

Uninterruptible Power Systems Solutions



UPS Product Lines

Toshiba Uninterruptible Power Systems

Toshiba International Corporation provides a full range of Uninterruptible Power Systems (UPS) solutions for business, IT, industrial, medical and broadcasting applications.

All Toshiba UPSs are true on-line, double conversion units, providing conditioned power during normal operation. All UPSs come with a full three-year warranty backed by Toshiba's 24/7 technical support.

Extended warranty and maintenance programs are available on all UPS products. For more information call Service Sales at 877-867-8773.

All Toshiba UPSs are equipped for remote-monitoring and control via a standard RS232 communications port or a dry contact interface.

The RS232 port can be driven either by a custom interface or the optional Toshiba RemotEyell®

network interface card. An industrial Modbus protocol option is also available.

Toshiba UPSs are available in a range of sizes:

- Single-Phase: 1 to 22 KVA
- Three-Phase: 15 to 750 KVA

Modular three-phase units can be combined in redundant/parallel combinations of up to eight units total, without additional control circuitry.

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

Toshiba UPSs offer emergency backup energy storage via batteries for all models (VLRA or flooded) and flywheel for some three-phase models. Contact your Toshiba representative for additional details.

Toshiba UPS Product Offering

| | UPS Series | Capacity KVA | Input Voltage | Frequency Hz | Output Voltage | Output Power Factor | Battery Backup Int/Ext | Maint. Bypass Switch | Parallel Operation |
|--------------|----------------|--------------|------------------------------------|--------------|-----------------------------------|---------------------|------------------------|-----------------------|--------------------|
| Single-Phase | 1000 Series | 1 to 3 | 120/230 | 50/60 | 120/230 | 0.7 | Y/Y | N/A | N |
| | 1600EP Series | 3.6 to 22 | 208/240 | 45/65 | 240/208/120 | 0.85 | Y/Y | Optional External* | N |
| Three-Phase | 4200FA Series | 15 to 80 | 208 to 600 Three-Phase/ Three-Wire | 50/60 | 208 to 600 Three-Phase/ Four-Wire | 0.8 | Y/Y | Integral (Ex. 80 KVA) | N |
| | G8000 Series | 80 to 300 | 480 Three-Phase/ Three-Wire | 50/60 | 480/277 Three-Phase/ Four-Wire | 1.0 | N/Y | Optional External | N |
| | G8000MM Series | 100 to 750 | 480 Three-Phase/ Three-Wire | 60 | 480/277 Three-Phase/ Four-Wire | 0.8 to 0.9 | N/Y | Optional External | Y |
| | G9000 Series | 80 to 225 | 480 Three-Phase/ Three-Wire | 60 | 480 Three-Phase/ Three-Wire | 0.9 | N/Y | Optional External | Y |

* Except 22 KVA UPS

Single & Three-Phase UPS

Single-Phase Stand Alone UPS

1000 Series

- Tower & Rack-Mount Configurations in 1 to 3 KVA Capacities
- Available in Domestic 120 V In/Out & International 230 V In/Out
- Ideal for Individual & Small Cluster Backup
- Optional Network Interface Card for Remote Monitoring
- Three-Year Warranty (Depot)



1000 Series
(Rack-Mount)



1000 Series
(Tower)

1600EP Series

- Available in Tower Configuration with Capacities of 3.6 to 22 KVA
- Internal Output Isolation Transformer for Common Mode Noise Protection (Even in Bypass Mode)
- Wide Input Voltage Window
- Wide Frequency Range, Can Operate as 50/60 Hz Frequency Converter
- Hot-Swappable Batteries
- Optional External Battery Cabinets for Extended Backup Time
- Optional Network Interface Card for Remote Monitoring
- Front-End IGBT Design Allows Low Input Harmonics
- Low Input THD Allows One-to-One Sizing When Using Generator
- Three-Year Onsite Warranty



1600EP Series

Three-Phase Stand Alone UPS

4200FA Series

- Available in Two Configurations:
 - CT: No Built-In Isolation Transformer, Internal Backup Batteries, Optional Backup Battery Cabinet
 - XT: Built-In Isolation Transformer, Optional Backup Battery Cabinet
- Three-Phase, Three-Wire In & Three or Four-Wire Out
- Wide Frequency Range, Can Operate as 50/60 Hz Frequency Converter
- Global Voltage: 120/208/240/300/380/480/600 & More
- Front-End IGBT Design Allows Low Input Harmonics
- Handle 100% Load Step Without Utilizing Batteries
- Low Input THD Allows One-to-One Sizing When Using Generator
- Three-Year Onsite Warranty



4200FA Series

G8000 Series

- Available in:
 - 100, 150, 225, & 300 KVA 480 V, 60 Hz
 - 125, 180, & 250 KVA, 380V, 50 Hz
- Three-Phase, Three-Wire In & Three or Four-Wire Out
- Up to 94% Efficient
- Unity Power Factor Output Delivers 20% More Power than Comparable Units
- Low Input THD Allows 1.1:1 Generator Sizing
- High Crest Factor Allows Use in High Current Inrush Applications Such as MRI, CT Scanners, & Broadcast Transmitters
- Works with Battery & Flywheel Energy Storage Devices
- Three-Year Onsite Warranty



G8000 Series

Three-Phase Modular UPS

Three-Phase Modular UPS (Parallelable)

Toshiba's G8000MM and G9000 modular UPS series utilize state-of-the-art design and construction to deliver industry-leading reliability and flexibility to meet today's critical power demands.

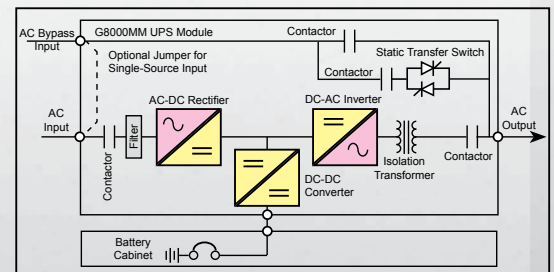
- Each Module is Self-Contained with its Own Switching & Control Intelligence, Increasing System Reliability
- Distributed Bypass Eliminates Single Point of Failure in Case of Static Bypass Switch Failure
- Each Module Equipped with Static Bypass Transfer Circuit
- Fail-Safe Design Incorporates Robust, Conservatively Engineered Safety Devices
- Efficiency Greater than 94% Down to 25% Loading Means Lower Power Losses, Reduced Air Conditioning Needs, & Reduced Utility Costs
- On-Line Design & Make-Before-Break Bypass Circuit Design Ensures Seamless Power Transfer to Critical Loads
- Self-Contained Modular Design Allows Easy Expansion of Parallel Installation, or Reconfiguration of Parallel Multi-Module Installation into Multiple Independent Systems when Needed
- Control/Monitor at Local LCD Panel or Customer Supplied Interface
- System Status can be Monitored Locally, at Tie Cabinet, or Across Local Area Network
- Tie Cabinet Line Reactors Insure Balanced Load Distribution in Bypass Mode

G8000MM Series



G8000MM Series

- Available in 100, 150, 225, 300, 375, 500, 625, & 750 KVA Capacity Modules
- Load Capacity 80 to 4000 KVA with Tie Cabinet
- Three-Phase, Three-Wire In & Four-Wire Out
- Fast-Switching IGBT Control Technology Delivers 94% Efficiency
- Hybrid Diode Bridge & Harmonic Input Filter Reduce Input Total Harmonic Distortion (THD)
- Generator-Friendly Interface Allows Sizing 1.1:1 Generator Capacity
- Parallel Up to Eight Modules for Increased Capacity/Redundancy Without Additional Tie Cabinet Control Circuitry
- Three-Year Onsite Warranty



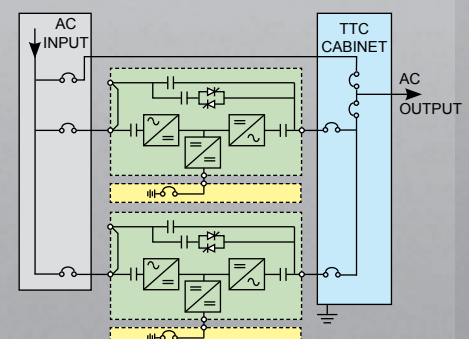
G8000MM Single Module System

G9000 Series



G9000 Series

- Available in 80, 100, 160, & 225 KVA Modules with Parallel Ability
- Load Capacity 80 to 1000 KVA with Tie Cabinet
- Three-Phase, Three-Wire In & Three-Wire Out
- All IGBT AC-DC-AC conversion Delivers Industry Leading Efficiency of Up to 96.5% at 100% Load with < 3% THD
- Parallel Up to Four Modules Without Additional Tie Cabinet Control Circuitry
- Three-Year Onsite Warranty



G9000 Parallel Module System

Optional UPS Accessories

Remote Monitoring Support



RemotEyell®

The RemotEyell network interface card offers remote real-time control, monitoring and analysis of UPS operation via HTTP and SNMP. Each UPS module's data port may be tied to an optional network monitor.



RemotRadar™

The RemotRadar™ application software enables global, real-time monitoring via the internet of up to 1024 RemotEyell® equipped devices. The device display can be switched between "list" and "graphical map" presentation.



Environmental Measuring Device (EMD)

The optional EMD module is an add-on to the RemotEyell®. It allows for remote monitoring of the UPS or battery cabinet's temperature and humidity. Two additional user-defined contacts can be used with any device that provides normally-open or normally-closed results.



Remote-D®

The Remote-D is an intelligent, single-phase Power Distribution Unit (PDU). The front display shows the power status, current level, and remote control status for each outlet. Remote-D can be configured and run locally or remotely through the network.



ProtoNode

The optional industrial bus ProtoNode module allows for real-time control and monitoring of the UPS via a building management system by converting UPS data into any of several industrial bus protocols: SNMP, TCP/IP, RTU, AB Ethernet IP, Modbus, BACnet, MSTP, Metasys N2. ProtoNode comes equipped for RS-232 and network connectivity.

Other Accessories



Maintenance Bypass Switch (MBS) Panel

Maintenance bypass switch panels in either floor or wall mounting configurations are available in two-, three-, and four-breaker configurations with optional kirk-key interlock systems and solenoid release.



Battery Cabinets & Racks

Matching battery cabinets provide uniform appearance to installation. Toshiba UPSs work equally well with either Valve-Regulated Lead Acid (VRLA) or flooded-cell battery backup.



Power Distribution Unit/Remote Power Panel Options

Optional Power Distribution Units (PDU) with internal 480/208 transformers and Remote Power Panels (RPP) are available in a range of sizes and capacities for the three-phase systems.



Flywheel for G8000 Series

Flywheels are a green alternative and/or supplement to traditional batteries. They provide safe, reliable energy storage in a robust, lightweight, and small-footprint package with a low life-cycle cost.

Toshiba Distribution Cabinet

The TDC provides single-operation G9000 UPS's with external maintenance bypass, step-down output transformer and sub-feed breaker and/or 42-pole panel distribution in one compact, dimensionally-matched and color-matched cabinet.

Toshiba Tie Cabinet

The Tie Cabinet synchronizes and parallels the output of G8000MM and G9000 UPSs to increase capacity up to 4000 KVA. Each dimensionally-matched and color-matched tie cabinet has a main output breaker and a bypass breaker, and one output isolation breaker for each UPS unit attached to it.

TOSHIBA INTERNATIONAL CORPORATION



North American Headquarters and Manufacturing Facility (Houston, TX)



TOSHIBA – Quality by Design

Toshiba's culture and history are strongly rooted in quality. Our designs are technologically innovative, and our products are manufactured from start to end using only the highest quality domestic and foreign parts.

Product Warranty

Toshiba offers a comprehensive warranty program on its full line of industrial products. Consult your salesperson or the factory for specific information.

Need to Know More?

Be sure to visit our website located at www.toshiba.com/ind for the latest information on Toshiba products and services.

Customer Support Services

Toshiba offers 24-hour service nationwide. For assistance of any type call: 1-800-231-1412.

UPS MOTORS ADJUSTABLE SPEED DRIVES CONTROLS INSTRUMENTATION PLC

TOSHIBA

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