



# HF-Matchbox Red

## HF-M RED 109 SH TL/PL-S 230-240V

Compact, lightweight, High Frequency electronic ballast for TL (8-18W), TL5 (14-24W) and compact fluorescent PL (7-24W) lamps

### Product data

| General Information                          |                           |
|--|---------------------------|
| Lamp Type                                    | TL/PL-S                   |
| Number of Lamps                              | 1 piece/unit              |
| Number of Products on MCB (16A Type B) (Nom) | 159                       |
| Automatic Restart                            | Yes                       |
| Operating and Electrical                     |                           |
| Input Voltage                                | 230 to 240 V              |
| Input Frequency                              | 50 to 60 Hz               |
| Power Factor 100% Load (Nom)                 | 0.64                      |
| Ignition Time (Max)                          | 0.45 s                    |
| Mains Voltage Performance (AC)               | -8%~+6%                   |
| Mains Voltage Safety (AC)                    | -10%~+10%                 |
| Power Losses (Nom)                           | 1.7 W                     |
| Wiring                                       |                           |
| Connector Type Input Terminals               | Insert                    |
| Color Input Terminals                        | Black                     |
| Color Output Terminals                       | Grey                      |
| Connector Type Output Terminals              | Insert                    |
| Cable Length From Device to Lamp             | 1.50 m                    |
| Cable Length Hot Wiring                      | 0.30 m                    |
| Wire Striplength                             | 8.0-9.0 mm                |
| Input Terminal Cross Section                 | 0.50-1.50 mm <sup>2</sup> |

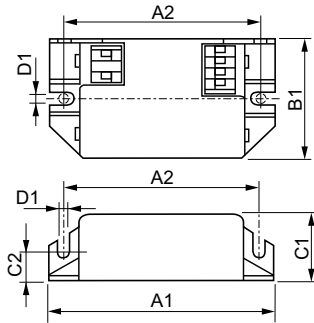
| Output Terminal Cross Section | 0.50-1.50 mm <sup>2</sup>      |
|-------------------------------|--------------------------------|
| System characteristics        |                                |
| Rated Ballast-Lamp Power      | 9 W                            |
| System Power on PL-S          | 8.2 W                          |
| Rated Lamp Power on PL-S      | 9 W                            |
| Power Loss on PL-S            | 1.7 W                          |
| Lamp Power on PL-S            | 6.5 W                          |
| Lamp Power on TL              | 5.3 W                          |
| Rated Lamp Power on TL        | 9 W                            |
| System Power on TL            | 7 W                            |
| Temperature                   |                                |
| T-Ambient (Max)               | 40 °C                          |
| T-Ambient (Min)               | -10 °C                         |
| T-Case Maximum (Max)          | 75 °C                          |
| Mechanical and Housing        |                                |
| Housing                       | SH                             |
| Emergency Operation           |                                |
| Battery Voltage Lamp Ignition | 194-254 V                      |
| Approval and Application      |                                |
| IP Classification             | IP 20 [ Ingress Protection 20] |

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|                       |   |
|-----------------------|---|
| <b>Approval Marks</b> | F-Marking CE marking ENEC certificate<br>CB Certificate |
| <b>Product Data</b>   |   |
| Full product code     | 871150093142930   |
| Order product name    | HF-M RED 109 SH TL/PL-S 230-240V                        |
| EAN/UPC - Product     | 8711500931429   |

|  |              |
|--|--------------|
| <b>Order code</b>                      | 93142930     |
| <b>Numerator - Quantity Per Pack</b>   | 1            |
| <b>Numerator - Packs per outer box</b> | 50           |
| <b>Material Nr. (12NC)</b>             | 913700422866 |
| <b>Net Weight (Piece)</b>              | 0.034 kg     |

### Dimensional drawing



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| Product          | D1     | C1   | C2   | A1   | A2   | B1   |
|------------------|--------|------|------|------|------|------|
| HF-M RED 109 SH  | 4.4 mm | 22.0 | 10.0 | 80.0 | 70.0 | 40.0 |
| TL/PL-S 230-240V |        | mm   | mm   | mm   | mm   | mm   |

