

## E200RU

1:1 1-3kVA



### FEATURES



RACK / TOWER  
CONVERTIBLE



PLUG & PLAY  
INSTALLATION



HOT SWAPPABLE  
BATTERY



USB  
CONNECTIVITY



CONFIGURABLE  
OUTLETS

### 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
- Automatic battery charge in UPS off mode
- 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

The Dale E200RU UPS range is the the new range of high density double conversion On line UPS suitable for powering a wide range of devices such as servers, storage systems, VoIP telephony equipment, network and medical systems as well as industrial applications.

At only 2U, the E200RU range is ideal for 19" rack cabinet installations. It has a practical, modern design and includes several performance advantages over traditional ON LINE UPS.

The newly-designed inverter is one of the best energy conversion systems on the market, with a unity output power factor and 92% operating efficiency in ON LINE Mode.

For business continuity applications requiring long battery runtimes, battery autonomy can be extended up to several hours using up to 4 matching battery expansion packs.

### SIMPLIFIED INSTALLATION

- E200RU+ can be installed as a tower or in 19" rack cabinets, by simply pulling out and rotating the display panel;
- Low noise (<50 dBA): the E200RU 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);

### LOW NOISE LEVEL

Thanks to the use of high frequency components and load-based fan speed control, the noise produced by the UPS is less than 50 dB.

### 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.

### FLEXIBLE CONFIGURATION

The UPS is highly flexible and easy to configure. Programmable functions can be set via software or manually via the front display panel. E200RU can be configured in the following operating modes:

- On Line: maximum load protection and output voltage waveform quality;
- ECO Mode: to increase efficiency (up to 98%); allows you to select LINE INTERACTIVE technology;
- The output sockets can be programmed to disconnect less critical loads during blackouts (Configurable outlet function).

### HIGH BATTERY RELIABILITY

- Automatic and manual battery test;
- Extendible runtime using matching battery cabinets. (maximum 4 cabinets)

### INSTALLATION VERSATILITY

E200RU can be used in a tower or rack format, by simply turning the display and adding the supplied handles or optional runners.



### SOFTWARE

UPS MONITORING SUITE

### COMMUNICATION ACCESSORIES

E-SNMP/1-MINI - SNMP card for network monitoring of UPS

E-RELAY/1-MINI - Volt-free card for status monitoring of UPS

### INSTALLATION ACCESSORIES

UNIVERSAL RAIL KIT - For Rack Mount Applications

EMBS10/11/AR - Rack Mount EMBS for 1kVA UPS

EMBS10/11/PP - Wall Mount EMBS for 1kVA UPS

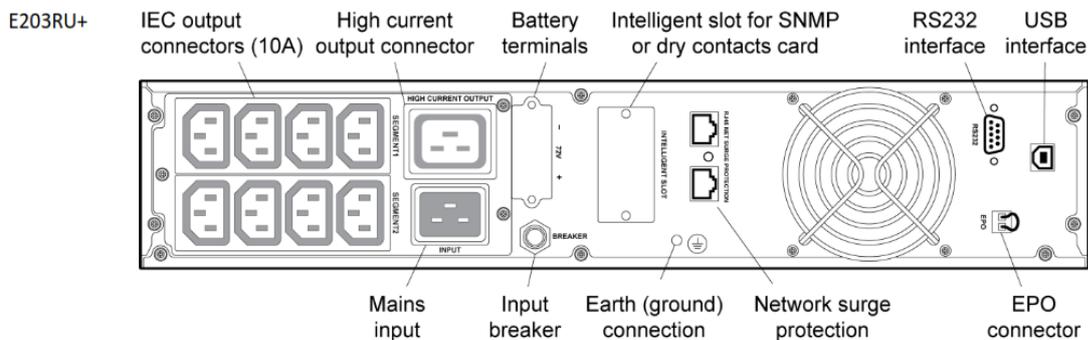
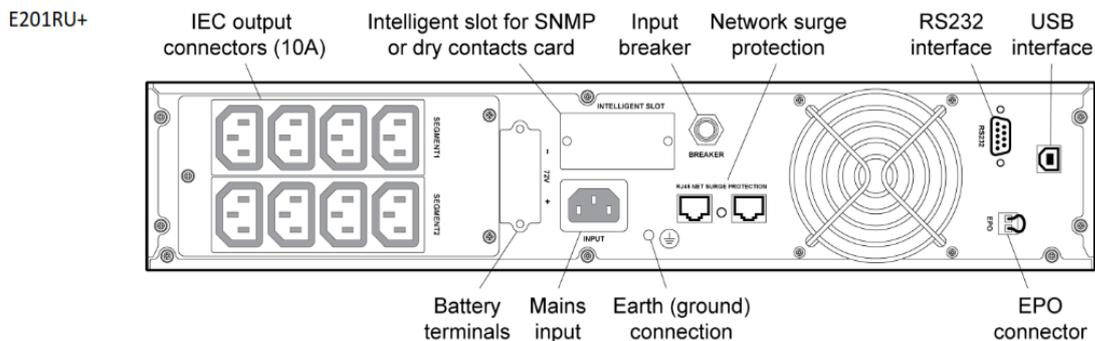
EMBS16/11/AR - Rack Mount EMBS for 3kVA UPS

EMBS16/11/PP - Wall Mount EMBS for 3kVA UPS

MODEL	E201RU	E203RU
<b>OVERVIEW</b>		
Active power (kVA)	1kVA	3kVA
Active power (kW)	1kW	3kW
Topology	True Online Rack / Tower UPS	
<b>INPUT</b>		
Number of phases	1P + N + E	
Connection Type	IEC-C14 x 1	IEC-C20 x 1
Nominal voltage	200 / 208 / 220 / 230 / 240 Vac	
Voltage Range	160 - 300 Vac	
Frequency Range	40Hz - 70Hz (Auto-Detect)	
Power Factor	>0.99	
<b>OUTPUT</b>		
Number of Phases	1P + N + E	
Connection Type	IEC-C13 x 8	IEC-C13 x 8; IEC-C19 x 1
Power factor	1.0pf	
Nominal voltage (V)	200 / 208 / 220 / 230 / 240Vac ± 1%	
Frequency Range	50 - 60 Hz ± 0.1Hz	
THD (Linear Load)	<3%	
THD (Non-Linear Load)	<6%	
Efficiency	up to 90%	up to 92%
Overload Capacity	105-110% for 10 Minutes, 111-130% for 1 Minute, >130% for 3 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	36VDC	72VDC
Battery Quantity	3 x 12V / 7Ah	6 x 12V / 7Ah
Backup Time @ Half Load	17 Minutes	11 Minutes
Backup Time @ Full Load	7 Minutes	5 Minutes
Charge Current	1A	
Recharge time	90% Capacity after 5 hours	
<b>EXTERNAL BATTERY PACKS</b>		
Battery Pack Model	EER201U	EER203U
Maximum Number of External Packs	4 Packs	
<b>ENVIRONMENT</b>		
Temperature	0 °C - +40 °C	
Relative Humidity	0-90%	
Altitude	<1500m	
Storage Temperature	-25 °C - +55 °C	
Noise Level	<50dB	
Heat Loss	0.14kW	0.26kW

MODEL	E201RU	E203RU
<b>DISPLAY</b>	Voltage / Frequency / Battery level / Backup Time / Output Load Watts & VA / Temperature	
LCD Measurements	Alarm / Bypass Mode / Battery Mode / Inverter Mode	
LED Indicators	Audible or Visual; Line Failure / Battery Low / Overload / System Fault	
Alarm (Audible / Visual)		
<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)	13.2kg	28.6kg
Dimensions (H x W x D)	86.5 x 440 x 430mm	86.5 x 440 x 600mm
Rack Space Required	2U	
<b>STANDARD ACCESSORIES</b>		
Manuals	User Manual	
Software	Only with SNMP Card	
Input Cables	3 Pin UK Plug	
Output Cables	IEC-C13 x 3	
Data Cables	RS232 & USB	
<b>OTHER</b>		
Standard Warranty Period	3 Years for Electronics / 1 Year for Batteries	
Recommended EMBS	EMBS10/11/AR or EMBS10/11/PP	EMBS16/11/AR or EMBS16/11/PP

## CONNECTIONS



# EER200U Series Battery Pack 1-3kVA

MODEL	EER201U	EER203U
Compatible UPS Model	E201RU	E203RU
<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	4	
Number of battery strings per pack	2	
Nominal voltage	36V	72V
<b>Battery Charger</b>		
AC Supply limits	208-256V	
Protection	Circuit breaker	
DC charge voltage	41.25V	82.5V
DC charge current	2A	
recharge time	8 hours to 90% capacity	
charger output protection	Fuse	
<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)	30kg	44.6kg
Dimensions (H x W x D)	86.5 x 440 x 430mm	86.5 x 440 x 710mm

Pack(QTY)	Autonomy Full Load (Minutes)				Autonomy Half Load (Minutes)			
	1	2	3	4	1	2	3	4
<b>UPS</b>								
<b>E201RU</b>	28	51	76	102	63	115	171	230
<b>E203RU</b>	18	33	50	67	41	75	112	151

# EERS203U Series Battery Pack 3kVA

MODEL	EERS203U
Compatible UPS Model	E203RU / E203RSU
BATTERY	
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	4
Number of battery strings per pack	1
Nominal voltage	72V
Battery Charger	
Protection	Circuit breaker
DC charge voltage	82.5V
DC charge current	2A supplied by own mains feed
recharge time	8 hours to 90% capacity
charger output protection	Fuse
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)	30kg
Dimensions (H x W x D)	86.5 (2U) x 440 x 460mm

Pack(QTY)	Autonomy Full Load (Minutes)				Autonomy Half Load (Minutes)			
	1	2	3	4	1	2	3	4
<b>UPS</b>								
<b>E203RU</b>	11	18	26	33	25	41	58	75
<b>E203RSU</b>	5	11	18	26	11	25	41	58

# EERS203U-4U Series Battery Pack 3kVA

MODEL	EERS203U
Compatible UPS Model	E203RU / E203RSU
BATTERY	
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	3
Number of battery strings per pack	3
Nominal voltage	72V
Battery Charger	
Protection	Circuit breaker
DC charge voltage	82.5V
DC charge current	Supplied by UPS
recharge time	8 hours to 90% capacity
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)	Autonomy Full Load (Minutes)			Autonomy Half Load (Minutes)		
	1	2	3	1	2	3
UPS						
E203RU	26	49	75	58	118	171
E203RSU	18	41	67	41	94	151



# DALE

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## 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**