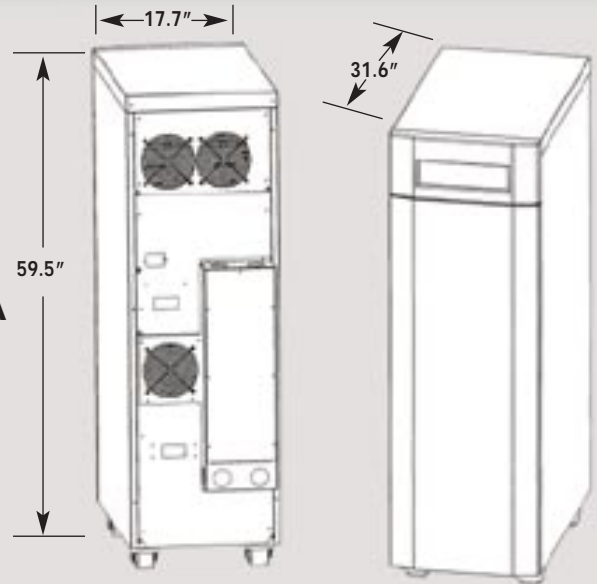


Introducing Toshiba's 4100 Series 3-Phase UPS



15/25 KVA



Model	15KVA	25KVA
4100 Series	891 lbs.	1214 lbs.
4100 Plus Series	745 lbs.	946 lbs.

Toshiba's 4100 Series UPS

Toshiba's 4100 UPS Series provides premium power protection by using microprocessor based PWM technology and incorporating the latest design of Toshiba developed IGBT technology (Insulated Gate Bipolar Transistors).

Our 4100 Series is truly a "One Box" solution for all of your power problems. We are so confident of our performance, that we back every unit with our comprehensive Three Year On-Site Warranty, batteries included.

Read further to discover the broad range of features and benefits associated with the 4100 Series 3-Phase UPS. Many are Toshiba exclusives. Further proof that no one else gives you more ways to make your investment in UPS protection as secure.

Features & Benefits

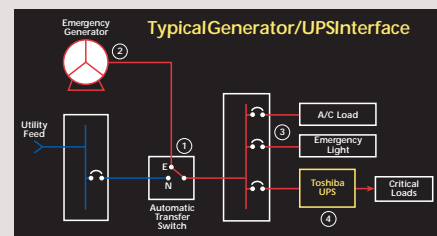
Well grounded in Toshiba technology and manufactured in the U.S. to ISO 9001 certification

standards, the 4100 Series 3-Phase UPS truly outclasses the rest. Toshiba's 4100 Plus Series features internal step-down/step-up isolation transformers for a solid, clean ground, and the 4100 Series includes internal batteries.

EXCLUSIVE FEATURE!

Generator Compatibility

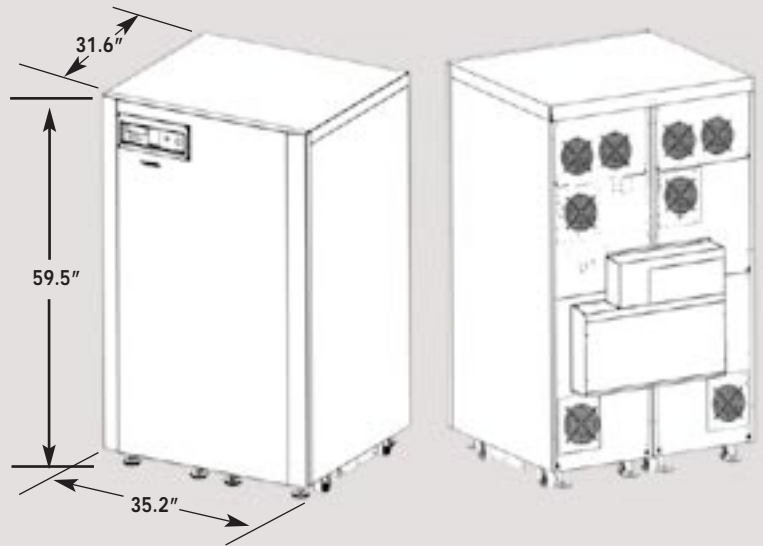
Generator compatibility is a critical operating feature and a Toshiba 4100 Series exclusive.



When power fails, generator-to-UPS incompatibility can cause

computers to crash costing, at a minimum, money associated with downtime. Toshiba's exclusive chopper circuit input creates a measure of generator compatibility no one else in the UPS market place can deliver.

① When utility power fails, the emergency generator assumes the load by switching the auto-



50 KVA

Model	50KVA
4100 Series	2151 lbs.
4100 Plus Series	946 lbs.

matic transfer switch to the emergency position.

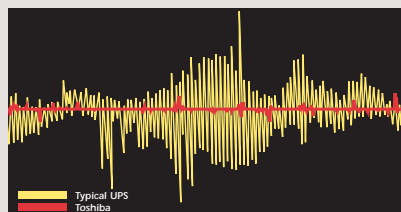
- ② The generator feeds power to emergency lighting, air conditioning, and UPS (to critical loads).
- ③ Under generator power, air conditioning and other loads switch on and off causing voltage/frequencies transients that can cause many UPSs to cycle back and forth to batteries, and under extreme cases, actually drop power to critical loads.
- ④ The Toshiba 4100 Series UPS reflects very little distortion (approx. 3%) back to the generator and requires very little generator oversizing. The 4100 Series also has the advantage of a wide input frequency window to accommodate large frequency changes caused by air-conditioning systems cycling on and off.

SIGNIFICANT FEATURE!

Total Isolation

(4100 Plus Series)

Includes internal step-down/step-up isolation transformers to provide voltage transformation



and total load isolation from common mode noise and improper system grounding. The result is a solid, clean ground and no mysterious computer glitches to cause chaos in an installation's on-line working environment.

EXCLUSIVE FEATURE!

Low Input THD

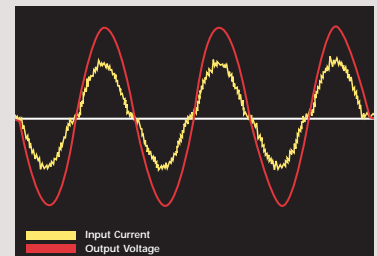
The 4100 UPS has a mere 3% current Total Harmonic Distortion (THD) reflected back to the input source utilizing a chopper circuit input which helps remove building harmonics and improves generator interfacing.

Power Factor Correction

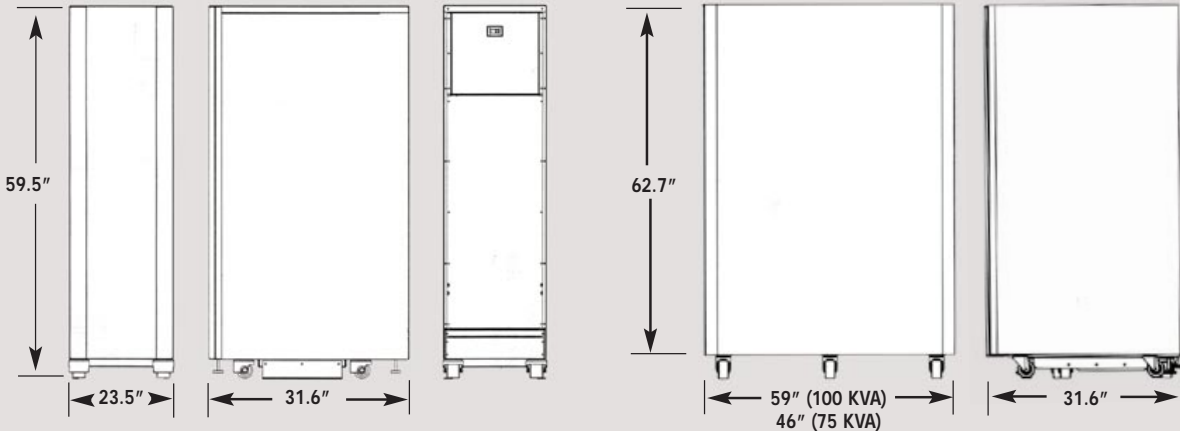
Buildings which have a large reactive power component are often subject to stiff penalties levied by utility companies.

Toshiba's 4100 UPS won't add to the deficit because its input KVA is only 10%

more than output in normal mode. With the input power factor close to unity, the UPS "reads" as a pure 'kilowatt' load (with only slight reactive content).



Toshiba Matching Battery Cabinets



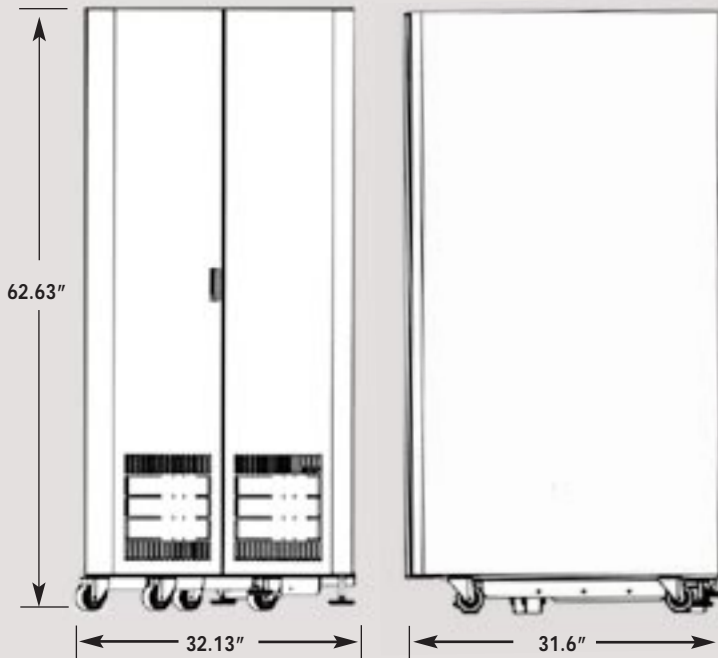
15/25/50 KVA

15 KVA	25 KVA	50 KVA
950 lbs.	981 lbs.	1829 lbs.

75/100 KVA

75 KVA	100 KVA
3500 lbs.	4500 lbs.

Toshiba Matching Input/Output Cabinet For 75/100 KVA



I/O Cabinet

Flexibility

- Battery Cabinet has retractable casters; this is accomplished by using existing hydraulic jacks, which allows for easy serviceability and installation.

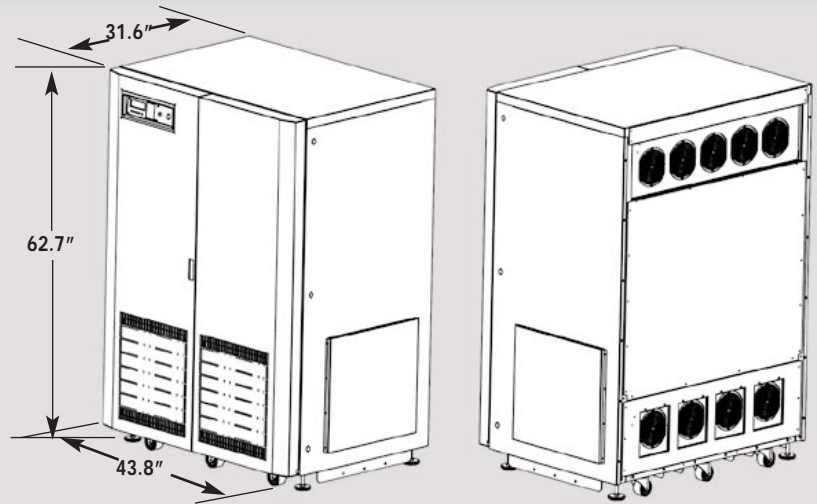
Standard Features

- Top and bottom access to the cabinet is provided for installation flexibility.
- Front access allowing easy service ability and installation.

Flexibility

- Dual input (option)
- Internal maintenance bypass (option)
- Isolation Transformer (plus model)
- Cabinet features a wide range of input and output voltages.

I/O Cabinet
2600 lbs.



75/100 KVA

Model	75KVA	100KVA
4100 Plus Series	2600 lbs.	2800 lbs.

Small Footprint (4100 Series)

The 4100 Series is designed with internal batteries. The resulting unit features a smaller overall footprint. You save valuable floor space which you can more efficiently use for other on site equipment.

Communications

LCD Display with EPO:

Toshiba's 4100 3-Phase UPS features an advanced, 4-line LCD display with keypad which provides instant access to UPS status information, operating conditions, and fault information. Additionally, the display panel includes an Emergency Power Off (EPO) push button to cause complete shut down in case of emergency.

Communication ports:

The IBM AS/400™ compatible signal port (with hardwire connections) and RS232 port provide detailed status information to the user and allow for an orderly computer shut-down. The communications software gives you clear communication features for monitoring, control, diagnostics and SNMP compatibility.



Wide Input Frequency Window

The 4100 Series gives you a wide input frequency window of 45-65 hertz, which allows it to operate without relying on battery supply and still maintain excellent output frequency regulation – an important factor in achieving generator compatibility.



Toshiba UPS

Security Plus Warranty Protection

Our 4100 Series 3-Phase UPS comes with a 3-year, on-site, standard Toshiba UPS Security Plus Warranty for UPS **and** batteries. This is just one of our many standard features which others consider an added component for which you must pay more.

UPS SPECIFICATIONS

	RATED OUTPUT CAPACITY	75 kVA / 60 kW	100 kVA / 80 kW
	Model Number	U41B3F750C6T*	U41B3F10KC6T*
Input	Rated Voltage	208/120VAC, Three Phase Four Wire (+Gnd)*	
	Voltage Variation	+10% to (-30%***)	
	Frequency	60/50 Hz	
	Required Input Capacity	93.75 kVA Max.	125 kVA Max.
	Circuit Breaker Rating at 208 VAC	260A Trip	350A Trip
	Power Factor	Greater than 0.95 lagging	
	Current Distortion	Less than 3% THD (Total Harmonic Distortion)	
	Walk-In Function	From 20% to 100% over 5 seconds	
	AC/DC Conversion	IGBT Converter	
Matching Battery Cabinet	Battery Rated Voltage	192 V to 270 VDC	284 V to 373 VDC
	Float-Charge Regulation	+/-2.0%	
	Battery Runtime at 100% Load	15 Minutes**	15 Minutes**
	Battery Runtime at 75% Load	27 Minutes**	26 Minutes**
	Battery Runtime at 50% Load	47 Minutes**	45 Minutes**
	Ripple Voltage	2% r.m.s. max.	
Output	Rated Voltage	208/120VAC, Three Phase Four Wire (+Gnd)*	
	Load Power Factor	0.8 lagging	
	Frequency	60/50 Hz	
	Voltage Regulation	+/-1% (0-100% balanced load); +/-3% (100/100/0%, 100/0/0% load)	
	Voltage Adjustment Range	+/-5% manually	
	Phase Displacement	+/-2 deg. (0-100% balanced load); +/-4 deg. (100/100/0%, 100/0/0% load)	
	Frequency Regulation	+/-0.1% in free running mode	
	Frequency Synch. Range	+/-0.5/1.0/1.5 Hz (+/-1.0 Hz standard) - switch selectable	
	Harmonic Voltage Distortion	1.5% Max. 1% Typical (Linear load)	
	Overload Capacity (Inverter)	125% for 90 seconds, 150% for 30 seconds	125% for 30 seconds, 150% for 10 seconds
	Overload Capacity (Bypass)	125% for 10 minutes, 1000% for 10 milliseconds	
	Environment	Efficiency	AC/DC/AC: 90%; DC/AC: 92%
Heat Rejection		7744 Kcal/h	10322 Kcal/h
		30717 BTU/h	40956 BTU/h
Operating Temperature		0 deg. to 40 deg. C (32 deg. to 104 deg. F)	
Audible Noise		65 db(A) at 1 meter (3.3 ft) from front of unit	
Interface	IBM AS/400™ Compatible Signals	Standard	
	RS232 Communications Port	Standard	
	Emergency Power Off (EPO)	Standard on front panel display	
Options	SNMP Network Adapter	Consult Toshiba sales representative for details	

4100 PLUS MODEL SYSTEM VOLTAGES

Input Voltage (VAC)	Input Frequency (Hz)	Output Voltage (VAC)	Output Frequency (Hz)	75 kVA Part Number	100 kVA Part Number
208	50/60	208/120	50/60	U41B3F750C6T	U41B3F10KC6T
480	50/60	208/120	50/60	U41D3F750C6T	U41D3F10KC6T
480****	50/60	480/277	50/60	U41D3D750C6T	U41D3D10KC6T
600	50/60	208/120	50/60	U41M3F750C6T	U41M3F10KC6T
380****	50/60	380/220	50/60	U41N3G750C6T	U41N3G10KC6T

* 'T' designates PLUS model units which include internal isolation transformer. Please refer to chart which shows optional system voltages.

** Alternate system runtimes available. PLUS model units have no internal batteries - require purchase of external battery cabinet.

*** Prolonged operation at this level requires some derating of output capacity.

**** Unit requires 125% input capacity in order to provide proper overload when on bypass (in normal mode, unit requires only 110%)

***** Unit has two transformers, an input and output.

UPS SPECIFICATIONS

	RATED OUTPUT CAPACITY	15 kVA / 12 kW	25 kVA / 20 kW	50/kVA / 40kW
	Model Number	U41B3F150C6T*	U41B3F250C6T*	U41B3F500C6T*
Input	Rated Voltage	208/120VAC, Three Phase Four Wire (+Gnd)*		
	Voltage Variation	+10% to (-30%***)		
	Frequency	60/50 Hz		
	Required Input Capacity	18.7 kVA Max.****	31.25 kVA Max.****	62.5 kVA Max.****
	Circuit Breaker Rating at 208 VAC	55A Trip	90A Trip	175A Trip
	Power Factor	Greater than 0.95 lagging		
	Current Distortion	Less than 3% THD (Total Harmonic Distortion)		
	Walk-In Function	From 20% to 100% over 5 seconds		
	AC / DC Conversion	IGBT Converter		
Matching Battery Cabinets	Battery Rated Voltage	192V to 270VDC		
	Float-Charge Regulation	+/-2.0%		
	Battery Runtime at 100% Load	18 Minutes**	10 Minutes**	12 Minutes**
	Battery Runtime at 75% Load	27 Minutes**	15 Minutes**	15 Minutes**
	Battery Runtime at 50% Load	40 Minutes**	30 Minutes**	30 Minutes**
	Ripple Voltage	2% r.m.s. max.		
Output	Rated Voltage	208/120VAC, Three Phase Four Wire (+Gnd)*		
	Load Power Factor	0.8 lagging		
	Frequency	60/50 Hz		
	Voltage Regulation	+/-1% (0-100% balanced load); +/-3% (100/100/0%, 100/0/0% load)		
	Voltage Adjustment Range	+/-5% manually		
	Phase Displacement	+/-2 deg. (0-100% balanced load); +/-4 deg. (100/100/0%, 100/0/0% load)		
	Frequency Regulation	+/-0.1% in free running mode		
	Frequency Synch. Range	+/-0.5/1.0/1.5 Hz (+/-1.0 Hz standard) - switch selectable		
	Harmonic Voltage Distortion	1.5% Max. 1% Typical (Linear Load)		
	Overload Capacity (Inverter)	125% for 90 seconds, 150% for 30 seconds		
	Overload Capacity (Bypass)	125% for 10 minutes, 1000% for 10 milliseconds		
	Environment	Efficiency	AC/DC/AC 87%; DC/AC: 90%	
Heat Rejection		1560 kcal/h (6120 BTU/h)	2600 kcal/h (10,200 BTU/h)	5200 kcal/h (20,400 BTU/h)
Operating Temperature		0 deg. to 40 deg. C (32 deg. to 104 deg. F)		
Audible Noise		60 db(A) at 1 meter (3.3 ft) from front unit		
Interface		IBM AS/400™ Compatible Signals	Standard	
	RS232 Communications Port	Standard		
	Emergency Power Off (EPO)	Standard on front panel display		
Options	SNMP Network Adapter	Consult Toshiba sales representative for details		

4100 PLUS MODEL SYSTEM VOLTAGES

Input Voltage (VAC)	Input Frequency (Hz)	Output Voltage (VAC)	Output Frequency (Hz)	15 kVA Part Number	25 kVA Part Number	50 kVA Part Number
208	50/60	208/120	50/60	U41B3F150C6T	U41B3F250C6T	U41B3F500C6T
480	50/60	208/120	50/60	U41D3F150C6T	U41D3F250C6T	U41D3F500C6T
480*****	50/60	480/277	50/60	U41D3D150C6T	U41D3D250C6T	U41D3D500C6T
600	50/60	208/120	50/60	U41M3F150C6T	U41M3F250C6T	U41M3F500C6T
380*****	50/50	380/220	50/50	U41N3G150C6T	U41N3G250C6T	U41N3G500C6T

* 'T' designates PLUS model units which include internal isolation transformer. Please refer to chart which shows optional system voltages.

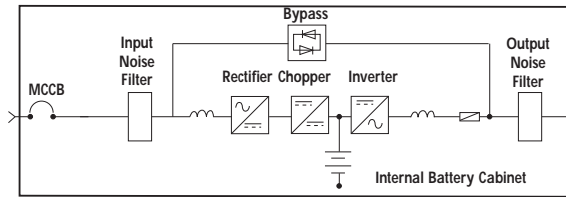
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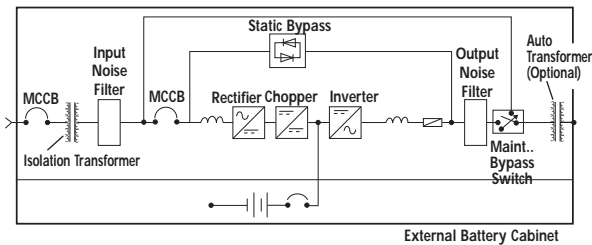
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***** Unit has two transformers, an input and output.

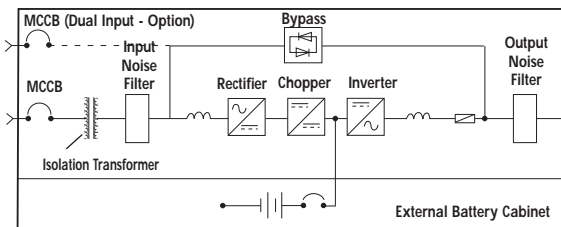
4100 Series
Internal Batteries
 208V Input - 208V Output



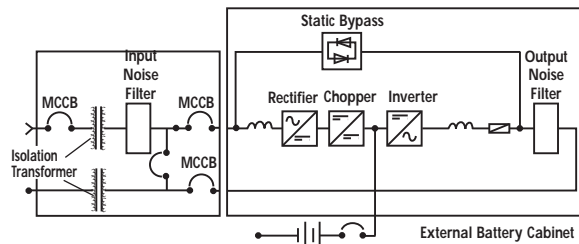
4100 Plus Series
With Internal Maintenance
Bypass Option
 Input Voltage = Output Voltage
 or
 Input Voltage ≠ Output Voltage



4100 Plus Series
Internal Isolation Transformer
 Input Voltage = Output Voltage
 or
 Input Voltage ≠ Output Voltage



4100 Plus Series 75/100 KVA
With Internal Maintenance
Bypass Option



* All specifications in the brochure are subject to change.

SHIPPING WEIGHTS					
Model	15 KVA	25 KVA	50 KVA	75 KVA	100 KVA
4100 Series	1051	1374	2351		
4100 Plus Series	905	1106	1860	2800	3000
Battery Cabinet	1150	1181	2029	4500	4800
I/O Cabinet				2800	2800

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