Toshiba Current Relay RC803A-HP1 Instruction Manual

Toshiba current relay instruction manual

1
Table Of Contents
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

18
19

-

Table of Contents

Bookmarks

Quick Links

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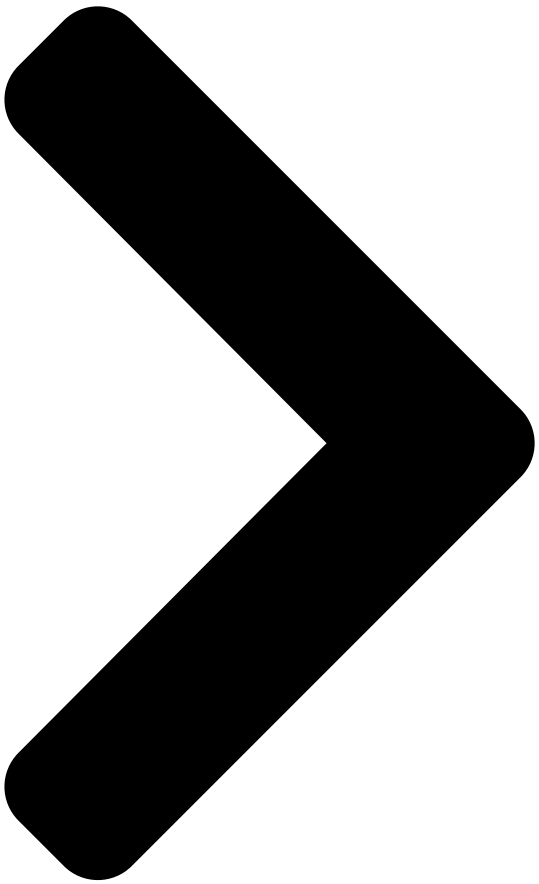

INSTRUCTION MANUAL

CURRENT RELAY

CORPORATION TOSHIBA

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Table of Contents

Next Page

1
2
3
4
5

Related Manuals for Toshiba Current Relay RC803A-HP1

Relays Toshiba RC820-HP-Y Instruction Manual

2e relay (25 pages)

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Transformer protection relay (270 pages)

Relays Toshiba GRZ100 Manual

Gr series numerical relay (41 pages)

Relays Toshiba GRZ100-211B Instruction Manual

Distance relay (463 pages)

Relays Toshiba GRD130 Manual

Gr series numerical relay (16 pages)

Relays Toshiba GR200 Series Instruction Manual

Centralized busbar protection ied (996 pages)

Relays Toshiba GRL100-101A Instruction Manual

Line differential relay (392 pages)

Relays Toshiba BMS-IFWH5E Installation Manual

Energy monitoring relay interface (22 pages)

Relays Toshiba GRD150 Manual

Gr series numerical relay feeder manager (20 pages)

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Relays Toshiba S2E21 Instruction Manual

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Relays Toshiba GRL150-100 Series Instruction Manual

Line differential relay (267 pages)

Relays Toshiba GRD130-210 Instruction Manual

Under/overvoltage protection relay (183 pages)

Relays Toshiba BMS-IFDD03UL Installation Manual

Digital input / output relay interface (12 pages)

Summary of Contents for Toshiba Current Relay RC803A-HP1

Page 1 TOSHIBA I NSTRUCTI O N M A N U A L C U R R E N T R E L A Y RC803A-HP1 TOSHIEA C O R P O R A T I O N...

Page 2: Table Of Contents

TOSHIBA G e n e r a l Descrigtion __-----_-__----___---------- C h e c k B e f o r e U s i n g - __-----__-_---_-_____- 2 . 1 2 . 2 DescriDtion o f Applications Mounting A d j u s t a e n t s - - - - - - - - - - --__-_----_____---_____ 6 .

Page 3: G E N E R A L Descrigtion

=rosHl=A Please thoroughly read this instruction manual RC803A Current SensinD Relay. 1. General DescriDtion This current relay is designed to detect current in AC circuits with a wide range of aDDiications, e.t., detection of abnoraai current of VariOUS electrical eauiment c i r c u i t s (e.g., heater circuits), detection of starting current to autoaaticaiiy advance the secondary resistance on induction wound rotor motor controllers.

Page 4 T O S H I B A Specifications _____-_-_____---------- --- ITEH Rated Current Range of current sensing Inout c i r c u i t voltage Type of Current delay ReSDOnSe time-adjustable range Detection delay t i l e - a d j u s t a b l e range Operating volt.

Page 5 TOSHIEA ITEH A m b i e n t temp. range Temp. e r r o r D i e l e c t r i c w i t h - s t a n d v o l t a g e Imgulse w i t h - s t a n d v o l t a g e I n s u l a t i o n...

Page 6: Specifications

TOSHIBA WEHA AC Rating Designation B300 ITEH Hysteresis Power consumption Height 3 . DescriDtion o f Ooeration When the detected current exceeds the detection circuit o p e r a t i n g l e v e l , t h e d e t e c t i o n d e l a y t i m e r i s a c t u a t e d . I f over- current is continuously detected for more then the detection delay time set value, the overcurrent response delay timer is actuated.

Page 7: Overcurrent Detection On Hotors

TOSHIBA Detection delay .pL1 mrellt level (0.3-O.b5A) Undercurrent detect img APDl ication 4.1 Overcurrent Detection on Hotors An aDDlication example Is shown in Fig. 2. In this clrcult. an excessive load is detected by detecting the overcurrent of a motor and the lain circuit is ooend to Protect FiD.

Page 8 TOSHIBA the uotor from being damaged. !iA. and in case of a high voltage circuit, use an external CT and connect the secondary side of CT to the relay as shown in the following AC3-Phase Power SuDDly TiD. 2 ADDlication ExaaDle using An External CT...

Page 9 T O S H I B A detection delay timer should be set lonfler than the startinv time (about 120%) so that this relay is not actuated by inrush current. after the tiee Deriod of the detection delay timer has elapsed. the relay is actuated when the set tiue of the response delay tiler i s o v e r .

Page 10 TOSHIBA ACJ-Phase Power SUDDIY 4 . 3 Limiting S t a r t i n o c u r r e n t o f Rotors Many eotors of uediua and large capacity use a aethod to s t a r t b y l i m i t i n g s t a r t i n g c u r r e n t . 8y d e t e c t i n o t h e lain...

Page 11: Transformers

ToSHIEA 4 . 4 Transformers To use this current relay for detecting overcurrent on transformers. it is necessary to set the detection delay tiler with the inrush current of transforeer 4 . 5 H e a t e r s , LauDs a n d o t h e r C i r c u i t s This relay can be used to detect the disconnection of circuits by sensing the existence of current flow.

Page 12 TOSHISA 6F9E0090 3-$7 Hole Hountino holes Fig. 4 Dimensions - ll-...

Page 13: Current Setting

T O S H I B A 6 . AdjustDents 6.1 Current setting (1) When detected current is in a range of 0.5 - 5A: After confirming that the current value under noraal load condition is in a range of 0.5 - SA, set the current adjusting knob to the desired detecting value.

Page 14 TOSHIEA 6.3 Setting the ResDonse delay time Adjust the set tile according to the ourgose of detection (I.e. overcurrent or undercurrent). delay varies ger aDDllcation. any delay tile. (ride through) by ignoring aoeentary load gliches. 7 . Ooerational l e s t (1) Check both the control and detection circuits to confirm there is no eis-wiring.

Page 15: S E T T I N G T H E R E S P O N S E D E L A Y Tiae

TOSHIBA (4) When the Dower source is aDDlied. OutDut contact’s states are reversed. The relationshiD the input signal end the outDut contacts are shown in Table 2. Check this

relationship during the test. (5) If no Droblea is found when the Dower source is aDDlied.

Page 16 T O S H I B A (b) When undercurrent or disconnection is detected At the sale time the lain circuit switch is turned OH, the starting current and rated current flows, and the relay is picked U the undercurrent State is detected and the relay drops out. (Refer to Fig.

Page 17 Toshiba. Power Source - Detected current Overcurrent...

Page 18 T O S H I B A 6F9E0090 8. Cover Reroval To adjust the current and time settings the cover must be raaoved. Reaove the cover by amlYing a force in the direction of the arrow as shown below. To replace the cover, place the projection of the cover in the slip out oreventive hole and then insert the bosses of the cover into the 2 holes at the uooer left and right.

Page 19 T O S H I B A C O R P O R A T I O N...