# **UPS** Datasheet







## **FEATURES**



UPS



ENGINEER INSTALLATION USB CONNECTIVITY

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## **HIGHLIGHTS**

- High frequency, double conversion online technology
- Ultimate Scalability and Expandability
- 19" Cabinets available in full and half height format
- Modular design capable of housing either 5x, 8x, 10x, 13x or 16x power modules.
- Power modules available in 10, 20, 40 and 50kVA ratings.
- Configurable N+N modular redundancy
- Parallel up to 4 cabinets together.

- Wide input voltage range
- Short circuit and overload protection
- Automatic fan speed control with load variation
- Emergency Power Off facility
- Smart RS232 and USB comms with monitoring software
- Optional relay or SNMP communications card
- Large Touchscreen LCD Interface

#### The Dale E600 UPS range is a modular UPS system suitable for Datacenters and other high density computer and IT Critical load applications.

The E600 UPS allows your power requirements to grow along with the demands of the business without the need to oversize the UPS at day one - reducing the initial cost of investment and reducing the total cost of ownership.

As your power demands increase, the E600 can expand its power capability to maintain the highest levels of power protection and availability.

The newly-designed inverter is one of the best energy conversion systems on the market, with up to unity output power factor and 95% operating efficiency in ON LINE Mode.

#### **HIGH PERFORMANCE**

- The advanced technology within the E600 UPS systems allows for the use full rated power even with unity power factor loads (kVA=kW) without any power derating even when operating at temperatures up to 40 °C
- Low input harmonic pollution with near unity input power factor and an extremely wide input voltage operating range (208-470Vac) requiring only minimum upstream power source rating and subesquent reduced investment costs.

#### **HIGH QUALITY OUTPUT VOLTAGE**

- Even with non-linear loads (IT loads with a crest factor of up to 3:1);
- High short circuit current on bypass;
- Filtered, stabilised and reliable voltage (ON LINE double conversion technology (VFI compliant with EN62040-3) with filters for the suppression of atmospheric disturbances;
- Power factor correction: UPS input power factor close to 1 and sinusoidal current uptake.

#### SOFTWARE

UPS MONITORING SUITE

#### **COMMUNICATION ACCESSORIES**

E-SNMP/4 - SNMP card for network monitoring of UPS

E-RELAY/2 - Volt-free card for status monitoring of UPS



#### SCALABILITY

The E600 range offers a comprehensive, easy to integrate, power protection solution for any critical IT applications, The end user can easiy increase power or redundancy levels by addiding additional power modules.

Six different cabinet sizes are available to build the system, which can accomodate either 10kVA, 20kVA, 40kVA or 50kVA Modules.

The available UPS power and redundancy can expand vertically from:

- 10 to 50kVA in one single power cabinet (E633100/20 with E63310H PM)
- 20 to 100kVA in one single power cabinet (E633100/20 with E63320U PM)
- 20 to 200kVA in one single power cabinet (E633200/20 with E63320U PM)
- 40 to 200kVA in one single power cabinet (E633200/4050 with E63340U PM)
- 40 to 400kVA in one single power cabinet (E633400/4050 with E63340U PM)
- 50 to 600kVA in one single power cabinet (E633600/4050 with E63350U PM)
- 50 to 800kVA in one single power cabinet (E633800/4050 with E63350U PM)

Further Expandable with up to 4 cabinets connected in parallel.



MODEL	E633100/20	E633200/20		
OVERVIEW				
Capacity (kVA)	10-100kVA	10-200kVA		
Maximum number of Power Modules	5	10		
Тороlоду	True Online	True Online Modular UPS		
INPUT				
Number of phases	3P +	3P + N + E		
Nominal voltage	380 / 400	0 / 415 Vac		
Voltage Range	208 -	208 - 478 Vac		
Frequency Range	40Hz - 70Hz	40Hz - 70Hz (Auto-Detect)		
Power Factor	>(	>0.99		
OUTPUT				
Number of Phases	3P +	• N + E		
Power factor	0.9 / 1.0 mod	lule dependent		
Nominal voltage (V)	380 / 400 /	380 / 400 / 415 Vac ± 1%		
Frequency Range	50 - 60 H	50 - 60 Hz ± 0.1Hz		
THD (Linear Load)	<	<2%		
THD (Non-Linear Load)	<	<5%		
Efficiency	up t	up to 95%		
Overload Capacity	<110% for 60 Minutes, 111-125% for 10 Minutes	<110% for 60 Minutes, 111-125% for 10 Minutes, 125-150% for 1 Minute >150% Switch to bypass		
Crest Factor	Ξ	3:1		
Short Circuit Protection	Y	Yes		
Waveform	Pure S	Pure Sinewave		
BATTERIES				
DC Voltage	384 / 408 / 432 / 456 / 480 VDC			
Battery Quantity	32 / 34 / 36 / 38 / 40			
Charge Current	6A Per Module			
Recharge time	Depends on External Capacity			
ENVIRONMENT				
Temperature	0 °C - +40 °C			
Relative Humidity	0-95%			
Altitude	<1500m			
Storage Temperature	-25 °C - +55 °C			
Noise Level	<7	<73dB		
COMMUNICATION				
Standard	RS232 / RS485			
SNMP Card	E-SNMP/4 (Optional)			
VFC Card	E-RELAY/a	E-RELAY/2 (Optional)		
DISPLAY				
LCD Display	Yes			
LED Indication	Yes			
WEIGHTS AND DIMENSIONS				
Net Weight (kg)	152kg	290kg		
Dimensions (H x W x D) mm	1400 x 600 x 840	2000 x 600 x 1100		

MODEL	E633200/4050	E633400/4050	E633600/4050	E633800/4050		
OVERVIEW						
Capacity (kVA)	40-200kVA	40-400kVA	40-600kVA	40-600kVA		
Maximum number of Power Modules						
Тороlоду	· · · · · · · · · · · · · · · · · · ·	True Online Modular UPS				
INPUT						
Number of phases		3P + N + E				
Nominal voltage	380 / 400 / 415 Vac					
Voltage Range	208 - 478 Vac					
Frequency Range		40Hz - 70Hz (Auto-Detect)				
Power Factor		>(	).99			
OUTPUT						
Number of Phases		3P + N + E				
Power factor	30 b	30 batteries - 0.8, 32-34 batteries - 0.9 or 36-50 batteries - 1.0				
Nominal voltage (V)		380 / 400 /	415 Vac ± 1%			
Frequency Range		50 - 60 I	Hz ± 0.1Hz			
THD (Linear Load)		<2%				
THD (Non-Linear Load)		<5%				
Efficiency		up to 95%				
Overload Capacity	<110% for 60 Minutes	, 111-125% for 10 Minutes	5, 125-150% for 1 Minute >	150% Switch to bypass		
Crest Factor		3	3:1			
Short Circuit Protection		Ŋ	/es			
Waveform		Pure S	inewave			
BATTERIES						
DC Voltage	360 / 384 / 408 / 432 / 456 / 480 / 504 / 528 / 552 / 576 / 600 VDC					
Battery Quantity	30 / 32 / 34 / 36 / 38 / 40 / 42 / 44 / 46 / 48 / 50					
Charge Current	20A Per Module					
Recharge time	Depends on External Capacity					
ENVIRONMENT						
Temperature	0 °C - +40 °C					
Relative Humidity	0-95%					
Altitude	<1500m					
Storage Temperature	-25 ℃ - +55 ℃					
Noise Level	<73dB					
COMMUNICATION						
Standard	RS232 / RS485					
SNMP Card	E-SNMP/4 (Optional)					
VFC Card		E-RELAY/2 (Optional)				
DISPLAY						
LCD Display	Yes					
LED Indication		Yes				
WEIGHTS AND DIMENSIONS						
Net Weight (kg)	260kg	280/600kg	72	Okg		
Dimensions (H x W x D) mm	1600 x 600 x 860	2000 x 600 x 860	2000 x 1	200 x 860		

MODULES	E63310H	E63320H	
OVERVIEW			
Capacity (kVA)	10kVA	20kVA	
Capacity (kW)	9kW	18kW	
Power Factor			
WEIGHTS AND DIMENSIONS			
Net Weight (kg)	26kg	31kg	
Dimensions (H x W x D) mm	131 (3U) x 443 x 580		
Heat Loss (kW per Module)	0.78kW	0.95kW	

MODEL	E63320U	E63340U	E63350U	
OVERVIEW				
Capacity (kVA)	20kVA	40kVA	50kVA	
Capacity (kW)	20kW	40kW	50kW	
Power Factor		1.0		
WEIGHTS AND DIMENSIONS				
Net Weight (kg)	31kg	34kg	34kg	
Dimensions (H x W x D) mm		131 (3U) x 443 x 580		
Heat Loss (kW per Module)	0.94kW	1.45kW	1.81kW	





## Looking for something more bespoke?

With our own purpose-built, manufacturing facility, we're a one-stop shop for our customers providing design consultancy, manufacture and ongoing maintenance for our products.

### What we do

- An end-to-end service design, manufacture, install, commissioning and servicing
- Experts in customised UPS solutions
- In-house mechanical and electrical design capability
- Solutions for any environment, application and location
- Industry-specific solutions including WIMES specified and PADS Approved UPS
- In-house project management team to manage the development and delivery of your product for exactly when you need it.

Get in touch with our team today to discuss your requirements.

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## Your power in safe hands