

# Innovative Efficient Power Systems

REL2900EGX-31 Series

6-20KVA P.F. 1.0

## 3-Phase in 1-Phase out UPS Systems

True Online Pure Sinewave Industrial Protection Systems for

Security & Safety Systems

IT & Network Systems

Medical Equipment

Telecom Systems

Aviation Systems

PLCs



## Salient Features:

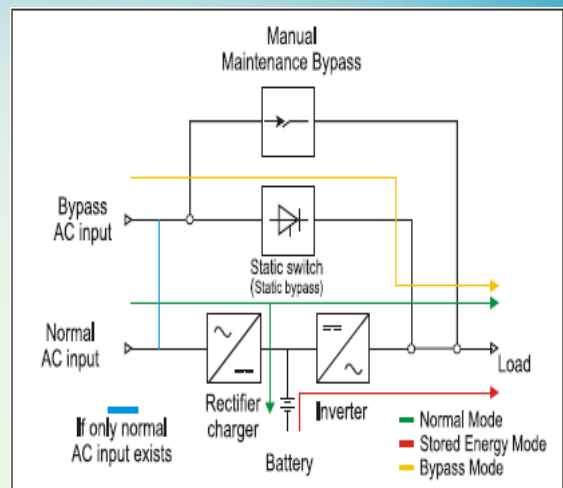
- Wide Input Voltage Range
- Output Power Factor 1.0
- Built-in Isolation Transformer
- Three Phase & Ingle Phase Input settable
- Advanced Communication Options (Wi-Fi, GPRS, SMS etc)
- Split Bypass / Dual Input Option
- Static Bypass and Maintenance Bypass
- Cold-Start function for UPS start without Input power
- Intelligent Fan Speed Control Technology as per Load variations
- The UPS can be set to operate as Frequency Converter
- UPS Monitoring option via RS232, RS485, USB, SNMP, Dry Contacts
- Advance Battery Charge Control Function increases battery life and saves cost.
- Auto-Restart Function
- Configurable Battery group Voltage 192-240VDC
- REL2900EGX-31 is a comprehensively designed UPS System to bring Reliability to critical load.
- High Frequency, True Online, Double-Conversion UPS System
- DSP Digital Control Technology
- Auto Frequency Sensing
- Energy Saving ECO Mode
- Input Power Factor Correction (PFC)
- Field Selectable Battery shutdown (EOD)
- Self-Diagnostics on Power-ON
- Protections against Short Circuit, Overload, Over-Temperature, Over Voltage
- EMD, LBS & Parallel Options
- Battery Temperature compensation option



Introduction to REL2900EGX-31 Series True Online Sine Wave UPS System::

REL2900EGX-31 is a True Online, Pure Sinewave, Double Conversion and DSP Controlled UPS System. The UPS System protects your critical load by eliminating the Utility Power fluctuations, Sags and Surges and Failures by inherent Voltage regulation function and Battery Bank Support. The UPS System consists of A Rectifier/ Charger Assembly, An Inverter Assembly, Static Bypass Assembly, Manual Maintenance Bypass Assembly and a Battery Bank as shown in the Figure.

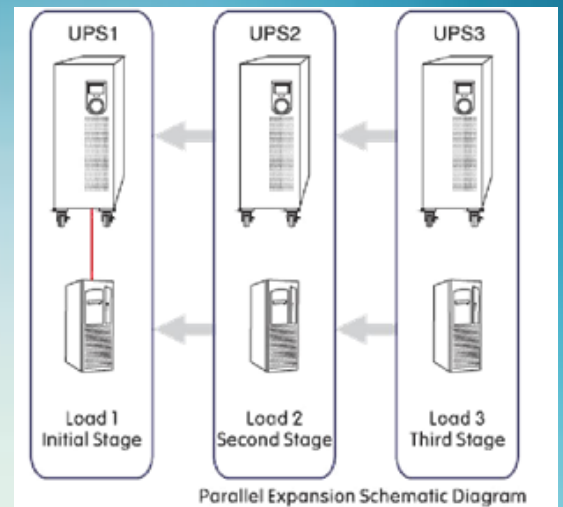
REL2900EGX-31 Series has the unique capability to be upgraded as the customer power needs grow. Just simply install a similar rating UPS to existing UPS and you will have double the power for your load. REL2900EGX-31 provides clean and protected power free of site voltage and frequency fluctuation. Your equipment always receive a stabilized power thru the UPS Inverter and built-in AVR function. The REL2900EGX-31 provides backup power thru built-in batteries and keeps your critical load protected at all times. The battery autonomy time can be increased to any duration by installing External Battery Banks.



### Highly Reliable Parallel Redundancy Function

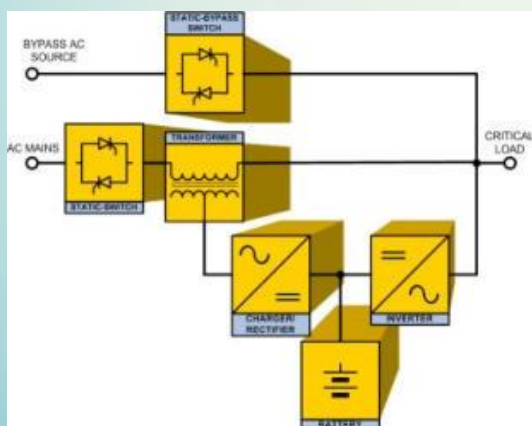
REL2900EGX-31 UPS System power is field upgradeable by installing up to 4 parallel units of same rating. It adopts digital control technology to achieve parallel redundancy function for on-site upgrade. This helps the user less investment as their business grow and site power consumption increases.

N+1 Redundancy configuration enhances critical Load protection by making one UPS Redundant all the times. This means there will always be an extra UPS available to support critical equipment at any time. If any of the installed UPS Systems fails, the redundant UPS keeps providing high quality uninterrupted power to load thereby increasing the operation reliability. Moreover the Advanced Load Management Technology equally shares load current between installed UPS Systems and thereby prolongs the UPS service life.



### User-Friendly Mimic Display Panel Design

REL2900EGX-31 Mimic Display Panel at front is designed to be very user-friendly which is quickly understandable and used without engineering knowledge or detailed trainings. The mimic panel provides user with complete UPS Operational Status with advanced control technology LED and LCD Displays.



## UPS VISUAL DESCRIPTION



### Rear Panel

1. Mains Input
2. DC Input
3. Bypass Input
4. Output
5. Mains Input Breaker
6. Bypass Input Breaker
7. Maintenance Bypass
8. Fan
9. RS232
10. USB
11. EPO
12. BAT\_NTC (optional)
13. SNMP (optional)
14. AS400/RS485 (optional)
15. Parallel Card (optional)

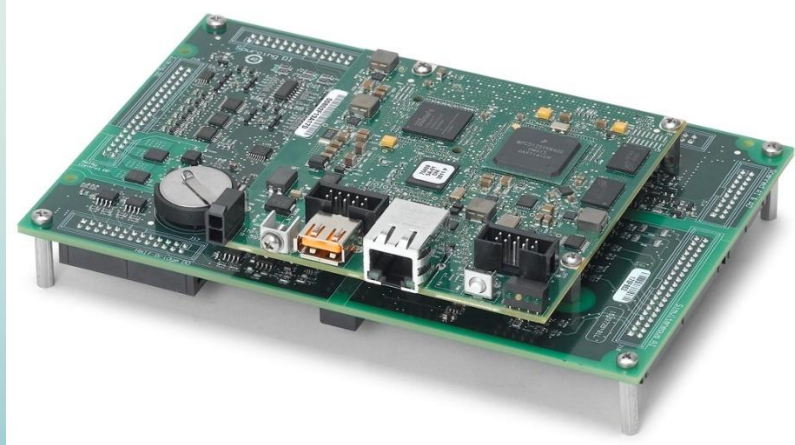


## REL2900EGX-31 Series 3 Phase in 1-Phase out UPS System

### Technical Specifications:

Model	6KVA	10KVA	15KVA	20KVA
Nominal Capacity	6KW	10KW	15KW	20KW
Max No. of Parallel Units	4			
Input Voltage	3-Phase 380VAC $\pm 25$ (480/440/400/220/208VAC Customized options available)			
Input V Range	305-485Vac (No de-rating) @380V nominal			
Input Frequency	50/60Hz $\pm 10\%$ Auto-Sense			
Input Freq. Range	40-70Hz			
Input Power Factor	$> 0.99$			
THDI	$< 3\%$			
Bypass Voltage	1-Phase 220VAC $\pm 25$ (277/254/230/127/120VAC Customized options available)			
Bypass V Range	$-60\%$ to $+20\%$ (Settable)			
Output Voltage	1-Phase 220VAC $\pm 25$ (277/254/230/127/120VAC Customized options available)			
Output V Regulation	$\pm 1\%$			
Output Frequency	50/60Hz $\pm 0.1\%$			
Transient Response	$\pm 4\%$ (100% Loading)			
Waveform	Sinusoidal			
THDV	$< 1\%$ (Linear Load); $< 5\%$ (Non-Linear Load)			
Inverter Overload Capability	105%- 110% 60 Minutes on Inverter then Transfer to Bypass (with overload Alarm)			
	110%- 125% 10 Minutes on Inverter then Transfer to Bypass (with overload Alarm)			
	125% - 150% 60 Seconds on Inverter then Transfer to Bypass (with overload Alarm)			
	$> 150\%$ 0.2 Second on Inverter then Transfer to Bypass (with overload Alarm)			
Crest Factor	3:1			
Battery Type	VR-SLA, Lithium Ion or Ni-Cd Batteries			
D.C. Voltage	192 VDC to 240VDC Configurable			
Re-Charge Time	Standard Batteries Recharge to 90% within 4-hours Extended Backup Batteries Recharge according to Battery Capacity			
Efficiency	$> 96\%$ ECO Mode 99%			

Model	6KVA	10KVA	15KVA	20KVA
Nominal Capacity	6KW	10KW	15KW	20KW
Transfer Time	Mains to Battery Mode 0 mille-second; Inverter to Bypass Mode 0 mille-second			
Protection	Over Current, Over Voltage, UV, Short Circuit, Battery Overcharge, High Temp.			
EMI	IEC/EN62040-2			
EMC	IEC61000-4-2(ESD); IEC61000-4-3(RS); IEC61000-4-2(EFT); IEC61000-4-5(Surge)			
Alarms	Mains Failure; Battery Mode, Low Battery; UPS Overload; Fan Fault, General Fault,			
LED display	Mains Status, Bypass Operation, Inverter Operation, Low Battery warning, Over Load, General Fault etc.			
LCD display	UPS status with Digital Readings for Input & Output Voltages, Battery Voltage, Input and Output Frequency, Power in KVA & KW for each Phase, Load Percentage etc.			
Communication	Wi-Fi, GPRS, SMS, RS232, RS485, USB, SNMP, AS400-Dry Contacts Options for Remote Monitoring and Power Management			
Operating Temperature	0°C - 50°C			
Operating Altitude	<1000 Meters Normal Operation; 1% degradation of Power Factor for each 100 meters higher to a max. of 4000 meters			
Humidity RH	0%-90% No Condensation			
Noise	<65 db			
UPS Dimensions D x W x H mm	262mm * 712mm * 732mm (S) 262mm * 519mm * 732mm (H)		350mm * 745mm * 1183mm (S) 350mm * 630mm * 838mm (H)	
Net Weight (Kg)	120-S / 75-H		256-S / 142-H	
Gross Weight (Kg)	132-S / 85-H		271-S / 157-H	



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