

DATA SHEET

POWERLINE RT

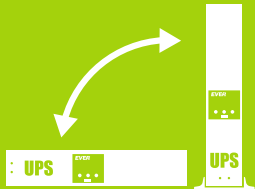
1/2/3 kVA



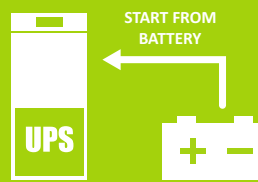
EPO (EMERGENCY POWER OFF)
DISCONNECT POWER
IN CASE OF FIRE



**RACK/TOWER
ENCLOSURE**



COLD START



**EXTERNAL
BATTERY MODULE(S)**



A series of double-conversion On-Line (VFI) topology UPS, which provides excellent protection for the connected receivers, such as computer systems, by filtrating disruptions on the receiver's power supply line.

FEATURES

- Rack/Tower enclosure
- Easy battery replacement
- Automatic detection of optional battery packs
- ECO mode enabling high efficiency
- Variable fan speed for noise reduction
- Remote Power On/Off (ROO) function
- Emergency Power Off automatic power-off system
- Microprocessor-based steering circuit for reliable operation

COMMUNICATION

- RS232 and USB communication interface
- NMP/HTTP network management card

PROTECTION

- Overload
- Short circuit
- Surge
- Thermal
- Battery

SUPPORT

- Door-to-door support
- 2 year warranty for the UPS
- 2 year warranty for batteries
- Repair in 5 business days



POWERLINE RT

1/2/3 kVA



TECHNICAL DATA

PARAMETERS \ TYPE	POWERLINE RT		
	POWERLINE RT 1000	POWERLINE RT 2000	POWERLINE RT 3000
Part number	T/PWRLRT-111K00/00	T/PWRLRT-112K00/00	T/PWRLRT-113K00/00
Output Power (Apparent / Active) ¹⁾	1000 VA / 800 W	2000 VA / 1600 W	3000 VA / 2400 W
GENERAL DATA AND ENVIRONMENTAL			
Topology	VFI (on-line, VFI-SS-111)		
Number of phases (in/out)	1 / 1		
Housing Type ²⁾	Rack / Tower		
Max efficiency (double conversion mode)	86 %	88 %	90 %
Max efficiency (ECO mode)	> 93 %		
Operating temperature ³⁾	0 ÷ +40 °C		
Storage temperature	-15 ÷ +40 °C with batteries -25 ÷ +50 °C without batteries		
Relative humidity during operation	< 95% (non-condensing)		
Relative humidity during storage	< 95% (non-condensing)		
Operating elevation ⁴⁾	< 3000 m		
Protection level	IP20		
Environment of installation	Office / industrial rooms with low level of pollution		
Cooling	Forced, internal fans		
Temperature of the cooling air	< 25°C		
Quantity of heat released for nominal work conditions	< 450 BTU / h	< 750 BTU / h	< 1000 BTU / h
INPUT			
Nominal input voltage	230 V AC		
Input voltage range and tolerance	120 ÷ 275 V AC ± 2%	140 ÷ 275 V AC ± 2%	
Rated current	6 A	12 A	16 A
Input voltage rated frequency	50 / 60 Hz		
Input voltage frequency range and tolerance	40 / 70 Hz (range of synchronization input-output: 50/60Hz: ± 5 %)		
Input Power Factor	≥ 0,99		
Input current distortion (THDi)	< 8%		

Note: The manufacturer reserves the right to modify the above parameters without prior notification

Notes:

- 1) For standard operation, the load applied to the output must not exceed 80% of the value in the table. The power margin is necessary to ensure continuous work of the connected devices in the case of instantaneous surges of the load.
- 2) The rack kit available as an option.
- 3) For UPS with internal batteries 5 ÷ 35 °C. Constant exposure of the battery module to temperatures of +25°C reduces the battery life.
- 4) The permitted maximum load of the power supply unit decreases with the height above the sea level above the limit specified above.

EPO

EPO (Emergency Power Off) is a mechanism that allows to interrupt energy supply to loads from the output of UPS in extreme situations (e.g. fire). The mechanism may be triggered by opening a dedicated pins attached to the external connectors located on the rear side of the housing or induced remotely from the user interface.

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OUTPUT			
Nominal output voltage	230 V AC		
Output voltage range and tolerance - normal mode ⁵⁾	200 V AC / 208 V AC / 220 V AC / 230 V AC / 240 V AC ± 2 % (Output voltage value set with LCD panel. Default 230 V AC)		
Output voltage range and tolerance - battery mode ⁵⁾	200 V AC / 208 V AC / 220 V AC / 230 V AC / 240 V AC ± 2 % (Output voltage value set with LCD panel. Default 230 V AC)		
Shape of output voltage (battery mode / normal mode)	sine-wave / sine-wave		
Output voltage rated frequency	50 / 60 Hz		
Output frequency range and tolerance - mains operation mode	50 / 60 Hz ± 0,5% (The same as the input or selected in mode frequency conversion)		
Output frequency range and tolerance - battery mode	50 Hz ± 0,5%		
Output voltage regulation	± 1%		
Output voltage distortion THDu	≤ 4% for Pmax (line) ≤ 6% (nonline)		
Crest Factor CF	3:1		
Transfer time to battery mode	0 ms		
Transfer time to normal mode	0 ms		
Overload capability ⁶⁾	< 110% - warning 111% ÷ 135% - 12 s (UPS to bypass) > 135% - 1,5 s (UPS off)		
BATTERIES AND TYPICAL RUNTIME			
Internal Batteries	12 V / 9 Ah VRLA	12 V / 9 Ah VRLA	
Number of internal batteries	1 x 3	1 x 6	
Maximum overall internal batteries capacity	9 Ah		
External battery modules (EBM)	Yes		
Maximum number of EBMs	4		
Backup time - internal batteries (100 % / 80 % / 50 % Pmax)	8 / 12 / 20 min	8 / 12 / 20 min	3 / 6 / 12 min
Backup time - internal batteries + EBM (100%/80%/50%Pmax)	26 / 37 / 78 min	26 / 37 / 78 min	20 / 28 / 41 min
Nominal voltage DC circuit	36 V DC	72 V DC	
Internal batteries maximum charging time - after discharging at 80 % Pmax	≤ 4 h		
Maximum charging current	1,2 A		
MECHANICAL SPECIFICATIONS			
Dimensions (H x W x D)	86 (2U) x 438 x 482 mm	86 (2U) x 438 x 658 mm	
Net Weight ⁷⁾	18,5 kg	30,5 kg	31 kg
Gross Weight ⁷⁾	22 kg	35 kg	36 kg
Transport Dimensions (H x W x D)	245 x 530 x 625 mm	230 x 585 x 880 mm	
Position in which devices transported	Horizontal		

Note: The manufacturer reserves the right to modify the above parameters without prior notification

Notes:

- 5) Set by user software or LCD display. For the rated output voltage of 200 V there is 20% output power reduction. For the rated output voltage of 208 V there is 10% output power reduction
- 6) With long-term operation of the load of the recommended values.

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Output Power (Apparent / Active) ⁷⁾	1000 VA / 800 W	2000 VA / 1600 W	3000 VA / 2400 W
PROTECT			
Input over current protection	Short-circuit protection – Circuit breaker 10 A / 250 V AC	Short-circuit protection – Circuit breaker 12 A / 250 V AC	Short-circuit protection – Circuit breaker 16 A / 250 V AC
	Surge Protection		
Output over current protection	Inverter working – electronic short-circuit and overload protection		
ACCESSORY AND EXTRA FUNCTIONS			
Power supply connection	1 x IEC 320 C14 (10 A)	1 x IEC 320 C20 (16 A)	
Output connection (number and type of sockets)	3 x IEC 320 C13 (10A) of them controllable (2 groups) 3 x IEC 320 C13 (10A)	3 x IEC 320 C13 (10A) of them controllable (2 groups) 3 x IEC 320 C13 (10A) 1 x IEC 320 C19 (16A)	
EPO / ROO	Yes (NC) / Yes		
Signalling	Acoustic and optical; LCD display		
Communications interfaces	RS232, USB, Port RJ11 – port for battery pack detection cable, network management card SNMP / HTTP – (optional), AS 400 card - optional		
Software	PowerSoft Professional		
GREENPOWER activation threshold ⁸⁾	< 45 W		
CERTIFICATION			
Declarations	CE		
Standards	PN-EN 62040-1:2009, PN-EN 62040-2:2008		

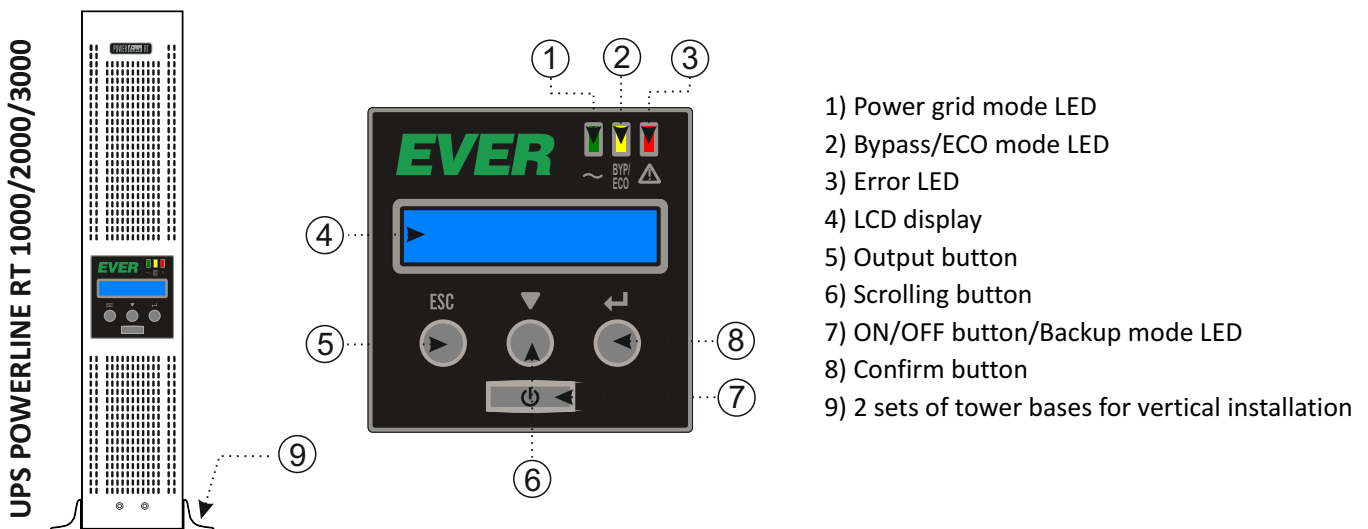
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Notes:

7) Weight for the typical battery.

8) In battery mode with no load or load less than threshold value, UPS turn off automatically after 5 minutes.

UPS STRUCTURE-FRONT PANEL

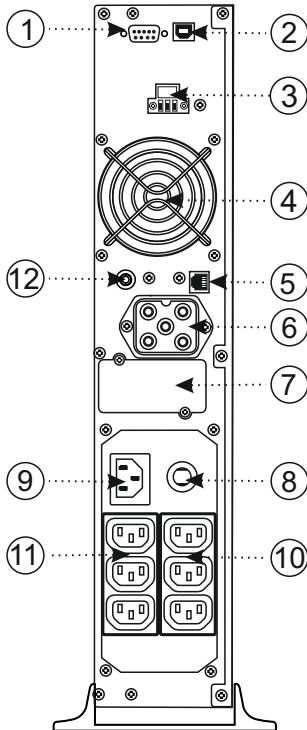


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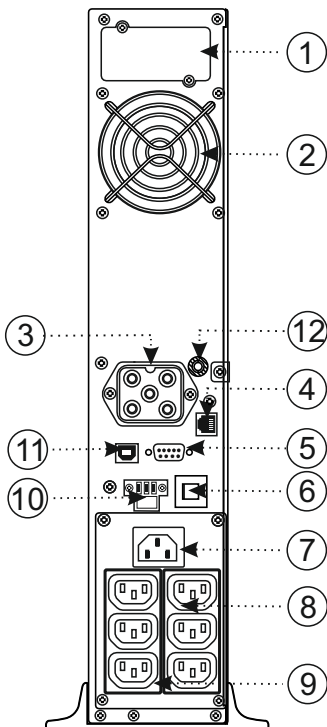


UPS STRUCTURE-BACK PANEL



UPS POWERLINE RT 1000

- 1) RS232 port
- 2) USB port
- 3) ROO/EPO terminals
- 4) Fan
- 5) RJ11 port battery module detection
- 6) Supply interface to connect an external battery pack
- 7) SNMP card socket
- 8) Input circuit protection automatic fuse
- 9) Power supply input socket
- 10) Non-controlled 10 A output sockets
- 11) Controlled 10 A output sockets (group 1 and 2)
- 12) Earthing bolt



UPS POWERLINE RT 2000

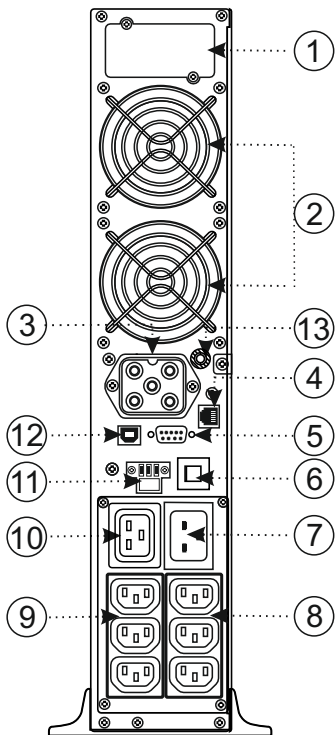
- 1) SNMP card socket
- 2) Fan
- 3) Supply interface to connect an external battery pack
- 4) RJ11 port battery module detection
- 5) RS232 port
- 6) Input circuit protection automatic fuse
- 7) Power supply input socket
- 8) Non-controlled 10 A output sockets
- 9) Controlled 10 A output sockets (group 1 and 2)
- 10) ROO/EPO terminals
- 11) USB port
- 12) Earthing bolt

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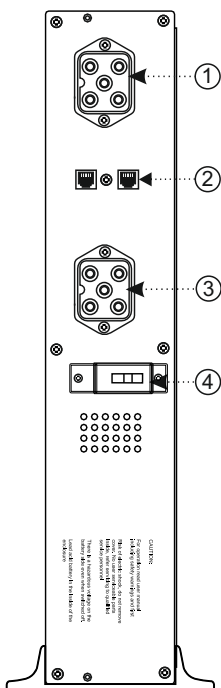


UPS STRUCTURE-BACK PANEL

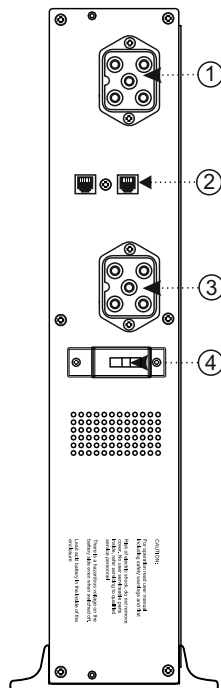


- 1) SNMP card socket
- 2) Fans
- 3) Supply interface to connect an external battery pack
- 4) RJ11 port battery module detection
- 5) RS232 port
- 6) Input circuit protection automatic fuse
- 7) Power supply input socket
- 8) Non-controlled 10 A output sockets
- 9) Controlled 10 A output sockets (group 1 and 2)
- 10) 16 A output sockets
- 11) ROO/EPO terminals
- 12) USB port
- 13) Earthing bolt

UPS POWERLINE RT 3000



**POWERLINE RT 1000
BATTERY PACK**



**POWERLINE RT 2000 / 3000
BATTERY PACK**

- 1) Battery pack power supply interface
- 2) RJ11 port - signal lead
- 3) Battery pack power supply interface
- 4) Current protection