



AMPHENOL PCD SHENZHEN



# EXCEL | MATE MSD

Manual Service Disconnect

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## Amphenol PCD Manual Service Disconnect

Excel|Mate MSD is a safe and a reliable solution for HEV servicing.

Equipped with a two-stage lever to open the HVIL circuit prior to the separation of HV contacts, it is a tool-free solution for disconnecting the internal high voltage battery pack and protecting it from short circuit. All HV conductive contact surfaces on the receptacle assembly are finger-touch safe.

Available in a scalable design with a variety of fuse ratings.



### KEY FEATURES

A two-stage lever provides an HVIL time delay

2 x integrated internal HVIL

Unique cooling structure

Dual-channel design lowers temperature rise

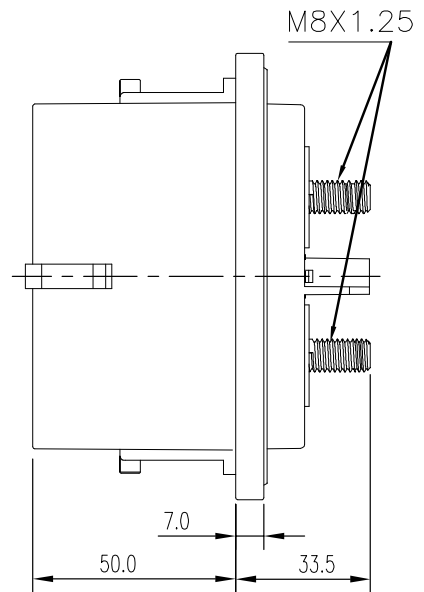
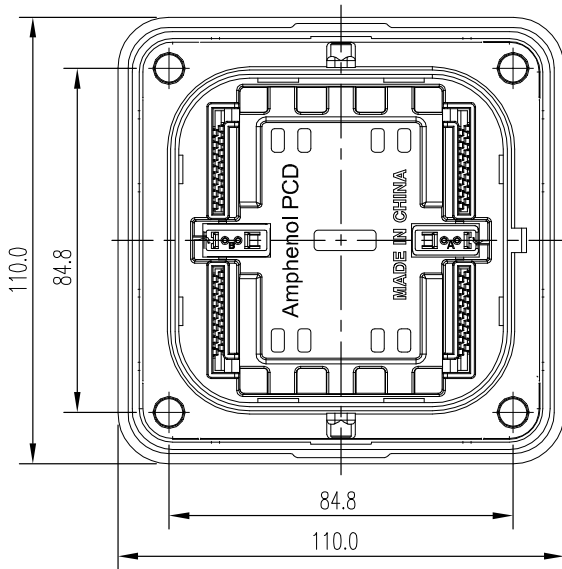
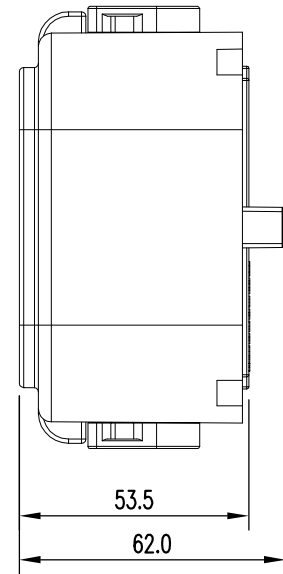
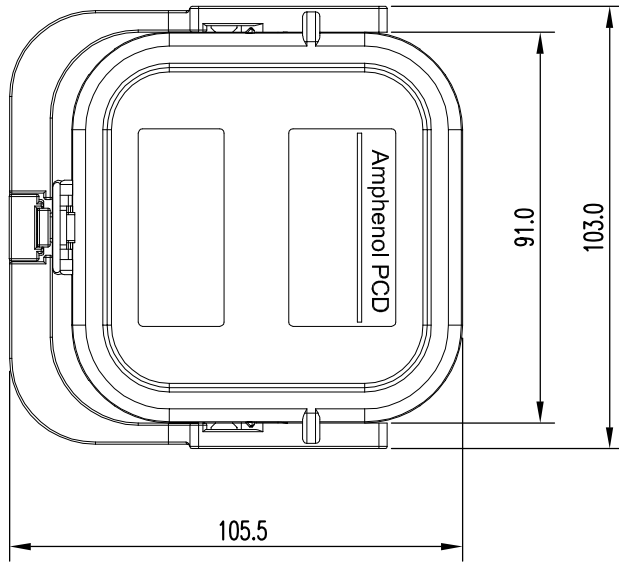
No tools required to unmate

Various fuse ratings

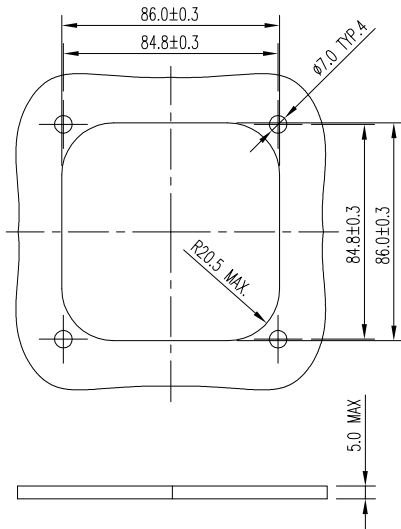
Receptacle can be front or rear mounted

APPLICATION	
It is a tool-free solution for disconnecting the internal high voltage battery pack and protecting it from short circuit.	
MECHANICAL	
Mating cycles	≥ 50 cycles
ELECTRICAL	
Fuse specification	up to 630A
With fuse:	
Rated current	Current is approximately 1/3 the fuse rating
Rated voltage	500V DC to 600V DC
With shunt:	
Rated current	260A Max @ Ambient 70°C
Rated voltage	1000V DC Max
ENVIRONMENTAL	
Protection degree	IP67, IP6K9K (mated)
Ambient temperature	-40°C to 70°C
Storage temperature	-40°C to 85°C
Operating temperature	-40°C to 125°C
Flammability	UL94V0
STANDARDS	
USCAR-2	
USCAR-37	
LV-215	
RoHS	

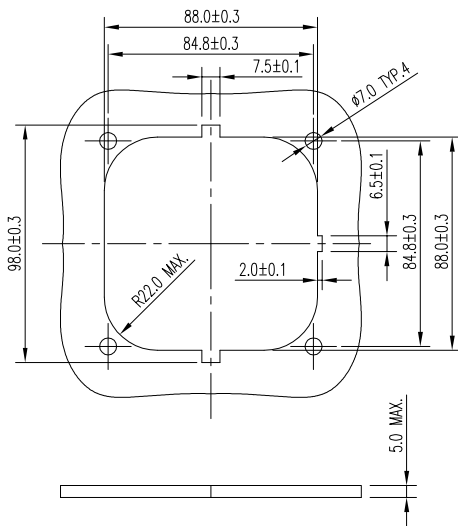
# PRODUCT DIMENSIONS



## FRONT MOUNTED



## REAR MOUNTED



DUST CAP AVAILABLE  
P/N: C270006810



## HOW TO ORDER - EXCEL|MATE MSD

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### Plug

	<b>MSD</b>	<b>M</b>	<b>200</b>	<b>1</b>
Shell type:				
<b>M:</b> Plug				
<b>Fuse rating current:</b>				
<b>200:</b> 200A				
<b>250:</b> 250A				
<b>315:</b> 315A				
<b>350:</b> 350A				
<b>400:</b> 400A				
<b>450:</b> 450A				
<b>500:</b> 500A				
<b>550:</b> 550A				
<b>630:</b> 630A				
<b>000:</b> No fuse needed, can directly use the terminal				
Fuse brand:				
<b>1:</b> Ferraz				
<b>2:</b> Bussmann				

### Receptacle

	<b>MSD</b>	<b>F</b>	<b>000</b>	<b>F</b>
Shell type:				
<b>F:</b> Receptacle				
<b>Fuse rating current:</b>				
<b>000:</b> No fuse needed, can directly use the terminal				
Flange mounted type:				
<b>F:</b> Front mounted				
<b>R:</b> Rear mounted				

## EXCEL|MATE MSD V - TECHNICAL CHARACTERISTICS



MSD V is an upgraded version of the standard MSD.

It provides a rated voltage of 800V and a plug with integrated fuse. The other parameters remain unchanged.

### KEY FEATURES

A two-stage lever provides an HVIL time delay

2 x integrated internal HVIL

Unique cooling structure

Dual-channel design lowers temperature rise

No tools required to unmate

Various fuse ratings

Receptacle can be front or rear mounted

APPLICATION	
It is a tool-free solution for disconnecting the internal high voltage battery pack and protecting it from short circuit.	
MECHANICAL	
Mating cycles	≥ 50 cycles
ELECTRICAL	
Fuse specification	up to 630A
With fuse:	
Rated current	Current is approximately 1/3 the fuse rating
Rated voltage	800V DC
With shunt:	
Rated current	260A Max @ Ambient 70°C
Rated voltage	1000V DC Max
ENVIRONMENTAL	
Protection degree	IP67, IP6K9K (mated)
Ambient temperature	-40°C to 70°C
Storage temperature	-40°C to 85°C
Operating temperature	-40°C to 125°C
Flammability	UL94V0
STANDARDS	
USCAR-2	
USCAR-37	
LV-215	
RoHS	



Plug

	<b>MSD V</b>	<b>M</b>	<b>200</b>
Shell type:			
<b>M:</b>	Plug		
<b>Fuse rating current:</b>			
<b>200:</b>	200A		
<b>250:</b>	250A		
<b>315:</b>	315A		
<b>350:</b>	350A		
<b>400:</b>	400A		
<b>450:</b>	450A		
<b>500:</b>	500A		
<b>550:</b>	550A		
<b>630:</b>	630A		
<b>000:</b>	No fuse needed, can directly use the terminal		
Fuse brand:			
<b>Bussmann</b>	(by default), other brands, please contact us.		

Receptacle

	<b>MSD V</b>	<b>1</b>	<b>F</b>	<b>000</b>	<b>F</b>
Contact:					
<b>1:</b>	Improved contact conductivity				
Shell type:					
<b>F:</b>	Receptacle				
Fuse rating current:					
<b>000:</b>	No fuse needed, can directly use the terminal				
Flange mounted type:					
<b>F:</b>	Front mounted				
<b>R:</b>	Rear mounted				

## EXCEL|MATE MSD XL - TECHNICAL CHARACTERISTICS

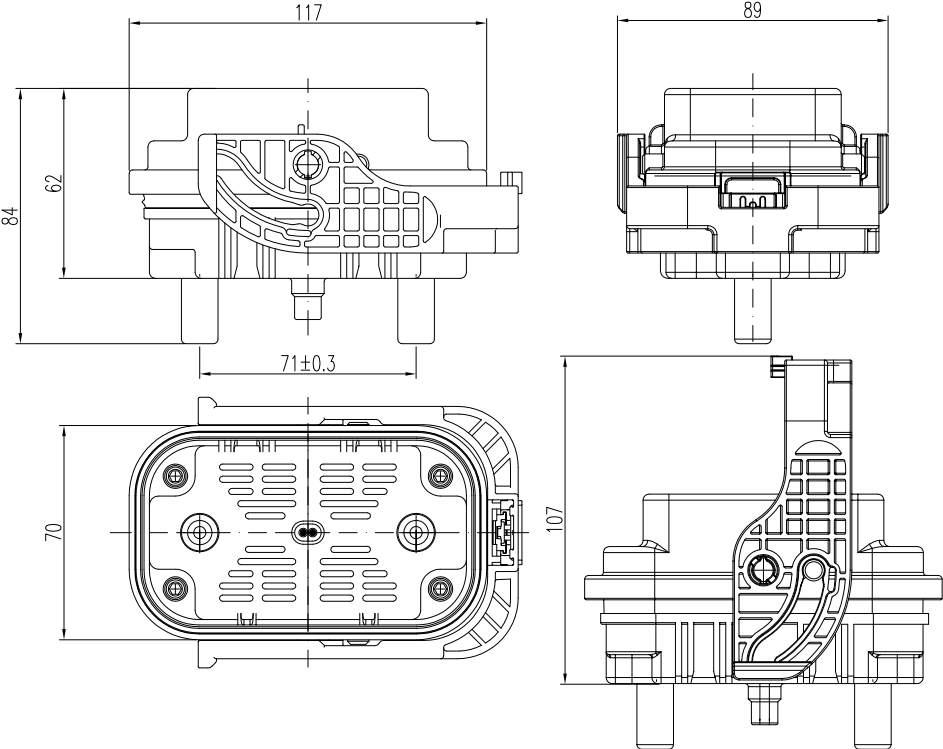


### KEY FEATURES

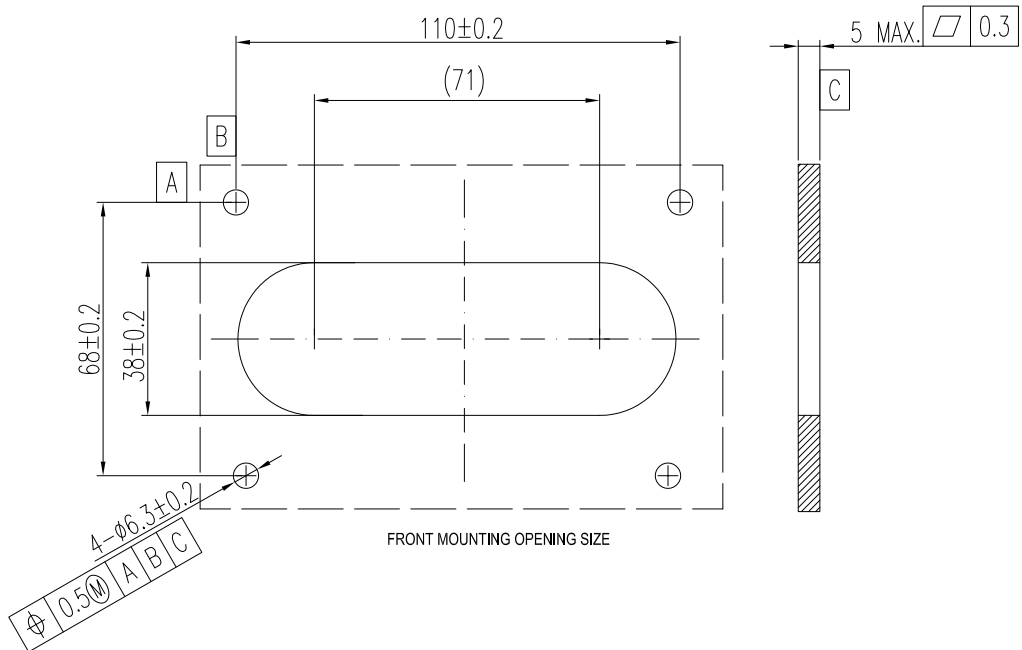
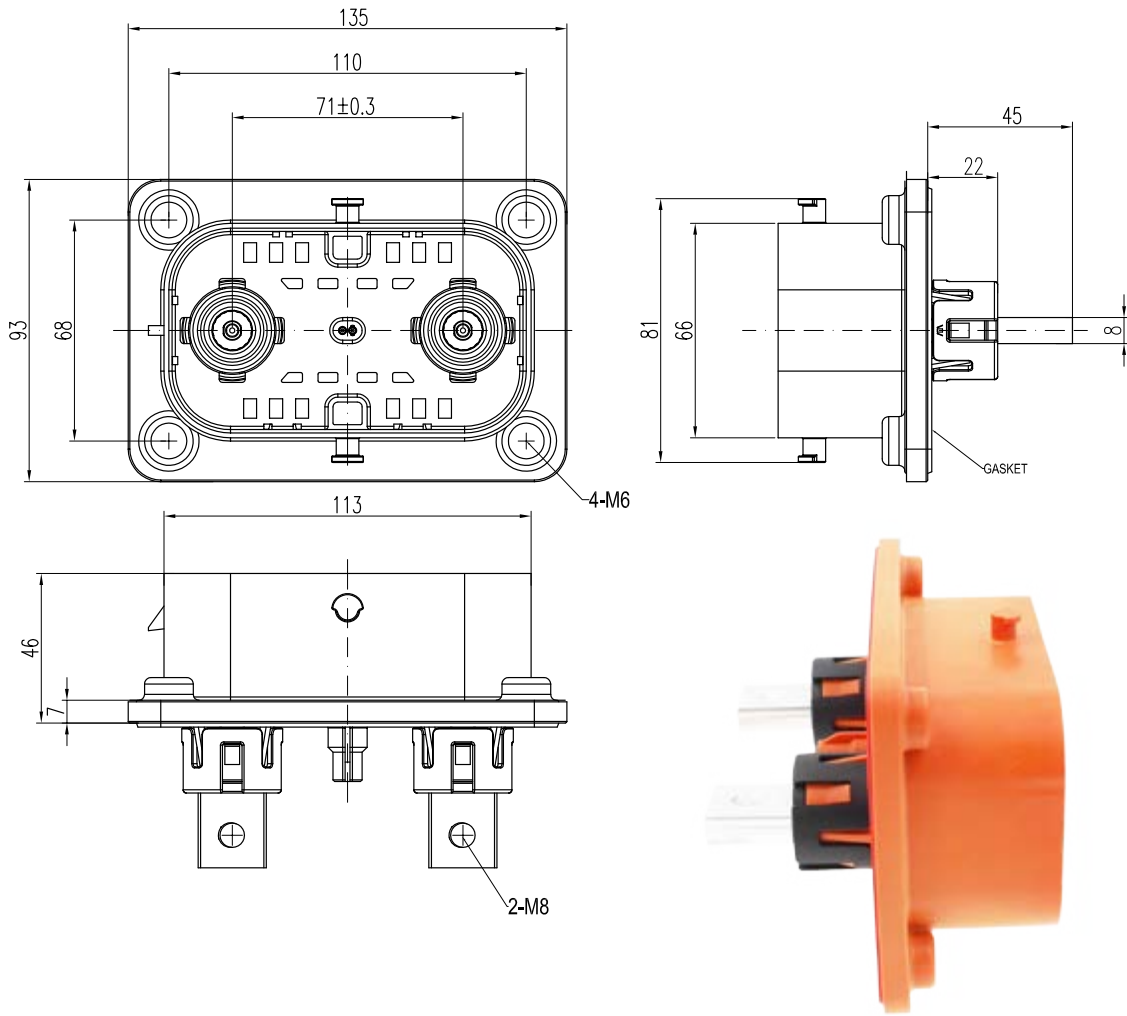
- 1 x integrated internal HVIL
- Unique cooling structure
- High current contacts with Amphenol Radsok technology
- No tools required to unmate
- Various fuse ratings
- Receptacle can be front or rear mounted

APPLICATION	
It is a tool-free solution for disconnecting the internal high voltage battery pack and protecting it from short circuit.	
MECHANICAL	
Mating cycles	≥ 500 cycles
ELECTRICAL	
Fuse specification	up to 630A
With fuse:	
Rated current	300A Max
Rated voltage	1000V DC
With shunt:	
Rated current	300A
Rated voltage	1500V DC Max
ENVIRONMENTAL	
Protection degree	IP67, IP6K9K (mated)
Ambient temperature	-40°C to 70°C
Storage temperature	-40°C to 85°C
Operating temperature	-40°C to 125°C
Flammability	UL94V0
STANDARDS	
USCAR-2	
USCAR-37	
LV-215	
RoHS	

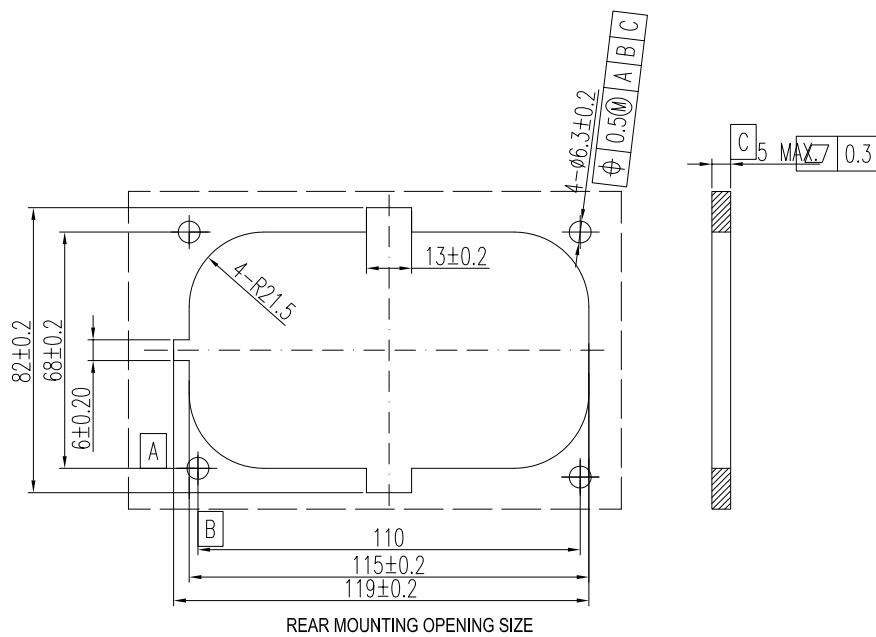
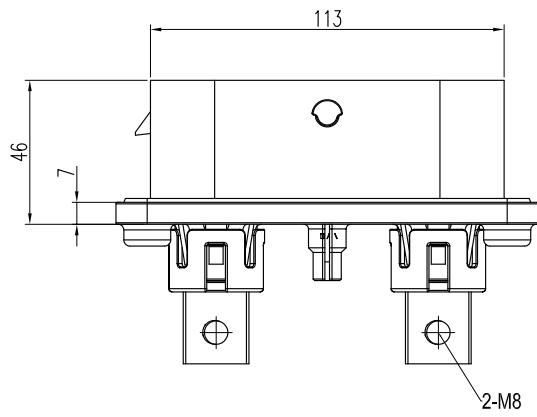
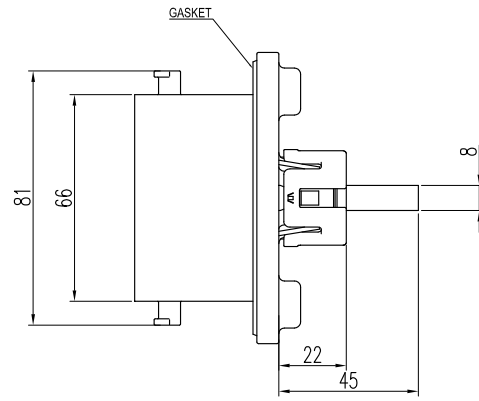
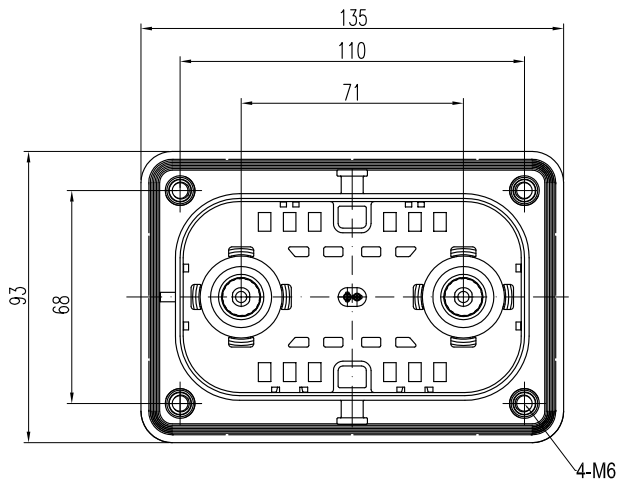
PRODUCT DIMENSIONS



FRONT MOUNTED



REAR MOUNTED



Plug

	<b>MSD XL</b>	<b>M</b>	<b>200</b>
Shell type:			
<b>M:</b> Plug			
<b>Fuse rating current:</b>			
<b>200:</b> 200A			
<b>250:</b> 250A			
<b>315:</b> 315A			
<b>350:</b> 350A			
<b>400:</b> 400A			
<b>450:</b> 450A			
<b>500:</b> 500A			
<b>550:</b> 550A			
<b>630:</b> 630A			
<b>000:</b> No fuse needed, can directly use the terminal			
Fuse brand :			
<b>Bussmann</b> (by default), other brands, please contact us.			

Receptacle

	<b>MSD XL</b>	<b>F</b>	<b>000</b>	<b>F</b>
Shell type:				
<b>F:</b> Receptacle				
Fuse rating current:				
<b>000:</b> No fuse needed, can directly use the terminal				
Flange mounted type:				
<b>F:</b> Front mounted				
<b>R:</b> Rear mounted				



### Amphenol PCD MINI Manual Service Disconnect

Mini MSD has been developed from the standard MSD. Smaller in size and lower in cost, it offers a more compact solution.

Available in a scalable design with a variety of fuse ratings.

## EXCEL|MATE MINI MSD - TECHNICAL CHARACTERISTICS



### KEY FEATURES

A two-stage lever provides an HVIL time delay

1 x integrated internal HVIL

Unique cooling structure

Dual-channel design lowers temperature rise

No tools required to unmate

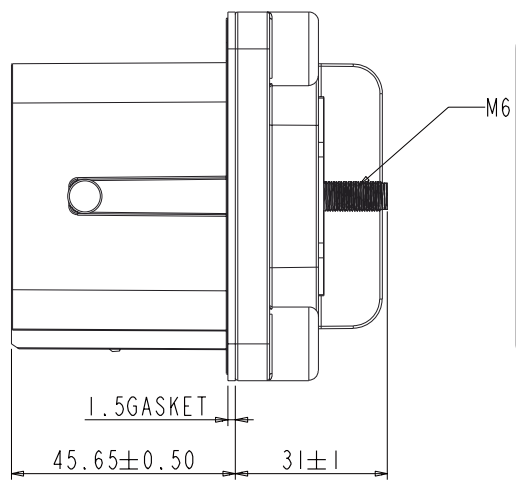
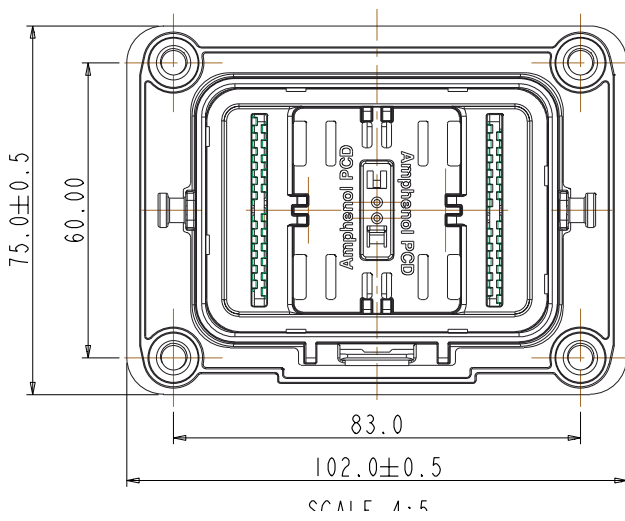
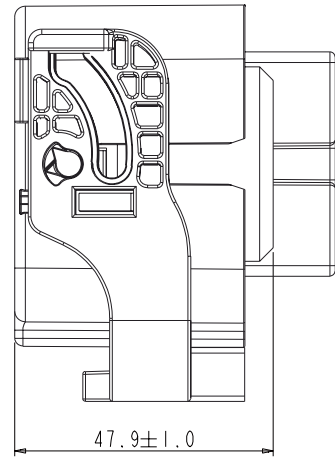
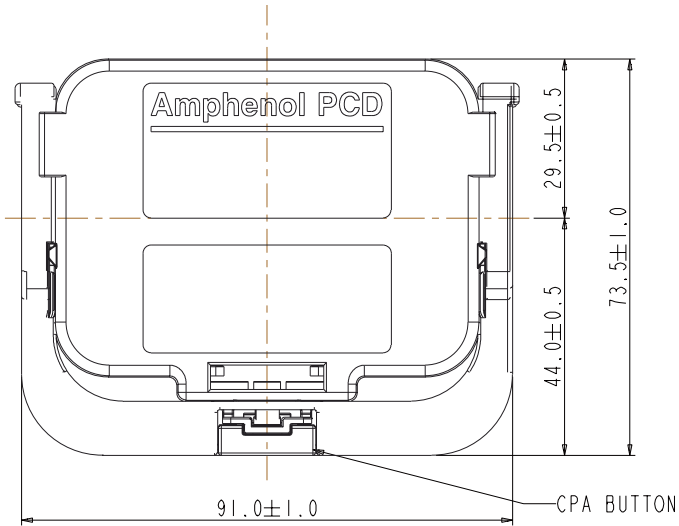
Various fuse ratings

Receptacle can be front or rear mounted

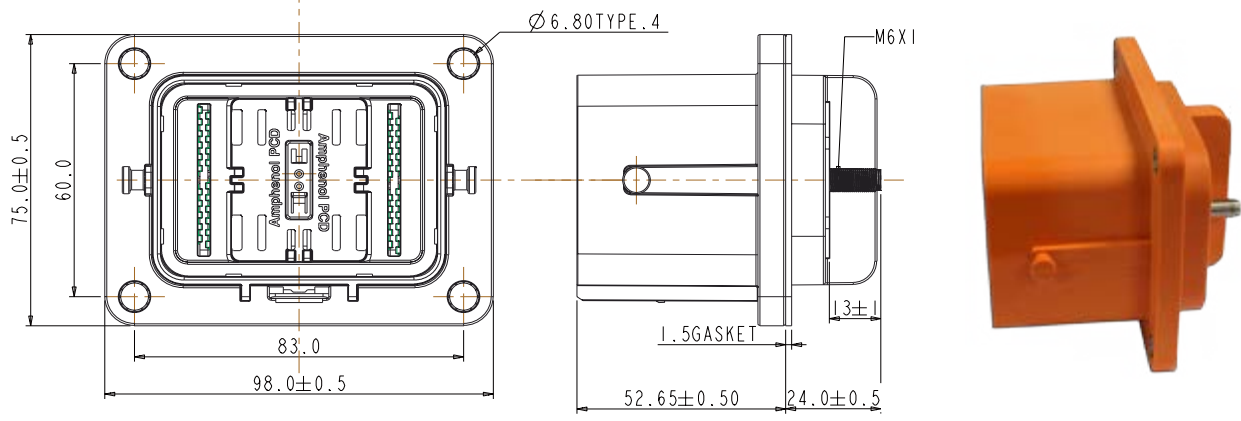
APPLICATION	
It is a tool-free solution for disconnecting the internal high voltage battery pack and protecting it from short circuit.	
MECHANICAL	
Mating cycles	≥ 50 cycles
ELECTRICAL	
Fuse specification	up to 400A
With fuse:	
Rated current	Current is approximately 1/3 the fuse rating (170A Max)
Rated voltage	750V DC
With shunt:	
Rated current	170A Max
Rated voltage	1500V DC Max
ENVIRONMENTAL	
Protection degree	IP67, IP6K9K (mated)
Ambient temperature	-40°C to 70°C
Storage temperature	-40°C to 85°C
Operating temperature	-40°C to 125°C
Flammability	UL94V0
STANDARDS	
USCAR-2	
USCAR-37	
LV-215	
RoHS	



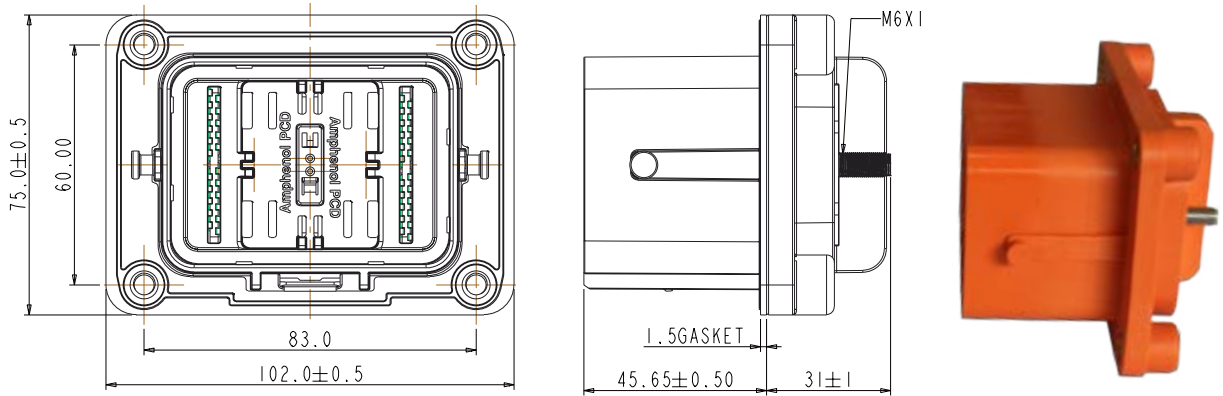
PRODUCT DIMENSIONS



## FRONT MOUNTED



## REAR MOUNTED



DUST CAP AVAILABLE:  
P/N: C270006809



Plug

	MINI MSD	M	200
Shell type:			
<b>M:</b> Plug			
<b>Fuse rating current:</b>			
<b>080:</b> 80A			
<b>100:</b> 100A			
<b>125:</b> 125A			
<b>160:</b> 160A			
<b>200:</b> 200A			
<b>250:</b> 250A			
<b>315:</b> 315A			
<b>400:</b> 400A			
<b>000:</b> No fuse needed, can directly use the terminal			
Fuse brand :			
<b>Bussmann</b> (by default), other brands, please contact us.			

Receptacle

	MINI MSD	F	000	F
Shell type:				
<b>F:</b> Receptacle				
Fuse rating current:				
<b>000:</b> No fuse needed, can directly use the terminal				
Flange mounted type :				
<b>F:</b> Front mounted				
<b>R:</b> Rear mounted				

## EXCEL|MATE MINI MSD V - TECHNICAL CHARACTERISTICS



### KEY FEATURES

A two-stage lever provides an HVIL time delay

1 x integrated internal HVIL

Unique cooling structure

Dual-channel design lowers temperature rise

No tools required to unmate

Various fuse ratings

Receptacle can be front or rear mounted

APPLICATION	
It is a tool-free solution for disconnecting the internal high voltage battery pack and protecting it from short circuit.	
MECHANICAL	
Mating cycles	≥ 50 cycles
ELECTRICAL	
Fuse specification	up to 400A
With fuse:	
Rated current	Current is approximately 1/3 the fuse rating (220A Max)
Rated voltage	750V DC
With shunt:	
Rated current	220A Max
Rated voltage	1500V DC Max
ENVIRONMENTAL	
Protection degree	IP67, IP6K9K (mated)
Ambient temperature	-40°C to 70°C
Storage temperature	-40°C to 85°C
Operating temperature	-40°C to 125°C
Flammability	UL94V0
STANDARDS	
USCAR-2	
USCAR-37	
LV-215	
RoHS	

## HOW TO ORDER - EXCEL|MATE MINI MSD V

Plug: With fuse

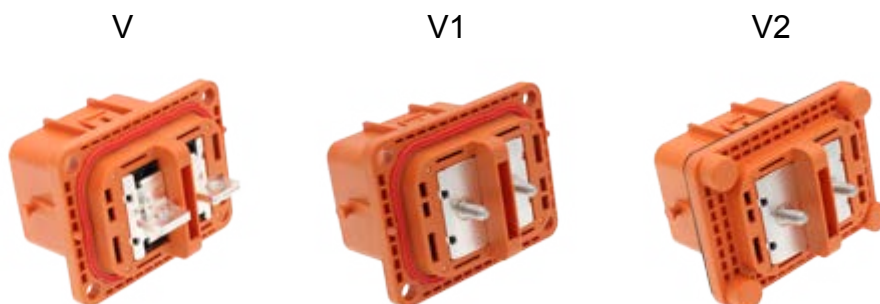
	MINI MSD	M	2002
Shell type:			
<b>M:</b>	Plug		
<b>Fuse rating current:</b>			
<b>0802:</b>	80A		
<b>1002:</b>	100A		
<b>1252:</b>	125A		
<b>1602:</b>	160A		
<b>2002:</b>	200A		
<b>2502:</b>	250A		
<b>3152:</b>	315A		
<b>4002:</b>	400A		
Fuse brand:			
<b>Bussmann</b>	(by default), other brands, please contact us.		

Plug: With shunt

	MINI MSD	VM	000
Shell type:			
<b>VM:</b>	Plug, shunt		
<b>000:</b>	No fuse needed, can directly use the terminal		

Receptacle

	MINI MSD	V	F	000	F
<b>V:</b>	Built-in gasket seal, row connection				
<b>V1:</b>	Built-in gasket seal, stud connection				
<b>V2:</b>	Flat gasket seal, stud connection				
Shell type:					
<b>F:</b>	Receptacle				
Fuse rating current:					
<b>000:</b>	No fuse needed, can directly use the terminal				
Flange mounted type:					
<b>F:</b>	Front mounted				
<b>R:</b>	Rear mounted (only available for V2)				



## Amphenol PCD Shenzhen

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Amphenol PCD Shenzhen reserves the right to clarify this catalog.