

Product Details and Certifications

Cross Reference RA Part Number: 1609-U500N A

 Product: **1609-U500N**

Description: 1609-U Uninterruptible Power Supply, 500VA (325 Watts), 120V AC



Representative Photo Only (actual product may vary based on configuration sections)

POWER SUPPLY DATA

Bulletin Number	1609 Power Supplies
Power Supply Type	Uninterruptible Power Supply
Rated Output Power	500VA (325 W)
Input/Output Voltage	115V AC

CERTIFICATIONS AND APPROVALS

UL
CE
CSA
FCC

For UL Certifications Directory:

<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

Industrial Uninterruptible Power Supply

Catalog Number Explanation/ Product Selection/ Accessories

Catalog Number Explanation

➔
1609
-
U
500
N

a
b
c
d
e

a

Power Supply Type	
Code	Description
U	Uninterruptible Power Supply

c

Input/Output Voltage	
Code	Description
N	115V AC
E	208/230V AC

e

Network Management	
Code	Description
C	NMC included
	Can be left blank

b

Rated Output Power	
Code	Description
500	500VA (325 W)

d

Special Functions	
Code	Description
S	Standard Battery
H	High Temp. Battery
H	Can be left blank

Product Selection

Output Power	Input Voltage	Operating Temperature	Cat. No.	
			Without Network Management Card	With Network Management Card
500VA (325 W)	120V AC	0...40 °C	1609-U500NS	1609-U500NSC
		0...50 °C	1609-U500NH	1609-U500NHC
	208/230V AC	0...40 °C	1609-U500ES	1609-U500ESC
		0...50 °C	1609-U500EH	1609-U500EHC

Accessories

Description	Output Power	Cat. No.
40 °C replacement battery	500VA (325 W)	1609-500SBAT
50 °C replacement battery	500VA (325 W)	1609-500HBAT
Network management card		1609-NMC
Remote start cable		1609-RSC

Industrial Uninterruptible Power Supply

Specifications

Electrical Ratings		1609-U500N . . .	1609-U500E . . .	Notes
Input	V nom.	120V	230V	—
	Capacity	500VA (325 W)		Transfer points adjustable via software. Low transfer points for the 120V/230V are: 106V, 103V, 100V, 97V and 208V, 200V, 192V respectively. High transfer points for the 120V/230V are: 127V, 130V, 133V, 136V and 253V, 257V, 261V, 265V respectively.
	Voltage Range, default	81...143V	160...287V	Transfer points adjustable via software.
	Voltage Range, widest, on line	75...153V	150...300V	—
	Current nom.	4.12 A	2.20 A	—
	Capacity Frequency	47...63 Hz		Auto-adjusting
Output	PFC	Load power factor is reflected in the input line current		—
	V nom.	120V	208/230V	—
On Line	Capacity	500VA (325 W)		—
	Output Range, default	106...127V	208...253V	This voltage range is the default, controlled by transfer points coded in the UPS
	Output Voltage Range, widest	97...136V	196...265V	By setting the highest, high transfer point and the lowest, low transfer point with software
On Battery	Transfer Point Accuracy	+/- (2% of the transfer voltage + 1.3)	+/- (2% of the transfer voltage + 2.6)	In volts AC
	Frequency	Nominal +/- 3 Hz (Locked), Nominal +/- 0.5 Hz (Free-running) +/- 2%		Typical
	THD	<5% at full (linear) load +/- 2%		Typical
Efficiency	Crest Factor	3:1		—
	On Battery	77%		Typical with resistive load
Protection	On Line	96%		Typical with resistive load
	Surge	EN50091-2		—
	Overload	On Line: alarm at 107%, limited by breakers On Battery: shutdown at 107%		—
	Output Short On Line	Input circuit breakers and/or premises branch protection		—
	Output Short On Battery	Electric current limit, shutdown outputs, and latch off		—
	Thermal Protection	None		—
	Bypass	N/A		—
Regulatory	Safety	UL 1778, CSA, IEC 60950	UL 1778, CSA, IEC 60950-1, EN50091-1-1	—
	EMC	FCC (Class A)	EN50091-2 (Class A)	—
	Markings	UL, CSA, FCC, CE	UL, CSA, FCC, CE	—
Battery Pack	Run Time	9.0 minutes (0.67 p.f.) 18 minutes (0.67 p.f.)		325 W full load 163 W half load
	Type	Standard: Sealed Lead Acid, valve regulated High Temp.: Sealed Lead Battery		Hot swappable, user replaceable
	Voltage	24V		—
	Charger	Temperature compensated current limited, float charger		—
	Recharge Time	Less than 3 hours to 90% capacity		—
	Lifetime	2...4 years @ 25 °C ambient		—
Environment	Temperature	0...40 °C (operating), 0...50 °C (operating - high temp. option) -20...60 °C (short-term storage)		—
	Altitude	10 000 ft (operating)		Maximum power is derated at higher altitudes
	Humidity	0...95% non-condensing (operating)		—
	Heat Output	On Line, Full Load: 137 BTU per hour On Line, Full Load, Charging: 190 BTU per hour On Battery, Full Load: 1706 BTU per hour		—
	Audible Noise	<45 dB @ 1 meter (full load)		Typical
Communication	DB9	Serial and Contact Closures		Serial communication only when USB is unused
	Dry Contact	Low battery, on battery		N.O., N.C. options for both
	EPO	Via Dry Contact Closure		—
	Network	Via optional Smart-Slot Card (1609-NMC)		—

Notes

208V AC applications: The 1609-U500E ships ready for 230V AC sources. When operating the UPS in 208V AC applications, the UPS low transfer voltage settings are adjusted through the PowerChute® software or the Network Management Card.

Refer to the PowerChute® User Guide or the Network Management Card instructions for details.

ATTENTION



- Wiring of the UPS should be performed by a qualified electrician. Use appropriate size wires.
- In 230V AC applications, the UPS must be protected with a circuit breaker that complies with European standards for branch rated protection per the country of installation.
- In 208V AC applications, the UPS must be protected by a dual-pole, 10 A branch rated, UL 489 circuit breaker.
- The 120V AC 1609-U500N has supplementary circuit breaker protection. The unit should be protected by a single-pole, 15 A branch rated, UL 489 circuit breaker. Allen-Bradley part number 1492-MCAA115 is suggested.
- The branch circuit breaker must be off prior to wiring the unit.