

PRODUCT PROFILE

BULLETIN 1609-P

INDUSTRIAL DOUBLE CONVERSION ON-LINE UPS

Rockwell Automation has expanded its offering of industrial uninterruptible power supplies to include higher range products with the highest level of power protection available.

The new 1609-P industrial high density double conversion on-line UPS line is available in a 3-10KVA power range for both 208/230V applications. Additionally, the 3KVA is also available in 120V.

Rated for industrial use, these devices offer extremely tight voltage and frequency regulation, internal bypass, and input power factor correction to minimize downtime and ease disruption to your equipment.

Units are assembled in a tower configuration for typical installation outside the panel.

The 1609-P line has the capability for remote monitoring through the RS232 serial port or the Network Management Card. The Network Management Card enables the product to be monitored through RSView or via the on-board web browser.

Accessories include: external battery packs for increased run time, control transformer to step down voltage to 120V and a rack mount kit to convert the tower into a rack mount construction.



FEATURES:

- **Extended runtime:** external battery packs allow for a quick addition or runtime when needed
- **Battery management system:** an intelligent battery management system results in maximizing battery performance, life and reliability.
- **Comprehensive Network Management:** for data logging, web browser accessibility, fault notification and customizable output relays. The NMC comes standard with the 5, 8, and 10KVA units. Also available with an environmental probe.
- **Hot-swappable batteries:** replaceable batteries with no disruption to your equipment
- **Automatic internal bypass:** minimizes downtime by automatically diverting power to utility power in the event of an UPS failure or overload
- **High density double conversion on-line design:** The 1609-P offers optimal performance in an industrial environment. It provides power conditioning with a pure sine wave output in addition to zero transfer time to battery.
- **Power conditioning:** protects connected loads from surges, spikes and other power disturbances.
- **Frequency and voltage regulation:** battery life extended by regulating voltage/frequency without discharging the battery

AB Parts

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PARAMETERS

Model		1609-P3000N	1609-P3000H	1609-P3000A	1609-P5000E	1609-P8000E	1609-P10000E	
Input	V nom (VAC)	120	208	230	208/230	208/230	208/230	
	Voltage Range, default (VAC)	90V - 150	160-280					
	Current (Amps)	Nominal- 20 Maximum- 28	Nominal- 11 Maximum- 14	Nominal- 11 Maximum- 14	Nominal- 19 Maximum- 24	Nominal- 30 Maximum- 40	Nominal- 39 Maximum- 48	
	Capacity	3000 VA / 2100 W			5000VA / 3500W	8000W / 6400 W	10000 VA/ 8000 W	
	Freq	45 to 65 Hz Self Sensing						
	PFC	> 0.95						
	Protection	N/A	N/A	N/A	N/A	70 Amp input circuit breaker		
Output	V nom	120	208	208	208	208	208	
	Capacity	3000 VA / 2100 W			5000VA / 3500W	8000W / 6400 W	10000 VA/ 8000 W	
	Protection	3-15 A circuit breaker	1- 20 A circuit breaker	3- 15A circuit breakers	3- 15A circuit breakers	N/A	N/A	
On Battery	Frequency	Nominal +/- 3 Hz						
	Reg.	+/- 2% static +/- 5% dynamic	+/- 1% static, +/- 5% dynamic					
	THD	<5% at full load						
	Crest Factor	3:01						
Efficiency	On battery	86%						
	On Line	88%						
Protection	Surge	IEC 1000-4-4						
	Overload	125%- 1 Minute, 150% -30 seconds						
	Output Short	Input circuit breakers and / or premises branch protection						
	Thermal protection	Yes						
	By-pass	N/A						
Regulatory	Safety	UL 1778, cULus, IEC 60950		EN 61000-3-2	UL 1778, cULus, IEC 60950			
	EMC	FCC (Class A)		EN 50091-2	FCC (Class A), EN 50091-2			
	Markings	cULus, CSA		CE	cULus, CSA, CE			
Battery Pack	Run Time	5-7 minutes						
	Type	Sealed lead acid, valve regulated hot swappable user replaceable						
	Voltage	192V						
	Charger	Temperature compensated current limited, float charger						
	Recharge Time	< 3 hours to 90% capacity	< 3 hours to 85% capacity					
	Lifetime	2 - 4 years @ 25C ambient						
Environment	Temperature	0 to 40C (operating) -20 to 60C (storage)						
	Altitude	10,000 ft (Operating)						
	Humidity	0 - 95% non-condensing (operating)						
	Heat output (Full Load)	655 BTU/HR			1040 BTU/HR	1536 BTU/HR	2216 BTU/HR	
	Audible Noise	< 50 dB at 1 meter (Full load)	< 55 dB at 1 meter (Full load)					
Rear Panel	AC outlets	(6) NEMA 5-15 (2) NEMA 5-20	(2) L6-20 (2) L6-30	(8)IEC C13 (2)IEC C19	(12)IEC C13 (2)IEC C19			
	AC inlet	NEMA L5-30	L6-30	IEC C-14	IEC C-20	3 position terminal blocks		
Communication	DB9	Serial and Contact Closures						
	EPO	Via contact closure						
	Network	Via optional 1609-NMC (Standard with all products > 3KVA)						
Indicators and Controls	LED status	On-line						
		In Bypass mode						
		On Battery						
		Overload and Replace Battery						
		Fault						
		Bar graph for Load						
		Bar graph for Battery Fuel Gauge						
		Measured input voltage indicated by bar graph when recessed switch is held						
	Control Audible	(Front panel) On/self-test/alarm silence/cold start/load off						
		On battery - 4 short beeps repeat about 20 seconds (mutable)						
		Low battery - persistent 1/2 second beep every 1 second (mutable)						
		In Bypass-Continuous Beeping						
Failure - continuous tone								
Replace battery - occasional, on/off change – single beep								