

# Amphenol<sup>®</sup>



**PowerLink Solar Cables**

## PowerLink Solar Cables

Amphenol's single conductor PowerLink Solar Cables are designed to be highly efficient, reliable, cost effective solutions for applications in harsh environments with extreme temperatures and rated for direct burial. PV, USE-2, and Thermoset cables are constructed with XLPE (cross-linked polyethylene) insulation and a tough abrasion-resistant jacket that resists sunlight, ozone, and UV radiation. Our PowerLink cables are proven solutions for any solar farm requiring reliable design and superior material construction.



### Product Features and Benefits:

- Conductors: Bare copper, tinned copper, or aluminum
- Certified UL 4703, TUV and dual rated
- UV/Ozone resistant
- Direct burial rated
- Flexibility at low temperatures
- Thermoset-insulated conductor
- Long-term insulation resistant to moisture
- Electrical Characteristics

Voltage rating	600V, 1000V-2000V
Temp rating (wet or dry)	-40°C to +90°C
Flammability	VW-1, FT1 (UL1581, UL44)



### PowerLink Single Jacket PV Cable

The PowerLink Single Jacket PV Cable is designed for interconnection wiring of grounded or ungrounded photovoltaic power systems as described in section 690.31 (A) and other applicable parts of the National Electric Code, NEC, NFPA70, and RoHS compliant. Our superior single jacket design allows the outside of the cable to be smaller than a standard dual jacket PV cable. By using only one jacket the cable is narrower making the termination of a connector much easier.



**Product Features and Benefits:**

- Conductors: Bare copper, tinned copper, aluminum
- Sizes: 18AWG - 6AWG
- Stranding: 7 or 19
- Insulation: XLPE (ASTM D2863)
- Colors: Black, white, red, blue, green, yellow, orange
- Sunlight resistant
- Direct burial rated
- Electrical Characteristics

Voltage rating	600V	2000V
Temp rating (wet or dry)	90°C	90°C
Spark test	1500V	5kV
Cold bend	-40°C	-40°C
Flammability	VW-1	VW-1

- UL4703 rated, file #E327886

### PowerLink USE-2 and Thermoset Cable

The PowerLink USE-2 and Thermoset Cable is a single jacket cable used for lighting and power applications and may be installed in raceway, duct, direct burial, and aerial installations. The cable meets National Electric Code and other general purpose wiring applications. Satisfies USE-2, RHH, RHW-2 XHH, XHHW, XHHW-2, RHW, RHW-2, RHH, R90, RW75, RW90, RWU75, RWU90. (UL), (cUL), (cULus).



**Product Features and Benefits:**

- Conductors: Bare copper, tinned copper, aluminum
- Sizes: 14AWG - 6AWG
- Stranding: 7 or 19
- Insulation: XLPE (ASTM D2863)
- Sunlight resistant
- Direct burial rated
- Electrical Characteristics

Voltage rating	600V	1000V
Temp rating (wet or dry)	90°C	90°C
Spark test	1500V	5kV
Cold bend	-40°C	-40°C
Flammability	VW-1	FT-1

2000V also available

### PowerLink Dual Jacket PV Cable

The PowerLink Dual Jacket PV Cable is designed for interconnection wiring of grounded or ungrounded photovoltaic power systems as described in section 690.31 (A) and other applicable parts of the National Electric Code, NEC, NFPA70, RoHS compliant.



**Product Features and Benefits:**

- Conductors: Bare copper, tinned copper, aluminum
- Sizes: 18AWG - 6AWG
- Stranding: 7 or 19
- Insulation: XLPE (ASTM D2863) white or black
- Jacket: PVC (ASTM D2863) black
- Sunlight resistant
- Direct burial rated
- Electrical Characteristics

Voltage rating	600V	2000V
Temp rating (wet or dry)	90°C	90°C
Spark test	1500V	5kV
Cold bend	-40°C	-40°C
Flammability	VW-1	VW-1

- UL4703 type PV wire, file #E3227886

### PowerLink Dual Rated Cable

The PowerLink Dual Rated Halogen free photovoltaic cables are used as interconnecting wiring for photovoltaic power systems. This one cable is UL/ TUV rated. UL1581, IEC60332-1, IEC61034, IEC60754, EN-ISO4892, IEC60811-2-1, UL Sub 1703, UL4703 Type PV, 2PFG 1169/08.2007, IEC61215, RoHS 2002/95/EC.



**Product Features and Benefits:**

- Sizes: 8AWG - 14AWG
- Conductors: Tinned copper
- Stranding: Per TUV requirements
- Insulation: XLPE
- Jacket: XLPE
- Direct burial rated
- Sunlight resistant
- Electrical Characteristics

Part Number	AWG	Voltage/Certification
HCPBH2D1	14AWG	1000v TUV/1000v UL
HCPBH4D1	12AWG	1000v TUV/1000v UL
HCPBH6D1	10AWG	1000v TUV/1000v UL
HCPBH8D1	8AWG	1000v TUV/1000v UL

Call your local rep for additional PowerLink dual rated cable part numbers

Voltage rating	1000V (TUV) / 600V (UL)	1000V (TUV) / 1000V (UL)
Temp rating (wet or dry)	90°C	90°C
Spark test	6,000 VAC	10,000 VAC
Flammability	VW-1, (UL1581, UL44)	

## UL File Number - Type - Voltage Chart

Product line	Type	UL File No.	Sub Type	Testing	Mark	Standard(s)	Ins.	mils*	Jacket	mils	Colorable	600V	1kV	2kV
PV2	PV	E327886	N/A	ZKLA	UL	4703/854/44	XLPE	45/60	PVC	30	Black only	x		
PV2	PV	E327886	N/A	ZKLA	UL	4703/854/44	XLPE	60/70	PVC	30	Black only		x	x
PV	PV	E327886	N/A	ZKLA	UL	4703/854/44	XLPE	60/75	N/A	N/A	Y	x		
PV	PV	E327886	N/A	ZKLA	UL	4703/854/44	XLPE	75/85	N/A	N/A	Y		x	x
SE	USE/USE-2	E338780	N/A	TYLZ	UL	854/44	XLPE	30/45	N/A	N/A	Y	x		
SE	USE/USE-2	E338780	N/A	TYLZ	UL	854/44	XLPE	45/60	N/A	N/A	Y		x	
SE	USE/USE-2	E338780	N/A	TYLZ	UL	854/44	XLPE	60/70	N/A	N/A	Y			x
TH	Thermoset	E349360	XHH	ZKST	UL	854/44	XLPE	30/45	N/A	N/A	Y	x		
TH	Thermoset	E349360	XHHW	ZKST	UL	854/44	XLPE	30/45	N/A	N/A	Y	x		
TH	Thermoset	E349360	XHHW-2	ZKST	UL	854/44	XLPE	30/45	N/A	N/A	Y	x		
TH	Thermoset	E349360	RHW	ZKST	UL	854/44	XLPE	45/60	N/A	N/A	Y	x		
TH	Thermoset	E349360	RHW	ZKST	UL	854/44	XLPE	60/70	N/A	N/A	Y			x
TH	Thermoset	E349360	RHW-2	ZKST	UL	854/44	XLPE	45/60	N/A	N/A	Y	x		
TH	Thermoset	E349360	RHW-2	ZKST	UL	854/44	XLPE	60/70	N/A	N/A	Y			x
TH	Thermoset	E349360	RHH	ZKST	UL	854/44	XLPE	45/60	N/A	N/A	Y	x		
TH	Thermoset	E349360	RHH	ZKST	UL	854/44	XLPE	60/70	N/A	N/A	Y			x
TH	Thermoset	E349360	R90	ZKST	cUL	854/44	XLPE	30/45	N/A	N/A	Y	x		
TH	Thermoset	E349360	R90	ZKST	cUL	854/44	XLPE	45/60	N/A	N/A	Y		x	
TH	Thermoset	E349360	R90	ZKST	cUL	854/44	XLPE	60/70	N/A	N/A	Y			x
TH	Thermoset	E349360	RW75	ZKST	cUL	854/44	XLPE	30/45	N/A	N/A	Y	x		
TH	Thermoset	E349360	RW75	ZKST	cUL	854/44	XLPE	45/60	N/A	N/A	Y		x	
TH	Thermoset	E349360	RW75	ZKST	cUL	854/44	XLPE	60/70	N/A	N/A	Y			x
TH	Thermoset	E349360	RW90	ZKST	cUL	854/44	XLPE	30/45	N/A	N/A	Y	x		
TH	Thermoset	E349360	RW90	ZKST	cUL	854/44	XLPE	45/60	N/A	N/A	Y		x	
TH	Thermoset	E349360	RW90	ZKST	cUL	854/44	XLPE	60/70	N/A	N/A	Y			x
RWU	Thermoset	E349360	RWU75	ZKST	cUL	854/44	XLPE	60/80	N/A	N/A	Y		x	
RWU	Thermoset	E349360	RWU90	ZKST	cUL	854/44	XLPE	60/80	N/A	N/A	Y		x	

\* denotes / which is a change in insulation thickness for larger AWG wire PV, 18-6AWG, Others 14-6AWG

White = Standard dual pass PV with XLPE insulation and PVC Jacket-scheduled for phase out

Red = Wire that will satisfy all red, orange, yellow, green and blue rows. Could be Marked UL, cUL, or cULus

Orange = Wire that will satisfy all orange, yellow, green and blue rows. Could be Marked UL, cUL, or cULus

Yellow = Wire that will satisfy all yellow, green and blue rows. Could be Marked UL, cUL, or cULus

Blue = Wire that will satisfy all blue and green rows. Could be Marked UL, cUL, or cULus

Green = Wire that will satisfy all green rows. Could be Marked UL, cUL, or cULus

### How to order

1		2		3		4		5		6		7	
SE		S		B		10		7		600		A	
Product line		Cable Type		Jacket Color		AWG		Stranding		Voltage		Composition	
SE	USE/USE-2 600V	S	Standard	W	White	18	18AWG (PV & PV2 Only)	7	600	600	A	Aluminum	
TH	USE/USE-2 1000V AND 2000V			B	Black	16	16AWG (PV & PV2 Only)	19	1kV	1000	B	Bare CU	
RWU	RWU(75) / RWU(90)			R	RED	14	14AWG		2kv	2000	T	Tinned CU	
PV	Solar Single Jacket			G	Green	12	12AWG						
PV2	Solar Dual Jacket			Y	Yellow	10	10AWG						
				BL	Blue	8	8AWG						
						6	6AWG						

Note: Product lines PV and PV2 are available in 18 to 6AWG, all other product lines are available in 14 to 6 AWG



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## Amphenol's Solar Market Solutions

Amphenol Industrial Global Operations is a leader in the design and manufacturing of products and solutions for all segments of the solar electric system industry. At AIGO, we understand the need for efficient (low loss) power transfer systems that are highly reliable and competitive, cost effective solutions. We provide panel manufacturers, installers, and OEM's with wire, connectivity, and grounding products for both thin film and crystalline silicon technologies. All AIGO products meet the National Electric Code specifications.

- Our Single Conductor PV, USE-2, and Thermoset cables are designed for any solar application
- PowerLink cables are manufactured to handle all kinds of harsh environments
- XLPE (cross linked polyethylene) insulation provides a tough abrasion-resistant jacket that resists sunlight, ozone, and UV radiation

