



# Switch Start Metal Halide Protected

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An efficient, protected "O" rated lighting solution that is suitable for open-rated fixtures. Ideal for both indoor and outdoor applications.

### Benefits

- Available in various bases and wattages.

### Features

- Protective quartz shroud provides extra level of safety - shrouded arc tube for "O" open fixture rating.
- No shut-off required- Ideal for 24-hours a day, 7-days a week operations (relamp fixtures at or before the end of rated life)
- Extended eyelet mogul base will operate in both standard and exclusionary sockets.
- Satisfies the 2005 NEC for use in open luminaires†
- BT-56 base available in 1000 watts / ED-37 base available in 360 and 400 watts / ED 28 base available in 175 and 250 watts.
- \* Relamp fixtures at or before end of rated average life. † The 2005 NEC states that luminaires that use a metal halide lamp shall be provided with either a containment barrier that encloses the lamp (historically referred to as an enclosed luminaire) or shall be provided with a means, typically a special lampholder, that will only accept ANSI Type-O metal halide lamp. (Exception—this requirement will not apply to open luminaires with thick-glass parabolic reflector PAR lamps.) For more information regarding use of Type-O, S, and E metal halide systems, please refer to the NEMA white paper on this subject that is freely available at [www.nema.org](http://www.nema.org)

### Application

- Ideal for manufacturing facilities, retail establishments and warehouses.

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### Warnings and Safety

- R "WARNING: These lamps can cause serious skin burn and eye inflammation from short wave ultraviolet radiation if outer envelope of the lamp is broken or punctured. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Certain lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available." This lamp complies with FDA radiation performance standard 21 CFR subchapter J. (USA:21 CFR 1040.30 Canada: SOR/DORS/80-381)

### Versions



E26/E27, Clear



E26, BD-17, Clear



EX39 BT-37, ED-37, Clear

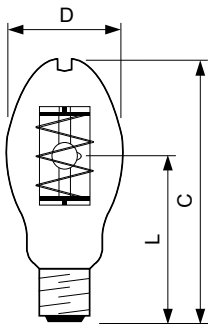


EX39, ED-28, Clear



EX39, BT-56, Clear

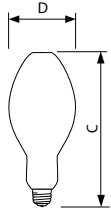
### Dimensional drawing



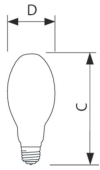
Product	D (max)	L (min)	C (max)
MH 100W/640 E26 CL	56 mm	83 mm	138 mm
MH 100W/640 E26 CL 1SL/24	56 mm	83 mm	138 mm

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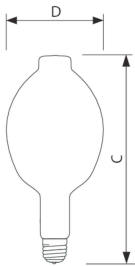
## Dimensional drawing



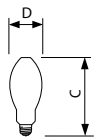
Product	D	C (max)
MP400/BU 6 PK	4.625 in	11.5 in
MP360/BU/EW 6PK	4.625 in	11.5 in



Product	D	C (max)
MP250/BU 12PK	3.5 in	8.313 in



Product	D	C (max)
MP1000/BU 6PK	7 in	15.375 in



Product	D	C (max)
MH175/U/M 3PK	2.125 in	5.438 in

### Mechanical and Housing

Bulb Finish

Clear

## Approval and Application

## Switch Start Metal Halide Protected

Order Code	Full Product Name	Energy Consumption kWh/		Mercury (Hg)	Mercury (Hg) Content	
		1000 h	Energy Saving Product	Content (Max)	(Nom)	Picogram Per Lumen Hour
928485900191	MH 100W/640 E26 CL 1SL/24	110 kWh	-	-	10.2 mg	-
928485900194	MH 100W/640 E26 CL	110 kWh	-	-	10.2 mg	-
928601122312	MH175/U/M 3PK	-	Not Applicable	24.0 mg	-	-
928601157903	MP400/BU 6 PK	-	Not Applicable	-	57 mg	76.9 pg/lm.h
928601179201	MP360/BU/EW 6PK	-	Energy Saving	-	48 mg	116 pg/lm.h
928601161903	MP250/BU 12PK	-	Not Applicable	-	32 mg	-
928601179601	MP1000/BU 6PK	-	-	-	150 mg	173.7 pg/lm.h

### Controls and Dimming

Order Code	Full Product Name	Dimmable	Order Code	Full Product Name	Dimmable
928485900191	MH 100W/640 E26 CL 1SL/24	No	928601179201	MP360/BU/EW 6PK	-
928485900194	MH 100W/640 E26 CL	No	928601161903	MP250/BU 12PK	-
928601122312	MH175/U/M 3PK	-	928601179601	MP1000/BU 6PK	-
928601157903	MP400/BU 6 PK	-			

### Operating and Electrical (1/2)

Order Code	Full Product Name	Lamp Current (EM)			Power (Rated)		Power (Rated)	
		Lamp Current (Nom)	(Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)	(Max)	(Min)
928485900191	MH 100W/640 E26 CL 1SL/24	-	1.1 A	110 V	90 V	100 V	- W	- W
928485900194	MH 100W/640 E26 CL	-	1.1 A	110 V	90 V	100 V	- W	- W
928601122312	MH175/U/M 3PK	1.5 A	-	147 V	117 V	132 V	-	-
928601157903	MP400/BU 6 PK	3.25 A	-	150 V	120 V	135 V	-	-
928601179201	MP360/BU/EW 6PK	3.25 A	-	130 V	110 V	120 V	-	-
928601161903	MP250/BU 12PK	2.1 A	-	148 V	118 V	133 V	-	-
928601179601	MP1000/BU 6PK	4.1 A	-	-	-	263 V	-	-

### Operating and Electrical (2/2)

Order Code	Full Product Name	Power (Rated) (Nom)	Re-Ignition Time		Order Code	Full Product Name	Power (Rated) (Nom)	Re-Ignition Time	
			(Min)	(Max)				(Min)	(Max)
928485900191	MH 100W/640 E26 CL 1SL/24	106 W	-	-	928601179201	MP360/BU/EW 6PK	-	-	15 min
928485900194	MH 100W/640 E26 CL	106 W	-	-	928601161903	MP250/BU 12PK	-	-	15 min
928601122312	MH175/U/M 3PK	-	15 min	-	928601179601	MP1000/BU 6PK	-	-	15 min
928601157903	MP400/BU 6 PK	-	15 min	-					

### General Information

Order Code	Full Product Name	Cap-Base	Life To 50% Failures (Nom)	Life To 5% Failures (Nom)	Main Application	Operating Position	System Description
928485900191	MH 100W/640 E26 CL 1SL/24	E26	15000 h	2000 h	-	H	-
928485900194	MH 100W/640 E26 CL	E26	15000 h	2000 h	-	H	-
928601122312	MH175/U/M 3PK	E26	10000 h	-	General Lighting (G)	UNIVERSAL	-
928601157903	MP400/BU 6 PK	EX39	20000 h	-	General Lighting (G)	H15	-
928601179201	MP360/BU/EW 6PK	EX39	20000 h	-	General Lighting (G)	UNIVERSAL	-
928601161903	MP250/BU 12PK	EX39	10000 h	-	General Lighting (G)	H15	-
928601179601	MP1000/BU 6PK	EX39	12000 h	-	General Lighting (G)	H15	-

### Luminaire Design Requirements

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Order Code	Full Product Name	Bulb Temperature (Max)
928485900191	MH 100W/640 E26 CL 1SL/24	450 °C
928485900194	MH 100W/640 E26 CL	450 °C
928601122312	MH175/U/M 3PK	450 °C
928601157903	MP400/BU 6 PK	400 °C

Order Code	Full Product Name	Bulb Temperature (Max)
928601179201	MP360/BU/EW 6PK	400 °C
928601161903	MP250/BU 12PK	400 °C
928601179601	MP1000/BU 6PK	430 °C

### Light Technical (1/2)

Order Code	Full Product Name	Chromaticity	Chromaticity	Color Code	Color Designation	Correlated Color		
		Coordinate X (Nom)	Coordinate Y (Nom)			Temperature (Max)	Correlated Color Temperature (Min)	Correlated Color Temperature (Nom)
928485900191	MH 100W/640 E26 CL 1SL/24	385	390	640	Cool White (CW)	-	-	4000 K
928485900194	MH 100W/640 E26 CL	385	390	640	Cool White (CW)	-	-	4000 K
928601122312	MH175/U/M 3PK	0.385	0.390	640	Cool White (CW)	-	-	4000 K
928601157903	MP400/BU 6 PK	385	390	640	Cool White (CW)	-	-	4000 K
928601179201	MP360/BU/EW 6PK	385	390	640	Cool White (CW)	-	-	4000 K
928601161903	MP250/BU 12PK	395	395	640	Cool White (CW)	-	-	3800 K
928601179601	MP1000/BU 6PK	405	390	635	White (WH)	- K	- K	3500 K

### Light Technical (2/2)

Order Code	Full Product Name	Color	Lumen	Lumen	Lumen	Luminous	Luminous	Design	Luminous	Luminous
		Rendering Index (Nom)	Maintenance 10000 h (Nom)	Maintenance 2000 h (Nom)	Maintenance 5000 h (Nom)	Efficacy (rated) (Min)	Efficacy (rated) (Nom)	Mean Lumens	Flux (Rated) (Min)	Flux (Rated) (Nom)
928485900191	MH 100W/640 E26 CL 1SL/24	65	55 %	70 %	62 %	-	85 lm/W	-	7200 lm	9000 lm
928485900194	MH 100W/640 E26 CL	65	55 %	70 %	62 %	-	85 lm/W	-	7200 lm	9000 lm
928601122312	MH175/U/M 3PK	65	-	-	-	70 lm/W	80 lm/W	9100 lm	-	14000 lm
928601157903	MP400/BU 6 PK	65	-	-	-	-	100 lm/W	26600 lm	-	40000 lm
928601179201	MP360/BU/EW 6PK	65	-	-	-	-	100 lm/W	23400 lm	-	36000 lm
928601161903	MP250/BU 12PK	62	-	-	-	77 lm/W	86 lm/W	16500 lm	19350 lm	21500 lm
928601179601	MP1000/BU 6PK	65	-	-	-	-	107 lm/W	69550 lm	-	107000 lm

### Mechanical and Housing

Order Code	Full Product Name	Bulb Material	Bulb Shape
928485900191	MH 100W/640 E26 CL 1SL/24	-	ED-17
928485900194	MH 100W/640 E26 CL	-	ED-17
928601122312	MH175/U/M 3PK	Hard Glass	BD-17
928601157903	MP400/BU 6 PK	Hard Glass	ED-37

Order Code	Full Product Name	Bulb Material	Bulb Shape
928601179201	MP360/BU/EW 6PK	Hard Glass	BT-37
928601161903	MP250/BU 12PK	Hard Glass	ED-28
928601179601	MP1000/BU 6PK	Hard Glass	BT-56

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