



RELIABILITY Power Systems

REL2900RT 5 ~ 50KVA

True Online Dual Conversion UPS System

www.reliability-power.com

REL2900RT

Working Mode: 3Ph in 3Ph Out Online RT UPS

Power range: 5kVA—50kVA



■ Fully digital control

- Digital control process (DSP) makes the system more stable and reliable

■ Parallel redundancy function

- Parallel redundancy design, up to 6 units available, makes the configuration more flexible
- Support sharing batteries for the UPS in parallel

■ Power saving

- High input power factor, it can be up to 0.99
- Three level inverter topology, the efficiency can be up to 95.5%

■ Safty and reliable protection

- Power up self-diagnosis function
- Output overload, output short circuit, inverter over temperature, battery under voltage warning and battery overcharge protection
- Static electronic bypass switches
- Cold (DC) start function
- Fan intelligent speed regulation design, prolong fan life, high efficiency and energy saving

■ Flexible battery configuration

- Batteries number of each group can be selected form 30 pcs to 50 pcs

■ LBS function

- Load Bus synchronization can realize 2 independent UPS system work in synchronization, and it enhances the reliability of the system

■ Intelligent Charging Method

- The series UPS adopts advanced three-stage charging method:
 - stage-1: high current constant current charging to guarantee to charge back to 90%;
 - stage-2: Constant Voltage, in order to vitalize battery and make sure batteries are fully charged
 - stage-3: floating mode.
 With these three stage charging method, it extends the life of the batteries and guarantees fast charging.

■ Strong load capacity

- Output power factor is 1.0, UPS can support 100% unbalance load

■ Flexible Installation

- Supports 19-inch rack mounting and tower mounting

■ Intelligent Monitoring Function

- RS232/RS485 communication interface
- USB interface
- Parallel interface
- SNMP card(optional)
- Relay card (optional)
- Battery temperature compensation adapter (optional)

■ EPO Function

- The series UPS may be completely shut off when the EPO is pressed. REPO function (Remote EPO) is also available in this series UPS.

Technical Specification

MODEL		REL2900RT					
Capacity (VA/Watts)	5/10kVA 5/10kW	15kVA 15kW	20kVA 20kW	25kVA 25kW	30kVA 30kW	40kVA 40kW	50kVA 50kW
INPUT							
Nominal voltage	380/400/415Vac, (3Ph+N+PE)						
Operating voltage range	138~485Vac						
Operating frequency range	40Hz~70Hz						
Power factor	≥0.99						
Harmonic distortion (THDi)	≤3% (100%non-linear load)						
Bypass voltage range	220Vac Max.voltage: +25%(optional +10%,+15%,+20%) 230Vac Max.voltage: +20%(optional +10%,+15%) 240Vac Max.voltage: +15%(optional +10%) Min. voltage: -45% (optional -20%,-30%) Frequency synchronize tracing range: ± 10%						
Generator input	Support						
OUTPUT							
Output voltage	380/400/415Vac (3Ph+N+PE)						
Voltage regulation	± 1%						
Power factor	1.0						
Output frequency	1.Line Mode: synchronize with input; when input frequency > ± 10% (± 1%/ ± 2%/ ± 4%/ ± 5% optional) 2.Battery Mode:50/60*(1 ± 0.02%)Hz						
Crest factor	3:1						
Harmonic distortion (THD)	≤2% with linear load ≤4% with non linear load						
Efficiency	95.5%						
BATTERY							
Battery voltage	Optional Voltage: ± 180V/ ± 192V/ ± 204V/ ± 216V/ ± 228V/ ± 240/ ± 252/ ± 264/ ± 276/ ± 288/ ± 300Vdc (30/32/34/36/38/40/42/44/46/48/50pcs optional) 360Vdc~600Vdc (30~50 pcs, 30 pcs define, 36~50 pcs no power derating; 32~34 pcs output power factor 0.9; 30 pcs output power factor 0.8;)						
Charge Current(A) (charge current can be set according to battery capacity installed)	Max. current 18A			Max. current 20A			
SYSTEM FEATURES							
Transfer time	Utility to Battery : 0ms; Utility to bypass: 0ms						
Overload	Load ≤ 110%: last 60min, ≤ 125%: last 10min, >150%: last 1min						
Alarm	overload, utility abnormal, UPS fault, battery low, etc.						
Backfeed	Support						
Protection	short circuit, overload, over temperature, battery low, fan fault alarm.						
Communication	10~30kVA	USB, RS232, RS485, Parallel port, Dry contact port, REPO port, Backfeed port, Intelligent slot, SNMP card (optional)					
	40~50kVA	USB, RS232, RS485, Parallel port, REPO port, LBS port, Backfeed port, Intelligent slot, SNMP card (optional), Relay card (optional)					
ENVIRONMENTAL							
Operating temperature	0℃ ~ 40℃						
Storage temperature	-25℃ ~ 55℃ (no battery)						
Humidity range	0 ~ 95% (non condensing)						
Altitude	< 1500m.When>1500m,lower the rated power for use						
Noise level	<55dB			<56dB		<58dB	
PHYSICAL							
Dimension D × W × H (mm)	670 × 440 × 130(3U)				800 × 440 × 175 (4U)		
Net weight (kg)	25	27 ~ 28			45	48	
STANDARDS							
Safety	IEC/EN62040-1,IEC/EN60950-1						
EMC	IEC/EN62040-3,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8						

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