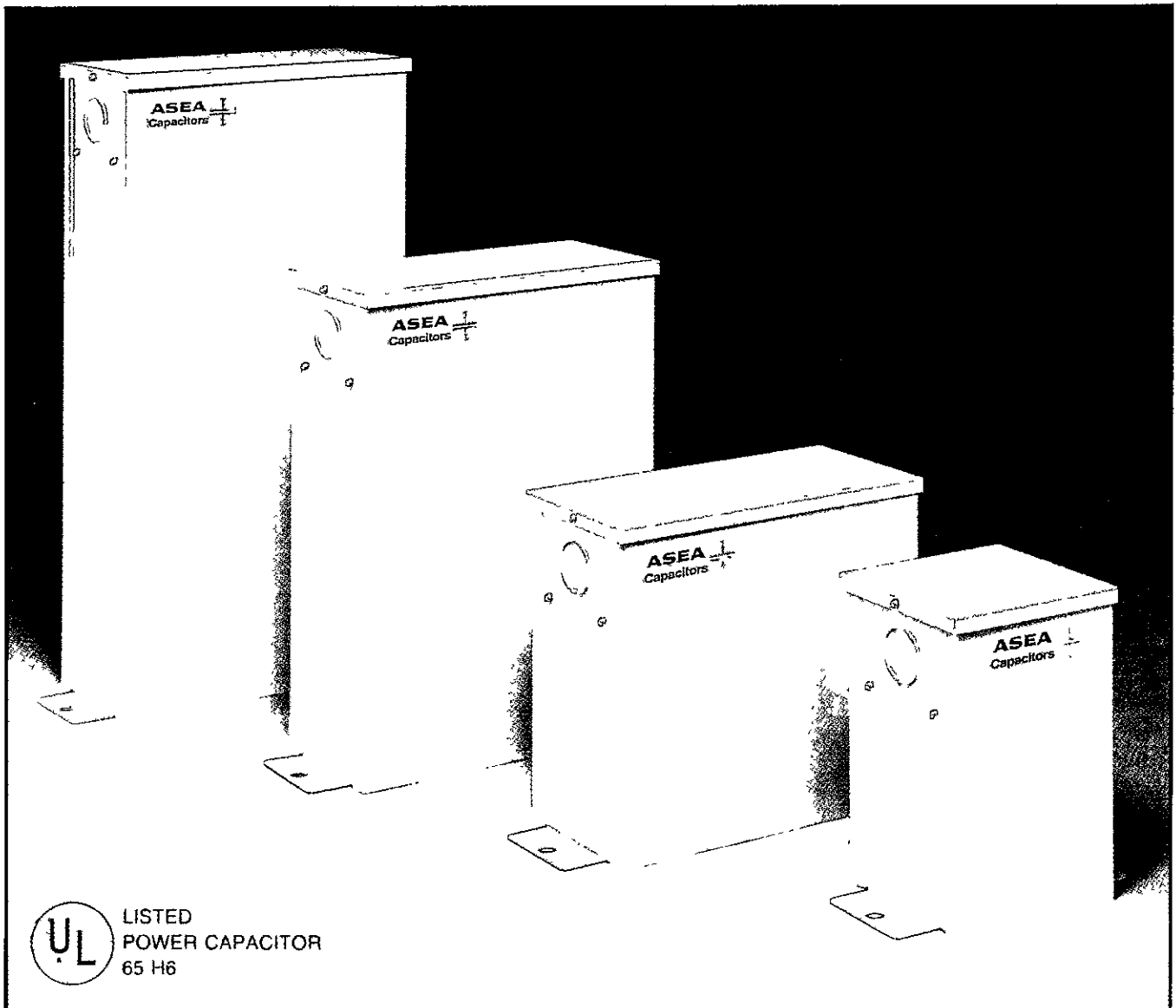


Type CLMB Dry Metallized Film Power Capacitors



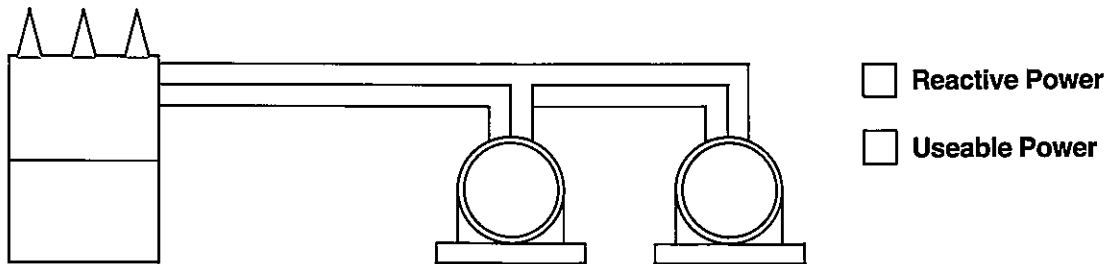
ASEA CONTROL

ASEA CLMB Dry Metallized-Film Capacitors

Why Use Capacitors?

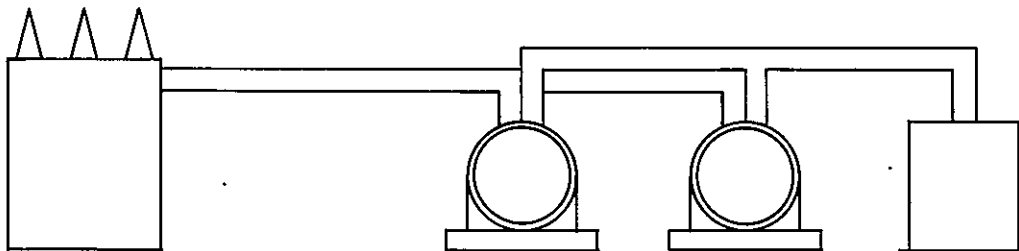
Most electrical systems service a wide variety of loads. Some of the most common of these are inductive loads such as transformers, motors, and

fluorescent lighting. One characteristic of inductive loads is that they require reactive power to function as illustrated below.



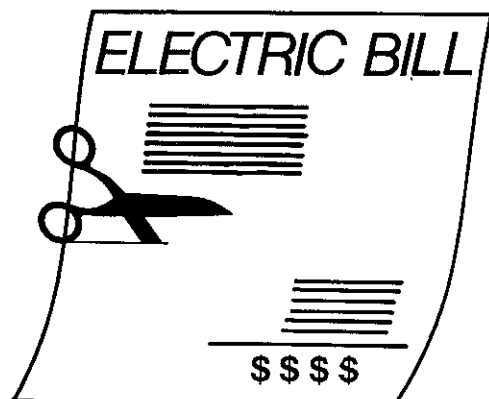
In many installations fully half of the capacity of the electrical distribution system may be utilized to carry this reactive power component. The addition of

capacitors provides a local source for this reactive power and frees the distribution system to more efficiently carry useable power.

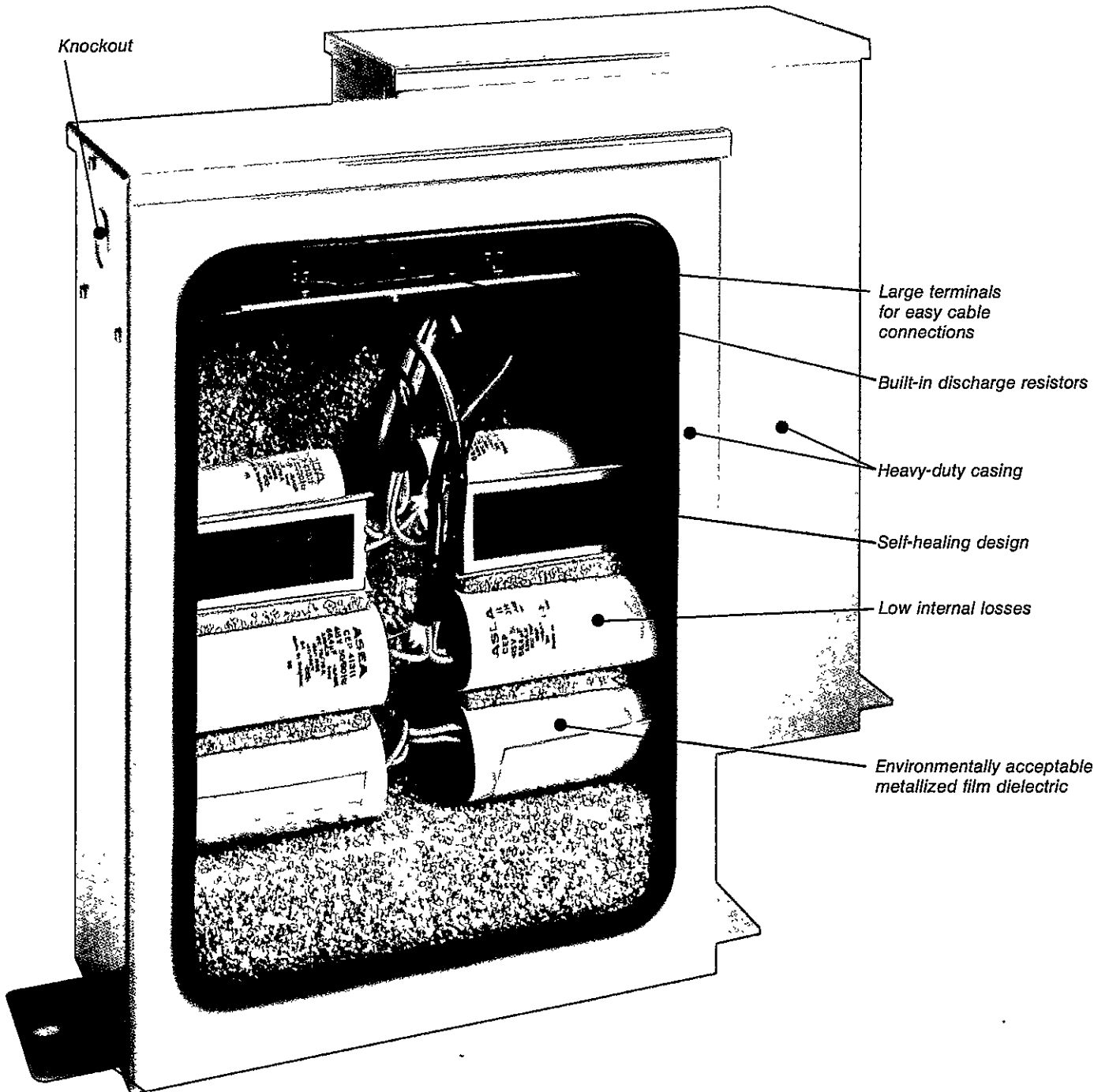


ASEA Capacitors Save \$Money\$

The direct savings resulting from capacitor installation can be identified as follows. First, since many utilities penalize their commercial customers for the poor power factor which results from inductive loads, capacitors can bring about an immediate reduction in the power bill by improving the power factor. Second, since all systems waste a certain amount of power through line losses in conductors, the reduction in current draw which results from the addition of capacitors reduces losses significantly, thus reducing the power bill. Finally, the addition of capacitors may prove a very favorable alternative to expanding the distribution system when additional capacity is required.



Knockout



*Large terminals
for easy cable
connections*

Built-in discharge resistors

Heavy-duty casing

Self-healing design

Low internal losses

*Environmentally acceptable
metallized film dielectric*

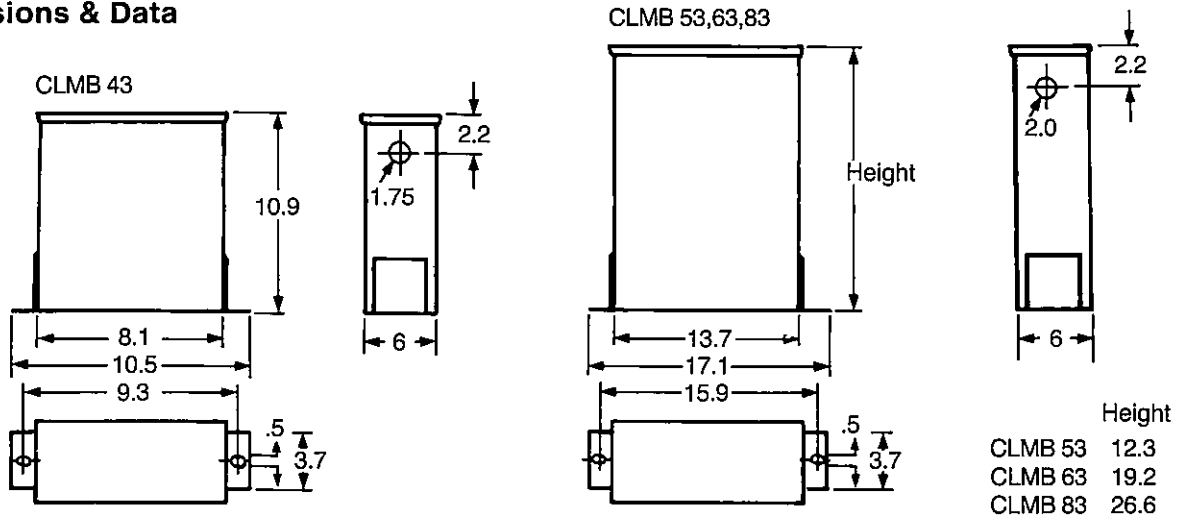
Easy mounting, low weight

ASEA Control *
3800-C Call Field Rd.
Wichita Falls, TX 76308
(800)232-ASEA

ASEA CONTROL

ASEA CLMB Capacitors Detail Specifications

Dimensions & Data



*Note: All enclosures available as either NEMA 1, 3R or 12.

Standard Ratings

| 240V, 3Ø, 60 Hz | | |
|-----------------|------|--------------|
| ENCLOSURE STYLE | KVAR | WEIGHT (LBS) |
| 43 | 2.5 | 8 |
| 43 | 3.5 | 8 |
| 43 | 5 | 8 |
| 43 | 7.5 | 8 |
| 43 | 10 | 8.5 |
| 43 | 15 | 13 |
| 43 | 20 | 13 |
| 53 | 25 | 22 |
| 53 | 30 | 22 |
| 63 | 40 | 32 |
| 63 | 50 | 33 |
| 63 | 60 | 36 |

| 480V, 3Ø, 60 Hz | | |
|-----------------|------|--------------|
| ENCLOSURE STYLE | KVAR | WEIGHT (LBS) |
| 43 | 1.5 | 8 |
| 43 | 2 | 8 |
| 43 | 2.5 | 8 |
| 43 | 3 | 8 |
| 43 | 3.5 | 8 |
| 43 | 4 | 8.5 |
| 43 | 5 | 8.5 |
| 43 | 6 | 8.5 |
| 43 | 6.5 | 8.5 |
| 43 | 7.5 | 8.5 |
| 43 | 10 | 8.5 |
| 43 | 15 | 8.5 |
| 43 | 20 | 13 |
| 43 | 25 | 13 |
| 43 | 30 | 13 |
| 53 | 35 | 22 |
| 53 | 40 | 22 |
| 53 | 45 | 24 |
| 53 | 50 | 30 |
| 63 | 60 | 36 |
| 63 | 70 | 38 |
| 63 | 75 | 40 |
| 63 | 80 | 40 |
| 83 | 90 | 53 |
| 83 | 100 | 55 |

| 600V, 3Ø, 60 Hz | | |
|-----------------|------|--------------|
| ENCLOSURE STYLE | KVAR | WEIGHT (LBS) |
| 43 | 2 | 8 |
| 43 | 3 | 8 |
| 43 | 4 | 8 |
| 43 | 5 | 8 |
| 43 | 7.5 | 8 |
| 43 | 10 | 8.5 |
| 43 | 15 | 8.5 |
| 43 | 20 | 13 |
| 43 | 25 | 13 |
| 43 | 30 | 13 |
| 53 | 35 | 24 |
| 53 | 40 | 24 |
| 53 | 45 | 24 |
| 53 | 50 | 30 |
| 63 | 60 | 36 |
| 63 | 70 | 38 |
| 63 | 80 | 38 |
| 83 | 90 | 53 |
| 83 | 100 | 55 |

State-of-the-Art CLMB Capacitors Offer Numerous Technical Advantages

• Self-Healing

ASEA pioneered the use of metallized-film power capacitors in the mid 60's. The metallized concept differs from older aluminum foil capacitor designs primarily in the comparative thickness of the electrode. Foil electrodes normally measure around 5 microns in thickness. This may sound thin, until a comparison shows that metallized electrodes measure only 1/500th of this, or .01 microns. This ultra-thin conductor imparts some unique properties to metallized-film capacitors. Foremost among these is the ability to self-heal as illustrated.



When a breakdown occurs in the dielectric of a foil-wound capacitor, a short-circuit results between electrodes which causes the capacitor to cease functioning.



In a metallized-film capacitor the ultra-thin electrode vaporizes on either side of the breakdown channel until the short-circuit extinguishes itself or "self-heals".

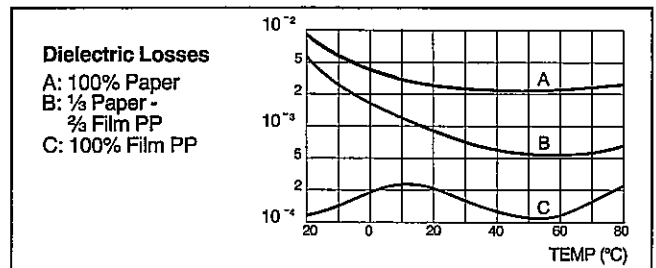
• Dry Construction, No Liquids

All CLMB capacitors utilize a dry metallized-film construction which totally eliminates free liquids. Unlike other designs which utilize oil as an insulating fluid, the ASEA design eliminates environmental and personnel concerns associated with leakage or flammability of the oil.

In addition, ASEA's unique Vermiculite dry insulating system results in substantially smaller and lighter capacitors than oil-filled designs. KVAR for KVAR, CLMB capacitors will weigh 30% to 60% less than their oil-filled counterparts. As a result, handling and installation costs are minimized.

• Low Losses

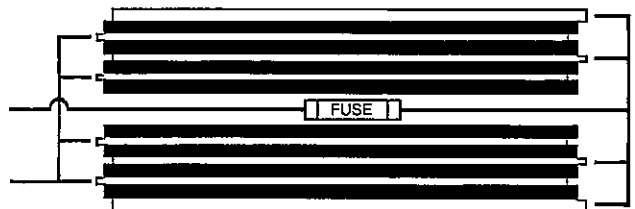
Thanks to the highly efficient polypropylene dielectric used in ASEA capacitors, total losses, including those across discharge resistors, are less than 0.5 watts / KVAR, much lower than conventional designs. As a result, operating power costs of CLMB capacitors are extremely low.



• Internally Protected Elements (IPE)

Because the internal short-circuit resistance may be much higher than in foil-wound capacitors, metallized-film designs cannot be reliably protected with external fuses. For this reason, ASEA has pioneered its patented IPE protection system. This system utilizes an individual fused link in every element to provide selective protection and improve reliability. The fuses work in conjunction with a thick outer electrode which comes into play at the end of the capacitor's life to insure that adequate current is present to cause the fuse to operate.

Every element in a CLMB capacitor is provided with its own fuse link which works together with a non-self-healing outer winding to reliably and selectively disconnect the element at the end of its life.



Typical fuse link configuration found in all CLMB capacitor elements.

Our patented IPE system is just one of several reasons why ASEA is the world's leading manufacturer of metallized-film power capacitors. The CLMB design represents state-of-the-art technology in the safest, most reliable package available today.