

NIU POWER



FIRST SOLAR EBOS Solutions
NIU Powering the green future

FIRST SOLAR EBOS SOLUTIONS

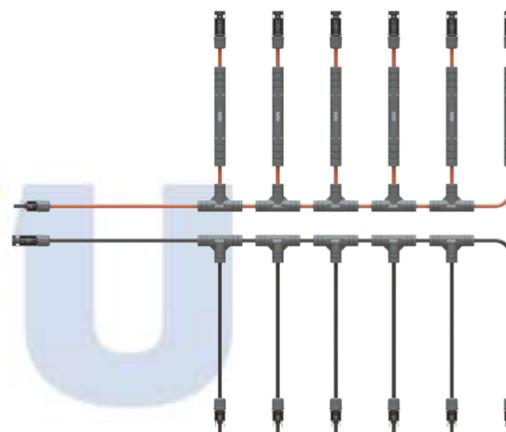
2022E

H Series Solar Integrated Harnesses



FEATURES

- UL9703&IEC62852 QUALIFIED AND CERTIFIED
- UP TO 16mm² or 6AWG CABLE
- MAX RATED SYSTEM VOLTAGE DC 1500V
- BETTER BOS COST
- HI-TECH SEALING TECHNOLOGY
- AUTHORIZED PATENTS
- UV RESISTANCE
- IP 68



Parameter Data

TYPE	CABLE	CONNECTOR	VOLTAGE	FUSE	Remark
H-I: I Junction	A: 2.5mm ² /14AWG	A: A4 Max Series	L: 1100V	01:1A	
H-Y: Y Junction	B: 4mm ² /12AWG	B: STAUBLI MC4	H: 1500V	02:2A	
H-X: X Junction	C: 6mm ² /10AWG	C: STAUBLI EVO		03:3A	
H-T: T Junction	D: 10mm ² /8 AWG	D: CANADIANSOLAR T4		04:4A	
H-3B1: 3B1 Junction	E: 16mm ² /6 AWG	E: TRANASOLAR TS4		----	
H-4B1: 4B1 Junction		F: JINKO JK03M		25:25A	
H-4B2: 4B2 Junction		G: LONGI PV LR-5		----	
H-5B1: 5B1 Junction		H: AMPHENOL UTX		XX: max 50A	
H-6B1: 6B1 Junction		I: Option			

Remark:

1,H Series were certified and qualified by UL9703 and IEC62852 . 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 are available, please contact NIU Power technical support team marketing@niu-power.com to get more informations.

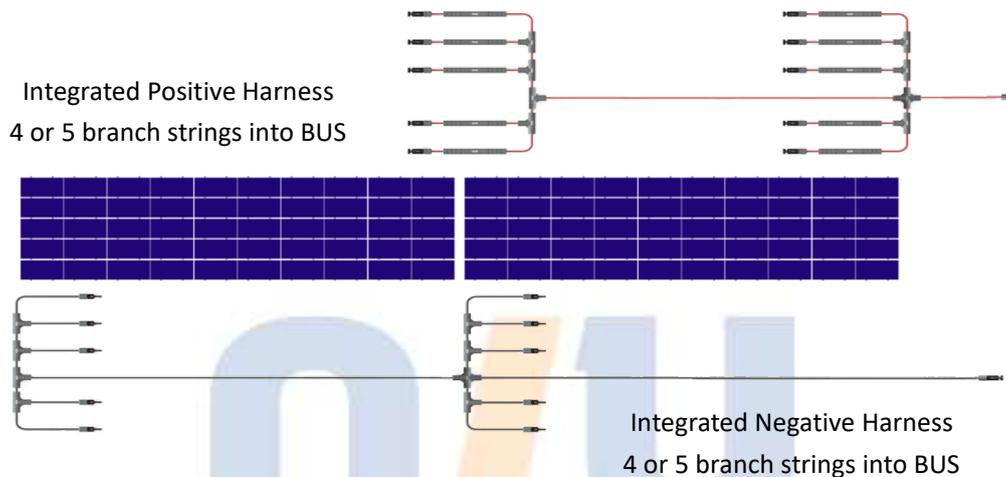
All in One Integrated Harnesses

- MODULE 1200m*600mm
- Up to 16mm² and 6 AWG Solar Cables
- MAX RATED SYSTEM VOLTAGE DC 1500V
- BETTER BOS COST
- HI-TECH SEALING TECHNOLOGY
- AUTHORIZED PATENTS
- UV RESISTANCE



Example

- 10 modules in one string for 1000V system/ 15 modules in one string for 1500V system
- 5~35 strings to 1 or 4~32 strings to 1



Parameter Data

Strings QTY	Input Parameter			Output Parameter		
	Cable ¹	Connector ^{2,3}	Fuse ⁴	Cable ¹	Connector ^{2,3}	Fuse ⁵
5 strings to 1	DC 1500V 14 AWG/ 2.5mm ² Solar Cable	Brand Optional	4A	14 AWG/ 2.5mm ²	Brand Optional	Optional
10 strings to 1				12 AWG/ 4mm ²		
15 strings to 1				10 AWG/ 6mm ²		
20 strings to 1				8 AWG/ 10mm ²		
25 strings to 1				8 AWG/ 10mm ²		
30 strings to 1				6 AWG/ 16mm ²		
35 strings to 1				6 AWG/ 16mm ²		
4 strings to 1	DC 1500V 14 AWG/ 2.5mm ² Solar Cable	Brand Optional	4A	14 AWG/ 2.5mm ²	Brand Optional	Optional
8 strings to 1				12 AWG/ 4mm ²		
12 strings to 1				10 AWG/ 6mm ²		
16 strings to 1				10 AWG/ 6mm ²		
20 strings to 1				8 AWG/ 10mm ²		
24 strings to 1				8 AWG/ 10mm ²		
28 strings to 1				6 AWG/ 16mm ²		
32 strings to 1				6 AWG/ 16mm ²		

Remark:

1, The harness use UL4703 certified DC 1500V cable for North America market and use IEC 62930 certified DC 1500V solar cables for other market; Also the cable's spec is available for option.

2, Application Class A for 1000V (class II), Application Class B for 1500V (class 0) with staubli MC4; Application Class A for 1000V and 1500V (class II) with staubli MC4-EVO2.

3, Other brand connectors are available for option such as Trina TS4, Canadiansolar T4, Jinko JK03M, Longi LR5.

4, The input protection fuse use 4A default. Also other rated current fuses are available for option. The 1100V fuse or 1500V fuse will be used by technical conformation.

5, The output protection fuse is not necessary. It will be used by technical conformation with clients.

6, Customized options are available, please contact NIU Power technical support team marketing@niu-power.com to get more information.

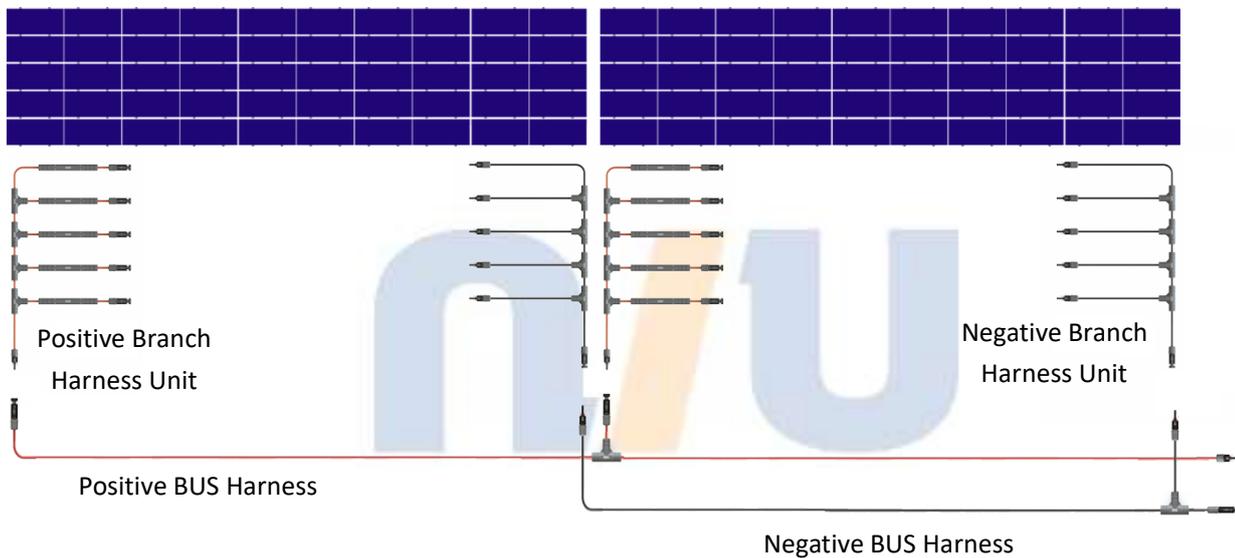
Combined Harnesses

- MODULE 1200m*600mm
- Up to 16mm² and 6 AWG Solar Cables
- MAX RATED SYSTEM VOLTAGE DC 1500V
- BETTER BOS COST
- HI-TECH SEALING TECHNOLOGY
- AUTHORIZED PATENTS
- UV RESISTANCE



Example

- 4 or 5 branch strings as a Branch Harness Unit
- 2 to 7 branch harness units into one BUS Harness



ITEM	Strings QTY	Input Parameter			Output Parameter		
		Cable ¹	Connector ^{2,3}	Fuse ⁴	Cable ¹	Connector ^{2,3}	Fuse ⁵
Branch Harness Unit	4 strings to 1	DC 1500V	Brand Optional	4A	14 AWG/ 2.5mm ²	Brand Optional	Optional
	5 strings to 1	14 AWG/ 2.5mm ² Solar Cable					
BUS Harness	2 branch to 1	DC 1500V 14 AWG/ 2.5mm ² Solar Cable	Brand Optional	4A	14 AWG/ 2.5mm ²	Brand Optional	Optional
	3 branch to 1				12 AWG/ 4mm ²		
	4 branch to 1				10 AWG/ 6mm ²		
	5 branch to 1				8 AWG/ 10mm ²		
	6 branch to 1				6 AWG/ 16mm ²		
	7 branch to 1				6 AWG/ 16mm ²		

Remark:

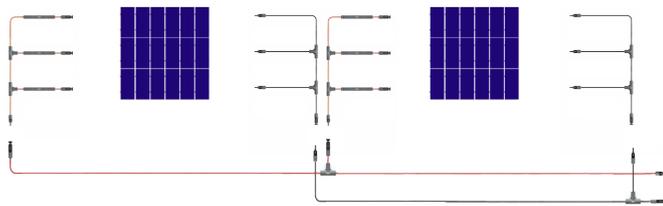
- 1, The harness use UL4703 certified DC 1500V cable for North America market and use IEC 62930 certified DC 1500V solar cables for other market; Also the cable's spec is available for option.
- 2, Application Class A for 1000V (class II), Application Class B for 1500V (class 0) with staubli MC4; Application Class A for 1000V and 1500V (class II) with staubli MC4-EVO2.
- 3, Other brand connectors are available for option such as Trina TS4, Canadiansolar T4, Jinko JK03M, Longi LR5.
- 4, The input protection fuse use 4A default. Also other rated current fuses are available for option. The 1100V fuse or 1500V fuse will be used by technical conformation.
- 5, The output protection fuse is not necessary. It will be used by technical conformation with clients.
- 6, Customized options are available, please contact NIU Power technical support team marketing@niu-power.com to get more information.

All in One Integrated Harnesses

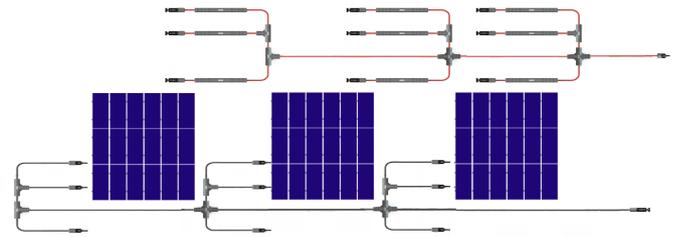
- MODULE 2009m*1232mm
- Up Format 1 or 2 or 3 rows
- Up to 16mm² and 6 AWG Solar Cables
- MAX RATED SYSTEM VOLTAGE DC 1500V
- BETTER BOS COST
- HI-TECH SEALING TECHNOLOGY
- AUTHORIZED PATENTS
- UV RESISTANCE



Examples for Series 6 systems



Combined Harnesses Systems



All in One Integrated Harness System

Combined Harnesses							
ITEM	Strings QTY	Input Parameter			Output Parameter		
		Cable ¹	Connector ^{2,3}	Fuse ⁴	Cable ¹	Connector ^{2,3}	Fuse ⁵
Branch Harness Unit	2 strings to 1	DC 1500V 14 AWG/ 2.5mm ² Solar Cable	Brand Optional	5A	14 AWG/ 2.5mm ²	Brand Optional	Optional
	3 strings to 1						
BUS Harness	2 branch to 1	DC 1500V 14 AWG/ 2.5mm ² Solar Cable	Brand Optional	5A	14 AWG/ 2.5mm ² ~ 6 AWG/ 16mm ²	Brand Optional	Optional
	3 branch to 1						
	4 branch to 1						
	5 branch to 1						
	6 branch to 1						
	7 branch to 1						
	8 branch to 1						
	9 branch to 1						
10 branch to 1							

All in One Integrated Harnesses						
Strings QTY	Input Parameter			Output Parameter		
	Cable ¹	Connector ^{2,3}	Fuse ⁴	Cable ¹	Connector ^{2,3}	Fuse ⁵
2~30 strings to 1	DC 1500V 14 AWG/ 2.5mm ² Solar Cable	Brand Optional	5A	14 AWG/ 2.5mm ² ~ 6 AWG/ 16mm ²	Brand Optional	Optional

Remark:

- 1, The harness use UL4703 certified DC 1500V cable for North America market and use IEC 62930 certified DC 1500V solar cables for other market; Also the cable's spec is available for option.
- 2, Application Class A for 1000V (class II), Application Class B for 1500V (class 0) with staubli MC4; Application Class A for 1000V and 1500V (class II) with staubli MC4-EVO2.
- 3, Other brand connectors are available for option such as Trina TS4, Canadiansolar T4, Jinko JK03M, Longi LR5.
- 4, The input protection fuse use 4A default. Also other rated current fuses are available for option. The 1100V fuse or 1500V fuse will be used by technical conformation.
- 5, The output protection fuse is not necessary. It will be used by technical conformation with clients.
- 6, Customized options are available, please contact NIU Power technical support team marketing@niu-power.com to get more information.

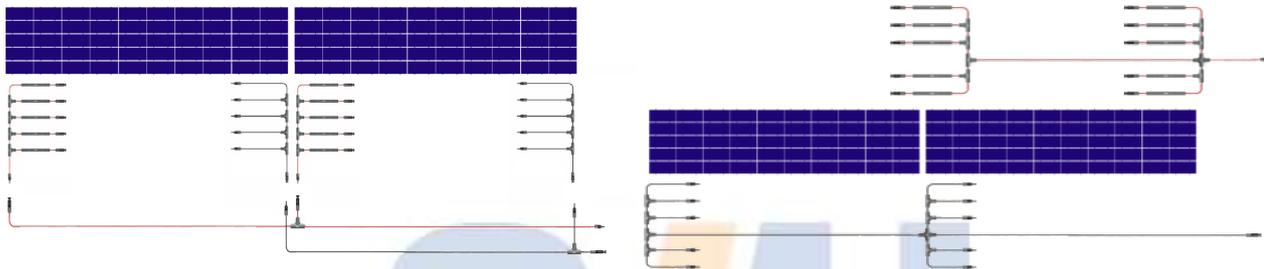
Perovskite System Harnesses

- TYPICAL MODULE 1245m*635mm
- Up to 16mm² and 6 AWG Solar Cables
- MAX RATED SYSTEM VOLTAGE DC 1500V
- BETTER BOS COST
- HI-TECH SEALING TECHNOLOGY
- AUTHORIZED PATENTS
- UV RESISTANCE



Examples

- Combined harnesses for 5 rows or 4 rows bracket System
- All in one integrated harnesses for 5 rows or 4 rows bracket System
- 7 modules in one string for 1500V system
- 5 modules in one string for 1000V system



Combined Harnesses Systems

All in One Integrated Harness System

Combined Harnesses

ITEM	Strings QTY	Input Parameter			Output Parameter		
		Cable ¹	Connector ^{2,3}	Fuse ⁴	Cable ¹	Connector ^{2,3}	Fuse ⁵
Branch Harness Unit	4 strings to 1	DC 1500V 14 AWG/ 2.5mm ² Solar Cable	Brand Optional	2A	14 AWG/ 2.5mm ²	Brand Optional	Optional
	5 strings to 1						
BUS Harness	2 branch to 1	DC 1500V 14 AWG/ 2.5mm ² Solar Cable	Brand Optional	2A	14 AWG/ 2.5mm ²	Brand Optional	Optional
	3 branch to 1				12 AWG/ 4mm ²		
	4 branch to 1				12 AWG/ 4mm ²		
	5 branch to 1				10 AWG/ 6mm ²		
	6 branch to 1				10 AWG/ 6mm ²		
	7 branch to 1				8 AWG/ 10mm ²		

All in One Integrated Harnesses

Strings QTY	Input Parameter			Output Parameter		
	Cable ¹	Connector ^{2,3}	Fuse ⁴	Cable ¹	Connector ^{2,3}	Fuse ⁵
5 strings to 1	DC 1500V 14 AWG/ 2.5mm ² Solar Cable	Brand Optional	2A	14 AWG/ 2.5mm ²	Brand Optional	Optional
10 strings to 1				14 AWG/ 2.5mm ²		
15 strings to 1				12 AWG/ 4mm ²		
20 strings to 1				12 AWG/ 4mm ²		
25 strings to 1				10 AWG/ 6mm ²		
30 strings to 1				10 AWG/ 6mm ²		
35 strings to 1				8 AWG/ 10mm ²		
4 strings to 1	DC 1500V 14 AWG/ 2.5mm ² Solar Cable	Brand Optional	2A	14 AWG/ 2.5mm ²	Brand Optional	Optional
8 strings to 1				14 AWG/ 2.5mm ²		
12 strings to 1				12 AWG/ 4mm ²		
16 strings to 1				12 AWG/ 4mm ²		
20 strings to 1				12 AWG/ 4mm ²		
24 strings to 1				10 AWG/ 6mm ²		
28 strings to 1				10 AWG/ 6mm ²		
32 strings to 1				8 AWG/ 10mm ²		

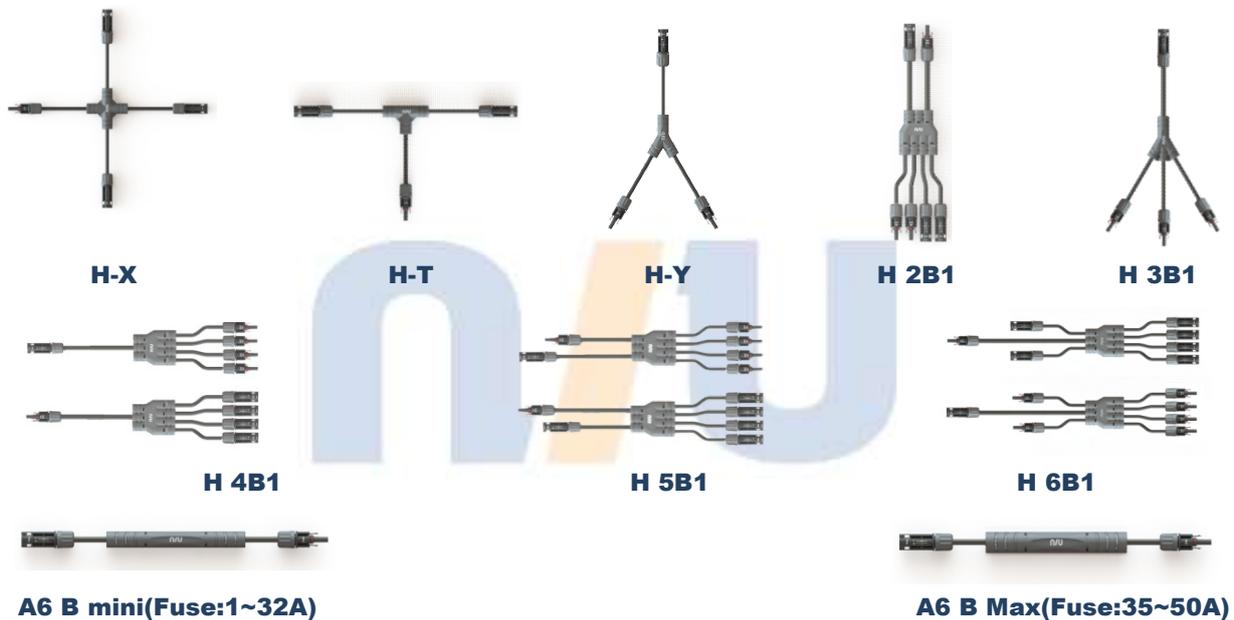
Standard Harnesses System

- Multiple Junctions Modes Certified
- Up to 16mm² and 6 AWG Solar Cables
- MAX RATED SYSTEM VOLTAGE DC 1500V
- BETTER BOS COST
- HI-TECH SEALING TECHNOLOGY
- AUTHORIZED PATENTS
- UV RESISTANCE



Standard Junction MODES

- Use Standard Junction Units to combine connection system.
- T,+,Y,3to1,4to1,5to1,6to1 standard junctions are available.



Junction MODE	Cable ¹	Connector ^{2,3}	Fuse ⁴	Remark
H-X	14 AWG/ 2.5mm ² ~6 AWG/ 16mm ²	Brand Optional	-	
H-T			-	
H-Y			-	
H 2B1			-	
H 3B1			-	
H 4B1			-	
H 5B1			-	
H 6B1			-	
A6 B mini			1000V 1~32A; 1500V 1~32A	
A6 B max			1000V 35~50A; 1500V 35~50A	

Remark:

1, The harness use UL4703 certified DC 1500V cable for North America market and use IEC 62930 certified DC 1500V solar cables for other market; Also the cable's spec is available for option.

2, Application Class A for 1000V (class II), Application Class B for 1500V (class 0) with staubli MC4; Application Class A for 1000V and 1500V (class II) with staubli MC4-EVO2.

3, Other brand connectors are available for option such as Trina TS4,Canadiansolar T4,Jinko JK03M,Longi LR5.

4,The input protection fuse use 4A default.Also other rated current fuses are available for option.The 1100V fuse or 1500V fuse will be used by technical conformation.

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First Solar

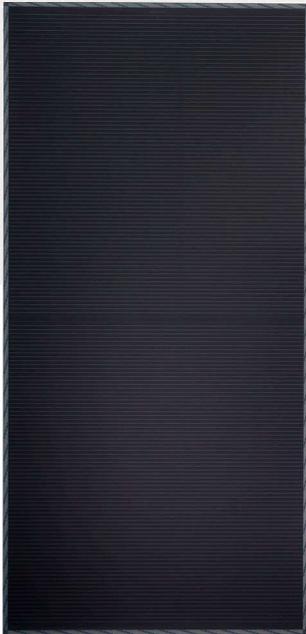
FIRST SOLAR EBOS Solutions
NIU Powering the green future

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Mobil: 0086-158 50088879
Te: 0086-512-52992809

Support Engineer





**122.5 WATT MODULE
EFFICIENCY OF 17.0%**

INDUSTRY BENCHMARK SOLAR MODULES

As a global leader in PV energy, First Solar's advanced thin film solar modules have set the industry benchmark with over 17 gigawatts (GW) installed worldwide and a proven performance advantage over conventional crystalline silicon solar modules. Generating more energy than competing modules with the same power rating, First Solar's Series 4™ and Series 4A™ PV Modules deliver superior performance and reliability to our customers.



PROVEN ENERGY YIELD ADVANTAGE

- Generates more energy than conventional crystalline silicon solar modules with the same power due to superior temperature coefficient and superior spectral response
- Anti-reflective coated glass (Series 4A™) enhances energy production



ADVANCED PERFORMANCE & RELIABILITY

- Compatible with advanced 1500V plant architectures
- Independently certified for reliable performance in high temperature, high humidity, extreme desert and coastal environments
- Visit PlantPredict.com - The only Energy Prediction Software designed for Utility Scale PV



CERTIFICATIONS & TESTS

- PID-Free, Thresher Test, Long-Term Sequential Test, and ATLAS 25+¹
- IEC 61215/61646 1500V, IEC 61730 1500V, CE
- IEC 61701 Salt Mist Corrosion, IEC 60068-2-68 Dust and Sand Resistance
- ISO 9001:2015 and ISO 14001:2015
- UL 1703 Listed Fire Performance PV Module Type 10²
- CSI Eligible, FSEC, MCS, CEC Listed (Australia), SII, InMetro

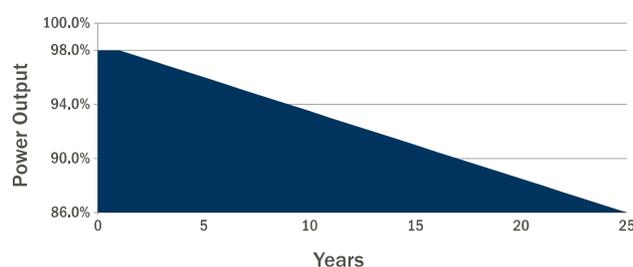


END-OF-LIFE RECYCLING

- Recycling services available through First Solar's industry-leading recycling program or customer-selected third party.



MODULE WARRANTY³



- 25-Year Linear Performance Warranty⁴
- 10-Year Limited Product Warranty

FIRST SOLAR SERIES 4™ PV MODULE

MECHANICAL DESCRIPTION

Length	1200mm
Width	600mm
Weight	12kg
Thickness	6.8mm
Area	0.72m ²
Individual Leadwire	2.5mm ² , 657mm (minimum from strain relief to connector mating surface)
Connectors	MC4 or MC4-EVO 2 ⁹
Bypass Diode	None
Cell Type	Thin-film CdTe semiconductor, up to 216 cells
Frame Material	None
Front Glass	3.2mm heat strengthened Series 4A™ includes anti-reflective coating
Back Glass	3.2mm tempered
Encapsulation	Laminate material with edge seal
Load Rating	2400Pa ¹⁰

MODULE NUMBERS AND RATINGS AT STANDARD TEST CONDITIONS (1000W/m², AM 1.5, 25°C)⁵

NOMINAL VALUES		FS-4110-3 FS-4110A-3	FS-4112-3 FS-4112A-3	FS-4115-3 FS-4115A-3	FS-4117-3 FS-4117A-3	FS-4120-3 FS-4120A-3	FS-4122-3 FS-4122A-3
Nominal Power ⁶ (-0/+5W)	P _{MPP} (W)	110.0	112.5	115.0	117.5	120.0	122.5
Voltage at P _{MAX}	V _{MPP} (V)	67.8	68.5	69.3	70.1	70.8	71.5
Current at P _{MAX}	I _{MPP} (A)	1.62	1.64	1.66	1.68	1.70	1.71
Open Circuit Voltage	V _{OC} (V)	86.4	87.0	87.6	88.1	88.7	88.7
Short Circuit Current	I _{SC} (A)	1.82	1.83	1.83	1.83	1.84	1.85
Module Efficiency	%	15.3	15.6	16.0	16.3	16.7	17.0
Maximum System Voltage	V _{SYS} (V)	1500 ^{7,8}					
Limiting Reverse Current	I _R (A)	4.0					
Maximum Series Fuse	I _{CF} (A)	4.0					

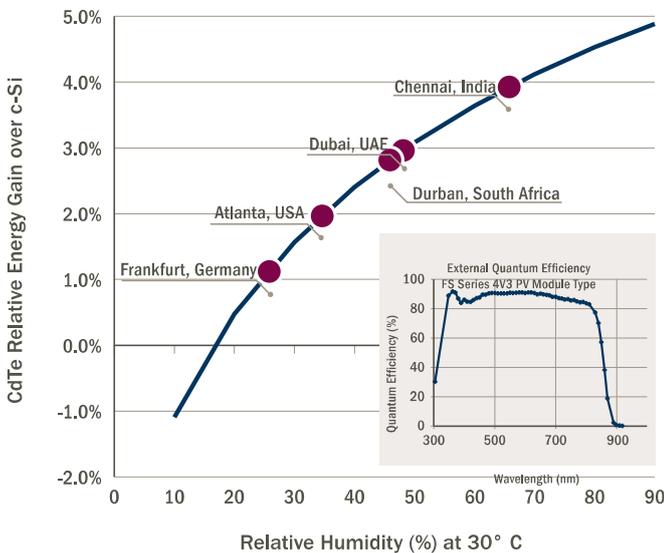
RATINGS AT NOMINAL OPERATING CELL TEMPERATURE OF 45°C (800W/m², 20°C air temperature, AM 1.5, 1m/s wind speed)⁵

Nominal Power	P _{MPP} (W)	83.2	85.1	87.0	89.0	90.8	92.7
Voltage at P _{MAX}	V _{MPP} (V)	63.5	64.5	64.9	65.9	66.3	67.2
Current at P _{MAX}	I _{MPP} (A)	1.31	1.32	1.34	1.35	1.37	1.38
Open Circuit Voltage	V _{OC} (V)	81.6	82.1	82.7	83.2	83.7	83.7
Short Circuit Current	I _{SC} (A)	1.47	1.47	1.48	1.48	1.48	1.49

TEMPERATURE CHARACTERISTICS

Module Operating Temperature Range	(°C)	-40 to +85
Temperature Coefficient of P _{MPP}	T _K (P _{MPP})	-0.28%/°C [Temperature Range: 25°C to 75°C]
Temperature Coefficient of V _{OC}	T _K (V _{OC})	-0.28%/°C
Temperature Coefficient of I _{SC}	T _K (I _{SC})	+0.04%/°C

SUPERIOR SPECTRAL RESPONSE



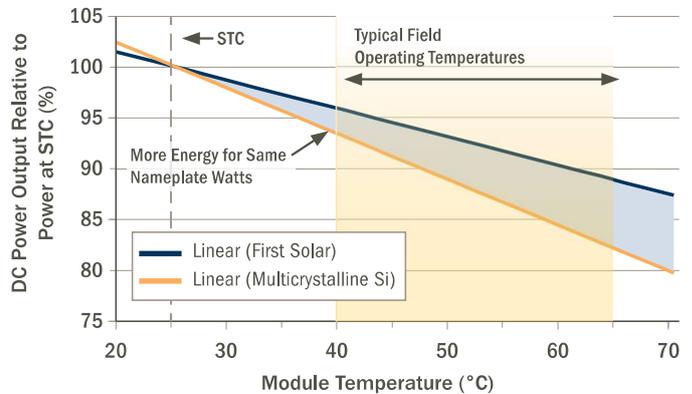
- Device package meets Atlas 25+
- Class A Spread of Flame / Class B Burning Brand. Roof mounted fire rating is established by assessing rack and solar module as a unit
- Limited power output and product warranties subject to warranty terms and conditions
- Ensures 98% rated power in first year, -0.5%/year through year 25
- All ratings ± 10%, unless specified otherwise. Specifications are subject to change
- Measurement uncertainty applies
- UL 1703 1500V Listed / ULC 1703 1000V Listed
- Application Class A for 1000V (class II), Application Class B for 1500V (class 0) with MC4; Application Class A for 1000V and 1500V (class II) with MC4-EVO 2
- Multi-Contact: MC4 (PV-KST4/PV-KBT4) or MC4-EVO 2 (PV-KST-EVO 2 / PV-KBT-EVO 2).
- Higher load ratings can be met with additional clips or wider clips, subject to testing

Disclaimer

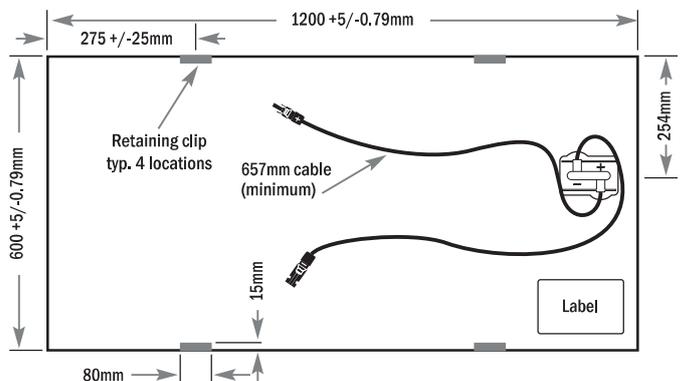
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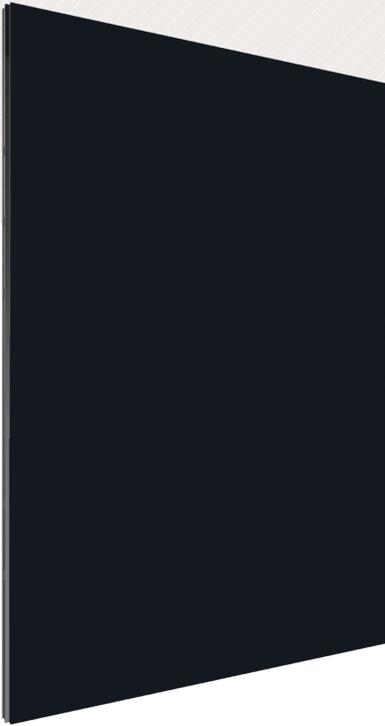
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SUPERIOR TEMPERATURE COEFFICIENT



MECHANICAL DRAWING





HIGH-POWER PV MODULES

First Solar Series 6 photovoltaic (PV) modules set the industry benchmark for reliable energy production, optimized design and environmental performance. The advanced design is optimized for every stage of your application, significantly reducing balance of system, shipping, and operating costs.



MORE LIFETIME ENERGY PER NAMEPLATE WATT

- Industry's best (0.3%) warranted degradation rate
- Superior temperature coefficient, spectral response and shading behavior
- Unlike crystalline silicon modules, First Solar's thin film technology does not experience the losses associated with LID and LeTID
- Anti-reflective coated glass enhances energy production



INNOVATIVE MODULE DESIGN

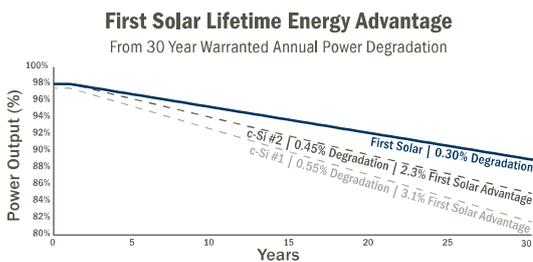
- Under-mount frame provides the cleaning and snow-shedding benefits of a frameless module while protecting edges against breakage
- Innovative SpeedSlots combine the robustness of bottom mounting with the speed of top clamping while utilizing fewer fasteners to achieve the industry's fastest installation times and lowest mounting hardware costs
- Dual junction box design optimizes module-to-module connections and eliminates the need for wire management

430-460 Watts
Up to 18.6% Efficiency

INDUSTRY-LEADING MODULE WARRANTY¹

98% WARRANTY START POINT

0.3% WARRANTED ANNUAL DEGRADATION RATE



- 30-Year Linear Performance Warranty
- 12-Year Limited Product Warranty
- Industry's First and Only Cell Cracking Warranty



BEST IN-CLASS RELIABILITY & DURABILITY

- Manufactured under one roof with 100% traceable QA/QC
- Independently tested and certified for reliable performance that exceeds IEC standards in high temperature, high humidity, extreme desert and coastal applications
- Inherently immune to and warranted against power loss from cell cracking
- Durable glass/glass construction



BEST ENVIRONMENTAL PROFILE

- Fastest energy payback time in the industry
- Carbon footprint that is 2.5X lower and a water footprint that is 3X lower than mono crystalline silicon panels on a life cycle basis
- Global PV module recycling services available through First Solar or customer-selected third-party

FIRST SOLAR SERIES 6

MODEL TYPES AND RATINGS AT STANDARD TEST CONDITIONS (1000W/m ² , AM 1.5, 25°C) ²								
NOMINAL VALUES		FS-6430 FS-6430A	FS-6435 FS-6435A	FS-6440 FS-6440A	FS-6445 FS-6445A	FS-6450 FS-6450A	FS-6455 FS-6455A	FS-6460 FS-6460A
Nominal Power ³ (-0/+5%)	P _{MAX} (W)	430	435	440	445	450	455	460
Efficiency (%)	%	17.4	17.6	17.8	18.0	18.2	18.4	18.6
Voltage at P _{MAX}	V _{MAX} (V)	182.6	183.6	184.7	185.7	186.8	187.8	188.8
Current at P _{MAX}	I _{MAX} (A)	2.36	2.37	2.38	2.40	2.41	2.42	2.44
Open Circuit Voltage	V _{OC} (V)	219.2	219.6	220.0	220.4	221.1	222.0	222.9
Short Circuit Current	I _{SC} (A)	2.54	2.55	2.55	2.56	2.57	2.58	2.59
Maximum System Voltage	V _{SYS} (V)	1500 ⁵						
Limiting Reverse Current	I _R (A)	5.0						
Maximum Series Fuse	I _{CF} (A)	5.0						

RATINGS AT NOMINAL OPERATING CELL TEMPERATURE OF 45°C (800W/m ² , 20°C air temperature, AM 1.5, 1m/s wind speed) ²								
Nominal Power	P _{MAX} (W)	324.7	328.5	332.4	336.0	339.9	343.6	347.3
Voltage at P _{MAX}	V _{MAX} (V)	170.9	172.0	173.1	174.1	175.2	176.2	176.3
Current at P _{MAX}	I _{MAX} (A)	1.90	1.91	1.92	1.93	1.94	1.95	1.97
Open Circuit Voltage	V _{OC} (V)	207.0	207.3	207.7	208.0	208.8	209.6	210.4
Short Circuit Current	I _{SC} (A)	2.05	2.06	2.06	2.06	2.07	2.08	2.09

TEMPERATURE CHARACTERISTICS		
Module Operating Temperature Range	(°C)	-40 to +85
Temperature Coefficient of P _{MAX}	T _K (P _{MAX})	-0.32%/°C [Temperature Range: 25°C to 75°C]
Temperature Coefficient of V _{OC}	T _K (V _{OC})	-0.28%/°C
Temperature Coefficient of I _{SC}	T _K (I _{SC})	+0.04%/°C

MECHANICAL DESCRIPTION	
Length	2009mm
Width	1232mm
Thickness	49mm
Area	2.47m ²
Module Weight	34.5kg
Leadwire ⁶	2.5mm ² , 720mm (+) & Bulkhead (-)
Connectors	MC4-EVO 2 or TE Connectivity PV4-S
Bypass Diode	N/A
Cell Type	Thin film CdTe semiconductor, up to 264 cells
Frame Material	Anodized Aluminum
Front Glass	Heat strengthened
Back Glass	Heat strengthened
Encapsulation	Laminate material with edge seal
Frame to Glass Adhesive	Silicone
Load Rating ⁷	2400Pa

PACKAGING INFORMATION			
Modules Per Pack	27	Pack Dimensions (L x W x H)	2200 x 1300 x 1164mm (86 x 51 x 45.8in)
Packs per 40' Container	18	Pack Weight	1032kg

Disclaimer

The information included in this Module Datasheet is subject to change without notice and is provided for informational purposes only. No contractual rights are established or should be inferred because of user's reliance on the information contained in this Module Datasheet. Please refer to the appropriate Module User Guide and Module Product Specification document for more detailed technical information regarding module performance, installation and use.

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CERTIFICATIONS AND TESTS⁴

IEC
61215:2016 & 61730-1:2016⁵, CE
61701 Salt Mist Corrosion
60068-2-68 Dust and Sand Resistance

UL
UL 1703 1500V Listed⁵
UL 61730 1500V Listed

REGIONAL CERTIFICATIONS

InMetro SII
BIS FSEC
MyHijau
Buy American Act (BAA) Compliant

EXTENDED DURABILITY TESTS

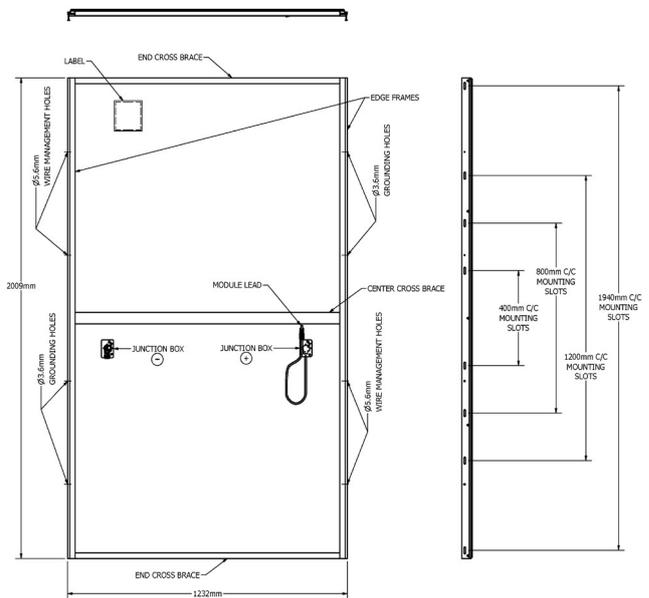
ANSI/CAN/CSA-C450-18
Long-Term Sequential Thresher Test
PID Resistant

QUALITY & EHS

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
EPEAT Silver Registered



MECHANICAL DRAWING



Install in portrait only

- Limited power output and product warranties subject to warranty terms and conditions
- All ratings ±10%, unless specified otherwise. Specifications are subject to change
- Measurement uncertainty applies
- Testing Certifications/Listings pending
- IEC 61730-1: 2016 Class II | ULC (Canada) 1703 1000V listed
- Leadwire length from junction box exit to connector mating surface
- 1000Pa tentative design load rating for 1940mm mounting slots. Higher loads may be acceptable, subject to testing

This authorizes the application of the Certification Mark(s) shown below to the models described in the Product(s) Covered section when made in accordance with the conditions set forth in the Certification Agreement and Listing Report. This authorization also applies to multiple listee model(s) identified on the correlation page of the Listing Report.

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Applicant: NIU-Power (Suzhou) Corporation

Manufacturer: NIU-Power (Suzhou) Corporation

Address: No.16, North Chajiang Road, Changshu City, Jiangsu Province

Address: No.16, North Chajiang Road, Changshu City, Jiangsu Province

Country: China

Country: China

Party Authorized To Apply Mark: Same as Manufacturer
Report Issuing Office: Intertek Testing Services Shanghai Limited

Control Number: 5022566

Authorized by:  _____
 for L. Matthew Snyder, Certification Manager



This document supersedes all previous Authorizations to Mark for the noted Report Number.

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Intertek Testing Services NA Inc.
 545 East Algonquin Road, Arlington Heights, IL 60005
 Telephone 800-345-3851 or 847-439-5667 Fax 312-283-1672

Standard(s):	Outline of Investigation for Distributed Generation Wiring Harnesses [UL SUBJECT 9703:2018 Ed.3]
Product:	Photovoltaic Wiring Harness
Brand Name:	NIU
Models:	H- followed by T, X, Y, 3B1, 4B1, 5B1 or 6B1 ; followed by 0202, 0204, 0206, 0210, 0216, 0404, 0406, 0410, 0416, 0606, 0610, 0616, 1010, 1016 or 1616; followed by F or M. H-2Y followed by 0202, 0204, 0206, 0210, 0216, 0404, 0406, 0410, 0416, 0606, 0610, 0616, 1010, 1016 or 1616. A6 B Max-1500V-; followed by 1, 2, 3, 4, 5, 6 or 8; followed by A-; followed by 25, 4, or 6. A6 B Max-1500V-; followed by 10, 12, 15, 16, 20 or 25; followed by A-; followed by 4, 6 or 10. A6 B Max-1500V-; followed by 30, 32 or 35; followed by A-; followed by 6 or 10. A6 B Max-1500V-; followed by 40, 45 or 50; followed by A-; followed by 10 or 16. A6 B Mini- followed by 1000V- or 1500V-; followed by 1, 2, 3, 4, 5, 6 or 8; followed by A-; followed by 25, 4, or 6. A6 B Mini- followed by 1000V- or 1500V-; followed by 10, 12, 15, 16, 20 or 25; followed by A-; followed by 4, 6 or 10. A6 B Mini- followed by 1000V- or 1500V-; followed by 30A-; followed by 6 or 10. A6 B Mini-1500V-32A-; followed by 6 or 10.

Confidential
 NIU Power Corporation
 www.niu-power.com

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Applicant:	NIU-Power (Suzhou) Corporation	Manufacturer:	NIU-Power (Suzhou) Corporation
Address:	No.16, North Chajiang Road, Changshu City, Jiangsu Province	Address:	No.16, North Chajiang Road, Changshu City, Jiangsu Province
Country:	China	Country:	China
Party Authorized To Apply Mark:	Same as Manufacturer		
Report Issuing Office:	Intertek Testing Services Shanghai Limited		

Control Number: 5022566 **Authorized by:** _____
for L. Matthew Snyder, Certification Manager



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Intertek Testing Services NA Inc.
545 East Algonquin Road, Arlington Heights, IL 60005
Telephone 800-345-3851 or 847-439-5667 Fax 312-283-1672

Standard(s):	Connectors for Use in Photovoltaic Systems [UL 6703:2014 Ed.1+R:10Jun2021]
Product:	Connector for use in Photovoltaic systems
Brand Name:	NIU
Models:	A4 followed by Max or P ; followed by 611, 712, 813, 914 or 1015; followed by 1

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