

LA-3098 AC Adapter Manual

Version A

June 10, 2023



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REVISION HISTORY

Revision	Date	Description
1.0	11/17/2012	Initial version
1.1	06/17/2021	Updated to new template; proofread.
A	06/10/2023	Formal Release

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1 PURPOSE

This document describes the electrical and mechanical interfaces of the LA-3098 AC Adapter.

The LA-3098 AC adapter is designed to work with any of the A3LA-R and A3LA-RA modem /tracker series as shown in **Figure 1**. It can be connected directly to an Iridium modem/tracker using an RS232/data cable model HRC24-7R, HRC-24-7RA, or HRC-24-8R as depicted in **Figure 2**.



Model A3LA-R-MIL-MOD



Model A3LA-RG-MIL



Model A3LA-RM-MIL



Model A3LA-RS

Figure 1: A3LA-R series



Figure 2: LA-3098 connected to an A3LA-R via the HRC-24-8R DB25 Data Kit

2 DESIGN SPECIFICATIONS

2.1 INPUT SPECIFICATIONS

Voltage Range:	100VAC to 240VAC
Line Frequency:	47Hz to 63Hz
Minimum Input Voltage:	90VAC
Maximum Input Voltage:	264VAC
Maximum Input Current:	0.8A at 100VAC
AC Rush Current:	Limited to 30A at 100VA

2.2 OUTPUT SPECIFICATIONS

Output Voltage Range:	4.2VDC to 4.8VDC
Minimum Load:	0A
Maximum Load:	4A
Line Regulation:	Within 1%
Ripple Voltage at 4.5VDC:	50mV peak-to-peak
Efficiency:	70% typical at 100VAC
Maximum Output Power:	Limited to 20W
Reliability:	MTBF exceeds 50,000 hrs in accordance with MIL-STD-HDBK-217

2.3 ENVIRONMENTAL SPECIFICATIONS

Operating Temperature:	32°F to 104°F (0°C to 40°C)
Relative Humidity:	< 90%
Altitude:	< 7,000 ft
Storage Temperature:	-4°F to 176°F (-20°C to 80°C)
Storage Humidity:	< 90%

2.4 MECHANICAL SPECIFICATIONS

Dimensions:	3.54" L x 2.30" x 1.19" (90.0mm L x 58.5mm W x 30.2mm D)
Weight:	0.5 pounds (225 g)
Output Connector:	Mouser DC locking plug model 171-0725

2.5 STANDARD COMPLIANCE

EMI Standards:	Meets FCC Part 15 Class B, EN55022 Class B
UL Approval:	UL 195

3 TECHNICAL SUPPORT

For technical support, please contact us at:

Phone: 571-833-2169

Email: Support@Nalresearch.com

Technical documents are also available to download on NAL Research's website www.nalresearch.com.

4 MECHANICAL DRAWING

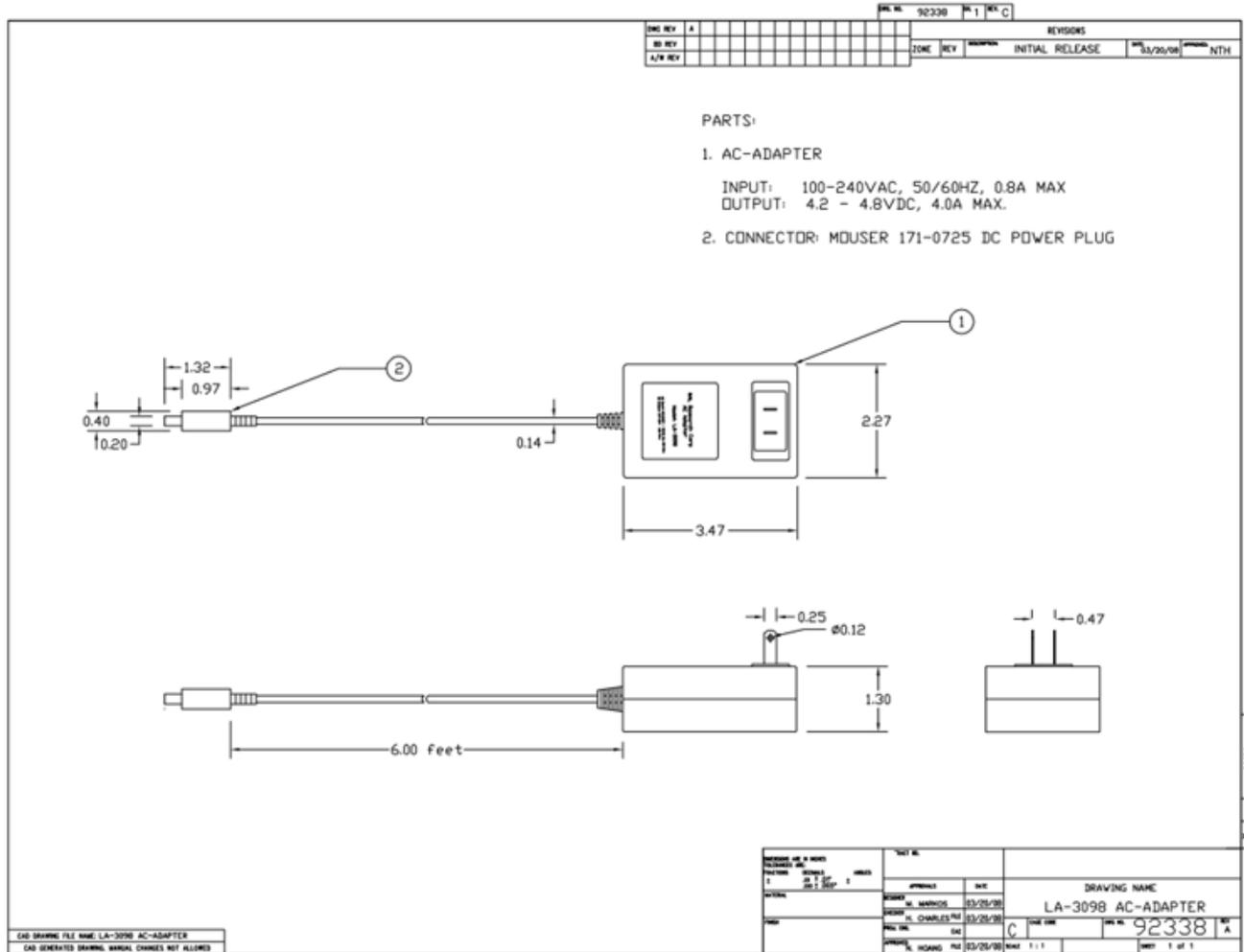


Figure 3: LA-3098 AC Adapter