



SURFACE VEHICLE STANDARD

J1654™

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Superseding J1654 SEP2016

Unshielded High Voltage Primary Cable

RATIONALE

This standard has been updated with the following changes:

Revised 2.2.3.

Revised Scope to limit to SAE wire size 22 gauge and larger.

Definitions have been reviewed and updated.

Revised 5.2 with updated minimum voltage for all sizes and 5.3 to read easier.

Added reference to Equation 1.

Revised Table 1 and references listed in 5.4 and 5.5.

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1. SCOPE

This SAE Standard covers unshielded cable, 22 gauge and larger, intended for use at a nominal system voltage up to 600 V or 1000 V (ACrms or DC). It is intended for use in surface vehicle electrical systems.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

SAE J1127 Low Voltage Battery Cable

SAE J1128 Low Voltage Primary Cable

SAE J1678 Low Voltage Ultra-Thin Wall Primary Cable

SAE Dictionary of Materials and Testing

2.1.2 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org

ASTM B354 Standard Terminology Relating to Uninsulated Metallic Electrical Conductors

ASTM F1251 Standard Terminology Relating to Polymeric Biomaterials in Medical and Surgical Device

2.1.3 IEC Publications

Available from IEC Central Office, 3, rue de Varembe, P.O. Box 131, CH-1211 Geneva 20, Switzerland, Tel: +41 22 919 02 11, www.iec.ch.

IEC, Electricity, Electronics and Telecommunications, Multilingual Dictionary

2.2 Related Publications

The following publications are provided for information purposes only and are not a required part of this SAE Technical Report.

2.2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

SAE J156 Fusible Links

SAE J1673 High Voltage Automotive Wiring Assembly Design

SAE J2501 Round, Screened and Unscreened, 60 V and 600 V Multi-Core Sheathed Cables

SAE J2840 High Voltage Shielded and Jacketed Cable