

DALTON

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



B33 Series (10 -120KVA)



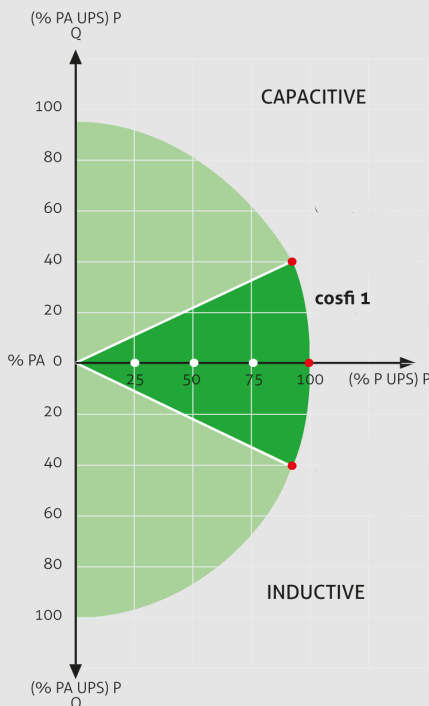
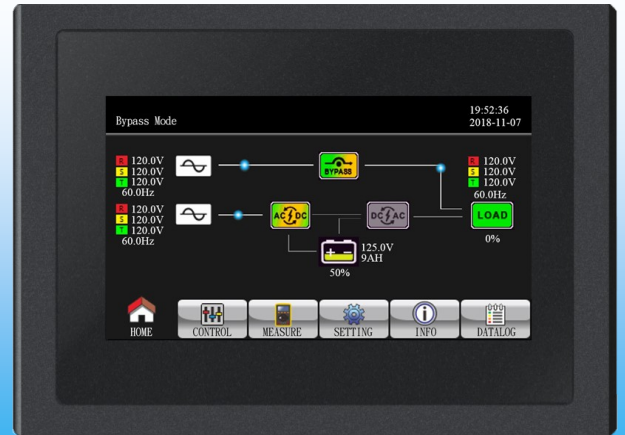
Dalton B33 Friendly Uninterruptible Power Supply is a combination of Dalton advanced digital Signal Processor (DSP) control online double conversion technology in accordance with VFI-SS-111 classification (as set out in standard IEC EN 62040-3) and a firm pursuit of a green manufacturing philosophy. 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
- Transformer less UPS Technology
- High Efficiency 97%
- Emergency power off function (EPO)
- Maintenance Bypass Switch
- Dual Input
- 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
- 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, bypass 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

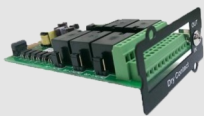
IGBT Rectifier

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

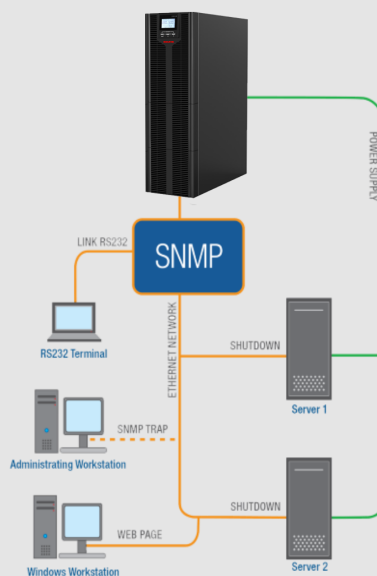
This slot can accommodate a relay Board or SNMP interface.

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

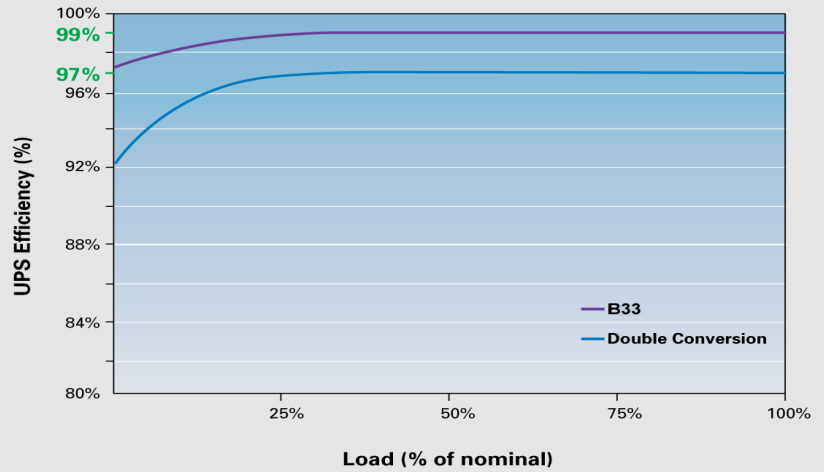
High efficiency

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 120 kVA 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.

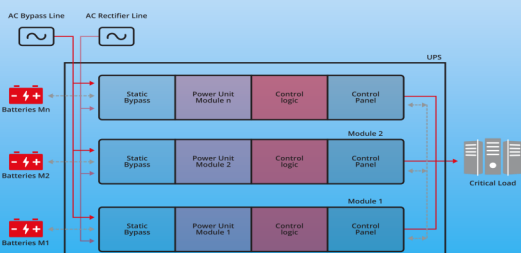
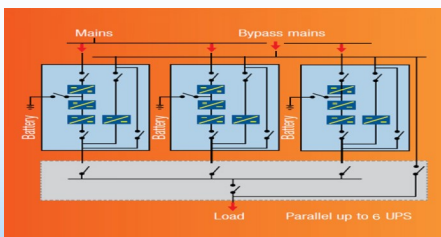
The B33 also incorporates temperature compensated charging, which monitors temperature changes and adjusts the rate of charge accordingly, to prolong battery life

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		B3310	B3315	B3320	B3330	B3340	B3360	B3380	B33100	B33120	
		10K	15K	20K	30K	40K	60K	80K	100K	120K	
Rating Power		10KVA 10KW	15KVA 15KW	20KVA 20KW	30KVA 30KW	40KVA 40KW	60KVA 60KW	80KVA 80KW	100KVA 100KW	120KVA 120KW	
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									
	BYPASS	Nominal Voltage	3 x 380/400/415 VAC (3Ph+N)								
		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)		32A	40A	
	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		Less than 60dB@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		950 × 585 × 1400			
Weight (kg) Standard	125	141	180	230	254	NA					
Weight (kg) Long	29	43	50	62	71	111	117	199	241		

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