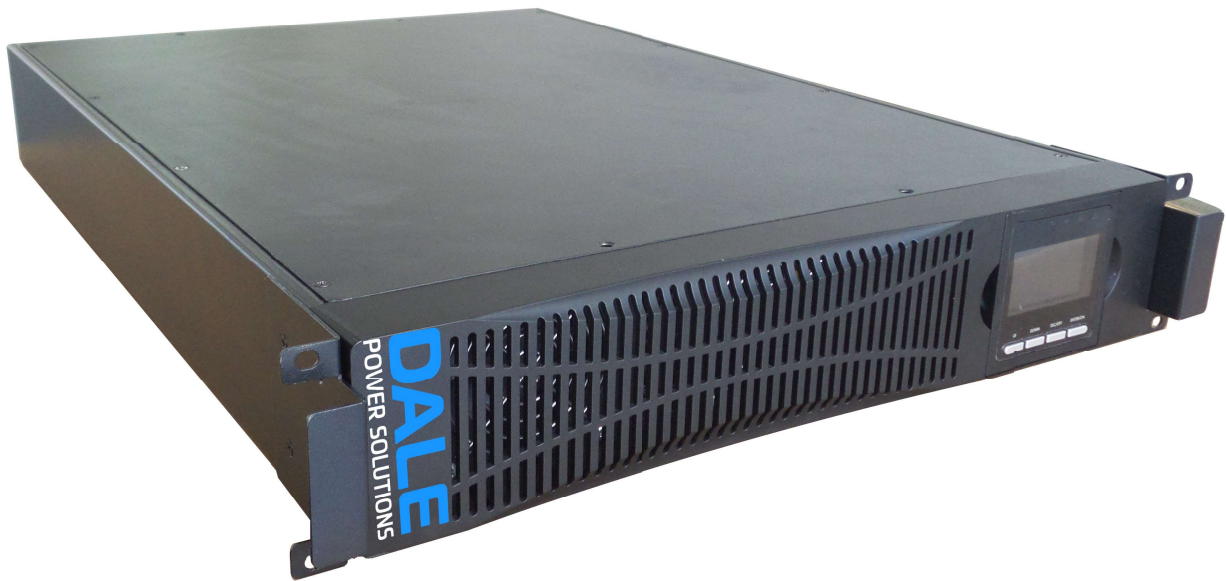


## E200REU

1:1 6-10kVA



### FEATURES



RACK MOUNT  
UPS



ENGINEER  
INSTALLATION



USB  
CONNECTIVITY

### HIGHLIGHTS

- High frequency, double conversion online technology
- Fully digitised DSP control
- Wide input voltage range
- Cold start and programmable auto re-start functions
- Advanced battery management
- Selectable ECO mode for high efficiency operation
- Lightning and surge protection
- 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
- Operate up to four units in parallel

**The Dale E200REU UPS range is one of the best solutions for powering critical applications and devices requiring maximum power reliability.**

With Flexible installation options, ease of use along with a wide variety of communication options, makes the E200REU range suitable for many different applications.

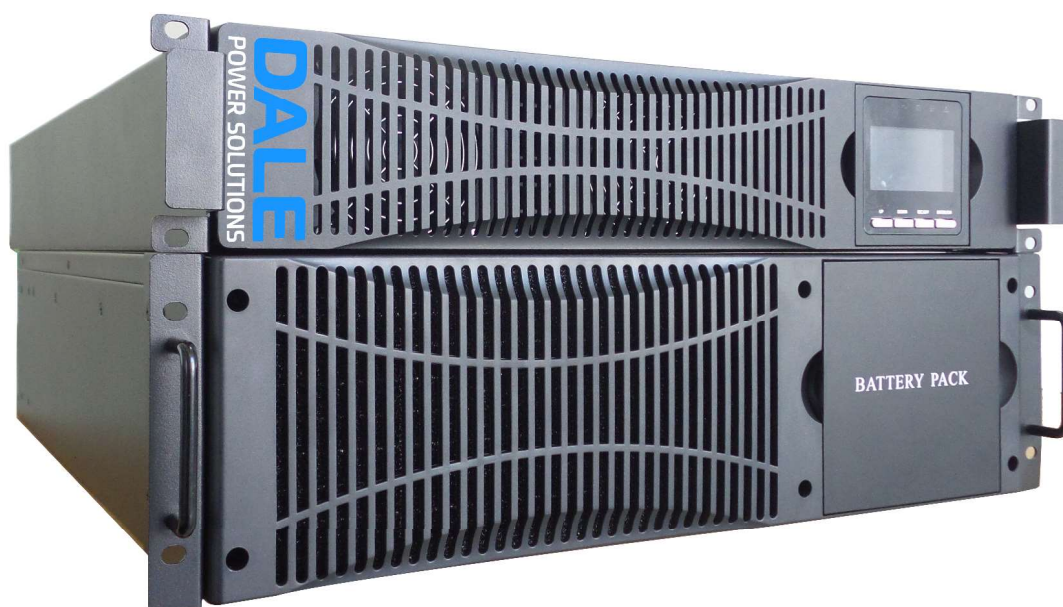
Up to 4 E200REU units can be operated in parallel in either capacity of N+N Redundant configuration offering maximum reliability for the critical load.

The E200REU can be installed as either a tower (floor standing) unit or rack mounted (Ideal for network and server rack applications).

The E200REU range is available in 6 and 10 kVA/kW models with ON LINE double conversion technology (VFI): the load is powered continuously by the inverter which supplies a sinusoidal voltage, filtered and stabilised in terms of voltage, form and frequency. In addition, the input and output filters significantly increase the load's immunity to mains disturbances and lightning strikes.

### **SIMPLIFIED INSTALLATION**

- Can be installed on the floor (tower version) or in rack mount cabinets (rack version). The display panel can be rotated to suit installation method
- Low noise (<55 dBA): the E200REU can be installed in any environment thanks to its high frequency switching inverter and load-dependent digitally controlled fan;
- Operation guaranteed up to 40 °C (the components are designed for high temperatures and are thus subject to less stress at normal temperatures);



## OPERATING MODE SELECTION

Functions can be programmed via software or manually via the front display panel.

- ON LINE: efficiency up to 95%;
- ECO Mode: to increase efficiency (up to 98%), allows for the selection of LINE INTERACTIVE technology (VI) to power low priority loads from the mains supply;
- Parallel Mode: to operate up to 4 E200REU units in parallel
- Frequency Converter operation (50 or 60 Hz).

## 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.

## UNITY POWER FACTOR

- More power delivered;
- More real output power (W)

## HIGH BATTERY RELIABILITY

- Automatic and manual battery test;
- Reduced ripple component (detrimental to the batteries) using a low ripple current discharge (LCRD) system;
- Extendible runtime using matching battery cabinets. (maximum 6 cabinets)

## BATTERY OPTIMISATION

The wide input voltage range and a high hold-up time minimise battery usage and increase efficiency and battery life; for smaller power breaks, energy is drawn from the DC capacitors.

## OTHER FEATURES

- Selectable Output Voltage (220/230/240V)
- Auto-Restart when mains power is restored (programmable via software)
- Low Battery Warning
- Total Microprocessor and DSP control
- Status, Measurements and Alarms available via backlit display panel.
- Automatic Bypass without interruption in event of fault

## SOFTWARE

UPS MONITORING SUITE

## COMMUNICATION ACCESSORIES

E-SNMP/2 - SNMP card for network monitoring of UPS

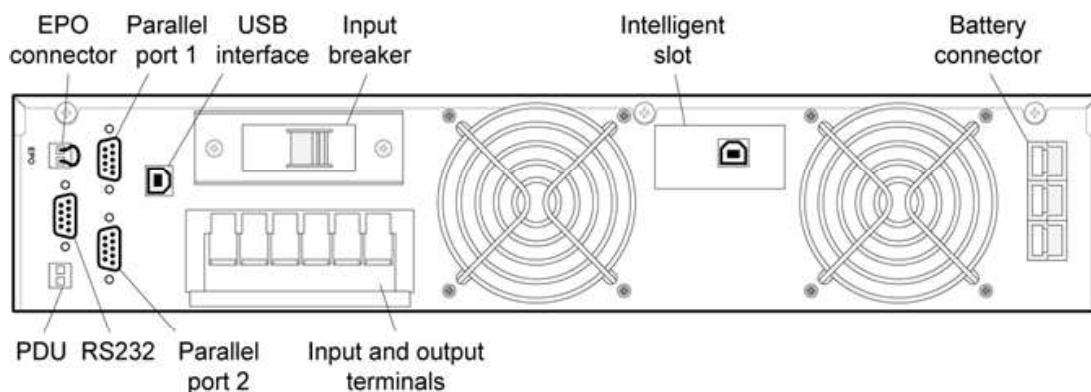
E-RELAY/2 - Volt-free card for status monitoring of UPS

## INSTALLATION ACCESSORIES

UNIVERSAL RAIL KIT - For Rack Mount Applications

EMBS63/11/2 - Rack Mount EMBS for Single Phase Input UPS

## CONNECTIONS



MODEL	E206REU	E2010REU
<b>OVERVIEW</b>		
Active power (kVA)	6kVA	10kVA
Active power (kW)	6kW	10kW
Topology	True Online Rack / Tower UPS	
<b>INPUT</b>		
Number of phases	1P + N + E	
Connection Type	Hardwired	
Nominal voltage	208 / 220 / 230 / 240 Vac	
Voltage Range	110 - 300 Vac	
Frequency Range	45Hz - 66Hz (Auto-Detect)	
Power Factor	>0.99	
Bypass Voltage Range	220VAC Max: 10% / 15% / 20% / 25% - Default = 25% 230VAC Max@: 10% / 15% / 20% Default = 20% 240VAC Max@: 10% / 15% Default = 15%	
Bypass Frequency Range	± 1% / ± 2% / ± 4% / ± 5% / ± 10%	
Eco Range	Same as the Bypass	
Harmonic Distortion	<3% (100% Linear Load) <5% (100% Non-Linear Load)	
Generator Input	Supported	
<b>OUTPUT</b>		
Number of Phases	1P + N + E	
Connection Type	Hardwired	
Power factor	1.0pf	
Nominal voltage (V)	208 / 220 / 230 / 240Vac ± 1%	
Frequency Range	50 - 60 Hz ± 0.1Hz	
THD (Linear Load)	<3%	
THD (Non-Linear Load)	<5%	
Efficiency	up to 94%	
Overload Capacity	100-110% for 10 Minutes, 111-130% for 1 Minute, >130% for 1 Seconds	
Crest Factor	3:1	
Short Circuit Protection	Yes	
Waveform	Pure Sinewave	
Transfer Time	0mS	
<b>BATTERIES</b>		
Battery Type	10 Year VRLA	
DC Voltage	±96 / ±108 / ±120 VDC	
Battery Quantity	16 / 18 / 20	
Backup Time @ Half Load	Variable	
Backup Time @ Full Load	Variable	
Charge Current	10A Max.	
Recharge time	Depends on External Capacity	
<b>EXTERNAL BATTERY PACKS</b>		
Battery Pack Model	EER2000U / EERS2000U	
Maximum Number of External Packs	6 Packs EER2000U / 5 Packs EERS2000U	

MODEL	E206REU	E2010REU
<b>ENVIRONMENT</b>		
Temperature	0 °C - +40 °C	
Relative Humidity	0-90%	
Altitude	<1500m	
Storage Temperature	-25 °C - +55 °C	
Noise Level @ 1M	<55dB	
Heat Loss	0.14kW	0.26kW
<b>DISPLAY</b>		
LCD Measurements	Voltage / Frequency / Battery level / Backup Time / Output Load % / Temperature	
LED Indicators	Alarm / Bypass Mode / Battery Mode / Inverter Mode	
Alarm (Audible / Visual)	Audible or Visual; Line Failure / Battery Low / Overload / System Fault	
<b>COMMUNICATIONS</b>		
Standard	Standard RS232 / USB	
SNMP Card	E-SNMP/1-MINI (Optional)	
Alarm Card	E-RELAY/1-MINI (Optional)	
<b>WEIGHTS &amp; DIMENSIONS</b>		
Weight (kg)	14kg	18kg
Dimensions (H x W x D)	86.5 x 440 x 620mm	
Rack Space Required	2U	
<b>STANDARD ACCESSORIES</b>		
Manuals	User Manual	
Software	Only with SNMP Card	
<b>OTHER</b>		
Standard Warranty Period	3 Years for Electronics / 1 Year for Batteries	

# EER2000U Series Battery Pack 6 / 10kVA

MODEL	EER2000U
Compatible UPS Model	E206REU / E21306REU / E2010REU / E21310REU
<b>BATTERY</b>	
Battery Type	12V Valve Regulated Lead Acid (VRLA) maintenance free
Battery Life	10 Year design life at 20°C
Battery Capacity	7Ah
Maximum number of packs	6
Number of battery strings per pack	1
Nominal voltage	240V
<b>Battery Charger</b>	
Protection	Circuit breaker
DC charge voltage	272.4V
DC charge current	Supplied by UPS
recharge time	Dependent on qty of battery packs
<b>Environment</b>	
Operating temperature	0 °C - +40 °C
Relative humidity	0-90% (non-condensing)
Altitude	1500m maximum
Storage temperature	0 °C - +40 °C
<b>WEIGHTS &amp; DIMENSIONS</b>	
Weight (kg)	68kg
Dimensions (H x W x D)	131 (3U) x 443 x 720mm

Pack(QTY) UPS	Autonomy Full Load (Minutes)						Autonomy Half Load (Minutes)					
	1	2	3	4	5	6	1	2	3	4	5	6
<b>E206REU / E21306REU</b>	9	20	33	47	61	76	20	47	76	106	138	171
<b>E2010REU / 21310REU</b>	5	11	18	26	33	41	11	25	41	58	75	94

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DC charge current	Supplied by UPS
recharge time	Dependent on qty of battery packs
Environment	
Operating temperature	0 °C - +40 °C
Relative humidity	0-90% (non-condensing)
Altitude	1500m maximum
Storage temperature	0 °C - +40 °C
WEIGHTS & DIMENSIONS	
Weight (kG)	68kg
Dimensions (H x W x D)	177 (4U) x 443 x 490mm

Pack(QTY) UPS	Autonomy Full Load (Minutes)						Autonomy Half Load (Minutes)					
	1	2	3	4	5	6	1	2	3	4	5	6
E206REU / E21306REU	9	20	33	47	61		20	47	76	106	138	
E2010REU / 21310REU	5	11	18	26	33		11	25	41	58	75	



# DALE

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- In-house project management team to manage the development and delivery of your product for exactly when you need it.

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