EVER POWER SYSTEMS

ENSURE CONTINUITY OF POWER SUPPLY

DATA SHEET

ECO Pro AVR CDS 19" 2U

700/1000/1200 VA

WARRANTY 3 YEARS

CLEAR DIGITAL SINUS SYSTEM (CDS)

INCREASING AVR

IEC 320 OUTPUT OUTLETS

ECO Pro AVR CDS 19" 2U series UPS units provide protection against power drops and losses in the grid, consequently increasing the life and reliability of the connected equipment. The ECO PRO AVR CDS 19" 2U units were designed to protect **PCs**, **DTP stations** and **work stations**, **cash registers**, **CCTV** and **ICT equipment** from random, uncontrolled power losses.

FEATURES

- **AVR** is a system that regulates (**increases**) the mains voltage automatically, by adapting incorrect input voltage to a level that is acceptable to the receivers, without the use of the battery.
- The **USB HID** communication interface is compliant with HID Power Devices - the UPS can operate with other devices without the necessity to install software (the UPS is detected in the system as a battery).
- **Operating time prediction** - for determining the UPS autonomous operation (in back-up mode) in real time, through Powersoft**.**
- **Cold start** - for starting the device in battery mode, without connection to the mains.
- **3 x IEC 320 C13** outputs.
- **2 x PN-E-93201** outputs (Polish standard).
- **Sound / visual signal** (LED indicating UPS operating status).
- **Powersoft**, monitoring and management software - a free app for integrating UPS devices with operating systems.

The ECO Pro AVR CDS 19" 2U series is equipped with unique systems developed by EVER engineers:

- **CDS - Clear Digital Sinus** - system that enables the battery back-up to generate true sine wave output voltage in battery operation mode,
- **CBC - Cool Battery Charging** - quick and efficient charging system that cuts charging time and extends the operating life of the back-up's accumulators.

PROTECTION

- Overload
- Short circuit
- Surge

SERVICE

- Door-to-door support
- 3-year warranty for the UPS
- 2-year warranty for batteries
- Execution in 14 working days

ECO Pro AVR CDS 19" 2U

700/1000/1200 VA

TECHNICAL DATA

PARAMETERS \ TYPE	ECO Pro 700 AVR CDS 19'' 2U	ECO Pro 1000 AVR CDS 19'' 2U	ECO Pro 1200 AVR CDS 19'' 2U
Part number	W/EAVRRM-000K70/00	W/EAVRRM-001K00/00	W/EAVRRM-001K20/00
Output Power (Apparent / Active) [1]	700 VA / 420 W	1000 VA / 650 W	1200 VA / 780 W
GENERAL DATA AND ENVIRONMENTAL			
Topology	VI (line interactive)		
Number of phases (in/out)	1 / 1		
Housing Type	Rack		
Operating temperature [2]	0 ÷ + 40 °C		
Storage temperature	0 ÷ + 40 °C		
Relative humidity during operation	20 ÷ 80 % (non-condensing)		
Relative humidity during storage	20 ÷ 95 % (non-condensing)		
Operating elevation [3]	< 1000 m		
Protection level	IP20		
Environment of installation	Office / industrial rooms with low level of pollution		
Cooling	Gravity		
INPUT			
Rated input voltage	230 V AC		
Input voltage range and tolerance	168 ÷ 264 V AC ± 2 %		
Input voltage rated frequency	50 Hz		
Input voltage frequency range and tolerance	45 ÷ 55 Hz ± 1 Hz		
Transfer thresholds: Mains – UPS	184 ÷ 264 V AC ± 2 %		
OUTPUT			
Rated output voltage	230 V AC		
Output voltage range and tolerance - normal mode [4]	184 ÷ 264 V AC ± 2 %		
Output voltage range and tolerance - battery mode	230 V AC ± 5 %		
Automatic Voltage Regulation (AVR)	+ 10 %		
Shape of output voltage (battery mode / normal mode)	Sine wave / same as input		
Output voltage rated frequency	50 Hz		
Output frequency range and tolerance – mains operation mode	Synchronously		
Output frequency range and tolerance – battery mode	50 Hz ± 1Hz		
Output voltage filtering	RFI/EMI filter, varistor TVSS		
Transfer thresholds: UPS– Mains	189 ÷ 259 V AC ± 2 %		
Transfer time to battery mode	< 3 ms		
Transfer time to normal mode	0 ms		
Overload capability	> 105% - 3 s (UPS off – battery mode) >120% (UPS off – battery mode)		
BATTERIES AND TYPICAL RUNTIME			
Internal Batteries	12 V / 7 Ah VRLA	12 V / 5 Ah VRLA	
Number of internal batteries	1	2	
Maximum overall internal batteries capacity	7 Ah	5 Ah	
Backup time – internal batteries (100 % / 80 % / 50 % Pmax)	1 / 2 / 5 min	2 / 4 / 8 min	1 / 2 / 3 min
Nominal voltage DC circuit	12 V DC	24 V DC	
Internal batteries maximum charging time – after discharging at 80 % Pmax *	7 h	5 h	

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

* Charging time to 90% battery capacity.

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) Constant exposure of the battery module to temperatures of +25°C reduces the battery life.
3) The permitted maximum load of the power supply unit decreases with the height above the sea level above the limit specified above.
4) The default configuration of the voltage range of the output (RMS): 195 ÷ 253 V AC. The value configurable from the software PowerSoft Professional

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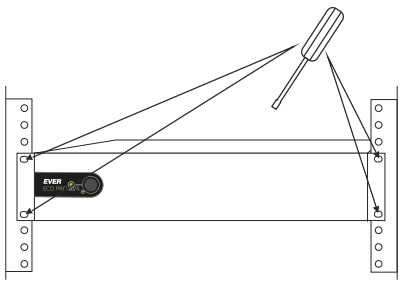
Part number	W/EAVRRM-000K70/00	W/EAVRRM-001K00/00	W/EAVRRM-001K20/00
Output Power (Apparent / Active) [1]	700 VA / 420 W	1000 VA / 650 W	1200 VA / 780 W
MECHANICAL SPECIFICATIONS			
Dimensions (H x W x D)	88 (2U) x 485 (19'') x 200 mm		
Net Weight	8,50 kg	11,40 kg	
Gross Weight	9,40 kg	12,10 kg	
Transport Dimensions (H x W x D)	160 x 505 x 260 mm		
Position in which devices transported	Horizontal		
Output cables maximum length	< 10 m		
PROTECT			
Input over current protection	Short-circuit protection – Circuit breaker 6 A / 250 V AC Surge Protection		
Output over current protection	Electronic short-circuit and overload protection		
ACCESSORY AND EXTRA FUNCTIONS			
Power supply connection	Power cord ended with plug with ground terminal 16A (PN-E-93201:1997) + uni-schuko		
Output connection (number and type of sockets)	3 x IEC320 C13 (10 A) 2 x PN-E-93201 (10 A)		
Signalling	Acoustic and optical; LED		
Communications interfaces	USB HID		
Software	PowerSoft Professional		
CERTIFICATION			
Declarations	CE		
Standards	PN-EN 62040-1:2009, PN-EN 62040-2:2008		

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

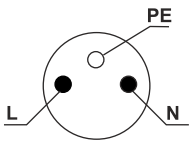
Notes:

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.

MOUNTING THE BATTERY BACK-UP

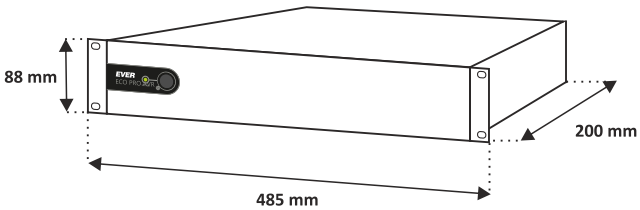


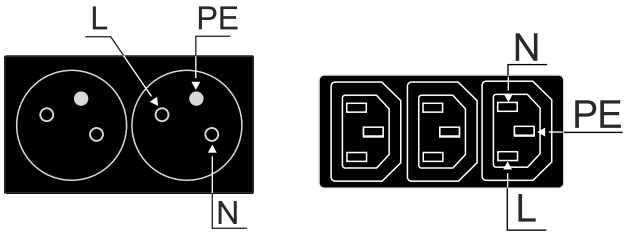
1) Slide the UPS onto the rack's frame
2) Move the front handles to the rack's frame and screw them down.



Power socket pin configuration

DIMENSIONS





Output socket pin configuration

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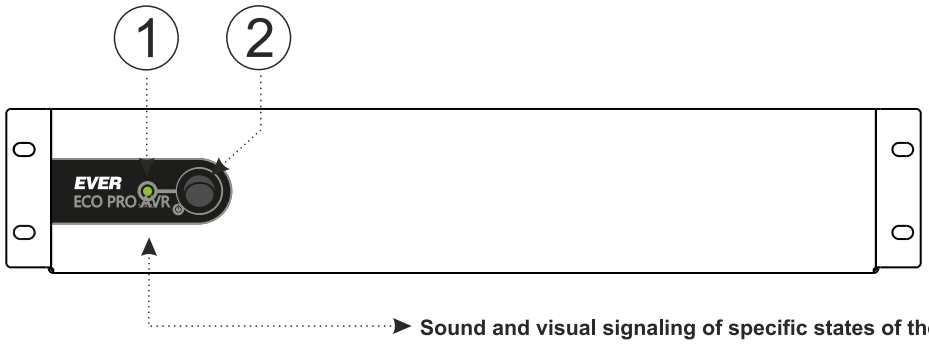
FRONT PANEL



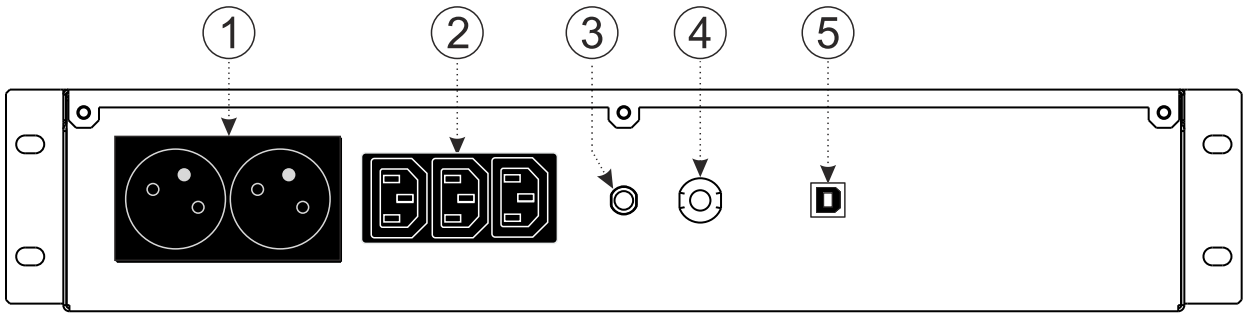
Sound and visual signaling of specific states of the UPS unit

1) Signalling LED.
2) Power switch.

Event	Sound signal	Visual signal
MAINS (normal) mode	No sound signal.	Green LED on.
BACK-UP (battery) mode	Intermittent signal; frequency increases proportionally to the level of discharging of the batteries, until it turns into a continuous sound. Can be activated / deactivated through Powersoft.	Amber LED on.
Switching to the STANDBY mode	Sound signal (100 ms ON / 30 ms OFF / 100 ms ON / 2500 ms OFF).	Amber LED pulsating (100 ms ON / 30 ms OFF / 100 ms ON / 2500 ms OFF).
Battery charging	No sound signal	The Green LED is pulsating (2250 ms ON / 250 ms OFF).
Overload *	Continuous sound signal.	The LED corresponding to the selected operating mode is on (MAINS or BACK-UP mode).
Short circuit in the UPS output	Quick intermittent signal.	Red LED on.

* The overload signaling time in back-up mode is 3 seconds. Afterwards the UPS switches to emergency mode. Continuous sound signal and Red LED on.

REAR PANEL



1) Output sockets PN-E-93201 (10 A)
2) Output sockets 3 x IEC 320 C13 (10 A).
3) Automatic fuse.
4) Power cord.
5) USB communication port.

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