

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

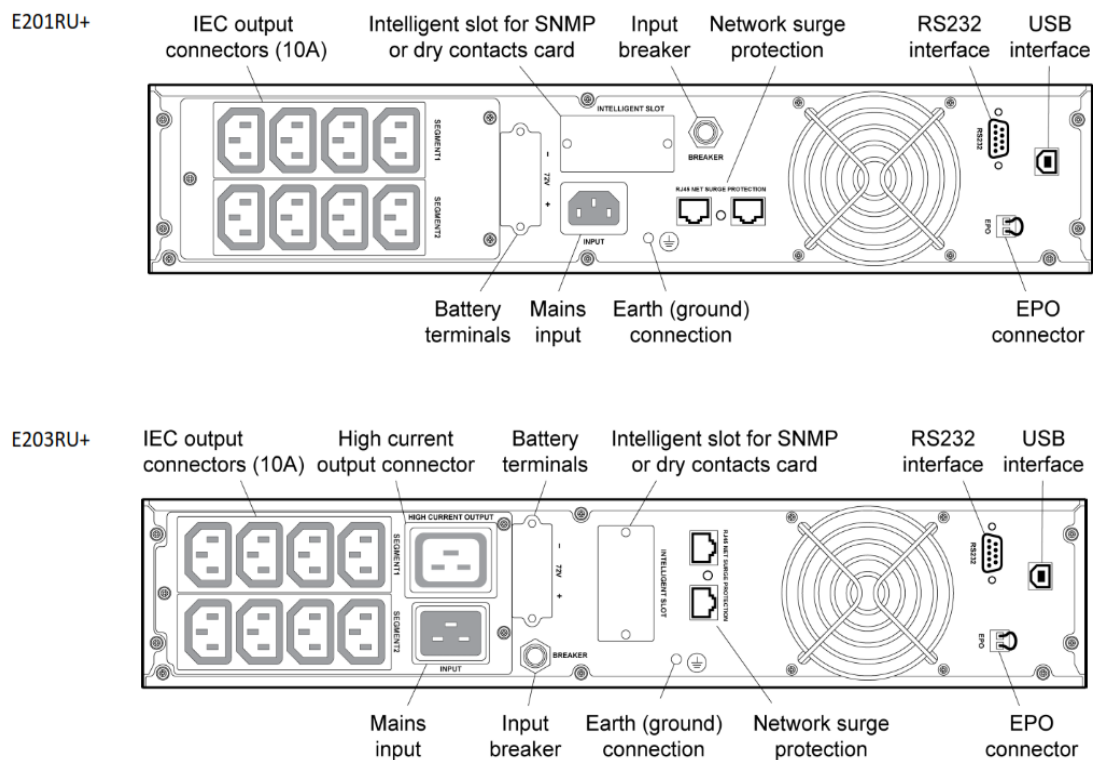
EMBS16/11/PP - Wall Mount EMBS for 3kVA UPS

MODEL
OVERVIEW
Active power (kVA)
Active power (kW)
Topology
INPUT
Number of phases
Connection Type
Nominal voltage
Voltage Range
Frequency Range
Power Factor
OUTPUT
Number of Phases
Connection Type
Power factor
Nominal voltage (V)
Frequency Range
THD (Linear Load)
THD (Non-Linear Load)
Efficiency
Overload Capacity
Crest Factor
Short Circuit Protection
Waveform
Transfer Time
BATTERIES
Battery Type
DC Voltage
Battery Quantity
Backup Time @ Half Load
Backup Time @ Full Load
Charge Current
Recharge time
EXTERNAL BATTERY PACKS
Battery Pack Model
Maximum Number of External Packs
ENVIRONMENT
Temperature
Relative Humidity
Altitude
Storage Temperature
Noise Level
Heat Loss

E201RU	E203RU
1kVA	3kVA
1kW	3kW
True Online Rack / Tower UPS	
1P + N + E	
IEC-C14 x 1	IEC-C20 x 1
200 / 208 / 220 / 230 / 240 Vac	
160 - 300 Vac	
40Hz - 70Hz (Auto-Detect)	
>0.99	
1P + N + E	
IEC-C13 x 8	IEC-C13 x 8; IEC-C19 x 1
1.0pf	
200 / 208 / 220 / 230 / 240Vac ± 1%	
50 - 60 Hz ± 0.1Hz	
<3%	
<6%	
up to 90%	up to 92%
105-110% for 10 Minutes, 111-130% for 1 Minute, >130% for 3 Seconds	
3:1	
Yes	
Pure Sinewave	
0mS	
10 Year VRLA	
36VDC	72VDC
3 x 12V / 7Ah	6 x 12V / 7Ah
17 Minutes	11 Minutes
7 Minutes	5 Minutes
1A	
90% Capacity after 5 hours	
EER201U	EER203U
4 Packs	
0 °C - +40 °C	
0-90%	
<1500m	
-25 °C - +55 °C	
<50dB	
0.14kW	0.26kW

MODEL	E201RU	E203RU
DISPLAY		
LCD Measurements	Voltage / Frequency / Battery level / Backup Time / Output Load Watts & VA / Temperature	
LED Indicators	Alarm / Bypass Mode / Battery Mode / Inverter Mode	
Alarm (Audible / Visual)	Audible or Visual; Line Failure / Battery Low / Overload / System Fault	
COMMUNICATIONS		
Standard	Standard RS232 / USB	
SNMP Card	E-SNMP/1-MINI (Optional)	
Alarm Card	E-RELAY/1-MINI (Optional)	
WEIGHTS & DIMENSIONS		
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	
STANDARD ACCESSORIES		
Manuals	User Manual	
Software	Only with SNMP Card	
Input Cables	3 Pin UK Plug	
Output Cables	IEC-C13 x 3	
Data Cables	RS232 & USB	
OTHER		
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
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	2	
Nominal voltage	36V	72V
Battery Charger		
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	
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	44.6kg
Dimensions (H x W x D)	86.5 x 440 x 430mm	86.5 x 440 x 710mm

Pack(QTY) UPS	Autonomy Full Load (Minutes)				Autonomy Half Load (Minutes)			
	1	2	3	4	1	2	3	4
E201RU	28	51	76	102	63	115	171	230
E203RU	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) UPS	Autonomy Full Load (Minutes)				Autonomy Half Load (Minutes)			
	1	2	3	4	1	2	3	4
E203RU	11	18	26	33	25	41	58	75
E203RSU	5	11	18	26	11	25	41	58

EERS203U-4U Series Battery Pack 3kVA

MODEL	EERS203U-4U
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) UPS	Autonomy Full Load (Minutes)			Autonomy Half Load (Minutes)		
	1	2	3	1	2	3
E203RU	26	49	75	58	118	171
E203RSU	18	41	67	41	94	151



DALE

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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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