





## Toshiba 4400 Series Installation And Operation Manual

Battery cabinets



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# 4400 SERIES UPS Battery Cabinets

The logo consists of the letters 'TO' in a large, bold, red sans-serif font. The 'O' is slightly larger than the 'T'. The letters are positioned to the right of the main title.

## INSTALLATION AND OPERATION MANUAL

440B SERIES UPS MATCHING BATTERY CABINETS - 288 VDC

Part # 69445-005

October 2019

Manufactured in the USA

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## Related Manuals for Toshiba 4400 Series

### [UPS Toshiba 4400 Series Installation And Operation Manual](#)

Three phase - 15/20/25/30/50/80/100 kva (138 pages)

### [UPS Toshiba 4400 Series Installation And Operation Manual](#)

(128 pages)

### [UPS Toshiba 4400 Series Installation Instructions Manual](#)

Seismic adapter kit (14 pages)

### [Adapter Toshiba 4400 Series Installation Instructions Manual](#)

Ups seismic adapter kit (12 pages)

### [UPS Toshiba 4200FA User Manual](#)

Uninterruptible power system three-phase 15/ 25/ 30/ 33/ 50 kva ups (66 pages)

### [UPS Toshiba 4200FA User Manual](#)

Uninterruptible power system three-phase 80 kva ups (66 pages)

### [UPS Toshiba 4200FA Installation And Operation Manual](#)

Three-phase 15/25/30/50 kva ups (138 pages)

### [UPS Toshiba 4200FA Installation And Operation Manual](#)

Three-phase 15/25/30/50 kva ups (98 pages)

### [UPS TOSHIBA 4200FA User Manual](#)

Uninterruptible power system three-phase 75 / 80 kva ups (65 pages)

### [UPS Toshiba 4200FA Series Operation Manual](#)

Battery cabinet system for 4200fa series 15 & 25kva ups (20 pages)

### [UPS Toshiba 4200FA CT/XT User Manual](#)

Toshiba 4200fa ct/xt uninterruptible power system three-phase 15/25/30/50 kva ups user's manual (68 pages)

### [UPS Toshiba 4200FA XT Installation And Operation Manual](#)

Three-phase 80 kva ups (68 pages)

### [UPS Toshiba 4200 FA CT User Manual](#)

Three-phase 15/25/30/50 kva ups (70 pages)

### [UPS Toshiba 431A Installation And Operation Manual](#)

4300 series ancillary cabinets (78 pages)

### [UPS Toshiba 4300 series Installation And Operation Manual](#)

4300 series three phase 30/50 kva ups (86 pages)

### [UPS Toshiba 4200 series Operation Manual](#)

Uninterruptible power system three phase- 75/100kva ups (45 pages)

## Summary of Contents for Toshiba 4400 Series

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SERIES UPS MATCHING BATTERY CABINETS - 288 VDC Part # 69445-005 October 2019  
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[Page 3](#) Product Use and Warranty Restrictions The Toshiba products listed in this document are intended for usage in general electronics applications (computer, personal equipment, office equipment, measuring equipment, industrial robotics, domestic appliances, etc.). These Toshiba products are neither intended nor warranted for usage in specific applications that are outlined

in Section 4.1 (Unintended Usage).

[Page 4](#) UNINTERRUPTIBLE POWER SYSTEM (UPS) Please complete the following information and retain for your records. JOB NUMBER MODEL NUMBER SERIAL NUMBER APPLICATION SHIPMENT DATE INSTALLATION DATE INSPECTED BY 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

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## [Page 8: Introduction](#)

Introduction This manual provides information on how to safely install and operate your 4400 Series accessory cabinets. This manual includes a section of general safety instructions that describes the warning labels and symbols that are used throughout the manual. Read the manual completely before installing, operating, or performing maintenance on this equipment.

## [Page 9: General Safety Instructions](#)

Electrical - Voltage & Shock Hazard Symbol indicates parts inside may cause electric shock. Explosion Hazard Symbol indicates parts may explode. 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

## [Page 10: Signal Words](#)

- Be trained in rendering first aid. For further information on workplace safety visit [www.osha.gov](http://www.osha.gov). 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

## [Page 11: Factory Authorized Personnel](#)

Factory Authorized Personnel Factory authorized personnel have been factory trained and certified to install, service, and repair the UPS. Contact the Toshiba Customer Support Center for assistance in locating the factory authorized personnel nearest you. Important Safety Instructions Maximum Operating Temperatures The following contains important instructions that should be followed during the installation, operation, and maintenance of the 4300 Series UPS Battery cabinets.

## [Page 12: Battery Safety](#)

ATTENTION Un battery puet présenter un risque de choc électrique, de brûlure par transfert d' énergie. ATTENTION L'élimination des batteries est règlementée. Consulter les codes locaux à cet effet 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

## [Page 13: Safety Precautions](#)

Improper use of the UPS system in any of the above applications may result in serious personal injury or death. Disclaimer IN NO EVENT WILL TOSHIBA CORPORATION BE RESPONSIBLE OR LIABLE FOR EITHER INDIRECT OR CONSEQUENTIAL DAMAGE OR INJURY THAT MAY COME FROM THE MISUSE OF THIS EQUIPMENT. ANY MODIFICATIONS WITHOUT AUTHORIZATION BY TOSHIBA COULD RESULT IN PERSONAL INJURIES, DEATH OR DESTRUCTION OF THE UPS.

## [Page 14: General Maintenance](#)

Toshiba representative for information on proper disposal of UPS and battery cabinet

components. It is illegal to dispose of certain components without conforming to environmental regulations for industrial/commercial waste. 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 15: Transporting](#)

The battery cabinet may be packed in a crate for extra protection during transportation. Avoid impact or vibration against the battery cabinet during transportation. DO NOT expose the battery cabinet directly to water. 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 16: Storage/Operating Environment](#)

The optimal relative humidity at the storage location should be between 50 – 60%. • Humidity must not exceed 90%. • Avoid locations where battery cabinet may be exposed to corrosive gas. • Avoid locations with dirt and/or dust. 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 17: Operating Precautions](#)

Toshiba support for guidance in over sizing the UPS for locked-rotor current. 5) DO NOT insert metal objects or combustible materials in the ventilation slots of the battery cabinet.

### [Page 18: Unpacking](#)

Packing materials should be disposed by the appropriate means. • Immediately report any abnormalities to Toshiba Customer Support Center or an authorized representative. • Retain the packing rails for offloading the UPS from the shipping pallet, and for final UPS installation.

[Page 19](#) 6. Place the tie brackets in the slots at the upper and lower ends of the ramps. SLOWLY roll the unit down the ramp. FIGURE 6.1 – UNSHIPPING 15-30KVA BATTERY CABINET 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 20: Unpack The 50-100Kva Model Ups](#)

4. Put down the UPS and remove the pallet. 5. Use a forklift or pallet jack to transport the UPS to its installation location. See Section 6.4. FIGURE 6.2 – UNSHIPPING 50-100KVA BATTERY CABINET 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 21: Transporting By Forklift](#)

Insert the forks here 7 in. 14.7 in. 7 in. 2 in. 440B Battery Cabinet: Side View - Fork Access Dimensions in Channel Base FIGURE 6.3 - TRANSPORTING BY FORKLIFT 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 22: Installation](#)

Electrical shock, injury or battery cabinet failure may occur if non- authorized technicians attempt to modify or relocate the UPS. Please contact Toshiba Customer Support Center if you plan to move or make modifications to the UPS 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 23: Battery Cabinet Clearance](#)

Top 16 in (406 mm) Front 44 in (1118 mm) Side Clearance Back Clearance 15-100kVA: 0 in (0 mm) 15-100kVA: 0 in (0 mm) FIGURE 7.2 CLEARANCE FOR SEISMIC INSTALLATIONS 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 24: Ups Anchorage - Standard And Seismic](#)

See Figure 7.3 and 7.5 for the hole locations and dimensions. 80/100kVA Skids Anchor Bolt 4 bolt holes 4 x 5/8 in (16 mm) diam- (Side View) 4 anchor bolt holes FIGURE 7.3 50-100KVA BC ANCHOR BOLT INSTALLATION DETAIL 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 25: 15-30Kva Battery Cabinet Anchorage - Standard](#)

Extend the threaded leveling feet until all weight has been removed from the casters and the UPS is level. Front Leveling Feet Leveling Feet DETAIL - Load Leveling Foot 20.12 in (511 mm) FIGURE 7.4 – FOOTPRINT FOR 15-30 KVA BATTERY CABINET USING LOAD LEVELING FEET 4400

### [Page 26: 50-100Kva Battery Cabinet Anchorage - Standard](#)

Angle Bracket Skids FRONT 50-100kVA ANCHORAGE SPACING Back 4 x 0.703 in Dia. (17.9 mm) Front 27.1 in (689 mm) FIGURE 7.5 ANCHORAGE HOLE LOCATIONS – 50-100KVA BATTERY CABINET 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 27: Battery Cabinet Layout](#)

ADHESIVE - V23 OR EQUIV. ADHESIVE - L-344 OR EQUIV. MUST RESIST OIL SOLVENTS MUST RESIST OIL SOLVENTS If a label is missing or illegible, contact Toshiba Customer Support Center or an ALL MATERIALS USED MUST ALL MATERIALS USED MUST authorized representative.

[Page 28](#) CORPORATION AND SHALL NOT BE REPRODUCED, USED, OR DISCLOSED REV: TO OTHERS UNLESS PRIOR WRITTEN AUTHORIZATION IS OBTAINED. ECO 77296 07-09 DRAWING NO.: 41750 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005 DATE 13131 WEST LITTLE YORK ROAD, HOUSTON, TX 77041 U.S.A.

[Page 29](#) Lack of preventative maintenance could result may result in fire or inadequate 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005 n batteries exploding and emitting gasses and/or in batteries exploding and emitting gasses and/or equipment protection.

### [Page 30: Battery Cabinet Layout](#)

Top conduit landing plate in expansion band. (All cabinets are O'Brien Black (Textured)) NOTE: BC shown with dead- front and door removed. FIGURE 8.2 BATTERY CABINET LAYOUT - 15-30KVA 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

[Page 31](#) Top conduit landing plate in expansion band. (All cabinets are O'Brien Black (Textured)) NOTE: BC shown with dead- front and door removed. FIGURE 8.3 BATTERY CABINET LAYOUT - 50-100KVA 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 32: Battery Cabinet Wiring](#)

Battery Cabinet Wiring Battery Cabinet Wiring Locations – MCCB1 FIGURE 9.1 CABLING CONNECTIONS - 15-30KVA BATTERY CABINET FIGURE 9.2 CABLING CONNECTIONS - 50-100KVA BATTERY CABINET 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 33: Battery Cabinet To Ups Wiring](#)

BYPASS INPUT Power Terminals) L2 L3 N H1 H2 H3 N H1 H2 H3 Power Input/ Output Cables FIGURE 9.3 440B DC AND CONTROL CABLE CONNECTIONS TO 4400 SERIES UPS 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 34: Installation Safety Instruction](#)

Connect the power cables between the UPS and the Battery Cabinet MCCB before connecting the inter- shelf Anderson Connectors (Figure 9.3). When connecting more than two Toshiba 440B Battery Cabinets in parallel to the 4400 Series UPS, reference the 4400 Series Battery Cabinet parallel Adapter Kit Installation Guide Doc # 94682.

### [Page 35: Cable Requirements](#)

500 lb-in (56 kcmil N•M) TABLE 9.2 - 440B TB2 CONTROL WIRE SIZE Battery Cab Lug Cable Screw Lug Torque Capacity 22 - 12 AWG 9 lb-in (1.01 N•M) 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

### [Page 36: External Layouts/Dimensions](#)

If running top-entry cabling to the 440B 15-30kVA Battery Cabinet the small conduit landing plate on the left should be used for instrumentation, and drill the power cables conduit holes on the right side of the top expansion band. 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

[Page 37](#) 77 °F – 86 °F (25 °C – 30 °C) 32 °F – 86 °F (0 °C – 30 °C) Storage Temperature



(Storage at temperatures above recommended values will require more frequent freshening recharges) \* Estimated weight 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

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[Page 45](#) Runtime in Minutes at % Full Load 100% 4400 80kVA 11.5 17.5 21.5 >60 >60 4400 80kVA 11.5 14.5 23.5 >60 >60 4400 100kVA 12.5 15.5 20.5 39.5 >60 >60 4400 100kVA 10.5 33.5 >60 4400 Series UPS Battery Cabinet Installation and Operation Manual – 69445-005...

[Page 46](#) SOCIAL INFRASTRUCTURE SYSTEMS GROUP POWER ELECTRONICS DIVISION 13131 West Little York Road, Houston, Texas 77041 Tel (713) 466-0277 Fax. (713) 466-8773 US (800) 231-1412 Canada (800) 872-2192 Mexico 01/800/527-1204  
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