TOSHIBA

Toshiba CV-10HA Instruction Manual

High-voltage vacuum contractors, motor & transformer application, 12/15kv-320a-5/4ka

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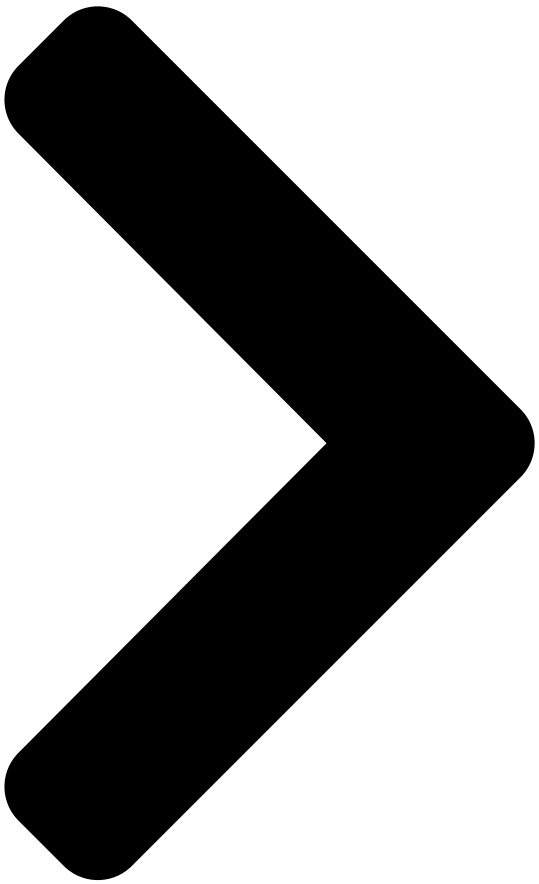

TOSHIBA

INSTRUCTION MANUAL

HIGH-VOLTAGE VACUUM CONTACTORS

MOTOR &TRANSFORMER APPLICATION

TOSHIBA
CORPORATION

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Related Manuals for Toshiba CV-10HA

DC Drives Toshiba CV-10HA Instruction Manual

High-voltage vacuum contactors (20 pages)

Industrial Electrical Toshiba CV-1GAU Instruction Manual

Vacuum contactors 1.5kv - 2.5kv voltage class (29 pages)

Industrial Electrical Toshiba HCV-7HA Instruction Manual

Vacuum contactor, 7.2kv-400a – 7.2ka (31 pages)

Industrial Electrical Toshiba HCV-5HA Manual

Instruction manual medium-voltage vacuum contactor (26 pages)

Industrial Electrical Toshiba tosvert VF-SXN Instruction Manual

Three phase 400v 1.5-15 kw compact inverter (115 pages)

Summary of Contents for Toshiba CV-10HA

Page 1 TOSHIBA INSTRUCTION MANUAL HIGH-VOLTAGE VACUUM CONTACTORS MOTOR &TRANSFORMER APPLICATION T O S H I B A C O R P O R A T I O N...

Page 2: General Description

TOSHIBA Read this manual carefully to fully understand the operation. And keep for maintenance. WARNING : Never remodel or disassemble the equipment nor mount nonstandard components. This equipment shall only be used inside a metal enclosure (grounded) in other establishments than domestic, or those that are connected to the public power source system.

Page 3 PRECAUTIONS IN SPECIAL APPLICAJIQN (outdoor cubicle etcJ In application, chec:k the follow items, please carry out the maintenance frequently. or perform the countermeasure. (Visual inspection: once a month, regular inspection: once a year) Precaution in special application Table 2 Special condition instance Caution items Dust, iron-dust etc.

Page 4 TOSHIBA 3. RECEIVING AND UNPAKING Make the following checks after unpacking : (1) Check if there is any damage , foreign matter trapped , or water seepage into the contactor. (2) Check the nameplate to see if the specifications on the plate are correct.

Page 5: Installation

TOSHIBA 5. INSTALLATION When installing , protect from dust. Particularly when the contactor is installed while the building is under construction , shield it from cement dust and other foreign matter. The following prec:autions should be taken. (1) The mounting surface must be horizontal (level : less than +l mm).

Page 6 TOSHIBA RATING DANGER : Do not exceed the ratings specified on the contactor. Table 3 Ratings...

Page 7 T O S H I B A...

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Page 9: Operation

9. OPERATION The drive unit for the electromagnet is installed in the bottom frame. Molded and wired on the printed circuit. The closing circuii can be operated using either in AC or DC by the drive unit. The optional latch trip circuit uses DC as standard. When a latched contactor is operated using AC power, it is recommended that a Capacitor trip device be used.

Page 10 TOSHIBA CONNECTION OF CONTROL POWER SUPPLY Fig.4 and Fig.5 show the internal connections of the normally energized type latched type respectively. According to there figures, connection should be made of the control power supply and open / close command contact (power relay contact).

Page 11 TOSHIBA (2) STANDARD OiPERATION CIRCUIT Shown below are the vacuum contactor and its auxiliary circuits (control and monitoring). Fig.5 represents the standard operation circuit of the normally energized type and Fig.6 the latched type. Wiring should be done according to these circuit diagrams.

Page 12 TOSHIBA (a) Shunt trip (b) Capacitor trip Fig.7 Standard operation circuit of latched type. NOTE : 0 Electrical trip-free circuit must be prepared outside the contactor. control circuit. If DC power source is not available, employ a AC closing and a Capacitor trip.

Page 13 TOSHIBA 1 0. Dal operation Warning : Make sure main power is OFF. After mounting and wiring of the vacuum contactor, make the following inspections. 1) Check for any loose connections. 2) Check for any wiring errors. Perform this test with only the control circuit energized.

Page 14 TOSHIBA 1 1 . INSPECTION AND MAINTFNACE To maintain the function and performance of the vacuum contactor for a long period of time, the following inspections and maintenance procedures are recommended. The intervals between inspections may vary depending on the conditions of use and the environment under which the contactor is used.

Page 15 TOSHIBA Periodical inspection/Detailed Inspection(every l-2 years or every 20,000 operations) The faciliiy should be removed out of service and perform inspection According to the instruction given in Table 6. : Contact with energized components can cause severe injury or death.

Page 16 TOSHIBA Table 6 Periodical inspection and detailed inspection dust adheres to the Under dusty environments, frequent inspection check correct and burned parts. and coupling conductor, Check contact wear and inform the maker.

Page 17 TOSHIBA Check for discoloration Replace if damage Overheat, discoloration. Replace if abnormal resistance between phases, between below the standard electrodes and between level, investigate the circuits and ground. (Measurement is taken necessary, replace More than 1 M Q Measure insulation resistance between circuits and ground.

Page 18 Gap/wipe standard value Table 7 Part: Vacuum interrupter 1 2 . (1) Electrical service lift? The electrical servic:e life of the vacuum interrupter is defined by the electrode wear the number of open/close operations (mechanical life). To determine the electrode wear, measure the gap between the lever and washer (dimension A) in a closed start , as shown in Figure8.

Page 19 TOSHIBA (2) Mechanical service life The normally energized type has the mechanical service life of 0.25 million operations , and the latch type 0.25 million operations. (The mechanical service life of the vacuum interrupter is 100,000 operations.) For the components listed below, replacement or detailed inspection and cleaning are recommended after the indicated number of operations.

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This manual is also suitable for:

Cv-10hal