



EXCEL | MATE MSD

Manual Service Disconnect

www.amphenolpcd.com.cn

INDUSTRIAL@AMPHENOL
TRUSTED GLOBALLY

CONTENTS

EXCEL MATE MSD	2
EXCEL MATE MSD - TECHNICAL CHARACTERISTICS	3
PRODUCT DIMENSIONS	4
HOW TO ORDER EXCEL MATE MSD	6
EXCEL MATE MSD V - TECHNICAL CHARACTERISTICS	7
HOW TO ORDER EXCEL MATE MSD V	8
EXCEL MATE MSD XL - TECHNICAL CHARACTERISTICS	9
PRODUCT DIMENSIONS	10
HOW TO ORDER EXCEL MATE MSD XL	13
EXCEL MATE MINI MSD	14
EXCEL MATE MINI MSD - TECHNICAL CHARACTERISTICS	15
PRODUCT DIMENSIONS	16
HOW TO ORDER EXCEL MATE MINI MSD	18
EXCEL MATE MINI MSD V	19
HOW TO ORDER EXCEL MATE MINI MSD V	20

EXCEL|MATE MSD



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.

EXCEL|MATE MSD - TECHNICAL CHARACTERISTICS

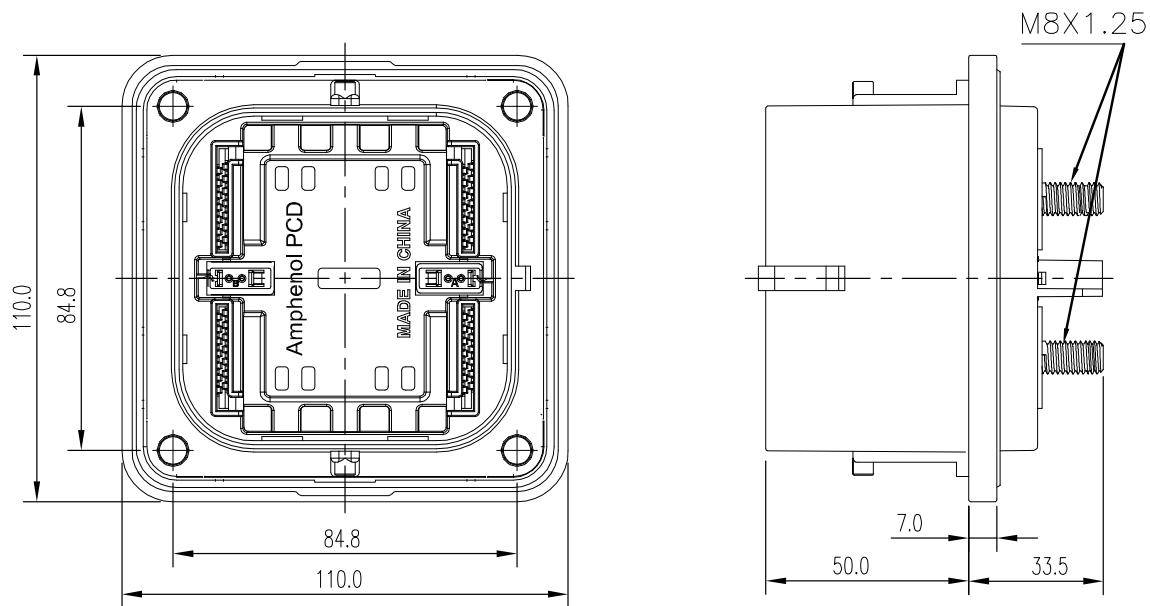
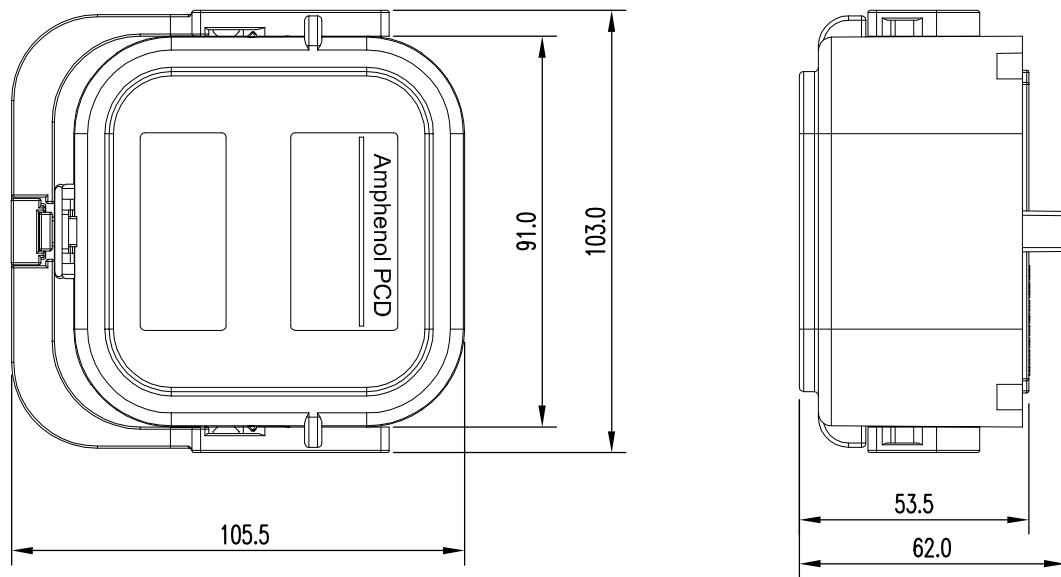


KEY FEATURES

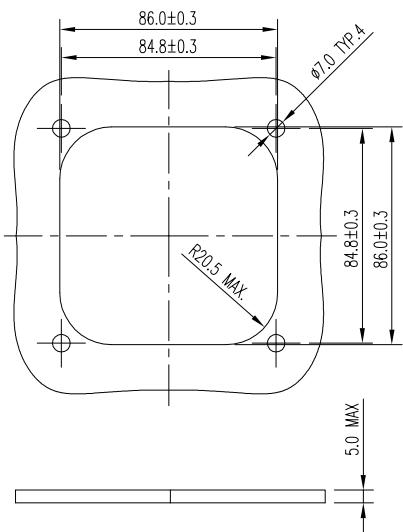
- A two-stage lever provides an HVIL time delay
- 2 x integrated internal HVIL
- Unique cooling structure
- Dual-channel design lowers temperature rise
- No tools required to unmate
- Various fuse ratings
- Receptacle can be front or rear mounted

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	

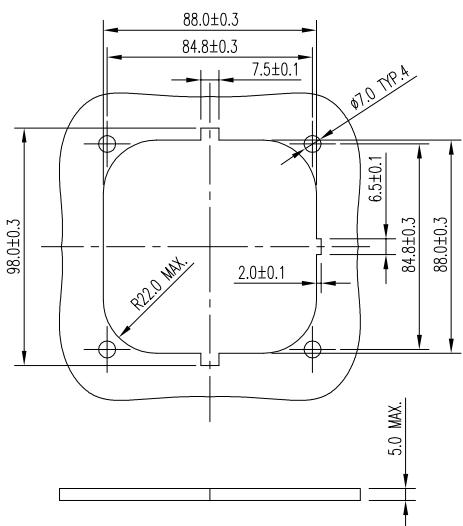
PRODUCT DIMENSIONS



FRONT MOUNTED



REAR MOUNTED



DUST CAP AVAILABLE
P/N: C270006810



HOW TO ORDER - EXCEL|MATE MSD

Plug

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

Receptacle

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

HOW TO ORDER - EXCEL|MATE MSD V

Plug

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

Receptacle

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

EXCEL|MATE MSD XL - TECHNICAL CHARACTERISTICS

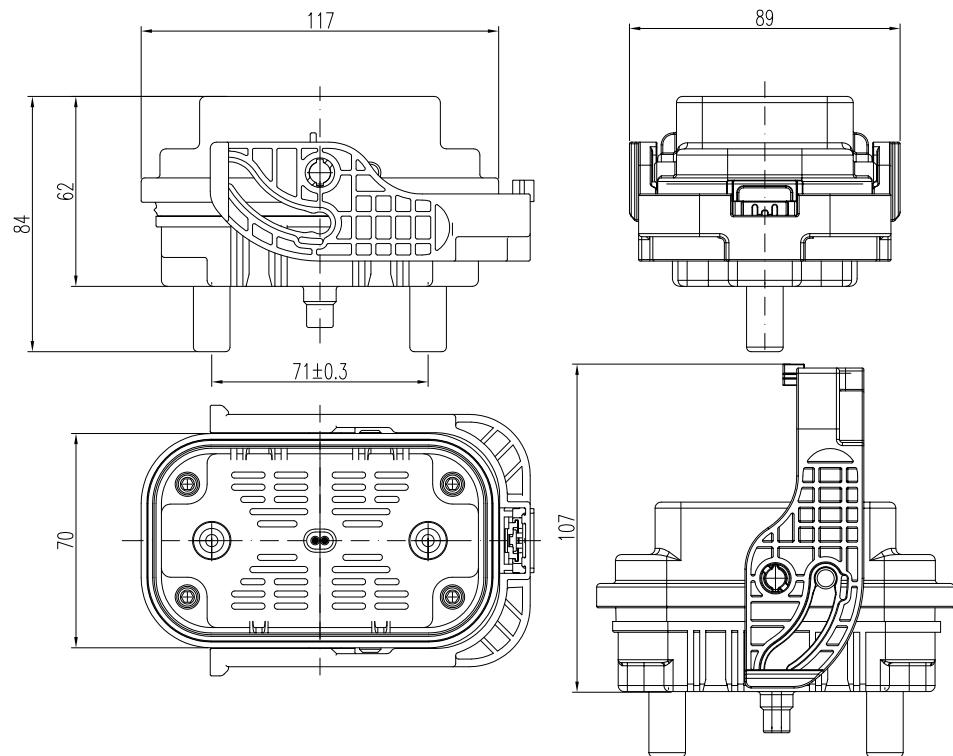


KEY FEATURES

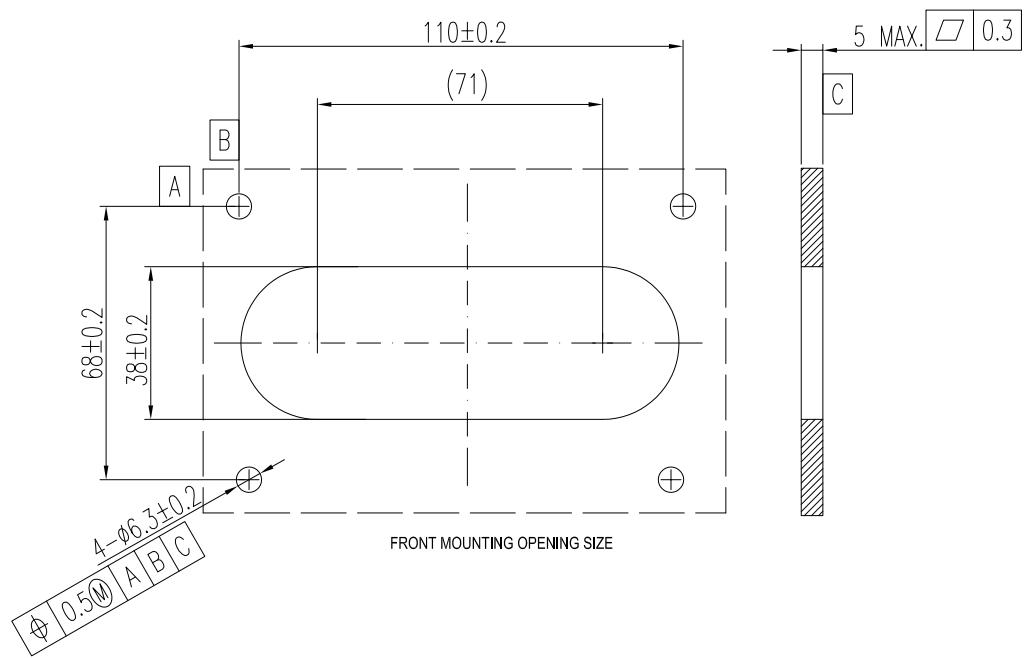
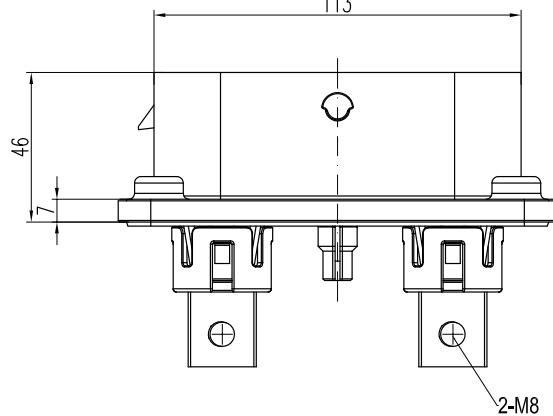
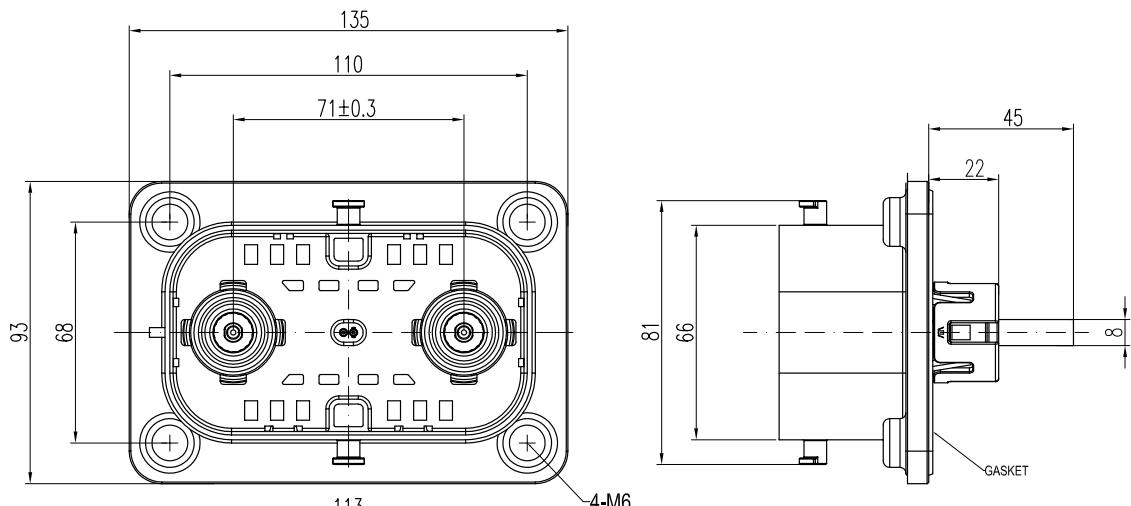
- 1 x integrated internal HVIL
- Unique cooling structure
- High current contacts with Amphenol Radsok technology
- No tools required to unmate
- Various fuse ratings
- Receptacle can be front or rear mounted

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	

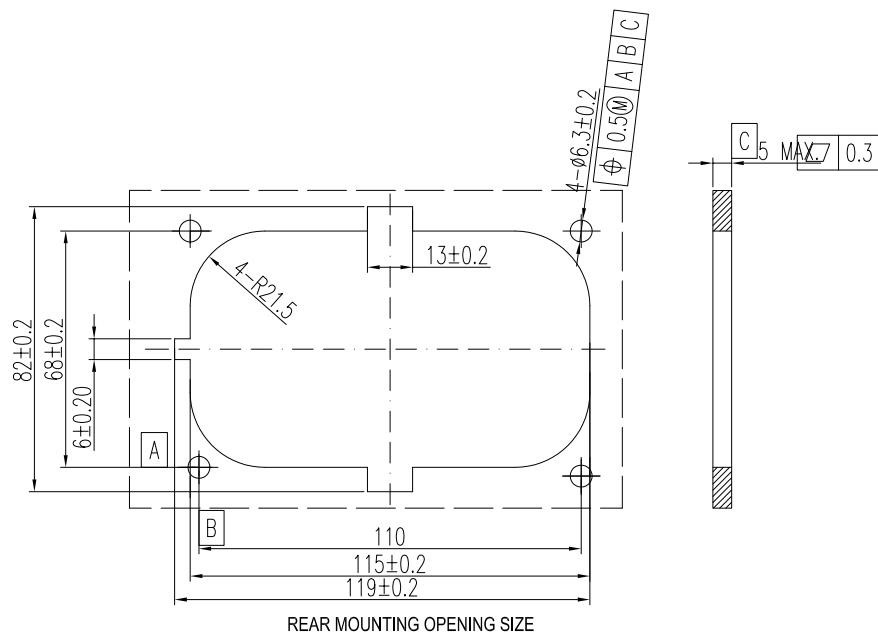
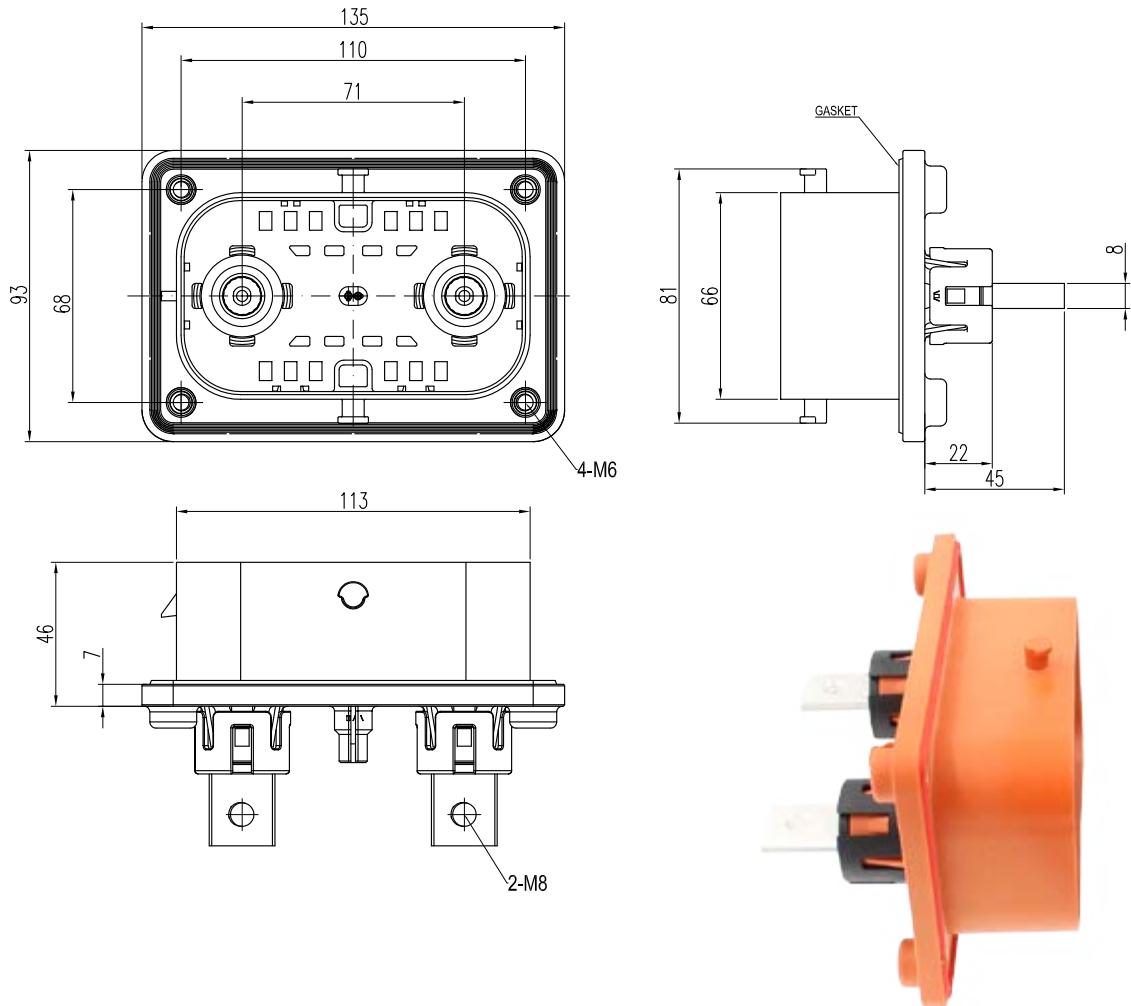
PRODUCT DIMENSIONS



FRONT MOUNTED



REAR MOUNTED



HOW TO ORDER - EXCEL|MATE MSD XL

Plug

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

Receptacle

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

EXCEL|MATE MINI MSD



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

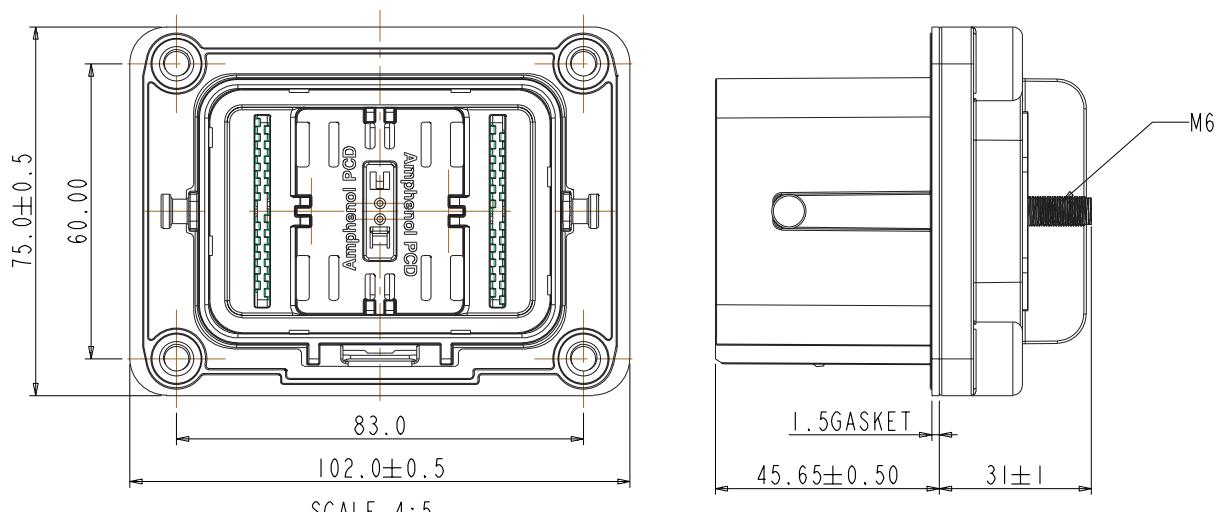
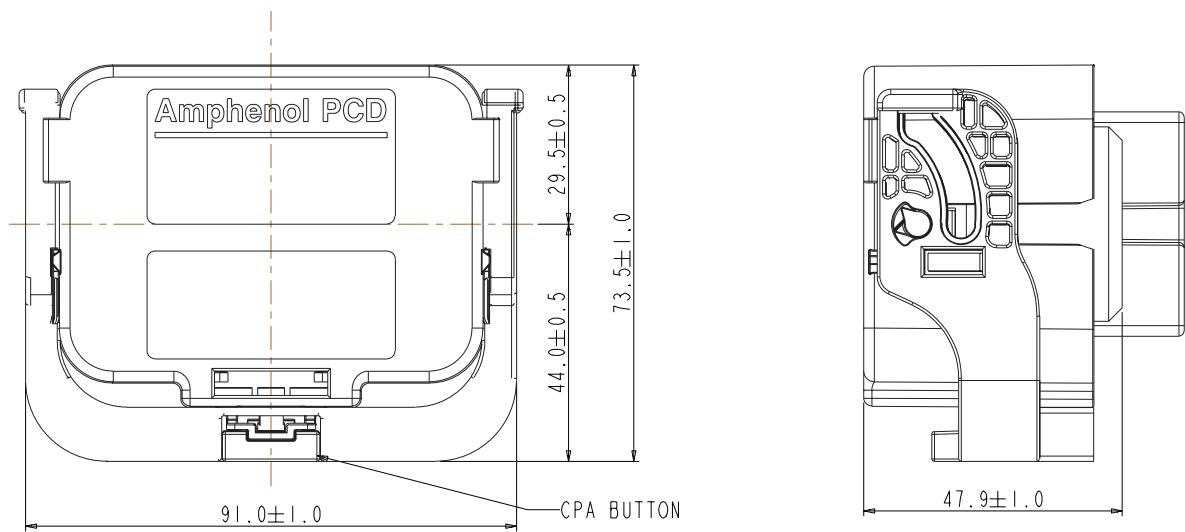


KEY FEATURES

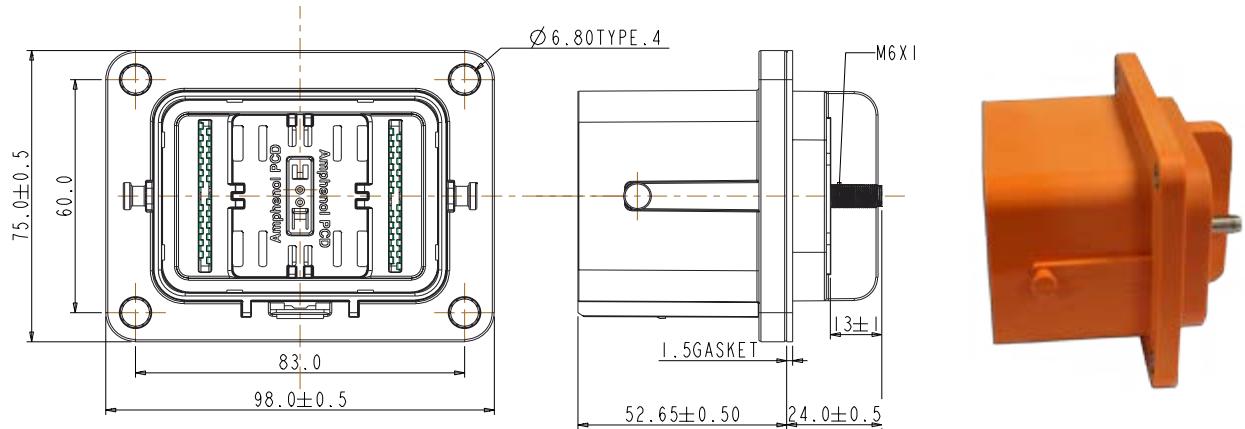
- A two-stage lever provides an HVIL time delay
- 1 x integrated internal HVIL
- Unique cooling structure
- Dual-channel design lowers temperature rise
- No tools required to unmate
- Various fuse ratings
- Receptacle can be front or rear mounted

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	

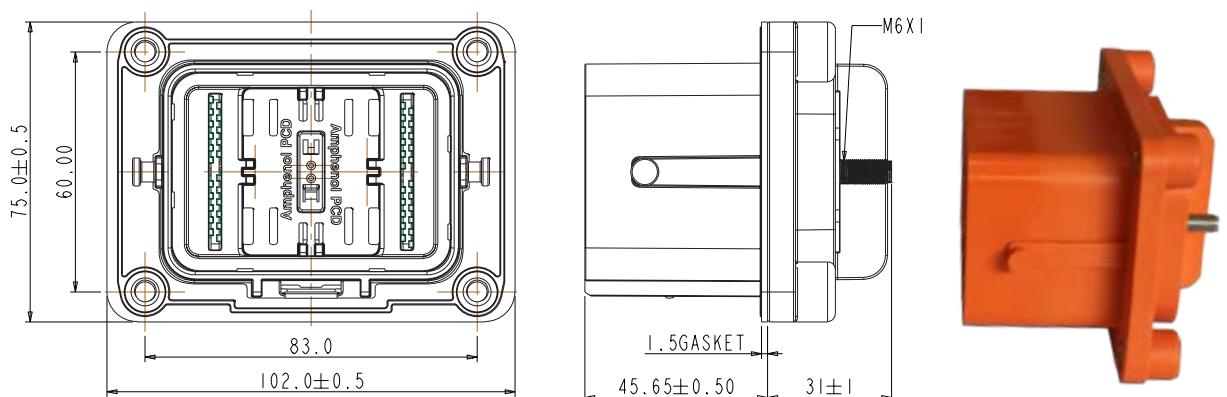
PRODUCT DIMENSIONS



FRONT MOUNTED



REAR MOUNTED

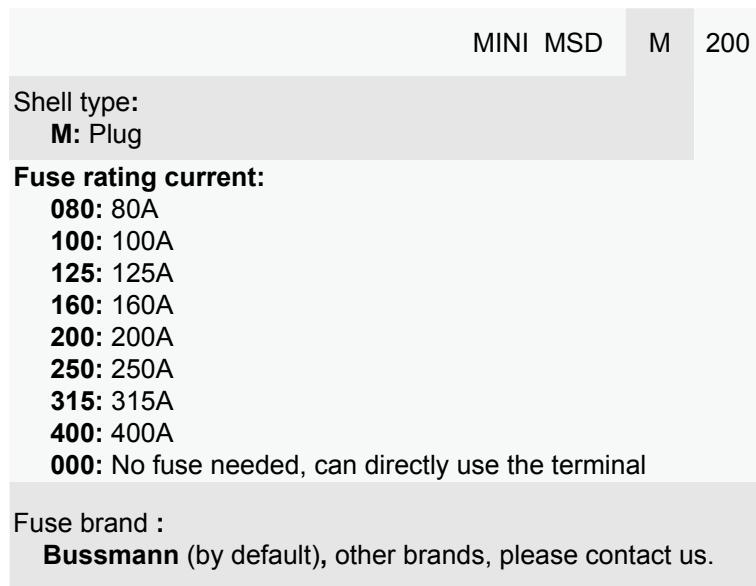


DUST CAP AVAILABLE:
P/N: C270006809

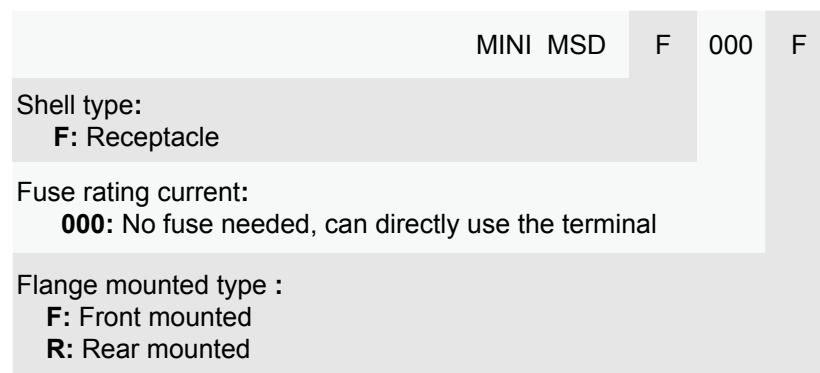


HOW TO ORDER - EXCEL|MATE MINI MSD

Plug



Receptacle



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

[Plug:](#) With shunt

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

[Receptacle](#)

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

V

V1

V2



Amphenol PCD Shenzhen

Building 21
1st Liao Keng Industrial Zone
Shi Yan Street, Bao An District Shenzhen 518108
China

Tel.: +86 755-8173-8000
Fax: +86 755-8173-8180
Email: inquiry@amphenolpcd.com.cn

www.amphenolpcd.com.cn

Notes:

Amphenol PCD Shenzhen has made every effort to ensure that the information contained in this catalog is accurate at the time of publication. Specifications or information stated in this publication are subject to change without notice.

Amphenol PCD Shenzhen reserves the right to clarify this catalog.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Amphenol:](#)

[MSDXLF000R](#) [MSDXLF000F](#) [MSDXLM160](#) [MSDXLM630](#) [MSDXLM350](#) [MSDXLM000](#)

Other:

[MSDF000F](#) [MSDF000R](#)