



HF-Matchbox Red

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

HF-Matchbox Red is an affordable, reliable, compact, lightweight and high-frequency ballast for use with system wattages below 25 W in combination with TL mini, TL-D, TL5 and TL5c, PL-T/C, and PL-L/S lamps. The HF-M Red range has a robust design, meets all relevant international safety and performance standards and has an energy efficiency index (CELMA EEI) of A2. The ballast is primarily designed for Indoor application. For outdoor application, the luminaire should be minimum Classland need to be sufficiently protected against water & dust. The installation should also be guard against any lightning surge or any other necessary electrical protection as deemed in such typical installation & application.

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 ²
Output Terminal Cross Section	0.50-1.50 mm ²

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

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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]

Approval Marks	F-Marking CE marking ENEC certificate CB Certificate
Product Data	
Full product code	871150093142930
Order product name	HF-M RED 109 SH TL/PL-S 230-240V
EAN/UPC - Product	8711500931429
Order code	913700422866
Numerator - Quantity Per Pack	1
Numerator - Packs per outer box	50
Material Nr. (12NC)	913700422866
Net Weight (Piece)	0.034 kg

Dimensional drawing

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

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

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