



INSTRUCTIONS

DFP1*C*****22

DFP100 WITH DECREASED SETTING ON GROUND OVERCURRENT UNITS AND IEC CURVES.

Introduction

These instructions, GEK-106255 together with GEK-105545, constitute the complete instructions for the DFP1*C*****22.

Description

The ranges of the TOC GND has been changed to 0.2 - 2.40 amps RMS and the range for DEFINITE TIME and INSTANTANEOUS GND has been changed to 0.1 - 16.0 amps rms.

The IEEE Time Overcurrent curves are replaced with the IEC curves.

Product Description: The following equations are used in determining the TOC responses.

IEC Inverse Curve:

$$t = TD \left[\frac{0.14}{M^{0.02} - 1} \right] + 0.018$$

IEC Extremely Inverse Curve:

$$t = TD \left[\frac{8.0}{M^2 - 1} \right] + 0.018$$

IEC Very Inverse Curve:

$$t = TD \left[\frac{1.35}{M - 1} \right] + 0.018$$

These instructions do not purport to cover all details or variations in equipment nor 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.

Calculations of Settings

1. In the **Calculation of Settings** section of the GEK-105545 Instruction Book, replace the following items with the corresponding items in Table 3-1:

Table 3-1. DFP100 Relay Settings

CATEGORY	SETTING NAME	RANGE	INCREMENT	DEFAULT
TIME OVER-CURRENT { SET }	DISABLE PHASE TOC	1 (YES)/0 (NO)		YES
	CURVE PHASE TOC	1 (EXT INV) 2 (VERY INV.) 3 (INVERSE)		3 (INVERSE)
	PICKUP PHASE TOC	1.00 - 12.00	0.01 amps	1.00
	TIME DIAL PHASE TOC	0.5 -10.0	0.1	10.0
	DISABLE GROUND TOC	1 (YES)/ 0(NO)		YES
	CURVE GROUND TOC	1 (EXT INV) 2 (VERY INV.) 3 (INVERSE)		3 (INVERSE)
	PICKUP GROUND TOC	0.10 - 1.20	0.01 amps	1.00
	TIME DIAL GROUND TOC	0.5 -10.0	0.1	10.0
DEFINITE TIME { SET }	DISABLE PHASE DT HIGH	1(YES)/0(NO)		YES
	PICKUP PHASE DT HIGH	1.00 - 160.00	0.01 amps	1.00
	DELAY PHASE DT HIGH	0 - 100.00	0.01 seconds	0
	DISABLE PHASE DT LOW	1(YES)/0(NO)		YES
	PICKUP PHASE DT LOW	1.00 - 160.00	0.01 amps	1.00
	DELAY PHASE DT LOW	0 - 100.00	0.01 seconds	0
	DISABLE GROUND DT HIGH	1(YES)/0(NO)		YES
	PICKUP GROUND DT HIGH	0.10 - 16.00	0.01 amps	1.00
	DELAY GROUND DT HIGH	0 - 100.00	0.01 seconds	0
	DISABLE GROUND DT LOW	1(YES)/0(NO)		YES
	PICKUP GROUND DT LOW	0.10 - 16.00	0.01 amps	1.00
	DELAY GROUND DT LOW	0 - 100.00	0.01 seconds	0
INSTANTANEOUS { SET }	DISABLE PHASE INST. HIGH	1 (YES)/0 (NO)		YES
	PICKUP PHASE INST. HIGH	1.00 - 160.00	0.01 amps	1.00
	DELAY PHASE INST. HIGH	0 - 2.00	0.01 seconds	0
	DISABLE PHASE INST. LOW	1 (YES)/0 (NO)		YES
	PICKUP PHASE INST. LOW	1.00 - 160.00	0.01 amps	1.00
	DELAY PHASE INST. LOW	0 - 2.00	0.01 seconds	0
	DISABLE GROUND INST. HIGH	1 (YES)/0 (NO)		YES
	PICKUP GROUND INST. HIGH	0.10 - 16.00	0.01 amps	1.00
	DELAY GROUND INST. HIGH	0 - 2.00	0.01 seconds	0
	DISABLE GROUND INST. LOW	1 (YES) / 0 (NO)		YES
	PICKUP GROUND INST. LOW	0.10 - 16.00	0.01 amps	1.00
	DELAY GROUND INST. LOW	0 - 2.00	0.01 seconds	0

2. Replace the following paragraphs in the Time Overcurrent Settings section.

Pickup Ground TOC - This setting establishes the pickup level of the ground TOC function. The range is 0.10 - 1.20 amps RMS.

3. Replace the following paragraphs in the Definite Overcurrent Settings section.

Pickup Ground DT HIGH - This setting establishes the pickup level of the ground DT High function. The range is 0.10 - 16.00 amps RMS.

Pickup Ground DT LOW - This setting establishes the pickup level of the ground DT Low function. The range is 0.10 - 16.00 amps RMS.

4. Replace the following paragraphs in the Instantaneous Overcurrent settings section.

Pickup Ground Inst. HIGH - This setting establishes the pickup level of the Ground Inst. High function. The range is 0.10 - 16.00 amps RMS.

Pickup Ground Inst. LOW - This setting establishes the pickup level of the Ground Inst. Low function. The range is 0.10 - 16.00 amps RMS.



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