



# INDUSTRIAL POWER FUSES AND SYSTEM PROTECTION

Power Utility Protection



# ESS Fuse Introduction

Batteries and battery system protection are critical to the safety of DC distribution systems in today's rapidly evolving new energy landscape with energy storage batteries as the central issue. More precise, reliable and economical protection can be achieved by using fuses as system protection or by working with other protection systems as backup protection.



\*Power Conditioning System

## Cell

32/65Vdc

## Module

150 to  
500Vdc

## Rack

800 to  
1500Vdc

## Section

1500Vdc

## Container&PCS\*

1500Vdc



AEP



EF3



EF8



AHE#3



AHE#4



AHE#4



AT1



AHC



ASE#2



AHE#5



AHE#5



AB1



EFZ



ASE#3



AT2



ATX



AH3



EFX



EF5



AHE#2

## Semiconductor Fuse Introduction

As a new type of safety protection element, semiconductor fuses have unique properties such as fast melting, low voltage drop and high sensitivity to provide

short circuit protection for devices such as non-interruptible power supplies, inverters, frequency converters and motors.



## Industrial Power fuse Introduction

General industrial fuses provide general protection to the circuit by breaking overcurrents in the conductors,

avoiding temperature rises that could damage insulation properties caused by overcurrents.



**ESS Fuse**

**AEP**

Rated voltage: 65/32 Vdc



Ref Spec: ISO8820-5, UL248  
Rated Current: 20-200A  
Breaking Capacity: 1-1.5kA  
Certified: UL & TÜV



**EFT**

Rated voltage: 63/85/125/  
150/200Vdc



Ref Spec: UL248-13, ISO20934-2019  
Rated Current: 100-400A  
Breaking Capacity: 20kA  
Certified: UL & TÜV



**AEY**

Rated voltage: 70Vdc



Ref Spec: ISO8820-5, UL248,  
ISO20934  
Rated Current: 100-500A  
Breaking Capacity: 2.5kA  
Certified: UL & TÜV



**AEL**

Rated voltage: 80Vdc



Ref Spec: IEC60269-4, UL248,  
DIN43560  
Rated Current: 30-800A  
Breaking Capacity: 3kA  
Certified: UL & TÜV



**EF3**

Rated voltage: 150/200/310Vdc



Ref Spec: UL248-20  
Rated Current: 150-700A  
Breaking Capacity: 50kA  
Certified: UL



**EFP**

Rated voltage: 63/100/125Vdc



Ref Spec: UL248-13,  
20934-2019 (Type SF36)  
Rated Current: 50-350A  
Breaking Capacity: 8kA  
Certified: UL



**AT1**

Rated voltage: 150Vdc



Ref Spec: UL248-13, UL248-20  
JASO D622  
Rated Current: 20-200A  
Breaking Capacity: 20kA  
Certified: UL & CE



**AB1**

Rated voltage: 200Vdc



Ref Spec: UL248-13, IEC60269-4  
Rated Current: 50-300A  
Breaking Capacity: 20kA  
Certified: UL



**AT2**

Rated voltage: 250Vdc



Ref Spec: UL248-13, UL248-20  
JASO D622  
Rated Current: 200-500A  
Breaking Capacity: 10kA  
Certified: In process



**EF5**

Rated voltage: 500Vdc



Ref Spec: UL248-20  
Rated Current: 100-400A  
Breaking Capacity: 50kA  
Certified: UL



**EF8**

Rated voltage: 800Vdc



Ref Spec: UL248-20  
Rated Current: 100-400A  
Breaking Capacity: 50kA  
Certified: UL



**AT7**

Rated voltage: 800Vdc



Ref Spec: UL248-13, UL248-20  
Rated Current: 125-400A  
Breaking Capacity: 20kA  
Certified: In process





# Power Utility Protection



## AT8

Rated voltage:800Vdc



Ref Spec:UL248-20,UL248-13  
Rated Current:50-200A  
Breaking Capacity:20kA  
Certified:UL



## AXE

Rated voltage:1500Vdc



Ref Spec:IEC60269-1/-6  
Rated Current:125-400A  
Breaking Capacity:50kA  
Certified:UL & TÜV



## AX8

Rated voltage : 1500Vdc



Ref Spec:IEC60269-6,  
UL 248-19  
Rated Current:450-630A  
Breaking Capacity:50kA  
Certified:UL & TÜV



## ASE 2#

Rated voltage : 1500Vdc



REF SPEC:IEC60269-1/-4/-7  
Rated Current:100-450A  
Breaking Capacity:250kA  
Certified:UL & TÜV & CCC



## ASE 3#

Rated voltage : 1500Vdc



Ref Spec:IEC60269-1/-4/-7  
Rated Current:315-1200A  
Breaking Capacity:250kA  
Certified:UL& TÜV & CCC



## AHC

Rated voltage: 1500 Vdc



Ref Spec:IEC 60269,UL248  
Rated Current:200-630A  
Breaking Capacity:50kA  
Certified:In Progress



## A95

Rated voltage : 1500Vdc



Ref Spec:UL248,IEC60269  
Rated Current:35-80A  
Breaking Capacity:30kA  
Certified:UL



## EFZ

Rated voltage: 1500Vdc



Ref Spec:UL248-20  
Rated Current:100-300A  
Breaking Capacity:30kA  
Certified:UL



**AN6**

Rated voltage:690Vac/700Vac



Ref Spec:IEC60269,GB/T13539.4  
Rated Current:40-2000A  
Breaking Capacity:200kA  
Certified:UL & TÜV



**MSD**

Rated voltage: 500Vdc/750Vdc  
800Vdc/1500Vdc



Refer Spec: UL4128,GB/T 34167.3-2015,USCAR-2  
2 stage lever assist latching  
No tools required to unmate  
Various fuse ratings  
HVIL can be customized



**Industrial Power Fuse**

**APT**

Rated voltage : 125Vdc/500Vac



Ref Spec:UL248-1  
Rated Current:31.5-80A  
Breaking Capacity:1.5/2.5kA  
Certified:In process



**ANH**

Rated voltage : 690/500 Vac



Ref Spec:IEC 60269-1,IEC 60269-2,  
GB/T 13539.1,GB/T 13539.2  
Rated Current:2-125A  
Breaking Capacity:50/120kA  
Certified: In Process



**APE**

Rated voltage : 600Vac/dc



Ref Spec:UL 248-13,  
Rated Current:2-30A  
Breaking Capacity:50kA  
Certified:UL



**ACC**

Rated voltage : 600Vac/300Vdc



Ref Spec:UL248-4  
Rated Current:0.2-30A  
Breaking Capacity:200/100kA  
Certified:UL



**GGC**

(10x38mm)

Rated voltage : 690 Vac



Ref Spec:IEC60269-2,  
GB13539.2  
Rated Current:0.5-40A  
Breaking Capacity:100kA  
Certified:UL



**GGC**

(14x51mm)

Rated voltage : 690Vac



Ref Spec:IEC60269-2,  
GB/T13539.2  
Rated Current:2-63A  
Breaking Capacity:100kA  
Certified:UL



**GGC**

(22x58mm)

Rated voltage : 690Vac



Ref Spec:IEC60269-2  
GB13539.2  
Rated Current:16-125A  
Breaking Capacity:100kA  
Certified:UL



**APD**

Rated voltage : 1000 Vac/dc



Ref Spec:IEC60269-4,UL248  
Rated Current:0.44-15A  
Breaking Capacity:30kA  
Certified:UL



**Fuse Holders and Accessoties**

**MS0003**

Rated voltage : 250Vdc



Application: Square-body fuses  
Rated Current:2A  
Certified:UL



**ARX1**

Rated voltage : 1000Vac/dc



Ref Spec:GB/T13539,IEC60269  
Rated Current:1A  
Certified:In Process





## Power Utility Protection

### AHE 2#

Rated voltage: 1500 Vdc



Ref Spec: IEC60269-1/-4  
Rated Current: 160-800A  
Breaking Capacity: 250kA  
Certified: UL & TÜV



### AHE 3#

Rated voltage: 1500Vdc



Ref Spec: IEC60269-1/-4  
Rated Current: 315-1200A  
Breaking Capacity: 250kA  
Certified: UL & TÜV



### AHE 4#

Rated voltage: 1500 Vdc



Ref Spec: IEC60269-1/-4  
Rated Current: 630-1800A  
Breaking Capacity: 250kA  
Certified: UL & TÜV



### AHE#

Rated voltage: 1500Vdc



Ref Spec: IEC60269-1/-4  
Rated Current: 1250-3000A  
Breaking Capacity: 250kA  
Certified: UL & TÜV



## Semiconductor Fuse

### ACT

Rated voltage: 170Vdc



Ref Spec: UL248  
Rate Voltage: 1-100A  
Breaking Capacity: 100kA  
Certified: UL



### ARC (10x38mm)

Rated voltage: 600Vac



Ref Spec: IEC60269, UL248  
Rate Voltage: 0.5-63A  
Breaking Capacity: 50/100kA  
Certified: UL & TÜV



### ARC (14x51mm)

Rated voltage: 690Vac



Ref Spec: UL248-13,  
IEC 60269-4  
Rate Voltage: 4-63A  
Breaking Capacity: 80kA  
Certified: UL



### ARC (22x58mm)

Rated voltage: 500/690 Vac



Ref Spec: UL 248-13,  
IEC 60269-4  
Rate Voltage: 16-100A  
Breaking Capacity: 80/120kA  
Certified: UL



### AMC (10x38mm)

Rated voltage: 600Vac



Ref Spec: UL248-13, IEC60269-4  
Rate Voltage: 0.5-63A  
Breaking Capacity: 50/100kA  
Certified: UL



### AMC (14x51mm)

Rated voltage: 690Vac



Ref Spec: UL248-13,  
IEC 60269-4  
Rate Voltage: 4-80A  
Breaking Capacity: 80kA  
Certified: UL



### AMC (22x58mm)

Rated voltage: 500/690 Vac



Ref Spec: UL 248-13,  
IEC 60269-4  
Rated Current: 16-150A  
Breaking Capacity: 80/120kA  
Certified: UL



### AG4&AG5&AGH

Rated voltage: 500Vdc/690Vac



Ref Spec: IEC60269-4, GB13539-4  
Rated Current: 40-700A  
Breaking Capacity: 10/50kA  
Certified: UL





## Marketing management network:

### EMEA ADLER Elektrotechnik Leipzig GmbH

Haynaer Weg 16  
04435 Schkeuditz  
OT Radefeld

Tel. : +49 34207/97 36 36  
Fax : +49 34207/97 36 35

HRB 32327/ D.C. Leipzig  
E-Mail: info@adlerelectric.com

www.adlerelectric.com  
www.adlerelektro.de

### APD ADLER Elektrotechnik Dongguan Co., Ltd.

No.11, Hengzhongyi Road, Hengkeng Administrative Zone,  
Liaobu Town, Dongguan City, Guangdong Province

Tel. : +86 769 8323 9659  
Fax : +86 769 8323 8732

E-Mail: louisliu@adlerelectric.com

