MULTIPLYING FACTOR FOR CALCULATING THE SIZES OF CAPACITOR FOR POWER FACTOR IMPROVEMENT

Original Power Factor of Load before applying Capacitor	SIZE OF CAPACITORS IN KVAR PER KW OF LOAD FOR RAISING THE POWER FACTOR												
	0.80	0.85	0.90	0.91	0.92	0.93	0.94	0.95	0.96	0.97	0.98	0.99	UNITY
0.45	1.230	1.360	1.501	1.532	1.561	1.592	1.626	1.659	1.695	1.737	1.784	1.846	1.988
0.46	1.179	1.309	1.446	1.473	1.502	1.533	1.567	1.600	1.636	1.677	1.725	1.786	1.929
0.47	1.130	1.260	1.397	1.425	1.454	1.485	1.519	1.552	1.588	1.629	1.677	1.758	1.881
0.48	1.076	1.206	1.343	1.370	1.400	1.430	1.464	1.497	1.534	1.575	1.623	1.684	1.826
0.49	1.030	1.160	1.297	1.326	1.355	1.386	1.420	1.435	1.489	1.530	1.578	1.639	1.782
0.50	0.982	1.112	1.248	1.276	1.303	1.337	1.363	1.403	1.441	1.481	1.529	1.490	1.732
0.51	0.936	1.066	1.202	1.230	1.357	1.291	1.323	1.357	1.395	1.435	1.483	1.544	1.686
0.52	0.894	1.024	1.160	1.188	1.215	1.249	1.281	1.315	1.353	1.393	1.441	1.502	1.644
0.53	0.850	0.980	1.116	1.144	1.171	1.205	1.237	1.271	1.309	1.349	1.397	1.487	1.600
0.54	0.809	0.939	1.075	1.103	1.130	1.164	1.196	1.230	1.268	1.308	1.356	1.458	1.559
0.55	0.769	0.899	1.035	1.063	1.090	1.124	1.156	1.190	1.268	1.268	1.316	1.377	1.519
0.56	0.730	0.860	0.996	1.024	1.051	1.085	1.117	1.151	1.189	1.229	1.277	1.338	1.480
0.57	0.692	0.822	0.958	0.986	1.013	1.047	1.079	1.113	1.151	1.191	1.239	1.300	1.442
0.58	0.655	0.785	0.921	0.949	0.976	1.010	1.042	1.076	1.114	1.154	1.202	1.263	1.405
0.59	0.618	0.748	0.884	0.912	0.939	0.973	1.005	1.039	1.077	1.117	1.165	1.226	1.368
0.60	0.584	0.714	0.849	0.878	0.905	0.939	0.971	1.005	1.044	1.083	1.131	1.192	1.334
0.61	0.549	0.679	0.815	0.843	0.870	0.904	0.936	0.970	1.008	1.048	1.096	1.157	1.299
0.62	0.515	0.645	0.781	0.809	0.836	0.870	0.902	0.936	0.974	1.014	1.080	1.123	1.265
0.63	0.483	0.613	0.749	0.777	0.804	0.838	0.870	0.904	0.942	0.982	1.062	1.091	1.233
0.64	0.450	0.580	0.716	0.744	0.771	0.805	0.837	0.871	0.909	0.949	1.030	1.058	1.200
0.65	0.419	0.549	0.685	0.713	0.740	0.774	0.806	0.840	0.878	0.918	0.997	1.027	1.169
0.66	0.388	0.518	0.654	0.682	0.709	0.743	0.775	0.809	0.847	0.887	0.966	0.996	1.138
0.67	0.358	0.488	0.624	0.652	0.679	0.713	0.745	0.779	0.817	0.857	0.935	0.966	1.108
0.68	0.329	0.459	0.595	0.623	0.650	0.684	0.716	0.758	0.788	0.828	0.905	0.937	1.079
0.69	0.299	0.429	0.565	0.593	0.620	0.654	0.686	0.720	0.758	0.798	0.876	0.907	1.049
0.70	0.270	0.400	0.536	0.564	0.591	0.625	0.657	0.691	0.729	0.769	0.840	0.878	1.020
0.71	0.242	0.372	0.508	0.536	0.563	0.597	0.629	0.663	0.701	0.741	0.811	0.850	0.992
0.72	0.213	0.343	0.479	0.507	0.534	0.568	0.600	0.634	0.672	0.712	0.783	0.821	0.963
0.73	0.186	0.316	0.452	0.480	0.507	0.541	0.573	0.607	0.645	0.685	0.754	0.794	0.936
0.74	0.159	0.289	0.425	0.453	0.480	0.514	0.546	0.580	0.618	0.658	0.727	0.767	0.909
0.75	0.132	0.262	0.398	0.426	0.453	0.487	0.519	0.553	0.591	0.631	0.700	0.740	0.882
0.76	0.105	0.235	0.371	0.399	0.426	0.460	0.492	0.526	0.564	0.604	0.673	0.713	0.855
0.77	0.079	0.209	0.345	0.373	0.400	0.434	0.466	0.500	0.538	0.578	0.652	0.687	0.829
0.78	0.053	0.183	0.319	0.347	0.374	0.408	0.440	0.474	0.512	0.552	0.620	0.661	0.803
0.79	0.026	0.156	0.292	0.320	0.347	0.381	0.413	0.447	0.485	0.525	0.594	0.634	0.776
0.80	—	0.130	0.266	0.294	0.321	0.355	0.387	0.421	0.459	0.499	0.567	0.608	0.750
0.81	—	0.104	0.240	0.268	0.295	0.329	0.361	0.395	0.433	0.473	0.541	0.582	0.724
0.82	—	0.078	0.214	0.242	0.269	0.303	0.335	0.369	0.407	0.447	0.515	0.556	0.698
0.83	—	0.052	0.188	0.216	0.243	0.277	0.309	0.343	0.381	0.421	0.489	0.530	0.672
0.84	—	0.026	0.162	0.190	0.217	0.251	0.283	0.317	0.355	0.396	0.463	0.504	0.645
0.85	—	—	0.136	0.164	0.191	0.225	0.257	0.291	0.329	0.369	0.437	0.478	0.620
0.86	—	—	0.109	0.140	0.167	0.198	0.230	0.264	0.301	0.343	0.390	0.450	0.593
0.87	—	—	0.083	0.114	0.141	0.172	0.204	0.238	0.275	0.317	0.364	0.424	0.567
0.88	—	—	0.054	0.085	0.112	0.143	0.175	0.209	0.246	0.288	0.335	0.395	0.538
0.89	—	—	0.028	0.059	0.086	0.117	0.149	0.183	0.230	0.262	0.309	0.369	0.512
0.90	—	—	—	0.031	0.058	0.089	0.121	0.155	0.192	0.234	0.281	0.341	0.484
0.91	—	—	—	—	0.027	0.058	0.090	0.124	0.161	0.203	0.250	0.310	0.453
0.92	—	—	—	—	—	0.031	0.063	0.097	0.134	0.176	0.223	0.283	0.426
0.93	—	—	—	—	—	—	0.032	0.066	0.108	0.145	0.192	0.252	0.395
0.94	—	—	—	—	—	—	—	0.034	0.071	0.113	0.160	0.220	0.363
0.95	—	—	—	—	—	—	—	—	0.037	0.079	0.126	0.186	0.329
0.96	—	—	—	—	—	—	—	—	—	0.042	0.089	0.149	0.292
0.97	—	—	—	—	—	—	—	—	—	—	0.047	0.107	0.250
0.98	—	—	—	—	—	—	—	—	—	—	—	0.060	0.203
0.99	—	—	—	—	—	—	—	—	—	—	—	—	0.143

eg. : 100 KW load to be improved from 0.77 to 0.95 power factor from table is 0.500 i.e. capacitor (KVAR) = 100x0.5 = 50 KVAR