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Specification for

# Electric stunners for poultry

ICS 65.040.20

## Committees responsible for this British Standard

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AFRC Institute of Engineering Research  
 Agricultural Training Board  
 Association of Manufacturers Allied to the Electrical and Electronic Industry (BEAMA Ltd)  
 British Agricultural and Garden Machinery Association Ltd  
 British Medical Association  
 Health and Safety Executive  
 Institution of Electrical Engineers  
 Milk Marketing Board  
 Milking Machine Manufacturers' Association  
 Ministry of Agriculture, Fisheries and Food  
 National Farmers' Union  
 Universities Federation for Animal Welfare

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# Contents

	Page
Committees responsible	Inside front cover
Foreword	iii
<hr/>	
1 Scope	1
2 Definitions	1
3 General requirement	4
4 General conditions for the tests	4
5 Rating	5
6 Classification	5
7 Marking, labelling and instructions	5
8 Protection against electric shock	9
9 Input and output characteristics	10
10 Heating	10
11 Electrical insulation and leakage current at operating temperature	12
12 Radio and television interference suppression	13
13 Moisture resistance	13
14 Insulation resistance and electric strength	15
15 Overload protection	16
16 Endurance	16
17 Abnormal operation	16
18 Mechanical strength	18
19 Construction	19
20 Internal wiring	23
21 Components	23
22 Supply connection and external flexible cables and cords	25
23 Terminals for external conductors	29
24 Provision for earthing	33
25 Screws and connections	35
26 Creepage distances, clearances and distances through insulation	37
27 Resistance to heat, fire and tracking	38
28 Resistance to rusting	40
29 Routine production tests	40
<hr/>	
Appendix A Electronic circuits	42
Appendix B Circuit for measuring leakage currents	45
Appendix C Measurement of creepage distances and clearances	46
Appendix D Burning test	49
Appendix E Glow-wire test	49
Appendix F Bad-connection test	49
Appendix G Needle-flame test	50
Appendix H Proof tracking test	50
Appendix J Severity of the duty conditions of insulating material with respect to the risk of tracking	50
<hr/>	
Figure 1 — Standard test finger	3
Figure 2 — Safety sign “Warning: Caution, risk of electric shock” complying with A.2.8 of BS 5378-1:1980	7
Figure 3 — Diagrams for leakage current measurement at operating temperature	13
Figure 4 — Diagram for electric strength test at operating temperature	15
Figure 5 — Spring-operated impact-test apparatus	19
Figure 6 — Device for testing shoulders in conduit entries	19

	Page
Figure 7 — Dimensions for water bath stunners	24
Figure 8 — Schematic representation of cord anchorages	28
Figure 9 — Pillar terminals	29
Figure 10 — Screw terminals and stud terminals	31
Figure 11 — Examples of parts of earthing terminals	34
Figure 12 — Ball-pressure apparatus	37
Figure 13 — Scratch test for coated enclosures	39
Figure 14 — Example of electronic circuit with low-power points	44
Figure 15 — Circuit for measuring leakage currents	46
Table 1 — Permissible variations in rated input	10
Table 2 — Permissible temperature rise	11
Table 3 — Test voltages	17
Table 4 — Limiting temperature of transformer windings	17
Table 5 — Test force for screwed glands	18
Table 6 — Size of cable and conduit entries	26
Table 7 — Torque values for screws and nuts	30
Table 8 — Conductor cross-sectional area acceptance requirements for terminals	30
Table 9 — Test figures for flexible cord pull and torque	30
Table 10 — Creepage distances and clearances	36
Table 11 — Creepage distances and clearances	45
Table 12 — Conductor cross-sectional area acceptance requirements for crimped connectors	49
Publications referred to	Inside back cover

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# Foreword

This British Standard has been prepared by Technical Committee CPL/61/8 (formerly LEL/105).

It specifies requirements and tests for the safety and performance of electric stunners for poultry.

The style used in this standard follows that used in IEC 1011 which in turn was based on IEC 335-1.

Attention is drawn to the provisions of legislation which require that poultry be slaughtered without causing or permitting avoidable excitement, pain or suffering. One permitted method under the regulations requires that poultry be stunned prior to slaughter. This standard therefore includes both safety requirements for the protection of the operators of stunners and also minimum performance requirements for stunners to ensure that stunning is satisfactorily carried out without avoidable pain or suffering.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

**Compliance with a British Standard does not of itself confer immunity from legal obligations.**

## Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 52, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

## 1 Scope

This British Standard specifies safety and performance requirements for type tests and routine tests for electric stunners for poultry. It does not cover stunning and tenderizing equipment used for other animals.

NOTE The titles of the publications referred to in this standard are listed on the inside back cover.

## 2 Definitions

For the purposes of this British Standard the following definitions apply.

NOTE Where the terms “voltage” and “current” are used, they imply the r.m.s. values, unless otherwise specified.

### 2.1

#### rated voltage

the input voltage assigned to the stunner by the manufacturer

### 2.2

#### rated voltage range

the input voltage range assigned to the stunner by the manufacturer, expressed by its lower and upper limits

### 2.3

#### working voltage

the maximum voltage to which the part under consideration can be subjected when the stunner is operating at its rated voltage and under normal operating conditions

NOTE When deducing the working voltage, the effect of possible transient voltages on the supply mains is ignored.

### 2.4

#### output voltage

the voltage required to sustain the stunning current under normal load conditions

### 2.5

#### rated power input

the input power under normal operating conditions and assigned to the stunner by the manufacturer

### 2.6

#### rated input current

the current assigned to the stunner by the manufacturer

NOTE If no current is assigned to the appliance, the rated input current for the purpose of this standard is determined by calculation from the rated power input and the rated voltage and/or by measuring the current when the stunner is operating under normal operating conditions [see 4.3 a)] but supplied at rated voltage.

### 2.7

#### rated frequency

the supply mains frequency assigned to the stunner by the manufacturer

### 2.8

#### rated frequency range

the supply mains frequency range assigned to the stunner by the manufacturer, expressed by its lower and upper limits

### 2.9

#### normal load

a non-inductive resistor which represents the impedance of the poultry for test purposes. For an enclosed poultry stunner it is 322  $\Omega$  and for an open poultry stunner 1 250  $\Omega$ .

### 2.10

#### power supply cord

a flexible cable or cord, for supply purposes, fixed to, or assembled with, the stunner

### 2.11

#### basic insulation

the insulation applied to live parts to provide basic protection against electric shock

NOTE Basic insulation does not necessarily include insulation used exclusively for functional purposes.

### 2.12

#### supplementary insulation

an independent insulation applied in addition to the basic insulation, in order to ensure protection against electric shock in the event of a failure of the basic insulation

### 2.13

#### double insulation

insulation comprising both basic insulation and supplementary insulation

### 2.14

#### reinforced insulation

a single insulation system applied to live parts which provides a degree of protection against electric shock equivalent to double insulation under the conditions specified in this standard

NOTE The term “insulation system” does not imply that the insulation should be one homogeneous piece. It may comprise several layers that cannot be tested singly as supplementary or basic insulation.

### 2.15

#### poultry

domestic fowl including chickens, turkeys, guinea fowl, ducks, geese and quail

### 2.16

#### poultry stunner

an apparatus which is intended to deliver an electric current for the purpose of rendering poultry immediately unconscious prior to slaughter