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Amphenol[®]

Solar Line



ICS-18-2 Release date: May, 2011

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Manufacturing connectors since 1932, we take pride that Amphenol Industrial is the undisputed leader in interconnect systems for harsh environment applications. Such applications require a high degree of engineering sophistication and precision manufacturing capability. Innovations like our RADSOK® contact technology can provide roughly 50% more current through the same size pin. Connectors utilizing this RADSOK® technology will outperform similar products in the market hands down.



AIO Headoffice, Sidney, NY, USA

Amphenol Industrial Operations (AIO), division of Amphenol Corporation, is the leading manufacturer of cylindrical connectors in the world. Amphenol Industrial's product lines consist of rectangular, standard miniature, fiber optic, EMI/EMP filter, and a variety of special application connectors.

The Sidney, NY facility, nestled at the foothills of the Catskill Mountains, is over 675,000 square feet. This complex houses over 1,400 employees, incorporating state-of-the-art manufacturing technologies. The facility is both ISO9001 certified and qualified to MIL-STD-790 requirements.

Our manufacturing capabilities include state-of-the-art CNC machining, die-casting, molding, impact and extruding, plating, screw machining and process controls.

AIO also has a fully equipped material evaluation lab and an engineering support organization utilizing the latest in computer aided design software and analysis tools.

The Amphenol Industrial division is supported by two satellite plants and one of the largest distributor networks in the world.



Your powerful connection to the sun

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H4 PV cable connector

H4 Female PV cable connector



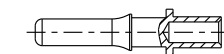
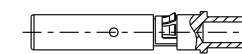
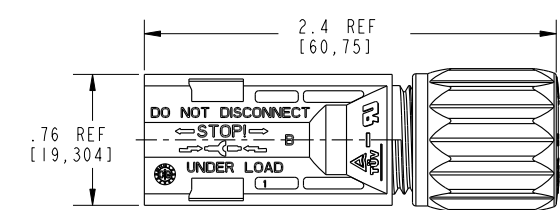
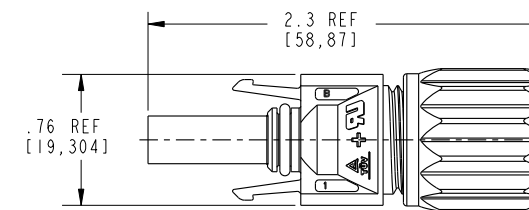
H4 Male PV cable connector



H4 Female socket contact



H4 Male pin contact



Technical Data

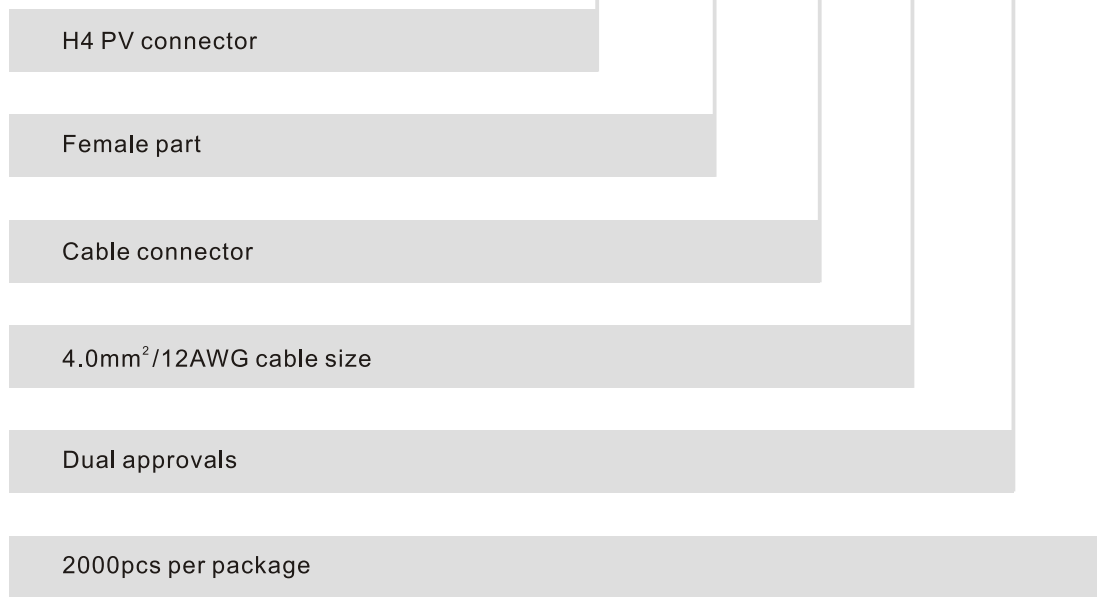
Rated current	32A(2.5mm ² ,14AWG),40A(4.0mm ² ,12AWG), 44A(6.0mm ² ,10AWG), 65A(10.0mm ² , 8AWG)
Rated voltage	1000V (IEC/CEI), 600V(UL)
Test voltage	6kV for 1 minute, 10kV impulse (1.2/50 μS)(IEC)
Typical contact resistance	0.25mΩ
Contact material	Copper, tin plated
Contact system	Machined/cold formed contact with RADSOK® insert
Insulation material	PC
Locking mechanism	Snap-lock, special unlocking tool required to un-mate as required by NEC2008
Cable strain relief	Compression gland with ratcheting gland nut
Degree of protection	IP68 (1 meter, 1 hour) mated
Safety class	II (IEC61140)
Pollution degree	2 (IEC60664)
Overvoltage category	III (IEC60664)
Flame class	UL94 V-0
Ambient temperature range	-40°C--- +90°C

How to order

Product line	Product type	Gender	Connector type	Cable size	Approvals	Packaging	Variations
H4	Helios H4	C	Connector	F Female +	C Cable gland	2 2.5 mm ² /14AWG	T TÜV I Single S S&F contact (single contact)
				M Male -		4 4.0 mm ² /12AWG	U UL C 100pcs bags T Screw termination (field installation)
				P Mated pair		6 6.0 mm ² /10AWG	D Dual D 500pcs bags
						8 10.0mm ² /8AWG	M 1000pcs bags
						0 Less contact	N 2000pcs loose

Ordering example:

H4 C F C 4 D N



How to order assembly tools

Description	Ordering code
H4 Strip tool	H4TS0000
H4 Crimp Tool	H4TC0000
H4 Crimp Tool(new)	H4TC0001
H4 Wrench Tool(new)	H4TW0001
H4 Universal Unlocking Tool	H4TU0000
H4 Tool-Kit	H4TK0000

Assembly Tool



Tool-Kit



Universal unlocking tool



Crimp tool for 2.5mm²-6.0mm² (14AWG-10AWG)



Wrench tool



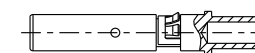
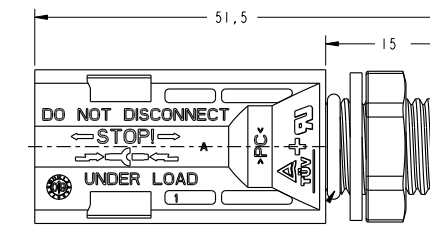
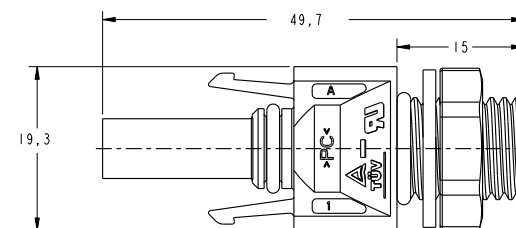
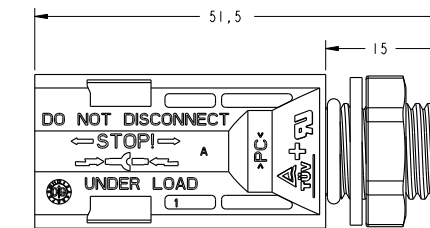
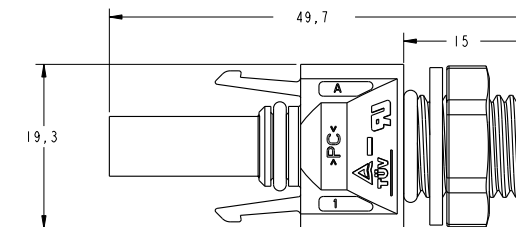
Strip tool for 2.5mm²-6.0mm² (14AWG-10AWG)

H4 PV panel connector

H4 Female PV panel connector



H4 Female socket contact



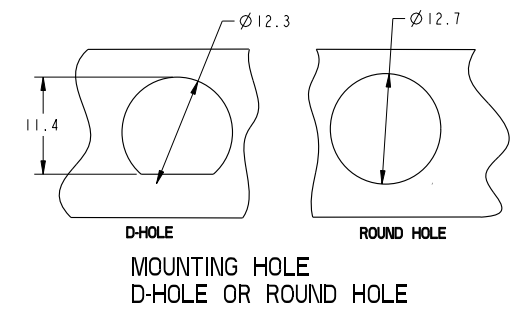
H4 Male PV panel connector



H4 Male pin contact

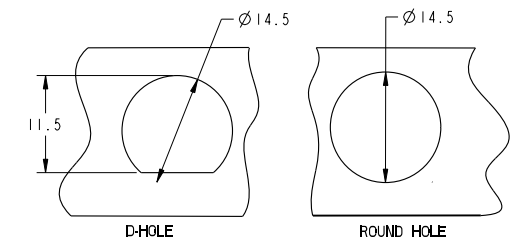


M12

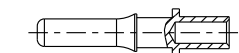


MOUNTING HOLE
D-HOLE OR ROUND HOLE

M14



MOUNTING HOLE
D-HOLE OR ROUND HOLE



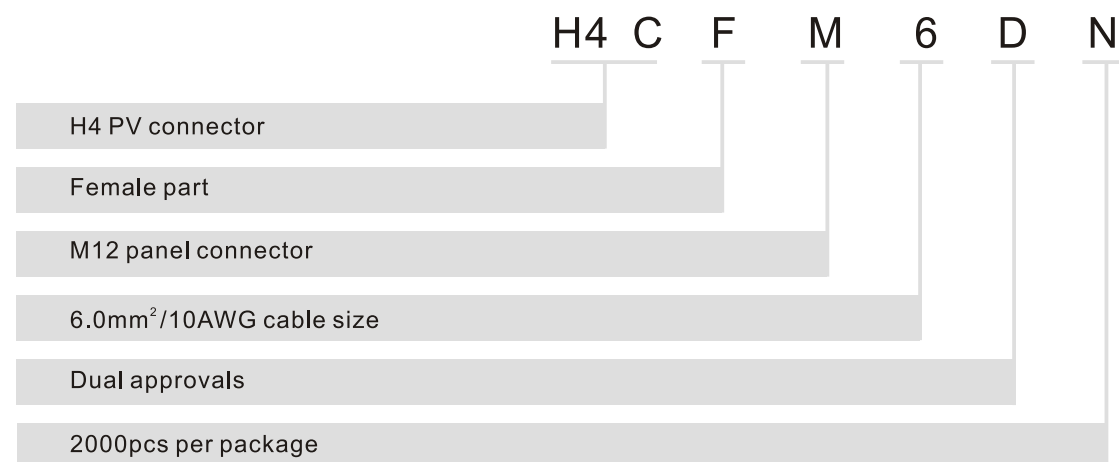
Technical Data

Rated current	32A(2.5mm ² , 14AWG), 40A(4.0mm ² , 12AWG), 44A(6.0mm ² , 10AWG), 65A(10.0mm ² , 8AWG)
Rated voltage	1000V (IEC/CEI), 600V(UL)
Test voltage	6kV for 1 minute, 10kV impulse (1.2/50 μS)(IEC)
Typical contact resistance	0.25mΩ
Contact material	Copper, tin plated
Contact system	Machined/cold formed contact with RADSOK® insert
Insulation material	PC
Locking mechanism	Snap-lock, special unlocking tool required to un-mate as required by NEC2008
Cable strain relief	Compression gland with ratcheting gland nut
Degree of protection	IP68 (1 meter, 1 hour) mated
Safety class	II (IEC61140)
Pollution degree	2 (IEC60664)
Overvoltage category	III (IEC60664)
Flame class	UL94 V-0
Ambient temperature range	-40°C--- +90°C

How to order

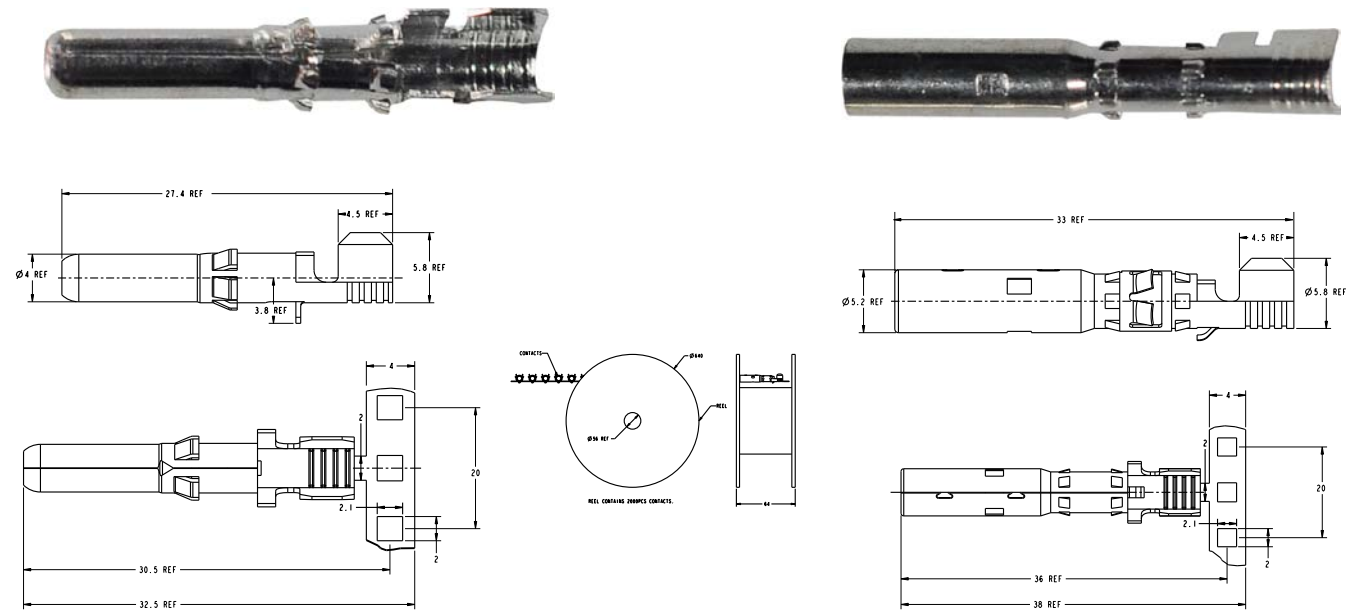
Product line	Product type	Gender	Connector type	Cable size	Approvals	Packaging	Variations
H4	Helios H4	C Connector	F Female +	M Panel M12	2 2.5 mm ² /14AWG	T TÜV	I Single S S&F contact (single contacts)
			M Male -	N Panel M14	4 4.0 mm ² /12AWG	U UL	C 100pcs bags T Screw termination (field installation)
			P Mated pair		6 6.0 mm ² /10AWG	D Dual	D 500pcs bags
					8 10.0mm ² /8AWG		M 1000pcs bags
					0 Less contact		N 2000pcs loose

Ordering example:



H4 Stamped and formed contact

- Packaged on a reel for automatic assembly

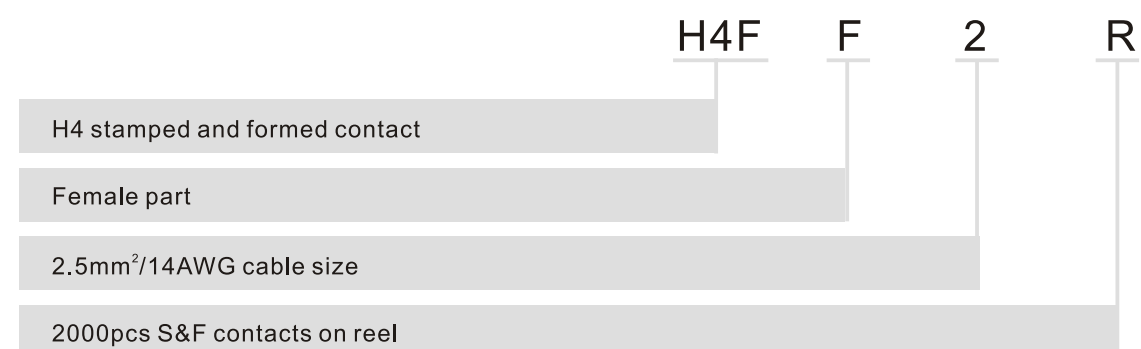


How to order

Product line	Contact type	Gender	Cable size	Packaging	Variations
H4	Helios H4	F S&F contact	F Female +	2 2.5 mm ² /14AWG	R 2000pcs reel
		M Male -	4 4.0 mm ² /12AWG;6.0mm ² /10AWG		

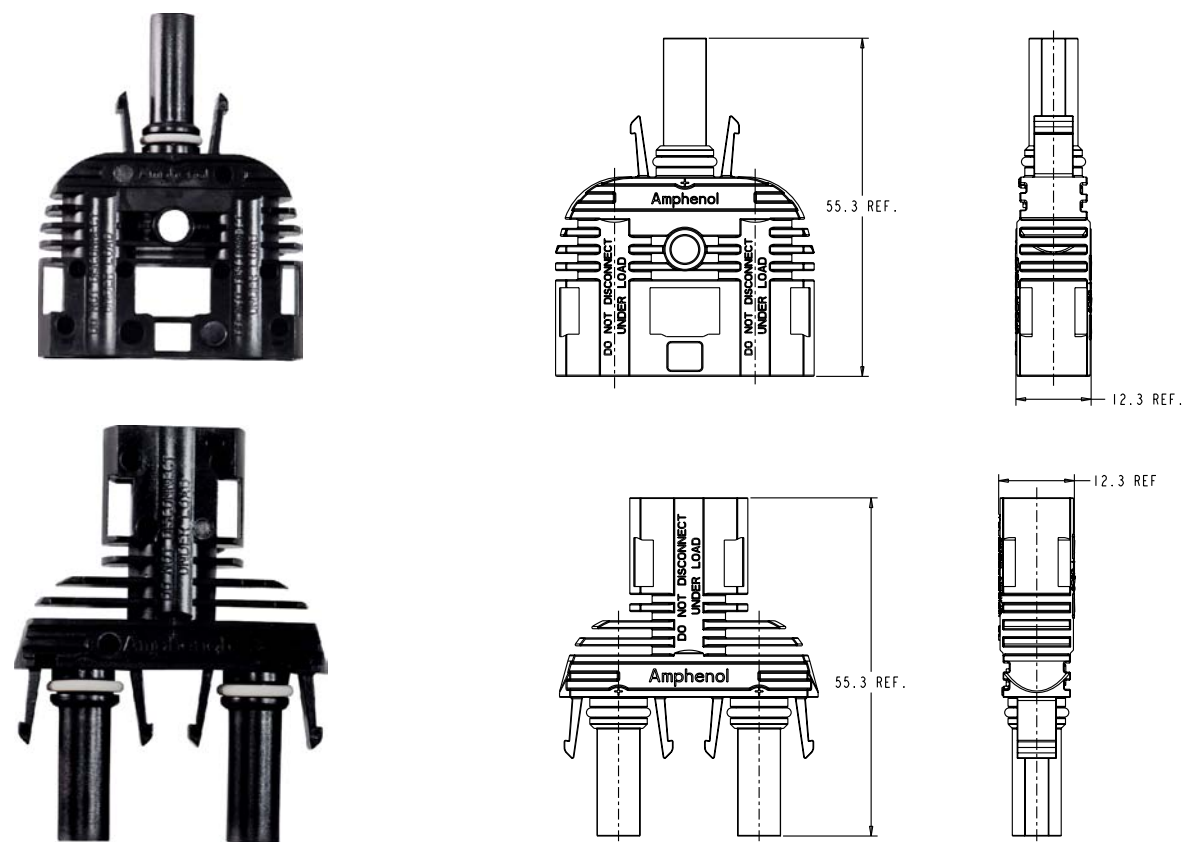
* The above code applies to the H4 cable connector and H4 panel connector with Stamped and Formed contacts.

Ordering example:



H4 Branch Connector

- Quick field solar installation



How to order

Product line		Product type		Gender	
H4	Helios H4	Y	Branch connector	X	FFM (branch 2 female/1 male)
				Y	MMF (branch 2 male/1 female)

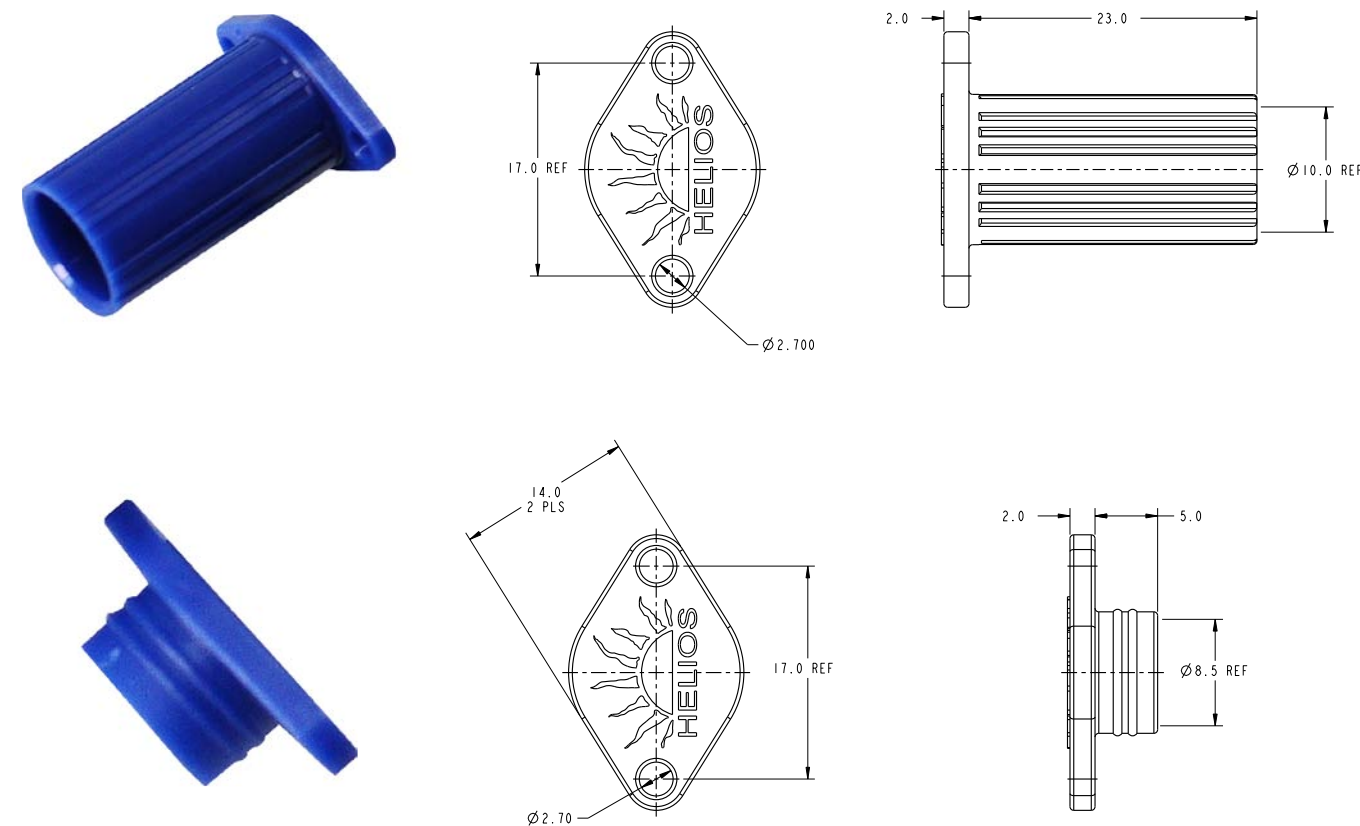
Ordering example:

H4 Y Y

H4 branch connector

2 males, 1 female

H4 Protective Cap



How to order

Product line		Product type		Gender		Variations
H4	Helios H4	P	Protective cap	F	Female +	
				M	Male -	

Ordering example:

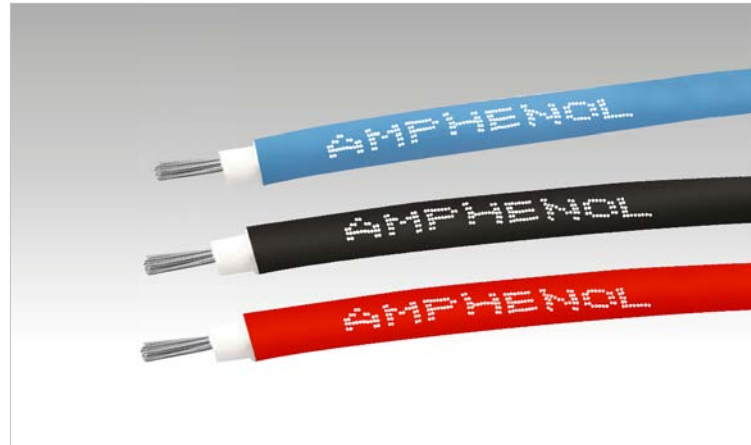
H4 P F

H4 protective cap

Female part

PowerLink solar cable

Halogen free photovoltaic cables are used as the interconnection wiring for photovoltaic power systems.



Features:

- Flexibility at low temperature
- Thermoset-insulated conductor
- Thermoplastic jacket
- Long-term insulation resistance to moisture
- Range from 1.5mm² to 25mm²



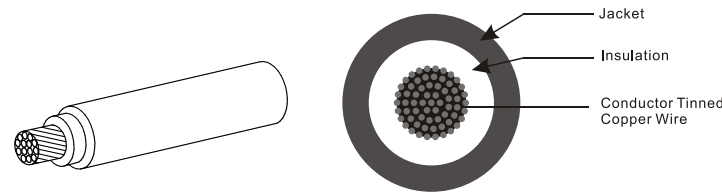
Certificate:

TÜV and UL certified according to the latest regulations

Structure:

Conductor: Stranded bare or tinned copper
 Insulation: XLPE material (white and black)
 Jacket: XLPE material (Black, Red and Blue)

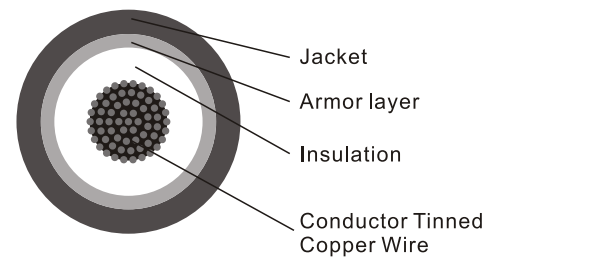
Temperature range:
 -40 °C to +125°C
 Environmental influence resistance:
 Acid, alkalinity, UV, ozone and hydrolysis-resistant.



ArmorLink Solar Cable

Advantages:

- Rodent resistant
- Extra protection layer



Made using UL4703 and TÜV 2Pfg 1169 as guidelines.



PowerLink solar cable application:

Used in heavy-duty and harsh environment interconnection wiring, can be easily combined with our Helios H4 PV connector and junction box series for photovoltaic system applications.



Cold
Snow
Low temperature



Sun
Drought
High temperature



Rain
Moisture

How to order

Product line	Product	Cable color	Cable type	Cable size	Approvals	Packaging	Variations
HC	Helios cable	P PowerLink - Standard	B Black - standard	L VDE 0295 - CLASS 27 STRANDS (USE -2)	1 1.5 mm ² /16AWG	T TÜV	A 24" REEL
		A ArmorLink - Rodent Proof	R Red	M MULTI WIRE 19 STRANDS (UL only)	2 2.5 mm ² /14AWG	U UL	B 36" REEL
			L Blue	H VDE 0295 - CLASS 5 (UL, TÜV and Dual)	4 4 mm ² /12AWG	D Dual	C Bag
			G Grey		5 25mm ² /3AWG	N None	
			O Brown		6 6 mm ² /10AWG		
					8 10mm ² /8AWG		
					9 16mm ² /4AWG		

Notes: UL cable comes in AWG only
 TÜV cable comes in mm² only
 Dual cable comes marked with AWG and mm²
 VDE 2095-CLASS 2 is 7 strands cable
 Multi wire stranding is 19 strands cable
 VDE 2095-CLASS 5 is high stranded cable with extra flexibility

Packaging units

Ordering example: 2000m TÜV 2.5mm² black cable.
 Ordering Number is: HCPBH2TA
 Delivery package: 1 pc of 24" reel.



Wire AWG	Meters/ reel	
	24"	36"
14AWG/2.5mm ²	2000m	4500m
12AWG/4.0mm ²	1800m	4000m
10AWG/6.0mm ²	1600m	3800m
8AWG/10mm ²	1400m	3200m

H4 Over-molded PV cable assemblies



■ Over-molded H4
Protection degree: IP68
Cable range: 2.5mm²/14AWG- 10.0mm²/8AWG
Temperature range: -40° C - +90° C



■ T-junction
Protection degree: IP68
Cable range: 2.5mm²/14AWG- 10.0mm²/8AWG
Temperature range: -40° C - +90° C



■ R-junction
Protection degree: IP68
Cable range: 2.5mm²/14AWG- 10.0mm²/8AWG
Temperature range: -40° C - +90° C



■ Y-junction
Protection degree: IP68
Cable range: 2.5mm²/14AWG- 10.0mm²/8AWG
Temperature range: -40° C - +90° C



■ Over-molded H4 branch
Protection degree: IP68
Cable range: 2.5mm²/14AWG- 10.0mm²/8AWG
Temperature range: -40° C - +90° C



■ X-junction
Protection degree: IP68
Cable range: 2.5mm²/14AWG- 10.0mm²/8AWG
Temperature range: -40° C - +90° C



■ Inline fuse connector
Protection degree: IP68
Cable range: 2.5mm²/14AWG- 10.0mm²/8AWG
Temperature range: -40° C - +90° C
Surge rating: 600A max
Blocking voltage: customer specified



■ Over-molded inline fuse cable assembly
Protection degree: IP68
Cable range: 2.5mm²/14AWG- 10.0mm²/8AWG
Temperature range: -40° C - +90° C
Surge rating: 600A max
Blocking voltage: customer specified



■ Inline diode connector
Protection degree: IP68
Cable range: 2.5mm²/14AWG- 10.0mm²/8AWG
Temperature range: -40° C - +90° C
Withstand rating: 10kA
Voltage rating: 1500V max
Amperage rating: 30A max
Connector options: M-M, M-F, F-F



■ Over-molded inline diode cable assembly
Protection degree: IP68
Cable range: 2.5mm²/14AWG- 10.0mm²/8AWG
Temperature range: -40° C - +90° C
Withstand rating: 10kA
Voltage rating: 1500V max
Amperage rating: 30A max
Connector options: M-M, M-F, F-F



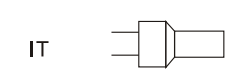
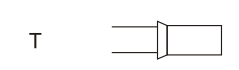
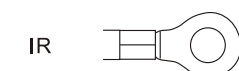
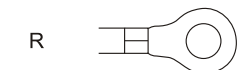
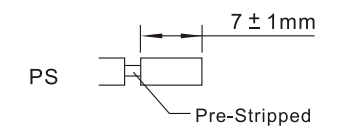
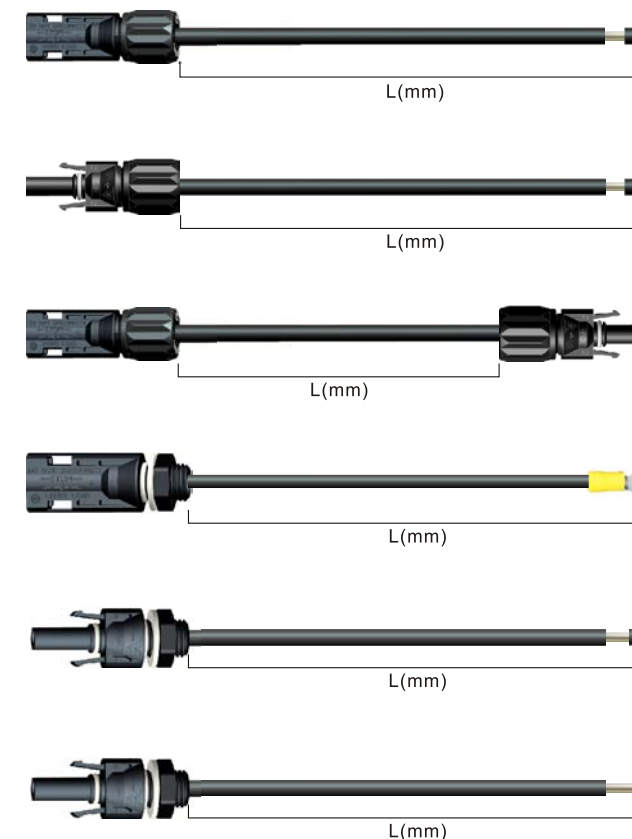
PV cable assemblies

How to order

Product line	Product type	Gender	Connector type	Cable size	Approvals	
H4	Helios H4	C	Connector	F Female +	C Cable gland	
				M Male -	M Panel M12	
				P Mated pair	N Panel M14	
				O Over-mold	O Over-mold	
				2	2.5 mm ² /14AWG	T TÜV
				4	4.0 mm ² /12AWG	U UL
				6	6.0 mm ² /10AWG	D Dual
				8	10.0mm ² /8AWG	

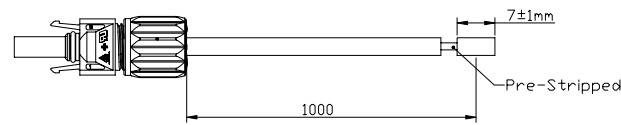
Cable length(mm)	Cable color	Termination	Variations
	B Black	PS Pre-stripped wire	
	R Red	R Ring terminal	
	L Blue	IR Isolated ring terminal	
	G Grey	T Tube terminal	
	O Brown	IT Isolated tube terminal	

Examples of cable assemblies and definition of cable length:

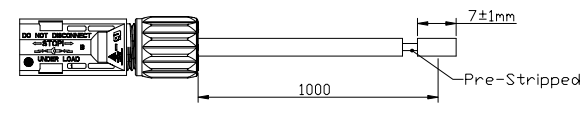


* Other terminals and customized strip length are available.

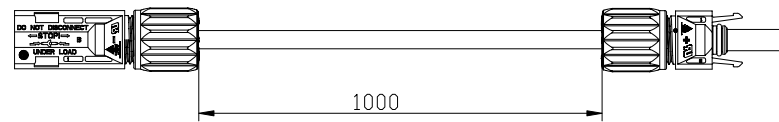
Ordering examples:



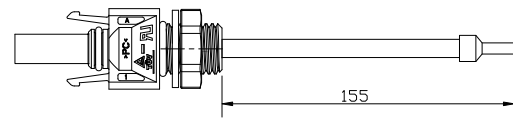
■ H4CFC4D-1000mm-B-PS



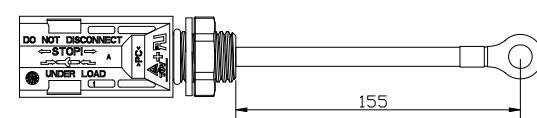
■ H4CMC4D-1000mm-B-PS



■ H4CPC4D-1000mm-B



■ H4CFM6D-155mm-B-T



■ H4CMM4D-155mm-B-IR

H4 cable assemblies ordering inquiry form

Please fill the below form based on your application:

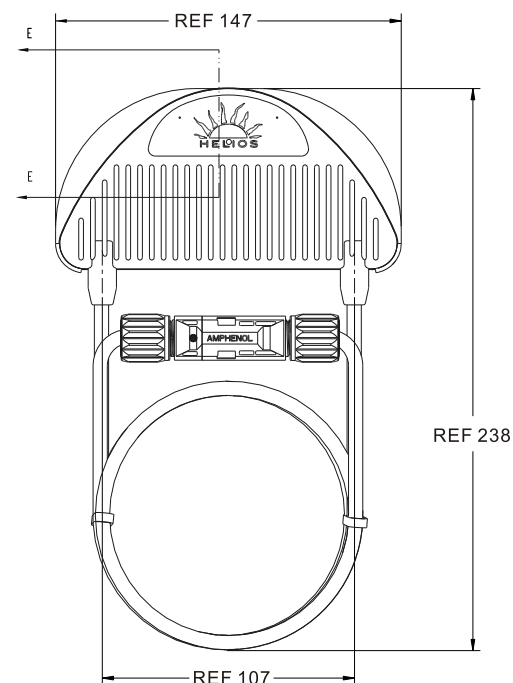
Customer Name	Country/Area	Reference No.	Quantity
Left side	Cable part		Right side
	Cable size 2.5mm ² /14AWG <input type="checkbox"/> 4.0mm ² /12AWG <input type="checkbox"/> 6.0mm ² /10AWG <input type="checkbox"/> 10.0mm ² /8AWG <input type="checkbox"/>		
	Cable approvals TÜV <input type="checkbox"/> UI <input type="checkbox"/> Dual <input type="checkbox"/>		
	Cable color Black <input type="checkbox"/> Blue <input type="checkbox"/> Red <input type="checkbox"/> Grey <input type="checkbox"/> Brown <input type="checkbox"/>		

Amphenol PV Junction box ordering inquiry form

Please fill in the following form so we can select the right product for your application.

Amphenol			
Customer Name:	Country/Area:	Sales:	
Part Name:	Part Name:	Request Date:	
Description:		Demand / Year:	
Target Price:	Sample request:	Sample request date:	
Information 1: (Photovoltaic Cable Standard) : UL4703 and/or UL854, TÜV2Pfg1169/2007 compliant			
Information 2: (Photovoltaic Connector Standard) : UL6703(UL1703), TÜV EN50521/2008 compliant			
Information 3: (Photovoltaic Junction Box Standard) : UL1703, TÜV DIN V VDE V 0126-5/2008 (&EN50548) compliant			
Location: <input type="checkbox"/> North-America <input type="checkbox"/> Europe <input type="checkbox"/> Other			
Certification: <input type="checkbox"/> TÜV Cert. <input type="checkbox"/> UL Cert. <input type="checkbox"/> TÜV&UL Cert.			
Junction Box Type: <input type="checkbox"/> BIPV <input type="checkbox"/> Amorphous Silicon <input type="checkbox"/> Monocrystalline Silicon <input type="checkbox"/> Polycrystalline silicon <input type="checkbox"/> Other			
Rails Qty:	Doide Qty:	Nominal Power[W]:	Open Circuit Voltage[V]:
Short Circuit Current[A]:	Max Power Voltage[V]:	Max Power Current[A]:	Max System Voltage[V]:
Cable length(mm): <input type="checkbox"/> Includes connector <input type="checkbox"/> Does not include connector			Copper foil width/thickness:
Cable Size	TÜV Spec.	<input type="checkbox"/> 2.5mm ² <input type="checkbox"/> 4.0mm ² <input type="checkbox"/> 6.0mm ²	Cable color <input type="checkbox"/> Black(Recommended) <input type="checkbox"/> Black&Red
	UL Spec.	<input type="checkbox"/> 14AWG <input type="checkbox"/> 12AWG <input type="checkbox"/> 10AWG	
	TÜV&UL Spec.	<input type="checkbox"/> 2.5mm ² /14AWG <input type="checkbox"/> 4.0mm ² /12AWG <input type="checkbox"/> 6.0mm ² /10AWG	
Connector: <input type="checkbox"/> Amphenol H4 <input type="checkbox"/> Other:			
Attachment: <input type="checkbox"/> (Attach drawing) <input type="checkbox"/> (Attach Sample) <input type="checkbox"/> (Attach remark)			
Comments:			

HelioLink™ PV Junction Box



Features:

- Hermetically sealed design; no moisture ingress, no condensation
- Patented, finger-type heat exchanger protects diodes from thermal destruction, even under adverse conditions
- Thermal separation from backsheet prevents formation of hot-spot
- Designed for automatic placement and termination
- Compact design
- Built to last, maintenance free



Technical Data

Rated current	Up to 30A
Rated operating voltage	1000V DC (TÜV) , 600V DC (UL)
Rated max. reverse voltage per diode	45 VDC (standard) 120 VDC (optional)
Protection degree	IP 68 (potted), IP67 (non-potted)
Flame class	UL94-V0
Temperature range	-40° C ~ +90° C
Connection method	welding
Waterproofing structure	Hermetically sealed, over-molded body
Termination seal	Termination area may be potted (no seal on cover) or non-potted (lip seal on cover)

How to order

Product line		Product type		Terminals and Diodes		Terminal style		Diode rating	
HB	Helios JB	B	HelioLink junction box	A	4 contacts/3 diodes	A	Clamp contacts	P	20A 100V
						B	Solder contacts	Q	20A 45V

Sealing type		Cable size		Adhesive		Cable length (Ln)*		Cable length (Lp)*		Variations
A	Potting	A	6.0 mm ² /10AWG	Y	Yes	A	1000mm	A	1000mm	
B	O-ring	B	4.0mm ² /12AWG	N	No	B	900mm	B	900mm	

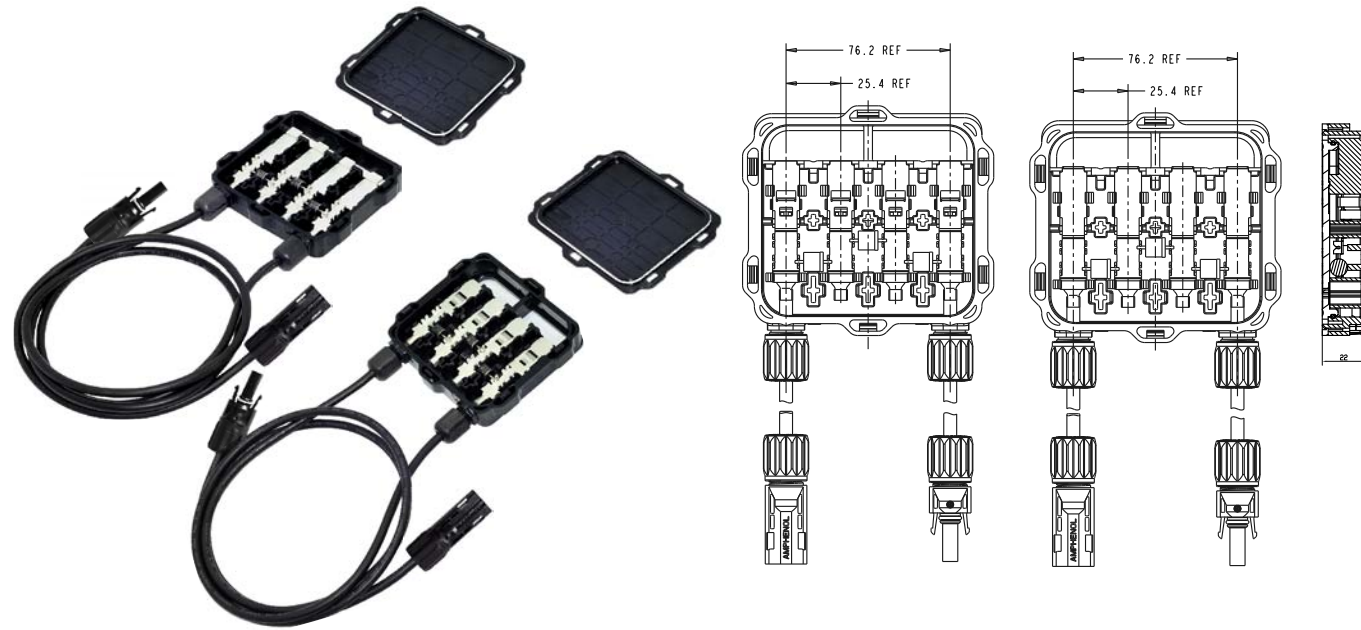
* Ln: cable length on negative end; Lp: cable length on positive end

-Please contact us for additional variations

Ordering example:

	HB	B	A	B	Q	B	A	N	AA
HelioLink PV junction box	[Bar]								
4 contacts/3 diodes	[Bar]								
Soldering connection	[Bar]								
Diode rated 20A/45V	[Bar]								
O-ring seal	[Bar]								
6.0mm ² /10AWG cable size	[Bar]								
Without adhesive tape	[Bar]								
1000mm cable length from both negative and positive end	[Bar]								

Hercules™ PV Junction Box



Features:

- Same dimensions, multi variations
- IP67 rated
- Breathing hole for air exchange



Technical data

Terminal quantity	3 rails or 4rails
Rated current	30A
Rated voltage	UL: 600V DC IEC/TÜV: 1000V DC
Number of bypass diodes	2 or 3 or 4 or 6
Connection cross-section	12AWG/4.0mm ² or 10AWG/6.0mm ²
Temperature range	-40°C to +90°C
Protection degree	IP67
Dimensions	117x107x22mm
Flame class	UL94 V-0; 5VA
Ribbon connection	Clamping, soldering or spot welding
Breathing hole	With or Without
Connector type	Amphenol H4

How to order

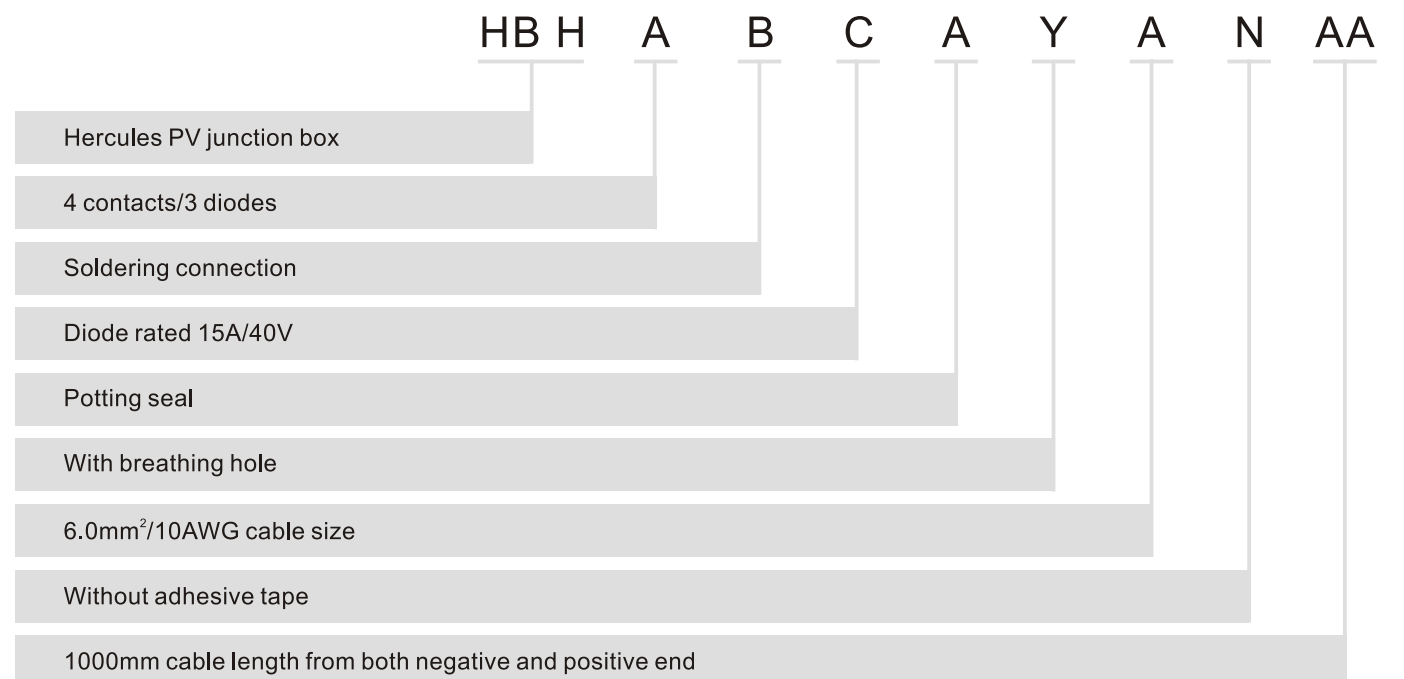
Product line	Product type	Terminals and Diodes	Terminal style	Diode rating	
HB	Helios JB	H Hercules Junction box	A 4 contacts/3 diodes	A Clamp contacts	A 12A 200V
			B 3 contacts(2 left/1 right)/2 diodes	B Solder contacts	B 12A 40V
			C 3 contacts(1 left/2 right)/2 diodes	C Solder contacts left&right opening	C 15A 40V
			D 4 contacts/6 diodes	D Solder contacts left opening	D 30A 40V
			E 3 contacts(2 left/1 right)/4 diodes	E Solder contacts right opening	E 20A 40V
			F 3 contacts(1 left/2 right)/4 diodes	F Spot weld contacts	F 15A 45V

Sealing type	Breathing hole	Cable size	Adhesive	Cable length (Ln)*	Cable length (Lp)*	Variations
A Potting	Y Yes	A 6.0 mm ² /10AWG	Y Yes	A 1000mm	A 1000mm	
B O-ring	N No	B 4.0mm ² /12AWG	N No	B 900mm	B 900mm	

* Ln:cable length on negative end; Lp:cable length on positive end

- Please contact us for additional variations

Ordering example:

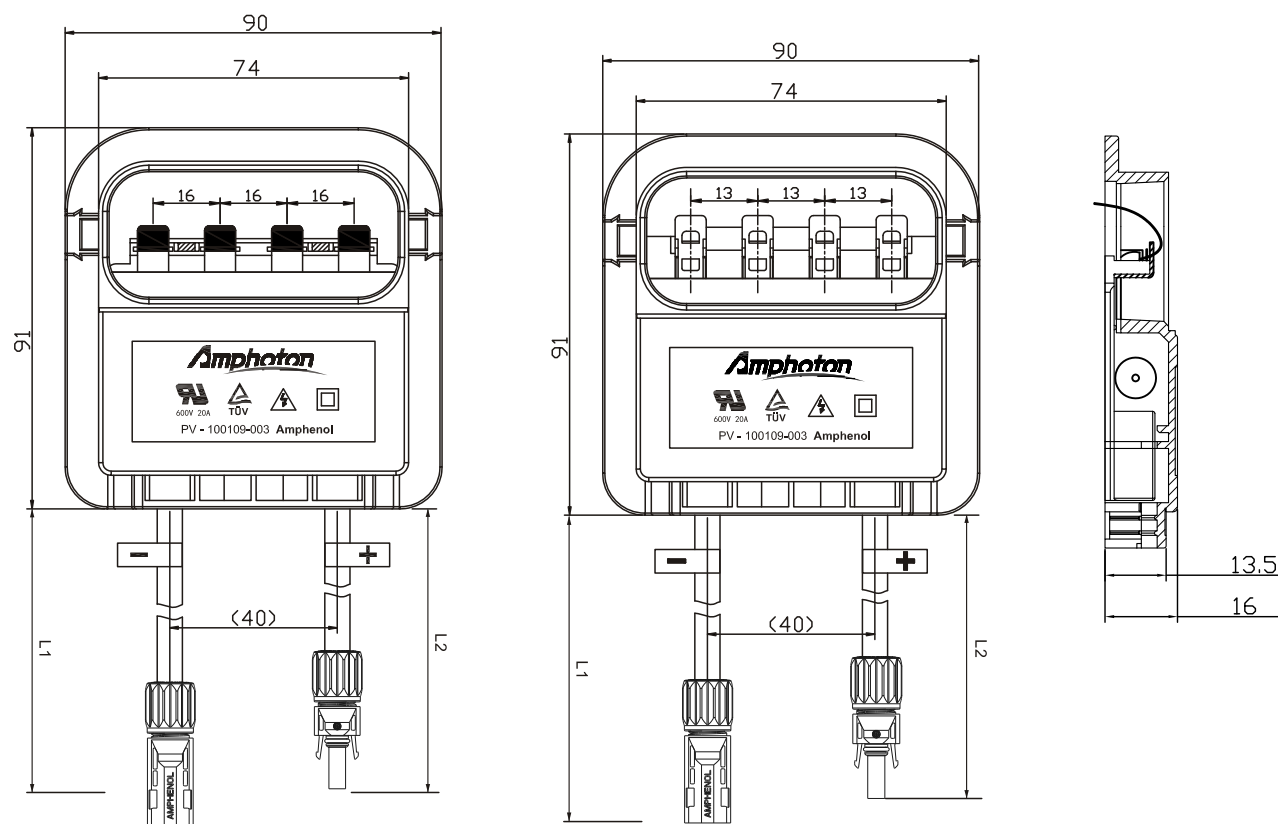


Transformer™ PV Junction Box



Features:

Same dimensions, multi variations
Per-potted for high reliability
Low profile



Technical Data

Rated current	20A
Rated voltage	1000V DC (IEC/CEI), 600V DC (UL)
Terminal ribbon	2/3/4pcs
Contact material	Copper, Tin plated
Insulation material	PPE
Bypass diode	1/2/3pcs
Bypass current	10,12,15A
Dimension	91x90x17mm
Protection degree	IP65(Gasket), IP67(Potting)
Temperature range	-40° C - +90° C
Certificate	TÜV/UL

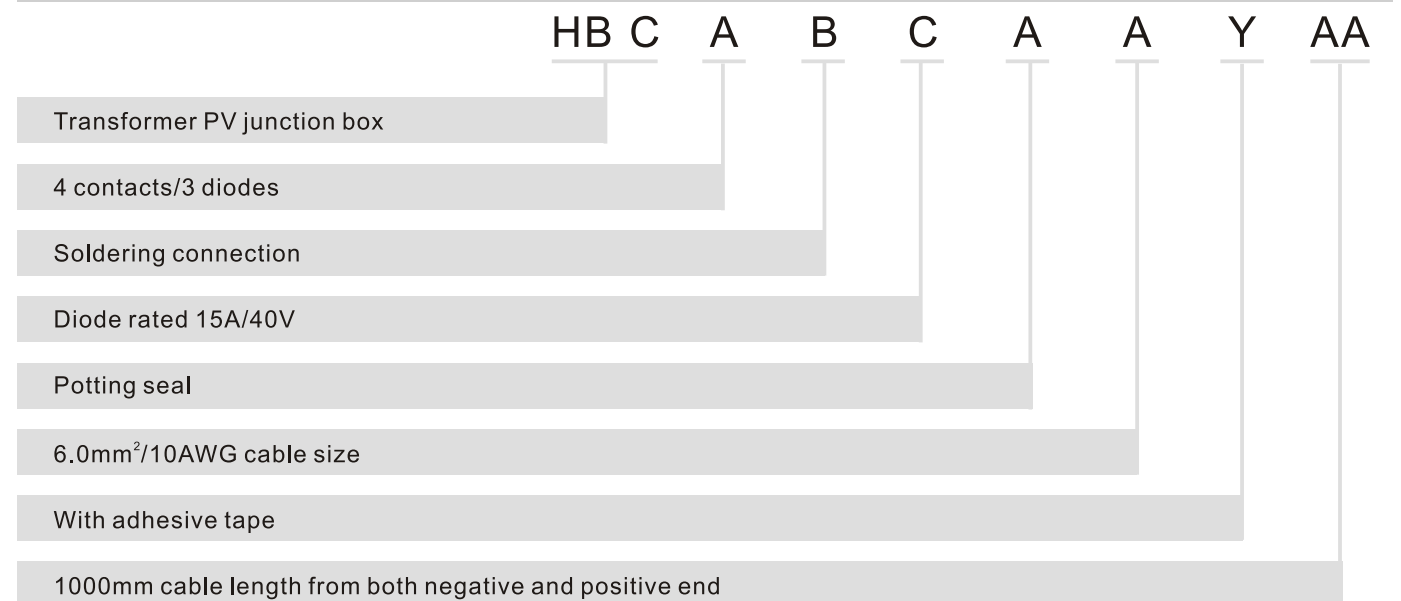
How to order

Product line	Product type	Terminals and Diodes	Terminal style	Diode rating
HB	Helios JB	C Transformer junction box	A Clamp contacts	C 15A 40V
		B 3 contacts(2 left/1 right)/2 diodes	B Solder contacts	F 15A 45V
		C 3 contacts(1 left/2 right)/2 diodes		Z 10A 50V

Sealing type	Cable size	Adhesive	Cable length (Ln)*	Cable length (Lp)*	Variations
A Potting	A 6.0mm ² /10AWG	Y Yes	A 1000mm each	A 1000mm	
B O-ring	B 4.0mm ² /12AWG	N No	B 900mm each	B 900mm	

* Ln: cable length on negative end; Lp: cable length on positive end
- Please contact us for additional variations

Ordering example:



Thin-film PV junction box



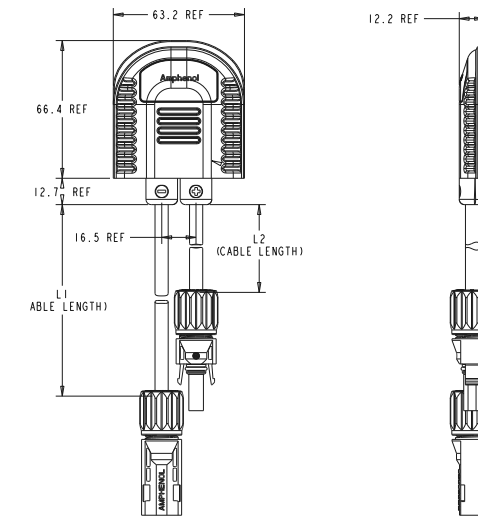
Features:

- Low profile
- Over-molded design for better sealing
- SMD for efficient heat dissipation



Technical Data

Rated current	Up to 20A
Rated voltage	1000V DC (TÜV) , 600V(UL)
Protection degree	IP 67
Flame class	UL94 V-0
Temperature range	-40° C ~ +90° C
Termination style	Solder
Sealing of cover	Potting



How to order

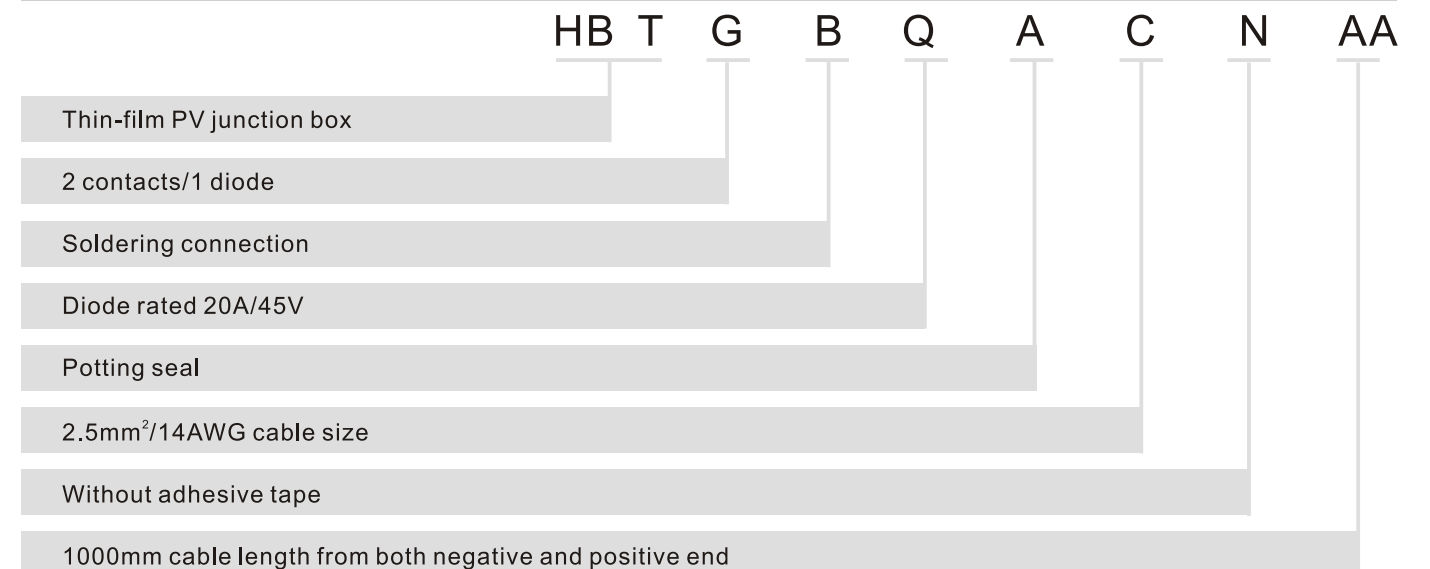
Product line	Product type	Terminals and Diodes	Terminal style	Diode rating
HB Helios JB	T Thin film junction box	G 2 contacts/1 diode	B Solder contacts	G 5A 1000V
		H 2 contacts W/O diode		H 10A 1000V
				J 8A 1000V
				K 15A 1000V
				P 20A 100V
				Q 20A 45V
				N N/A

Sealing type	Cable size	Adhesive	Cable length (Ln)*	Cable length (Lp)*	Variations
A Potting	B 4.0mm ² /12AWG	Y Yes	A 1000mm	A 1000mm	
	C 2.5mm ² /14AWG	N No	B 900mm	B 900mm	

* Ln: cable length on negative end; Lp: cable length on positive end

- Please contact us for additional variations

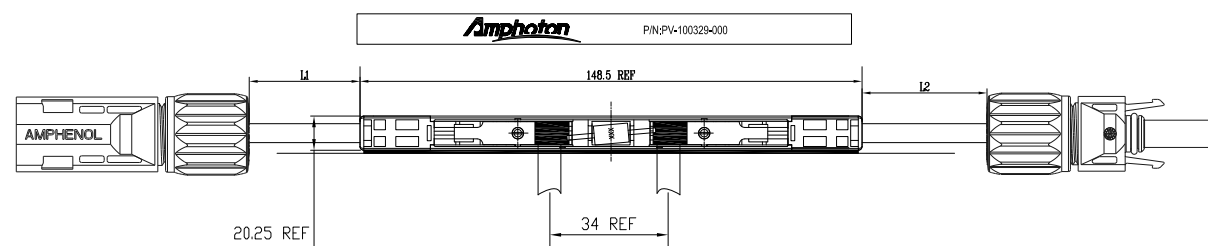
Ordering example:



Pencil PV junction box for BIPV



- Features:**
 Low-profile, stable performance and easy to install
 Provides the user with a practical and economical solution
 Tin-solder termination



Technical Data

Max. voltage	1000V
Rated current	20A
Bypass current	3A/10A
Scope of power	40 ~ 120W
Ambient temperature	-40. ~+85.C
Protection degree	IP65
Cable cross-section	2.5mm ²
Dimension L*W*H	130 * 8 * 9mm
Part number	PV-100329-000

Amphoton PV-090729 series

Features:

- Sealed design with high heat dissipation
- TÜV/UL approval



Amphoton PV-090730 series

Features:

- Sealed design with high heat dissipation
- TÜV/UL dual approval

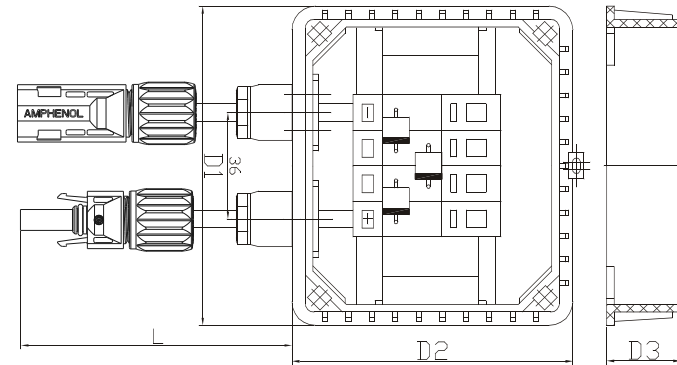


Amphoton PV-090809 series

Features:

- Sealed design with high heat dissipation
- TÜV approval



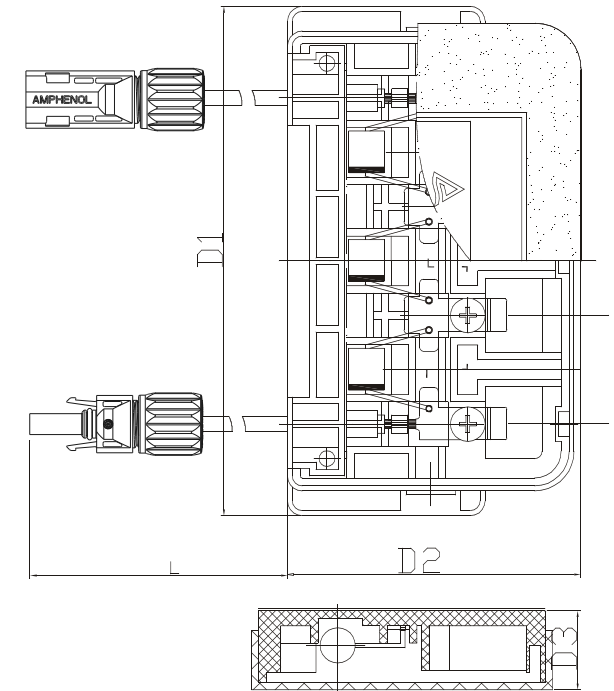


D3	25	PV-090729-003
D2	130	PV-090729-006
D1	150	



Technical Data

Order No.	1	2
Part Number	PV-090729-003	PV-090729-006
Version	4 poles	4 poles
Rated current	20A	20A
Rated voltage	DC1000V(TÜV), DC600V(UL)	DC1000V(TÜV), DC600V(UL)
Number of bypass diodes	3	6
Connection cross-section	4mm ² , 12AWG	4mm ² , 12AWG
Temperature range	-40°C up to +85°C	-40°C up to +85
Protection degree	IP 65	IP 65
Dimensions	150 x 130 x 26mm	150 x 130 x 26mm
Flame class	UL94-V0	UL94-V0
Certificate	TÜV/UL	TÜV/UL

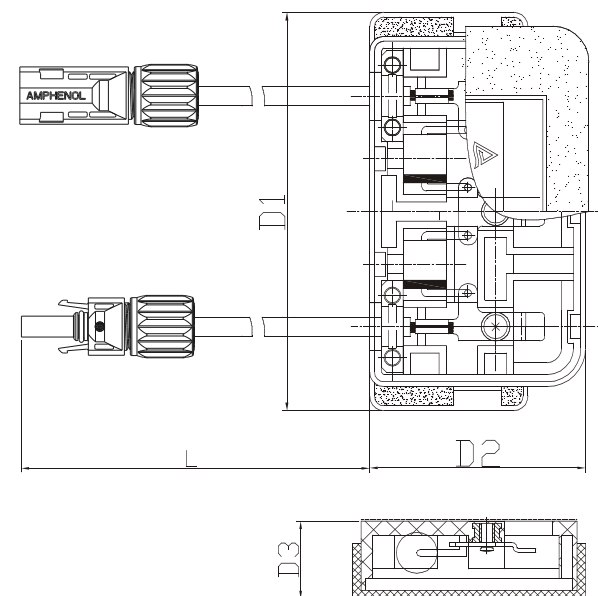


D3	16	PV-090730-002
D2	58	PV-090730-003
D1	103	PV-090730-006



Technical Data

Order No.	6	7	8
Part Number	PV-090730-002	PV-090730-003	PV-090730-006
Version	3 poles	4 poles	4 poles
Rated current	20A	20A	20A
Rated voltage	DC1000V(TÜV), DC600V(UL)	DC1000V(TÜV), DC600V(UL)	DC1000V(TÜV), DC600V(UL)
Number of bypass diodes	2	3	6
Connection cross-section	4mm ² , AWG12	4mm ² , AWG12	4mm ² , AWG12
Temperature range	-40°C up to +85°C	-40°C up to +85°C	-40°C up to +85°C
Protection degree	IP 65	IP 65	IP 65
Dimensions	103 x 58 x 16mm	103 x 58 x 16mm	103 x 58 x 16mm
Flame class	UL94-V0	UL94-V0	UL94-V0
Certificate	TÜV/UL	TÜV/UL	TÜV/UL



D3	16	PV-090809-001
D2	48	
D1	72	
D3	16,5	PV-090809-002
D2	45	
D1	83	



Technical Data

Order No.	12	13
Part Number	PV-090809-001	PV-090809-002
Version	2 poles	3 poles
Rated current	20A	20A
Rated voltage	DC1000V(TÜV)	DC1000V(TÜV)
Number of bypass diodes	1	2
Connection cross-section	4mm ² , 12AWG	4mm ² , 12AWG
Temperature range	-40°C up to +85°C	-40°C up to +85°C
Protetion degree	IP 65	IP 65
Dimensions	72 x 48 x 16mm	83 x 45 x 16.5mm
Flame class	UL94-V0	UL94-V0
Certificate	TÜV	TÜV

How to order

Amphoto junction box P/N	Cable size		Cable length (Ln)*		Cable length (Lp)*		Variations
PV -090729-003	A	6.0mm ² /10AWG	A	1000mm	A	1000mm	
	B	4.0mm ² /12AWG	B	900mm	B	900mm	

* Ln: cable length on negative end; Lp: cable length on positive end
 - Please contact us for additional variations

Amphoton PV junction box series ordering example:

PV -090729-003 B AA

Amphoton PV junction box P/N

4.0mm²/12AWG cable size

1000mm cable length from both negative and positive end

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