

NUMBER <b>GS-20-0628</b>	TYPE <b>General Application Specification</b>	<b>Amphenol ICC</b>	
TITLE <b>BarKlip® BK500 Cable Connector</b>		PAGE <b>1 of 6</b>	REVISION <b>B</b>
		AUTHORIZED BY <b>Dice lee</b>	DATE <b>Dec 19, 2023</b>
CLASSIFICATION <b>UNRESTRICTED</b>			

## 1.0 OBJECTIVE

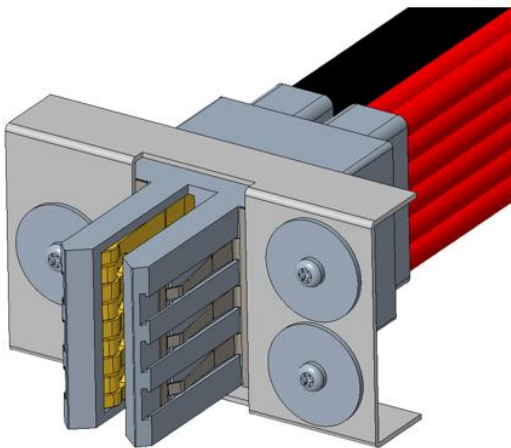
This specification provides information and requirements regarding customer application of BK500. This specification is intended to provide general guidance for application process development. It is recognized that no single application process will work under all customer scenarios and that customers will develop their own application processes to meet their needs. However, if these application processes differ greatly from the one recommended, AICC cannot guarantee results.

## 2.0 SCOPE

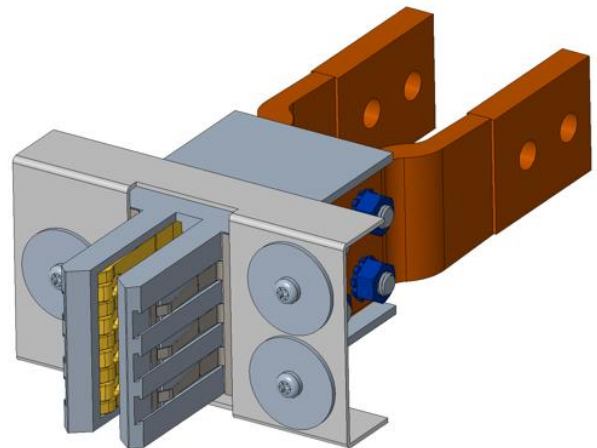
This specification provides information and requirements regarding customer application of BK500. These connectors provide a means of bringing high current from Bus bar conductors to Bus bar.

## 3.0 GENERAL

This document is meant to be an application guide. If there is a conflict between the product drawings and specifications, the drawings take precedence.



**BK500 Gen4**



**BK500 Bolted**

## 4.0 DRAWINGS AND APPLICABLE DOCUMENTS

- AFCI PRODUCT SPECIFICATION: GS-12-1587
- AFCI PRODUCT DRAWINGS: 10155676
- APPLICATION MANUALS/INSTRUCTION SHEETS (IF NOT INCLUDED IN THIS DOCUMENT)

Product drawings and **AFCI's GS-12-1587** Product Specification are available at [www.fci.com](http://www.fci.com) In the event of a conflict between this application specification and the drawing, the drawing will take precedence. Customers are advised to refer to the latest revision level of AFCI product drawings for appropriate details.

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## 5.0 APPLICATION REQUIREMENTS

### Connectors mating part\_ORv3 Bus bar for BK500 Gen4 and Bolted

Recommended material: Copper, solid blade

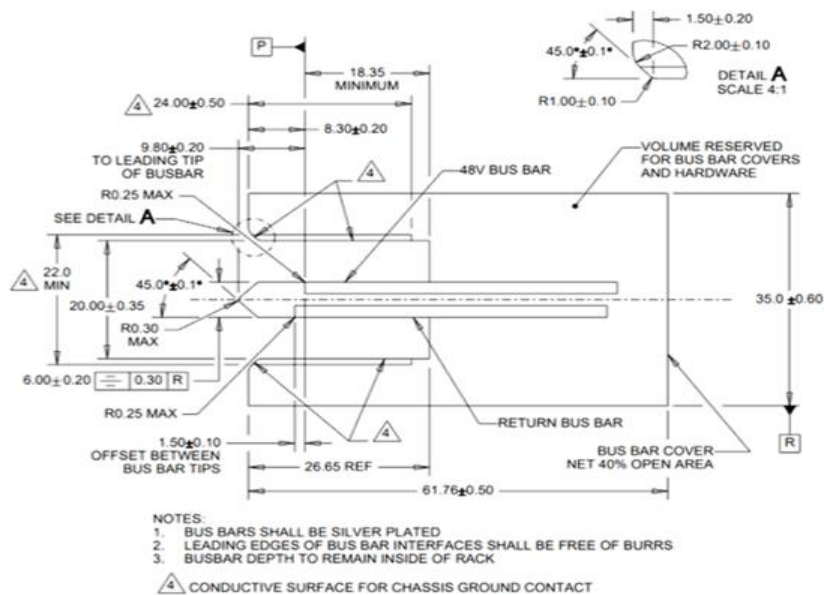
Material Thickness:  $6.0 \pm 0.20$  mm

Surface roughness in contact area: 1.6  $\mu$ m maximum

Plating in contact area: 3  $\mu$ m min Silver over 1.27  $\mu$ m min Nickel

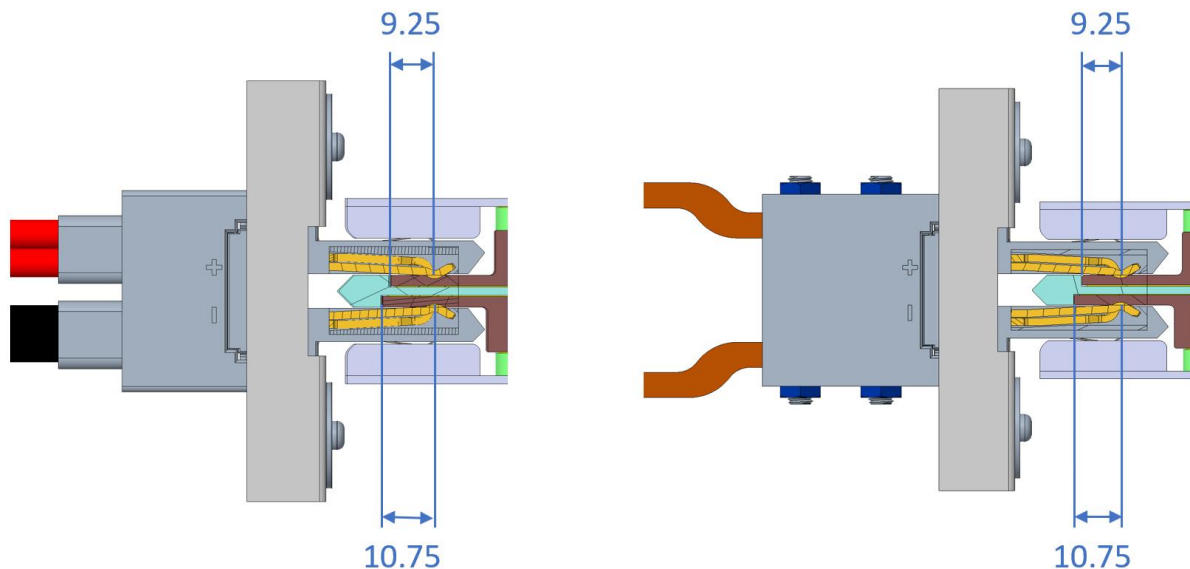
Bus bar misalignment:  $\pm 2$ mm Maximum

The Bus bar dimensions as shown in below:



## 5.2 Wipe distance

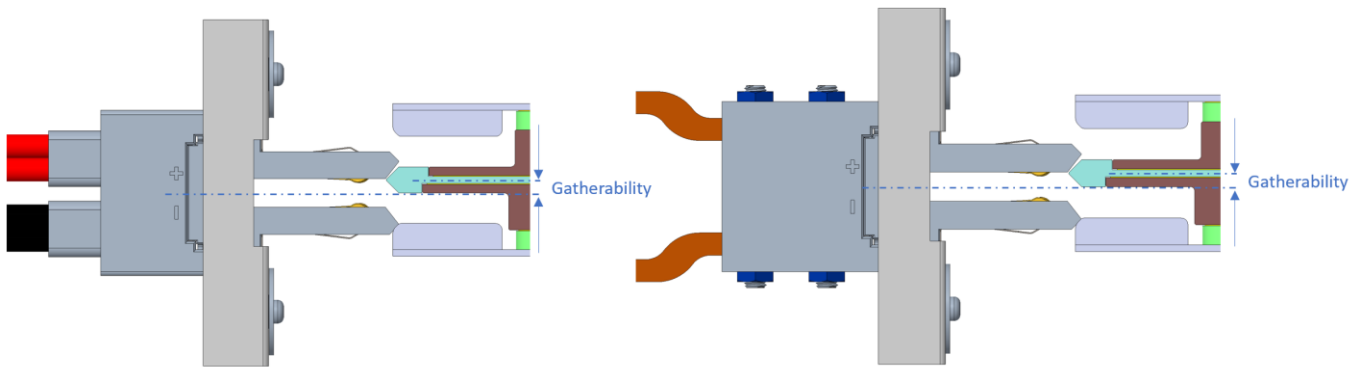
The wipe distance is 9.25mm for power Busbar and 10.75mm for return Busbar when the Bus bar is mated to the bottom of BK500 Gen4 and bolted.



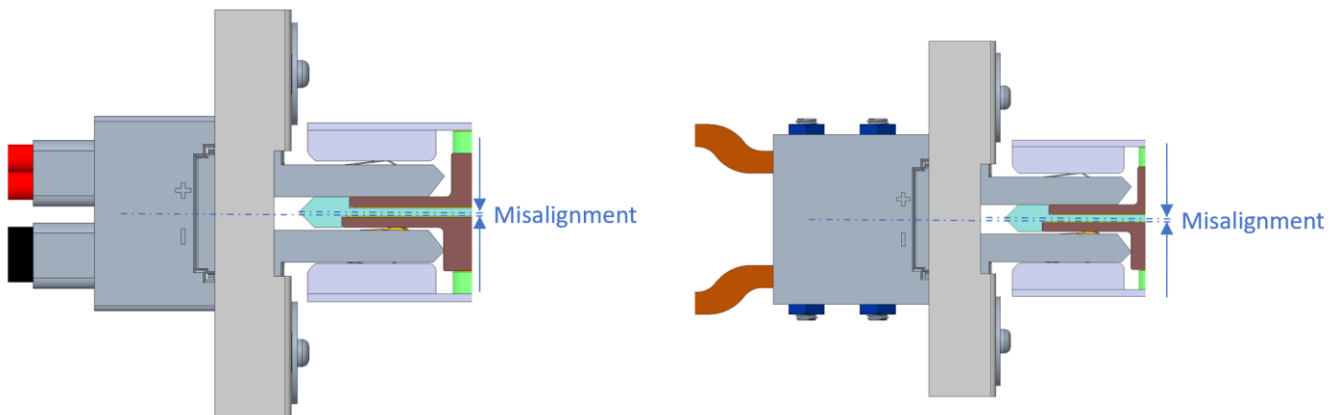
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### 5.3 Gather-ability and Misalignment

When ORv3 Bus bar is mating with BK500 Gen4 and bolted, the Gather-ability is +/-4.4mm.



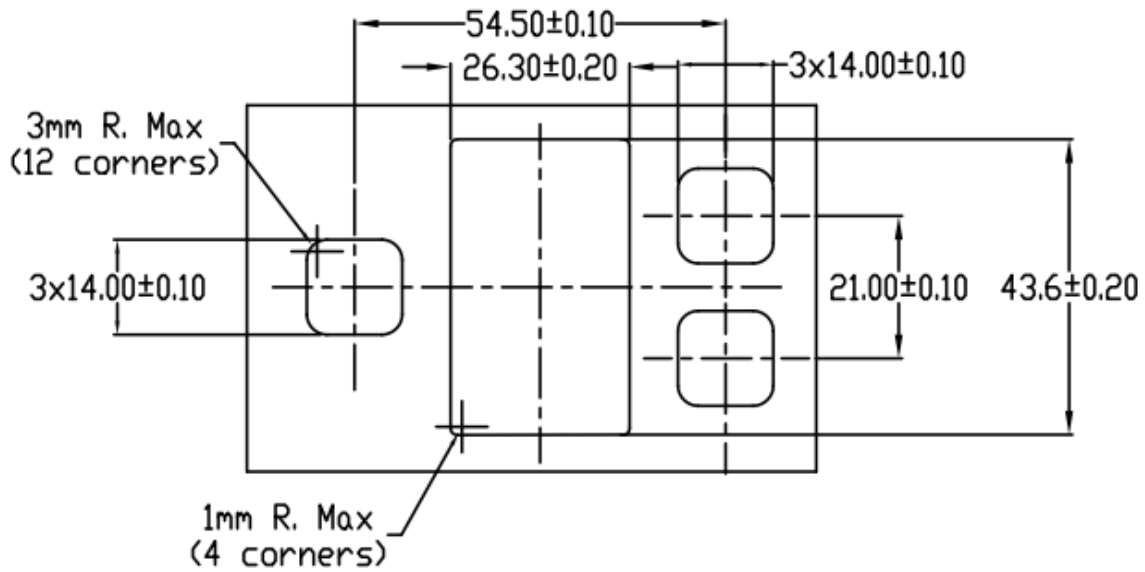
When ORv3 Bus bar is mated with BK500 Gen4 and bolted, the Misalignment is +/-0.25mm.



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### 5.4 Connector Panel layouts

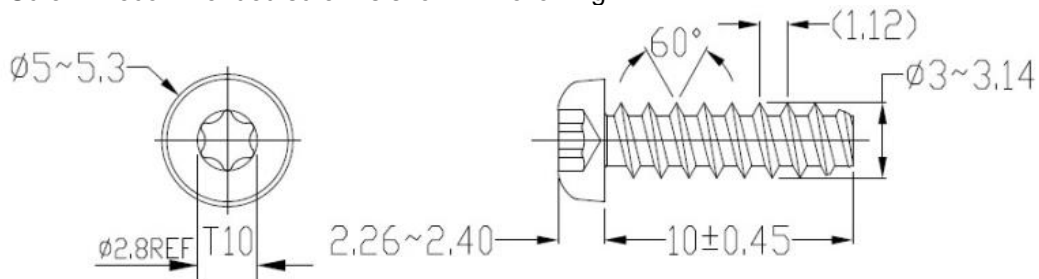
BK500 Bolted and Gen4 connector Panel layout



Panel Cutout Details for 3mm floating in X&Y direction  
Panel Thickness is 1.32mm max

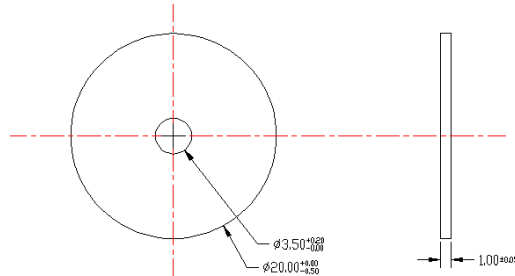
### 5.5 Connector Panel Hardware

Screw: Recommended screw is shown in following



Washer: Recommended washer is shown in following

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## 6.0 Current Rating

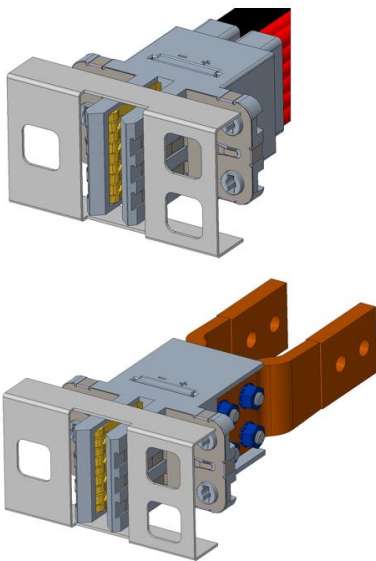
6.1 Current rating table:

Product Number	Connector Description	Wire Size	Current Rating
10156914-*	Screw Mount	Qty 12, 8AWG	500

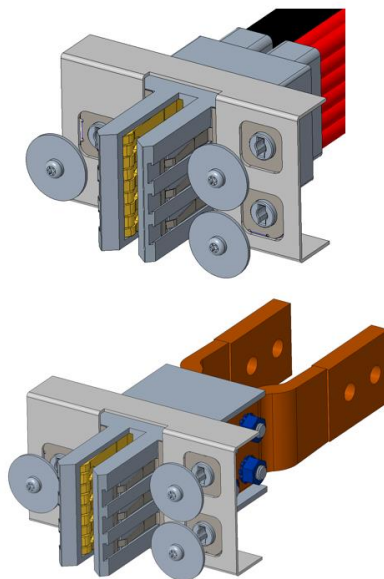
## 7.0 APPLICATION PROCEDURE

Screw Mount Connector: Mount connector in panel by applying the washer and screw as seen below.  
Screw torque requirements: MIN = 4.0 in-lbf or 0.45 N-m    MAX = 6.00 in-lbf or 0.68 N-m

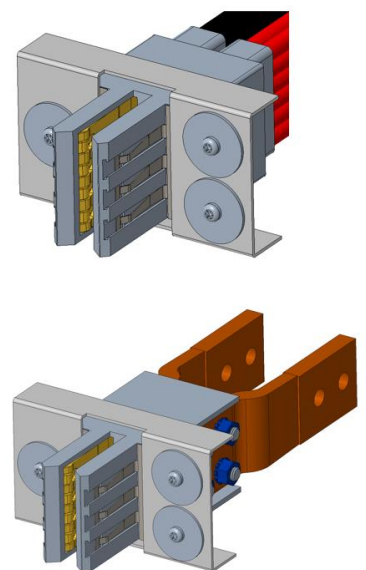
Step 1



Step 2



Assembly View



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**8.0 RECORD RETENTION**

<u>REV</u>	<u>PAGE</u>	<u>DESCRIPTION</u>	<u>EC#</u>	<u>DATE</u>
A	All	First version	N/A	Oct 17, 2022
B	4	Update the panel layout	N/A	Dec 19,2023