



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



B33 Series
(80 –200KVA)



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.

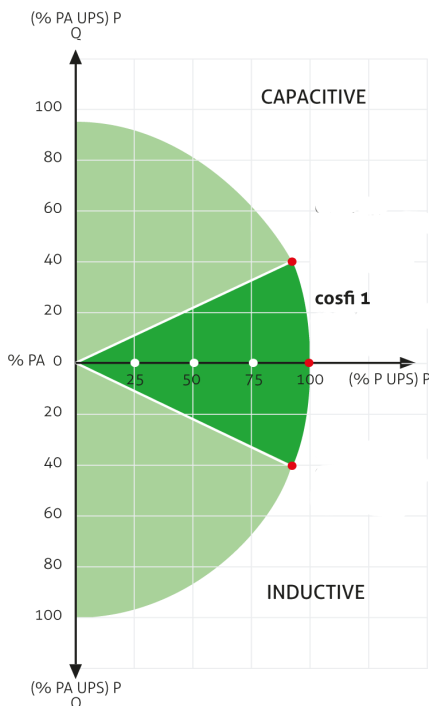
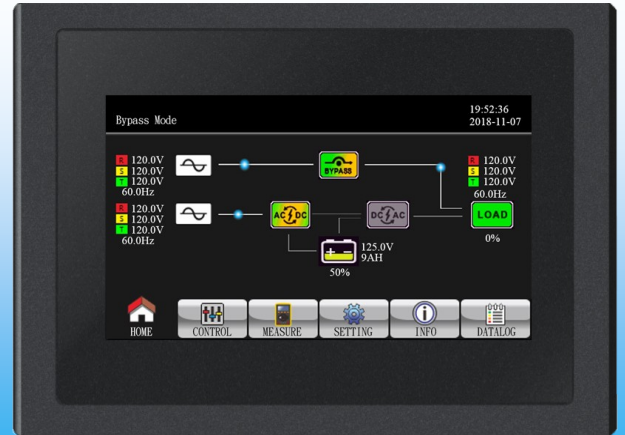
- True double-conversion technology.
- Advanced dual-core DSP control technology.
- Software configuration and online upgrade.
- Fully protected UPS (Short circuit, Over load,...).
- High Efficiency 96%.
- Emergency power off function (EPO).
- Maintenance Bypass Switch.
- Dual Input.
- Generator compatible.
- Active power factor correction in all phases.
- Unity output power factor 1.0
- 3 Level IGBT Technology.
- Active Power Factor Correction Technology.
- Optional SNMP Communication Port.
- Parallel operation with common battery.
- Cold start function
- LCD touch screen 7" 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 7" 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

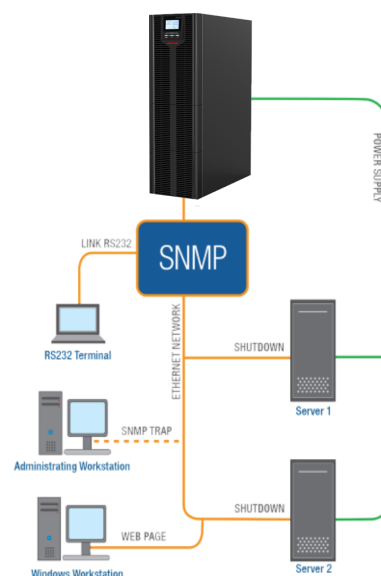
This slot can accommodate a relay Board or SNMP interface.

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 Tele NetGuard 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.

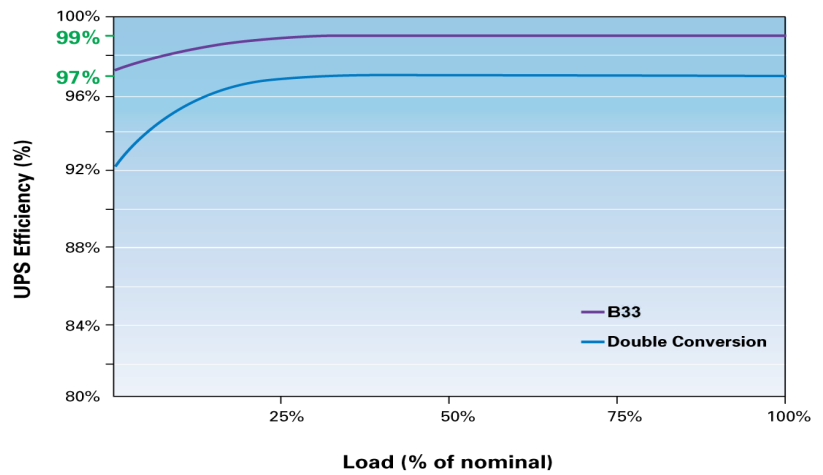
High efficiency

Up to 96% 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 80 to 200 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.

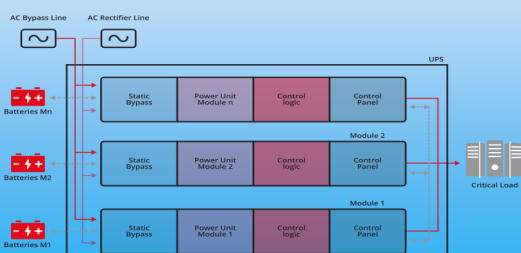
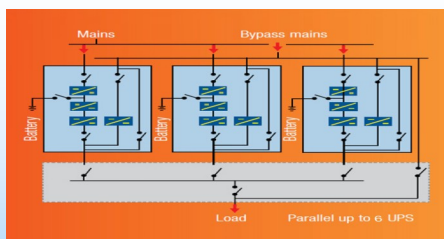
The B33 also incorporates temperature compensated charging, which monitors temperature changes and adjusts the rate of charge accordingly, to prolong battery life.

Digital signal processor (DSP)

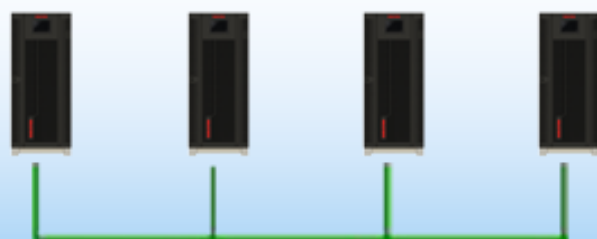
Advanced dual-core DSP (Digital Signal Processor) performance enables the high sampling rates required to achieve the appropriate bandwidth for the current and voltage controls for an efficient double conversion UPS.



Power management



Parallel-redundant configuration (N+1)



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 4 units, allowing users to increase the power according to effective load requirement.

Model			B33L80000 80K	B33L100000 100K	B33L120000 120K	B33L150000 150K	B33L160000 160K	B33L180000 180K	B33L2000000 200K
Rating Power			80KVA / 80KW	100KVA / 100KW	120KVA / 120KW	150KVA / 150KW	160KVA / 160KW	180KVA / 180KW	200KVA / 200KW
Input	Rated voltage		380 / 400 / 415Vac (3Φ + N + PE)						
	Voltage range (Vac)		(-25% ~ +26%) Full load						
			228V~304Vac, load decrease linearly according to the min phase voltage						
	Power factor		≥0.99 @ 100% load						
	Frequency		40~70 Hz						
	Harmonic distortion (THDi)		< 3% at full linear load						
Inrush current		Absent							
Output	Rated voltage		380 / 400 / 415Vac (3Φ + N + PE)						
	AC Voltage precision		±1% (linear load)						
	Power factor		1.0 (Unity)						
	Harmonic distortion (THDv)		< 1% THD (full Linear Load)						
			< 3% THD (full non-linear load according to IEC/EN62040-3)						
	Output waveform		Pure Sinewave						
	Output frequency		Synchronized with utility in mains mode, 50/60 Hz ±0.1						
	Overload capability		100-110% for 60 min, 111-125% for 10 min, 126%~150% for 1 min; >150% 200ms (Shut down safely)						
	Transfer time		AC mode to Battery mode (0ms)						
			Inverter to Bypass (0ms)						
	Crest factor		3:1 (max.)						
	Efficiency	Online mode	96%						
		Eco mode	98.5%						
	Unbalanced load		100% - independent phase regulation						
BYPASS	Type of bypass		Static and Manual bypass switch						
	Voltage range		Selectable, default -20% ~ +15% Up limited: +10%, +15%, +20%, +25%, Down limited: -10%, -15%, -20%, -30%, -40%						
	Overload capability		125% long term operation; 125%~130%, 10min; 130%~150%, 1min; 150%~400%, 1s; >400%, <200ms Continuously working until breaker protection (optional)						
	Frequency range		Selectable, ±1 Hz, ±3 Hz, ±5 Hz						
	Battery	Long run Model (Super Charger)	Battery capacity	Depending on the capacity of external batteries					
Numbers			Per string (32,36,38,40pcs) Adjustable						
Charging Current		30A			40A		60A		
Charging voltage		±240VDC							
Typical recharge time		8 hours recover to 90% capacity							
Batteries arrangement		External							
Charger voltage precision		<1%							
Battery type		Sealed maintenance-free lead –acid battery / Gel battery / Lithium battery / Na / NiCd							
General		Cold start		Yes					
	Parallel capability		Up to 4 Units in parallel						
	Storage temperature		-25°C ~ 55°C (without batteries)						
	Operating temperature		0°C ~ 40°C						
	Humidity		0%~95% Non-condensing						
	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, Over voltage, Under 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 68dB @1 Meter				Less than 70dB@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 / Parallel Kit						
	Protection degree		IP20						
Dimensions, W*D*H (mm)			450 × 941×1360		450 × 943 × 1380		533 × 945 × 1415		
Weight (kg) Long			160	170	180	186	216	220	228