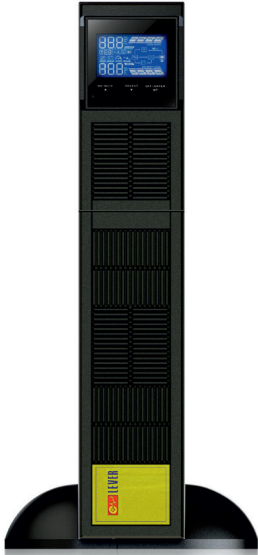


ECR1000 UPS ONLINE

1000 - 10000 VA Rack/Tower Convertible



Compact and Reliable Power Protection for:

- Servers, IT and network equipment
- Office telecommunication and security systems
- Medical, diagnostic and test devices
- Bank and Finance applications
- Chemical and Manufacturing process
- Auxiliary and Emergency care systems

Advanced Technology and Optimal Power Performances

A true double conversion UPS will provide clean, high level quality power to fully protect mission-critical devices. The DSP controller provides an improved and cost-effective solution with highest performance. ECR1000 Series is designed in true universal-mount case. It can be easily installed as floor-standing tower or in 19-inch rackmount bracket. All the accessories for both fittings are supplied in the packaging.

ECR1000 is a excellent density UPS with output power factor 0,9 to provide higher performance and efficiency to critical applications.

The wide input voltage range (110V-300V) assures power supply to connected devices under extremely unstable network, protecting the batteries life. ECR1000 is input low impact with almost unitary power factor and negligible harmonic distortion, fully generator compatible without power oversizing.

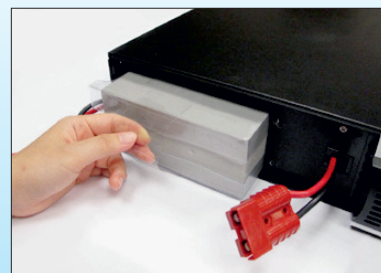
All models have the back-feed protection and **Emergency Power Off (EPO)** input to secure the personnel and equipment in case of emergency cases.

With **programmable power management outlets**, users can easily and independently control loads segments. During power failure, this feature enables users to extend battery time to mission-critical devices shutting down the non-critical loads.

ECR1000 is fit out with various outlets types (IEC, Schuko, NEMA, etc.).

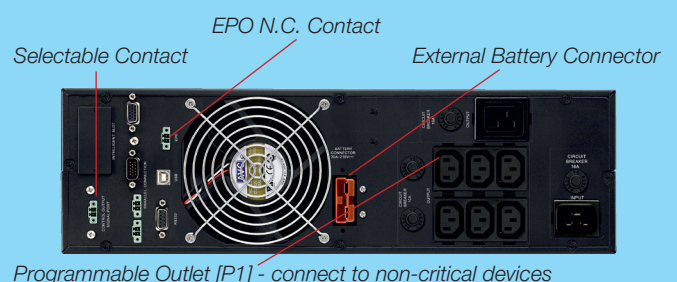
Hot-Swappable Battery Design for all models

This design ensures easy operation, clean and uninterruptible power to protected equipment during battery replacement.



ECR1000 is as standard **with internal battery and DC connector for additional battery packs** for scalable runtime; the version ECR1000SC without battery and integrated super charger for long back time.

ECR1000 models are equipped with **programmable output contact** to drive remote control system.



ECR1000 1000/2000/3000VA Technical Guide

MODEL	ECR1101	ECR1101SC	ECR1102	ECR1102SC	ECR1103	ECR1103SC
CAPACITY [VA/W]	1000/900	1000/800	2000/1800	2000/1600	3000/2700	3000/2400
INPUT						
Nominal Voltage	200/208/220/230/240 Vac or 100/110/115/120/127 *Vac					
Voltage Range	110-300 Vac \pm 5% or 50-150 Vac \pm 5%					
Frequency Range	40 \div 70 Hz					
Power Factor	\geq 0,99 @ Nominal Voltage (100% load)					
OUTPUT						
Selectable Voltage	200/208/220/230/240 Vac or 100/110/115/120/127 Vac					
AC Voltage Reg. (Batt. Mode)	\pm 1%					
Freq. Range (Synch. Mode)	47 \div 53 Hz or 57 \div 63 Hz					
Freq. Range (Batt. Mode)	50 \pm 0.5 Hz or 60 \pm 0.5 Hz					
Current Crest Ratio	5:1 (max)					
Harmonic Distortion	\leq 2% THD (linear load); \leq 8% (non-linear load)					
Transfer Time AC to Batt. Mode	0 ms					
Inverter to Bypass	< 4 ms (Typical)					
EFFICIENCY						
AC Mode	87%		90%			
Battery Mode	83%		88%			
BATTERY						
VRLA Type	12V / 9Ah	External	12V / 9Ah	External	12V / 9Ah	External
Numbers	2		4		6	
Charging Current (max.)	1 A	8 A	1 A	8 A	1 A	8 A
Charging Voltage	27.4 Vdc \pm 1%		54.7 Vdc \pm 1%		82.1 Vdc \pm 1%	
INDICATORS						
LCD Display	Load level, Battery level, AC mode, Battery mode, Bypass mode, Fault indicator					
ALARMS						
Battery Mode	Sounding every 4 seconds					
Low Battery	Sounding every second					
Overload	Sounding twice every second					
Fault	Continuously sounding					
GENERAL						
Dimensions (WxDxH)	438 x 380 x 88 [2U]		438 x 480 x 88 [2U]		438 x 600 x 88 [2U]	
Weight (kgs)	13	9	21	11	28	14
Noise level	< 50dB @ 1m					
Environment	Temperature 0 \div 40°C ; Humidity <90%					
Interface port	USB and RS232; EPO; Intellislot for optional SNMP, AS400, ModBus cards					

* Derate capacity to 95% when the output voltage is adjusted to 115V and derate to 90% when the output voltage is adjusted to 110Vac and derate capacity to 80% when the voltage is adjusted to 100Vac.

** Product specifications are subject to change without further notice.

ECR1000 Battery Pack

UPS Power [VA]	Part Number	N. Batt.	Type	Dimensions WxDxH [mm]	Weight [kgs]
1000	BER2020000	0	-	438 x 380 x 88 [2U]	6
	BER2020077	4	12V / 7Ah		16
	BER2020099	4	12V / 9Ah		17
2000	BER2040000	0	-	438 x 480 x 88 [2U]	8
	BER2040077	8	12V / 7Ah		28
	BER2040099	8	12V / 9Ah		30
3000	BER2060000	0	-	438 x 600 x 88 [2U]	10
	BER2060077	12	12V / 7Ah		40
	BER2060099	12	12V / 9Ah		43
6000/1000	BER1200000	0	-	438 x 580 x 133 [3U]	10
	BER1200007	20	12V / 7Ah		57
	BER1200009	20	12V / 9Ah		63

Note: Further battery pack configuration are available. Contact: info@lever.it

All ECR1000 are CE and UL certified and comply with standards: IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC62040-1, IEC61040-2 and IEC60950-1; UL1778.



Parallel operation up to 3 UPS

Flexible and Reliable Configurations for all needs

ECR1000 Series has selectable operation modes: **Single, N+X Parallel Redundant for 6kVA and up models, Hot Standby, Ecomode, 50/60 Hz Frequency Converter.**

For genuinely redundant power protection, ECR1000 6-10kVA can either be used in parallel operation up to 3 units or hot standby mode. Slave UPS will back up the load in the event of critical component failure. It increase power safety and availability only adding an auxiliary cable.

Setting the output frequency 50 or 60Hz as different the input will feed equipment as frequency converter.

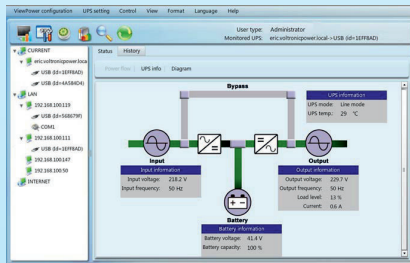
ECO mode operation offers efficiency as high as 98% to cut energy usage & cost. UPS power application via static bypass, timely returning to online double conversion when the need arises.

User-friendly and easy - shift LCD Display

The front can be easily shifted through LCD setting to suit the installation format, vertically stand or flat wall mount.

Monitoring Software ViewPower - UPS Management

All ECR1000 units are endowed with CD ViewPower Software and communication cable.



- Allows control and monitoring of multiple UPSs via local PC, LAN or Internet
- User-friendly power analysis graphs
- Real-time dynamic graphs of UPS data
- Safely OS shutdown and protection from data loss during power failure
- Warning notifications via audible alarm, broadcast, mobile messenger and email
- Scheduled UPS on/off, battery test, programmable outlet control and audible alarm
- Password security
- Supports multiple OS and local languages

1-3kVA LCD

6-10kVA LCD



Self-Oriented Display Panel

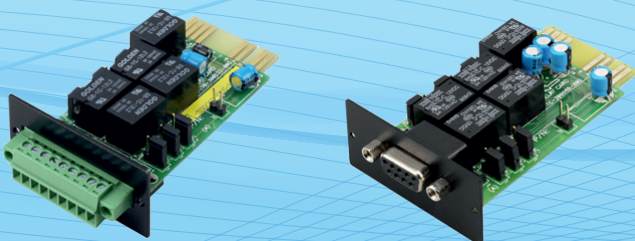
Accessories for Remote Control

SNMP Card



- Allows control and monitoring of multiple UPS through RJ-45 network connection
- Real-time dynamic graphs of UPS data (voltage, frequency, load and battery levels)
- Warning notifications via audible alarm, broadcast, mobile messenger
- Historical data log stored in centralized PC database
- Simple firmware upgrade with one click
- Password security protection and remote access management
- Supports optional environmental monitoring detector for temperature, humidity and smoke

AS400 card with dry-contact signals (9pins or RS232 interface)



ModBus Card



ECR1000 6000/10000VA Technical Guide

MODEL	ECR1106	ECR1106SC	ECR1110	ECR1110SC
CAPACITY [VA/W]	6000/5400		10000/9000	
INPUT				
Nominal Voltage	200/208/220/230/240 Vac			
Voltage Range	110–300 Vac @ 50% load or 176–300 Vac @ 100% load			
Frequency Range	46 ÷ 64 Hz			
Power Factor	≥ 0,99 @ Nominal Voltage (100% load)			
OUTPUT				
Selectable Voltage	200/208/220/230/240 Vac			
AC Voltage Reg. (Batt. Mode)	± 1%			
Freq. Range (Synch. Mode)	46÷54 Hz or 56÷64 Hz			
Freq. Range (Batt. Mode)	50/60 ± 0.1 Hz			
Current Crest Ratio	3:1 (max.)			
Harmonic Distortion	≤ 3% THD (linear load); ≤ 6% (non-linear load)			
Transfer Time AC to Batt. Mode	0 ms			
Inverter to Bypass	0 ms			
EFFICIENCY				
AC Mode	90%			
Battery Mode	88%			
BATTERY				
VRLA Type	12V / 7Ah	External	12V / 9Ah	External
Numbers	20 (selectable 18-20)			
Charging Current (max.)	1A	4A	1A	4A
Charging Voltage	273 Vdc ± 1% (based on battery number at 20pcs)			
GENERAL				
Dimensions (WxDxH)	ECR1106 unit: 438 x 580 x 133	ECR1106SC unit: 438 x 580 x 133	ECR1110 unit: 438 x 668 x 133	ECR1110SC unit: 438 x 668 x 133
	BER1200007: 438 x 580 x 133	-	BER1200009: 438 x 580 x 133	-
Weight (kgs)	20	20	24	24
	57	-	63	-
Noise level	< 58dB @ 1m		< 60dB @ 1m	
Environment	Temperature 0÷40°C ; Humidity <90%			
Interface port	USB and RS232; Dry contact, EPO; Intellislot for optional SNMP, AS400, ModBus card			

PDU and Maintenance Bypass Switch

The Maintenance Bypass Switch MBSTR assures continuous power to critical devices during UPS maintenance.



MBSTR16 Box for 1-3kVA

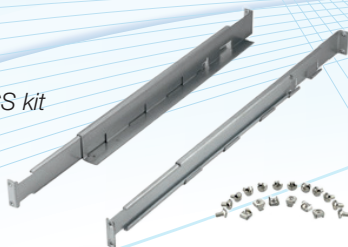


MBSTR50 Box for 6-10kVA

Rackmount Slider

Simple installation for mounting ECR1000 in all cabinet 19-inches for server rack or industrial instruments.

ECR1000-RCS kit



Automatic Transfer Switch (ATS) 16A single-phase

To ensure redundancy for very critical loads supplied by ECR1000 1-3kVA, it's possible hot-standby mode through an external transfer switch unit (ATS). This product is designed with two independent power inlets to supply power to the load from a primary power source. Should primary power source fails, the secondary will automatically back up the connected equipment without any interruption. The transfer time from one line to another is seamless to the connected equipment. After switching to a secondary power source, the ATS can also switch power back to the primary input when power to the primary input is restored.



ECR1000-ATS16

The ATS has common and individual outlets, moreover has a USB/RS232 ports for monitoring the status of the input sources and output.

