

Cable Selection Chart

220 Volt Selection

H.P.	kW	Cable Size mm ²								
		1,5	2,2	4	6	10	16	25	35	50
0,33	0,25	170	280	450	670	1130	1750	2640	3590	4940
0,5	0,37	120	200	320	480	810	1260	1900	2590	3580
0,75	0,55	80	130	220	320	550	850	1290	1760	2430
1	0,75	60	100	170	250	430	670	1010	1380	1910
1,5	1,1	40	70	120	480	300	470	710	960	1360
2	1,5	30	60	90	130	230	360	550	760	1060
3	2,2	20	40	60	90	150	230	350	490	680

380 Volt Cable Selection

H.P.	kW	Cable Size mm ²								
		1,5	2,2	4	6	10	16	25	35	50
0,5	0,37	810	1350	2160	3240	5500	8530	-	-	-
0,75	0,55	550	920	1480	2230	3780	5860	8890	-	-
1	0,75	410	680	1090	1640	2780	4330	6570	910	-
1,5	1,1	300	500	810	1210	2060	3200	4850	6640	9220
2	1,5	220	370	590	880	1500	2340	3560	4890	6380
3	2,2	150	250	400	600	1030	1600	2440	3350	4680
5	3,7	90	150	240	370	630	980	1490	2050	2870
7,5	5,5	60	110	170	260	440	690	1060	1450	2030
10	7,5	50	80	130	200	340	530	810	1110	1560
15	11	-	50	90	130	230	360	550	750	1060
20	15	.	.	70	100	170	270	410	570	800
25	18,5	-	.	-	80	140	210	330	450	630
30	22	.	.	.	70	120	180	280	380	540
40	30	90	130	210	280	400
50	37	-	-	-	-	-	110	170	230	320

In some installations it may be convenient to use two different cable sizes. This is acceptable if the two cable sections in percent of the maximum allowable total is less than 100%.

Example: A 1.5 kW 220 V pump is to be installed as a replacement in an existing borehole which already has 82 metres of buried 6 mm² supply cable. What cable size is required for 560 metres in the borehole? From the above table, 6 mm² is useable with a 1.5 kW motor to 130 metres. The existing buried cable uses 82 m + 130 = 63% of the allowable total. The balance of 37% is left for the borehole. Thus 130m x 37% = 48 m - is not sufficient for the borehole. Referring to the 10 mm² cable size on the table, 230m x 37% = 85 m. Thus 10 mm² submersible pump cable must be used in the borehole.