



**Product:** [38312](#)

UL Type PV Wire, #12 Str TC, XLPO Ins, PVC Jkt, 2000V PV 90C Dry/Wet

[Request Sample](#)

**Product Description**

UL Type PV Wire, 12AWG (65x30) Tinned Copper, XLPO Insulation, PVC Outer Jacket, 2000V PV 90C Dry/Wet USE-2 RHW-2 SUN RES

**Technical Specifications**

**Product Overview**

|                        |                                                                                                                                 |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Suitable Applications: | Interconnection wiring of grounded and ungrounded photovoltaic power systems as described in Section 690.31(A) of the 2008 NEC. |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------|

**Physical Characteristics (Overall)**

**Conductor**

| AWG | Stranding | Material           | No. of Conductors |
|-----|-----------|--------------------|-------------------|
| 12  | 65x30     | TC - Tinned Copper | 1                 |

|                  |   |
|------------------|---|
| Conductor Count: | 1 |
|------------------|---|

**Insulation**

| Material                    | Nominal Wall Thickness |
|-----------------------------|------------------------|
| XLP, XLPO, XLPE (Thermoset) | 0.063 in               |
| XLP, XLPO, XLPE (Thermoset) |                        |

**Outer Jacket**

| Material                 | Nominal Diameter | Nominal Wall Thickness |
|--------------------------|------------------|------------------------|
| PVC - Polyvinyl Chloride | 0.285 in         | 0.033 in               |

**Electrical Characteristics**

**Conductor DCR**

| Nominal Conductor DCR |
|-----------------------|
| 1.5 Ohm/1000ft        |

**Current**

| Element                                    | Max. Recommended Current [A]         |
|--------------------------------------------|--------------------------------------|
| Single Conductor in Free Air @ 30C Ambient | 40 Amps Single Conductor in Free Air |

**Voltage**

| Non-UL Voltage Rating | UL Description | UL Voltage Rating |
|-----------------------|----------------|-------------------|
| 600 V                 | PV, RHW-2      | 2000 V            |
|                       | USE-2          | 600 V RMS         |

**Temperature Range**

|                              |                |
|------------------------------|----------------|
| UL Temp Rating:              | 90°C           |
| Operating Temperature Range: | -40°C To +90°C |

**Mechanical Characteristics**

|                    |                  |
|--------------------|------------------|
| Bulk Cable Weight: | 51.25 lbs/1000ft |
| Max. Pull Tension: | 84.5 lbs         |

|                              |          |
|------------------------------|----------|
| Min. Bend Radius/Minor Axis: | 2.875 in |
|------------------------------|----------|

Standards

|                          |                  |
|--------------------------|------------------|
| UL AWM Style Compliance: | PV, USE-2, RHW-2 |
| Military Compliance:     | N/A              |

Applicable Environmental and Other Programs

|                                              |                               |
|----------------------------------------------|-------------------------------|
| EU Directive 2000/53/EC (ELV):               | Yes                           |
| EU Directive 2003/96/EC (BFR):               | Yes                           |
| EU Directive 2011/65/EU (RoHS 2):            | Yes                           |
| EU Directive 2012/19/EU (WEEE):              | Yes                           |
| EU Directive 2015/863/EU (RoHS 2 amendment): | Yes                           |
| EU Directive Compliance:                     | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                                  | Yes                           |
| MIL Order #39 (China RoHS):                  | Yes                           |

Suitability

|                                    |     |
|------------------------------------|-----|
| Suitability - Sunlight Resistance: | Yes |
|------------------------------------|-----|

Flammability, LS0H, Toxicity Testing

|                    |            |
|--------------------|------------|
| UL Flammability:   | VW-1       |
| UL voltage rating: | 2000 V RMS |

Plenum/Non-Plenum

|               |    |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

Related Part Numbers

Variants

| Item #        | Color | Put-Up Type | Length   | UPC          |
|---------------|-------|-------------|----------|--------------|
| 38312 0105000 | Black | Reel        | 5,000 ft | 612825147732 |

|           |                        |
|-----------|------------------------|
| Footnote: | C - CRATE REEL PUT-UP. |
|-----------|------------------------|

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.239 Revision Date: 05-05-2023 |
|----------------------|--------------------------------------------------|

© 2024 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.