

| 改善後之功率因數 $\text{Cos}\theta_2$ | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.87 | 0.86 | 0.85 | 0.84 | 0.83 | 0.82 | 0.81 | 0.80 |
| 0.50 | 1.732 | 1.590 | 1.529 | 1.481 | 1.440 | 1.403 | 1.369 | 1.337 | 1.306 | 1.276 | 1.248 | 1.220 | 1.192 | 1.165 | 1.139 | 1.112 | 1.086 | 1.060 | 1.034 | 1.008 | 0.982 |
| 0.51 | 1.687 | 1.544 | 1.484 | 1.436 | 1.395 | 1.358 | 1.324 | 1.291 | 1.261 | 1.231 | 1.202 | 1.174 | 1.147 | 1.120 | 1.093 | 1.067 | 1.041 | 1.015 | 0.989 | 0.963 | 0.937 |
| 0.52 | 1.643 | 1.500 | 1.440 | 1.392 | 1.351 | 1.314 | 1.280 | 1.247 | 1.217 | 1.187 | 1.158 | 1.130 | 1.103 | 1.076 | 1.049 | 1.023 | 0.997 | 0.971 | 0.945 | 0.919 | 0.893 |
| 0.53 | 1.600 | 1.458 | 1.397 | 1.349 | 1.308 | 1.271 | 1.237 | 1.205 | 1.174 | 1.144 | 1.116 | 1.088 | 1.060 | 1.033 | 1.007 | 0.980 | 0.954 | 0.928 | 0.902 | 0.876 | 0.850 |
| 0.54 | 1.559 | 1.416 | 1.356 | 1.308 | 1.267 | 1.230 | 1.196 | 1.163 | 1.133 | 1.103 | 1.074 | 1.046 | 1.019 | 0.992 | 0.965 | 0.939 | 0.913 | 0.887 | 0.861 | 0.835 | 0.809 |
| 0.55 | 1.518 | 1.376 | 1.315 | 1.268 | 1.227 | 1.190 | 1.156 | 1.123 | 1.092 | 1.063 | 1.034 | 1.006 | 0.979 | 0.952 | 0.925 | 0.899 | 0.873 | 0.846 | 0.820 | 0.794 | 0.768 |
| 0.56 | 1.479 | 1.337 | 1.276 | 1.229 | 1.188 | 1.151 | 1.116 | 1.084 | 1.053 | 1.024 | 0.995 | 0.967 | 0.940 | 0.913 | 0.886 | 0.860 | 0.834 | 0.807 | 0.781 | 0.755 | 0.729 |
| 0.57 | 1.441 | 1.299 | 1.238 | 1.191 | 1.150 | 1.113 | 1.079 | 1.046 | 1.015 | 0.986 | 0.957 | 0.929 | 0.902 | 0.875 | 0.848 | 0.822 | 0.796 | 0.769 | 0.743 | 0.717 | 0.691 |
| 0.58 | 1.405 | 1.262 | 1.201 | 1.154 | 1.113 | 1.076 | 1.042 | 1.009 | 0.979 | 0.949 | 0.920 | 0.892 | 0.865 | 0.838 | 0.811 | 0.785 | 0.759 | 0.733 | 0.707 | 0.681 | 0.655 |
| 0.59 | 1.368 | 1.226 | 1.165 | 1.118 | 1.077 | 1.040 | 1.006 | 0.973 | 0.942 | 0.913 | 0.884 | 0.856 | 0.829 | 0.802 | 0.775 | 0.749 | 0.723 | 0.696 | 0.670 | 0.644 | 0.618 |
| 0.60 | 1.333 | 1.191 | 1.130 | 1.083 | 1.042 | 1.005 | 0.970 | 0.938 | 0.907 | 0.878 | 0.849 | 0.821 | 0.794 | 0.767 | 0.740 | 0.714 | 0.687 | 0.661 | 0.635 | 0.609 | 0.583 |
| 0.61 | 1.299 | 1.157 | 1.096 | 1.048 | 1.007 | 0.970 | 0.936 | 0.904 | 0.873 | 0.843 | 0.815 | 0.787 | 0.759 | 0.732 | 0.706 | 0.679 | 0.653 | 0.627 | 0.601 | 0.575 | 0.549 |
| 0.62 | 1.265 | 1.123 | 1.062 | 1.015 | 0.974 | 0.937 | 0.903 | 0.870 | 0.839 | 0.810 | 0.781 | 0.753 | 0.726 | 0.699 | 0.672 | 0.646 | 0.620 | 0.593 | 0.567 | 0.541 | 0.515 |
| 0.63 | 1.233 | 1.090 | 1.030 | 0.982 | 0.941 | 0.904 | 0.870 | 0.837 | 0.807 | 0.777 | 0.748 | 0.720 | 0.693 | 0.666 | 0.639 | 0.613 | 0.587 | 0.561 | 0.535 | 0.509 | 0.483 |
| 0.64 | 1.201 | 1.058 | 0.998 | 0.950 | 0.909 | 0.872 | 0.838 | 0.805 | 0.775 | 0.745 | 0.716 | 0.688 | 0.661 | 0.634 | 0.607 | 0.581 | 0.555 | 0.529 | 0.503 | 0.477 | 0.451 |
| 0.65 | 1.169 | 1.027 | 0.966 | 0.919 | 0.877 | 0.840 | 0.806 | 0.774 | 0.743 | 0.714 | 0.685 | 0.657 | 0.629 | 0.602 | 0.576 | 0.549 | 0.523 | 0.497 | 0.471 | 0.445 | 0.419 |
| 0.66 | 1.138 | 0.996 | 0.935 | 0.888 | 0.847 | 0.810 | 0.775 | 0.743 | 0.712 | 0.683 | 0.654 | 0.626 | 0.599 | 0.572 | 0.545 | 0.519 | 0.492 | 0.466 | 0.440 | 0.414 | 0.388 |
| 0.67 | 1.108 | 0.966 | 0.905 | 0.857 | 0.816 | 0.779 | 0.745 | 0.713 | 0.682 | 0.652 | 0.624 | 0.596 | 0.568 | 0.541 | 0.515 | 0.488 | 0.462 | 0.436 | 0.410 | 0.384 | 0.358 |
| 0.68 | 1.078 | 0.936 | 0.875 | 0.828 | 0.787 | 0.750 | 0.715 | 0.683 | 0.652 | 0.623 | 0.594 | 0.566 | 0.539 | 0.512 | 0.485 | 0.459 | 0.432 | 0.406 | 0.380 | 0.354 | 0.328 |
| 0.69 | 1.049 | 0.907 | 0.846 | 0.798 | 0.757 | 0.720 | 0.686 | 0.654 | 0.623 | 0.593 | 0.565 | 0.537 | 0.509 | 0.482 | 0.456 | 0.429 | 0.403 | 0.377 | 0.351 | 0.325 | 0.299 |
| 0.70 | 1.020 | 0.878 | 0.817 | 0.770 | 0.729 | 0.692 | 0.657 | 0.625 | 0.594 | 0.565 | 0.536 | 0.508 | 0.480 | 0.453 | 0.427 | 0.400 | 0.374 | 0.348 | 0.322 | 0.296 | 0.270 |
| 0.71 | 0.992 | 0.849 | 0.789 | 0.741 | 0.700 | 0.663 | 0.629 | 0.597 | 0.566 | 0.536 | 0.508 | 0.480 | 0.452 | 0.425 | 0.398 | 0.372 | 0.346 | 0.320 | 0.294 | 0.268 | 0.242 |
| 0.72 | 0.964 | 0.821 | 0.761 | 0.713 | 0.672 | 0.635 | 0.601 | 0.569 | 0.538 | 0.508 | 0.480 | 0.452 | 0.424 | 0.397 | 0.370 | 0.344 | 0.318 | 0.292 | 0.266 | 0.240 | 0.214 |
| 0.73 | 0.936 | 0.794 | 0.733 | 0.686 | 0.645 | 0.608 | 0.573 | 0.541 | 0.510 | 0.481 | 0.452 | 0.424 | 0.396 | 0.370 | 0.343 | 0.316 | 0.290 | 0.264 | 0.238 | 0.212 | 0.186 |
| 0.74 | 0.909 | 0.766 | 0.706 | 0.658 | 0.617 | 0.580 | 0.546 | 0.514 | 0.483 | 0.453 | 0.425 | 0.397 | 0.369 | 0.342 | 0.316 | 0.289 | 0.263 | 0.237 | 0.211 | 0.185 | 0.159 |
| 0.75 | 0.882 | 0.739 | 0.679 | 0.631 | 0.590 | 0.553 | 0.519 | 0.487 | 0.456 | 0.426 | 0.398 | 0.370 | 0.342 | 0.315 | 0.289 | 0.262 | 0.236 | 0.210 | 0.184 | 0.158 | 0.132 |
| 0.76 | 0.855 | 0.713 | 0.652 | 0.605 | 0.563 | 0.526 | 0.492 | 0.460 | 0.429 | 0.400 | 0.371 | 0.343 | 0.315 | 0.288 | 0.262 | 0.235 | 0.209 | 0.183 | 0.157 | 0.131 | 0.105 |
| 0.77 | 0.829 | 0.686 | 0.626 | 0.578 | 0.537 | 0.500 | 0.466 | 0.433 | 0.403 | 0.373 | 0.344 | 0.316 | 0.289 | 0.262 | 0.235 | 0.209 | 0.183 | 0.157 | 0.131 | 0.105 | 0.079 |
| 0.78 | 0.802 | 0.660 | 0.599 | 0.552 | 0.511 | 0.474 | 0.439 | 0.407 | 0.376 | 0.347 | 0.318 | 0.290 | 0.263 | 0.236 | 0.209 | 0.183 | 0.156 | 0.130 | 0.104 | 0.078 | 0.052 |
| 0.79 | 0.776 | 0.634 | 0.573 | 0.525 | 0.484 | 0.447 | 0.413 | 0.381 | 0.350 | 0.320 | 0.292 | 0.264 | 0.236 | 0.209 | 0.183 | 0.156 | 0.130 | 0.104 | 0.078 | 0.052 | 0.026 |
| 0.80 | 0.750 | 0.608 | 0.547 | 0.499 | 0.458 | 0.421 | 0.387 | 0.355 | 0.324 | 0.294 | 0.266 | 0.238 | 0.210 | 0.183 | 0.157 | 0.130 | 0.104 | 0.078 | 0.052 | 0.026 | 0.000 |
| 0.81 | 0.724 | 0.581 | 0.521 | 0.473 | 0.432 | 0.395 | 0.361 | 0.329 | 0.298 | 0.268 | 0.240 | 0.212 | 0.184 | 0.157 | 0.131 | 0.104 | 0.078 | 0.052 | 0.026 | 0.000 | 0.000 |
| 0.82 | 0.698 | 0.556 | 0.495 | 0.447 | 0.406 | 0.369 | 0.335 | 0.303 | 0.272 | 0.242 | 0.214 | 0.186 | 0.158 | 0.131 | 0.105 | 0.078 | 0.052 | 0.026 | 0.000 | 0.000 | 0.000 |
| 0.83 | 0.672 | 0.530 | 0.469 | 0.421 | 0.380 | 0.343 | 0.309 | 0.277 | 0.246 | 0.216 | 0.188 | 0.160 | 0.132 | 0.105 | 0.079 | 0.052 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.84 | 0.646 | 0.503 | 0.443 | 0.395 | 0.354 | 0.317 | 0.283 | 0.251 | 0.220 | 0.190 | 0.162 | 0.134 | 0.106 | 0.079 | 0.053 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.85 | 0.620 | 0.477 | 0.417 | 0.369 | 0.328 | 0.291 | 0.257 | 0.225 | 0.194 | 0.164 | 0.135 | 0.107 | 0.080 | 0.053 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.86 | 0.593 | 0.451 | 0.390 | 0.343 | 0.302 | 0.265 | 0.230 | 0.198 | 0.167 | 0.138 | 0.109 | 0.081 | 0.054 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.87 | 0.567 | 0.424 | 0.364 | 0.316 | 0.275 | 0.238 | 0.204 | 0.172 | 0.141 | 0.111 | 0.082 | 0.054 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.88 | 0.540 | 0.397 | 0.337 | 0.289 | 0.248 | 0.211 | 0.177 | 0.145 | 0.114 | 0.084 | 0.055 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.89 | 0.512 | 0.370 | 0.309 | 0.262 | 0.221 | 0.184 | 0.149 | 0.117 | 0.086 | 0.057 | 0.028 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.90 | 0.484 | 0.342 | 0.281 | 0.234 | 0.193 | 0.156 | 0.121 | 0.089 | 0.058 | 0.029 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.91 | 0.456 | 0.313 | 0.253 | 0.205 | 0.164 | 0.127 | 0.093 | 0.060 | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.92 | 0.426 | 0.284 | 0.223 | 0.175 | 0.134 | 0.097 | 0.063 | 0.031 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.93 | 0.395 | 0.253 | 0.192 | 0.145 | 0.104 | 0.067 | 0.032 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.94 | 0.363 | 0.220 | 0.160 | 0.112 | 0.071 | 0.034 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.95 | 0.329 | 0.186 | 0.126 | 0.078 | 0.037 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.96 | 0.292 | 0.149 | 0.089 | 0.041 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.97 | 0.251 | 0.108 | 0.048 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.98 | 0.203 | 0.061 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.99 | 0.142 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.00 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

改善前之功率因數 $\text{Cos}\theta_1$

【使用例】：設工廠負荷：200KW
 改善前之功率因數： $\text{Cos}\theta_1=0.80$
 擬改善之功率因數： $\text{Cos}\theta_2=0.97$
 由上表查出所需電容量比率為 0.499
 故所需容量 $C=200 \times 0.499=99.8\text{KVAR}$

【容量電流計算公式】

$$\text{KVAR}=2\pi f C E^2 \times 10^{-3}$$

$$A(\text{單相})=\frac{\text{KVAR}}{E} = 2\pi f C E \times 10^{-3}$$

$$C=\frac{\text{KVAR}}{2\pi f E^2 \times 10^{-3}}$$

$$A(\text{三相})=\frac{A(\text{單相})}{\sqrt{3}}$$

$\pi=3.1416$
 $f=\text{Hz}$
 $C=\mu\text{F}$
 $E=\text{KV}$
 $\sqrt{3}=1.732$