

M100 MetalArc

The Best Choice for High Efficiency,
Natural Looking Lighting



A compact, efficient and powerful
Metal Halide lamp for general
lighting applications

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GTE

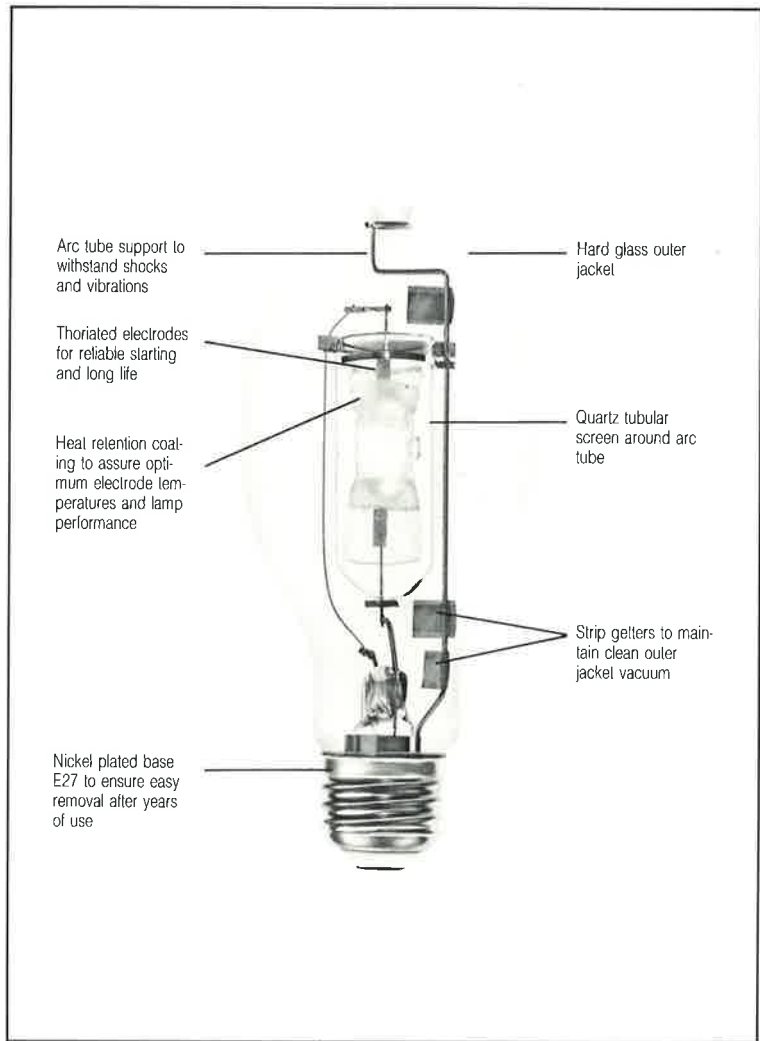
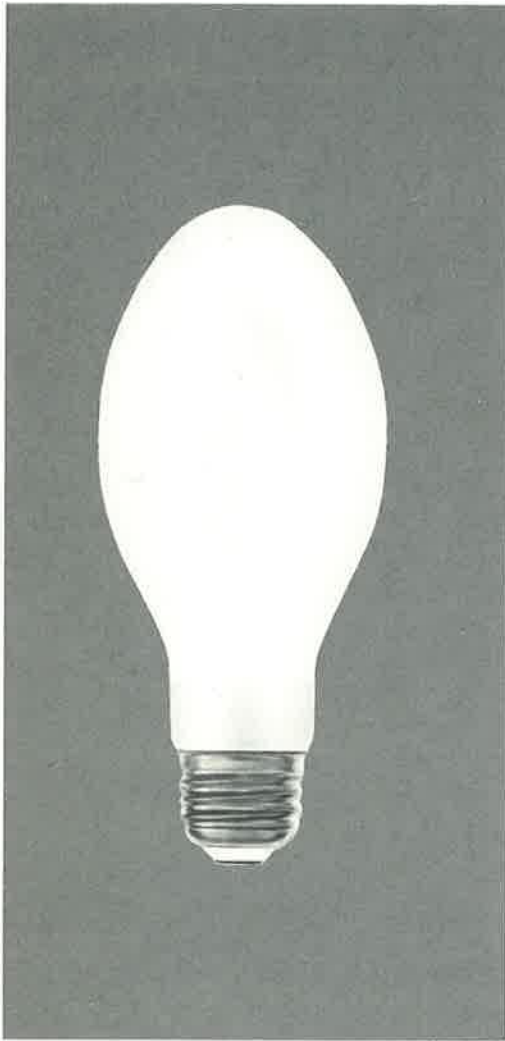


Discharge Lamp Product Information

MetalArc M100

Description

100 Watt Single-Ended MetalArc Lamps



Mechanical Data and Illumination Characteristics

General Information								
Lamp Rating		100 W	100 W					
Type Description		M100/CL/E	M100/CO/E					
Mechanical Data								
Bulb Shape		ED17	ED17					
Bulb Finish		Clear Ellipsoid	Coated Ellipsoid					
Bulb Diameter	mm	54	54					
Overall Length	mm	138	138					
Arc Length	mm	15	—					
Light Centre Length	mm	85	—					
Cap		E27	E27					
Illumination Characteristics								
Light Output	lm	8500	8000					
Efficacy	lm/W	85	80					

- Features**
- Compact dimensions and single-ended E27 design allow maximum freedom to fixture designer
 - Warm light colour appropriate for commercial interiors
 - Clear bulb version for "sparkle" and critical optical design. Low glare coated bulb version for "ambience" requirements ● 85 Lumen per watt efficacy
 - Operates on 100W SHP ballasts



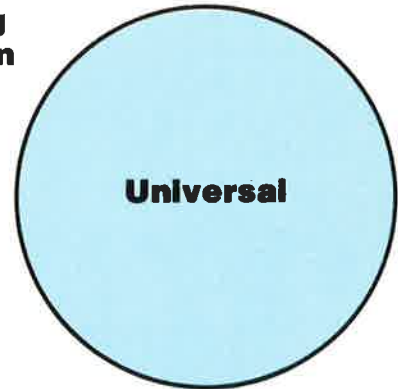
MetalArc

MetalArc M100

Applications

- Retail store merchandising
- Public Areas
 - Lobbies
 - Banking halls
 - Airport Terminal Areas
- Offices, especially in VDU areas combined with "uplighter" fixtures

Burning Position



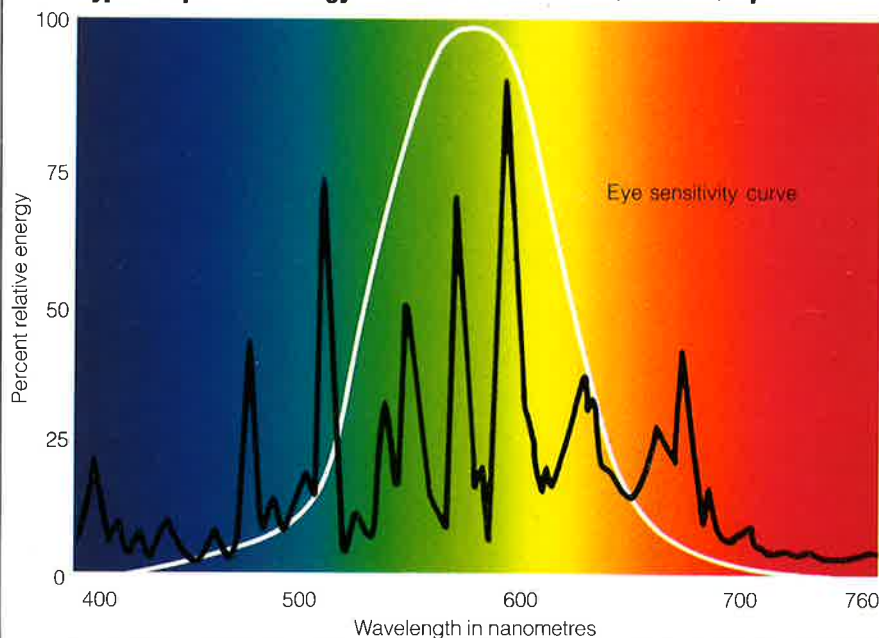
Electrical Data

Lamp Rating	100 W	100 W						
Arc Tube Voltage V	100	100						
Arc Current A	1,1	1,1						
Starter Type (1)	E	E						
Peak Starting Voltage	3,3 kV	3,3 kV						
PF Capacitor mfd	12 (300 V)	12 (300 V)						
Min. Supply Voltage (V)	208	208						

Ordering Data - Lamps

Code No	20637	20638						
Type Description	M100/CL/E	M100/CO/E						
Packing Qty	10	10						

Typical Spectral Energy Distribution Curve — Coated Lamp



Reference Colour Data

Tc (Kelvin): 3200

x : 0,420

y : 0,395

Colour Rendering Index (ra8): 65

Special Notes

- (1) Starter type - Sylvania M100-I or similar.
- (2) Lamps may only be used in fixtures provided with tempered glass enclosures.
- (3) Continuous burning is inadvisable. Switch off at least once per week for 15 minutes.
- (4) Should the outer jacket break, switch off immediately as there is a grave risk of eye and skin damage.
- (5) Only a 3,5 kV pulse rated E27 socket may be used - Sylvania M100-SK or similar.
- (6) M100 lamps may be used on 100W High Pressure Sodium ballasts.

Sylvania reserves the right to change data and specifications without notice. Data for guidance only.

100W MetalArc

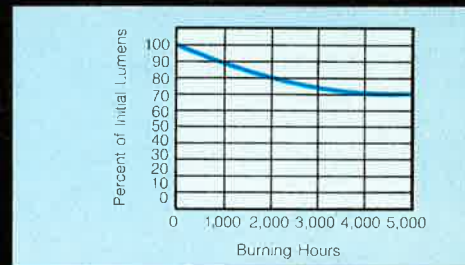
Sylvania has long been a leader in Metal Halide Lamp innovations. Now, another important breakthrough has been achieved; the 100W MetalArc Lamp.

This advanced lamp can be used where high wattage incandescent lamps, 125W Mercury Vapour Lamps or 70W High Pressure Sodium Lamps are used. Applications include retail store merchandising, hotel foyers and lobbies, banks, in bollards for pathways and pedestrian areas, decorative post top

precinct lighting and security lighting.

The 100W MetalArc Lamp provides natural white light of a warm colour temperature of 3200°K and excellent colour rendering index of 65. This highly compact and efficient lamp (6800 lumens at 2000 hours life), allows compact, lightweight and manageable luminaire design, adding sparkle and brilliance wherever it is used.

Lumen Maintenance



Starting Requirements*

Starting Pulse Requirements*

- A. Peak Voltage
1. Minimum volts: 3300
 2. Maximum volts: 3500
- B. Minimum Pulse width at 70% of peak volts in microseconds: 2
- C. Pulse Repetition Rate, per alternation, minimum: 3
- D. Pulse Positions
1. One pulse within $\pm 10^\circ$ of peak open circuit voltage
 2. A second pulse from -40° to peak open circuit voltage
 3. A third pulse from -40° to $+30^\circ$ of peak open circuit voltage

* We encourage the submission of all newly designed starters for evaluation by Sylvania whether or not they meet these requirements.

Notes:

- (A) Measurements taken on standard reactor. Starting requirements based on sine wave (crest factor 1.414).
 (B) Average readings on bare lamp in base up position. Data may vary depending on fixture ambient and operating conditions. Unless otherwise indicated data based on 10 hours per start operation.
 (C) This lamp is designed for operation on lag ballast in conjunction with appropriate starter

Ordering Data — Accessories

41111	41110
M100 Ignitor	M100 Socket

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GTE Sylvania Ltd., Otley Road, Charlestown, Shipley, West Yorkshire BD17 7SN. Tel. (0274) 595921, Telex 51 251, Telefax (0274) 597 683

Cover picture courtesy of Regent AG, Basel.

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