



INSTRUCTIONS

DLP3****B0001

BLOCK RECLOSING FEATURE FOR ZONE 1 AND ZONE 2 PHASE FAULTS DLP3 WITHOUT KEYPAD

Introduction

These instructions, GEK-100602 together with GEK-100562, constitute the complete instructions for the DLP3****B0001.

Description

This relay has the following differences from the standard relay described in GEK-100562:

1. Two new items to block reclosing: one for Zone 1 phase faults and one for Zone 2 phase faults

Attachments

1. New settings table with added settings:
RBZ1PH for Zone 1 phase faults
RBZ2PH for Zone 2 phase faults

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.

TABLE IN-5: DLP SETTINGS

NOTE: In = rated current, either 1 A or 5 A.

CATEGORY: Z1DIST – Zone 1 distance

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
0101	Select Zone 1 GROUND	SELZ1G	N/A	YES/NO	YES/NO
0102	Select Zone 1 PHASE	SELZ1P	N/A	YES/NO	YES/NO
0103	Phase Reach (M1/M1G)	Z1R	Ohms	0.01 – (50) (5/In)	xxx.xx
0104	Ground Reach (M1/M1G)	Z1GR	Ohms	0.01 – (50) (5/In)	xxx.xx
0105	Select Zone 1 Ground Unit	SELZ1U	N/A	0 (Mho) 1 (Reactance)	x
0106	Reach setting of mho unit supervision reactance unit	Z1SU	Ohms	0.01 – (50) (5/In)	xxx.xx
0107	Zero-sequence current compensation (K0)	Z1K0	N/A	1.0 – 7.0	x.x

CATEGORY: Z2DIST – Zone 2 distance / GDOC (Pilot Zone)

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
0201	Select Zone 2 GROUND	SELZ2G	N/A	YES/NO	YES/NO
0202	Select Zone 2 PHASE	SELZ2P	N/A	YES/NO	YES/NO
0203	Phase Reach (MT/MTG)	Z2R	Ohms	0.01 – (50) (5/In)	xxx.xx
0204	Ground Reach (MT/MTG)	Z2GR	Ohms	0.01 – (50) (5/In)	xxx.xx
0205	Select Zone 2 Ground Unit	SELZ2U	N/A	0 (Mho) 1 (GDOC) 2 (Mho + GDOC)	x
0206	Select Zone 2 Timers	SELZ2T	N/A	YES/NO	YES/NO
0207	Phase Timer Setting	PUTL2P	secs.	0.10 – 3.00	x.xx
0208	Ground Timer Setting	PUTL2G	secs.	0.10 – 3.00	x.xx
0209	Phase Characteristic Angle	Z2PANG	Degrees	90, 105, 120	xxx
0210	Ground Characteristic Angle	Z2GANG	Degrees	90, 105, 120	xxx

CATEGORY: Z3DIST – Zone 3

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
0301	Select Zone 3 GROUND	SELZ3G	N/A	YES/NO	YES/NO
0302	Select Zone 3 PHASE	SELZ3P	N/A	YES/NO	YES/NO
0303	Phase Reach (M3/M3G)	Z3R	Ohms	0.01 – (50) (5/In)	xxx.xx
0304	Ground Reach (M3/M3G)	Z3GR	Ohms	0.01 – (50) (5/In)	xxx.xx
0305	Phase Timer Setting	PUTL3P	secs.	0.10 – 10.00	x.xx
0306	Ground Timer Setting	PUTL3G	secs.	0.10 – 10.00	x.xx
0307	Phase Characteristic Angle	Z3PANG	Degrees	90, 105, 120	xxx
0308	Ground Characteristic Angle	Z3GANG	Degrees	90, 105, 120	xxx

CATEGORY: Z4DIST – Zone 2 distance / GDOC (Pilot Zone)

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
0401	Select Zone 4 GROUND	SELZ4G	N/A	YES/NO	YES/NO
0402	Select Zone 4 PHASE	SELZ4P	N/A	YES/NO	YES/NO
0403	Phase Reach (M4/M4G)	Z4R	Ohms	0.01 – (50) (5/In)	xxx.xx
0404	Ground Reach (M4/M4G)	Z4GR	Ohms	0.01 – (50) (5/In)	xxx.xx
0405	Phase Offset Reach	Z4OR	N/A	0.00 – 0.40	x.xx
0406	Phase Timer Setting	PUTL4P	secs.	0.10 – 10.00	x.xx
0407	Ground Timer Setting	PUTL4G	secs.	0.10 – 10.00	x.xx
0408	Phase Characteristic Angle	Z4PANG	Degrees	80, 90, 95, 105, 110, 120	xxx
0409	Ground Characteristic Angle	Z4GANG	Degrees	80, 90, 95, 105, 110, 120	xxx
0410	Select Direction	SELZ4D	N/A	0 (Forward) 1 (Reverse)	x

CATEGORY: CURVSUPVIS – Overcurrent Pilot/Supervision

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
0501	Ground Pilot Trip O/C (IPT)	PUIPT	Amps	(0.10 – 1.00)(In)	xx.xx
0502	Ground Pilot Block O/C (IPB)	PUIPB	Amps	(0.05 – 0.75)(In)	xx.xx
0503	Trip Supervision O/C setting (IT)	PUIT	Amps	(0.04 – 0.80)(In)	xxx.xx
0504	Block Supervision O/C setting (IB)	PUIB	Amps	(0.04 – 0.40)(In)	xxx.xx

CATEGORY: OVERCUR – Overcurrent Backup

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
0601	Select Phase Inst. O/C PH4	SELPH4	N/A	YES/NO	YES/NO
0602	Select Inst. O/C setting	PUPH4	Amps	(0.4 – 20.0)(In)	xxx.x
0603	Select Ground Inst. O/C IDT	SELIDT	N/A	YES/NO	YES/NO
0604	Directional Control of IDT	SELDIDT	N/A	YES/NO	YES/NO
0605	Ground Instantaneous O/C setting	PUIDT	Amps	(0.1 – 16.0)(In)	xx.x
0606	Select Ground Time O/C (TOC)	SELTOC	N/A	YES/NO	YES/NO
0607	Directional Control of TOC	SELDOCTOC	N/A	YES/NO	YES/NO
0608	Ground Time O/C Setting	PUTOC	Amps	(0.04 – 3.00)(In)	xx.xx
0609	Ground Time O/C Time Dial	TDTOC	N/A	0.5 – 10.0	xx.x

CATEGORY: BLK RECLOS – Reclosing

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
0701	All of the Above	SELALL	N/A	YES/NO	YES/NO
0702	Out-of-step block	RBOSB	N/A	YES/NO	YES/NO
0703	All Zone 2 phase units	RB3PH	N/A	YES/NO	YES/NO
0704	Ground Time O/C TOC	RBTOC	N/A	YES/NO	YES/NO
0705	Zone 2 Timers	RBZ2T	N/A	YES/NO	YES/NO
0706	Zone 3 Timers	RBZ3T	N/A	YES/NO	YES/NO
0707	Zone 3 Timers	RBZ4T	N/A	YES/NO	YES/NO
0708	Zone 1 phase units	RBZ1PH	N/A	YES/NO	YES/NO
0709	Zone 2 phase units	RBZ2PH	N/A	YES/NO	YES/NO

CATEGORY: OUTFSTEP – Out-of Step Blocking

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
0801	Select phase trip to coordinate with	SELPTZ	N/A	0 (Zone 2) 1 (Zone 3) 2 (Zone 4)	x
0802	Characteristic angle	MOBANG	Degrees	30 – 130	xxx
0803	Select block trip actions	SELOSB	N/A	0 (block all tripping); 1 (block channel trip + Zone 1 – 4 trip); 2 (block none0)	x

CATEGORY: LINEPU – Line Pickup

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
0901	Select Line Pickup	SELLPU	N/A	YES/NO	YES/NO
0902	Select Timer Bypass	SELTBP	N/A	YES/NO	YES/NO
0903	Positive-sequence O/C setting	PUI1	Amps	(0.2 – 3.0)(In)	xx.x

CATEGORY: REMOTEOPEN – Remote Open Detector

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
1001	Select remote open detector	SELROD	N/A	YES/NO	YES/NO
1002	Time delay setting (TL20)	PUTL20	msec.	10 – 100	xxx
1003	Fuse failure block	SELFFB	N/A	YES/NO	YES/NO

CATEGORY: LINEPU – Line Pickup

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
1101	Select line overload	SELOVL	N/A	YES/NO	YES/NO
1102	Level 1 OC setting	PULV1	Amps	(1.0 – 4.0)(In)	xx.x
1103	Level 2 OC setting	PULV2	Amps	(2.0 – 8.0)(In)	xx.x
1104	Level 1 time delay (TL31)	PUTL31	sec.	10 – 990	xxx
1105	Level 2 time delay (TL32)	PUTL32	sec.	10 –99	xx

CATEGORY: SCHEMESEL – Scheme Selection

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
1201	Select Scheme	SELSCM	N/A	0 (Step distance); 1 (permissive overreaching); 2 (permissive underreaching); 3 (hybrid) 4 (blocking)	x
1202	Number of receivers	NUMRCVR	N/A	0, 1, 2	x

CATEGORY: SCHEMETIM – Scheme Logic Timers

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
1301	Trip integrator pickup (TL1)	PUTL1	msecs.	1 – 50	xx
1302	'b' contact coordination pickup (TL5) breaker 1	PUTL5	msecs.	0 – 200	xxx
1303	'b' contact coordination dropout (TL5) breaker 1	DOTL5	msecs.	0 – 200	xxx
1304	'b' contact coordination pickup (TL6) breaker 2	PUTL6	msecs.	0 – 200	xxx
1305	'b' contact coordination dropout (TL6) breaker 2	DOTL6	msecs.	0 – 200	xxx
1306	PUTT/POTT coordination pickup (TL4)	PUTL4	msecs.	0 – 50	xx
1307	Weak infeed trip pickup (TL16)	PUTL16	msecs.	8 – 80	xx

CATEGORY: LINE QTY – Line Quantities

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
1401	Positive-sequence angle of maximum reach (ZR1)	POSANG	Degrees	45 – 90	xx
1402	Zero sequence angle of maximum reach (ZR0)	ZERANG	Degrees	45 – 90	xx
1403	Positive-sequence impedance	ZP	Ohms	0.01 – (50)(ln)	xxx.xx
1404	Zero-sequence current compensation for Z2, Z3	K0	N/A	1.0 – 7.0	x.x
1405	Line Length	LINELN	Miles/km	0.0 – 200.0 miles 0.0 – 322.0 km	xxx.x

CATEGORY: CONFIG – Configuration Settings

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
1501	Unit ID number	UNITID	N/A	0 – 9999	xxxx
1502	System frequency	SYSFREQ	Hz	50, 60	xx
1503	Number of breakers	NUMBKRS	N/A	1, 2	x
1504	Trip circuit continuity	TRIPCIRC	N/A	0 (None) 1 (Breaker 1) 2 (Breaker 2) 3 (Both0)	x
1505	Primary/secondary units for reports	SELPRIM	N/A	0 (primary) 1 (secondary0)	x
1506	CT ratio	CTRATIO	N/A	1 – 5000	xxxx
1507	PT ratio	PTRATIO	N/A	1 – 7000	xxxx
1508	Units of distance for reports	DISTUNIT	N/A	0 (miles) 1 (km)	x
1509	Communications baud rate	BAUDRATE	N/A	300, 1200, 2400	xxxx
1510	Phase designation	PHASDESG	N/A	0 (A-B-C) 1 (A-C-B)	x

CATEGORY: SCADA DTA – SCADA DTA Interface

SETT#	DESCRIPTION	ABBREV	UNITS	RANGE	FORMAT
1601	Fault location lock	FLTLOCK	sec.	0 – 99.9	xx.x
1602	Fault location reset	FLTRESET	min.	0 – 999	xxx

GEK-100602
Supplement GEK-100562



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