

NUMBER <b>GS-20-0791</b>	TYPE <b>General Application Specification</b>	<b>Amphenol FCI</b>	
TITLE <b>M-CRPS Input +54V Connector and Cable Assembly</b>		PAGE 1 of 12	REVISION A
		AUTHORIZED BY Wesley	DATE 2023/10/12
CLASSIFICATION <b>UNRESTRICTED</b>			

## Application Specification for M-CRPS Input +54V Connector and Cable Assembly

### REVISION RECORD

REV	PAGE	DESCRIPTION	ECN#	DATE
A	12	First Release	ELX-CD- F3287-1	2023/10/12

Prepare by :	Date:	Approved By:	Date:
(Product Engineer)		(Engineering Manager)	

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## 1.0 OBJECTIVE

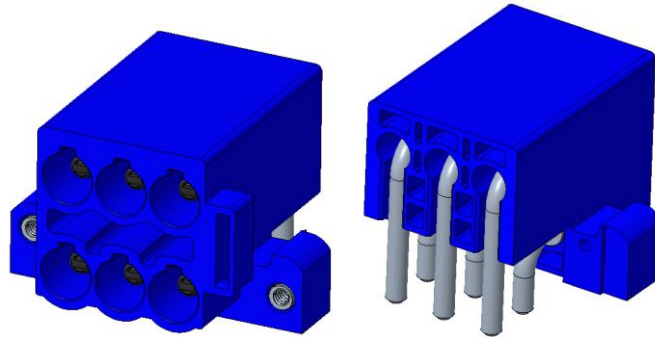
This specification provides information and requirements regarding customer application of M-CRPS Input +54V Connector and Cable Assembly. This specification is intended to provide general guidance for application process development. It is recognized that no single application process will work under 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, Amphenol cannot guarantee results.

## 2.0 SCOPE

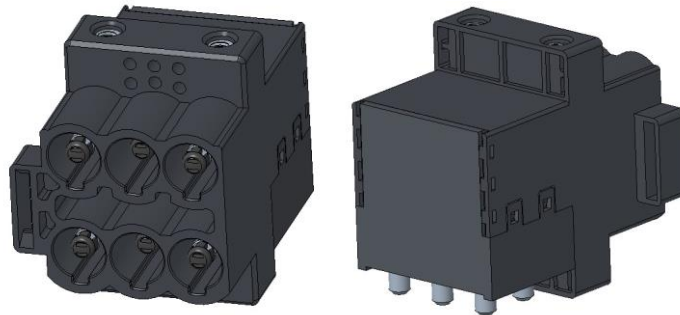
This specification provides information and requirements regarding customer application of M-CRPS Input +54V Connector and Cable Assembly.

## 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.

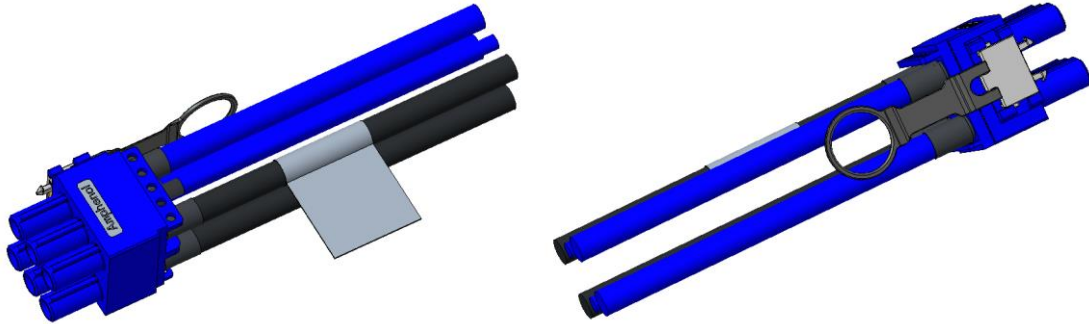


M-CRPS Input +54V PCB Board type-1 Connector ( 10168754 )



M-CRPS Input +54V PCB Board type-2 Connector ( 10170331 )

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M-CRPS Input +54V Cable Assembly. (10168682-XXX)



M-CRPS Input +54V Overmold Cable Assembly. (10168773-XXX)

#### 4.0 DRAWINGS AND APPLICABLE DOCUMENTS

- Amphenol Product Specification: GS-12-1818
- Amphenol Product Drawings: 10168754,10170331,10168682-XXX,10168773-XXX
- Application Manuals/Instruction Sheets (If Not Included in This Document)

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

#### 5.0 APPLICATION REQUIREMENTS

##### 5.1 Lead-Free Processing

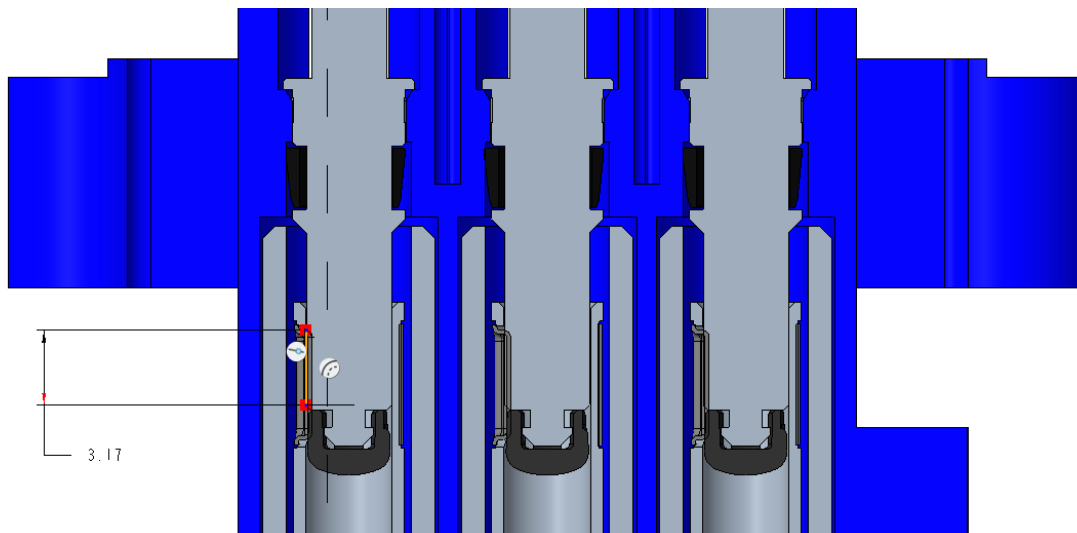
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M-CRPS Input +54V PCB connectors are compatible with standard lead-free processing, including convection, infra-red, and vapor-phase reflow, and will withstand peak processing temperatures of 260°C for a period of 60 seconds without affecting form, fit, or function.

**5.2 Wipe Distance**

The table below shows nominal contact wipe distances for M-CRPS Input +54V Connector. All values are at full normal force and do not include lead-in geometry on either mating half. All values assume there is no gap between connector mating faces.

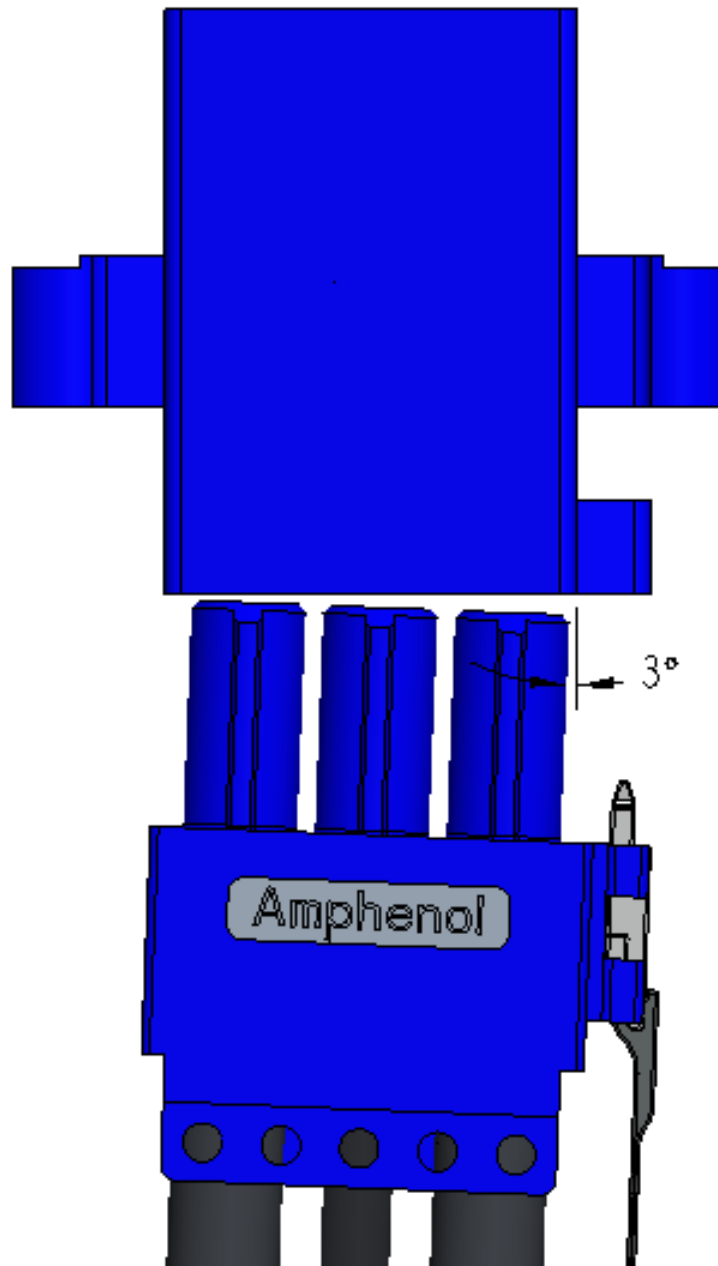
Contact Type	(For last mate/first break) wipe length – L (mm)
Power Contact	3.17




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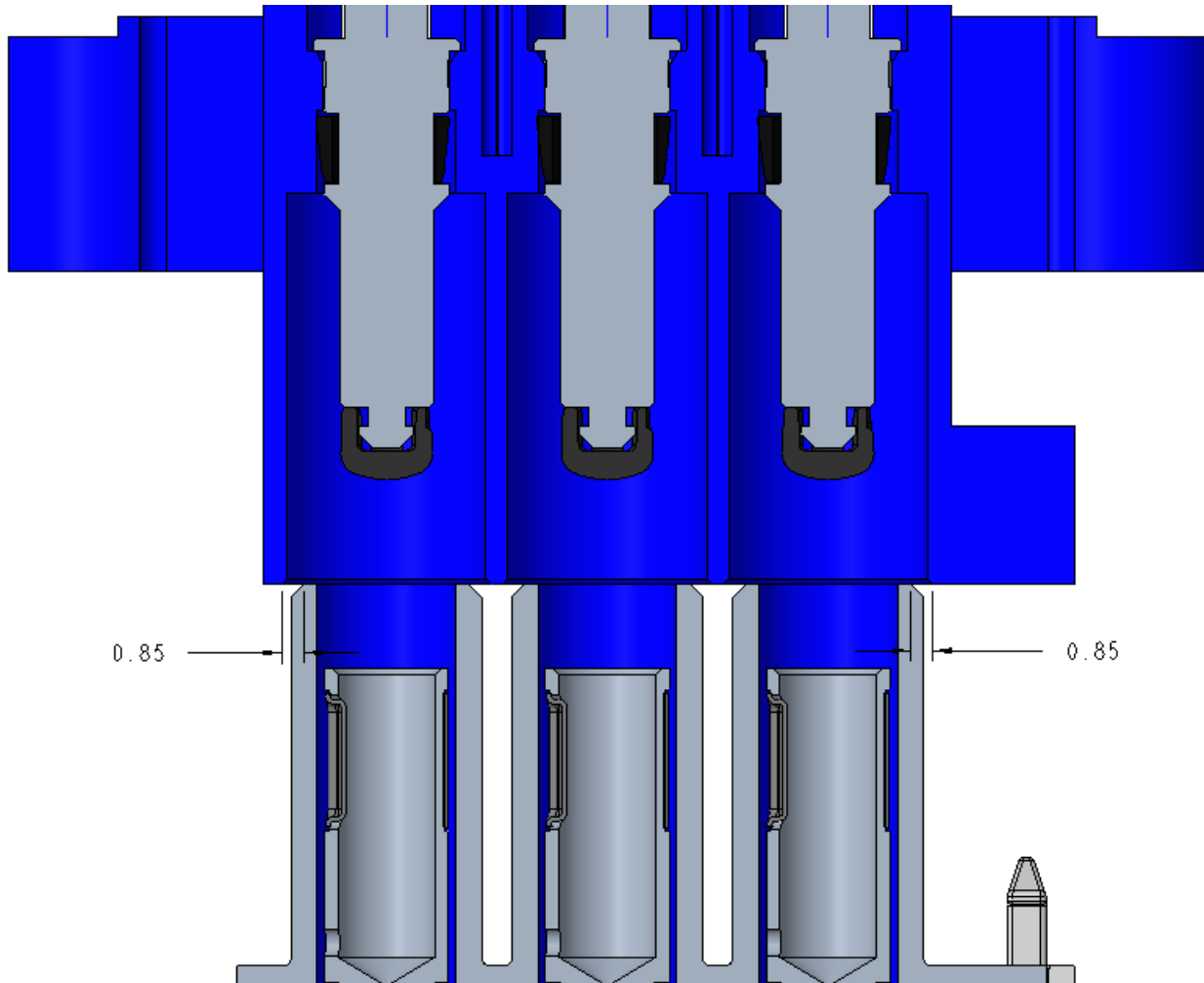
## 5.2 Mating Misalignment

The maximum offset angle of the M-CRPS Input +54V connectors during mating is +/-3 degrees.



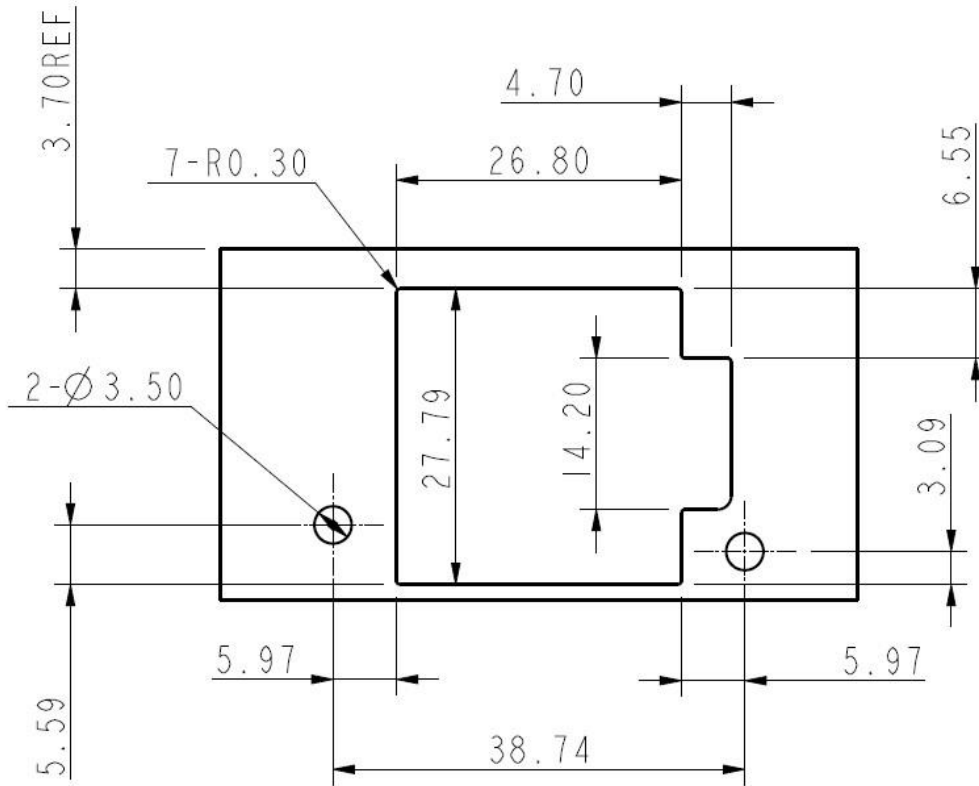
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The M-CRPS Input +54V connector housings contain nominal capture of +/- 0.85mm in the slot width direction.




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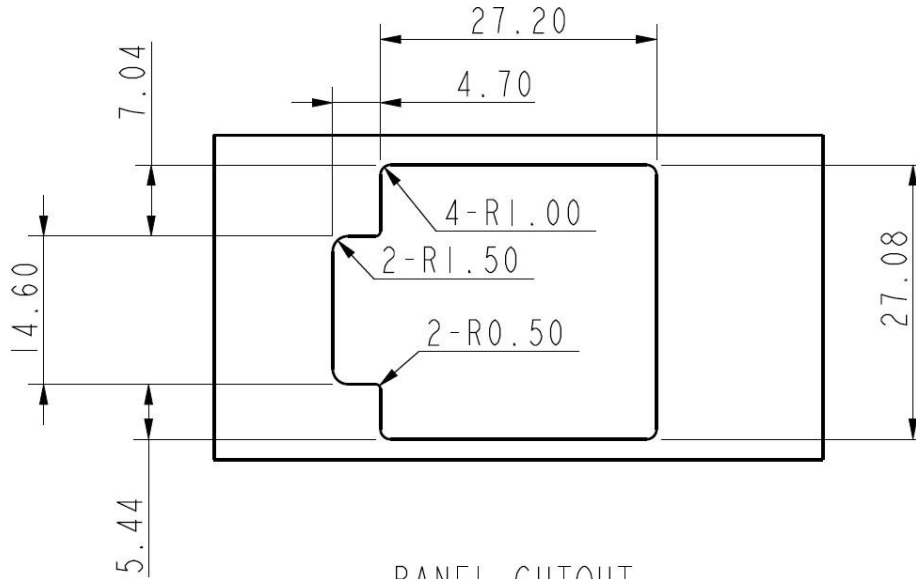
#### 5.4 Connector Panel Layouts



PANEL CUTOUT  
(GENERAL TOLERANCE: ±0.13)

Panel Cutout Details for M-CRPS Input +54V PCB type-1 Connector (10168754)

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PANEL CUTOUT  
(GENERAL TOLERANCE:  $\pm 0.13$ )

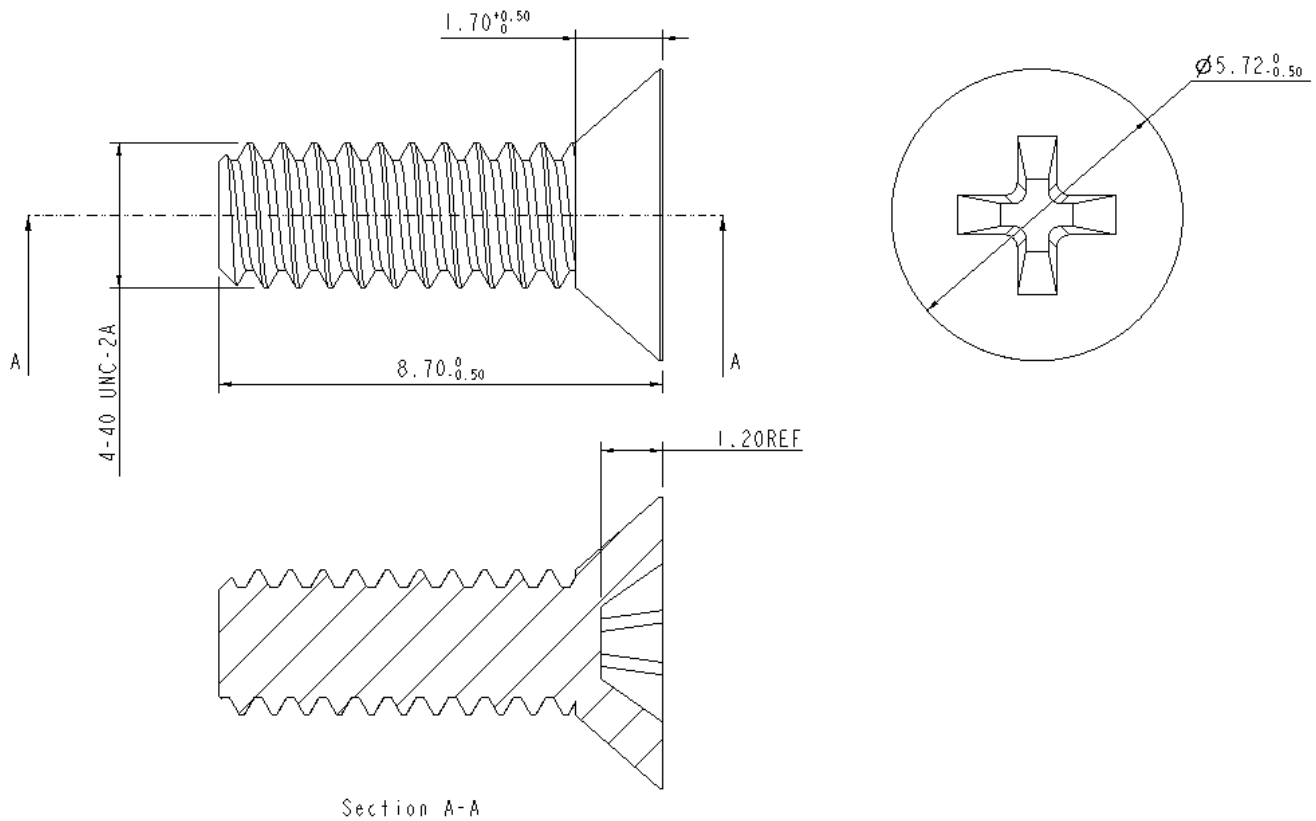
Panel Cutout Details for M-CRPS Input +54V PCB type-2 Connector (10170331)



NUMBER <b>GS-20-0791</b>	TYPE <b>General Application Specification</b>	<b>Amphenol FCI</b>	
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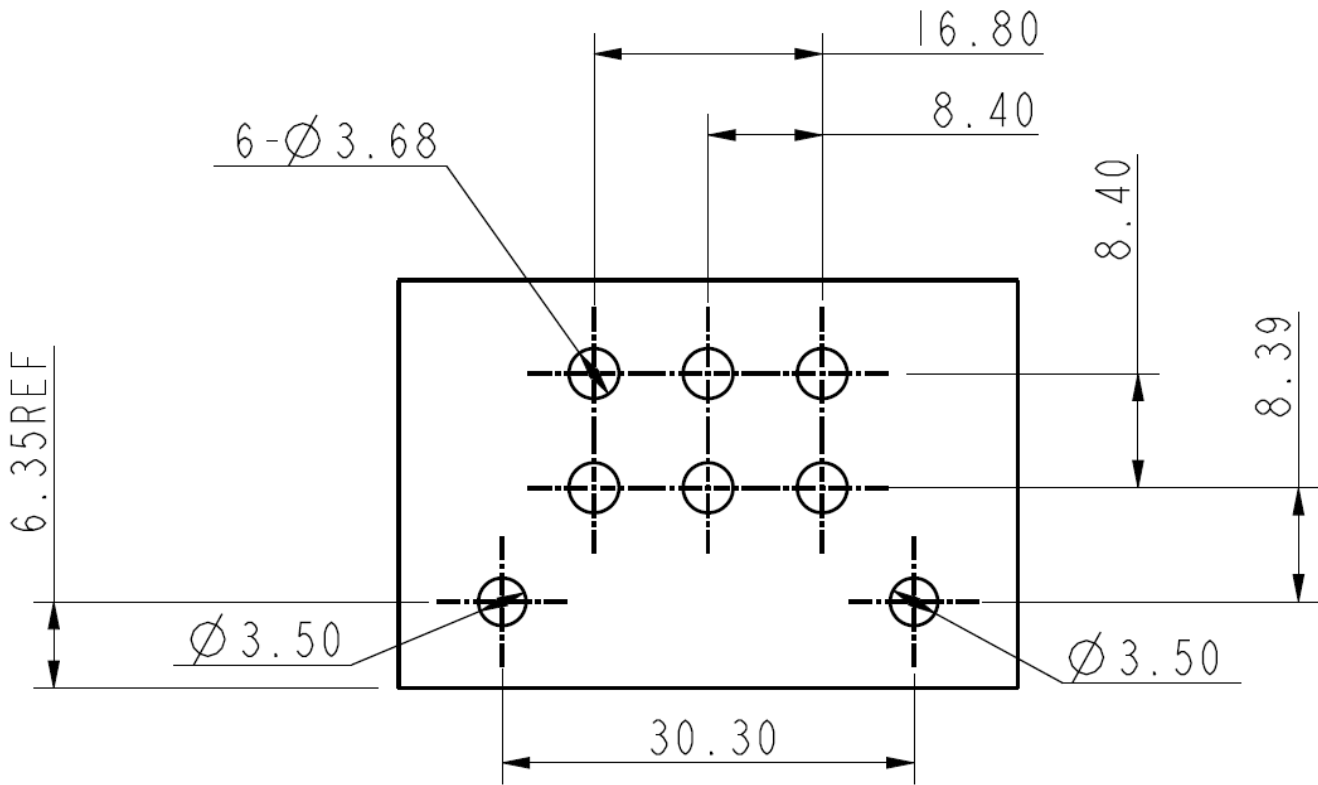
### 5.5 Connector Panel Hardware

Screw: Recommended screw is shown in the following.



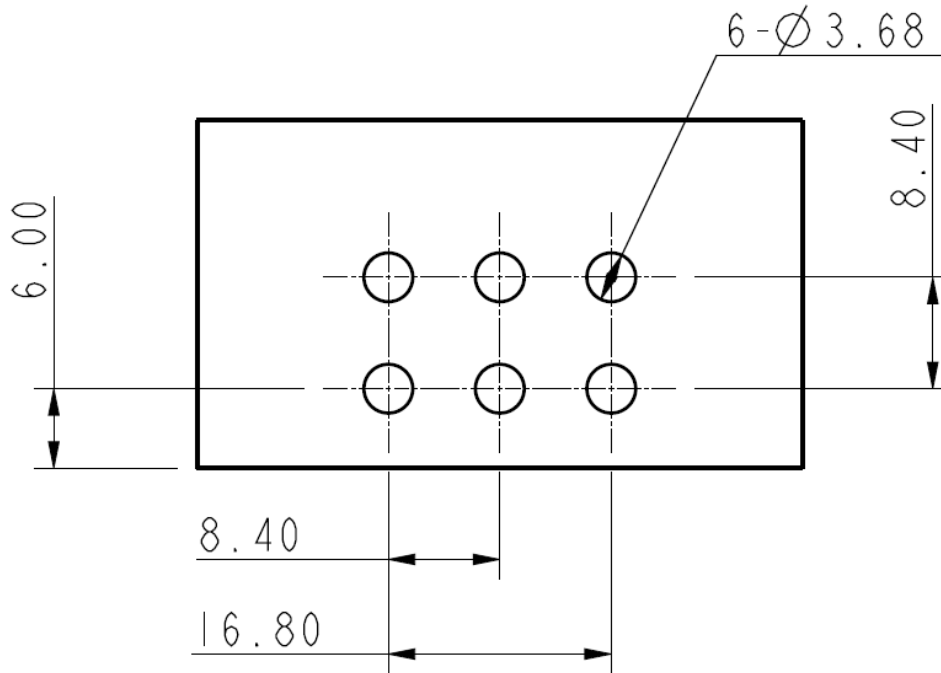
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### 5.6 Connector PCB Layouts



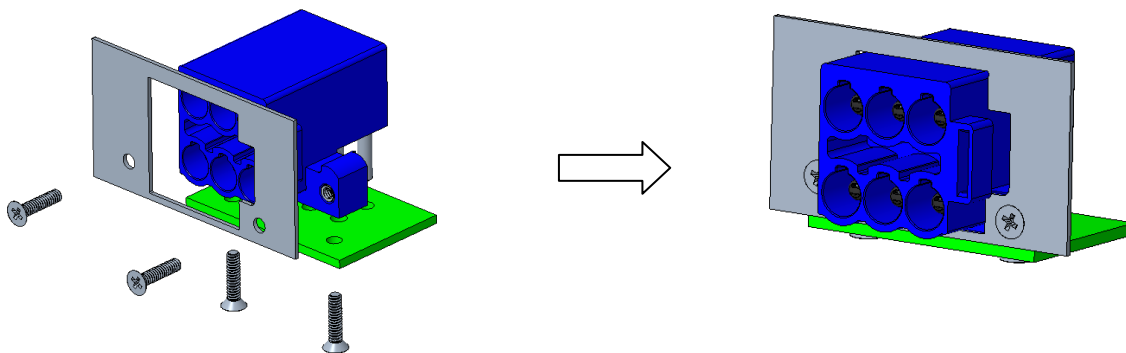
PCB Layout for M-CRPS Input +54V PCB type-1 Connector (10168754)

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PCB Layout for M-CRPS Input +54V PCB type-2 Connector (10170331)

## 6.0 APPLICATION PROCEDURE



Installation Procedure for M-CRPS Input +54V PCB Connector (10168754)

**Screw torque requirements: MIN = 4.0 in-lbf or 0.45 N.m    MAX = 6.59 in-lbf or 0.74 N.m**

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## 7.0 CURRENT AND NOMINAL VOLTAGE RATING

Connector Descriptions	CSA/CUL/CNR @30°C Temperature Rise		UL/UNR(Max)@RTI Temperature	
	Current Rating (A)	Voltage, VDC/VAC	Current Rating (A)	Voltage, VDC/VAC
M-CRPS Input +54V board Connector mated M-CRPS Input +54V Cable Assembly-8AWG	40	600	80	600

Connector Descriptions	TUV(Max) @RTI Temperature	
	Current Rating (A)	Voltage, VDC/VAC
M-CRPS Input +54V board Connector mated M-CRPS Input +54V Cable Assembly-8AWG	40	600

## 8.0 OPERATING TEMPERATURE RANGE

Operating Temperature Range: -40~105°C