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TECHNICAL ADVISORY BULLETIN

CXPS-W Rectifier to Distribution Bus Bar Limits

Date: May 27th, 2020

Model #: CXPS-W

Part #: 0915000-73X

Issue

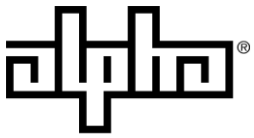
With the introduction of the CXRF 48-3.0kW (0100037-001) Rectifier and the CXRF 48-4.6kW (0100044-001) Rectifier, more power is accessible within the DC power system. In some scenarios the DC power system does not have capability of handling the addition of more power by upgrading the rectifiers within the system.

The CXPS-W systems current carrying capabilities are limited by two factors, the total ampacity of the distribution section, either 600, 1200, 1800, or 2000A total, and the current carrying capabilities of the bus bar connecting the individual rectifier shelves to the distribution components.

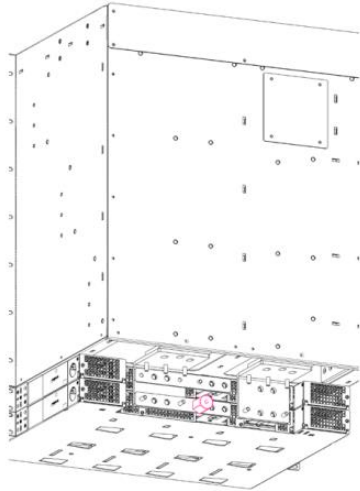
Corrective Actions

The existing solutions of bus bar assemblies are limited to handling the previous generation rectifiers operating at 100% load, continuous operation @ 48Vdc. See the tables below for the maximum current handling capability of the existing bus bar solutions.

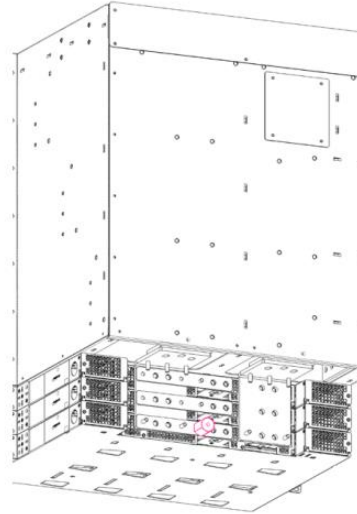
2.4/3.0 kW	Number Shelves	Maximum Current (A)	Description
0915000-730	2	500	2x 2.4kW Rectifier Shelf Kit, CXPS-W
0915000-731	3	750	3x 2.4kW Rectifier Shelf Kit, CXPS-W
0915000-732	4	1000	4x 2.4kW Rectifier Shelf Kit, CXPS-W
0915000-733	5	1250	5x 2.4kW Rectifier Shelf Kit, CXPS-W



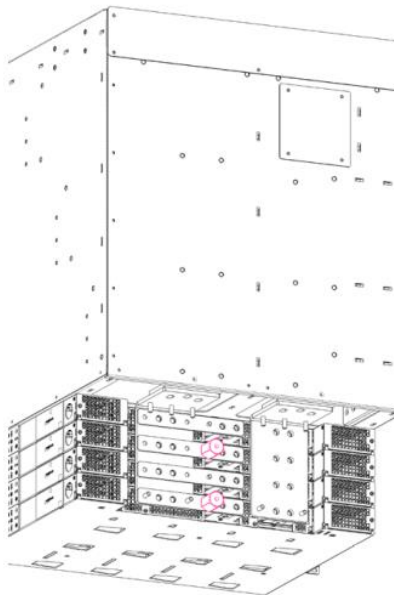
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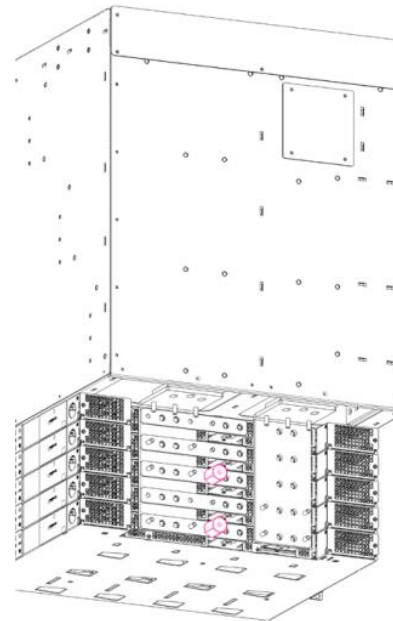
2x



3x



4x

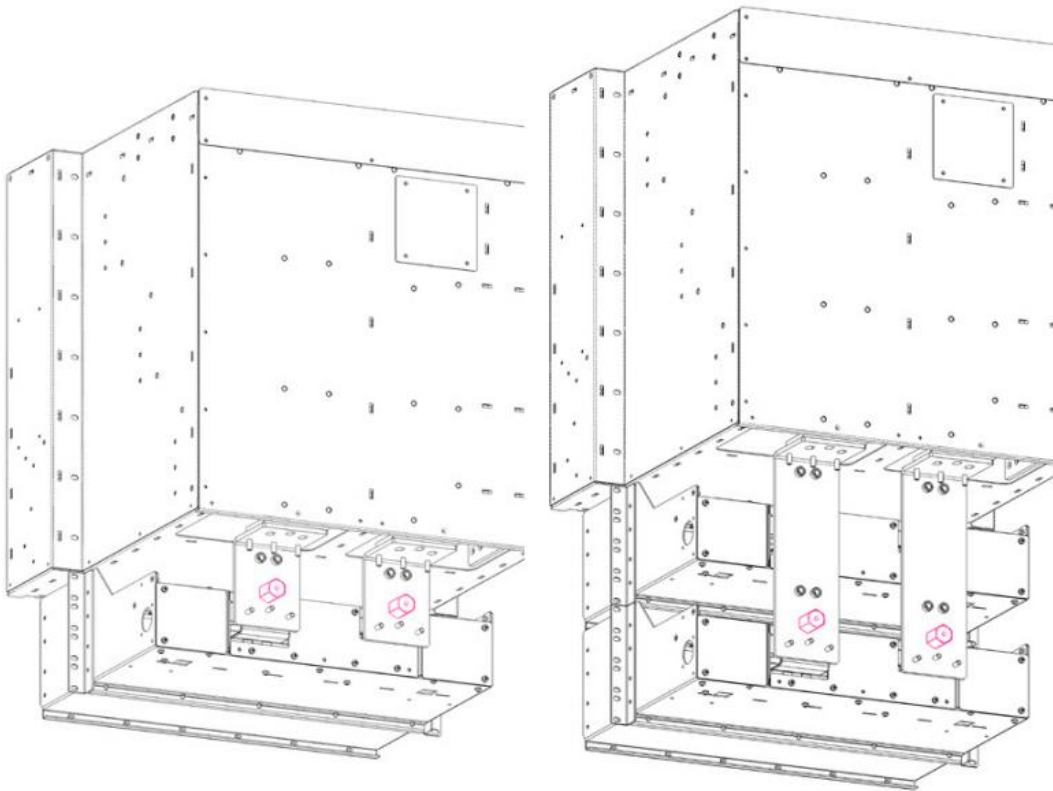


5x



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4.0/4.6 kW	Number Shelves	Maximum Current (A)	Description
0915000-734	1	500	1x 4.0kW Rectifier Shelf Kit, CXPS-W
0915000-735	2	1000	2x 4.0kW Rectifier Shelf Kit, CXPS-W
0915000-736	3	1500	3x 4.0kW Rectifier Shelf Kit, CXPS-W
0915000-737	4	2000	4x 4.0kW Rectifier Shelf Kit, CXPS-W
0915000-738	5	2000	5x 4.0kW Rectifier Shelf Kit, CXPS-W

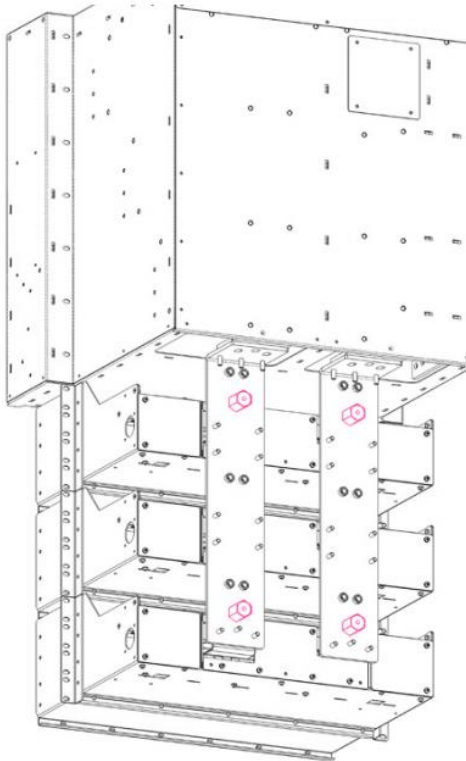


1x

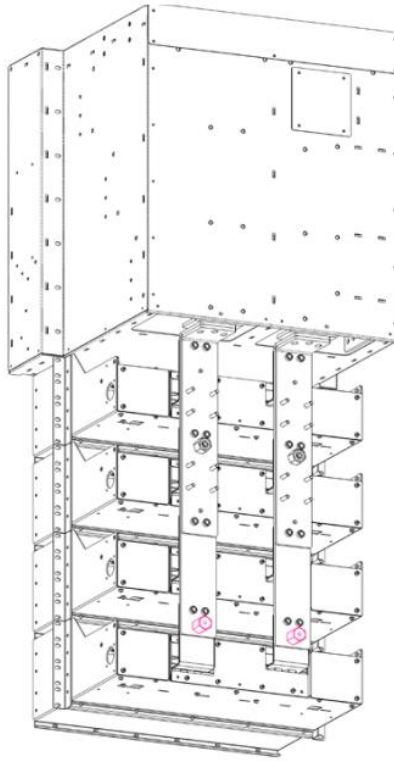
2x



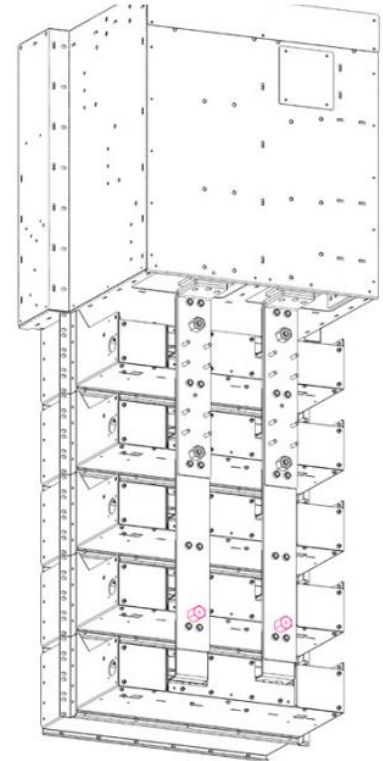
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3x



4x



5x

There are a couple of suggestions on approaches to this scenario:

1. If using 3.0kW or 4.6kW rectifiers to leave one slot empty per shelf to limit the total current possibility of the DC power system
2. Run the rectifiers at 80% load maximum for the 3.0kW or 87% for the 4.6kW rectifier
3. Ensure that the connected load is not able to draw more than the bus bar and distribution is capable of transporting from the rectifiers

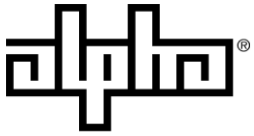
For additional assistance or if you have any questions regarding this notification, please contact Alpha Technical Support at 1-888-462-7487 or www.alpha.ca/report-a-problem.

Sincerely,

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For more information visit www.alpha.com

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