

## INSTALLATION INSTRUCTIONS

### A/C ENER-SAVER CAPACITORS, MODEL ESC

#### 1.0 INSPECTION

Inspect capacitor unit for damaged enclosure or components. In case of damage file a claim against the carrier IMMEDIATELY and also notify A/C Mfg. Co. representative or main office for instructions regarding the replacement of damage component.

\*\*\*\*\*DO NOT USE DAMAGED CAPACITOR\*\*\*\*\*

#### 2.0 MOUNTING INSTRUCTIONS

Capacitors are designed for floor or wall mounting. Secure firmly using  $\frac{1}{4}$ " screws. ESC capacitors have an indoor/outdoor enclosure, use the appropriate conduit connector. Locate in well ventilated location where ambient temperatures do not exceed 40C.

#### 3.0 CONNECTIONS

Conduit connections to the unit could be made on the upper section at any of the four sides. From the standpoint of internal wiring space, it is recommended to connect the conduit on the upper left side of the box. Connect each phase wire to the corresponding terminal of the fuse block, connect ground wire to the ground lug attached to the box wall. Follow recommendations of the NEC regarding conductor sizing. Fuses are provided for internal protection. Fuses used are class J or T. Rating as indicated on the cartridge. Types T or J have 200,000A of current interrupting capacity. Install where the available S.C. duty is below this rating. Units supplied with cord sets are internally wired. To connect the unit to the system connect only the free end of the cord. Ground the unit by connecting the green wire to the system equipment ground. Indicating lights at the unit indicate blown fuse condition. They will be lighted only if a fuse has blown and that phase is de-energized at the unit.

#### 4.0 CIRCUIT VOLTAGE

The capacitor unit will deliver the rated kvac at the rated nameplate voltage. Voltage deviations from rated amount will cause the unit to provide more or less reactive capacitance. The capacitor unit is capable of operation up to a maximum of 110% of nameplate rated voltage. Overvoltage or harmonics components in the voltage wave will produce excessive heat and reduce the expected life of the cells.

#### 5.0 MAINTENANCE

Inspect the unit occasionally to check overheating condition. If a blown fuse is detected de-energize the unit and allow at least 2 min., before attempting to replace the fuse. Check to be sure capacitor cells are completely drained before contacting any current carrying part of the unit. Consult with factory if damage is detected.

#### 6.0 WARRANTY

The assembly has a limited one year warranty with the exception of the cells. Cells are guaranteed for five years of normal operation, this refers to nameplate rating conditions.

Refer also to "Terms and Condition of Sale".

TABLE 1  
Suggested Cable Size for Capacitor Connection, 3 ph, 60 hz systems

Kvar	Rated Amps at 240V	Min. Cable Size AWG or MCM	Rated Amps at 480V	Min. Cable Size AWG or MCM
1	2.4	12	1.2	12
1.5	3.6	12	1.8	12
2	4.8	12	2.4	12
2.5	6	12	3.0	12
3	7.2	12	3.6	12
4	9.6	12	4.8	12
5	12	12	6.0	12
6	14.4	10	7.3	12
7.5	18	10	9.1	12
8	19.2	10	9.7	12
9	21.6	8	10.9	12
10	24	8	12.1	12
12.5	30	8	15.2	10
15	36	6	18.2	10
17.5	42	6	21.2	8
20	48	4	24.2	8
25	60	2	30.3	8
30	72	2	36.3	6
40	96	1/0	48.4	4
50	120	3/0	60.5	2
60	144	4/0	72.6	2
75	180	300	91	1/0

Notes:

1. Cable size as per NEC - par. 460-8-(a), "Ampacity of conductor to be not less than 135 percent of the rated capacitor current".
2. Cable size based on 75C, 600V insulation types: RHW, THW, THWN; also on the use of only single conductor per conduit.