

DATE: August 28, 1991

LOCATION: J. C. Penney, Inc. Catalog Distribution Center

EQUIPMENT

TESTED: USES® Savings Unit, power conditioner, Model CMES-3D 480 volt

LOAD: Panel, PP-10, Shipping Area.
Federal Pacific Panel Board 480 volt, 3 phase, 3 wire; Conveyor, Towline, Mail Sorter

The device was wired in parallel to the load, by using an existing 30 AMP 3 pole breaker. This circuit was intended for a welding receptacle which we disconnected.

To read the kilowatt usage of the panel, we used a Tif meter, which provides true KW readings of real power, not apparent power.

We recorded the readings with and without the USES® unit on.

No Unit	69.8 KW
Unit On	64.4 KW
Difference	5.4 KW

This reduction in KW can be expressed, in terms of a payback, as 2.6 years.

Computed by: $5.4 \text{ KW} \times 12 \text{ HRS.} \times 354 \text{ DAYS} \times .055 \text{ per KWH} = \$1,262.00$

Est. Savings: Given of the Unit Cost of \$3,295.00 + \$1,262.00 Est. Savings = 2.6 YEARS

- NOTES:**
- 1) The calculations were conservatively figured on the basis of 12 hours run time knowing that some equipment runs two shifts or 16 hours.
 - 2) An assumption was on eleven holidays.
 - 3) The load recorded was representative of typical load. On an earlier visit the same panel showed 141.8 AMPS being used. During the test, we only recorded 112 AMPS.

OBSERVATIONS

The device provided a savings of 5.4 KW which is related to the current load of the panel. As the current increases, the greater the KW reduction.

Additional savings will also be experienced as the unit works on the load to further improve the balance on the lines.

Maintenance on the motors will be improved by providing surge and spike protection.

J.C. Penney Witnesses: Mike Manning, Electrician

Glen Smith, Building Maintenance Supervisor