

Application Note Title:	Application Note Auxiliary Power Supply for APU-G
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1. Terms and Definitions

<u>AEI-APU-G</u>	Auxiliary Power Unit, Type G for Avid Extreme Inverters
<u>AC</u>	Alternating current
<u>DC</u>	Direct Current

2. References & Related Documents

Document Number	Document Title	Notes
DTS-02175-ASY-A	Auxiliary Power Unit – Type G Data Sheet	Section 6

3. Document Purpose and Overview

- The AEI-APU-G allows the AEI, and any CDC powered from it, to be powered prior to the main DC link being present. This allows diagnostic information to be obtained from the AEI unit.
- This Application Note provides recommendations for the provision of this auxiliary 24V supply.

4. Recommended Power Supplies

- Minimum 20A continuous capacity with significant headroom for inrush.
- The following supplies are known to work:
Phoenix Contact QUINT-PS/1AC/24DC /20A
MEAN WELL HRP-600-24CC, 27A

5. Cable Size and Termination

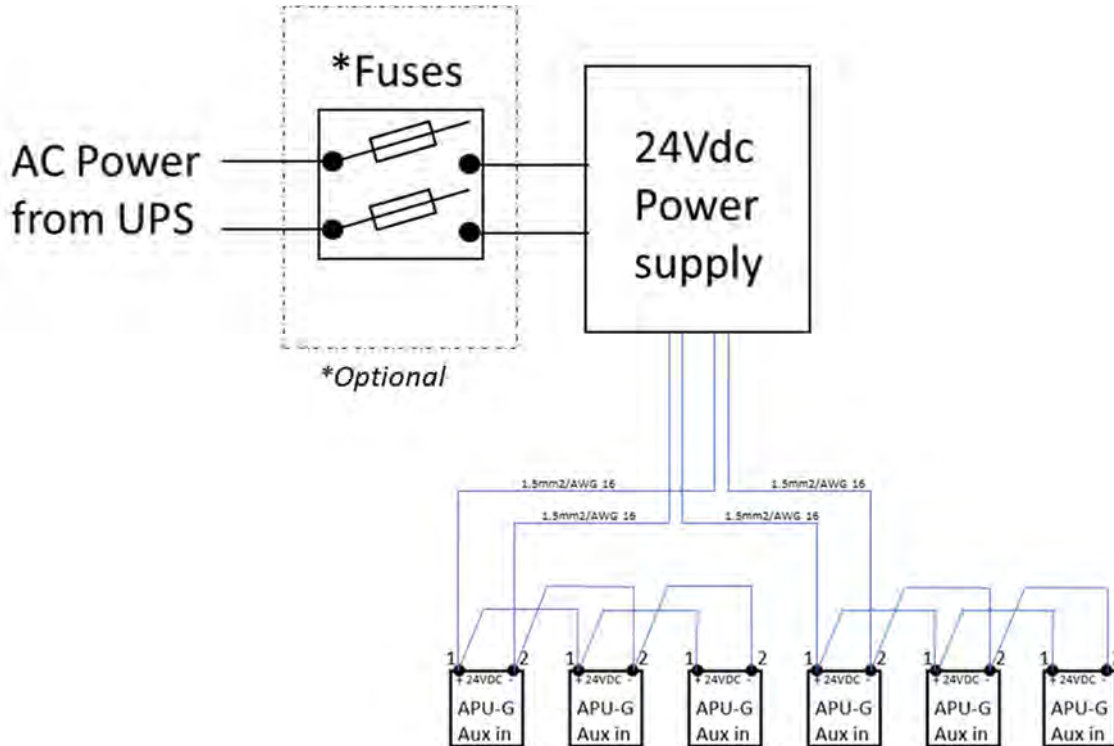
- Recommended cable size; AWG 16-14 (1.5mm²-2.5mm²)
- Recommended; Vinyl Insulated Flat Blade Terminal, 16-14 AWG or similar sized crimp ferrule

6. Fuse Protection

- The 24V cables should not be fused, they are protected by the over-current protection from the power supply.
- The AC control supply to the power supply should be protected as-per the manufacturer’s guidance.

7. 24V Cable Layout

- Recommended cabling layout:



- Note that later editions of the AEI-APU-G have dual-gang connectors to allow for easy connection of multiple cables. Earlier units will need two terminations inserted in some of the connections – this requires some care.
- If 1.5mm² cable is used with long cable lengths, it is possible that the inrush current will cause the APU-G units to enter an infinite on-off-on power cycle. If this occurs, simply increase the power supply's output voltage by 1 to 2V.

8. Revision History

Rev.	Date	Author(s)	Changes
00	May 5 2022	Jukka Jokinen	Document created from template AQS-AAN-REV_00
01	May 27 2022	Jukka Jokinen	Updated picture in section 7 to state that AC fuse is optional.