

# INTRODUCING EVSW: SINGLE WALL HEAT SHRINK TUBING FOR EV APPLICATIONS: SUPERIOR HIGH VOLTAGE PROTECTION FOR MAXIMUM PERFORMANCE

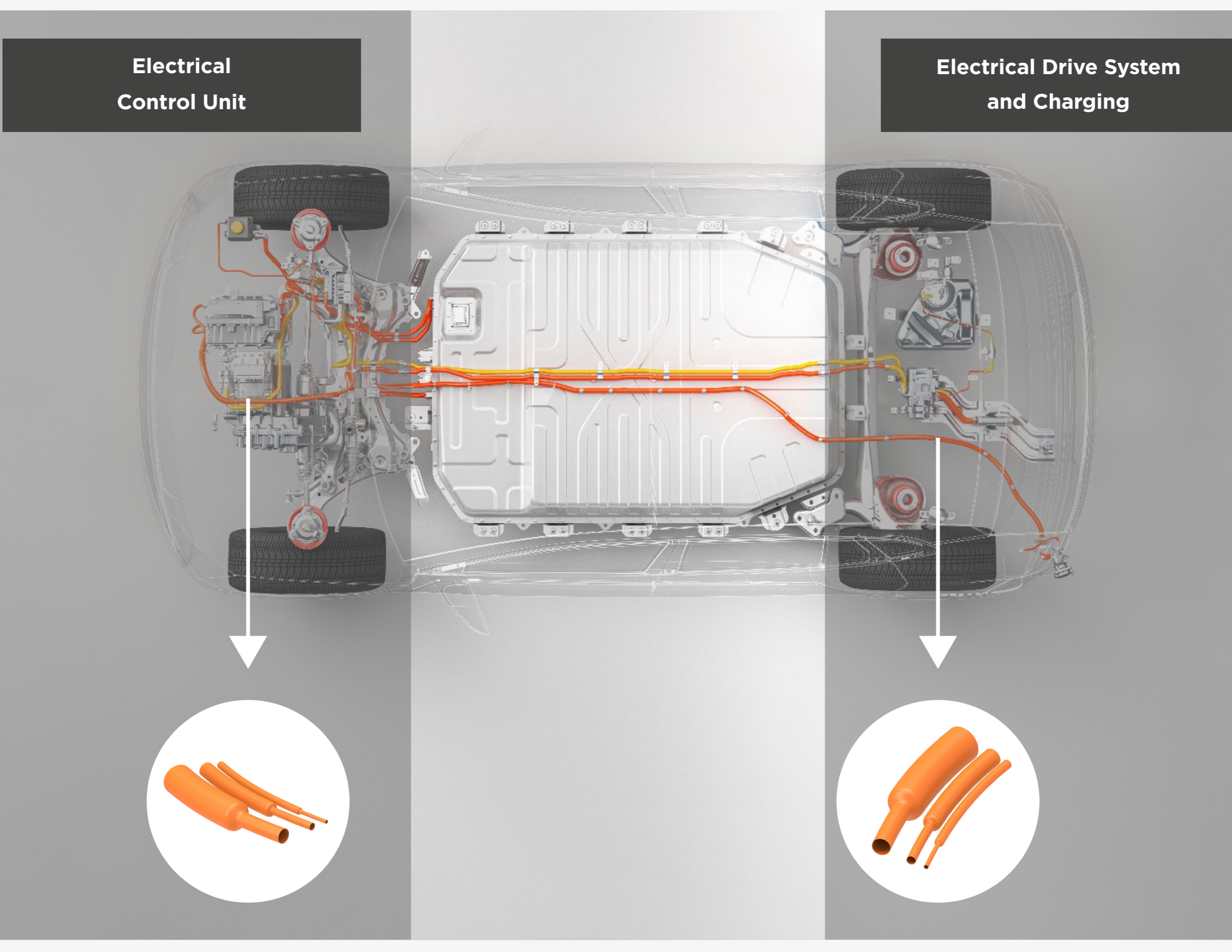


The Acceleration of electric vehicles into the everyday lives continues to drive technology changes and challenges to sustainability. Heat shrink tubing products from TE Connectivity (TE) have also followed these changes and hybrid challenges and has developed a new Single Wall tubing for use specifically with electric vehicles. Electric vehicles require components to perform at high temperatures, not to propagate burning, perform with higher voltages and help identifying circuitry. All this delivers the reliability robustness and security that are demanded to ensure operational steadfastness and confidence.

The new EV Single Wall (EVSW) heat shrink tubing from TE meets the developing demands from this fast-evolving market by delivering a heat shrink tube specifically designed for use to insulate and protect conductive components and cables.

## ELECTRIC VEHICLE DESIGN REQUIREMENTS

 <p><b>Efficient Charging</b> Protect and optimize high voltage components allowing fast and efficient charging and operations.</p>	 <p><b>Durability</b> Protecting components and connectors from exposure to harsh elements and high voltage architecture.</p>	 <p><b>Safety</b> Protect components from flame propagation and fire hazards.</p>
 <p><b>Weight Management</b> Lightweight components to optimize performance of electric vehicles.</p>	 <p><b>Signal Integrity</b> Throughput and signal integrity are key to optimize performance uptime all the time</p>	 <p><b>Thermal Management</b> Manage heat dissipation to improve reliability and prevent premature failure.</p>



### PROTECTION WHERE YOU NEED IT

- Insulation**  
Protects and minimizes heat transfer for solid thermal and electrical insulation with operating temperatures ranging from -55°C to 150°C
- Strain Relief**  
Allows for greater flexibility in areas where stress can cause failures such as connector pins and splices, enabling a reliable connection
- Protection**  
Against the harshest environments with cut through, chemical, fluid, abrasion and anti-fungal resistance
- Sealing**  
Keeps out moisture, water, bacteria, fuels, and fungus
- Identification and Safety**  
Helps identify wires for grounding and color coding capabilities to reduce safety hazards

## VOLINSU SINGLE WALL EV HEAT SHRINK TUBING FEATURES & BENEFITS

<ul style="list-style-type: none"> <li>EV orange color</li> <li>Meets UL224 VW-1 Flame retardant requirements</li> <li>2:1 shrink ratio</li> <li>Flexible design</li> <li>Robust and lightweight material design</li> </ul>	<p><b>FEATURES</b></p>	<p><b>BENEFITS</b></p> <ul style="list-style-type: none"> <li>Easy identification of higher voltage circuits in electric vehicles</li> <li>Does not propagate burning to support vehicle operator's and passengers' safety</li> <li>Can fit both components and cables and be used on more than one design</li> <li>Easy to install while maintaining cable flexibility</li> <li>Achieve lightweight requirements and delivers optimum thermal stability, electrical resistivity and high voltage performance</li> </ul>
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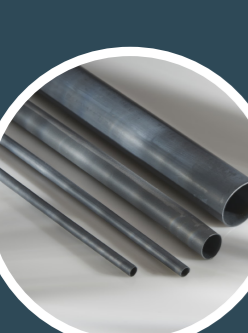

## APPLICATIONS

 <p><b>Cable Termination Insulation</b></p>	 <p><b>Wire Grouping and Jacketing</b></p>	 <p><b>Inside EV Battery Packs</b></p>	 <p><b>Corrugated Fixture</b></p>	 <p><b>Flexible Busbar Insulation</b></p>
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## DO AND DON'TS WHEN SELECTING THE CORRECT SIZE HEAT SHRINK TUBING

<p><b>DO'S</b></p> <ul style="list-style-type: none"> <li>Always use the specified expanded ID dimension.</li> <li>Use the specified dimensions for the recovered internal diameter of the tube. Sometimes the tube will shrink more than the recovered ID, but it will ALWAYS meet the maximum specified dimension.</li> <li>Follow the installation instructions, especially temperature guidelines:             <ul style="list-style-type: none"> <li>Too cold-tubing may not fully recover.</li> <li>Too hot-tubing may show burn marks or split.</li> </ul> </li> </ul>	<p><b>DON'Ts</b></p> <ul style="list-style-type: none"> <li>Do not force the tube over something by stretching as it can tear during recovery.</li> <li>Do not cut the tube to the required final length. The tube changes length during recovery. The more it shrinks, the greater the longitudinal change.</li> <li>Do not recover the tubing over anything with sharp edges.</li> </ul>
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## LEARN MORE ABOUT OUR RAYCHEM HEAT SHRINK TUBING PORTFOLIO

 <p><b>SINGLE WALL TUBING</b></p> <ul style="list-style-type: none"> <li>Bundling protection</li> <li>Abrasion resistant</li> <li>Strain relief</li> <li>Quick installation</li> <li>Variety of colors available for coding</li> </ul>	<ul style="list-style-type: none"> <li>Low shrink temperature</li> <li>Mil-Spec compliant</li> <li>Meets UL VW1 - flammability</li> <li>Meets UL/CSA - electrical insulation</li> <li>Cost effective</li> </ul>	<ul style="list-style-type: none"> <li>UL rating - minimize catastrophic failure of a system</li> <li>Rapid production time</li> <li>Flexible</li> </ul>
 <p><b>DUAL WALL TUBING</b></p> <ul style="list-style-type: none"> <li>Waterproof - submersion</li> <li>Cable repair - bonding &amp; sealing</li> <li>Splice sealing</li> <li>Direct burial water - proofing</li> <li>Underground water protection</li> <li>Strain relief</li> </ul>	<ul style="list-style-type: none"> <li>Meets UL VW1 flammability</li> <li>Electrical insulation</li> <li>Mil-Spec compliant</li> <li>UL rating - minimize catastrophic failure of a system</li> </ul>	<ul style="list-style-type: none"> <li>Protects from harsh environments</li> <li>Superior abrasion and chemical resistant</li> <li>Color differentiation</li> <li>Flexible and shiny tubing options</li> </ul>
 <p><b>SPECIALTY TUBING</b></p> <ul style="list-style-type: none"> <li>Abrasion protection</li> <li>Greater than 150°C rated - high temperature environments</li> <li>Fungal and mold protection</li> </ul>	<ul style="list-style-type: none"> <li>UL rating - minimize catastrophic failure of a system</li> <li>Flame retardant</li> <li>Water, heat and humidity resistant</li> <li>Mil-Spec compliant</li> </ul>	

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