

SUTEKSAN

EGYPT



Certificates



General Information

01

PUMPED LIQUIDS

Clean.

Thin.

non-aggressive liquids without solid particles or fibers.

The max. sand content is 50 mg/lit.

02

INTERNATIONAL CERTIFICATES

All products meet international standards.

ISO 5199:2003

ISO 2858:2010

ISO 9906:2012

ISO 9001:2015

CE

SASO

03

CURVE CONDITIONS

The performance curves show pump performance at actual speed cf. standard motor range.

The speed of the motors is approximate:

4" and 6" motors: $n=2870 \text{ min}^{-1}$

8" to 12" motors: $n=2900 \text{ min}^{-1}$

The measurements were made with airless water at a temperature of 30°C.

The colored section of the table indicates the recommended performance range.

The performance curves are inclusive of possible losses $\pm 5\%$.

Rewindable motor

Single-phase: 220 - 240V/50Hz

Three-phase: 380 - 415V/50Hz

Equip with start control box or digital auto-control box Pumps are designed by casing stressed

NEMA dimension standards.

General Information

TYPE KEY



MODEL	SEP 8160 / 03 K		
H - M	59 - 35		
Q - m³/h	140 - 200		
HP	50	KW	37
Frequency	50 Hz		
Speed	2900 rpm		
S.N.	20XXXXXX-56XXX		

STAINLESS STEEL SUBMERSIBLE PUMP

MADE IN EGYPT **CE**

Example ——— SEP 8-160 / 03 - K

Product Type	8	160	03	K
Pump Diameter	8	160	03	K
Rated Flow (m ³ /h)	8	160	03	K
Stages	8	160	03	K
Material Options	8	160	03	K

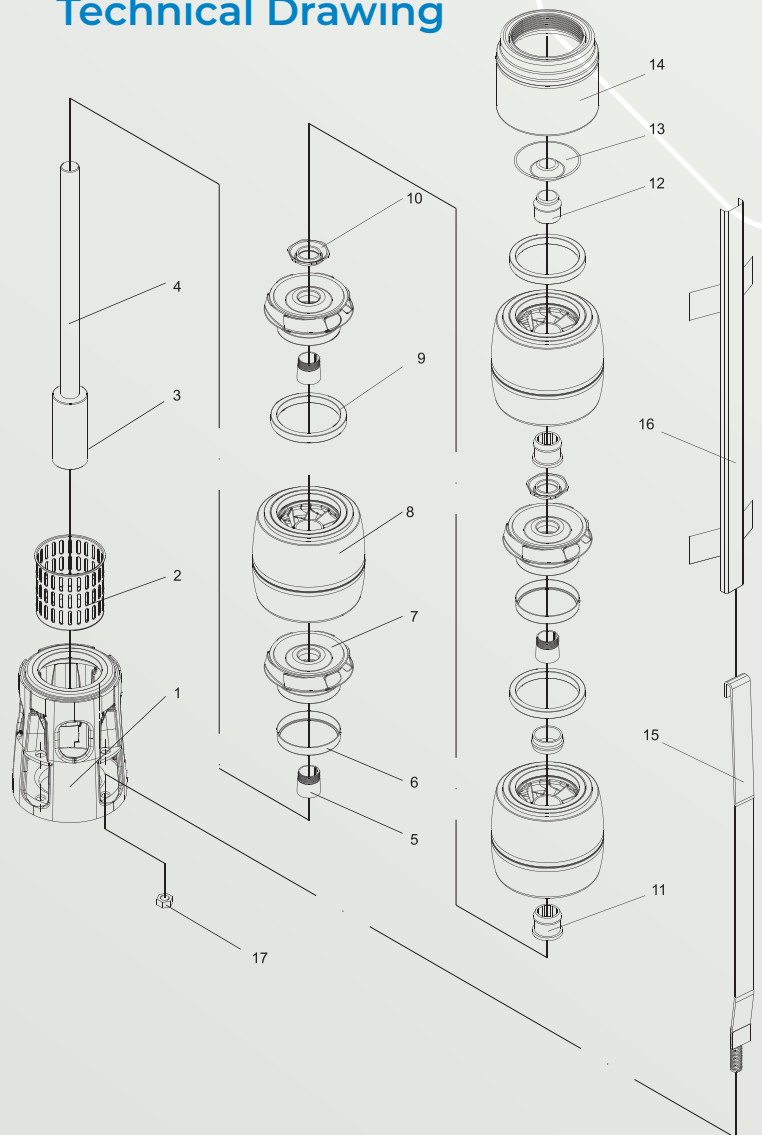
Material Data

Part List

N°	Part Name	Material
1	Suction Stage	Stainless Steel (AISI 304L)
2	Filter	Stainless Steel (AISI 304L)
3	Coupling	Stainless Steel (AISI 304L)
4	Pump Shaft	Stainless Steel (AISI 420 - 304L)
5	Impeller Lock	Stainless Steel (AISI 304L)
6	Impeller Rings	Stainless Steel (AISI 304L)
7	Impeller	Stainless Steel (AISI 304L)
8	Diffuser	Stainless Steel (AISI 304L)
9	Diffuser Ring	Rubber

N°	Part Name	Material
10	Nut For Impeller Lock	Stainless Steel (AISI 304L)
11	Shaft Bearing	Rubber
12	Shaft Stopper	Stainless Steel (AISI 304L)
13	Valve	Stainless Steel (AISI 304L)
14	Outlet	Stainless Steel (AISI 304L)
15	Strap	Stainless Steel (AISI 304L)
16	Cable Guard	Stainless Steel (AISI 304L)
17	Strap Nut	Stainless Steel (AISI 304L)

Technical Drawing



SEP 10" Pump Series



STAINLESS STEEL SUBMERSIBLE SEP 10-216 SERIES

Stainless Steel Submersible Pumps / SEP 10-216 Series													50 Hz
Pump Type	power		Flow								Pump Weight	Pump length	Outlet
	Kw	Hp	m ³ /h	0.0	180.0	200.0	210.0	225.0	240.0	270.0			
			l/s	0.00	50.00	55.56	58.33	62.50	66.67	75.00	Kg	cm	
SEP 10-216/ 01/K	15	20	Head m	28	18	17	16	14	10	4	28	71	6"
SEP 10-216/ 01	18.5	25		39	26	24	22	21	19	13	28	71	
SEP 10-216/ 02/KK	30	40		53	37	34	30	27	21	15	40	88	
SEP 10-216/ 02/K	37	50		63	44	40	37	33	28	24	40	88	
SEP 10-216/ 02	37	50		79	51	47	44	41	36	32	40	88	
SEP 10-216/ 03/KK	45	60		93	62	58	53	47	39	34	51	106	
SEP 10-216/ 03/K	52	70		103	70	65	60	55	47	42	51	106	
SEP 10-216/ 03	55	75		119	76	71	66	61	54	51	51	106	
SEP 10-216/ 04/KK	60	80		132	90	84	78	70	59	50	63	123	
SEP 10-216/ 04/K	75	100		143	96	90	84	77	66	60	63	123	
SEP 10-216/ 04	75	100		154	104	94	91	84	74	68	63	123	
SEP 10-216/ 05/KK	92	125		171	115	108	100	91	77	70	75	141	
SEP 10-216/ 05/K	92	125		182	122	114	106	97	84	78	75	141	
SEP 10-216/ 05	92	125		192	129	121	114	105	92	85	75	141	
SEP 10-216/ 06/KK	110	150		211	141	131	123	111	96	88	87	158	
SEP 10-216/ 06/K	110	150		222	147	137	128	117	103	96	87	158	
SEP 10-216/ 06	110	150		232	154	144	136	125	110	104	87	158	
SEP 10-216/ 07/KK	129	175		252	166	154	143	131	114	107	99	176	
SEP 10-216/ 07/K	129	175		265	171	161	150	137	117	115	99	176	
SEP 10-216/ 07	129	175		273	178	166	156	144	126	123	99	176	
SEP 10-216/ 08/KK	147	200	292	188	176	166	151	127	125	110	193		
SEP 10-216/ 08/K	147	200	306	196	183	171	156	135	132	110	193		
SEP 10-216/ 08	147	200	318	201	189	177	161	141	141	110	193		
SEP 10-216/ 09/KK	166	225	332	216	201	187	171	146	146	122	211		
SEP 10-216/ 09/K	166	225	345	221	208	194	177	154	152	122	211		
SEP 10-216/ 09	166	225	358	228	213	199	184	160	160	122	211		
SEP 10-216/ 10/KK	185	250	373	238	224	208	191	161	161	134	228		
SEP 10-216/ 10/K	185	250	385	251	236	221	204	176	168	134	228		
SEP 10-216/ 10	185	250	398	259	242	227	209	184	177	134	228		

STAINLESS STEEL SUBMERSIBLE SEP 10-216 SERIES

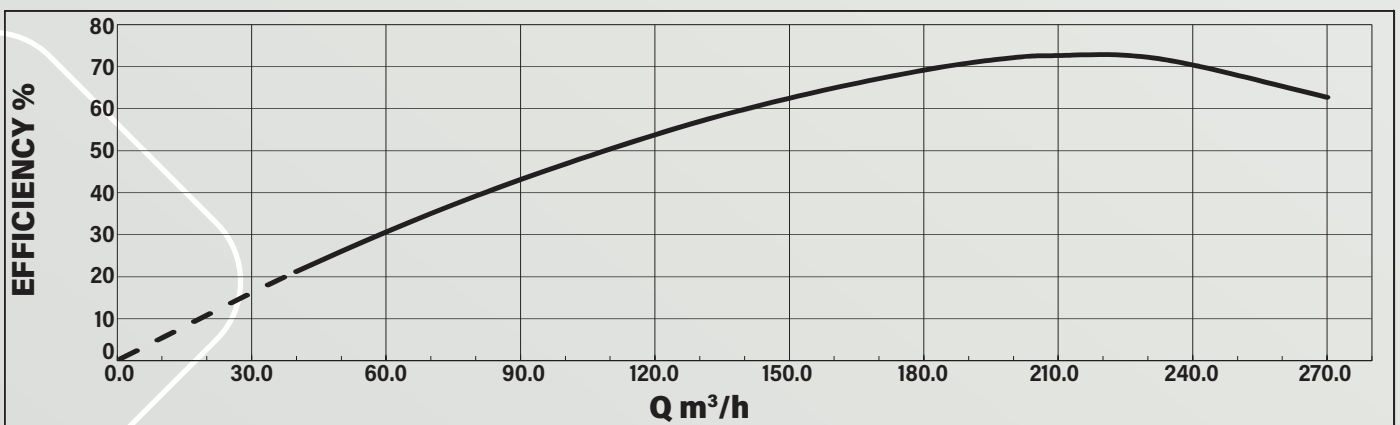
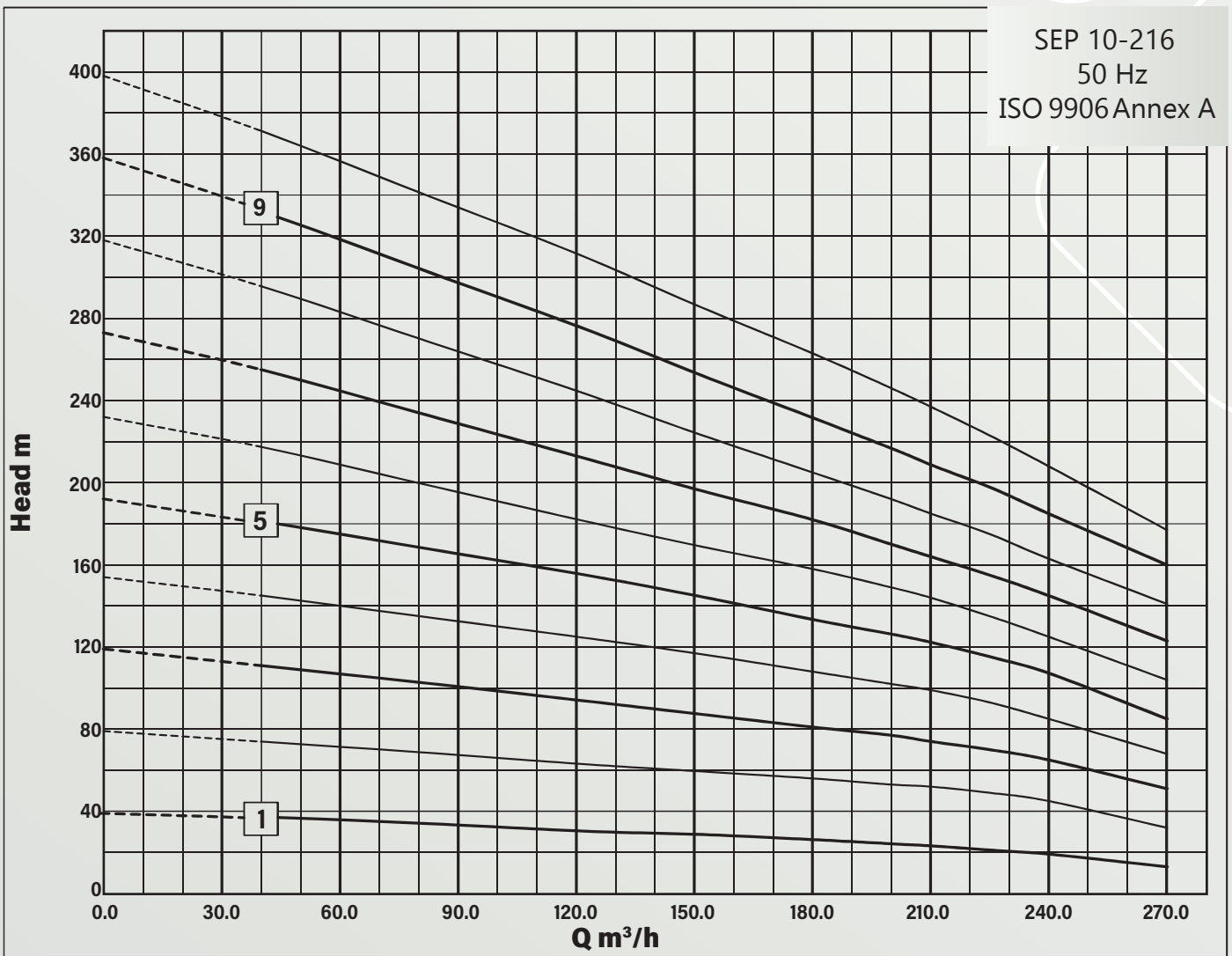
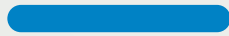


Table of head losses

Head losses in ordinary water pipes

Upper figures indicate the velocity of water in m/sec.

Lower figures indicate head loss in metres per 100 metres of straight pipes.

Quantity of water			Head losses in ordinary water pipes											
m ³ /h	Litres/min.	Litres/sec.	Nominal pipe diameter in inches and internal diameter in [mm]											
			1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"
0.6	10	0.16	0.855 15.75	0.470 21.25	0.292 27.00	0.249 35.75	0.249 41.25	0.231 52.50	0.231 68.00	0.231 80.25	0.231 92.50	0.231 105.0	0.231 130.0	0.231 155.5
0.9	15	0.25	1.282 20.11	0.705 4.862	0.438 1.570	0.249 0.416								
1.2	20	0.33	1.710 33.53	0.940 8.035	0.584 2.588	0.331 0.677	0.249 0.346							
1.5	25	0.42	2.138 49.93	1.174 11.91	0.730 3.834	0.415 1.004	0.312 0.510							
1.8	30	0.50	2.565 69.34	1.409 16.50	0.876 5.277	0.498 1.379	0.374 0.700	0.231 0.223						
2.1	35	0.58	2.993 91.54	1.644 21.75	1.022 6.949	0.581 1.811	0.436 0.914	0.269 0.291						
2.4	40	0.67		1.879 27.66	1.168 8.820	0.664 2.290	0.499 1.160	0.308 0.368						
3.0	50	0.83		2.349 41.40	1.460 13.14	0.830 3.403	0.623 1.719	0.385 0.544	0.229 0.159					
3.6	60	1.00		2.819 57.74	1.751 18.28	0.996 4.718	0.748 2.375	0.462 0.751	0.275 0.218					
4.2	70	1.12		3.288 76.49	2.043 24.18	1.162 6.231	0.873 3.132	0.539 0.988	0.321 0.287	0.231 0.131				
4.8	80	1.33			2.335 30.87	1.328 7.940	0.997 3.988	0.616 1.254	0.367 0.363	0.263 6.164				
5.4	90	1.50			2.627 38.30	1.494 9.828	1.122 4.927	0.693 1.551	0.413 0.449	0.269 0.203				
6.0	100	1.67			2.919 46.49	1.660 11.90	1.247 5.972	0.770 1.875	0.459 0.542	0.329 0.244	0.248 0.124			
7.5	125	2.08			3.649 70.41	2.075 17.93	1.558 17.93	0.962 8.967	0.574 2.802	0.412 0.809	0.310 0.365	0.241 0.185	0.241 0.101	
9.0	150	2.50				2.490 25.11	1.870 12.53	1.154 3.903	0.668 1.124	0.494 0.506	0.372 0.256	0.289 0.140		
10.5	175	2.92				2.904 33.32	2.182 16.66	1.347 5.179	0.803 1.488	0.576 0.670	0.434 0.338	0.337 0.184		
12	200	3.33				3.319 42.75	2.493 21.36	1.539 6.624	0.918 1.901	0.659 0.855	0.496 0.431	0.385 0.234	0.251 0.084	
15	250	4.17				4.149 64.86	3.117 32.32	1.924 10.03	1.147 2.860	0.823 1.282	0.620 0.646	0.481 0.350	0.314 0.126	
18	300	5.00					3.740 45.52	2.309 14.04	1.377 4.009	0.988 1.792	0.744 0.903	0.577 0.488	0.377 0.175	0.263 0.074
24	400	6.67					4.987 78.17	3.078 24.04	1.836 6.828	1.317 3.053	0.992 1.530	0.770 0.829	0.502 0.294	0.351 0.124
30	500	8.33						3.848 36.71	2.295 10.40	1.647 4.622	1.240 2.315	0.962 1.254	0.628 0.445	0.439 0.187
36	600	10.0						4.618 51.84	2.753 14.62	1.976 6.505	1.488 3.261	1.155 1.757	0.753 0.623	0.526 0.260
42	700	11.7						3.212 19.52	2.306 8.693	1.736 4.356	1.347 2.345	0.879 0.831	0.614 0.347	
48	800	13.3						3.671 25.20	2.635 11.18	1.984 5.582	1.540 3.009	1.005 1.066	0.702 0.445	
54	900	15.0						4.130 31.51	2.964 13.97	2.232 6.983	1.732 3.762	1.130 1.328	0.790 0.555	
60	1000	16.7						4.589 38.43	3.294 17.06	2.480 8.521	1.925 4.595	1.256 1.616	0.877 0.674	
75	1250	20.8							4.117 26.10	3.100 13.00	2.406 7.010	1.570 2.458	1.097 1.027	
90	1500	25.0							4.941 36.97	3.720 18.42	2.887 9.892	1.883 3.468	1.316 1.444	
105	1750	29.2								4.340 24.76	3.368 13.30	2.197 4.665	1.535 1.934	
120	2000	33.3								4.960 31.94	3.850 17.16	2.511 5.995	1.754 2.496	
150	2500	41.7									4.812 26.26	3.139 9.216	2.193 3.807	
180	3000	50.0										3.767 13.05	2.632 5.417	
240	4000	66.7											5.023 22.72	3.509 8.926
300	5000	83.3												4.386 14.42
90 ° bends, slide valves			1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7	2.0	2.5
T-pieces, non-return valves			4.0	4.0	4.0	5.0	5.0	5.0	6.0	6.0	6.0	7.0	8.0	9.0

The table is calculated in accordance with H. Lang's new formula $a = 0.02$ and for a water temperature of 10 °C.

The head loss in bends, slide valves, T-pieces and non-return valves is equivalent to the metres of straight pipes stated in the last two lines of the table.

To find the head loss in foot valves, multiply the loss in T-pieces by two.

Head losses in plastic pipes

Upper figures indicate the velocity of water in m/sec.

Lower figures indicate head loss in metres per 100 metres of straight pipes.

Quantity of water			PELM/PEH PN 10														
m ³ /h	Litres/min.	Litres/sec.	PELM					PEH									
			25	32	40	50	63	75	90	110	125	140	160	180			
0.6	10	0.16	0.49 20.4	0.30 26.2	0.19 32.6	0.12 40.8	0.085 51.4										
0.9	15	0.25	0.76 4.0	0.46 1.14	0.3 0.6	0.19 0.18	0.12 0.63										
1.2	20	0.33	1.0 6.4	0.61 2.2	0.39 0.9	0.25 0.28	0.16 0.11										
1.5	25	0.42	1.3 10.0	0.78 3.5	0.5 1.4	0.32 0.43	0.2 0.17	0.14 0.074									
1.8	30	0.50	1.53 13.0	0.93 4.6	0.6 1.9	0.38 0.57	0.24 0.22	0.17 0.092									
2.1	35	0.58	1.77 16.0	1.08 6.0	0.69 2.0	0.44 0.70	0.28 0.27	0.2 0.12									
2.4	40	0.67	2.05 22.0	1.24 7.5	0.80 3.3	0.51 0.93	0.32 0.35	0.23 0.16	0.16 0.063								
3.0	50	0.83	2.54 37.0	1.54 11.0	0.99 4.8	0.63 1.40	0.4 0.50	0.28 0.22	0.2 0.09								
3.6	60	1.00	3.06 43.0	1.85 15.0	1.2 6.5	0.76 1.90	0.48 0.70	0.34 0.32	0.24 0.13	0.16 0.050							
4.2	70	1.12	3.43 50.0	2.08 18.0	1.34 8.0	0.86 2.50	0.54 0.83	0.38 0.38	0.26 0.17	0.18 0.068							
4.8	80	1.33		2.47 25.0	1.59 10.5	1.02 3.00	0.64 1.20	0.45 0.50	0.31 0.22	0.2 0.084							
5.4	90	1.50		2.78 30.0	1.8 12.0	1.15 3.50	0.72 1.30	0.51 0.57	0.35 0.26	0.24 0.092	0.18 0.05						
6.0	100	1.67		3.1 39.0	2.0 16.0	1.28 4.6	0.8 1.80	0.56 0.73	0.39 0.30	0.26 0.12	0.2 0.07						
7.5	125	2.08		3.86 50.0	2.49 24.0	1.59 6.6	1.00 2.50	0.70 1.10	0.49 0.50	0.33 0.18	0.25 0.10	0.20 0.055					
9.0	150	2.50			3.00 33.0	1.91 8.6	1.20 3.5	0.84 1.40	0.59 0.63	0.39 0.24	0.30 0.13	0.24 0.075					
10.5	175	2.92			3.5 38.0	2.23 11.0	1.41 4.3	0.99 1.80	0.69 0.78	0.46 0.30	0.36 0.18	0.28 0.09					
12	200	3.33			3.99 50.0	2.55 14.0	1.60 5.5	1.12 2.40	0.78 1.0	0.52 0.40	0.41 0.22	0.32 0.12	0.25 0.065				
15	250	4.17				3.19 21.0	2.01 8.0	1.41 3.70	0.98 1.50	0.66 0.57	0.51 0.34	0.40 0.18	0.31 0.105	0.25 0.06			
18	300	5.00				3.82 28.0	2.41 10.5	1.69 4.60	1.18 1.95	0.78 0.77	0.61 0.45	0.48 0.25	0.37 0.13	0.29 0.085			
24	400	6.67					3.21 19.0	2.25 8.0	1.57 3.60	1.05 1.40	0.81 0.78	0.65 0.44	0.50 0.23	0.39 0.15			
30	500	8.33					4.01 28.0	2.81 11.5	1.96 5.0	1.31 2.0	1.02 1.20	0.81 0.63	0.62 0.33	0.49 0.21			
36	600	10.0					4.82 37.0	3.38 15.0	2.35 6.6	1.57 2.60	1.22 1.50	0.97 0.82	0.74 0.45	0.59 0.28			
42	700	11.7					5.64 47.0	3.95 24.0	2.75 8.0	1.84 3.50	1.43 1.90	1.13 1.10	0.87 0.60	0.69 0.40			
48	800	13.3						4.49 26.0	3.13 11.0	2.09 4.5	1.62 2.60	1.29 1.40	0.99 0.81	0.78 0.48			
54	900	15.0						5.07 33.0	3.53 13.5	2.36 5.5	1.83 3.20	1.45 1.70	1.12 0.95	0.08 0.58			
60	1000	16.7						5.64 40.0	3.93 16.0	2.63 6.7	2.04 3.90	1.62 2.2	1.24 1.2	0.96 0.75			
75	1250	20.8						4.89 25.0	3.27 9.0	2.54 5.0	2.02 3.0	1.55 1.6	1.22 0.95				
90	1500	25.0						5.88 33.0	3.93 13.0	3.05 8.0	2.42 4.1	1.86 2.3	1.47 1.40				
105	1750	29.2						6.86 44.0	4.59 17.5	3.56 9.7	2.83 5.7	2.17 3.2	1.72 1.9				
120	2000	33.3							5.23 23.0	4.06 13.0	3.23 7.0	2.48 4.0	1.96 2.4				
150	2500	41.7							6.55 34.0	5.08 18.0	4.04 10.5	3.10 6.0	2.45 3.5				
180	3000	50.0							7.86 45.0	6.1 27.0	4.85 14.0	3.72 7.6	2.94 4.4				
240	4000	66.7								8.13 43.0	6.47 24.0	4.96 13.0	3.92 7.5				
300	5000	83.3									8.08 33.0	6.2 18.0	4.89 11.0				

The table is based on a nomogram.
Roughness: K = 0.01 mm.
Water temperature: t = 10 °C.

CABLE SELECTION TABLE

Maximum Lengths in Meters (m) for 400V/50Hz, 5% Voltage Drop, 30°C Ambient Temperature
IEC Publication 364-5-523 (1983) Table 52-B1

DIRECTONLINE(DOL)

Motor Power		Cable Size mm ² , Copper Wire, Rated Insulation at 70°C															
KW	HP	2,5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
4	5,5	180	290	430	710												
5,5	7,5	130	210	320	530	830											
7,5	10	90	150	230	390	610	940										
9,3	12,5	80	130	190	320	510	770										
11	15	60	100	160	270	430	650	890									
13	17,5		90	140	230	370	560	770									
15	20		80	120	200	320	490	680	920								
18,5	25			100	160	260	400	540	740	980							
22	30				140	220	340	470	630	840							
26	35				120	190	290	390	540	720	920						
30	40					160	250	340	470	620	790	940					
37	50					130*	200	280	380	500	640	760	890	1020			
45	60						170	240	330	440	570	690	810	940			
52	70						150*	210	290	390	500	600	710	820	980		
55	75						140*	190	270	360	470	560	660	770	910		
60	80							180	250	340	440	530	630	730	870	1010	
67	90							160*	220	300	390	460	550	630	750	860	1000
75	100								200*	270	350	420	490	570	680	780	910
83	111								180*	250	320	390	450	530	630	730	850
85	114									230	290	350	410	480	570	650	750
93	125									220*	280	340	390	460	550	620	720
110	150										220	270	310	360	420	480	550
130	175										200*	240	280	330	390	440	520
150	200											200*	240	280	330	380	440
185	250													210*	250	280	330

STAR-DELTA(YΔ)

Motor Power		Cable Size mm ² , Copper Wire, Rated Insulation at 70°C															
KW	HP	2,5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
4	5,5	270	430	640													
5,5	7,5	190	310	480	790												
7,5	10	130	220	340	580	910											
9,3	12,5	120	190	280	480	760											
11	15	90	150	240	400	640	970										
13	17,5	70	130	210	340	550	840										
15	20	70	120	180	300	480	730	1020									
18,5	25	60	90	150	240	390	600	810									
22	30		70	120	210	330	510	700	940								
26	35		60*	100	180	280	430	580	810								
30	40			90	150	240	370	510	700	930							
37	50				120	190	300	420	570	750	960						
45	60				100	160	250	360	490	660	850						
52	70				90*	150	220	310	430	580	750	900					
55	75					130	210	280	400	540	700	840	990				
60	80					120	190	270	370	510	660	790	940				
67	90					100	180	240	330	450	580	690	820	940			
75	100					90*	150	210	300	400	520	630	730	850	1020		
83	111						130	190	270	370	480	580	670	790	940		
85	114						130*	180	250	340	430	520	610	720	850	970	
93	125						120*	160	240	330	420	510	580	690	820	930	
110	150							130*	190	250	330	400	460	540	630	720	820
130	175								160*	220	300	360	420	490	580	660	780
150	200								150*	190	250	300	360	420	490	570	660
185	250										190*	240	270	310	370	420	490

* For Individual Contactor



SUBMERSIBLE PUMPS & MOTORS

SUTEKSAN EGYPT PUMPS



**EGYPT -CAIRO -10TH OF RAMADAN CITY
B135-A5 THIRD INDUSTRIAL ZONE
POSTCODE:44629**



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