



NEW ENERGY EBOS Solution  
NIU Powering the green future

# **SOLAR EBOS**

## **PRODUCT CATALOGUE**

**2022E**



NIU Power offers products and solutions for all segments of new energy electric system. NIU Power understands the needs for efficient, low loss and high efficiency power transfer, high reliable, and cost effective solutions that are required to be competitive in PV industry. We can provide panel manufacturers, installers and OEM's with connectivity products for crystalline silicon and thin film technologies.

NIU Power's over-molded solar junctions and inline fuse provided the ideal low cost, high quality solution for commercial photovoltaic installations. The molded construction provides weather tight housing preventing moisture from getting to cable joints and provides the needed electrical protection with rugged design. They can be pre-fabricated with various lengths, number of branches and distance between branches and cable end options according to customers specification.

NIU Power maintains the highest standards for excellence. The 1500V over-molded solar junctions is just one of the cost effective solar solutions NIU Power has to offer.

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## A4 Max Series Solar Connectors

A4 Max Solar Connector



DC 1500V, Copper Cable Connector



IEC 1500V / UL 1500V



IEC: 62852 / UL: 6703



-40°C~90°C



UL94-V0



IP 68



UV Resistance



TYPE	Cable Spec	Cable OD	Voltage	Current
A4-6 Max	2.5mm <sup>2</sup> /4mm <sup>2</sup>	4.7mm~6.0mm	1500V	25A/35A
A4-7 Max	4mm <sup>2</sup> /6mm <sup>2</sup>	5.6mm~7.0mm	1500V	35A/40A
A4-9 Max	6mm <sup>2</sup> /10mm <sup>2</sup>	7.0mm~9.0mm	1500V	40A/50A
A4-10 Max	16mm <sup>2</sup>	8.5mm~10mm	1500V	70A

## A4 P Series Panel Connectors

A4-P Solar Connector



DC 1500V, Panel Connector



IEC 1500V / UL 1500V



IEC: 62852 / UL: 6703



-40°C~90°C



UL94-V0



IP 68



UV Resistance



TYPE	Cable Spec	Cable OD	Voltage	Current
A4-P-7	2.5mm <sup>2</sup> /4mm <sup>2</sup> /6mm <sup>2</sup>	Max 8.0mm	1500V	25A/35A/40A
A4-P-10	10mm <sup>2</sup>	Max 8.0mm	1500V	50A
A4-P-16	16mm <sup>2</sup>	Max 10.0mm	1500V	70A

## A4 nB1 Branch Connectors

A4 nB1 Solar Connector



DC 1500V, Branch Connectors



IEC 1500V



IEC: 62852



-40°C~90°C



UL94-V0



IP 68



UV Resistance



TYPE	Voltage	Current	IP	Remark
A4-2B1	1500V	70A	IP68	
A4-3B1	1500V	70A	IP68	
A4-4B1	1500V	70A	IP68	
A4-5B1	1500V	70A	IP68	

Remark: A4 series connectors use high quality weather resistance materials that guarantee long-term reliability.



## A4 Max Series



IEC 1500V  
UL 1500V



IEC62852  
UL 6703



-40 °C ~ 90 °C



UL94-V0



IP 68



UV Resistance



## Product Overview

A4 Max Series connectors use high quality weather resistance materials that guarantee long-term reliability. A4 could match 10 mm<sup>2</sup> to 16mm<sup>2</sup> cables, it could be widely used in different applications. The lower contact resistance and higher current transfer capability ensure high product efficiency. A4 Max connectors have IP68 water-proof rating and can be used in a wide operating temperature range from -40 °C to 90 °C.

## Technical Data

Rated Voltage	IEC 1500V\UL1500V
Certification	IEC 62852; UL 6703
Rated Current	Max 70A
Ambient Temp	-40 °C up to +90 °C
Contact Resistance	≤0.25mΩ
Pollution Degree	Class II
Protection Degree	Class II
Flre Resistance	UL94-V0
Rated Impulse Voltage	16KV
Locking System	NEC Locking Type

## Order Data

Connector Male Housing		Connector Female Housing		Male Terminal		Female Terminal	
TYPE	Cable OD	TYPE	Cable OD	TYPE	Cable Spec	TYPE	Cable Spec
A4-M6	4.7mm~6.0mm	A4-F6	4.7mm~6.0mm	A4-MU	2.5mm <sup>2</sup> ~6mm <sup>2</sup>	A4-FU	2.5mm <sup>2</sup> ~6mm <sup>2</sup>
A4-M7	5.6mm~7.0mm	A4-F7	5.6mm~7.0mm	A4-MO-10	6mm <sup>2</sup> ~10mm <sup>2</sup>	A4-FO-10	6mm <sup>2</sup> ~10mm <sup>2</sup>
A4-M8	6.8mm~8.5mm	A4-F9	6.8mm~8.5mm	A4-MO-16	16mm <sup>2</sup>	A4-FO-16	16mm <sup>2</sup>
A4-M10	8.0mm~10mm	A4-F10	8.0mm~10mm				

### Remark:

The exposure to or direct contact with chemicals or oils of A4 products may cause corrosion, degradation of performance, or cracking of the product, thus such exposure or direct contact should be strictly prohibited during the process of product manufacturing, transportation, installation and application. The chemicals that may come into contact with or be used in the process above.



## A4 nB1 Series



IEC 1500V  
UL 1500V



UL: 6703  
IEC: 62852



-40 °C~85 °C



UL94-V0



IP 68



UV Resistance



## Product Overview

A4 nB1 Series Branch connectors use high quality weather resistance materials that guarantee long-term reliability. A4 nB1 could match A4 nB1 series branch connectors, it could be widely used in different applications. The lower contact resistance and higher current transfer capability ensure high product efficiency. A4 nB1 Series connectors have IP68 water-proof rating and can be used in a wide operating temperature range from -40 °C to 85 °C.

## Technical Data:

Rated Voltage	IEC 1500V
Certification	IEC 62852
Rated Current	70A
Ambient	-40°C up to +85°C
Contact Resistance	≤0.25mΩ
Pollution Degree	Class II
Protection Degree	Class II
Fire Resistance	UL94-V0
Rated Impulse Voltage	16KV

## Order Data:

TYPE	Description	Voltage	Current	IP	Remark
A4 2B1	A4 2B1-2F1M	DC 1500V	70A	IP68	
	A4 2B1-2M1F				
A4 3B1	A4 3B1-2F1M				
	A4 3B1-2M1F				
A4 4B1	A4 4B1-2F1M				
	A4 4B1-2M1F				
A4 5B1	A4 5B1-2F1M				
	A4 5B1-2M1F				

### Remark:

1,A4 nB1 connectors use high quality materials. They have IP68 protection grade, using flame retardant,anti hydrolytic,UV resistant polymer insulation material, to ensure long-term safety in outdoor exposed environment.

2,Customized options available, for more information, please contact NIU Power sales team: Marketing@niu-power.com



## A4-P Series



IEC 1500V  
UL 1500V



UL: 6703  
IEC: 62852



-40°C~90°C



UL94-V0



IP 68



UV Resistance

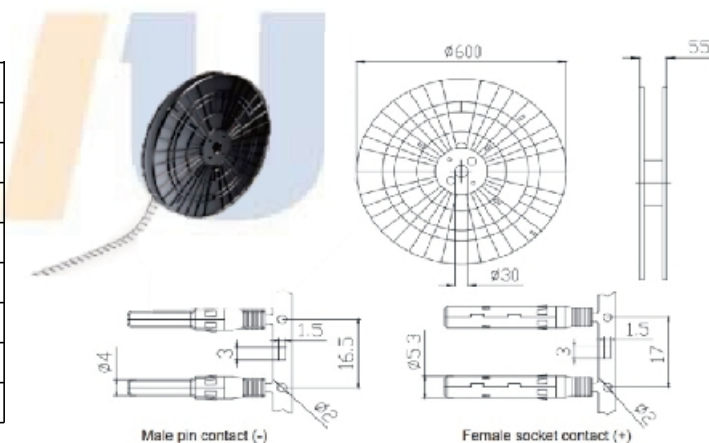


## Product Overview

A4 P Series connectors use high quality weather resistance materials that guarantee long-term reliability. The connectors were certified and qualified by TUV& ETL under IEC&UL Standards. The connectors could match 2.5mm<sup>2</sup> to 16mm<sup>2</sup> cables, it could be widely used in different applications. The lower contact resistance and higher current transfer capability ensure high product efficiency. A4 connectors have IP68 water-proof rating and can be used in a wide operating temperature range from -40 °C to 90 °C.

## Technical Data

Rated Voltage	IEC 1500V/UL1500V
Certification	IEC 62852&UL 6703
Rated Current	25A/35A/40A/50A/70A
Ambient	-40°C up to +90°C
Contact Resistance	≤0.25mΩ
Pollution Degree	Class II
Protection Degree	Class II
Fire Resistance	UL94-V0
Rated Impulse Voltage	16KV



## Order Data

TYPE	Voltage	Current	Cable OD	Terminal Type	IP	Cable Spec
A4 P 25	1500V	25A	≤8mm	U	IP68	2.5mm <sup>2</sup>
A4 P 46		35A/40A		U		4mm <sup>2</sup> /6mm <sup>2</sup>
A4 P 10		50A	O	10mm <sup>2</sup>		
A4 P 16		70A	≤9.5mm	O		16mm <sup>2</sup>

### Remark:

1,A4-P connectors use high quality materials. They have IP68 protection grade, using flame retardant, anti hydrolytic,UV resistant polymer insulation material, to ensure long-term safety in outdoor exposed environment.

2.Customized options available, for more information, please contact NIU Power sales team: Marketing@niu-power.com

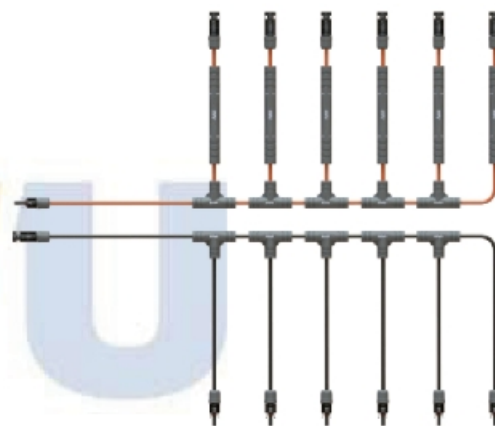


## H Series Solar Integrated Harnesses



### FEATURES

- MAX RATED CURRENT 400A
- MAX RATED SYSTEM VOLTAGE DC 1500V
- BETTER BOS COST
- HI-TECH SEALING TECHNOLOGY
- AUTHORIZED PATENTS
- UV RESISTANCE
- IP 68
- IEC&UL QUALIFIED AND CERTIFIED



### Parameter Data

TYPE	CABLE	CONNECTOR	VOLTAGE	FUSE	Remark
H-I: I Junction	A <sub>I</sub> 2.5mm <sup>2</sup> /14AWG	A: A4 Max Series	L: 1100V	01:1A	
H-Y: Y Junction	B <sub>I</sub> 4mm <sup>2</sup> /12AWG	B: STAUBLI KST4(MC4)	H <sub>I</sub> 1500V	02:2A	
H-X: X Junction	C <sub>I</sub> 6mm <sup>2</sup> /10AWG	C: STAUBLI MC4-EVO2		03:3A	
H-T: T Junction	D <sub>I</sub> 10mm <sup>2</sup> /8 AWG	D: CANADIANSOLAR T4		04:4A	
H-3B1: 3B1 Junction	E <sub>I</sub> 16mm <sup>2</sup> /6 AWG	E: TRANASOLAR TS4		—	
H-4B1: 4B1 Junction	F <sub>I</sub> 95mm <sup>2</sup> Alloy Cable	F: JINKO JK03M		25:25A	
H-4B2: 4B2 Junction	G <sub>I</sub> 120mm <sup>2</sup> Alloy Cable	G: LONGI PV LR-5		—	
H-5B1: 5B1 Junction	H <sub>I</sub> 150mm <sup>2</sup> Alloy Cable	H: AMPHENOL UTX		XX <sub>I</sub> max 50A	
H-6B1: 6B1 Junction	G <sub>I</sub> 185mm <sup>2</sup> Alloy Cable	I <sub>I</sub> Option			
H6 Galaxy					

#### Remark:

1,H Series were certified and qualified by IEC & UL . They use high quality materials. They have IP68 protection grade, using flame retardant,anti hydrolytic,UV resistant polymer insulation material, to ensure long term safety in outdoor exposed environment.

2,Customized options available, for more information, please contact NIU Power sales team: Marketing@niu-power.com





## H-X Branch

H-X Branch



### DC 1500V,H-X Branch



IEC 1500V / UL 1500V



UL94-V0



IP 68



UV Resistance

TYPE	Cable Spec	Connector	Voltage	Remark
H-X	2.5 mm <sup>2</sup> ~ 16mm <sup>2</sup>	Customized	1500V	

## H-T Branch

H-T Branch



### DC 1500V,T Branch



IEC 1500V / UL 1500V



UL94-V0



IP 68



UV Resistance

TYPE	Cable Spec	Connector	Voltage	Remark
H-T	2.54 mm <sup>2</sup> ~ 16mm <sup>2</sup>	Customized	1500V	

## H-Y Branch

H-Y Solar Branch



### DC 1500V, Y Branch



IEC 1500V / UL 1500V



UL94-V0



IP 68



UV Resistance

TYPE	Cable Spec	Connector	Voltage	Remark
H-Y-2M1F	2.5 mm <sup>2</sup> ~ 16mm <sup>2</sup>	Customized	1500V	
H-Y-2F1M				

### Remark,

H series harnesses use high quality weather resistance materials that guarantee long-term reliability. H series Harnesses could match 2.5 mm<sup>2</sup> to 240mm<sup>2</sup> cables, it could be wildly used in different applications. H series harnesses have IP68 water-proof rating and can be used in a wide operating temperature range from -40 °C to 85 °C.



IEC 1500V  
UL 1500V

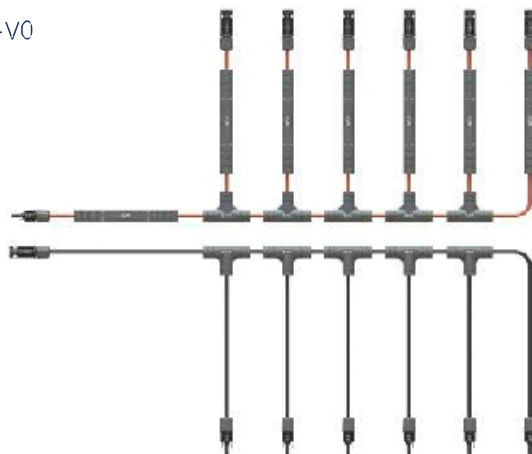
UL94-V0



-40°C--85°C



IP 68



## FEATURES

- Available in n strings (n ≤ 70A/IsC)
- DC1500V, Max 16mm<sup>2</sup>/6AWG Cables
- All Connectors and Cables Available
- Standard Fuse Size up to 50A
- Resistance welded joints
- UV Resistant

## Product Overview

NIU Power H6 P Branch Harness use high quality materials that guarantee long-term reliability. H6 P Series Branch Harness have IP68 water-proof rating and can be used in a wide operating temperature range from -40 °C to 90 °C. NIU Power H6 P Series Branch Harness reduces the specialized labor required in your installation, making the integration of solar panels a breeze. With harnesses custom manufactured for your specific site, both labor and material costs are significantly reduced. The simplified design and robust construction also increases reliability, making the Interconnect System a perfect solution for any project.

## Technical Data

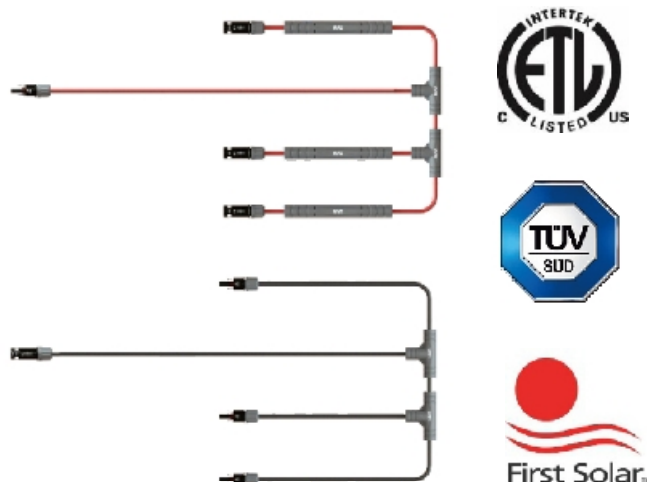
Rated Voltage	DC 1500V
Junction Rated Current	70A
Max Input Rated Current Protection in strings	Max 32A
Max Output Rated Current Protection In Bus	Max 50A
Ambient temperature	-40°C up to +85°C
Contact Resistance	≤0.05mΩ
Pollution Degree	Class II
Protection Degree	Class II
Fire Resistance	UL94-V0
Rated Impulse Voltage	16KV
Locking System	NEC Locking Type

## Order Data

TYPE	1500V Cable Spec	String Fuse	Bus Fuse	Connector
H6 2P abc	Input: 2 strings; Output: 1 BUS	2x Max 32A	1x Max 50A	Option: solar connectors
H6 3P abc	Input: 3 strings; Output: 1 BUS	3x Max 32A		
H6 4P abc	Input: 4 strings; Output: 1 BUS	4x Max 32A		
H6 5P abc	Input: 5 strings; Output: 1 BUS	5x Max 32A		
H6 6P abc	Input: 6 strings; Output: 1 BUS	6x Max 32A		
H6 nP abc	Input: n strings; Output: 1 BUS	nx Max 32A		

Remark: Plastic over-mold material is suitable for outdoor use with respect to exposure to UV light, water exposure and immersion in accordance with UL 746A,746B and 746C. Harness design and specification subject to change or modification without notice.





## FEATURES

- Available in n strings (n ≤ 70A/1sc)
- DC1500V, Max 16mm<sup>2</sup>/6AWG Cables
- All Connectors and Cables Available
- Standard Fuse Size up to 50
- Resistance welded joints
- UV Resistant

## Product Overview

H6 U Branch Harness use high quality materials that guarantee long-term reliability. H6 Branch Harness have IP68 U water-proof rating and can be used in a wide operating temperature range from -40 °C to 85 °C. NIU Power H6 U Branch Harness reduces the specialized labor required in your installation, making the integration of solar panels a breeze. With harnesses custom manufactured for your specific site, both labor and material costs are significantly reduced. The simplified design and robust construction also increase reliability, making the Interconnect System a perfect solution for any project.

## Technical Data

Rated Voltage	IEC 1500V \ UL1500V
BUS Max Output Rated Current in Strings	Max 70A
String Max Output Rated Current	Max 35A
Max Fuse Rated Current Protection	Max 50A
Ambient temperature	-40°C up to +85°C
Contact Resistance	≤0.01mΩ
Pollution Degree	Class II
Protection Degree	Class II
Fire Resistance	UL94-V0
Rated Impulse Voltage	16KV

## Order Data

TYPE	1500V Cable Spec	String Fuse	Bus Fuse	Connector
H6 2U abc	Input: 2 Branch; Output: 1 Branch	2x Max 32A	Option 1x Max 50A	Option: Solar Connectors Option: Input and Output Cables
H6 3U abc	Input: 3 Branch; Output: 1 Branch	3x Max 32A		
H6 4U abc	Input: 4 Branch; Output: 1 Branch	4x Max 32A		
H6 5U abc	Input: 5 Branch; Output: 1 Branch	5x Max 32A		
H6 6U abc	Input: 6 Branch; Output: 1 Branch	6x Max 32A		
H6 nU abc	Input: n Branch; Output: 1 Branch	nx Max 32A		

Remark: Plastic over-mold material is suitable for outdoor use with respect to exposure to UV light, water exposure and immersion in accordance with UL 746A,746B and 746C. Harness design and specification subject to change or modification without notice.



## H-3B1 Branch

H-3B1 Solar Branch



DC 1500V,3B1 Branch

 IEC 1500V / UL 1500V

 UL94-V0

 IP 68

 UV Resistance

TYPE	Cable Spec	Connector	Voltage	Remark
H-3B1-3M1F	2.5 mm <sup>2</sup> ~ 16mm <sup>2</sup>	Customized	1500V	
H-3B1-3F1M				

## H-4B1 Branch

H-4B1 Branch



DC 1500V,H-4B1 Branch

 IEC 1500V / UL 1500V

 UL94-V0

 IP 68

 UV Resistance

TYPE	Cable Spec	Connector	Voltage	Remark
H-4B1-4F1M	2.5 mm <sup>2</sup> ~ 16mm <sup>2</sup>	Customized	1500V	
H-4B1-4M1F				

## H-5B1 Branch

H-5B1 Branch



DC 1500V,5B1 Branch

 IEC 1500V / UL 1500V

 UL94-V0

 IP 68

 UV Resistance

TYPE	Cable Spec	Connector	Voltage	Remark
H-5B1-5F1M	2.5 mm <sup>2</sup> ~ 16mm <sup>2</sup>	Customized	1500V	
H-5B1-5M1F				

### Remark:

H series harnesses use high quality weather resistance materials that guarantee long-term reliability. H series Harnesses could match 2.5 mm<sup>2</sup> to 240mm<sup>2</sup> cables, it could be widely used in different applications. H series harnesses have IP68 water proof rating and can be used in a wide operating temperature range from -40 °C to 85 °C.



## H-6B1 Branch

H-6B1 Solar Branch



DC 1500V,6B1 Branch



IEC 1500V / UL 1500V



UL94-V0



IP 68



UV Resistance

TYPE	Cable Spec	Connector	Voltage	Remark
H-6B1-6M1F	2.5 mm <sup>2</sup> ~ 16mm <sup>2</sup>	Customized	1500V	
H-6B1-6F1M				

## H-2Y-2B1 Branch

H-2Y-2B1 Branch



IEC 1500V / UL 1500V



UL94-V0



IP 68



UV Resistance

TYPE	Cable Spec	Connector	Voltage	Remark
H-2Y-2B1	2.5mm <sup>2</sup> ~ 16mm <sup>2</sup>	Customized	1500V	

## H6 Galaxy Junction

H6 Galaxy Junction



DC 1500V,H6 Galaxy Junction



IEC 1500V / UL 1500V



UL94-V0



IP 68



UV Resistance

TYPE	Cable Spec	Rated Current	Connector	Remark
H6 Galaxy-120	DC 1500V Input: nx6 mm <sup>2</sup> Output: Max 240mm <sup>2</sup>	280A	A4 Max (Customized)	
H6 Galaxy-150		300A		
H6 Galaxy-185		360A		
H6 Galaxy-240		400A		

**Remark:**

H series harnesses use high quality weather resistance materials that guarantee long-term reliability. H series Harnesses could match 2.5 mm<sup>2</sup> to 240mm<sup>2</sup> cables, it could be widely used in different applications. H series harnesses have IP68 water-proof rating and can be used in a wide operating temperature range from -40 °C to 85 °C.



## A6 Max Series

### A6 Max CC



### 1500V, Solar Inline Fuse Connector



1500V



Max 32A



1~3ms



IP 68

TYPE	Fuse Current	Voltage	Cable Spec	Connector
A6 Max CC	1A~32A	1500V	2.5mm <sup>2</sup> ~6mm <sup>2</sup>	A4 Max/Customized

## A6 Mini Series

### A6 Mini CC



### DC 1100V, Solar Inline Fuse Connector



1100V



Max 32A



1~3ms



IP 68

TYPE	Fuse Current	Voltage	Cable Spec	Connector
A6 Mini CC	1A~32A	1100V	2.5mm <sup>2</sup> ~6mm <sup>2</sup>	A4 Max/Customized

## Product Overview

A6 Max&Mini Fuse connectors were qualified and certified under IEC & UL standards. They use high quality weather resistance materials that guarantee long-term reliability. It could be installed on site. Fuse connectors could match 4 mm<sup>2</sup> to 6 mm<sup>2</sup> cables, it could be widely used in different applications. The lower contact resistance and higher current transfer capability to ensure high efficiency. Fuse Connectors have IP68 water-proof rating and can be used in a wide operating temperature range.

## Technical Data

TYPE	A6 Max CC	A6 Mini CC
Rated Voltage	IEC1500V/UL1500V	IEC1100V/UL1100V
Rated Current	1~32A	1~32A
Rated Breaking Capacity	30KA@1500V	30KA@1500V
Time Constant	1-3ms	1-3ms
Pollution Degree	Class II	Class II
Protection Degree	Class II	Class II
Fire Resistance	UL94-V0	UL94-V0
Rated Impulse Voltage	16KV	16KV

### Remark:

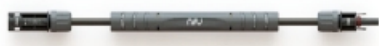
1,A6 Max&Mini use high quality fuses, rated current cover 1~32A. They have IP68 protection grade, using flame retardant, anti hydrolytic, UV resistant polymer insulation material, to ensure long term safety in outdoor exposed environment.

2,Customized options available, for more information, please contact NIU Power sales team: Marketing@niu-power.com



## A6-B Mini Series

A6-B Mini



DC/1100V or DC 1500V, Solar Inline Fuse



1500V



Max 32A



1~3ms



IP 68

TYPE	Current	Voltage	Cable Spec	Cable OD
A6-B Mini-1100	1A~32A	1100V	2.5mm <sup>2</sup> ~6mm <sup>2</sup>	5.7mm~7.2mm
A6-B Mini-1500		1500V	14 AWG~10AWG	

## A6-B Max Series

A6-B Max



DC1100V or DC 1500V, Solar Inline Fuse



1500V



Max 32A



1~3ms



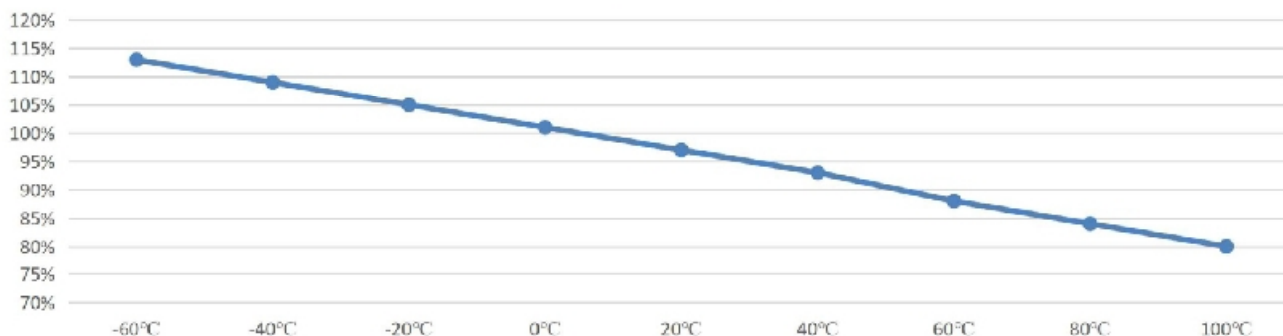
IP 68

TYPE	Current	Voltage	Cable Spec	Cable OD
A6-B Max 1100	35A-50A	1100V	6mm <sup>2</sup> /10mm <sup>2</sup>	7.0mm~8.2mm
A6-B Max 1500		1500V	10 AWG/8AWG	

## Product Overview

A6-B Fuse modules were qualified and certified under IEC & UL standards. They use over-mold technology to seal the fuse and use high quality weather resistance materials that guarantee long-term reliability. The Fuse Modules use 2.5 mm<sup>2</sup> to 10 mm<sup>2</sup> cables based on different fuses, they could be widely used in different applications. The lower contact resistance and higher current transfer capability to ensure high efficiency. The modules have IP68 water-proof rating and can be used in a wide operating temperature range.

A6 Series Temperature Detating Curve



Remark:

1.A6-B Max&Mini use high quality fuses, rated current cover 1~50A. They have IP68 protection grade, using flame retardant, anti hydrolytic, UV resistant polymer insulation material, to ensure long-term safety in outdoor exposed environment.

2.Customized options available, For more information, please contact NIU Power sales team: Marketing@niu-power.com



## Y Integrated Fuses Branch Harness



DC 1500V



Max 50A

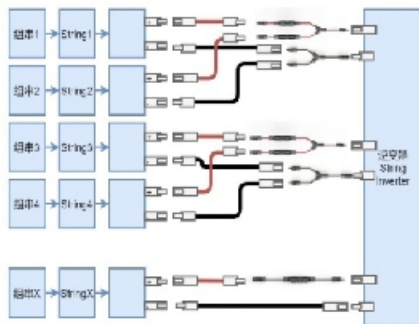


IP 68



Fuse 1~3ms

### Product Overview



**COST EFFECTIVE AND SUSTAINABLE  
COMPLETE SOLUTION FOR PV PROJECTS**

NIU Power Fuse Branch solution was certified under IEC&UL Standards. They were qualified in TUV&ETL labs with solar professional standards. They use high quality fuse and insulating materials that guarantee long-term reliability. The fuse could be replaced easily during the operation and maintenance. Lower contact resistance and higher current transfer capability ensure high product efficiency. NIU Branch harness has IP68 water-proof rating and can be used in a wide operating temperature range.



H-Y-2F1M



H-Y-A6-2M1F



H-Y-2M1F



H-Y-A6-2F1M



### Technical Data

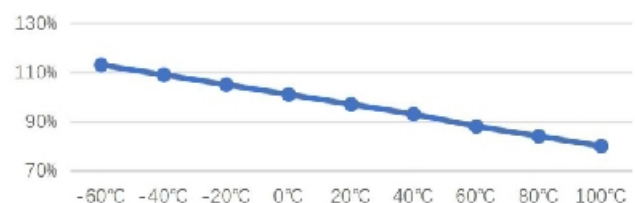
A6 Max CC

Rated Voltage	IEC 1500V / UL1500V
Rated Current	1~32A
Rated Breaking Capacity	30KA@1500V
Time Constant	1-3ms
Fire Resistance	UL94-V0
Rated Impulse Voltage	16KV

### Order Data

TYPE	Cable Spec	Fuse	Connectors
H-Y-A6-2F1M	DC1500V 3x6mm <sup>2</sup>	1A~32A	Customized
H-Y-A6-2M1F		1A~32A	
H-Y-2F1M		/	
H-Y-2M1F		/	
A6 Max CC	DC1500V 4mm <sup>2</sup>	1A~32A	

Temperature Detating Curve

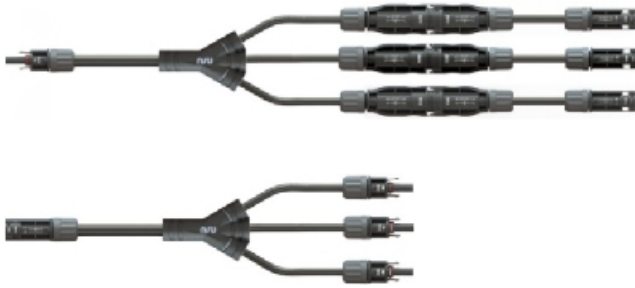


Remark: Customized options available. for more information, please contact NIU Power's sales team: Marketing@niu-power.com





## Solar H-3B1 Integrated Harness



DC 1500V



UL94-V0



-40°C ~85°C



IP 68



**COST EFFECTIVE AND SUSTAINABLE  
COMPLETE SOLUTION FOR PV PROJECTS**

### Product Overview

NIU Power 3to1 Fuse Branch solution was certified under IEC&UL Standards. They were qualified in TUV&ETL labs with solar professional standards. They use high-quality fuses and insulating materials that guarantee long-term reliability. The fuse could be replaced easily during the operation and maintenance. Lower contact resistance and higher current transfer capability ensure high product efficiency. NIU Branch harness has IP68 water-proof rating and can be used in a wide operating temperature range.



H-3B1-A6-3M1F



H-3B1-3F1M

### Technical Data

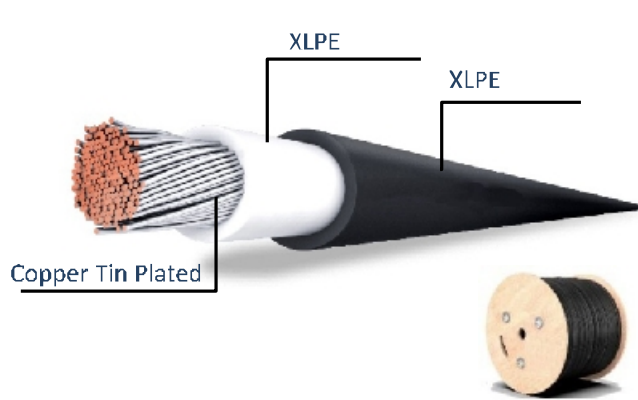
Rated Voltage	DC 1500V
Ambient temperature	-40°C up to +85°C
Contact Resistance	≤0.05mΩ
Pollution Degree	ClassII
Protection Degree	ClassII
Fire Resistance	UL94-V0
Rated Impulse Voltage	16KV
IP	IP 68

### Order Data

TYPE	Description	Fuse Current/ A	Input Spec	Output Spec	Remark
H-3B1-0410	H-3B1-A6-3M1F	15A	Cable:3x4mm <sup>2</sup> , 1500V Fuse:1x3 pcs, 1500V Connector: DC 1500V 3 Connectors (Customized)	Cable:1x10mm <sup>2</sup> , 1500V Connector: DC 1500V 1 Connector (Customized)	
		20A			
		25A			
		30A			
		32A			
	H-3B1-3F1M	-			

Remark: Customized options available. for more information, please contact: NIU Power sales team: Marketing@niu-power.com





DC 1500V



100m~1000m



Low Smoke



Oil Resistance



120°C



UV Resistance



IEC62930/EN50618



## Specification

Application	Internal wiring for solar panel and photovoltaic system
Approval	UL4703 & IEC62930 & EN50618/UL
Rating voltage	UL 2000V & IEC DC1500V
Test voltage	AC 6.5KV,50Hz 5min
Working temperature	-40~90°C
Max Conduct temperature	120°C
Short circuit temperature	250°C 5S
Bending radius	6×D
Life Period	≥25 years

## Typical Structure for IEC 62930

Cross Section (mm <sup>2</sup> )	Construction (No./mm±0.01)	Conductor DIA.(mm)	Conductor Max. Resistance @20°C (Ω/km)	Cable OD. (mm±0.2)
1×2.5	34/0.285	2.04	8.21	5.8
1×4	56/0.285	2.60	5.09	6.4
1×6	78/0.285	3.20	3.39	7.2
1×10	84/0.4	3.80	1.95	9.2
1×16	128/0.4	4.80	1.24	10.6
1×25	192/0.4	6.00	0.795	12.5
1×35	276/0.4	7.00	0.565	13.8

## Package Examples

Package REF	Without Spool	With Spool		
MPQ (m) (4mm <sup>2</sup> )	250m	1000m	3000m	6000m
One Pallet(4mm <sup>2</sup> )	14,400m	30,000m	18,000m	12,000m
20GP Container	300,000m for 4mm <sup>2</sup>			
	200,000m for 6mm <sup>2</sup>			

Remark: Customized options available, for more information, please contact NIU Power sales team: Marketing@niu-power.com





1000V/1500V DC



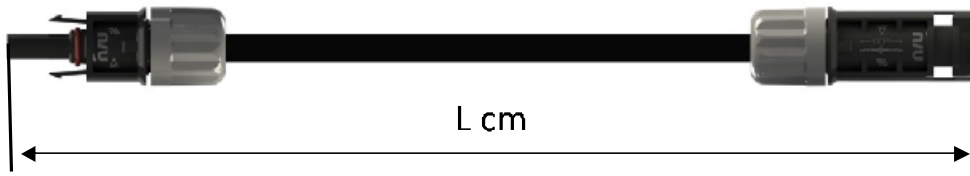
-40°C~85°C



Low Smoke Zero Halogen



UV Resistance

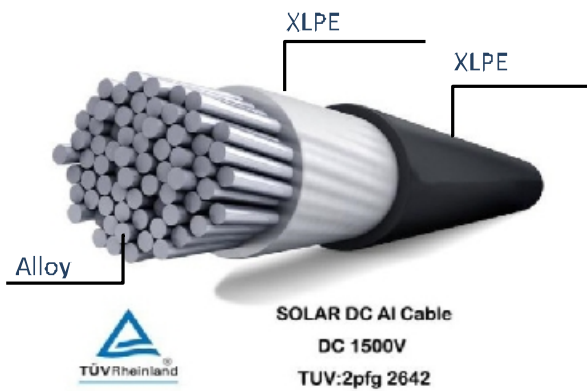


Female Connector	Male Connector	Cable Spec	Cable Length	Components	Cable Color
<input type="checkbox"/> MC4(Staubli)	<input type="checkbox"/> MC4(Staubli)	<input type="checkbox"/> 2.5 mm <sup>2</sup>	L: _____	<input type="checkbox"/> Seal Silicone Plug	<input type="checkbox"/> Black
<input type="checkbox"/> MC4-EVO2(Staubli)	<input type="checkbox"/> MC4-EVO2(Staubli)	<input type="checkbox"/> 4 mm <sup>2</sup>		<input type="checkbox"/> Mechanical Protective Plug	<input type="checkbox"/> Red
<input type="checkbox"/> UTX(Amphenol)	<input type="checkbox"/> UTX(Amphenol)	<input type="checkbox"/> 6 mm <sup>2</sup>			
<input type="checkbox"/> TS4(TrinaSolar)	<input type="checkbox"/> TS4(TrinaSolar)	<input type="checkbox"/> 10 mm <sup>2</sup>			
<input type="checkbox"/> T4(CanadianSolar)	<input type="checkbox"/> T4(CanadianSolar)	<input type="checkbox"/> 16 mm <sup>2</sup>			
<input type="checkbox"/> QC4.10(JASolar)	<input type="checkbox"/> QC4.10(JASolar)	<input type="checkbox"/> 14AWG			
<input type="checkbox"/> JK03M(Jinko Solar)	<input type="checkbox"/> JK03M(Jinko Solar)	<input type="checkbox"/> 12AWG			
<input type="checkbox"/> PV-LR5(Longi Solar)	<input type="checkbox"/> PV-LR5(Longi Solar)	<input type="checkbox"/> 10AWG			
<input type="checkbox"/> A4 (NIU Power)	<input type="checkbox"/> A4 Max (NIU Power)	<input type="checkbox"/> 8AWG			
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> 6AWG			

**Remark:**

- 1,The assembly use high customized connectors and cables.
- 2,Customized options available, please contact NIU Power sales team: Marketing@niu-power.com





DC 1500V



100m~1000m



Low Smoke



Oil Resistance



120°C



UV Resistance



2PFG 2642



## Specification

Application	Internal wiring for solar panel and photovoltaic system
Approval	TUV 2Pfg 2642/11.17
Rating voltage	DC1500V
Test voltage	AC 6.5KV,50Hz 5min
Working temperature	-40~90°C
Short circuit temperature	250°C 5S
Bending radius	12×D
Life Period	≥25 years

## Structure

Cross Section (mm <sup>2</sup> )	Construction (No./mm±0.01)	Conductor DIA.(mm)	Conductor Max. Resistance @20°C (Ω/km)	Cable OD. (mm±0.2)
1×6	84/0.30	3.20	5.23	6.5
1×10	7/1.35	3.80	3.08	7.3
1×16	7/1.7	4.80	1.91	8.7
1×25	7/2.14	6.00	1.20	10.5
1×35	7/2.49	7.00	0.868	11.8
1×50	19/1.8	8.30	0.641	13.5
1×70	19/2.16	10.00	0.443	15.2
1×95	19/2.53	11.60	0.320	17.2
1×120	37/2.03	13.00	0.253	18.6
1×150	37/2.27	14.50	0.206	20.5
1×185	37/2.53	16.20	0.164	23.0
1×240	61/2.26	18.50	0.125	25.8

Remark: Customized options available, for more information, please contact NIU Power sales team: Marketing@niu-power.com



## Al Cable Connection Solution for solar system


### FEATURES:



- LOW CABLE & BOS COST
- MAX RATED SYSTEM VOLTAGE DC 1500V
- UV RESISTANCE
- HI-TECH RELIABILITY TECHNOLOGY
- UL94-V0 FIRE RESISTANCE
- IP 68




### A4-A Aluminium Alloy Cable Connectors


A4-A









DC 1500V, Al Cable Alloy Connector


 IEC 1500V

 IEC: 62852

 -40°C ~85 °C

 UL94-V0


 IP 68



 UV Resistance

TYPE	Al Cable Spec	Cable OD	Voltage	Current
A4-A-7	6mm <sup>2</sup> /10AWG	5.6mm~7.0mm	1500V	35A
A4-A-9	10mm <sup>2</sup> /8AWG	7.0mm~9.0mm	1500V	40A
A4-A-10	16mm <sup>2</sup> /6AWG	8.5mm~10mm	1500V	50A


### A4-T Copper-Aluminium Cable Adapter


A4-T









DC 1500V, Cu-Al Cable Adapter Connector


 IEC 1500V

 IEC: 62852

 -40°C ~85 °C

 UL94-V0

 IP 68

 UV Resistance

TYPE	Copper Cable	Al Cable	Voltage	Current
A4-T-0406	4mm <sup>2</sup> /12 AWG	6mm <sup>2</sup> /10AWG	1500V	50A
A4-T-0610	6mm <sup>2</sup> /10 AWG	10mm <sup>2</sup> /8AWG	1500V	50A
A4-T-1016	10mm <sup>2</sup> /8 AWG	16mm <sup>2</sup> /6AWG	1500V	70A

Al Cable



Copper Cable

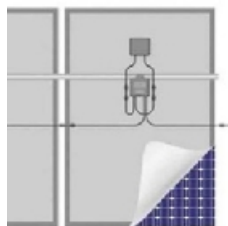
A4-T Adapter IP68 Housing

**Remark:** A4 series connectors use high quality weather resistance materials that guarantee long term reliability. A4 could match 4mm<sup>2</sup> to 16mm<sup>2</sup> cables, they could be widely used in different applications. A4 series connectors have IP68 water-proof rating and can be used in a wide operating temperature range from -40 °C to 85 °C.

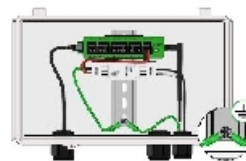


## String Monitoring Solution

String Monitor: S6-M

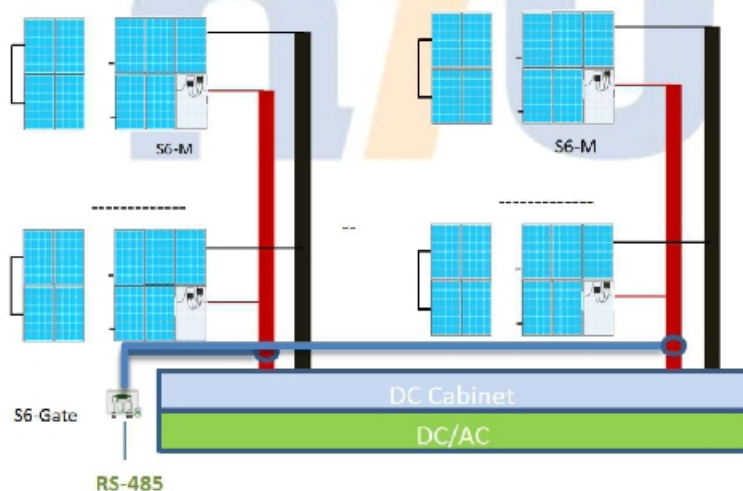


BUS Gate: S6-Gate



## Product Overview

S6-M (String Monitor) is an advanced externally string monitoring solution which can record string's operating status. The system is suitable for new and old PHOTOVOLTAIC stations. S6-M could be installed on any module of a string and record the string's status. S6-Gate is used to collect the signals which is sent by S6-M. S6-Gate could submit the data to Cloud or transmitted by RS-485. By monitoring the current and voltage of every strings, the current characteristics of the strings can be obtained in real time, and the real-time generation of the strings can be simulated. If no Cloud could be connected, you can also use the local data which is from RS-485. When connected to the cloud, the DC side power generation data is analyzed through the cloud monitoring platform.



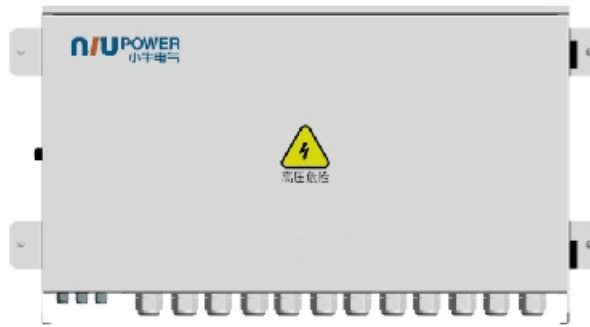
## Technical Data

TYPE	S6-M	TYPE	S6-Gate
Rated Voltage	IEC1500V	Rated Voltage	IEC1500V
Max Power	700W	QTY Bus/Combiner box	1/2/3/4/5/6
Max Current	30A	Max Strings	24 * BUS
Voltage Range	16V~90V	Time Constant	5min
IP Degree	IP68	Signal Reception	PLC
Fire Resistance	UL94-V0	Signal Transmission	RS-485(S6 Gate)/4G(S6 Gate Pro)
Signal Transmission	PLC Carrier	Power Supply	DC 1500V

Remark: Customized options available, for more information, please contact NIU Power sales team: Marketing@niu-power.com



## G6 Series for BUS Management BOX

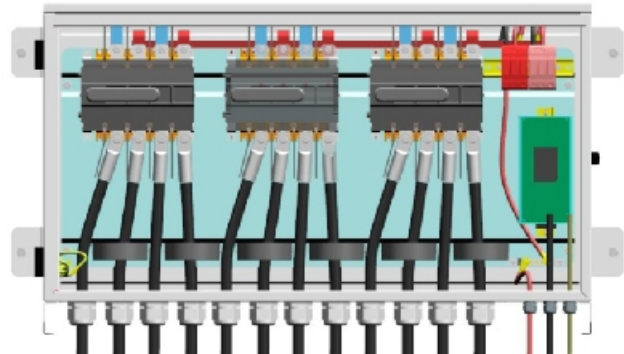


### Product Overview

The Galaxy Disconnect series is an essential part of our innovative galaxy system, and is compliant with NEC 2017/2020. Providing isolation using a 100% load-break rated disconnect, these disconnect boxes remove the fuses and fuse holders from inside traditional combiner boxes and move them to the harness, where the cooler surrounds allow their more reliable performance. Lab-proven under full load during static heating sequence testing, the Galaxy Disconnect is designed for maximum durability and years of uninterrupted, real-world service.

### FEATURES

- 400A, 1500V disconnect, 100% load-break rated
- Plated bus bars rated for 90 °C, Cu/Al
- 4-holes mounting configuration
- Breather vent reduces internal condensation
- Safety shield covers all live components
- Designed for ease of cable installation
- Surge protection device, Type I
- NEMA 4X pad-lockable enclosure
- Standard 5-year warranty
- Compliant with NEC 2017/2020
- ETL certified to UL1741



### Technical Data

TYPE	G6-L	G6-M	G6-S
Rated Voltage	DC 1500V		
Max Input Current	400A * QTY		
IP Degree	IP66		
Option(Smart Function)	BUS Current&Voltage	Strings Current&Voltage	Strings&BUS Current&Voltage
Option(QTY of BUS)	1/2/3/4/5/6		
Option(Signal Transmission)	-	RS-485	4G

**Remark:**

1.G6 use high quality materials. They have IP66 protection grade, using flame retardant,anti hydrolytic,UV resistant polymer insulation material, to ensure long-term safety in outdoor exposed environment.

2.Customized options available, for more information, please contact NIU Power sales team: Marketing@niu-power.com



## STAUBLI Original MC4

MC4 for Cables



Original MC4, IEC 1000V, UL 1500V

TYPE	Cable Spec	Terminal Type	Cable OD
PV-KST4/2.5 IUR	2.5mm <sup>2</sup> /14AWG	U Type	5.0~6.0mm
PV-KST4/6 IUR	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type	5.0~6.0mm
PV-KST4/6 IUR	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type	5.9~8.8mm
PV-KST4/10 IUR	10mm <sup>2</sup> /8AWG	O Type	5.9~8.8mm

## STAUBLI Original EVO2

EVO2 for Cables



Original EVO2, IEC 1500V, UL 1500V

TYPE	Cable Spec	Terminal Type	Cable OD
PV-KST4-EVO2/2.5 I-UR	2.5mm <sup>2</sup> /14AWG	U Type	4.7~6.4mm
PV-KST4-EVO2/6 IUR	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type	4.7~6.4mm
PV-KST4-EVO2/6 IUR	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type	6.4~8.4mm
PV-KST4-EVO2/10I-UR	10mm <sup>2</sup> /8AWG	O Type	6.4~8.4mm

## Amphenol Original H4

H4 for Cables



Amphenol

Original H4, IEC 1000V, UL 1500V

TYPE	Cable Spec	Terminal Type	Cable OD
H4CFC4D	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type	4.5~7.8mm
H4CFC8D	10mm <sup>2</sup> /8AWG	O Type	4.5~7.8mm

## Amphenol Original UTX

UTX for Cables



Amphenol

Original H4, IEC 1500V, UL 1500V

TYPE	Cable Spec	Terminal Type	Cable OD
UTX-C4AM	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type	5.3~7.65mm
UTX-C8AI	10mm <sup>2</sup> /8AWG	O Type	7.9~9.3mm

## TE CONNECTIVITY Original PV4-S

PV4-S for Cables



Original PV4-S, IEC 1500V, UL 1500V

TYPE	Cable Conductor	Terminal Type	Cable OD
2-2270024-1	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type(Plug)	5.0~7.8mm
2-2270025-1	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type(Socket)	5.0~7.8mm





## PHOENIX CONTACT Original SUNCLIX

SUNCLIX for Cables



Original SUNCLIX, IEC 1500V, UL 1500V

TYPE	Cable Conductor	Cable OD Spec	Remark
PV-C-S 1100V	2.5mm <sup>2</sup> /14AWG ~6mm <sup>2</sup> /10AWG	5.0mm~8.0mm	
PV-C-S 1500V	2.5mm <sup>2</sup> /14AWG ~6mm <sup>2</sup> /10AWG	5.0mm~8.0mm	
PV-C-S-6-16	6mm <sup>2</sup> /10AWG ~16mm <sup>2</sup> /6AWG	5.5mm~10.0mm	

## LONGI PV-LR5

PV-LR5 for Cables



LONGI, IEC 1500V, UL 1500V

TYPE	Cable Spec	Terminal Type	Cable OD
PV-LR5-46	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type	5.8~6.9mm
PV-LR5-10	10mm <sup>2</sup> /8AWG	O Type	7.0~8.5mm

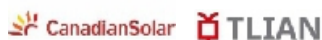
## CanadianSolar TLIAN T4

T4 for Cables



TLIAN T4, IEC 1000V, UL 1500V

TYPE	Cable Spec	Terminal Type	Cable OD
T4-PC-1	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type	4.3~6.6mm
T4-PC-1(Male)	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type	4.3~6.6mm



## TrinaSolar TS4

TS4 for Cables



Original TS4, IEC 1000V, UL 1500V

TYPE	Cable Spec	Terminal Type	Cable OD
TS4-F2&M2	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type	5.7~6.8mm
TS4-F4&M4	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type	6.0~7.2mm
TS4-F6&M6	10mm <sup>2</sup> /8AWG	O Type	7.0~8.5mm

## JinKO JK03M

JK03M for Cables



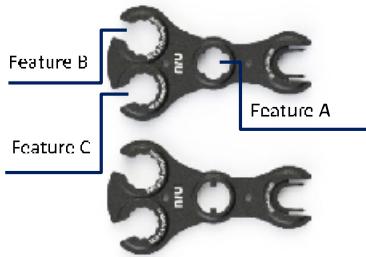
Original JK03M, IEC 1000V, UL 1500V

TYPE	Cable Spec	Terminal Type	Cable OD
JK03M-46	4mm <sup>2</sup> /12AWG ~6mm <sup>2</sup> /10AWG	U Type	6.0~7.0mm
JK03M-10	10mm <sup>2</sup> /8AWG	O Type	7.5~8.5mm



## A4 Wrench Tools

### Wrench Tool



### Wrench Tools for MC4 Series



UL94-V0

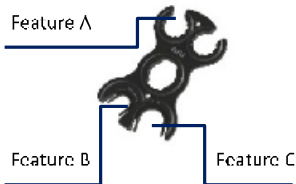


UV Resistance

TYPE	Feature A	Feature B	Feature C	Remark
NP3001	MC4,TS4,PV-LR5,A4...	Match:A4,	Match:MC4,EVO2,	
NP3002	EVO2,JK03M...	H4,UTX,TS4,T4	JK03M,PV-LR5	

## A6 Wrench Tools

### Wrench Tool



### Wrench Tool for A6



UL94-V0



UV Resistance

TYPE	Feature A	Feature B	Feature C	Remark
NP3005	A6 NUT Screw	For A4	For A6	

## Seal Protective Cap

### Seal Protective Cap

#### Protective Cap

NP6001, NP6002



#### Seal Plug

NB6008, NP6009



### Seal Protective Caps

TYPE	Compatible	Compatible with	IP	Remark
NP6001	Female Connector	A4,MC4,EVO2,H4,TS4	IP42	Blue color
NP6002	Male Connector	PV-LR5,JK03M.....	IP42	
NB6008	Female Connector	A4,MC4,EVO2,H4,TS4	IP65	
NB6009	Male Connector	PV-LR5,JK03M.....	IP65	

## Cable Cutter

### Cable Cutter



## 剪线钳

### Cable Cutter

TYPE	Cable Range	Remark
NB8001	≤16mm <sup>2</sup> /6AWG	

#### Remark:

1,The exposure to or direct contact with chemicals or oils of A4 & A6 products may cause corrosion, degradation of performance, or cracking of the product, thus such exposure or direct contact should be strictly prohibited during the process of product manufacturing, transportation, installation and application. The chemicals that may come into contact with or be used in the process above.



## Crimping Tool for U Type Terminals

Terminal Crimping Tool

Cable & Terminal Crimping Tool



U Type Terminal

TYPE	Cable Range	Terminal Type	Remark
NB2546	2.5mm <sup>2</sup> /14AWG ~6mm <sup>2</sup> /10AWG	U Type	

## Crimping Tool for O Type Terminals

Terminal Crimping Tool

Cable & Terminal Crimping Tool



O Type Terminal

TYPE	Cable Range	Terminal Type	Remark
NB4610	4mm <sup>2</sup> /12AWG ~10mm <sup>2</sup> /8AWG	O Type	

## Crimping Tool for O Type Terminals

Terminal Crimping Tool

Cable & Terminal Crimping Tool for A4



TYPE	Description	Terminal Type	Remark
NB1600	For A4 Max & A4-A	O Type (16mm <sup>2</sup> /6AWG)	
NB1601	For A4-T	O Type (16mm <sup>2</sup> /6AWG)	

## Wire Stripping Tools

Wire Stripping Tool

Wire Stripping Tool



TYPE	Cable Range	Remark
NB8002	2.5mm <sup>2</sup> /14AWG ~6mm <sup>2</sup> /10AWG	

## Solar Connector Tool BOX

Connector Tool Box

Solar Connector Tool Box



TYPE	Material PN	Material Name	QTY
NBOX01	NB2546	Crimping Tool	1 Pcs
	NB8001	Cable Cutter	1 pcs
	NB8002	Wire Stripping Tool	1 Pcs
	NP3001	Wrench Tool(MC4)	1 Pcs
	NP3002	Wrench Tool(EVO2)	1 Pcs
	NP3005	A6 Wrench Tool	1 Pcs



# CONTACT US

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