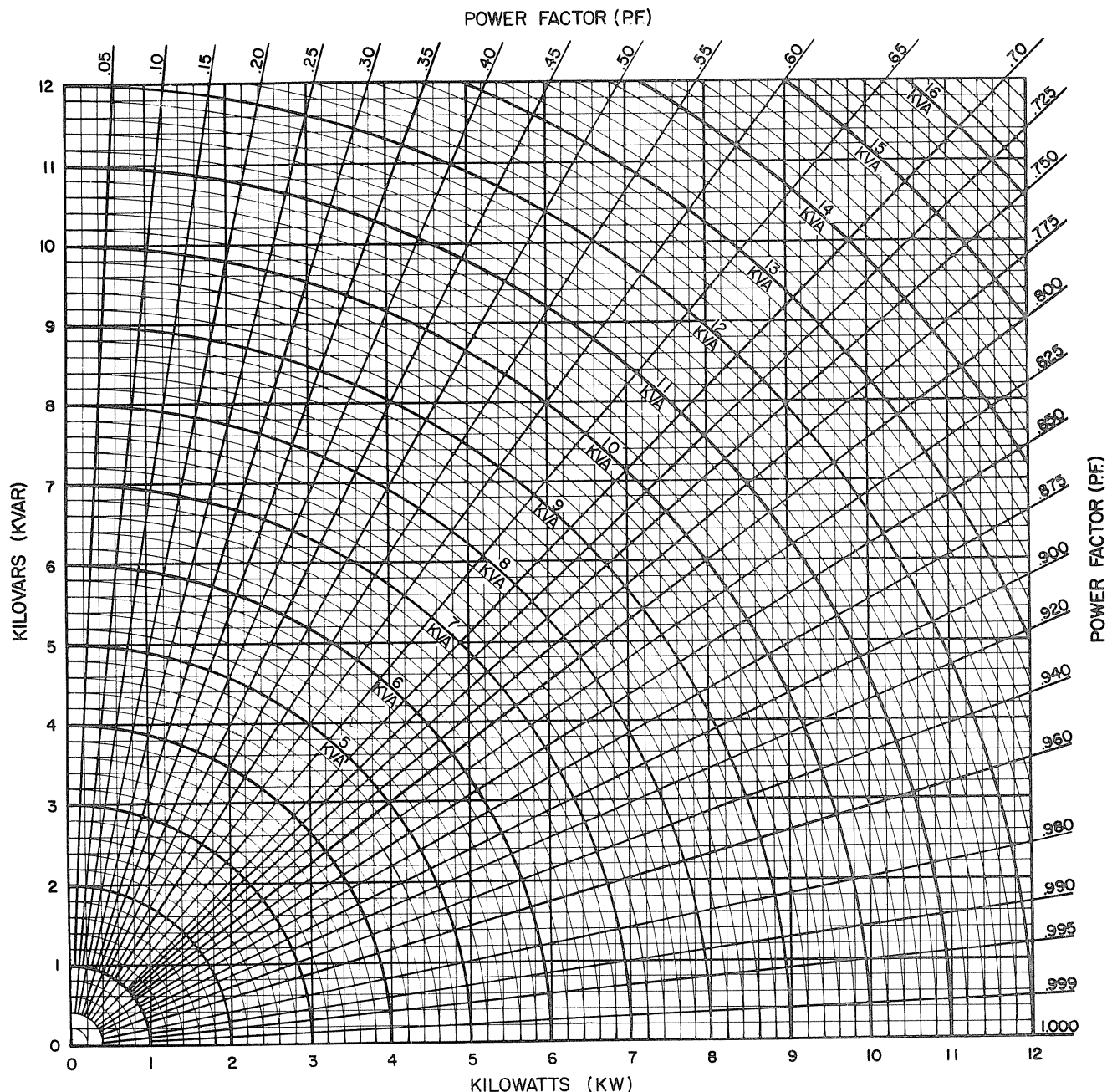


KW-KVAR-KVA POWER FACTOR CHART

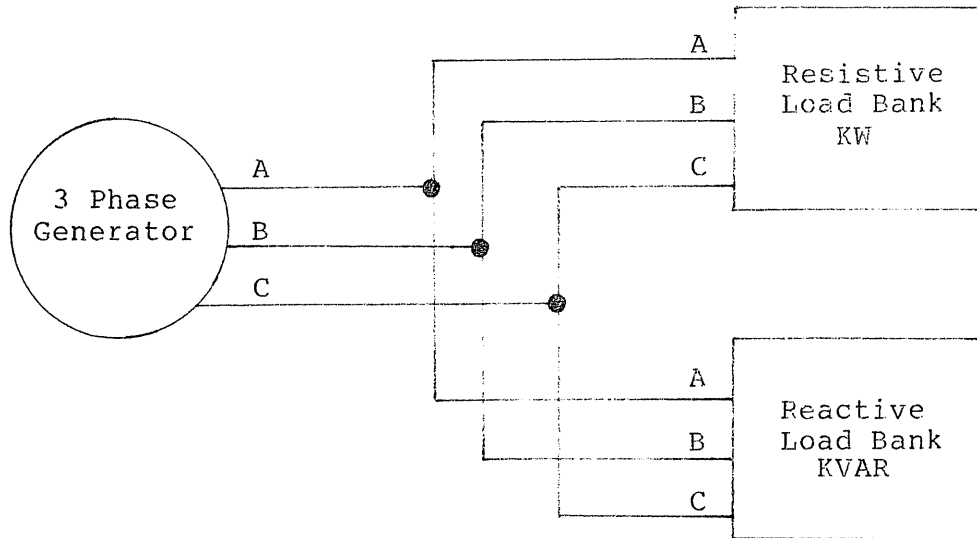


1. To find KVA and Power Factor follow the horizontal line from the KVAR value and the vertical line from the KW value. At the intersection of these lines is the KVA arc and the Power Factor radius.
2. To find KW and KVAR. From the intersection of the KVA arc and the Power Factor radius, a horizontal to the left gives KVAR, a vertical line down gives KW.
3. This chart can be used for values of KW, KVA, and KVAR greater or less than 1 thru 12 by using multiples of 10 on all quantities except Power Factor.



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Parallel Operation of Resistive and Reactive Load Banks



When using reactive and resistive load banks, wire them in parallel as shown above. To find the reactive load required to create a specific power factor, use the chart on the opposite side of this sheet. A table for 0.8 pf is shown below.

For 0.8 power factor					
KW	KVAR	KVA	KW	KVAR	KVA
5	3.75	6.25	700	525.00	875.00
10	7.50	12.50	750	562.50	937.50
25	18.75	31.25	800	600.00	1000.00
50	37.50	62.50	850	637.50	1062.50
75	56.25	93.75	900	675.00	1125.00
100	75.00	125.00	950	712.50	1187.50
150	112.50	187.50	1000	750.00	1250.00
200	150.00	250.00	1050	787.50	1312.50
250	187.50	312.50	1100	825.00	1375.00
300	225.00	375.00	1150	862.50	1437.50
350	262.50	437.50	1200	900.00	1500.00
400	300.00	500.00	1250	937.50	1562.50
450	337.50	562.50	1300	975.00	1625.00
500	375.00	625.00	1350	1012.50	1687.50
550	412.50	687.50	1400	1050.00	1750.00
600	450.00	750.00	1450	1087.50	1812.50
650	487.50	812.50	1500	1125.00	1875.00

Resistive Derating for Lower Voltages

$$\text{Actual KW} = \text{KW (rated)} \times \left(\frac{\text{Volts Applied}}{\text{Volts Rated}} \right)^2$$

Reactive Derating for Lower Voltages and Lower Frequencies*

$$\text{Actual KVAR} = \text{KVAR (rated)} \times \left(\frac{\text{Volts Applied}}{\text{Volts Rated}} \right)^2 \times \frac{\text{Rated Freq.}}{\text{Applied Freq.}}$$

*The voltage must be reduced proportionally to the frequency to avoid higher than rated currents in the reactor.