,2	BSP G2 1/2	1354	143	63
6020 KPS /10	+ AL6" ECO-10	10	7,5	17,8		1459		60
6020 KPS /15	+ AL6" ECO-15	15	11	26,4		1844		80
6020 KPS /20	+ AL6" ECO-20	20	15	34,6		2249		100
6020 KPS /25	+ AL6" ECO-25	25	18,5	42,7		2589		117
6020 KPS /30	+ AL6" ECO-30	30	22	54,7		2929		130
6020 KPS /40	+ AL6" ECO-40	40	30	67		3614		158
6020 KPS /44	+ AL6" ECO-50	50	37	78,2		3952		175
6030 KPS / 8	+ AL6" ECO-10	10	7,5	17,8	BSP G3	1718	144	66
6030 KPS / 12	+ AL6" ECO-15	15	11	26,4		2167		78
6030 KPS / 16	+ AL6" ECO-20	20	15	34,6		2681		97
6030 KPS / 19	+ AL6" ECO-25	25	18,5	42,7		3034		111
6030 KPS / 23	+ AL6" ECO-30	30	22	54,7		3483		124
6030 KPS / 32	+ AL6" ECO-40	40	30	67		4482		152
6030 KPS / 39	+ AL6" ECO-50	50	37	78,2		5272		202
6046 KPS / 4C	+ AL6" ECO-10	10	7,5	17,8	BSP G3	1384	148	62
6046 KPS / 7	+ AL6" ECO-15	15	11	26,4		1804		76
6046 KPS / 9	+ AL6" ECO-20	20	15	34,6		2160		94
6046 KPS / 11	+ AL6" ECO-25	25	18,5	42,7		2451	150	109
6046 KPS / 14	+ AL6" ECO-30	30	22	54,7		2855		123
6046 KPS / 19	+ AL6" ECO-40	40	30	67		3555		148
6046 KPS / 24	+ AL6" ECO-50	50	37	78,2		4238		175
6060 KPS / 4	+ AL6" ECO-10	10	7,5	17,8	BSP G4	1400	148	61
6060 KPS / 6	+ AL6" ECO-15	15	11	26,4		1691		73
6060 KPS / 8	+ AL6" ECO-20	20	15	34,6		2047		90
6060 KPS / 10	+ AL6" ECO-25	25	18,5	42,7		2338	150	105
6060 KPS / 12	+ AL6" ECO-30	30	22	54,7		2629		116
6060 KPS / 17	+ AL6" ECO-40	40	30	67		3329		141
6060 KPS / 21	+ AL6" ECO-50	50	37	78,2		3979		165
8095 KPS / 4-B	+ AL6" ECO-20	20	15	34,6	BSP G5	1879	188	100
8095 KPS / 4	+ AL6" ECO-25	25	18,5	42,7		1944	189	110
8095 KPS / 5	+ AL6" ECO-30	30	22	54,7		2137		119
8095 KPS / 7	+ AL6" ECO-40	40	30	67		2528		139
8095 KPS / 9	+ AL6" ECO-50	50	37	78,2		2901		158
8095 KPS / 10	+ AL8" ECO-60	60	45	93		2848	193	196
8095 KPS / 13	+ AL8" ECO-75	75	55	113		3335		226
8095 KPS / 16	+ AL8" ECO-95	95	70	142		3860		265
8095 KPS / 18	+ AL8" ECO-110	110	80	161		4247		296
8095 KPS / 20	+ AL8" ECO-130	130	95	191		4623		328
8125 KPS / 2-AA	+ AL6" ECO-20	20	15	34,6		1683		95
8125 KPS / 2-A	+ AL6" ECO-25	25	18,5	42,7	BSP G6	1748	207	104
8125 KPS / 3-AA	+ AL6" ECO-30	30	22	54,7		1969	209	120
8125 KPS / 3	+ AL6" ECO-40	40	30	67		2104		133
8125 KPS / 4	+ AL6" ECO-50	50	37	78,2		2378		153
8125 KPS / 5-A	+ AL8" ECO-60	60	45	93		2360	220	195
8125 KPS / 6-A	+ AL8" ECO-75	75	55	113		2616		220
8125 KPS / 7	+ AL8" ECO-95	95	70	142		2912		256
8125 KPS / 8	+ AL8" ECO-110	110	80	161		3198		284
8125 KPS / 10	+ AL8" ECO-130	130	95	191		3630		318



6013 KPS


H (mWc)
500
450
400
350
300
250
200
150
100
50
0
34
29
24
20
14
10
NPSH
(mWc)
7
6
5
4
3
5
7
9
11
13
15
17
Q (m³/h)
% ηp
65
60
55
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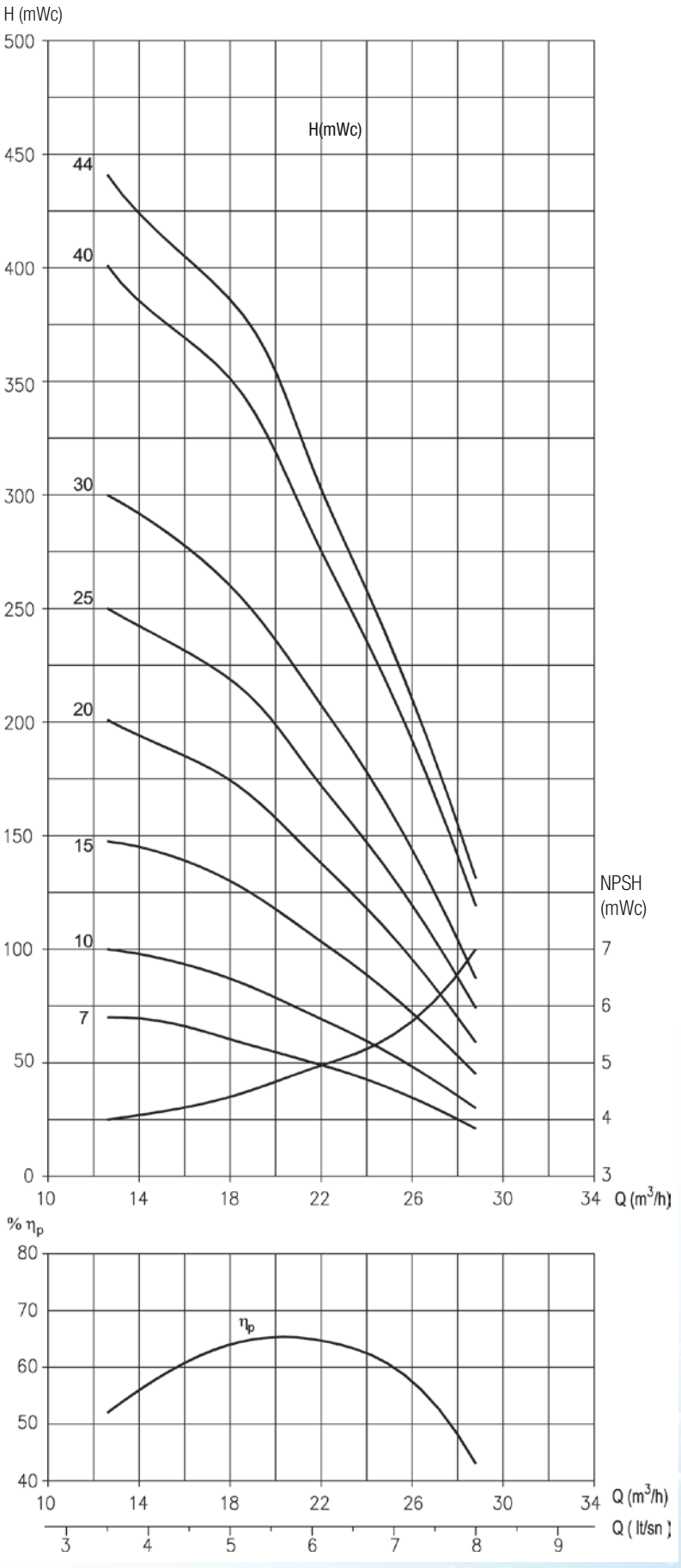
ηp
5
7
9
11
13
15
17
Q (m³/h)

PUMP TYPE (Threephase) 380V/415V	MOTOR TYPE (ALK) KW	HP	FLOW	(m^3/h)	6,1	9,0	10,8	**12,6**	14,4	15,5
				(lt / sn)	1,7	2,5	3	**3,5**	4	4,3
6013 KPS/5	5,5	7,5			73	67	63	**58**	48	43
6013 KPS/6	5,5	7,5			87	80	75	**69**	58	52
6013 KPS/7	7,5	10,0			102	93	88	**80**	68	60
6013 KPS/8	7,5	10,0			116	107	100	**92**	77	69
6013 KPS/9	7,5	10,0			130	120	113	**103**	87	77
6013 KPS/10	7,5	10,0			145	133	125	**114**	97	86
6013 KPS/11	9,3	12,5			159	147	138	**125**	107	95
6013 KPS/12	11	15,0			174	160	150	**137**	116	103
6013 KPS/13	11	15,0			188	174	163	**148**	126	112
6013 KPS/14	11	15,0			202	187	175	**159**	136	120
6013 KPS/15	15	20,0			217	200	188	**170**	146	129
6013 KPS/16	15	20,0			231	214	200	**181**	155	138
6013 KPS/17	15	20,0			246	227	213	**193**	165	147
6013 KPS/18	15	20,0			260	241	225	**204**	175	155
6013 KPS/19	15	20,0			275	254	238	**215**	184	165
6013 KPS/20	15	20,0			289	267	250	**226**	194	172
6013 KPS/21	18,5	25,0			304	281	263	**238**	204	181
6013 KPS/22	18,5	25,0			318	294	275	**249**	214	190
6013 KPS/23	18,5	25,0			332	307	288	**260**	223	198
6013 KPS/24	18,5	25,0			347	321	300	**271**	233	207
6013 KPS/25	22	30,0			362	334	313	**283**	243	215
6013 KPS/26	22	30,0			376	348	325	**294**	252	224
6013 KPS/27	22	30,0			390	361	338	**305**	262	233
6013 KPS/28	22	30,0		H (M)	405	374	350	**316**	272	242
6013 KPS/29	22	30,0			419	388	363	**328**	282	250
6013 KPS/30	26,5	35,0			433	401	376	**339**	291	259
6013 KPS/31	26,5	35,0			448	414	388	**350**	301	267
6013 KPS/32	26,5	35,0			462	428	401	**361**	311	276
6013 KPS/33	26,5	35,0			477	441	413	**373**	321	285
6013 KPS/34	30	40,0			491	455	426	**384**	330	293
6013 KPS/35	30	40,0			505	468	438	**395**	340	302
6013 KPS/36	30	40,0			520	481	451	**406**	350	311
6013 KPS/37	30	40,0			534	495	463	**418**	359	319
6013 KPS/38	30	40,0			549	508	476	**429**	369	328
6013 KPS/39	30	40,2			563	521	488	**440**	379	337
6013 KPS/40	30	40,0			578	535	501	**451**	389	345
6013 KPS/41	30	40,0			592	548	513	**463**	398	354
6013 KPS/42	37	50,0			606	562	526	**474**	408	362
6013 KPS/43	37	50,0			621	575	538	**485**	418	371
6013 KPS/44	37	50,0			635	588	551	**496**	428	380
6013 KPS/45	37	50,0			650	602	563	**508**	437	388
6013 KPS/46	37	50,0			664	615	576	**519**	447	397
6013 KPS/47	37	50,0			679	628	588	**530**	457	406
6013 KPS/48	37	50,0			693	642	601	**541**	466	414
6013 KPS/49	37	50,0			707	655	613	**553**	476	423
6013 KPS/50	37	50,0			722	669	626	**564**	486	431

Maximum effiency point

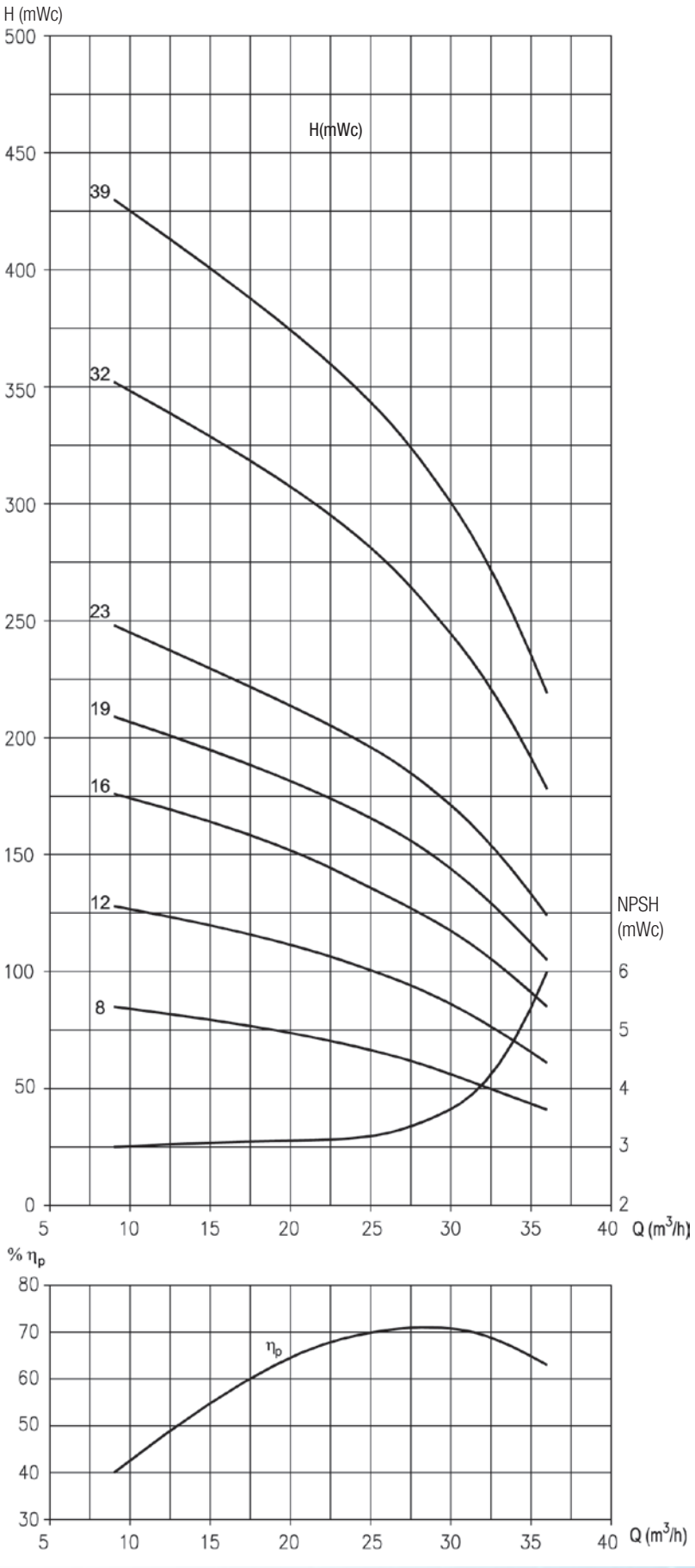
6020 KPS



PUMP TYPE (Threephase) 380V/415V	MOTOR TYPE (ALK) KW HP		FLOW	(m^3/h)	12,6	14,4	18,0	**21,6**	25,2	28,8
				(lt / sn)	3,5	4,0	5,0	**6,0**	7,0	8,0
6020 KPS /6	5,5	7,5			60	58	51	**43**	33	18
6020 KPS /7	5,5	7,5			70	69	60	**50**	38	21
6020 KPS /8	7,5	10,0			80	78	69	**57**	43	24
6020 KPS /9	7,5	10,0			90	88	78	**64**	48	27
6020 KPS /10	7,5	10,0			100	97	87	**71**	53	30
6020 KPS /11	9,3	12,5			110	107	95	**78**	59	33
6020 KPS /12	9,3	12,5			120	116	104	**85**	64	36
6020 KPS /13	9,3	12,5			130	126	113	**92**	69	39
6020 KPS /14	11	15,0			140	135	122	**99**	74	42
6020 KPS /15	11	15,0			148	144	130	**106**	79	45
6020 KPS /16	12,5	17,5			160	154	139	**114**	85	48
6020 KPS /17	12,5	17,5			170	164	148	**121**	90	51
6020 KPS /18	12,5	17,5			180	173	157	**128**	95	54
6020 KPS /19	15	20,0			190	183	166	**135**	100	57
6020 KPS /20	15	20,0			201	192	174	**142**	105	59
6020 KPS /21	18,5	25,0			210	202	184	**149**	111	63
6020 KPS /22	18,5	25,0			220	211	192	**156**	116	66
6020 KPS /23	18,5	25,0			230	221	201	**163**	121	68
6020 KPS /24	18,5	25,0			240	230	210	**170**	126	71
6020 KPS /25	18,5	25,0		H (M)	250	240	219	**177**	131	74
6020 KPS /26	22	30,0			261	249	228	**184**	137	77
6020 KPS /27	22	30,0			271	259	236	**191**	142	80
6020 KPS /28	22	30,0			281	268	245	**199**	147	83
6020 KPS /29	22	30,0			291	278	254	**206**	152	86
6020 KPS /30	22	30,0			300	289	260	**213**	158	88
6020 KPS /31	26,5	35,0			311	297	272	**220**	163	92
6020 KPS /32	26,5	35,0			321	306	281	**227**	168	95
6020 KPS /33	26,5	35,0			331	316	289	**234**	173	98
6020 KPS /34	26,5	35,0			341	325	298	**241**	178	101
6020 KPS /35	30	40,0			351	335	307	**248**	184	104
6020 KPS /36	30	40,0			361	344	316	**255**	189	107
6020 KPS /37	30	40,0			371	354	325	**262**	194	110
6020 KPS /38	30	40,0			381	363	333	**269**	199	113
6020 KPS /39	30	40,0			391	373	342	**276**	204	116
6020 KPS /40	30	40,0			401	382	351	**284**	210	119
6020 KPS /41	37	50,0			411	391	360	**291**	214	123
6020 KPS /42	37	50,0			421	401	369	**298**	220	125
6020 KPS /43	37	50,0			431	411	377	**305**	225	128
6020 KPS /44	37	50,0			441	420	386	**312**	230	131

Maximum effiency point

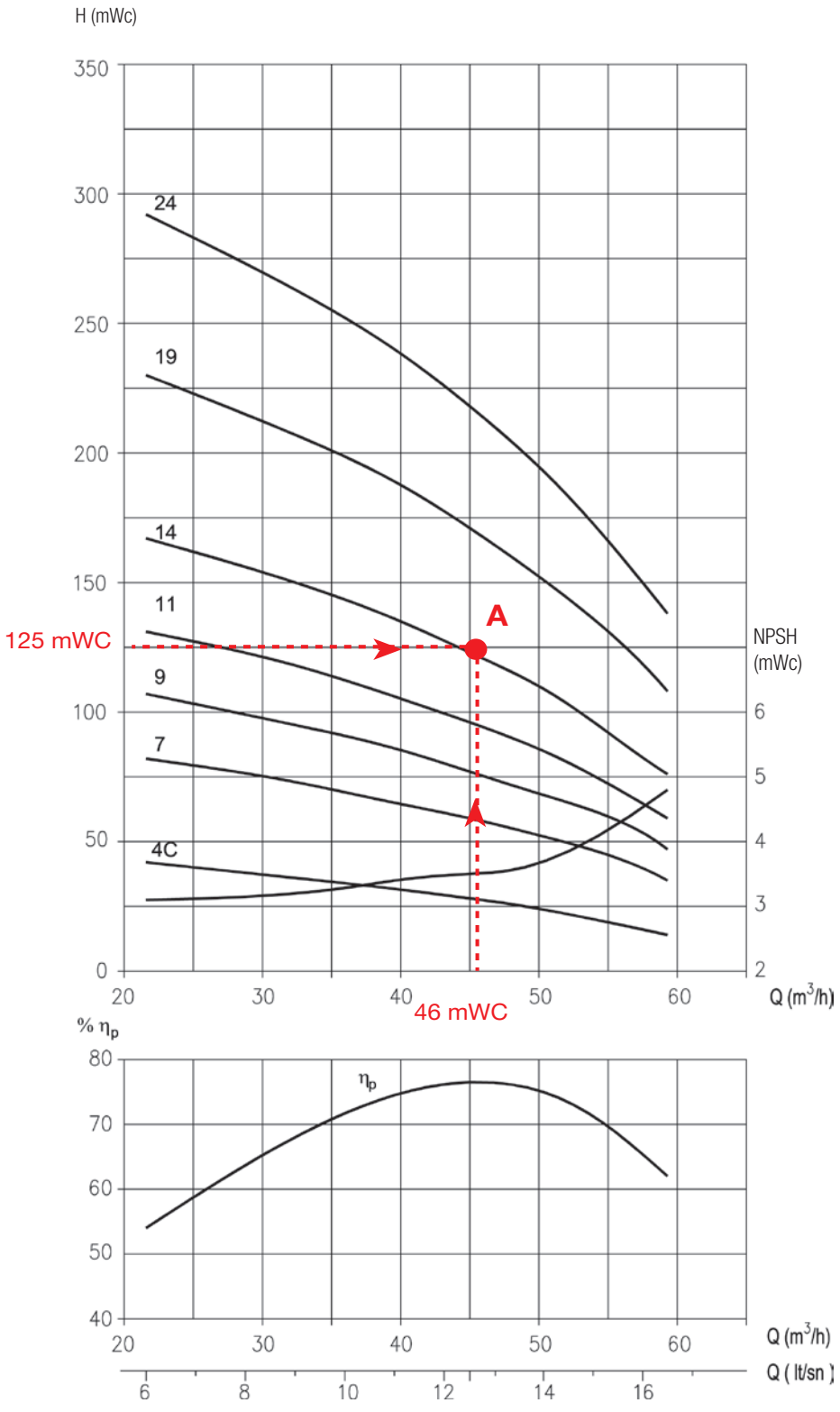
6030 KPS



PUMP TYPE (Threephase) 380V/415V	MOTOR TYPE (ALK) KW HP		FLOW	(m^3/h)	9	18	25,2	**28,8**	32,4	36
				(lt / sn)	2,5	5,0	7,0	**8,0**	9,0	10,0
6030 KPS /4	5,5	7,5			41	38	33	**30**	24	18
6030 KPS /5	5,5	7,5			52	48	42	**38**	31	25
6030 KPS /6	5,5	7,5			64	58	51	**46**	38	32
6030 KPS /7	7,5	10,0			75	68	59	**54**	45	37
6030 KPS /8	7,5	10,0			85	76	66	**59**	50	41
6030 KPS /9	9,3	12,5			99	88	77	**70**	60	48
6030 KPS /10	9,3	12,5			110	97	86	**78**	67	54
6030 KPS /11	9,3	12,5			121	108	95	**86**	74	60
6030 KPS /12	11	15,0			128	115	100	**90**	77	61
6030 KPS /13	11	15,0			143	127	112	**102**	88	71
6030 KPS /14	12,5	17,5			154	137	121	**110**	95	77
6030 KPS /15	12,5	17,5			165	147	130	**118**	102	82
6030 KPS /16	15	20,0			176	157	135	**122**	106	85
6030 KPS /17	15	20,0			187	167	147	**134**	116	93
6030 KPS /18	18,5	25,0			198	177	156	**142**	123	99
6030 KPS /19	18,5	25,0			209	187	165	**150**	130	105
6030 KPS /20	18,5	25,0			222	198	174	**159**	138	112
6030 KPS /21	18,5	25,0			231	207	183	**166**	144	116
6030 KPS /22	22	30,0		H (M)	242	217	192	**174**	151	122
6030 KPS /23	22	30,0			248	220	195	**178**	155	124
6030 KPS /24	22	30,0			264	236	209	**190**	165	133
6030 KPS /25	22	30,0			275	246	218	**198**	172	138
6030 KPS /26	22	30,0			286	256	227	**206**	179	144
6030 KPS /27	26,5	35,0			297	266	236	**214**	186	150
6030 KPS /28	26,5	35,0			308	276	244	**222**	193	155
6030 KPS /29	26,5	35,0			319	286	253	**230**	200	161
6030 KPS /30	26,5	35,0			328	295	261	**236**	204	163
6030 KPS /31	30	40,0			341	306	271	**246**	215	172
6030 KPS /32	30	40,0			352	316	280	**254**	222	178
6030 KPS /33	30	40,0			363	325	288	**262**	229	183
6030 KPS /34	30	40,0			374	335	297	**271**	236	189
6030 KPS /35	30	40,0			385	345	306	**279**	243	195
6030 KPS /39	37	50,0			430	385	342	**312**	273	219
6030 KPS /43	45	60,0			473	425	377	**343**	299	240
6030 KPS /46	45	60,0			506	454	403	**367**	320	257
6030 KPS /49	45	60,0			539	484	428	**388**	333	273

Maximum effiency point

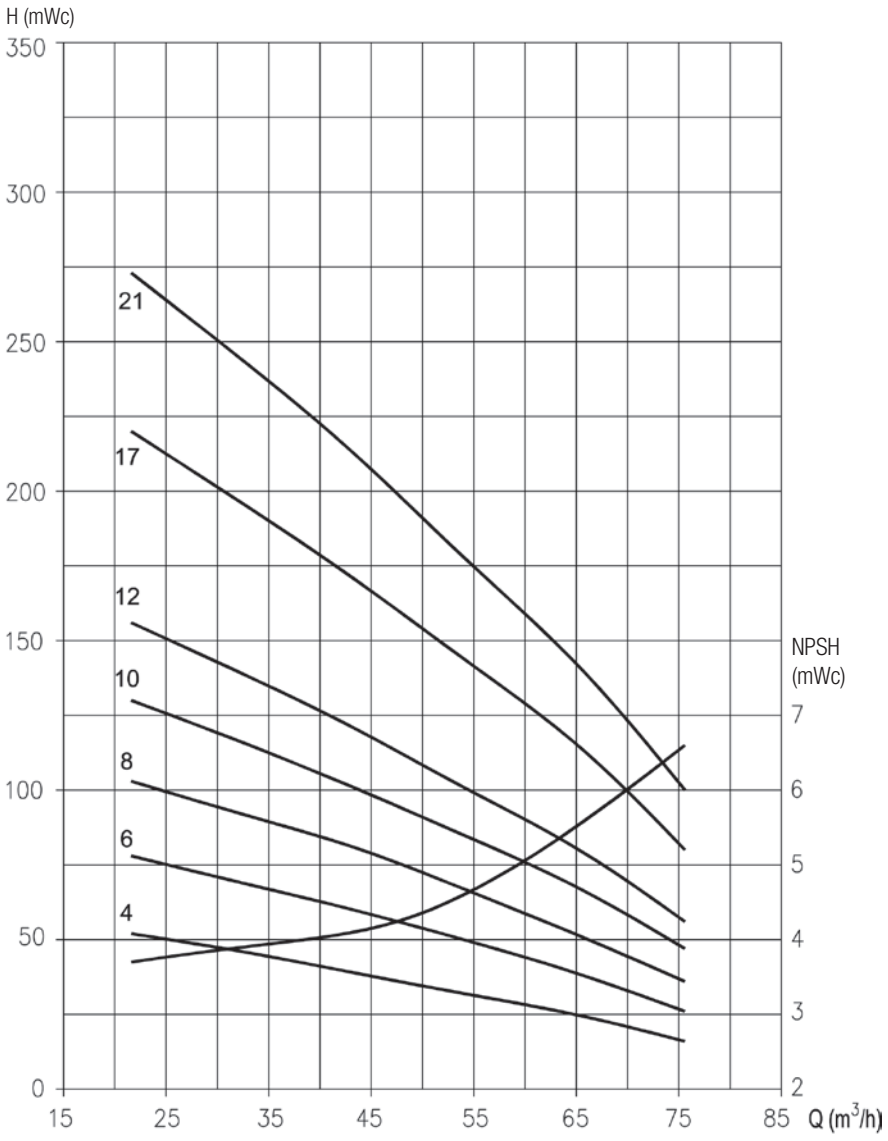
6046 KPS

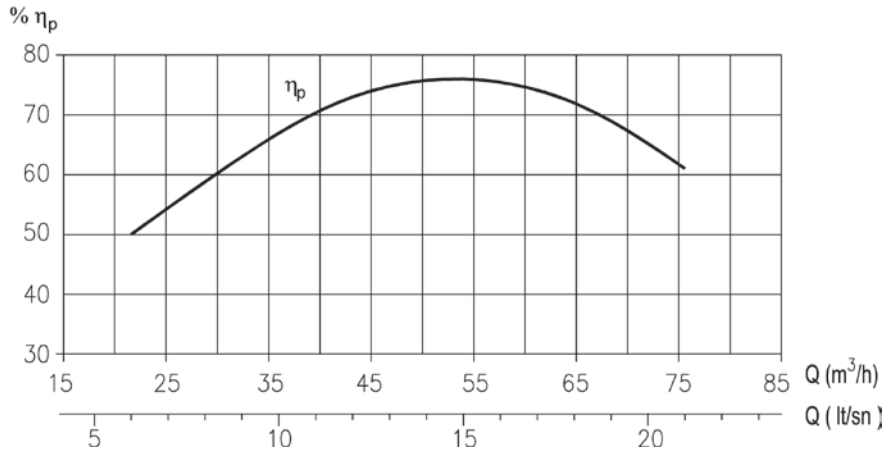

H (mWc)
350
300
250
200
150
100
50
0
24
19
14
11
9
7
4C
125 mWC
A
46 mWC
NPSH
(mWc)
6
5
4
3
2
20
30
40
50
60
Q (m³/h)
% ηp
80
70
60
50
40
ηp
20
30
40
50
60
Q (m³/h)
6
8
10
12
14
16
Q (lt/sn)

PUMP TYPE (Threephase) 380V/415V	MOTOR TYPE (ALK) KW HP		FLOW	(m^3/h)	21,6	32,4	39,6	**45**	50,4	59,4
				(lt / sn)	6,0	9,0	11,0	**12,5**	14,0	16,5
6046 KPS /3-C	5,5	7,5	H (M)		30	25	21	**18**	15	8
6046 KPS /3	5,5	7,5			33	28	24	**21**	18	10
6046 KPS /4-C	5,5	7,5			42	36	32	**28**	24	14
6046 KPS /4	7,5	10,0			45	39	35	**31**	27	16
6046 KPS /5	7,5	10,0			57	50	45	**40**	35	22
6046 KPS /6	9,3	12,5			70	62	55	**49**	43	28
6046 KPS /7	11	15,0			82	73	65	**59**	52	35
6046 KPS /8-C	15	20,0			90	80	71	**64**	55	36
6046 KPS /8	15	20,0			95	86	77	**70**	62	42
6046 KPS /9-C	15	20,0			103	92	82	**74**	64	42
6046 KPS /9	15	20,0			107	95	86	**77**	68	47
6046 KPS /10	15	20,0			119	106	96	**87**	76	53
6046 KPS /11	18,5	25,0			131	118	106	**96**	85	59
6046 KPS /12	18,5	25,0			144	129	117	**105**	93	65
6046 KPS /13	22	30,0			156	140	127	**115**	101	71
6046 KPS /14	22	30,0			167	150	136	**123**	109	76
6046 KPS /15	22	30,0			181	162	148	**133**	118	83
6046 KPS /16	26,5	35,0			193	174	158	**143**	126	90
6046 KPS /17	26,5	35,0			205	185	168	**152**	134	96
6046 KPS /18	30	40,0			216	193	176	**158**	139	99
6046 KPS /19	30	40,0			230	207	189	**171**	151	108
6046 KPS /20	30	40,0			240	217	197	**178**	155	110
6046 KPS /21	37	50,0			255	230	209	**190**	168	120
6046 KPS /22	37	50,0			267	241	219	**199**	176	126
6046 KPS /23	37	50,0			280	252	230	**208**	184	132
6046 KPS /24	37	50,0			292	263	240	**218**	193	138
6046 KPS /26	45	60,0			318	286	261	**237**	210	152
6046 KPS /28	45	60,0			341	308	281	**255**	226	163
6046 KPS /30	45	60,0			366	331	302	**270**	233	165
6046 KPS /33	52	70,0			403	364	332	**302**	267	193
6046 KPS /35	55	75,0			428	387	353	**321**	284	206
6046 KPS /37	67	90,0			452	410	374	**340**	301	218

Maximum effiency point

6060 KPS

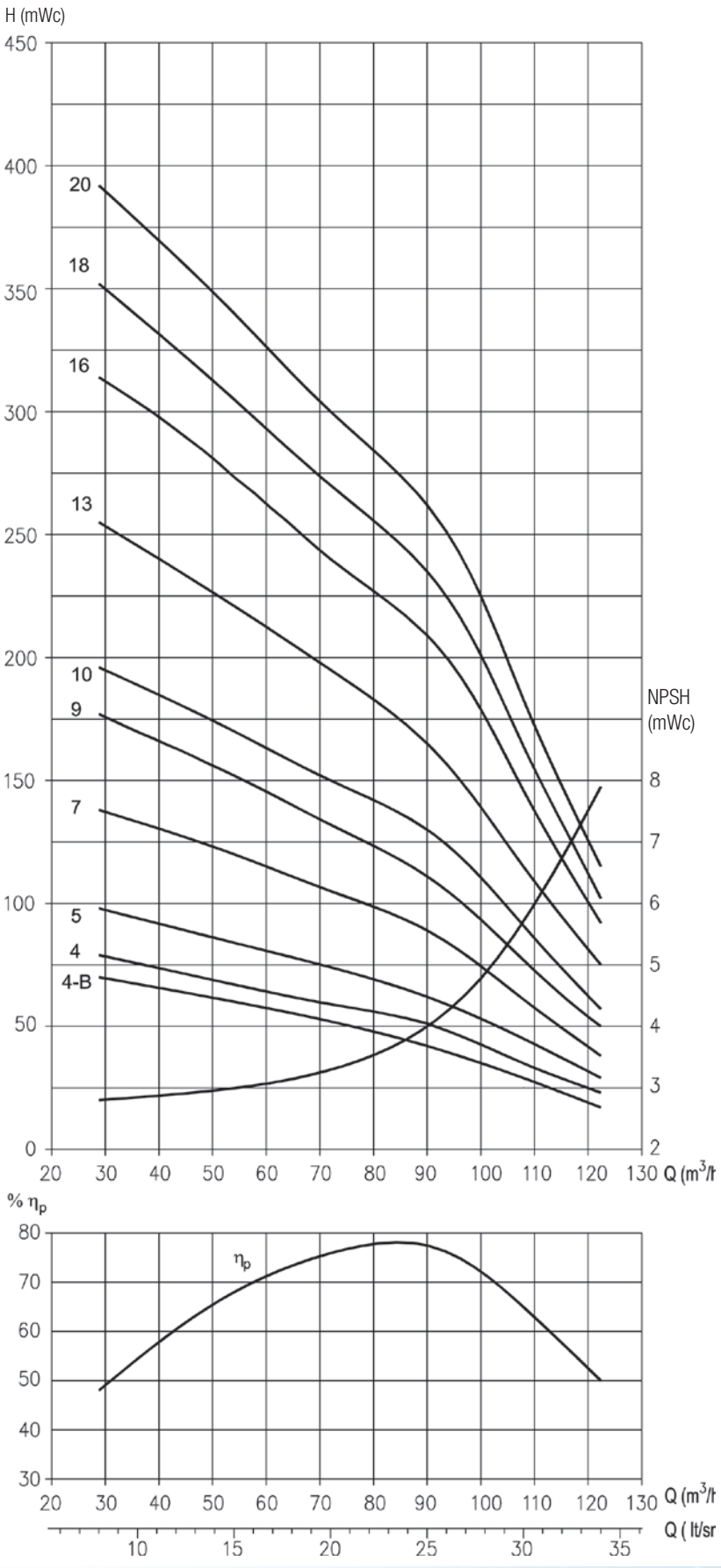

H (mWc)
350
300
250
200
150
100
50
0
21
17
12
10
8
6
4
NPSH
(mWc)
7
6
5
4
3
2
15
25
35
45
55
65
75
85
Q (m³/h)


% ηp
80
70
60
50
40
30
ηp
15
25
35
45
55
65
75
85
Q (m³/h)
5
10
15
20
Q (lt/sn)

PUMP TYPE (Threephase) 380V/415V	MOTOR TYPE (ALK) KW HP		FLOW	(m^3/h)	21,6	32,4	43,2	**54**	64,8	75,6
				(lt / sn)	6,0	9,0	12,0	**15,0**	18,0	21,0
6060 KPS / 3	7,5	10,0	H (M)		39	34	29	**24**	18	11
6060 KPS / 4	7,5	10,0			52	46	39	**32**	25	16
6060 KPS / 5	9,3	12,5			65	57	50	**42**	32	21
6060 KPS / 6	11	15,0			78	69	60	**50**	39	26
6060 KPS / 7	12,5	17,5			91	81	70	**59**	47	31
6060 KPS / 8-B	15	20,0			99	88	76	**63**	49	31
6060 KPS / 8	15	20,0			103	92	81	**67**	52	36
6060 KPS / 9-B	15	20,0			108	96	84	**70**	55	38
6060 KPS / 9	18,5	25,0			117	104	91	**76**	61	42
6060 KPS / 10	18,5	25,0			130	116	101	**85**	68	47
6060 KPS / 11	22	30,0			143	128	111	**94**	75	52
6060 KPS / 12	22	30,0			156	139	121	**101**	81	56
6060 KPS / 13	26,5	35,0			170	151	132	**111**	89	62
6060 KPS / 14	26,5	35,0			183	163	142	**120**	96	67
6060 KPS / 15	30	40,0			194	173	150	**128**	103	71
6060 KPS / 16	30	40,0			209	186	163	**137**	110	77
6060 KPS / 17	30	40,0			220	196	171	**144**	116	80
6060 KPS / 18	37	50,0			235	210	183	**154**	125	87
6060 KPS / 19	37	50,0			248	222	193	**163**	132	92
6060 KPS / 20	37	50,0			261	233	204	**172**	139	97
6060 KPS / 21	37	50,0			273	244	213	**178**	143	100
6060 KPS / 22	45	60,0			287	257	224	**189**	153	108

Maximum effiency point

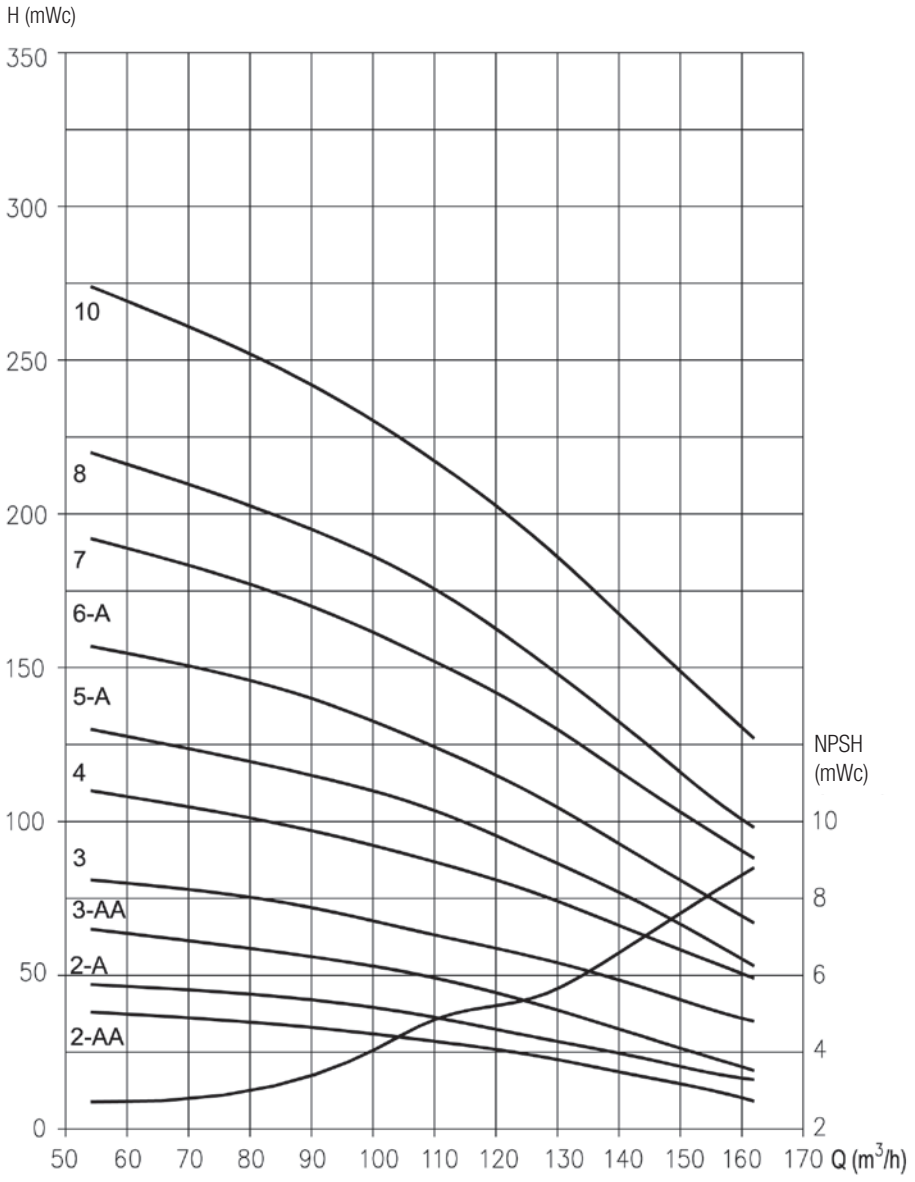
8095 KPS

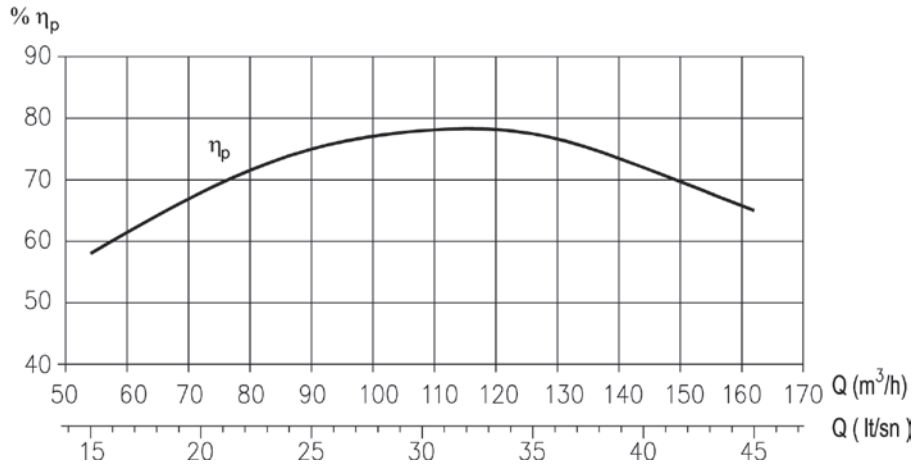

H (mWc)
450
400
350
300
250
200
150
100
50
0
20
18
16
13
10
9
7
5
4
4-B
NPSH
(mWc)
8
7
6
5
4
3
2
20 30 40 50 60 70 80 90 100 110 120 130 Q (m³/h
% ηp
80
70
60
50
40
30
ηp
20 30 40 50 60 70 80 90 100 110 120 130 Q (m³/h
10 15 20 25 30 35 Q (lt/sr

PUMP TYPE (Threephase) 380V/415V	MOTOR TYPE (ALK) KW HP		FLOW	(m^3/h)	28,8	54	72	**90**	108	122,4
				(lt / sn)	8,0	15,0	20,0	**25,0**	30,0	34,0
8095 KPS / 01	5,5	7,5	H (M)		20	16	14	**12**	8	-
8095 KPS / 02-BB	5,5	7,5			25	21	19	**14**	9	-
8095 KPS / 02-A	7,5	10			34	29	25	**21**	13	3
8095 KPS / 02	9,3	12,5			39	33	29	**24**	15	5
8095 KPS / 03-BB	11	15			43	36	31	**25**	17	7
8095 KPS / 03-B	11	15			50	43	37	**31**	19	11
8095 KPS / 03	15	20			59	50	44	**38**	26	15
8095 KPS/ 04-B	15	20			70	60	52	**42**	29	17
8095 KPS / 04	18,5	25			79	67	59	**51**	35	23
8095 KPS / 05-AB	22	30			85	73	64	**54**	35	20
8095 KPS / 05	22	30			98	84	74	**62**	45	29
8095 KPS / 06	26,5	35			118	101	89	**77**	53	33
8095 KPS / 07	30	40			138	120	105	**89**	61	38
8095 KPS / 08	37	50			157	135	119	**104**	72	46
8095 KPS / 09	37	50			177	152	132	**111**	77	50
8095 KPS / 10	45	60			196	170	150	**130**	91	57
8095 KPS / 11	55	75			216	187	165	**144**	100	63
8095 KPS / 12	55	75			237	205	180	**158**	110	72
8095 KPS / 13	55	75			255	221	195	**165**	115	75
8095 KPS / 14	67	90			275	238	210	**183**	128	80
8095 KPS / 15	67	90			294	255	225	**196**	137	86
8095 KPS / 16	67	90			314	272	240	**209**	146	92
8095 KPS / 17	75	100			333	289	255	**223**	155	98
8095 KPS / 18	81	110			352	305	270	**235**	164	102
8095 KPS / 19	92	125			373	323	285	**249**	174	109
8095 KPS / 20	92	125			392	340	300	**262**	183	115

Maximum effiency point

8125 KPS


H (mWc)
350
300
250
200
150
100
50
0
10
8
7
6-A
5-A
4
3
3-AA
2-A
2-AA
NPSH (mWc)
10
8
6
4
2
50 60 70 80 90 100 110 120 130 140 150 160 170 Q (m³/h)


% ηp
90
80
70
60
50
40
ηp
50 60 70 80 90 100 110 120 130 140 150 160 170 Q (m³/h)
15 20 25 30 35 40 45 Q (lt/sn)

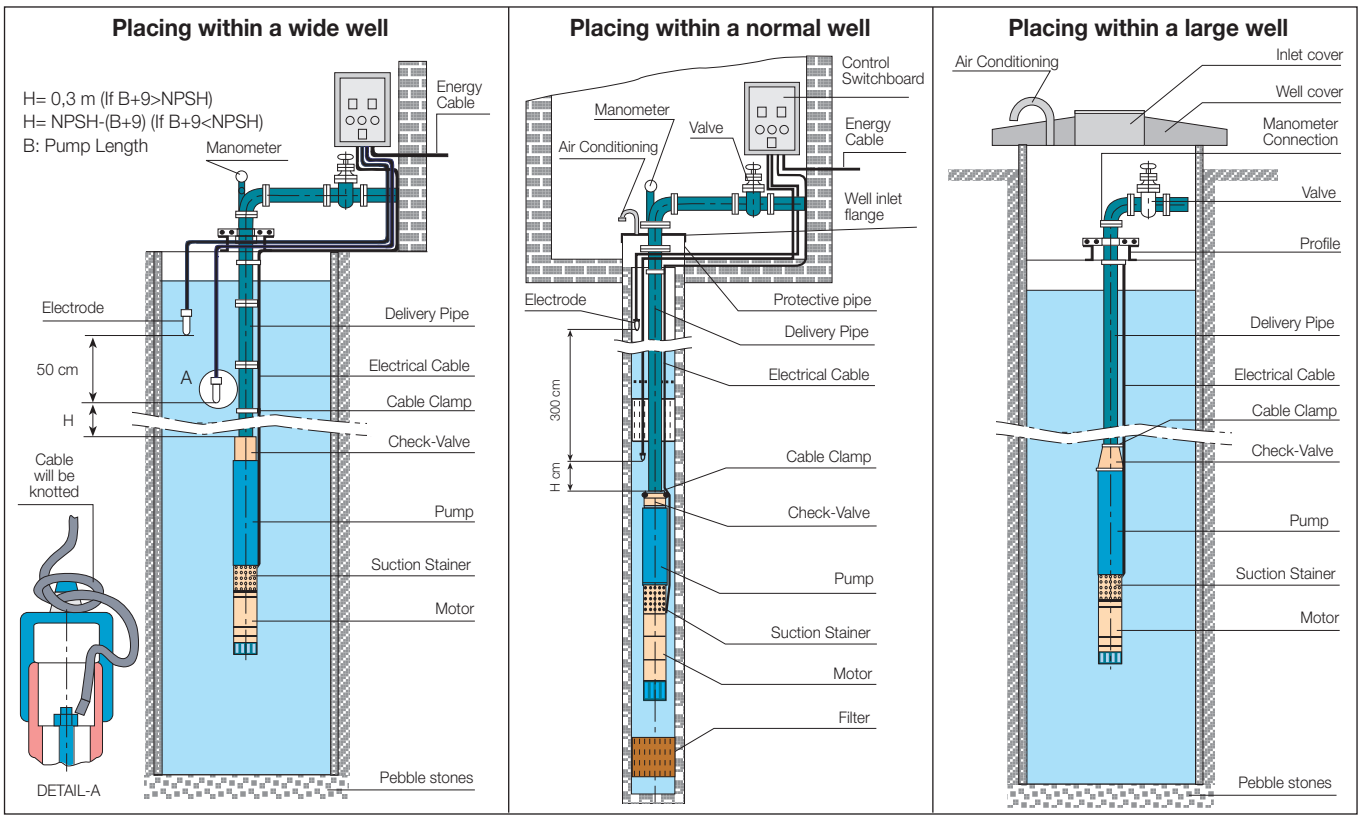
PUMP TYPE (Threephase) 380V/415V	MOTOR TYPE (ALK) KW HP		FLOW	(m^3/h)	54	90	108	**126**	144	162
				(lt / sn)	15,0	25,0	30,0	**35,0**	40,0	45,0
8125 KPS / 01-A	7,5	10	H (M)		20	17	16	12	8	5
8125 KPS / 01	11	15			28	25	21	19	14	10
8125 KPS / 02-AA	12,5	17,5			38	33	29	24	17	9
8125 KPS / 02-A	18,5	25			47	42	37	30	23	16
8125 KPS / 02	22	30			55	49	43	38	28	17
8125 KPS / 03-AA	22	30			65	56	50	41	30	19
8125 KPS / 03	30	40			81	72	64	56	46	35
8125 KPS / 04-AA	37	50			93	81	73	62	47	33
8125 KPS / 04	37	50			110	97	88	77	63	49
8125 KPS / 05-AA	45	60			121	109	97	84	65	47
8125 KPS /05-A	45	60			130	115	105	90	73	53
8125 KPS / 05	55	75			138	122	111	98	81	64
8125 KPS / 06-AA	55	75			150	132	118	103	81	59
8125 KPS / 06-A	55	75			157	140	126	109	88	67
8125 KPS / 06	67	90			164	145	132	115	95	75
8125 KPS / 07-A	67	90			186	163	147	128	105	79
8125 KPS / 07	67	90			192	170	154	135	111	88
8125 KPS / 08-AA	75	100			204	180	162	141	113	84
8125 KPS / 08	75	100			220	195	178	154	126	98
8125 KPS / 09-AA	81	110			230	206	185	159	127	95
8125 KPS / 09	92	125			246	218	198	173	139	102
8125 KPS / 10-AA	92	125			251	224	204	176	142	104
8125 KPS / 10	92	125			274	242	220	193	160	127
8125 KPS / 11	110	150			300	265	241	212	177	141
8125 KPS / 12	129	175			328	290	264	232	192	153
8125 KPS / 13	129	175			356	314	286	251	208	166

Maximum effiency point

FOR SECURE AND EFFICIENT USES

- Well water temperature and sand ratio in the well water should be controlled in the laboratory. Maximum sand in the well water should be 50 gr/m³ and well temperature should be 30°C.
- Pipes and Pipe clamps should have durability as carrying water in the vertical tube, tube group and itself weight.
- It is recommended that well diameter is bigger than pump diameter as at least 2” (inch).
- Distance between pump suction filter and well filter should be maximum.
- Distance between the bottom end of the motor and base of the well should be at least 50 cm. Length of pump in the well is determined due to this measurement.
- Since pump does not suck air, pump assembly depth should be proper to Net Positive Suction Height (minimum depth it can work at) values.

APPLICATION METHODS



Order Notation

6 046 / 14KPS + AL6 - 30 -T. 60

- Length of power cable (m)
- T: Power control board is available.
  Y: Power control board is not available.
- Motor type
- Number of stages
- Flow-rate point in maximum efficiency (m³/hour)
- Well diameter (")

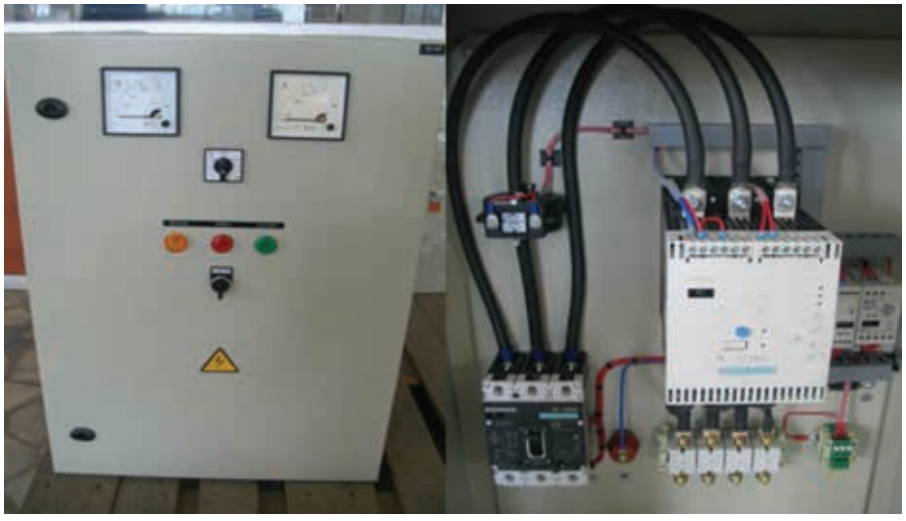
Alarko plunger pumps are shipped from the factory after being packaged safely.
The packages of 6” plunger pumps include hexwrench, water filling hopper and locktite.
Control board, water level control electrodes and cable are optional.
They are delivered in a separate package if ordered.

SELECTING CABLE

Rated Voltage	Motor Power		Cable Section (mm^2)										
	kW	HP	4x1.5	4x2.5	4x4	4x6	4x10	3x16+10	3x25+16	3x35+16	3x50+25	3x70+35	3x95+50
3-Phase 380 V	0,37	0,5	545										
	0,55	0,75	347	575									
	0,75	1	296	490									
	1,1	1,5	199	331	528								
	1,5	2	155	257	411	612							
	2,2	3	108	180	287	429	707						
	3	4	80	133	213	317	522						
	3,7	5	70	125	186	290	420						
	4	5,5	62	104	166	248	400						
	4,4	6	50	82	160	240	260	645	1005				
	5,5	7,5	45	75	119	178	293						
	7,5	10		60	95	145	245	390	610	855			
	11	15		40	66	100	170	275	430	605			
	15	20		30	50	75	130	205	325	455	650		
	18,5	25		35	60	90	155	245	390	545	780		
	22	30		30	50	75	130	205	325	455	650		
	30	40				55	95	155	240	340	485	680	925
	37	50				45	75	125	195	275	390	550	745
	45	60					65	100	160	225	325	455	620
	55	75					50	80	130	180	260	365	495
	70	96						65	100	140	205	285	390
	80	110							85	120	170	240	330
	96	130								100	145	205	275
	110	150								85	125	175	240
	132	180									105	145	200

25 HP and above motors are star-delta. In star-delta motors, 2 of the cables with lengths specified above should be used.

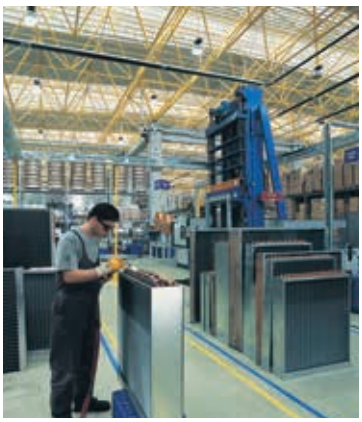
OPTIONAL ELECTRIC BOARD



SOFT STARTER CONTROL PANELS

- Reduction in control panel and wiring cost up to 25% average
- Use of single cable instead of double-wire for 25 – 180 HP motor power (Star-Delta connected)
- With the use of single cable ,
  - » An average % 20 reduction in installation time
  - » An average % 50 reduction in cable attachment
- With the use of soft starter panels
  - » Low fault rate and longer pump life
  - » Low water hammer risk
  - » High customer satisfaction

ALARKO CARRIER GEBZE COMPLEX - ACGK



ACKG has covered area for 36.800 m^2 and totally 60.500m^2 in Gebze Organized Industry Site. Construction was started to built on July 1st 1999 and it was finished on November 1st 2000. In the Main Production Facility of Alarko Carrier, renewed its production technology and modernized its organization, has ISO 9001 certification. In tihs facility, air conditioning unit, burner, fan, coil, hydrophore, submersible and circulation pump, cooling group, cooling tower, central heating boiler, air equipment, central heating radiator. On the other hand, in Dudullu Organized Industry Site, Radiator Production Facility, has covered area for 9.250 m^2 and totally 18.000 m^2, produces panel radiator. 650 employees work in production facility and 324 employees work in management, sales and marketing departmants, and 22 employees work in R&D department. 996 employees work in Alarko Carrier totally.

ALARKO

Carrier

ALARKO CARRIER SANAYİ VE TİCARET A.Ş.

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web : www.alarko-carrier.com.tr
e-mail : info@alarko-carrier.com.tr

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