TIME OVERCURRENT RELAY

TYPE IAC

MODEL 12IAC99AE(-)A

INTRODUCTION

These instructions are a supplement to those in the GEK-34054 instruction book. The combination of the two forms the instructions for relay model 12IAC99AE(-)A.

DESCRIPTION

Relay model 12IAC99AE(-)A consists of a single case IAC type time overcurrent unit with a seal-in and an instantaneous unit mounted in a small single ended (SI) case. This relay is similar to model 12IAC53B(-)A described in GEK-34054 except:

1. The instantaneous unit has a 16 to 1 calibrating range.
2. The internal connections diagram are as shown in Fig. 1 of this supplement.

RATINGS

The ratings for the instantaneous unit are given in Table 1 of this supplement.

### TABLE I

<table>
<thead>
<tr>
<th>Range (Amps)</th>
<th>Tap Range (Amps)</th>
<th>Continuous Rating (Amps)</th>
<th>*1 Second Rating (Amps)</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-32</td>
<td>2-8</td>
<td>3.8</td>
<td>130</td>
<td>16,900</td>
</tr>
<tr>
<td></td>
<td>8-32</td>
<td>6.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-144</td>
<td>9-36</td>
<td>16</td>
<td>400</td>
<td>160,000</td>
</tr>
<tr>
<td></td>
<td>36-144</td>
<td>27</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Higher currents may be applied for shorter lengths of time in accordance with the formula:

\[ I = \sqrt{\frac{K}{T}} \]

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the General Electric Company.
NOTE: INST. UNIT CONNS. SHOWN ARE FOR LOW RANGE OPER. (2-8), FOR HIGH RANGE OPER. (8-32) CONN. 'T' TO TERM. '6' AND 'B' TO TERM. '5A.

*=SHORT FINGERS

Fig. No.1 (0257A8363-0) Internal Connections Diagram for 121AC99AE(-)A Relay