



# High Pressure Metal Halide Lamps

## Double-Ended Metal Halide

With their excellent color rendering properties, these High Pressure Metal Halide Lamps are ideal light sources for accent lighting in indoor applications. The outer bulb of the double-ended metal halide lamp is made of heat-resistant quartz. The double-ended construction, in combination with the small tubular quartz outer envelope, makes it possible to use these lamps in small luminaires with special optics.

### Benefits

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### Features

- Immediate re-ignition is possible with special ignitors generating 25kV.
- Available in Color temperatures of 4000K and 4200K.
- Available in 1800W.

### Application

- Ideal for use in small luminaires.

### 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)

# Double-Ended Metal Halide

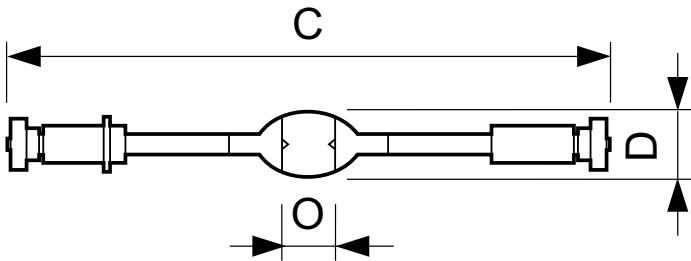
## Versions



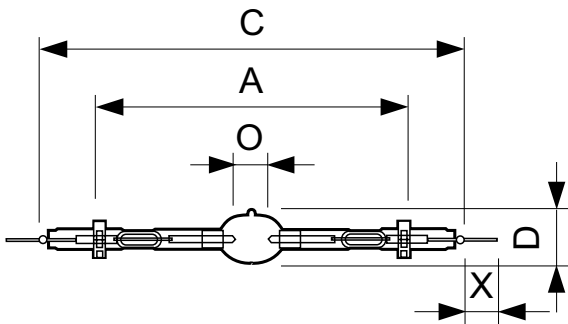
MHN-SA, (P)SFC

MHN-SA, X830R

## Dimensional drawing



Product	D (max)	O	C (max)
MASTER MHN-SA 1800W/956 (P)SFC 230V	41 mm	25 mm	364 mm



Product	D (max)	O	X	A	C (max)
MASTER MHN-SA 2000W/956 400V XW HO UNP/1	41 mm	25 mm	34 mm	226 mm	369 mm

# Double-Ended Metal Halide

## Approval and Application

Energy Efficiency Label (EEL) A+

## Controls and Dimming

Dimmable No

## General Information

Operating Position P15

## Light Technical

Chromaticity Coordinate X (Nom) 330

Color Code 956

Color Designation Daylight

Correlated Color Temperature (Nom) 5600 K

## Mechanical and Housing

Bulb Finish Clear

Bulb Shape TD40

## Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/	Mercury (Hg)
		1000 h	Content (Nom)
928078415130	MASTER MHN-SA 1800W/956 (P)SFC 230V	1980 kWh	92 mg
928195105129	MASTER MHN-SA 2000W/956 400V XW HO UNP/1	2305 kWh	215 mg

## Operating and Electrical (1/2)

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
928078415130	MASTER MHN-SA 1800W/956 (P)SFC 230V	17.3 A	130 V	110 V	120 V

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
928195105129	MASTER MHN-SA 2000W/956 400V XW HO UNP/1	11.8 A	220 V	185 V	205 V

## Operating and Electrical (2/2)

Order Code	Full Product Name	Power (Rated) (Nom)
928078415130	MASTER MHN-SA 1800W/956 (P)SFC 230V	1800.0 W
928195105129	MASTER MHN-SA 2000W/956 400V XW HO UNP/1	2095.0 W

## General Information (1/2)

Order Code	Full Product Name	Cap-Base	Life To 10%	Life To 20%	Life To 50%
			Failures (Nom)	Failures (Nom)	Failures (Nom)
928078415130	MASTER MHN-SA 1800W/956 (P)SFC 230V	(P)SFC	2000 h	3200 h	6100 h

Order Code	Full Product Name	Cap-Base	Life To 10%	Life To 20%	Life To 50%
			Failures (Nom)	Failures (Nom)	Failures (Nom)
928195105129	MASTER MHN-SA 2000W/956 400V XW HO UNP/1	X830R	2300 h	3000 h	5000 h

## General Information (2/2)

Order Code	Full Product Name	Life To 5% Failures (Nom)
928078415130	MASTER MHN-SA 1800W/956 (P)SFC 230V	1300 h
928195105129	MASTER MHN-SA 2000W/956 400V XW HO UNP/1	1700 h

# Double-Ended Metal Halide

## Luminaire Design Requirements

Order Code	Full Product Name	Bulb Temperature (Max)
928078415130	MASTER MHN-SA 1800W/956 (P)SFC 230V	980 °C
928195105129	MASTER MHN-SA 2000W/956 400V XW HO UNP/1	1015 °C

## Light Technical (1/2)

Order Code	Full Product Name	Color			
		Chromaticity Coordinate Y (Nom)	Rendering Index (Nom)	Lumen Maintenance 1000 h (Nom)	Lumen Maintenance 2000 h (Nom)
928078415130	MASTER MHN-SA 1800W/956 (P)SFC 230V	339	86	95 %	91 %
928195105129	MASTER MHN-SA	366	81	96.5 %	92.5 %

Order Code	Full Product Name	Color			
		Chromaticity Coordinate Y (Nom)	Rendering Index (Nom)	Lumen Maintenance 1000 h (Nom)	Lumen Maintenance 2000 h (Nom)
	2000W/956 6 400V XW HO UNP/1				

## Light Technical (2/2)

Order Code	Full Product Name	Lumen Maintenance	Luminous Efficacy (rated)	Luminous Flux (Rated)
		5000 h (Nom)	(Nom)	(Nom)
928078415130	MASTER MHN-SA 1800W/956 (P)SFC 230V	76 %	86 lm/W	155000 lm

Order Code	Full Product Name	Lumen Maintenance	Luminous Efficacy (rated)	Luminous Flux (Rated)
		5000 h (Nom)	(Nom)	(Nom)
928195105129	MASTER MHN-SA 2000W/956 400V XW HO UNP/1	78 %	108 lm/W	226000 lm

