



Three Phase Input & Output UPS  
Online Double Conversion UPS  
Smart UPS Pure Sinewave



**B33 Series**  
(10 –80KVA)



Dalton B33 Friendly Uninterruptible Power Supply is a combination of Dalton advanced digital Signal Processor (DSP) control online double conversion technology in accordance with VFI-SS-111 classification (as set out in standard IEC EN 62040-3) and a firm pursuit of a green manufacturing philosophy. With minimum space, fewer components and controlled levels of noise pollution, the B33 Series has a significantly reduced environmental impact. Therefore, it is feasible to design a UPS with reduced carbon footprint whilst achieving clean, continuous power for industrial and computing loads.

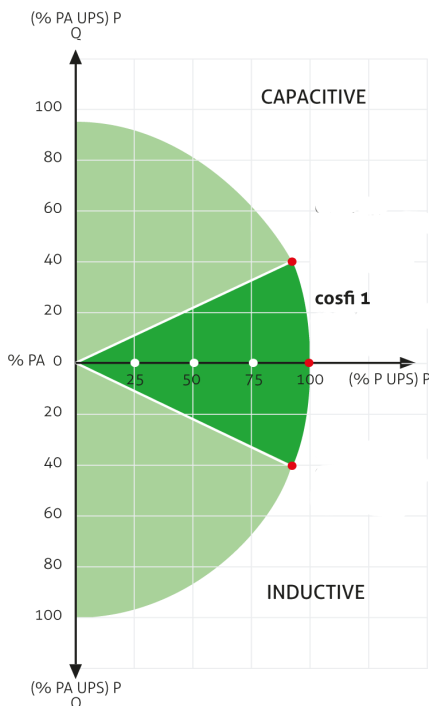
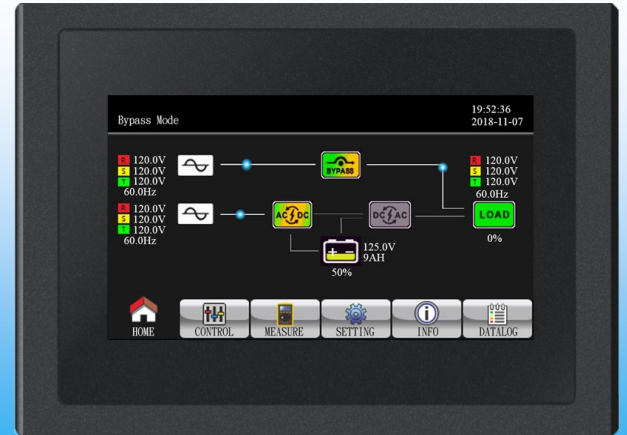
- True double-conversion technology
- Transformer less UPS Technology
- High Efficiency 97%
- Emergency power off function (EPO)
- Maintenance Bypass switch
- Dual Input with fully power protections
- Generator compatible
- Active power factor correction in all phases
- Output power factor 1
- 3 Level IGBT Technology
- Optional SNMP Communication Port
- Parallel operation with common battery
- LCD touch screen 5.3" inches friendly
- Smart battery management
- 15 Years Spare parts Support
- ECO mode operation for energy saving (ECO)



## Advanced control panel

Dalton B33 is equipped with a 5.3" LCD Touch screen which provides measurements, power history and alarms in multiple languages. You can also implement it by adding other languages if necessary.

The graphical user interface is designed with 3 levels of access (user and maintenance) to allow multiple users to access or modify only specific parameters. From the LCD display you can read and download all the event logs to analyze the UPS status and keep the UPS correctly. You can also a graphic personalization on demand.



## Flexibility

The B33 Series with its flexible configuration, performance, accessories and options, is suitable for use in a wide range of applications suitable for powering capacitive loads, such as blade servers, without any reduction in active power from 1 lead to 1 lag

On-line, Eco, Smart Active and Stand By Off operating modes - compatible with centralized power systems (CSS) applications. • frequency converter model configurable energy share sockets to preserve runtime for the most critical loads or to be activated only when mains power fails • Cold Start to switch on the UPS even when there is no mains power present

## IGBT Rectifier

B33 is equipped with an IGBT rectifier and is designed to provide an output power factor equal to 1. It supply loads for both leading and lagging without de-rating, and therefore it meets the needs of capacitive loads such as next generation server.

Low harmonic distortion of input current THDI equal to 3% provides greater reliability of the system.

### Accessory dry contact programmable

This card provides six output dry contacts and six input contacts. The dry contacts are programmable and upon request, can be customized.



### RS485 port



RS485 ports with JBUS MODBUS protocol.

### 2nd slot accessory cards

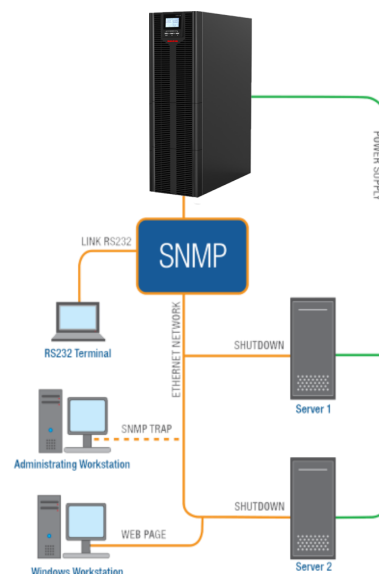
This slot can accommodate a relay Board or SNMP interface.

### SNMP interface

Ethernet network adapter with TCP/IP, HTTP and SNMP protocols. The Simple Network Management Protocol, is a universal protocol communication standard used to monitor any device on the network with a simple control language.



## Direct Connection with Ethernet Network



## Advanced communications

- Compatible with TeleNetGuard for remote monitoring.
- Advanced multi-platform communications for all operating systems and network environments: PowerShield3 monitoring and shutdown software included for Windows operating systems 10, 8, 7, Hyper-V, 2016, 2012, and previous versions, Mac OS X, Linux, VMWare ESXi, Citrix XenServer and other Unix operating systems.
- Double RS232 serial versions, Mac OS X, Linux, VMWare ESXi, Citrix Xen Server and other Unix operating systems

B33 provide a SNMP which is a popular protocol for network management. It used for collecting information from, and configuring, network devices, such as servers, printers, hubs, switches, and routers on an Internet Protocol network

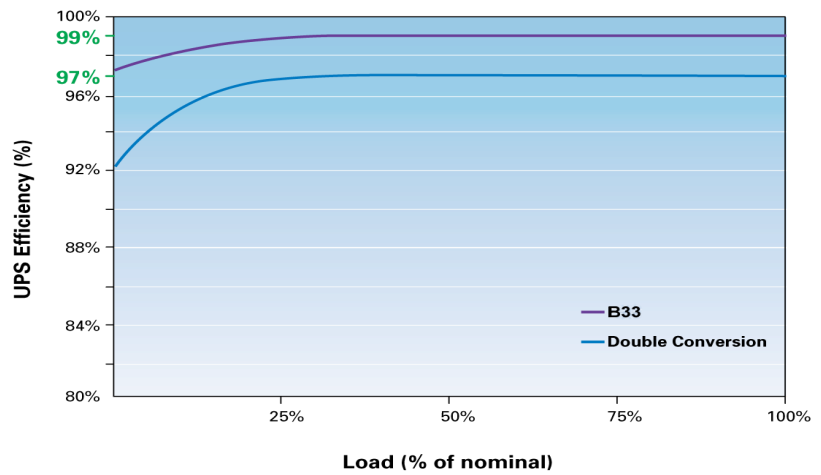
## High efficiency

### Up to 97% efficiency in double conversion

Even small increases in UPS efficiency can quickly translate into thousands of dollars, realized in more real power and lower cooling costs. Energy Saver System (B33) enables efficiency levels of over 99% across the typical UPS operating range.

In B33, load is powered securely through static bypass line with double conversion available on-demand with typical two millisecond transition time in the event of any abnormality on supply source. When operating in B33, load is protected with inherent surge suppression.

When utility power quality is high, B33 can reduce UPS power losses by 70% as it runs on double conversion only when needed.



## Fast and easy installation

- A wide range of UPS from 10 to 80kVA with the same performance and functionality.
- Free eRULER online sizing tool to get dimensions and electrical information in advance before installation.
- Tutored UPS installation with eWIRE mobile app.
- Quickly get online product documentation by simply inputting the Serial Number. .

## Easy to maintain

- Front and rear access for service
- Quickly and easily replace the dust filter conveniently located behind the front door
- Dalton service team available to make service easy and improve uptime with proper maintenance of your UPS and batteries

## Intelligent battery care system

The B33 is provided with a three levels battery charger to optimize battery management and obtain the best performance and operating life.

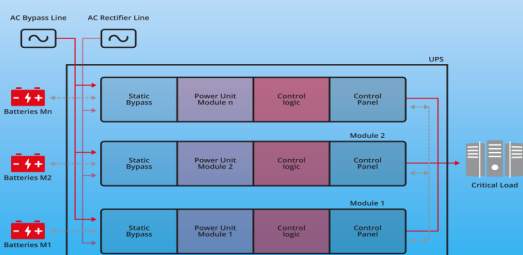
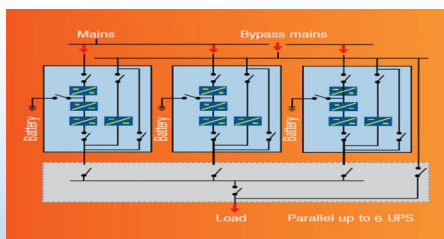
The B33 also incorporates temperature compensated charging, which monitors temperature changes and adjusts the rate of charge accordingly, to prolong battery life

## Digital signal processor (DSP)

DSP (Digital Signal Processor) performance enables the high sampling rates required to achieve the appropriate bandwidth for the current and voltage controls for an efficient double conversion UPS.



## Power management



## Parallel configuration



B33 is characterized by great flexibility that allows it to satisfy the installation requirements, even if load gets higher or a redundancy level is needed. The UPS is able to synchronize with an external source or with an external switch via Load Bus Sync. The Parallel configuration is available up to 6 units, allowing users to increase the power according to effective load requirement.



# Technical Specifications

Model			B3310000 10K LV/HV		B3315000 15K LV/HV		B3320000 20K LV/HV		B3330000 30K LV/HV		B3340000 40KLV/HV		B3360000 60KHV		B3380000 80KHV		
Rating Power			10KVA	10KW	15KVA	15KW	20KVA	20KW	30KVA	30KW	40KVA	40KW	60KVA	60KW	80KVA	80KW	
Input	Input system		3 x 380 x 400 x 415 VAC (3Ph+N)														
	Voltage range		-30% ~ +20%														
	Power factor		≥0.99 @ 100% load														
	Frequency		40~70 Hz														
	Harmonic distortion (THDi)		< 3% at full linear load														
	Inrush current		Absent														
Output	Output system		3 x 360*/380/400/415 VAC (3Ph+N)														
	AC Voltage Regulation		± 1%														
	Power factor		1														
	Harmonic Distortion (THDv)		< 1% THD (Linear Load)														
			< 3% THD (Non-linear Load)														
	Output waveform		Pure Sinewave														
	Output frequency		50/60 Hz ± 1%														
	Overload capability		100-110% for 60 min, 111-125% for 10 min, 126%~150% for 1 min; >150% or 400ms														
	Transfer time		AC mode to Battery mode ( 0ms )														
			Inverter to Bypass ( 0ms )														
	Crest factor		3:1 (max.)														
	Efficiency	Online mode	97%														
		Eco mode	99%														
Unbalanced load		100% - independent phase regulation															
Nominal Voltage			3 x 380/400/415 VAC (3Ph+N)														
BYPASS	Voltage range		-30% ~ +20% (Adjustable)														
	Overload Capability		> 130% 1 minute (default) - Continuously working until breaker protection (optional)														
	Frequency Range		46~54Hz or 56~64Hz														
	Communication software		Windows XP/ 2003 and later version; Linux; Unix														
Battery	Standard model	Battery type	12V/9Ah	12V/9Ah	12V/9Ah	12V/7Ah	12V/9Ah	N/A									
		Numbers	(10+10)pcs	(16+16)pcs			(16+16)pcs x 2 strings										
	Charging Voltage		+/-136.5 VDC ± 10%	+/-218 VDC ± 10%													
	Long run model	Type	Depending on the capacity of external batteries														
		Numbers	20 pcs	32~40 pcs (Adjustable)													
	Charging Voltage		+/-136.5 VDC ± 10%	+/-13.65V*N (N=16~20)													
	Charging Current		1A ~ 12A (Adjustable)						1A ~ 16A (Adjustable)				2A ~ 32A (Adjustable)				
	Typical Recharge Time		6 hours recover to 90% capacity														
	Battery type		Sealed maintenance-free lead –acid battery / Gel Battery / NiCd														
General	Storage temperature		-25°C ~ 55°C (without batteries)														
	Operating temperature		0°C ~ 40°C														
	Humidity		20%~95%														
	Altitude		≤ 1000 m, derating 1% for each additional 100 m														
	Alarm		Overload, abnormal AC input, low battery, UPS failure														
	Protections		Low battery, overload, over temperature, short circuit, output over voltage, output low voltage														
	Standards		European Directives: L V 2006/95/CE low voltage Directive EMC 2004/108/CE electromagnetic compatibility Directive Standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2 C2 Classification in accordance with IEC 62040-3 ( VFI )- SS - 111														
	Noise (dB)		Less than 40dB @1 Meter				Less than 45dB @1 Meter				Less than 50dB @1 Meter						
	Display indicator		UPS status, Load level, Battery level, Input/output voltage, Discharge timer, and Fault conditions														
	Management		Smart RS-232/USB Supports Windows® 2000/2003/XP/Vista/2008, Windows® 7/8, Linux and MAC														
	Optional		SNMP Card/ Dry Contact AS400 Card/ CMC Card/ RS485 Card/ EMD Monitoring Device														
	Protection degree		IP20														
	L*W*H (mm)			630 × 253× 830						810× 300× 1010				815× 370 × 1015			
Weight (kg) Standard			125		141		180		230		254		NA				
Weight (kg) Long			29		43		50		62		71		111		117		

## DALTON

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