



# EXCEL | MATE MSD

**Manual Service Disconnect** 



#### CONTENTS

EXCELIMATE 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



## 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

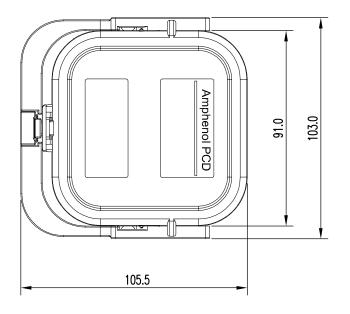
Receptacle can be front or rear mounted

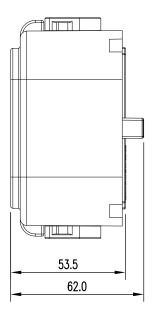
#### APPLICATION

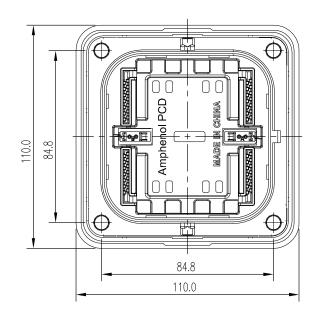
It is a tool-free solution for disconnecting the internal high voltage battery pack and protecting it from short circuit.

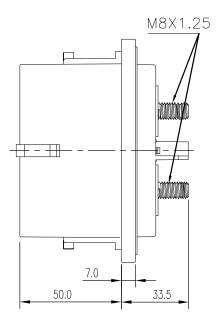
MECHANICAL		
Mating cycles	≥ 50 cycles	
ELECTRICAL		
Fuse specification	up to 630A	
With fuse:		
Rated current	Current is approximately 1/3 the fuse rating	
Rated voltage	500V DC to 600V DC	
With shunt:		
Rated current	260A Max @ Ambient 70°C	
Rated voltage	1000V DC Max	
ENVIRONMENTAL		
Protection degree	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

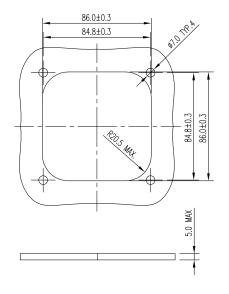






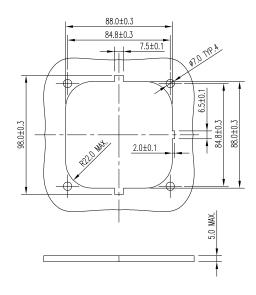


#### FRONT MOUNTED





#### **REAR MOUNTED**





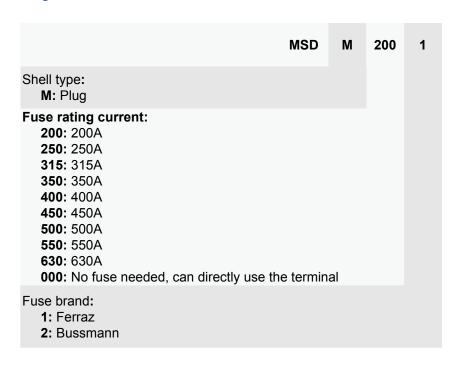
DUST CAP AVAILABLE P/N: C270006810

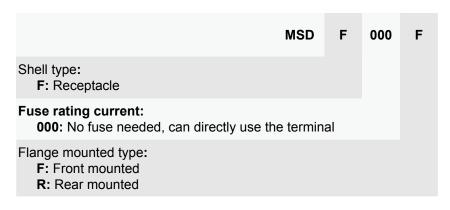




#### HOW TO ORDER - EXCEL|MATE MSD

#### Plug





#### 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

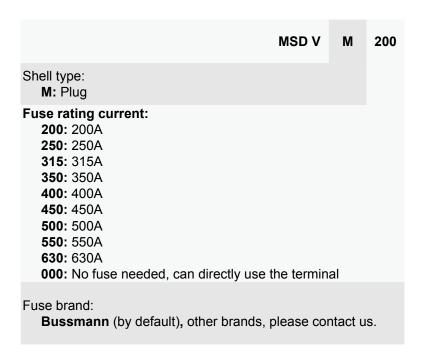
Receptacle can be front or rear mounted

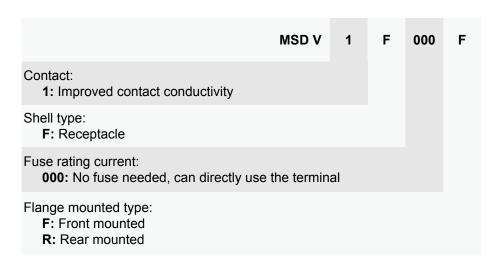
#### APPLICATION

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





#### EXCEL|MATE MSD XL - TECHNICAL CHARACTERISTICS



#### **APPLICATION**

It is a tool-free solution for disconnecting the internal high voltage battery pack and protecting it from short circuit.

**MECHANICAL** 

≥ 500 cycles
ELECTRICAL
up to 630A
300A Max
1000V DC
300A
1500V DC Max

#### **ENVIRONMENTAL** IP67, IP6K9K (mated) Protection degree -40°C to 70°C Ambient temperature Storage temperature -40°C to 85°C -40°C to 125°C Operating temperature Flammability UL94V0 **STANDARDS** USCAR-2 USCAR-37 LV-215 RoHS

#### **KEY FEATURES**

1 x integrated internal HVIL

Unique cooling structure

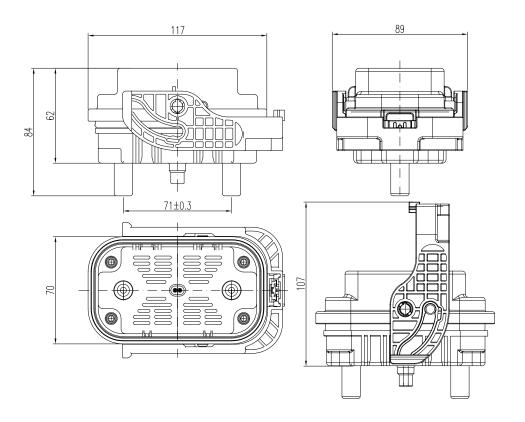
High current contacts with Amphenol Radsok technology

No tools required to unmate

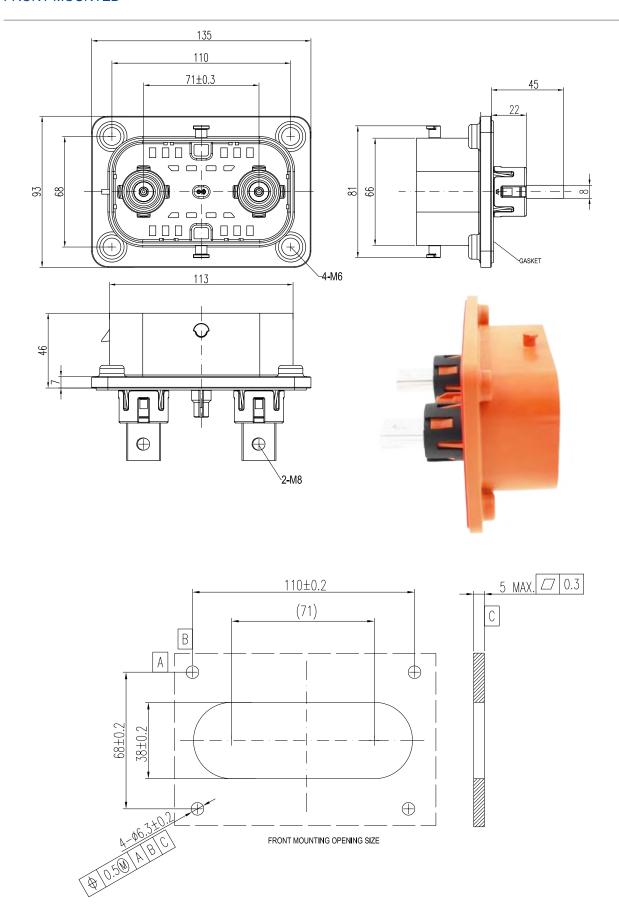
Various fuse ratings

Receptacle can be front or rear mounted

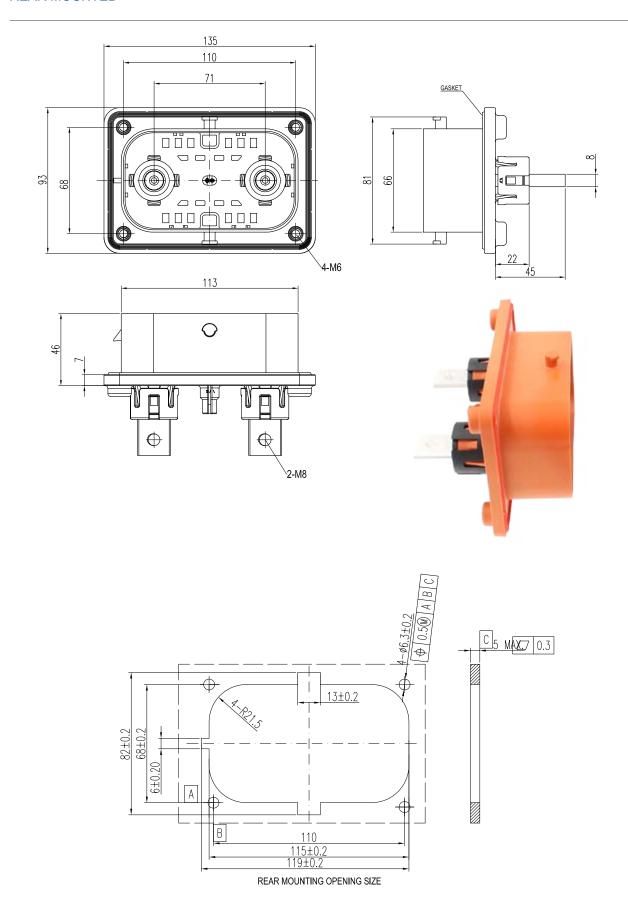
#### PRODUCT DIMENSIONS



#### FRONT MOUNTED

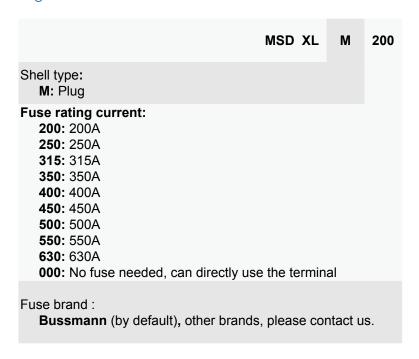


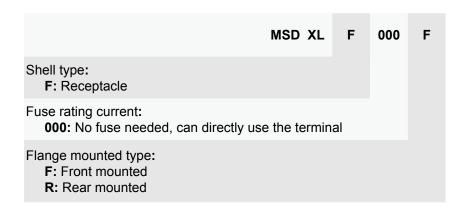
#### **REAR MOUNTED**



#### HOW TO ORDER - EXCEL|MATE MSD XL

#### Plug





#### EXCELIMATE MINI MSD



## Amphenol PCD MINI Manual Service Disconnect

Mini MSD has been developped 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.



#### **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

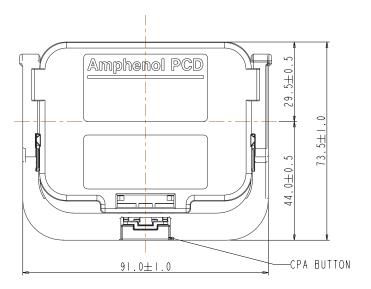
Receptacle can be front or rear mounted

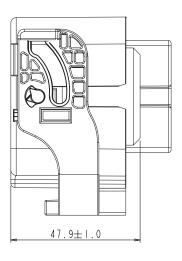
#### **APPLICATION**

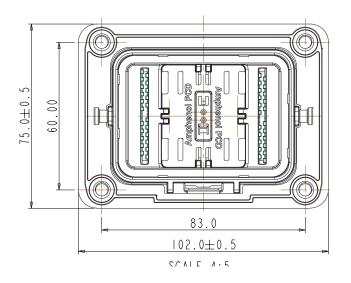
It is a tool-free solution for disconnecting the internal high voltage battery pack and protecting it from short circuit.

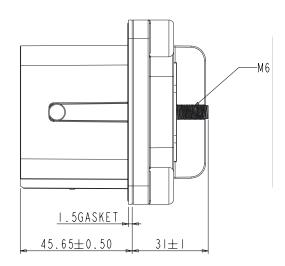
on out.		
MECHANICAL		
Mating cycles	≥ 50 cycles	
ELECTRICAL		
Fuse specification	up to 400A	
With fuse:		
Rated current	Current is approximately 1/3 the fuse rating (170A Max)	
Rated voltage	750V DC	
With shunt:		
Rated current	170A Max	
Rated voltage	1500V DC Max	
EN	VIRONMENTAL	
Protection degree	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

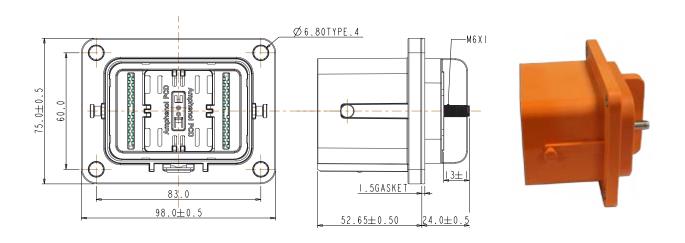




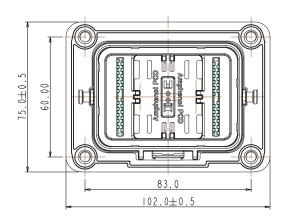


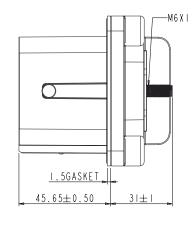


#### FRONT MOUNTED



#### **REAR MOUNTED**





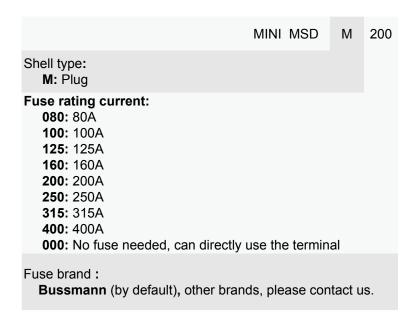


DUST CAP AVAILABLE: P/N: C270006809





#### Plug







**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.

circuit.	aon ana processing is non enerc	
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	
	<u> </u>	
ENV	/IRONMENTAL	
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 - EXCELIMATE MINI MSD V

Plug: With fuse

Shell type:
 M: Plug

Fuse rating current:
 0802: 80A
 1002: 100A
 1252: 125A
 1602: 160A
 2002: 200A
 2502: 250A
 3152: 315A
 4002: 400A

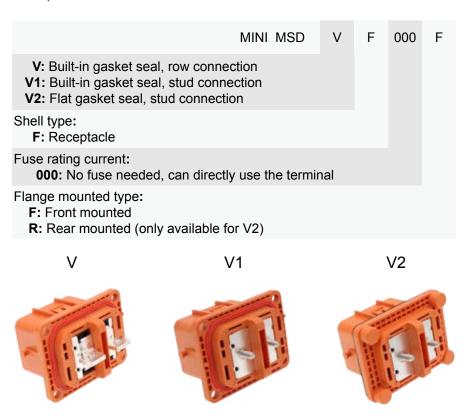
Fuse brand:
 Bussmann (by default), other brands, please contact us.

Plug: With shunt

MINI MSD VM 000

Shell type:
VM: Plug, shunt

000: No fuse needed, can directly use the terminal





#### 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

Other:

MSDF000F MSDF000R