SRI LANKA STANDARD 412 PART 3: 2020
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SPECIFICATION FOR CABLES FOR MOTOR VEHICLES PART 3: EARTHING BRAIDS

(Second Revision)

SRI LANKA STANDARDS INSTITUTION

Sri Lanka Standard
SPECIFICATION FOR CABLES FOR MOTOR VEHICLES
PART 3: EARTHING BRAIDS
(Second Revision)

SLS 412: Part 3: 2020

Gr.3

SRI LANKA STANDARDS INSTITUTION
No. 17, Victoria Place,
Elvitigala Mawatha,
Colombo 08.
SRI LANKA

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This Standard does not purport to include all the necessary provisions of a contract

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PART 3: EARTHING BRAIDS
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FOREWORD

This Sri Lanka standard was approved by the Sectoral Committee on Electric Cables and Conductors and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 2020-07-22

This is the second revision of **SLS 412: 1977**. In the revision general wiring cables, ignition cables and earthing braids are separated and presented in three parts for easy reference as follows;

Part 1: Section 1- Cables for motor vehicles - 60V and 600V single-core cables - Part 1:
Section 1- Dimensions, test methods and requirements for Copper conductor cables.
Section 2- Dimensions, test methods and requirements for Aluminium conductor cables.

Part 2: Cables for motor vehicles – Unscreened high-voltage ignition cables – General specifications, test methods and requirements.

Part 3: Earthing braids.

In this part requirements of earthing braids are given.

All the values given in this specification are in SI units.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with SLS 102. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

In the preparation of this standard the assistance derived from **BS 6862:1990** Specification for cables for vehicles. Part 1 Cables with copper conductors. published by British Standards Institution is gratefully acknowledged.

1 SCOPE

This part of the standard specifies dimensions and requirements for round and flat tinned copper earthing braids without further covering.

2 REFERENCES

SLS 695	Specification for conductors in insulated cables and cords
SLS 982	Electrotechnical Vocabulary Part **24** Electric cables
(IEC 60050) - 461	International Electrotechnical Vocabulary(IEV) – Part 461 Electric cables

3 DEFINITIONS

For the purpose of this standard the definitions given in **IEC 60050-461:2008** shall apply.

4 REQUIREMENTS

4.1 General

The dimension of earthing braids shall be in accordance with Table **1**.

Table 1 – Earthing Braids

Type	**Nominal Area**	**Number of spindles**	**Number and size or wire per spindle**	**Approximate overall dimensions**	**Approximate braiding lay**
	mm^2	**mm**	**mm**	**mm**	**mm**
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Round	19	16	16/0.30	7.1	80
Round	28	16	24/0.30	10.0	100
Round	37	16	32/0.30	11.0	90
Flat	21	48	14/0.20	24 x 2.5	150
Flat	21	24	28/0.20	24 x 2.5	150

4.2 Conductors

For earthing braids, the conductor shall consist of tinned annealed copper wires. For these braids, the requirements of the tinning test shall be done in accordance with Clause **8.1** of **SLS 695: 2017** before further processing of tinned wires.

4.3 Formulation

4.3.1 Earthing braids shall be formed of tinned annealed copper wires complying with **SLS 695: 2017**. The wires shall be formed into a braid of approximately circular cross section, the number of spindles, the braiding lay being as indicated in Table **1**.

4.3.2 For a flat braid the circular braid shall be flattened to the dimensions given in Table **1**.

4.3.3 Brazed silver-soldered or electrically welded joints may be made in individual wires but no joints shall be made in the finished braid.

5 PACKING AND MARKING

The earthing braids shall be either wound on reels coiled, and packed and labeled. The label which should be securely attached to the reel or coil, shall have the following information:

a) Name of the manufacturer or trade-name and trade mark (if any)
b) Nominal cross sectional area of the earthing braid,
c) Number of Strands (wires),
d) Type of earthing braid, and
e) Length of the earthing braid contained in the coil or real

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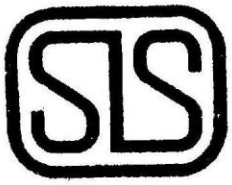

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SRI LANKA STANDARDS INSTITUTION

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The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

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