

TOSHIBA

Leading Innovation >>>



SINGLE-PHASE SOLUTIONS

UNINTERRUPTIBLE POWER SYSTEMS



INNOVATIVE UPS SOLUTIONS FOR CRITICAL APPLICATIONS

Toshiba Uninterruptible Power Systems (UPS) features a specialized suite of single-phase UPS products renowned for reliable and efficient power supply protection and monitoring. Conveniently available in both tower- and rack-mount designs, Toshiba single-phase UPS products supply clean and uninterrupted power to the critical systems powering datacenters, telecommunications, retail, healthcare, broadcasting, and industrial applications.

Toshiba single-phase UPS products are anchored by unique advantages resulting in innovative solutions for a wide range of applications:

> INSULATED-GATE BIPOLAR TRANSISTORS

Developed in-house, insulated-gate bipolar transistors (IGBTs) are an input power factor correction technology. This technology allows UPS products to maintain a constant DC level without requiring more reactive power. IGBTs actively protect critical equipment by correcting potential power abnormalities such as spikes and brownouts. As a result, Toshiba single-phase UPS products are highly efficient with precise voltage control, wide input windows for voltage and frequency, and increased life expectancy.

> TRUE ONLINE DOUBLE-CONVERSION

The true online double-conversion topology ensures delivery of clean and stable power to critical loads by converting and conditioning utility power first to DC and then back to AC. For extra precaution the UPS topology also isolates the critical load from utility power.

> AVAILABLE OPTIONS

Toshiba UPS installations may be customized to meet varying application requirements thanks to a number of available options. Maintenance bypass systems and transient voltage surge suppressors provide additional protection from extreme utility power abnormalities. Isolation protection is available for the 1000+ and 1600XPi/XP Series UPS models.

> REMOTE MONITORING

Toshiba offers a suite of products to monitor the status of one or many Toshiba UPS installations. RemotEye® is a complete Toshiba UPS management solution to control and monitor remotely via Simple Network Management Protocol (SNMP), Hypertext Transfer Protocol (HTTP), and Modbus TCP. Features include email notifications and automated orderly shutdown to minimize data loss.

> THREE YEAR WARRANTY

Toshiba single-phase UPS products come standard with the security of a three year warranty including dedicated 24/7 customer service and support.



Retail



Data Centers



Healthcare



Commercial



> T1000 SERIES

MODEL

Size	1000 VA	2000 VA	5200 VA	6000 VA
Topology	True on-line, Double conversion, Input PF correction			
Size	UL 1778, CUL, CE, FCC		UL 1778, CUL, FCC	

TOWER

120Vin 120Vout Model (US)	T1S0A1000AXA	T1S0A2000AXA	-	-
230Vin 230Vout Model (International)	T1S0A1000FXF	T1S0A2000FXF	-	-
208/240Vin 208/240Vout Model - Hardwire Input/Output	-	-	-	T1S0A6000GXG
208/240Vin 208/240Vout Model - Hardwire Input w/ Output Receptacles	-	-	-	T1S2A6000GXG
208/240Vin 208/240Vout Model - Input Line Cord w/ Output Receptacles	-	-	T1S4A5200GXG	T1S4A6000GXG
208/240Vin 208/240/120Vout Model - Hardwire Input w/ Output Receptacles	-	-	-	T1S3A6000GXG
208/240Vin 208/240/120Vout Model - Input Line Cord w/ Output Receptacles	-	-	T1S5A5200GXA	T1S5A6000GXG

RACK-MOUNT (6U-9U)

120Vin/120Vout Model (2U)	T1S0A1000AXAR2	T1S0A2000AXAR2	-	-
230Vin/230Vout Model (2U) (International)	T1S0A1000FXFR2	T1S0A2000FXFR2	-	-
208/240Vin 208/240Vout Model - Hardwire Input/Output (6U)	-	-	-	T1S0A6000GXGR6
208/240Vin 208/240Vout Model - Hardwire Input w/ Output Receptacles (6U)	-	-	-	T1S2A6000GXGR6
208/240Vin 208/240Vout Model - Input Line Cord w/ Output Receptacles (6U)	-	-	T1S4A5200GXGR6	T1S4A6000GXAR9
208/240Vin 208/240/120Vout Model - Hardwire Input w/ Output Receptacles (9U)	-	-	-	T1S3A6000GXAR9
208/240Vin 208/240/120Vout Model - Input Line Cord w/ Output Receptacles (9U)	-	-	T1S5A5200GXAR9	T1S5A6000GXAR9

INPUT

Voltage	120 V		208/240 V	208/240 V
International Voltage	208V/220V/230V/240V		-	
Capacity (VA)	1000 VA	2000 VA	5200 VA	6000 VA
Capacity (W)	900 W	1800 W	4680 W	5400 W
Frequency	50 / 60 Hz Auto-Sensing			
Power Factor	Greater than 0.97			

OUTPUT

Voltage	100V/110V/115V/120V		200/208/220/230/240V (L-L) and Option with Transformer for 120V (L-N)	
International Voltage	208V/220V/230V/240V		-	
Frequency	50 / 60 Hz Auto-Sensing			
Wave Form	Sinewave			
Load Power Factor	0.9			
Efficiency AC/DC/AC	Greater than 86%		Greater than 89%	
Rated Output Current	8.3A	16.6A	21.6A (240V)	25A (240V)
Rated Output Current (International)	4.3A	8.7A	-	-
Overload Capacity	106-120% 30sec.; 121-150% 10sec.		125% for 1 min., 150% for 10 sec.	
Crest Factor	3:1			

BATTERY

DC Voltage	36 Vdc / 12V 9AH x 3	72 Vdc / 12V 9AH x 6	216 Vdc / 12V 9AH x 18 (1 batt. module)	
Backup Time	6 min (full load @ 0.9pf)		5 min (full load @ 0.9pf)	
Type	Valve-Regulated Lead Acid; Flame Retardant (9.0 AH)			

PHYSICAL

Interface	RS-232 (1&2kVA) & USB Standard; Remote Contact (Standard for 5.2 & 6 kVA), RemotEye® 4, Environmental Monitoring Device (EMD) Options			
Input Line Cord	5-15P	5-20P	L6-30P	Hardwired or 6-50P
Input Line Cord (International)	IEC 320			-
Output - (Tower/Rackmount)	5-15R (6/6)	5-20R (12/4)	Hardwired or Receptacle Options	
International Output - (Tower/Rackmount)	IEC C13 (4/4)	IEC C13 (8/4); C19 (1/1)	-	

ENVIRONMENT

Operating Temperature	0° - 40°C (32° - 104°F)			
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WARRANTY

Three Years on Electronics; Two Years Full Replacement on Battery; See Toshiba Single-Phase Warranty Policy for Full Details



> 1000/1000+ SERIES

MODEL	1000 SERIES		1000+ SERIES
Size	1500 VA	3000 VA	2400 VA
Topology	True Online, Double-Conversion, Input PF Correction		True Online, Double-Conversion, Input PF Correction w/ Isolation Transformer
Certifications	UL 1778, CUL, CE, FCC		
TOWER			
US 120V Model	UT1A1A015C6	UT1A1A030C6	UT1G2L024C6T
International 230V Model	UT1E1E015C6	UT1E1E030C6	
RACK-MOUNT (2U)			
US 120V Model	UT1A1A015C6RKB2	UT1A1A030C6RKB2	—
230V Model	UT1E1E015C6RKB2	UT1E1E030C6RKB2	
INPUT			
Voltage	120V (80 to 144V, +20% to -33%)		Single-Phase 208/240 VAC (Three-Wire Input/L-L, G) (160-276V, +15% to -34%)
International Voltage	230V (161 to 276V, +20% to -30%)		
Capacity (VA)	1500 VA	3000 VA	2400 VA
Capacity (W)	1050 W	2100 W	1920 W
Frequency	50/60 Hz Auto-Sensing		
Power Factor	Greater than 0.97		
OUTPUT			
Voltage	100/110/115/120/127V		120/200/208/220/230/240V
International Voltage	208/220/230/240V		
Frequency	50/60 Hz Auto-Sensing		
Wave Form	Sinewave		
Load Power Factor	0.70		0.80
Efficiency AC/DC/AC	Greater than 86%		Greater than 87%
Rated Current	12.5 A	25 A	10 A (240 V)
International Rated Current	6.5 A	13 A	
Overload Capacity	106-120% 30sec.; 121-150% 10sec.		
Crest Factor	3:1		
BATTERY			
DC Link (Tower & 2U)	36 V/12 V 9 AH x 3	72 V/12 V 9 AH x 6	72 V / 12 V 9 AH x 12 (2 Strings)
Back-Up Time (Tower & 2U)	6 Minutes (Full Load)	5 Minutes (Full Load)	11 Minutes (Full Load)
Type	Valve-Regulated Lead Acid; Flame Retardant (9.0 AH)		
PHYSICAL			
Interface	RS-232 & USB Standard; Remote Contact, RemotEye® II & Environmental Monitoring Device (EMD) Options		
Dimensions of Tower (L x W x H)	16.5" x 6.0" x 9.4"	16.7" x 8.9" x 14.2"	23.2" x 10.1" x 27.6"
Dimensions of Rackmount (L x W x H)	16.7" x 16.9" x 3.5"	25.0" x 16.9" x 3.5"	
Weight Tower	37.4 lbs.	72.6 lbs.	154.3 lbs.
Weight Rackmount	37.6 lbs.	71.5 lbs.	
Input Line Cord	5-15P	L5-30P	Hardwire or Optional L6-20P
Input Line Cord (International)	IEC 320		
Output (Tower/Rackmount)	5-15R (6/6)	5-20R (12/4)	Hardwire/Optional (3) 5-20R Duplex or (2) L6-20R & (1) 5-20R Duplex
International Output (Tower/Rackmount)	IEC C13 (4/4)	IEC 320 C13 (8/4); C19 (1/1)	
ENVIRONMENT			
Operating Temperature	0° to 40°C (32° to 104°F)		
Altitude	2,000 meters max (no derating under 1,000 meters)		
WARRANTY			
	Three Years on Electronics; Two Years Full Replacement on Battery; See Toshiba Single-Phase Warranty Policy for Full Details		



> 1600XPI SERIES

MODEL

Size	3.6 KVA (3.1 KW)	6 KVA (5.1 KW)	8 KVA (6.8 KW)	10 KVA (8.5 KW)	14 KVA (11.9 KW)	18 KVA (15.3 KW)	22 KVA (18.7 KW)
Topology	True Online, Double-Conversion; IGBT Power Factor Corrected Input; Internal Isolation Transformer						
Certifications	UL 1778, CUL, CE, FCC, RoHS						

TOWER

1600XPI US Model	H3BG2L036C61T	H3BG2L060C61T	H3BG2L080C61T	H3BG2L100C61T	H3BG2L140C61T	H3BG2L180C61T	H3BG2L220C61T
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INPUT

Voltage	Single-Phase 208/240 VAC (Three-Wire Input/L-L, G); 230 VAC (Three-Wire Input/L, N, G), +10% -30% (Based on Typical 70% Load)						
Capacity (VA)	3.6 KVA	6 KVA	8 KVA	10 KVA	14 KVA	18 KVA	22 KVA
Capacity (W)	3.1 KW	5.1 KW	6.8 KW	8.5 KW	11.9 KW	15.3 KW	18.7 KW
Frequency	45 to 65 Hz (Auto-Sensing)						
Power Factor	Greater than 0.95 For All Loads						
Current THD	< 5% (Even for 100% Non-Linear Loads)						
AC Input Breaker Rating	30 A	50 A	60 A	63 A	100 A	100 A	125 A

OUTPUT

Voltage	Single-Phase 240/208/120 VAC (Four-Wire Output/L-L, N, G)						
Voltage Regulation	±3%; ±1% Typical						
Frequency	50/60 Hz; ±0.5 Hz/1.0 Hz/1.5 Hz (Factory or Authorized Service Center Selectable)						
Voltage THD	< 3% for Linear Load; 1% Typical						
Wave Form	Sinewave						
Common Mode Noise	< 0.5 V RMS						
Load Power Factor	0.85						
Efficiency AC/DC/AC	Greater than 85%						
Rated Output Current @ 240 V	15 A	25 A	33.3 A	41.6 A	58 A	75 A	91.6 A
Maximum Peak Output Current	45 A	75 A	100 A	125 A	174 A	225 A	275 A
Overload Capacity	Inverter Mode: 150% for 10 Seconds, 125% for 30 seconds; Bypass Mode: 125% for 10 Minutes, 1000% for One Cycle						
Crest Factor	3:1						

BATTERY

Battery Type	Valve-Regulated Lead Acid; Flame Retardant (9.0 AH)						
Backup Time (Fully Charged)	7 Minutes	7 Minutes	7 Minutes	5 Minutes	7 Minutes	5 Minutes	3 Minutes
Recharge Time	0.85 Power Factor; Approximately 30% More Runtime for Output Power Factor of 0.7 (Triple Backup Time at ½ Load)						
DC Link	24 Hours (Full), 12 Hours (90%)				288 VDC		

PHYSICAL

Interface	RS-232 and Remote Contact Standard, RemotEye® 4 Standard for 1600XPI						
Dimensions (L x W x H)	33" x 10" x 22.1"	34" x 10" x 27.5"	34.9" x 13" x 28.4"			36.1" x 17.5" x 39.1"	
Weight	253 lbs.	354 lbs.	466 lbs.			771 lbs.	
Shipping Weight	308 lbs.	414 lbs.	533 lbs.			839 lbs.	
Enclosure	Steel Enclosure; Complies with NEMA 1 and UL Type-1 Standard						
Battery Pack Size (L x W x H)	19" x 7.3" x 5" (Battery Pack Part # 51896-FS)						
Battery Pack Quantity	2	3	4			8	

ENVIRONMENT

Operating Temperature	0° to 40°C (Operating); -20° to +40°C (Storage)						
Heat Generation (BTU/Hr)	1,843	3,071	4,095	5,118	7,168	9,213	11,260
Altitude	6,600 Feet (2,000 Meters) Maximum Without Derating						
Audible Noise	< 60 DBA at 1 Meter						

ADDITIONAL FEATURES

Output Isolation Transformer, Angled Terminal Blocks for Easy Installation, Casters for Mobility

OPTIONS

SNMP & WEB-Based Monitoring	RemotRadar™, Environmental Monitoring Device (EMD) Option						
Connectivity	Line Cord and Receptacle Option						

WARRANTY

Three Years on Electronics; Two Years Full Replacement on Battery; See Toshiba Single-Phase Warranty Policy for Full Details



TOSHIBA POWER ELECTRONICS DIVISION:

- Uninterruptible Power Systems
- Rechargeable Batteries
- Power Conditioning Systems
- Remote Monitoring

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