LunaDrives®

Crimp Connector Data V1.0

Optionally used with LunaPlugs® Experimental E1.0

August 2024

Contents

EC5 and EC8 Contacts Performance Data

1.1 Introduction:

During batch production of LunaPlugs, it can be useful to pre-populate connectors and install them by crimping cables together. These crimps create an additional contact interface loss and accompanying thermal response. This document aims to characterise this thermal response.

1.2 Supplier Data:

None at time of writing. More information on recommended crimps can be found in the LunaPlugs Approved Materials section of our website.

1.3 LunaDrives® High Current Test-Rig:

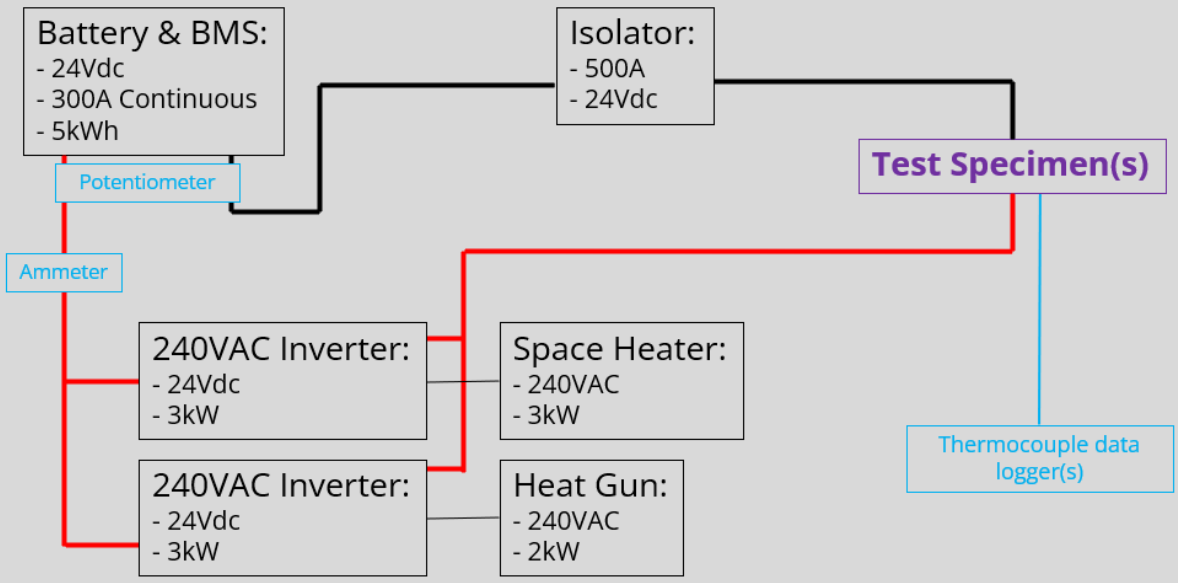


Figure 1 – LunaDrives™ High Current Test Rig V1.0 Schematic

This rig provides us with the facility to accurately and repeatably test high-power transmission components in several ways, from 0-240A (6kW at 24V).

This rig has no external calibration certification therefore results should be viewed as "indicative" only.

1.4 Crimp Test Specimens:

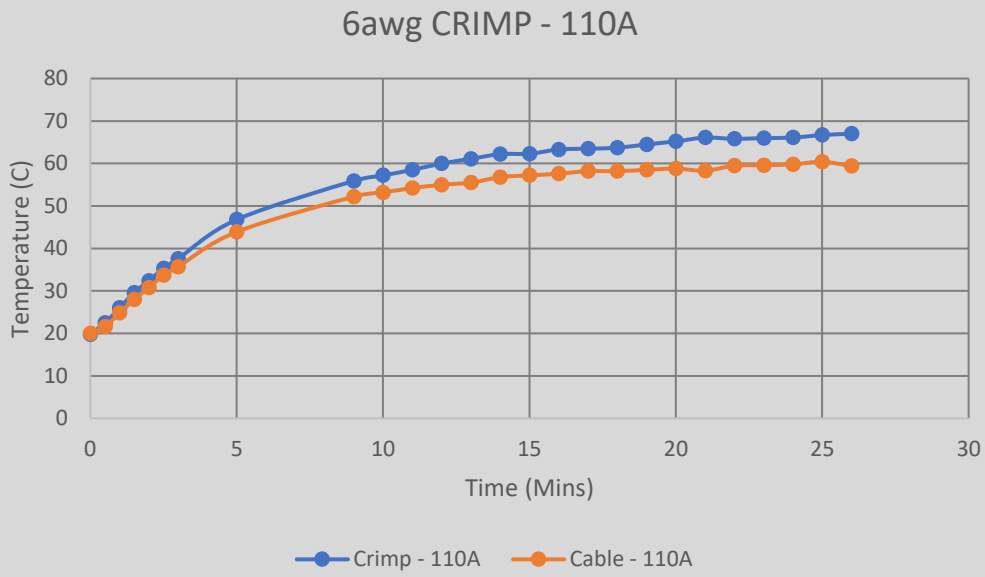
1.4.1 Crimp and Cable Only Specimens:

- Crimps and cables, hydraulically crimped with 0.5m total specimen length.
- 2x thermocouples taped to:
  i. Crimp external diameter
  ii. 100mm along the cable from the crimp.

1.5 Crimped Connections High Current Test Results:

1.5.1 6awg Crimp Temperature vs Time vs Current:

The following chart indicates thermal responses of 6awg crimps, crimped to 0.5m 6awg cable (each side), tested @ 24V & 21C ambient temperature.



Disclaimer: All performance data provided is indicative, not guaranteed. We stress the need for users to perform their own testing to satisfy themselves that their connections are fit for their intended purpose.