

Capacitor
At
Load

CAPACITALK™

MYRON ZUCKER 

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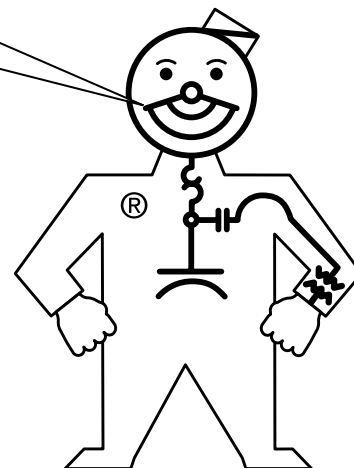
A Letter to CAL (KVAR vs. HP)

Dear CAL,

Can you come up with a rule-of-thumb for sizing a single capacitor to correct the power factor of multiple motors?

Signed,
"Single in Cincinnati"

I can help!



Dear "Single,"

If we look at ranges in the **Myron Zucker, Inc. CALmanual*** (page 9, Table 3, in the 1800-rpm column), we see that the KVAR as a percentage of HP goes from 50% for a 2-HP motor to 24% for a 500-HP motor. This can also be described as a multiplier times HP to determine KVAR. For example, 0.50 would be the multiplier for a 2-HP motor, resulting in a 1-KVAR capacitor.

This inconsistency is due to the following:

- Inductances vary by motor manufacturers, affecting the resultant magnetic currents. Magnetic current being motor no-load current.
- These tables are based on the average magnetic current of all motor manufacturers.
- The capacitor manufacturers have selected the nearest standard KVAR rating for these motors.

* The **Myron Zucker, Inc. CALmanual** can be found on our website: www.myronzucker.com.

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