

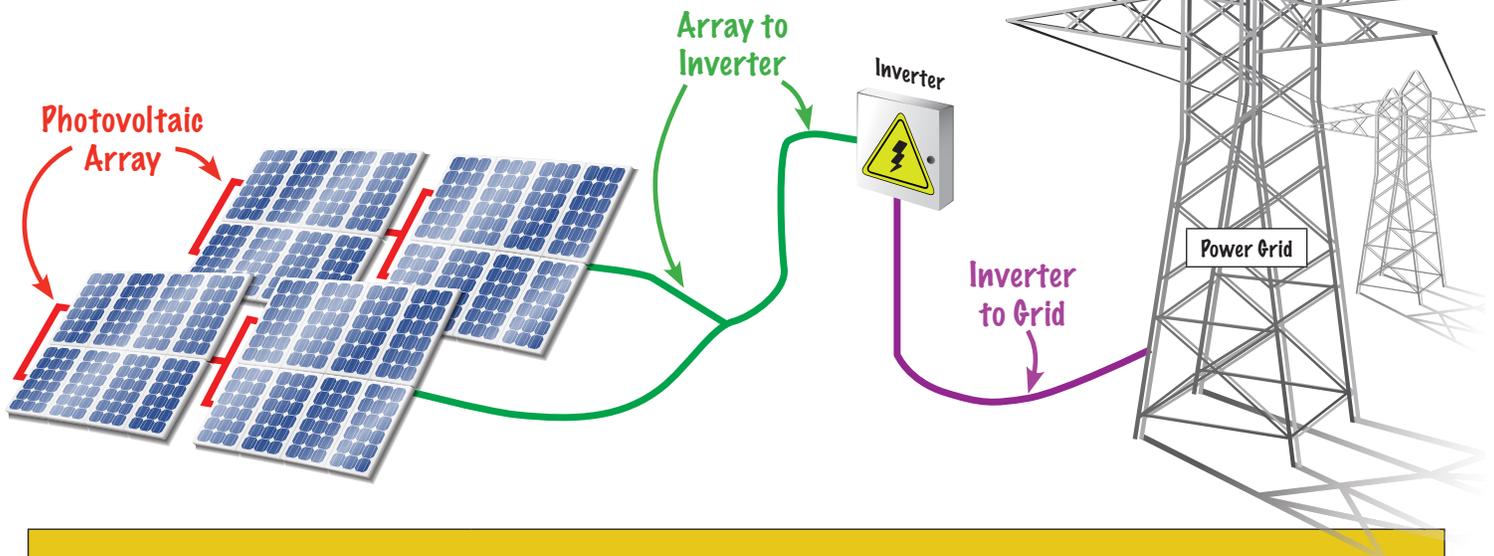


Service **SOLAR** Selection Guide



CABLE SELECTION:

<p>PV 600V (part number PV10VW)</p>	<p>Typically used on circuits up to 600 volts (DC) including directly buried. The direct burial listing and the pure DC application is why this conductor requires more insulation than a standard 600 volt cable. <i>Per National Electric Code (NEC) NFPA 70 Article 690.31(A).</i></p>
<p>PVENV 600V (part number PVENV10)</p>	<p>Typically used on circuits up to 600 volts (DC) including directly buried in areas of occupancy. Areas of occupancy often require a flame retardant construction with a limited smoke, zero halogen (LSZH) jacket for added safety in the event of a fire. <i>Per National Electric Code (NEC) NFPA 70 Article 690.31(A).</i></p>
<p>PV 2kV (part number PV2K10VW)</p>	<p>Typically used on circuits up to 2,000 volts (DC) including directly buried. The direct burial listing and the pure DC application is why this conductor requires more insulation than a standard 2,000 volt cable. <i>Per National Electric Code (NEC) NFPA 70 Article 690.31(A).</i></p>
<p>RHH/RHW-2/USE-2 (part number USE10BK)</p>	<p>Typically used on grounded circuits up to 600 volts (DC). Can be used on 575 or 600 volt circuits if suitably protected from damage. On PV systems in the USA, RHW-2 is suitable on grounded systems. <i>Per National Electric Code (NEC) NFPA 70 Article 690.31(A).</i></p>
<p>2kV (part number RWU10BK)</p>	<p>Typically used on circuits up to 2,000 volts (DC) if suitably protected from damage. UL does not recognize a 2,000 volt direct burial application. As such, 2kV items are not marked as "USE-2". However, on circuits up to 1,000 volts, 2kV can be directly buried (per UL's Motor Lead Wire specifications). For PV systems in the USA, 2kV is often used on grounded 1kV DC circuits that will not be directly buried. <i>Per National Electric Code (NEC) NFPA 70 Article 690.31(A).</i></p>



PHOTOVOLTAIC CABLING

<p>Photovoltaic Array</p> <p><i>Panel Interconnect: Wire that Connects Individual Panels</i></p>	<p>Typically small gauge size (usually #10 AWG) made into quick-connect harnesses. You will see 50/50 demand for #10AWG single conductor or for #10 – 2AWG conductor (usually red and white). The conductors can be USE-2, PV600V or PV2kV.</p>
<p>Array to Inverter</p>	<p>Usually a 2 conductor or 2 conductor plus ground DC cable. Conductors will be USE-2, PV600V or PV2k as defined in cable selection chart (based on system DC voltage to the inverter). Construction can be Jacketed MC, Tray Cable or Teck, as required by the installation.</p>
<p>Inverter to Grid</p>	<p>Standard power cable. Construction based on circuit design. Conductors based on source voltage. Several current installations use 12.5kV or 15kV ungrounded 3 conductor MC cable. However, the actual installation/supply voltage dictates final construction. These cables will typically be our standard 600V/2.4kV/5kV/15kV Tray or MC cables. Oversized grounds or multiple segmented grounds may be required depending on the inverter design.</p>

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