

**TOSHIBA**  
Leading Innovation >>>



ALL PRODUCTS >>>  
UNINTERRUPTIBLE POWER SYSTEMS >>>

## NEXT GENERATION TECHNOLOGY

Toshiba International Corporation provides a full range of Uninterruptible Power Systems (UPS) for datacenter/IT, commercial/retail, healthcare & industrial applications.

Available Toshiba UPS include:

- Single-Phase: 1 to 22 KVA
- Three-Phase: 15 to 2,000 KVA
- Three-Phase In, Single-Phase Out: 50 KVA
- Parallel Up to 12,000 KVA

Toshiba's parallel three-phase systems can be designed for both redundant and capacity configurations.

Every Toshiba UPS is designed for maximum power quality, efficiency, and reliability along with minimum footprint, maintenance requirements, and ease of operation.

Each Toshiba UPS is equipped with a serial communication port and dry contacts. The serial port can be driven by Toshiba's RemotEye® network interface card allowing remote monitoring over Ethernet TCP/IP and RS-485 networks. The dry contacts provide input and output signals for external interfaces. Additional dry contacts available in separate wall mounted relay enclosure.

Power distribution options include maintenance bypass panels, power distribution units, and remote power panels (RPP).

Three-Phase models are available with OSHPD Special Seismic Certification pre-approval (OSP).

Toshiba UPS units are compatible with VRLA or flooded batteries to offer application specific runtimes. Toshiba's new SCiB® lithium ion energy storage solutions are available for specific UPS models.

All UPS models come with a full three-year warranty backed by Toshiba's 24/7 technical support. Preventative maintenance and maintenance agreements are available on all UPS products. All Toshiba UPS systems are voltage/frequency independent (VFI), true on-line double-conversion units, providing conditioned power during inverter and battery operation. For more information call sales and service at 877-867-8773.

### > APPLICATIONS



**Datacenters/IT**



**Healthcare**



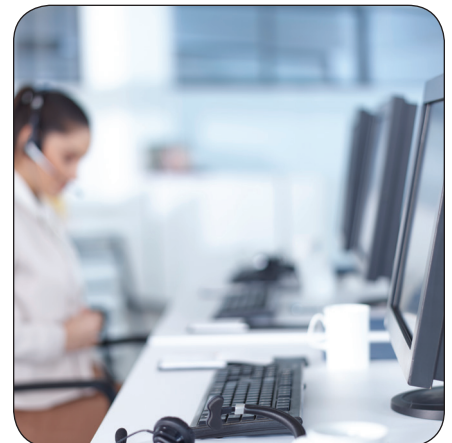
**Commercial/Retail**



**Industrial**



**Banking**



**Call Centers**

## SINGLE-PHASE UPS



UPS Series	T1000 Series		1600XPi Series
Target Market	IT Retail Banking		IT Retail Banking Healthcare
KVA	1 to 3	5.2 & 6	3.6 to 22
Output Power Factor	0.9	0.9	0.85
Input Voltage (V)	120 (230*)	208/240	208/240 (230*)
Output Voltage (V)	100, 110, 115, 120 (230*)	200/208/220/230/240 (L-L) - 120V (Optional with transformer for L-N)	240/120 OR 208/120 (230*)
Frequency (Hz)	50/60 (Auto-Sensing)	50/60 (Auto-Sensing)	50/60 (Auto-Sensing)
Battery Backup	Internal/External	External	Internal/External
Maintenance Bypass Switch	N/A	N/A	Optional Internal/ External MBS
Features	<ul style="list-style-type: none"> <li>• Available in Tower and Rack-mount Form Factor</li> <li>• Wide Input Voltage Window</li> <li>• Frequency Converter 50 to 60 Hz or 60 to 50 Hz Operation</li> <li>• Optional Network Interface Card for Remote Monitoring</li> <li>• Optional Battery Cabinet for Extended Backup Time</li> <li>• Hot-Swappable Batteries</li> <li>• Packaged with Toshiba UPS Monitoring Software that Provides Email Notifications</li> <li>• Cold Start Feature for When Utility Power is Unavailable</li> <li>• Intelligent Charger with Rapid Charge in Only 4.0 Hours to 90%</li> <li>• Three-Year Warranty</li> </ul>	<ul style="list-style-type: none"> <li>• Available in Tower Form Factor</li> <li>• Wide Input Voltage Window</li> <li>• Frequency Converter 50 to 60 Hz or 60 to 50 Hz Operation</li> <li>• L6-30P Input Line Cord for 5.2 KVA Model</li> <li>• Optional Network Interface Card for Remote Monitoring</li> <li>• Optional Battery Cabinet for Extended Backup Time</li> <li>• Hot-Swappable Batteries</li> <li>• Cold Start Feature for When Utility Power is Unavailable</li> <li>• Three-Year Warranty</li> </ul>	<ul style="list-style-type: none"> <li>• Available in Tower Form Factor</li> <li>• Wide Input Voltage Window</li> <li>• Front-End IGBT Design Allows Low Input Harmonics</li> <li>• Internal Output Isolation Transformer for Common Mode Noise Attenuation</li> <li>• Low Input THD Allows One-to-One Sizing With Generators</li> <li>• Wide Frequency Range</li> <li>• Frequency Converter 50 to 60Hz or 60 to 50Hz Operation</li> <li>• Includes RemotEye 4 Network Interface Card for Remote Monitoring</li> <li>• Optional External Battery Cabinets for Extended Backup Time</li> <li>• Patented Hot-Swappable Battery Trays</li> <li>• Custom Output Receptacle Panels</li> <li>• Digital LCD Touchscreen</li> <li>• Three-Year Warranty</li> </ul>

\*International Voltage Configuration

## THREE-PHASE UPS



UPS Series	4400 Series	5000 Series NEMA 3R	5000 Series 3P1
Target Market	Datacenters Retail Healthcare	Oil & Gas Pulp & Paper Pipelines Mining	Petrochemical Water/Wastewater Manufacturing
KVA	15 to 100	20 & 30	40 & 50
Output Power Factor	0.9	0.9	0.9
Input Voltage (V)	208/120**	208/120**	480
Output Voltage (V)	208/120**	208/120**	120
Frequency (Hz)	50/60 (Auto-Sensing)	50/60	60
Battery Backup	Internal/External	External	External
Maintenance Bypass Switch	External	Internal	Internal
Redundant Operation	ISO Redundant	N/A	N/A
Features	<ul style="list-style-type: none"> <li>• Available in Two Optional Configurations: With Internal Backup Batteries or With Internal Input/Output Transformers</li> <li>• Front-End IGBT Design Allows Low Input Harmonics</li> <li>• Low Input THD Allows One-to-One Generator Sizing</li> <li>• Wide Input Voltage &amp; Frequency Range</li> <li>• 50/60Hz Frequency Converter Capability</li> <li>• Handles 100% Load Step Without Utilizing Batteries</li> <li>• Touchscreen Interface for Local Control</li> <li>• Optional Network Interface Card for Remote Monitoring</li> <li>• Optional Matching Auxiliary/Battery/ MBS/Power Distribution Cabinets</li> <li>• OSHPD Seismic Certified Models Available</li> <li>• Air Filter Included</li> <li>• Keyed alike Doors</li> <li>• Installation-Friendly Design</li> <li>• Three-Year Warranty</li> </ul>	<ul style="list-style-type: none"> <li>• Indoor/Outdoor NEMA 3R (Waterproof) Case</li> <li>• 32-122°F (0-50°C) Operational Range</li> <li>• Easily Installed</li> <li>• Selection of In/Out 3-Phase Voltages</li> <li>• TVSS Included in All Inputs</li> <li>• LED Type Operation Status Indicators</li> <li>• Installation-Friendly Design</li> <li>• Optional Network Interface Card for Remote Monitoring</li> <li>• Three-Year On-Site Warranty</li> </ul>	<ul style="list-style-type: none"> <li>• Ready for Chemical Plant Applications</li> <li>• 120 V DC Battery Link</li> <li>• 65 kAIC-Rated</li> <li>• Copper-Wound Galvanic Isolation Transformers</li> <li>• TVSS Included in All Inputs</li> <li>• Programmable I/O Ports</li> <li>• LED Type Operation Status Indicators</li> <li>• Installation-Friendly Design</li> <li>• Optional Network Interface Card for Remote Monitoring</li> <li>• Three-Year On-Site Warranty</li> </ul>

\*\* 200-600 Volt Models Available with Internal ISO or Auto Transformers

# UPS SOLUTIONS

## THREE-PHASE UPS



**G9000 Enhanced Series**



**G9000 Series**



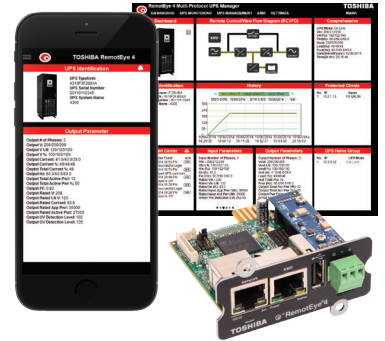
**G2020 Series**

Datacenters IT Healthcare	Datacenters IT Healthcare	Datacenters IT	Datacenters IT
100 to 225	300 to 750	1000 to 2000	500 to 750
0.9	1.0	1.0	1.0
480	480	480	480
480 Three-Wire	480 Three-Wire	480 Three-Wire	480 Three-Wire
60	60	60	60
External	External	External	External
External	External	External	External
Parallel up to 4 Modules	Parallel up to 8 Modules	Parallel up to 6 Modules	Parallel up to 8 Modules
<ul style="list-style-type: none"> <li>• Fifth-Generation IGBTs</li> <li>• Up to 97% Efficient</li> <li>• Installation-Friendly Design</li> <li>• Optional Network Interface Card for Remote Monitoring</li> <li>• Can be Derated to Fit Lower Capacity or Planned Growth Applications</li> <li>• Market Leading Power Density for Small Footprint</li> <li>• Three-Year On-Site Warranty</li> </ul>	<ul style="list-style-type: none"> <li>• Fifth-Generation IGBTs</li> <li>• Up to 97% Efficient</li> <li>• 100 kAIC Rating</li> <li>• Installation-Friendly Design</li> <li>• Optional Network Interface Card for Remote Monitoring</li> <li>• Can be Derated to Fit Lower Capacity or Planned Growth Applications</li> <li>• Market Leading Power Density for Small Footprint</li> <li>• Three-Year On-Site Warranty</li> </ul>	<ul style="list-style-type: none"> <li>• Fifth Generation IGBTs</li> <li>• Up to 97% Efficient</li> <li>• 100 kAIC Rating</li> <li>• Installation-Friendly Design</li> <li>• Optional Network Interface Card for Remote Monitoring</li> <li>• Can be Derated to Fit Lower Capacity or Planned Growth Applications</li> <li>• 10" Color LCD</li> <li>• Redundant Power Modules - Expandable Over Time</li> <li>• Market Leading Power Density for Small Footprint</li> <li>• Three-Year On-Site Warranty</li> </ul>	<ul style="list-style-type: none"> <li>• Next Generation Silicon Carbide (SiC) Power Semiconductors</li> <li>• Up to 98.2% Efficient in Double Conversion</li> <li>• Maintains 98% Efficiency from 30% to 75% of Full Load</li> <li>• Designed for Parallel Operation</li> <li>• Installation-Friendly Design</li> <li>• Optional Network Interface Card for Remote Monitoring</li> <li>• Can be Derated to Fit Lower Capacity or Planned Growth Applications</li> <li>• Market Leading Power Density for Small Footprint</li> <li>• Three-Year On-Site Warranty</li> </ul>

## REMOTE MONITORING SOLUTIONS

### > REMOTEYE 4

The Toshiba RemotEye 4 is the most powerful and versatile real-time UPS monitoring module solution in the Toshiba RemotEye family. Toshiba RemotEye 4 comes standard with RJ-45 and RS-485 ports to support both Ethernet and Serial networks. Toshiba RemotEye 4 comes packed with the most commonly used industrial and IT network protocols; SNMP, Modbus TCP/RTU, BACnet IP/MSTP, and HTTP/S (web). Toshiba RemotEye 4 allows the Toshiba UPS to be easily integrated into management systems. Toshiba RemotEye 4 comes ready with a mobile-friendly web page for on-the-go monitoring.



### > REMOTRADAR®

The RemotRadar software application enables real-time monitoring of up to 5,000 combined RemotEye and Remote-D Devices. The graphical user interface can be switched between list and graphical map presentation for easier navigation and monitoring. RemotRadar sends email notification messages about fault and warning alarms.



### > ENVIRONMENTAL MONITORING DEVICE (EMD)

The optional EMD module is an add-on to the Remote-D® and RemotEye product series. It allows for remote monitoring of the ambient temperature and humidity. The two additional user-defined contacts can be used with any device that provides normally open or closed results, or active high or low signal results.



### > REMOTE-D

The Remote-D is an intelligent, single-phase Power Distribution Unit with a built-in Ethernet port. The front display shows the power status, current level, and remote control status for each outlet which can be monitored, controlled and configured over HTTP (web) or SNMP. Configurations include programming on/off outlets for specific events, email alerts and more.



## OPTIONS & ANCILLARY EQUIPMENT

### > MAINTENANCE BYPASS SWITCH (MBS) CABINET

Maintenance Bypass Switch Cabinets are available with options of wall-mounted or matching floor mounted configurations. Cabinets also have the option to be equipped with a kirk key key mechanical interlock or solenoid key release for additional safety during power transfers. Twelve-inch slim MBS models are available for both the G9000 & 4400 Series UPS.



### > 4400 AUXILIARY CABINET

The 4400 Series Auxiliary Cabinet is a Houston-made solution for all the non-battery ancillary needs of the 4400 Series UPS. It has a wide range of features with a configurable combination of 3-breaker MBS, solenoid key release, input isolation transformer, sub-feed breakers, and 42-pole distribution panels. All of this is housed within an enclosure as low-profile as the UPS itself.



### > BATTERY CABINETS & BATTERY RACKS

Toshiba UPS systems work equally well with valve regulated lead acid (VRLA), pure lead, or flooded-cell batteries. Matching VRLA battery cabinets provide uniform appearance, are installation-friendly, and allow for easy access to batteries for preventative maintenance inspections. Multiple cabinet or rack configurations are available for application specific back up time. Diverse battery monitoring options are available for all Toshiba UPS series.



### > TOSHIBA POWER DISTRIBUTION UNIT

Toshiba PDUs are equipped to provide a highly customizable power distribution solution to the G9000 Series UPS. This PDU contains a flexible combination of sub-feed breakers, 42-circuit panelboards, circuit and network monitoring, and redundant fans. The ISOCompartment option allows safe and easy connection of additional loads after initial installation of the system.



### > TOSHIBA DISTRIBUTION CABINET (TDC)

The TDC provides G9000 Series UPS systems with external maintenance bypass, step down output transformer, and sub-feed breaker and/or 42-pole panel distribution in one compact, matching cabinet.



### > TOSHIBA TIE CABINET (TTC)

The Toshiba Tie Cabinet parallels the output of multiple G9000 UPS units to provide redundancy or increase system capacity. Each cabinet contains the necessary UPS isolation, critical bus, and bypass breakers but all can also be customized to fit the specific needs of the project.

### > SCiB ENERGY STORAGE SOLUTION FOR G9000 SERIES UPS

The Toshiba SCiB Lithium Ion Rechargeable Battery is a proprietary lithium titanium oxide battery. The proprietary properties allow the battery to be free of the potential fire and safety concerns of other lithium ion batteries. SCiB batteries are a sustainable and reduced maintenance alternative to flywheels and traditional batteries for short term power outages. SCiB batteries provide over 15,000 cycles of protection in half the footprint of comparable VRLA battery solutions, are lightweight, and can operate at temperatures from -20°C to 40°C. The SCiB Energy Storage Solution comes with a 12 year on-site warranty that includes preventative maintenances on the electronics for worry free operation.



**TOSHIBA POWER ELECTRONICS DIVISION:**

- Uninterruptible Power Systems
- SCiB™ Lithium Ion Batteries
- Energy Management Systems
- Remote Monitoring
- High Power Chargers
- Containerized Solutions

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**Leading Innovation >>>**

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