7800 PSU usage guidance

Overview

The 7800R4 modular platform offers both AC and DC Power Supply options. Following table shows power supply configuration for each chassis:

Modular Switch	Number of PSUs shipped in the bundle	Maximum number of PSUs supported
DCS-7804	6	8
DCS-7808	8	12
DCS-7812	10	18
DCS-7816	12	24

Following table shows the Power supply specifications for each supported PSU

Power Supply	Max. Output Power Rating (DC)	Input Voltage & Frequency	Max. Input current	Input Branch Circuit Protection
PWR-D1-3041-AC-BLUE	3000 W	200 to 240VAC (nominal) 50/60 Hz (nominal)	2x 16A	2x 20A
PWR-D4-3041-AC-BLUE	3000 W	200 to 277VAC (nominal) 50/60 Hz (nominal), 240-380VDC (nominal)	2x 16A	2x 20A
PWR-D2-3041-DC-BLUE	3000 W	-48V to -60 VDC, 70A to 55A	2x 70A	2x 90A

Recommendation for Power Supply Usage

- Connect separate Grids (A and B) to the power supply input to achieve Grid Redundancy.
- The primary power redundancy model for the DCS-7800 is 2(N+2) for Hyperscale customers where N equals the power of PSUs required to power the system based on the DCS-7800 Power Estimator.
- However, any power redundancy model such those listed below (with or without the PSU dual grid input) can be implemented if the number of PSUs installed support it based on the DCS-7800 Power Estimator:
    - Traditional 2N
    - N+0 (No PSU Redundancy) → N+(M-N) (Maximum PSU Redundancy)
      M equals the number of PSUs supported.
    - 4 to Make 3 or 3+1 Grid Redundancy – implemented by AI GPU Clusters
- When replacing a failed PSU, use the same PSU model. If the original model is no longer supported or available, please use an approved alternative PSU.
- To minimize distribution power loss, use an equal number of supplies in each row (e.g., 4 PSUs in slots1-4 and 4 PSUs in slots 7-10 for a configuration with 8 PSUs for the DCS-7808 switch). For additional detail please see *Cabling the Power Supp*lies Section 4.1, Table 9 of the Quick Start Guide.
- All power supply slots must be filled with a powered Power Supply, a blank, or a non-powered power supply.

Service and Support

Support services including next business day and 4-hour advance hardware replacement are available. For service depot locations, please see: http://www.arista.com/en/service

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