

## E600

3:3 50-1000kVA



## FEATURES



MODULAR  
UPS



ENGINEER  
INSTALLATION



USB  
CONNECTIVITY



HOT SWAP  
BATTERY

## HIGHLIGHTS

- High frequency, double conversion online technology
- Ultimate Scalability and Expandability
- Modular design capable of housing either 4,6,8,10,12,14 or 16 quantity 50kVA/kW power modules.
- Configurable N+N modular redundancy
- Parallel up to 6 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 (138-485Vac) requiring only minimum upstream power source rating and subsequent 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 SAVING

- High input power factor - up to 0.99
- 3-level inverter technology with online efficiencies up to 97%
- THDi <4% with 100% Non-Linear Load
- Configurable sleep mode to place modules into standby when operating at low loads, ensuring efficient operation at all times.

### MULTIPLE BATTERY OPTIONS

- Common battery configuration for parallel applications.

### SCALABILITY

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

Seven different cabinet sizes are available to build the system, which can accommodate multiples of 50kVA Modules.

The available UPS power and redundancy can expand vertically from:

- 50 to 200kVA in one single power cabinet (E633200/50 with E63350U PM)
- 50 to 300kVA in one single power cabinet (E633300/50 with E63350U PM)
- 50 to 400kVA in one single power cabinet (E633400/50 with E63350U PM)
- 50 to 500kVA in one single power cabinet (E633500/50 with E63350U PM)
- 50 to 600kVA in one single power cabinet (E633600/50 with E63350U PM)
- 50 to 800kVA in one single power cabinet (E633800/50 with E63350U PM)
- 50 to 1000kVA in one single power cabinet (E6331000/50 with E63350U PM)

Further Expandable with up to 6 cabinets connected in parallel.

### LBS FUNCTION

LBS Function to allow 2 non paralleled UPS systems to work in synchronisation.

### INTELLIGENT MANAGEMENT

- 7 inch (standard) or 10 inch (Optional) colour touch screen
- Record and Export history logs and fault logs
- SNMP, RS232, RS485, Dry contact interface options
- Supports upgrading of FW&SW whilst in bypass mode
- EPO and REPO Function



MODULES	E63350U
OVERVIEW	
Capacity (kVA)	50kVA
Capacity (kW)	50kW
Power Factor	1.0
WEIGHTS AND DIMENSIONS	
Net Weight (kg)	34kg
Dimensions (H x W x D) mm	130 (3U) x 440 x 620
Heat Loss (kW per Module)	1.81kW

MODEL	E633200/50	E633300/50	E633400/50
OVERVIEW			
Capacity (kVA)	50-200kVA	50-300kVA	50-400kVA
Maximum number of Power Modules	4	6	8
Topology	True Online Modular UPS		
INPUT			
Number of phases	3P + N + E		
Nominal voltage	380 / 400 / 415 Vac		
Voltage Range	138 - 305V for 40% Load; 305-485V for 100% Load		
Frequency Range	50 / 60 Hz ± 10%		
Power Factor	>0.99		
OUTPUT			
Number of Phases	3P + N + E		
Power factor	1.0		
Nominal voltage (V)	380 / 400 / 415 Vac ± 1%		
Frequency Range	Line Mode - Synchronise with Input; Battery Mode - 50/60 Hz ± 0.1Hz		
THD (Linear Load)	<2%		
THD (Non-Linear Load)	<4%		
Efficiency	AC Mode: up to 95%; ECO Mode: up to 99%; HECO Mode: up to 99%;		
Overload Capacity	Inverter Mode: <110% for 60 Minutes, 111-125% for 10 Minutes, 125-150% for 1 Minute >150% 1.2 Seconds then Switch to bypass		
Crest Factor	3:1		
Short Circuit Protection	Yes		
Waveform	Pure Sinewave		
BATTERIES			
Battery Type	VRLA / Li-Ion		
Battery Voltage (VDC)	360-600 VDC		
Charge Current	20A Max.		
Recharge time	Depends on External Capacity		
ENVIRONMENT			
Temperature	0 °C - +40 °C		
Relative Humidity	0-95% (non-condensing)		
Altitude	<1000m		
Storage Temperature	-25 °C - +55 °C		
Noise Level	<73dB		
COMMUNICATION			
Communication Ports	RS232 / RS485 / PARALLEL / LBS / DRY CONTACT RELAY CARD (OPTIONAL) / SNMP CARD (OPTIONAL) / BATTERY TEMPERATURE SENSOR (OPTIONAL)		
DISPLAY			
LCD Display	Yes		
LED Indication	Yes		
WEIGHTS AND DIMENSIONS			
Net Weight (kg)	270kg	290kg	310kg
Dimensions (H x W x D) mm	2000 x 600 x 850	2000 x 600 x 850	2000 x 600 x 850

MODEL	E633500/50	E633600/50
<b>OVERVIEW</b>		
Capacity (kVA)	50-500kVA	50-600kVA
Maximum number of Power Modules	10	12
Topology	True Online Modular UPS	
<b>INPUT</b>		
Number of phases	3P + N + E	
Nominal voltage	380 / 400 / 415 Vac	
Voltage Range	138 - 305V for 40% Load; 305-485V for 100% Load	
Frequency Range	50 / 60 Hz ± 10%	
Power Factor	>0.99	
<b>OUTPUT</b>		
Number of Phases	3P + N + E	
Power factor	1.0	
Nominal voltage (V)	380 / 400 / 415 Vac ± 1%	
Frequency Range	Line Mode - Synchronise with Input; Battery Mode - 50/60 Hz ± 0.1Hz	
THD (Linear Load)	<2%	
THD (Non-Linear Load)	<4%	
Efficiency	AC Mode: up to 95%; ECO Mode: up to 99%; HECO Mode: up to 99%;	
Overload Capacity	Inverter Mode: <110% for 60 Minutes, 111-125% for 10 Minutes, 125-150% for 1 Minute >150% 1.2 Seconds then Switch to bypass	
Crest Factor	3:1	
Short Circuit Protection	Yes	
Waveform	Pure Sinewave	
<b>BATTERIES</b>		
Battery Type	VRLA / Li-Ion	
Battery Voltage (VDC)	360-600 VDC	
Charge Current	20A Max.	
Recharge time	Depends on External Capacity	
<b>ENVIRONMENT</b>		
Temperature	0 °C - +40 °C	
Relative Humidity	0-95% (non-condensing)	
Altitude	<1000m	
Storage Temperature	-25 °C - +55 °C	
Noise Level	<73dB	
<b>COMMUNICATION</b>		
Communication Ports	RS232 / RS485 / PARALLEL / LBS / DRY CONTACT RELAY CARD (OPTIONAL) / SNMP CARD (OPTIONAL) / BATTERY TEMPERATURE SENSOR (OPTIONAL)	
<b>DISPLAY</b>		
LCD Display	Yes	
LED Indication	Yes	
<b>WEIGHTS AND DIMENSIONS</b>		
Net Weight (kg)	650kg	720kg
Dimensions (H x W x D) mm	2000 x 1200 x 850	2000 x 1200 x 850

MODEL	E633800/50	E6331000/50
<b>OVERVIEW</b>		
Capacity (kVA)	50-800kVA	50-1000kVA
Maximum number of Power Modules	16	20
Topology	True Online Modular UPS	
<b>INPUT</b>		
Number of phases	3P + N + E	
Nominal voltage	380 / 400 / 415 Vac	
Voltage Range	138 - 305V for 40% Load; 305-485V for 100% Load	
Frequency Range	50 / 60 Hz ± 10%	
Power Factor	>0.99	
<b>OUTPUT</b>		
Number of Phases	3P + N + E	
Power factor	1.0	
Nominal voltage (V)	380 / 400 / 415 Vac ± 1%	
Frequency Range	Line Mode - Synchronise with Input; Battery Mode - 50/60 Hz ± 0.1Hz	
THD (Linear Load)	<2%	
THD (Non-Linear Load)	<4%	
Efficiency	AC Mode: up to 95%; ECO Mode: up to 99%; HECO Mode: up to 99%;	
Overload Capacity	Inverter Mode: <110% for 60 Minutes, 111-125% for 10 Minutes, 125-150% for 1 Minute >150% 1.2 Seconds then Switch to bypass	
Crest Factor	3:1	
Short Circuit Protection	Yes	
Waveform	Pure Sinewave	
<b>BATTERIES</b>		
Battery Type	VRLA / Li-Ion	
Battery Voltage (VDC)	360-600 VDC	
Charge Current	20A Max.	
Recharge time	Depends on External Capacity	
<b>ENVIRONMENT</b>		
Temperature	0 °C - +40 °C	
Relative Humidity	0-95% (non-condensing)	
Altitude	<1000m	
Storage Temperature	-25 °C - +55 °C	
Noise Level	<73dB	
<b>COMMUNICATION</b>		
Communication Ports	RS232 / RS485 / PARALLEL / LBS / DRY CONTACT RELAY CARD (OPTIONAL) / SNMP CARD (OPTIONAL) / BATTERY TEMPERATURE SENSOR (OPTIONAL)	
<b>DISPLAY</b>		
LCD Display	Yes	
LED Indication	Yes	
<b>WEIGHTS AND DIMENSIONS</b>		
Net Weight (kg)	980kg	1080kg
Dimensions (H x W x D) mm	2000 x 2000 x 850	2000 x 2000 x 850