

AMERSOL DUAL-CERTIFIED | TYPE PV 4703 | TYPE TC MULTICONDUCTOR

# Photovoltaic Cables

Highly Flexible • Compatible with ALL Major Connectors



**AmerSol**  
Dual-Certified Solar Cables

TÜVRheinland®  
UL

**DUAL-LISTED & ETL APPROVED**

**NEW 2000V UL / 1500V TÜV**

2000V UL / 1000V TÜV  
600V UL / 1000V TÜV

**Type PV**  
**UL4703**  
(2000V)

**Type TC**  
**Multiconductor**  
(2000V)



# Photovoltaic Cables

## INDEX

**NEW**

- AmerSol – Dual-Certified (TÜV / UL / ETL)  
Photovoltaic Cable 2000V/1500V . . . . . 2 - 3
- AmerSol – Dual-Certified (TÜV / UL / ETL)  
Photovoltaic Cable 2000V/1000V . . . . . 4 - 5
- AmerSol – Dual-Certified (TÜV / UL / ETL)  
Photovoltaic Cable 600V/1000V . . . . . 6 - 7
- Type PV • UL4703 Photovoltaic Cable 2000V . . . . . 8 - 9
- Type TC Multiconductor Photovoltaic Cable 2000V . . . . . 10 - 11



AMERSOL TÜV / UL SOLAR CABLES

Nexans AmerCable believes the information presented throughout this catalog to be reliable and current. All information is subject to change without notice. The information listed is approximate, and is presented only as a guide for product selection. We make no claims or warranties for the suitability of any product for any particular application.

AmerCable® is a registered trademark of AmerCable Incorporated

© 2014, AmerCable Incorporated



# We've Got Your Panel Back Side Covered

Nexans AmerCable is the industry leader in photovoltaic cable manufacturing.

No matter what type of environment you operate in, we have a cable productivity solution for you.

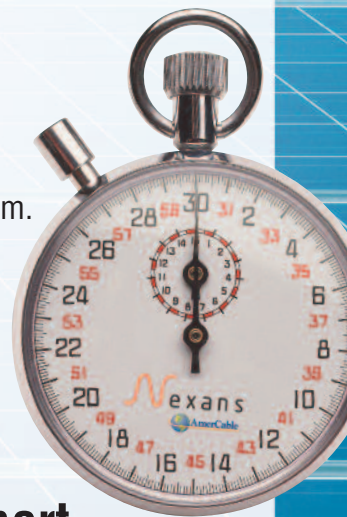
Our innovatively engineered and manufactured photovoltaic cable family is designed to deliver consistent, reliable cable that meets your spec and lasts longer in the toughest operating environments.

***Compatible With ALL Major Connectors***

**AMERSOL  
IS THE ONLY  
DUAL-CERTIFIED  
U.S. MANUFACTURED  
SOLAR CABLE**

## Cable Innovation & Operational Excellence

- Insulating and jacketing material designs that are more flexible with greater resistance to abrasion and moisture.
- Cable constructions that last longer – providing increased reliability in harsh, isolated installations.
- Maintain consistent cable diameter tolerances.
- New product development that addresses environmental, safety and cost reduction issues for the next generation of solar applications.
- The industry leader in on-time delivery. For our current delivery rate, visit our website – [www.nexansamercable.com](http://www.nexansamercable.com).
- Nexans AmerCable is an ISO-9001 certified manufacturer.



## Application Support

Nexans AmerCable leads the cable industry in technical support for our customers. Our experienced application engineers are available for on-site evaluation and solutions.

**[www.NexansAmerCable.com](http://www.NexansAmerCable.com)**

# AmerSol • Dual-Certified Photovoltaic Cable

Single-Conductor: 2000V/1500V • Rated 90°C



## Conductor

Soft annealed tin-coated flexible stranded copper per ASTM B-33 and EN 60228

## Insulation

Halogen-free, thermoset polyolefin specifically designed for maximum flexibility

## Jacket

Black, low smoke non-halogenated, flame retardant, oil, abrasion, chemical and sunlight resistant cross-linked compound meeting UL 44, UL 854 and TÜV 2Pfg1169/08.2007



## Applications

Nexans AmerCable's AmerSol is the first U.S. manufactured solar cable to achieve TÜV and UL certification. This versatile single-conductor cable is designed to meet the varying needs of the Solar Industry. Applications include connection to module junction boxes; required cable routing in balance of system (BOS) integration. Rated 2000V UL and 1500V TÜV.

## Features

- A two layer construction with a low smoke halogen-free, flame retardant and sunlight resistant cross-linked compound outer layer and halogen-free thermoset polyolefin inner layer.
- Suitable for continuous operating temperature of 90°C wet or dry
- UL listed as Sunlight Resistant
- Vertical Flame Performance: EN 60332-1
- Excellent UV and Ozone resistant
- Suitable for wet, damp and humid locations
- Specially designed for excellent flexibility
- Compatible with all major connectors
- Cold bend and impact: -40°C

## Ratings & Approvals

- TÜV Certification 2 Pfg 1169/08.2007
- TÜV listed as PV1-F; 1000V (60038697)
- UL listed as Type USE-2 or RHW-2; 600V (E76090)
- ETL listed as Type PV; 2000V (3092993)
- UL Standard 854: Standard for Safety for Service Entrance Cables, Type USE-2 or RHW-2; 600V
- UL Subject 4703: Outline of Investigation for Photovoltaic Wire, Type PV; 2000V
- IEC 60228: Conductors of Insulated Conductors, Class 5
- ASTM B-33: Standard Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes
- 90°C Temperature Rating; Temperature index in excess of 120°C
- RoHS compliant

**AmerSol is Available  
Direct From Our Factory**



**Made in America**

**First U.S. Manufacturer of  
DUAL-LISTED & ETL APPROVED CABLES**

**2000V UL / 1500V TÜV**

**2000V UL / 1000V TÜV**

**600V UL / 1000V TÜV**



**AmerSol**

**Dual-Certified Solar Cables**



YES - we have  
2kV  
Type PV/1500V  
TUV Cables

## AmerSol • Dual-Certified 2000V/1500V Solar Cable

### U.S. Measurements

Part No. 37-717-	Size (AWG)	Number of Wires	Nominal Inner Layer Thickness (Inches)	Nominal Outer Layer Thickness (Inches)	Nominal Outer Diameter (Inches)	Approx. Weight (Lb/Mft)	Ampacity 90° C
505	14	45	0.060	0.030	0.275	48	35
506	12	52	0.060	0.030	0.295	61	40
507	10	78	0.060	0.030	0.316	75	55

Cable diameters and weights are subject to +/- 5% manufacturing tolerance

### Metric Measurements

Part No. 37-717-	Size (mm <sup>2</sup> )	Number of Wires	Nominal Inner Layer Thickness (mm)	Nominal Outer Layer Thickness (mm)	Nominal Outer Diameter (mm)	Approx. Weight (kg/km)	Ampacity 90° C
505	2.5	45	1.524	0.762	6.985	71	35
506	4.0	52	1.524	0.762	7.493	91	40
507	6.0	78	1.524	0.762	8.206	112	55

Cable diameters and weights are subject to +/- 5% manufacturing tolerance

**Compatible  
With ALL  
Major Connectors**



# AmerSol • Dual-Certified Photovoltaic Cable

Single-Conductor: 2000V/1000V • Rated 90°C



## Conductor

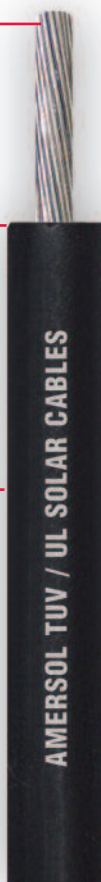
Soft annealed tin-coated flexible stranded copper per ASTM B-33 and EN 60228

## Insulation

Halogen-free, thermoset polyolefin specifically designed for maximum flexibility

## Jacket

Black, low smoke non-halogenated, flame retardant, oil, abrasion, chemical and sunlight resistant cross-linked compound meeting UL 44, UL 854 and TÜV 2Pfg1169/08.2007



## Applications

Nexans AmerCable's AmerSol is the first U.S. manufactured solar cable to achieve TÜV and UL certification. This versatile single-conductor cable is designed to meet the varying needs of the Solar Industry. Applications include connection to module junction boxes; required cable routing in balance of system (BOS) integration. Rated 2000V UL and 1000V TÜV.

## Features

- A two layer construction with a low smoke halogen-free, flame retardant and sunlight resistant cross-linked compound outer layer and halogen-free thermoset polyolefin inner layer.
- Suitable for continuous operating temperature of 90°C wet or dry
- UL listed as Sunlight Resistant
- Vertical Flame Performance: EN 60332-1
- Excellent UV and Ozone resistant
- Suitable for wet, damp and humid locations
- Specially designed for excellent flexibility
- Compatible with all major connectors
- Cold bend and impact: -40°C

## Ratings & Approvals

- TÜV Certification 2 Pfg 1169/08.2007
- TÜV listed as PV1-F; 1000V (60038697)
- UL listed as Type USE-2 or RHW-2; 600V (E76090)
- ETL listed as Type PV; 2000V (3092993)
- UL Standard 854: Standard for Safety for Service Entrance Cables, Type USE-2 or RHW-2; 600V
- UL Subject 4703: Outline of Investigation for Photovoltaic Wire, Type PV; 2000V
- IEC 60228: Conductors of Insulated Conductors, Class 5
- ASTM B-33: Standard Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes
- 90°C Temperature Rating; Temperature index in excess of 120°C
- RoHS compliant

**AmerSol is Available  
Direct From Our Factory**



**Made in America**

## AmerSol • Dual-Certified 2000V/1000V Solar Cable

### U.S. Measurements

Part No. 37-715-	Size (AWG)	Number of Wires	Nominal Inner Layer Thickness (Inches)	Nominal Outer Layer Thickness (Inches)	Nominal Outer Diameter (Inches)	Approx. Weight (Lb/Mft)	Ampacity 90° C
505	14	45	0.060	0.030	0.275	48	35
506	12	52	0.060	0.030	0.295	61	40
507	10	78	0.060	0.030	0.316	75	55

Cable diameters and weights are subject to +/- 5% manufacturing tolerance

### Metric Measurements

Part No. 37-715-	Size (mm <sup>2</sup> )	Number of Wires	Nominal Inner Layer Thickness (mm)	Nominal Outer Layer Thickness (mm)	Nominal Outer Diameter (mm)	Approx. Weight (kg/km)	Ampacity 90° C
505	2.5	45	1.524	0.762	6.985	71	35
506	4.0	52	1.524	0.762	7.493	91	40
507	6.0	78	1.524	0.762	8.206	112	55

Cable diameters and weights are subject to +/- 5% manufacturing tolerance

**Compatible  
With ALL  
Major Connectors**



**Compatible With ALL  
Major Connectors**

See page  
2-3 for  
2000V UL /  
1500V TÜV  
PV Cables!

**AMERSOL  
IS THE ONLY  
DUAL-CERTIFIED  
U.S. MANUFACTURED  
SOLAR CABLE**

# AmerSol • Dual-Certified Photovoltaic Cable

Single-Conductor: 600V/1000V • Rated 90°C



## Conductor

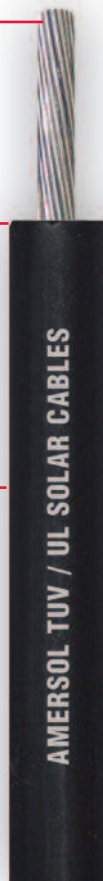
Soft annealed tin-coated flexible stranded copper per ASTM B-33 and EN 60228

## Insulation

Halogen-free, thermoset polyolefin specifically designed for maximum flexibility

## Jacket

Black, low smoke non-halogenated, flame retardant, oil, abrasion, chemical and sunlight resistant cross-linked compound meeting UL 44, UL 854 and TÜV 2Pfg1169/08.2007



## Applications

Nexans AmerCable's AmerSol is the first U.S. manufactured solar cable to achieve TÜV and UL certification. This versatile single-conductor cable is designed to meet the varying needs of the Solar Industry. Applications include connection to module junction boxes; required cable routing in balance of system (BOS) integration. Rated 600V UL and 1000V TÜV.

## Features

- A two layer construction with a low smoke halogen-free, flame retardant and sunlight resistant cross-linked compound outer layer and halogen-free thermoset polyolefin inner layer.
- Suitable for continuous operating temperature of 90°C wet or dry
- UL listed as Sunlight Resistant
- Vertical Flame Performance: EN 60332-1
- Excellent UV and ozone resistant
- Suitable for wet, damp and humid locations
- Specially designed for excellent flexibility
- Compatible with all major connectors
- Cold bend and impact: -40°C

## Ratings & Approvals

- TÜV certification 2 Pfg 1169/08.2007
- TÜV listed as PV1-F; 1000V (60038697)
- UL listed as Type USE-2 or RHW-2; 600V (E76090)
- ETL listed as Type PV; 600V (3092993)
- UL Standard 854: Standard for Safety for Service Entrance Cables, Type USE-2 or RHW-2; 600V
- UL Subject 4703: Outline of Investigation for Photovoltaic Wire, Type PV; 600V
- IEC 60228: Conductors of Insulated Conductors, Class 5
- ASTM B-33: Standard Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes
- 90°C Temperature Rating; Temperature index in excess of 120°C
- RoHS compliant

**AmerSol is Available  
Direct From Our Factory**



**Made in America**

## AmerSol • Dual-Certified 600V/1000V Solar Cable

### U.S. Measurements

Part No. 37-713-	Size (AWG)	Number of Wires	Nominal Inner Layer Thickness (Inches)	Nominal Outer Layer Thickness (Inches)	Nominal Outer Diameter (Inches)	Approx. Weight (Lb/Mft)	Ampacity 90° C
505	14	45	0.045	0.030	0.245	41	35
506	12	52	0.045	0.030	0.265	48	40
507	10	78	0.045	0.030	0.286	62	55

Cable diameters and weights are subject to +/- 5% manufacturing tolerance



### Metric Measurements

Part No. 37-713-	Size (mm <sup>2</sup> )	Number of Wires	Nominal Inner Layer Thickness (mm)	Nominal Outer Layer Thickness (mm)	Nominal Outer Diameter (mm)	Approx. Weight (kg/km)	Ampacity 90° C
505	2.5	45	1.140	0.760	6.220	60	35
506	4.0	52	1.140	0.760	6.730	71	40
507	6.0	78	1.140	0.760	7.260	93	55

Cable diameters and weights are subject to +/- 5% manufacturing tolerance

**Compatible  
With ALL  
Major Connectors**



# Type PV • UL4703 Photovoltaic Cable

Single-Conductor: 2kV • Rated 90°C • RHH/RHW-2 • CSA 1kV RPV-90



## Conductor

Soft annealed stranded copper per ASTM B-3

## Insulation

Extruded thermosetting Ethylene Propylene Rubber (EPR) meeting UL 44 and UL 4703

## Jacket

Black, flame retardant, oil, abrasion, chemical and sunlight resistant chlorinated polyethylene (CPE) meeting UL 44 and UL 4703



## Applications

Nexans AmerCable's Type PV is a single-conductor cable that meets the newest standards as introduced in National Electrical Code (NEC) Article 690.

Applications include connection to module junction boxes; required cable routing in balance of system (BOS) integration; and where also allowed by the NEC.

## Features

- A two layer construction of flame retardant, oil and sunlight resistant Chlorinated Polyethylene (CPE) over an Ethylene-Propylene Rubber (EPR) inner layer. This design is based on a construction allowed for use on ungrounded systems as described in NEC Article 690 without the need for conduit when installed exposed.
- Provides superior protection from ozone weather and abrasion than other single layer constructions while maintaining flexibility for ease of installation
- Suitable for continuous operating temperature of 90°C wet or dry
- Direct burial 2kV
- Cold bend and impact: -40°C
- UL listed as Sunlight Resistant
- Flame Resistance: UL VW-1
- Compatible with all major connectors

## Ratings & Approvals

- UL listed as 2000V Type PV (E322538)
- UL listed as RHH/RHW-2 (E76087)
- CSA listed as RPV-90 (LL80350)
- 90°C Temperature Rating
- UL Standard 44/CSA C22.2 No. 38: Thermoset Insulated Wires & Cables, Types RHH, RHW-2, UL VW-1
- UL Subject 4703: Outline of Investigation for Photovoltaic Wire, Type PV, Direct Burial
- CSA Standard C22.2 No 271: Photovoltaic Cables, RPV-90
- ASTM B-3: Standard Specification for Soft or Annealed Copper Wire
- ASTM B-8: Standard Specification for Concentric Lay Stranded Copper Conductors, Hard, Medium-Hard or Soft (Class B strand only)
- ASTM B-33: Standard Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes (Flexible strand only)
- ASTM B-172: Standard Specification for Rope-Lay Stranded Copper Conductors having Bunch-Stranded Members, for Electrical Conductors (Flexible strand only)
- RoHS compliant

**Consult factory  
for other  
available sizes**

# 2kV Direct Burial Wire

## Type PV – Flexible Tinned Copper

Part No. 37-711-	Size (AWG)	Number of Wires	Nominal Inner Layer Thickness (Inches)	Nominal Outer Layer Thickness (Inches)	Nominal Outer Diameter (Inches)	Approx. Weight (lbs/1000 ft)	Ampacity 90° C
201	14	19	0.045	0.030	0.240	37	35
202	12	19	0.045	0.030	0.258	48	40
203	10	37	0.045	0.030	0.282	63	55
204	8	37	0.055	0.030	0.329	88	80

Cable diameters and weights are subject to +/- 5% manufacturing tolerance

*Metric Sizes  
Available  
Upon  
Request*

## Type PV – Class B Bare Copper

Part No. 37-711-	Size (AWG)	Number of Wires	Nominal Inner Layer Thickness (Inches)	Nominal Outer Layer Thickness (Inches)	Nominal Outer Diameter (Inches)	Approx. Weight (lbs/1000 ft)	Ampacity 90° C
101	14	7	0.045	0.030	0.243	37	35
102	12	7	0.045	0.030	0.262	48	40
103	10	7	0.045	0.030	0.282	64	55
104	8	7	0.055	0.030	0.331	94	80

Cable diameters and weights are subject to +/- 5% manufacturing tolerance



37-108PV

# Type TC Multiconductor Photovoltaic Cable

Multiple Conductors: 2000V • Rated 90°C • RHH/RHW-2



## Conductor

Soft annealed stranded copper per ASTM B-8

## Insulation

Extruded thermosetting Ethylene Propylene Rubber (EPR) meeting UL 44 and UL 4703

## Jacket

Black, flame retardant, oil, abrasion, chemical and sunlight resistant chlorinated polyethylene (CPE) meeting UL 44 and UL 4703

## Overall Jacket

Flame retardant, moisture and sunlight resistant Polyvinyl Chloride (PVC). Colored black.

## Applications

Nexans AmerCable's Type TC multiconductor cable combines the requirements for large solar farms and of the National Electrical Code (NEC) Article 690 into one cable. The overall jacketed cable is permitted to be installed in cable trays, wireways, troughs, etc... that are common while providing individual conductors that are sunlight resistant and meet the requirements of Type PV wires. Applications include cable routings from module strings to collector boxes and other required routings in balance of system (BoS) integration and where also allowed by the NEC.

## Features

- Conductors are a two layer construction of flame retardant, oil and sunlight resistant Chlorinated Polyethylene (CPE) over an Ethylene-Propylene Rubber (EPR) inner layer.
- Power conductors are UL recognized for Type PV wire per UL 4703
- Overall jacketed cable provides for ease of installation in a flame retardant and sunlight resistant construction.
- Suitable for continuous operating temperature of 90°C wet or dry
- Direct burial 2kV

## Ratings & Approvals

- UL listed as 2000V Type TC (E123629)
- UL listed as RHH/RHW-2 (E76087)
- 90°C temperature rating
- Flame Resistance: IEEE 1202/FT-4
- UL listed as Sunlight Resistant



**Compatible With  
ALL Major  
Connectors**

## Type TC Multiconductor Solar Cable

Part No. 37-108-	Size (AWG)	Number of Conductors	Nominal Conductor O.D. (Inches)	Nominal Cable O.D. (Inches)	Approx. Weight (lbs/1000 ft)	Ampacity 90° C
515 PV	12	2	0.258	0.689	194	20
517 PV	12	4	0.258	0.800	253	20
553 PV	10	2	0.282	0.737	243	30
408 PV	10	4	0.282	0.900	365	30

Cable diameters and weights are subject to +/- 5% manufacturing tolerance

**Consult factory for other  
available sizes**

**Nexans  
AmerCable  
is the  
Number One  
Manufacturer of  
Solar Cables!**



FLEXIBLE  
AND DURABLE

BEST AT HOLDING  
TIGHT JACKET  
DIAMETER  
TOLERANCES

BEST CUSTOMER  
SERVICE &  
FIELD SUPPORT

BEST AT RELIABLE  
ON-TIME DELIVERY

# We've Got Your Panel Back Side Covered



Nexans AmerCable is the industry leader in photovoltaic cable manufacturing.

No matter what type of environment you operate in, we have a PV cable productivity solution for you.

Our innovatively engineered and manufactured photovoltaic cable family is designed to deliver consistent, reliable cable that meets your spec and lasts longer in the toughest operating environments.

## Application Support

Nexans AmerCable leads the cable industry in technical support for our customers. Our experienced application engineers are available for on-site evaluation and solutions.

***Compatible With ALL  
Major Connectors***



# Photovoltaic Cables

**Nexans AmerCable** manufactures high quality jacketed electrical cables for a wide variety of specialized renewable energy, utility and industrial applications.

**Nexans AmerCable** is an ISO 9001 certified cable manufacturer that combines leading-edge technology, proven manufacturing techniques, and high quality service to deliver the finest cable and cable assembly products available.

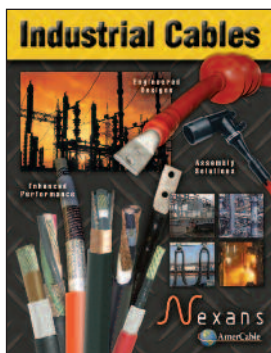


Nexans AmerCable's manufacturing facility and corporate headquarters in El Dorado, Arkansas.

## What can you expect from Nexans AmerCable?

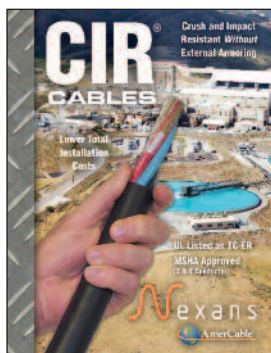
- High Quality Cable
- On-Time Delivery\*
- Professional Sales, Support and Service
- Strategic Inventory Locations
- Operational Excellence
- Short Lead Times

\* Check [www.amercable.com](http://www.amercable.com) for our most current on-time delivery record

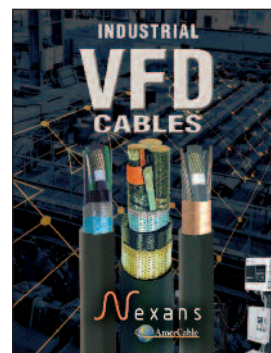


Utility and industrial cables:

- DLO
- Type SH
- Grounds
- Jumpers
- Portable Power



TC-ER & TC-ER-HL  
Crush and Impact resistant cable *without* external armoring

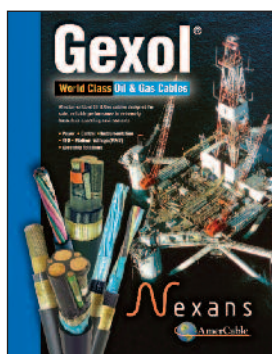


Foil shielded, power cables engineered for use in variable frequency AC drive applications.

Available in several constructions



**Made in America**



The industry standard for flexible, high performance power, control and instrumentation Type P cables



Low smoke halogen-free fire resistant or flame retardant Type P cables



350 Bailey Road • El Dorado, Arkansas 71730 USA  
(870) 862-4919 • (800) 643-1516 • Fax (870) 862-8659  
email: [solarcables@nexansamercable.com](mailto:solarcables@nexansamercable.com)  
[www.nexansamercable.com](http://www.nexansamercable.com)