



## INSTRUCTIONS

GEK-86061  
Insert Booklet GEK-49777

### STATIC TIME-OVERCURRENT RELAY

TYPE 12SFC99AE(-)A

#### INTRODUCTION

This instruction book, together with insert booklet GEK-49777, forms the instructions for the SFC99AE special relay.

#### DESCRIPTION

The SFC99AE relay is similar to the SFC151D1A, except the time characteristic is a definite time, which can be set for a time delay from 0.1 second to 10 seconds. The tap current pickup settings are adjustable in steps of 0.02 amperes, from 0.1 to 0.8 amperes.

The time current curve is shown in Figure 1. The time setting is determined by the time dial rotary switch and the time dial vernier pot. Time curves 1 through 10 in Figure 1 are for the time dial vernier set at the "0" position. The time dial rotary switch has ten positions, numbered 1 through 10, which correspond to the curves on Figure 1. Turning the time dial vernier counterclockwise from the "0" position decreases the time delay from the integer value N to (N - 0.9).

The time dial vernier markings are shown in Figure 2. Figure 3 and Figure 4 show the internal connections for the relay and the printed circuit card, respectively.

#### RATINGS

##### TIME OVERCURRENT UNIT

The time overcurrent unit continuous and one second AC ratings are shown in Table 1.

*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.*

*To the extent required the products described herein meet applicable ANSI, IEEE and NEMA standards; but no such assurance is given with respect to local codes and ordinances because they vary greatly.*

TABLE 1

TIME OVERCURRENT UNIT (TAP RANGE)	CONTINUOUS RATING-AMPERES	ONE SECOND RATING
0.1-0.8	40X Tap (10A Max.)	750X Tap (150A Max.)

The time overcurrent unit ratings apply for any tap setting within the adjustment range.

The time overcurrent unit DC power supply input is single rated as stamped on the nameplate. No external dropping resistors are required. The relay will operate on 80 percent to 110 percent volt DC.

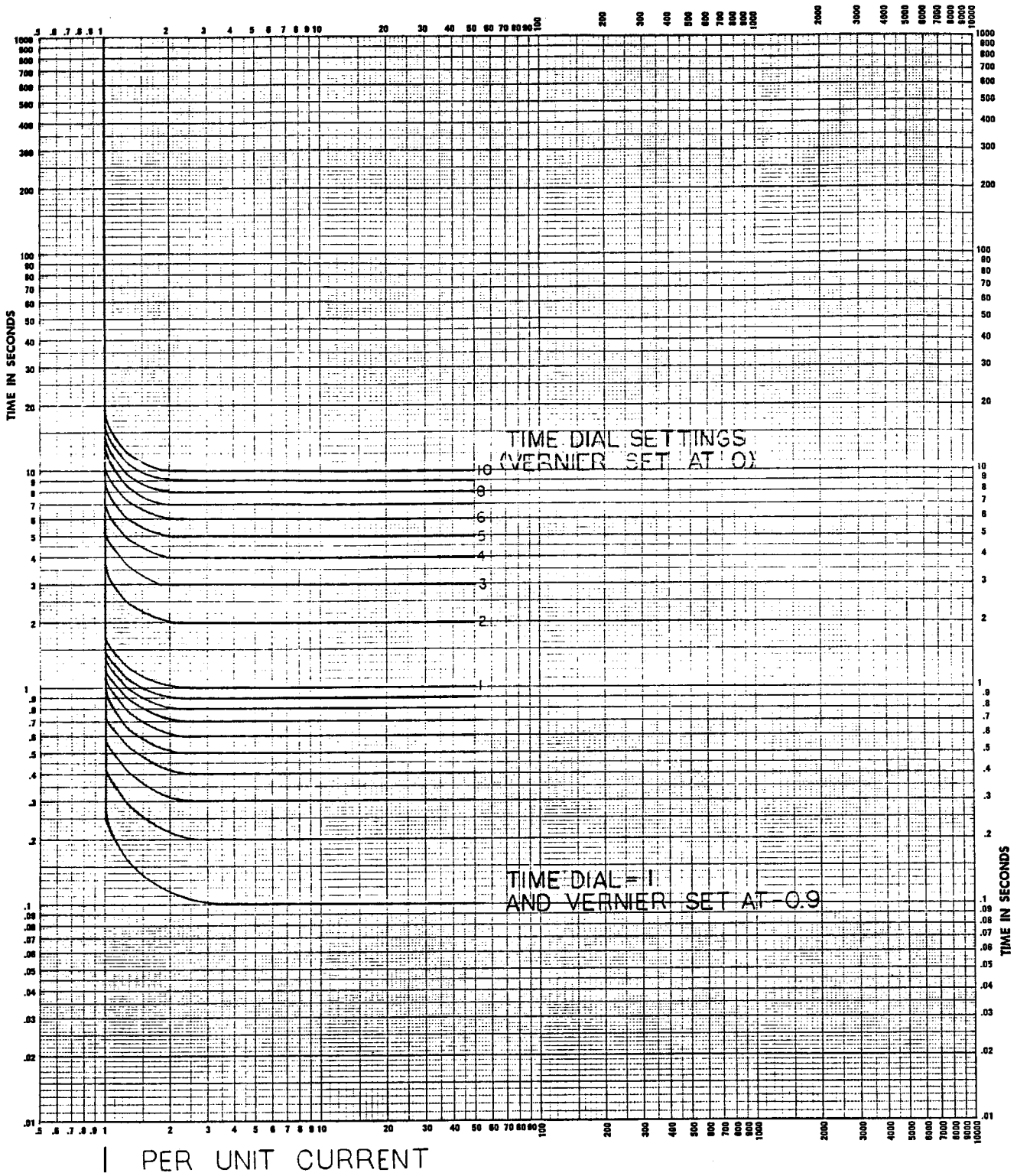


Figure 1 (0138B7645-0) Time Curves for Type SFC99AE Relay

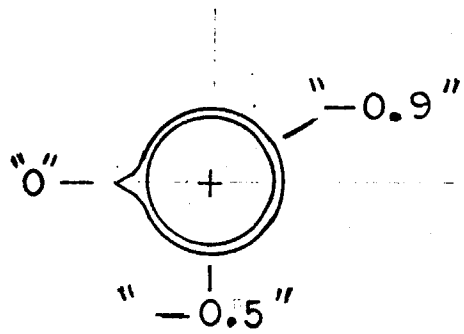


Figure 2 (0285A6735-0) Time Dial Vernier Calibration Points



