



RELIABILITY Power Systems

REL2931G4 RT 10 ~ 20KVA

True Online Dual Conversion UPS System

www.reliability-power.com

REL2931G4 RT

10 kVA ~ 20 kVA

(3:1 / 1:1)

PF 1.0



Features

- Advanced DSP and 3-level technology
- Output power factor 1.0
- Active power factor correction (APFC), input power factor up to 0.99
- High efficiency 95% (up to 98% in ECO mode)
- Advanced digital parallel technology
- 3:1 to 1:1 model settable
- Wide input voltage range (190 ~ 478 Vac) and frequency range (40 ~ 70 Hz)
- 50 / 60 Hz frequency auto sensing
- Two modes of frequency conversion: 50 Hz input / 60 Hz output or 60 Hz input / 50 Hz output
- Dual-input design, supporting independent bypass
- Hot-swappable battery (10 kVA)
- Flexible battery configuration (settable 16 - 20 pcs batteries)
- Digitally controlled charger
- High charging current available (Max. 10 A)
- Charging voltage and current configured by demands
- Linear derating in low voltage input reducing battery discharging times, extending the service life of battery
- Intelligent battery management, automatic floating / equalizing charge control, charger dormancy control, increasing battery life by 50%

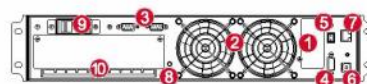
- Ability to switch on the UPS with batteries
- Settable delayed start time when mains power is restored, reducing the impact on power grid or generator
- Fan speed varies intelligently with temperature, reducing noise and extending its service life
- Equipped with self-aging function
- Compact internal layout, miniaturized the complete unit for small footprint
- LCD+LED display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration
- Advanced multi-platform communications: RS232, USB, RS485, SNMP and dry contacts communication interfaces
- Effective software and hardware protection function, robust self-diagnostic function, and abundant event log for check

Available Options

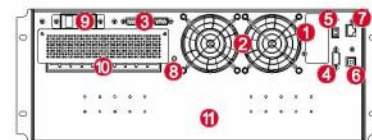
- RS232 and smart card slot included
- Optional parallel function, battery temperature compensation, SNMP card, USB, RS485 card, dry contacts, EMD, and SMS alarms

Rear Panel

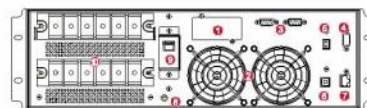
1. Intelligent Slot
2. Fans
3. Parallel Port (optional)
4. RS232
5. EPO
6. USB (optional)
7. Temperature Detection (optional)
8. GND
9. Bypass Breaker
10. Terminal and Cover
11. Battery Pack



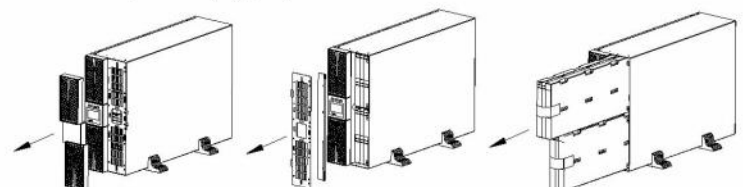
10 kVA (H) (3:1)



10 kVA (S) (3:1)



15/20 kVA (H) (3:1)



Easy for maintenance, hot-swappable battery (10 kVA)

Specifications

MODEL			
Capacity	10 kVA / 10 kW	15 kVA / 15 kW	20 kVA / 20 kW
INPUT			
Input wiring	Three-phase five-wire (3 Φ + N + PE)		
Rated voltage	380 / 400 / 415 Vac		
Voltage range	190 ~ 304 Vac (linear derating between 50% and 100% load); 304 ~ 478 Vac (no derating)		
Rated frequency	50 / 60 Hz (auto-sensing)		
Frequency range	40 ~ 70 Hz		
Power factor	≥ 0.99		
Bypass voltage range	- 40% ~ +15% (settable)		
Total harmonic distortion (THDi)	$\leq 5\%$		
OUTPUT			
Output wiring	Single-phase (L-N)		
Rated voltage	208 (PF=0.9) / 220 / 230 / 240 Vac		
Voltage regulation	$\pm 1\%$		
Frequency	Synchronized to bypass in mains mode; 50 / 60 Hz $\pm 0.1\%$ Hz in battery mode		
Waveform	Sinusoidal		
Power factor	1		
Total harmonic distortion (THDv)	$\leq 1\%$ (linear load); $\leq 3\%$ (non-linear load)		
Crest factor	3:1		
Overload	102% ~ 110% for 10 min, 110% ~ 125% for 1 min, 125% ~ 150% for 30 s		
BATTERIES			
DC voltage	192 Vdc (192 ~ 240 Vdc settable)		
Number of battery	16 pcs (16 ~ 20 settable)		
Inbuilt battery (standard model)	12 V / 9 Ah \times 16	/	/
Charging current	Standard model: 1 A; Long time model: 5 A (default), 1 ~ 5 A settable; 10 A (optional)		
Recharge time	Standard model: 90% capacity restored in 8 hours; Long time model: depend on the capacity of battery		
SYSTEM			
Efficiency	$\geq 94\%$ at 100% load, max. 95% at 60% load, $\geq 98\%$ in ECO mode		
Transfer time	0 ms		
Protections	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure		
Max. number of parallel connections	4		
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP / battery temperature compensation (optional)		
Display	LCD + LED		
OTHERS			
Operating temperature	0°C ~ 40°C		
Storage temperature	-25°C ~ 55°C (without battery)		
Relative humidity	0 ~ 95% (non-condensing)		
Altitude	≤ 1000 m, derating 1% for each additional 100 m		
IP rating	IP 20		
Noise level at 1 m	≤ 58 dB		
Dimensions (W \times D \times H) (mm)	440 \times 650 \times 88 (H) 440 \times 660 \times 176 (S)	440 \times 780 \times 132	
Packaged dimensions (W \times D \times H) (mm)	514 \times 696 \times 168 (H) 554 \times 792 \times 418 (S)	554 \times 792 \times 400	
Net weight (kg)	17 (H), 67 (S)	25.5	
Gross weight (kg)	19 (H), 77 (S)	28	

- S means standard model; H means long time model.
- All specifications are subject to change without notice.

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