

Germicidal Lamps



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how to read a table

Watts
Energy consumption during proper operation.

Voltage
The voltage for proper operation.

Current
A measure of the rate of flow of electricity, expressed in amperes (A).

Average Life
An average rating, in hours, indicating when 50% of a large group of lamps, operated at nominal lamp voltage and current, have failed.

Base
The type of base.

Case Qty.
Number of product units packed in a case.

Spectral Peak
The peak of the germicidal effectiveness curve, effectiveness for UV absorption by DNA

Watts	Bulb	Base	Item#	Description	Voltage (V)	Case Qty.	Dimension MOL (in)	Dia (in)	Current (A)	Spectral Peak (nm)	UV Output (W)	Avg. Life (Hours)	Manufacture Production Code
T5 - Miniature Bi-Pin G5 Base													
4	T5	G5	5000	G4T5	29	50	5.30	0.61	0.170	253.70	0.80	6000	U04050502901
6	T5	G5	*5007	G6T5	42	50	8.29	0.61	0.160	253.70	1.80	8000	U06050504201
7	T5	G5	*5008	G7T5	30	50	6.50	0.61	0.230	253.70	1.60	8000	U07050503001
8	T5	G5	*5009	G8T5	57	50	11.30	0.61	0.145	253.70	2.20	8000	U08050505701
11	T5	G5	*5010	G11T5	37	50	8.29	0.61	0.330	253.70	2.20	8000	U11050503701
16	T5	G5	*5011	G16T5	50	50	11.30	0.61	0.350	253.70	3.20	8000	U16050505001
20	T5	G5	*5012	G20T5	62	50	15.75	0.61	0.400	253.70	5.50	8000	U20050506201

Bulbs
Code for size and shape. Illustrations can be found on the bottom of each page and the beginning of each chapter.

Description
The lamp's identification code.

Dia
Maximum overall diameter in inches.

Manufacture Production Code
Production code during the manufacturing process.

Item
Use this code when placing an order.

MOL
Maximum overall length in inches.

UV Output
UV output intensity indicated in watt.

GERMICIDAL LAMPS

Germicidal action

UV-action

Ultraviolet radiation in the 200-300 nanometer (nm) range is extremely effective in killing microorganisms such as airborne and surface bacteria, viruses, yeasts and molds.

Plusrite low-pressure, mercury-arc germicidal lamps are specially designed to produce the highest amounts of UV radiation - typically about 90% of the total rated energy is at 253.70nm. This radiation is very close to the peak of the germicidal effectiveness curve of 265nm, the most lethal wavelength to microorganisms. Our germicidal lamps are used extensively in air and water purification applications such as in the food and beverage industry, medical applications, and in HVAC systems (Heating, Ventilating, and Air Conditioning), pharmaceutical and semiconductor sterilization applications. In addition, they are used in drinking water, waste water and ground water remediation.

Ozone Action

Our "VH" germicidal lamps generate energy at 185nm in addition to the 253.70nm line. This UV emission produces abundant amounts of ozone in air. Ozone is an extremely active oxidizer. It destroys microorganisms on contact and acts as a deodorizer. One of its primary advantages is that it can be carried by air into places that the UV radiation cannot directly reach. We design and manufacture lamps to produce various amounts of ozone to meet specific application requirements. "VH" lamps are typically used in the treatment of air, pool and spa water, T.O.C. (Total Organic Compound) reduction, and HVAC.

Advantages of UV-Radiation

- Environmentally friendly, no dangerous chemicals to handle or store, no problems of overdosing.
- Low initial capital cost and reduced operating expenses when compared with other technologies such as chemical processing.
- Immediate treatment process, no need for holding tanks, long retention times.
- No chemicals added to water supply; no by-products.
- No change in taste, odor, pH, conductivity or the general chemistry of the water.
- Simplicity and ease of maintenance, periodic cleaning (if applicable) and annual lamp replacement.
- Highly compatible with other water and air treatment processes.

Quartz Germicidal Lamps

The type of fused quartz used to make the envelope or bulb of the germicidal lamp determines the emission of the wavelengths of UV energy that react with the oxygen in the air to produce ozone. The relative amount of ozone generating energy at 185nm is indicated by the letters "L" and "VH". "L" lamps are made with a specially doped fused quartz that prohibits the emission of the energy at 185nm. "VH" lamps are made with clear fused quartz which will transmit both the 254nm and 185nm energy. In applications where a moderate amount of ozone may be required, we can splice the two types of quartz together in a ratio to produce the desired amount of ozone*. *Ozone generation is the result of a complex reaction of the oxygen in the air to the presence of radiation at 185nm. Other factors influencing ozone production include: temperature, relative humidity, air flow, dew point, UV intensity, etc. The actual amount of ozone generated will depend on the above factors as well as the actual system design.

R

WARNING

ULTRAVIOLET RADIATION EXPOSURE:

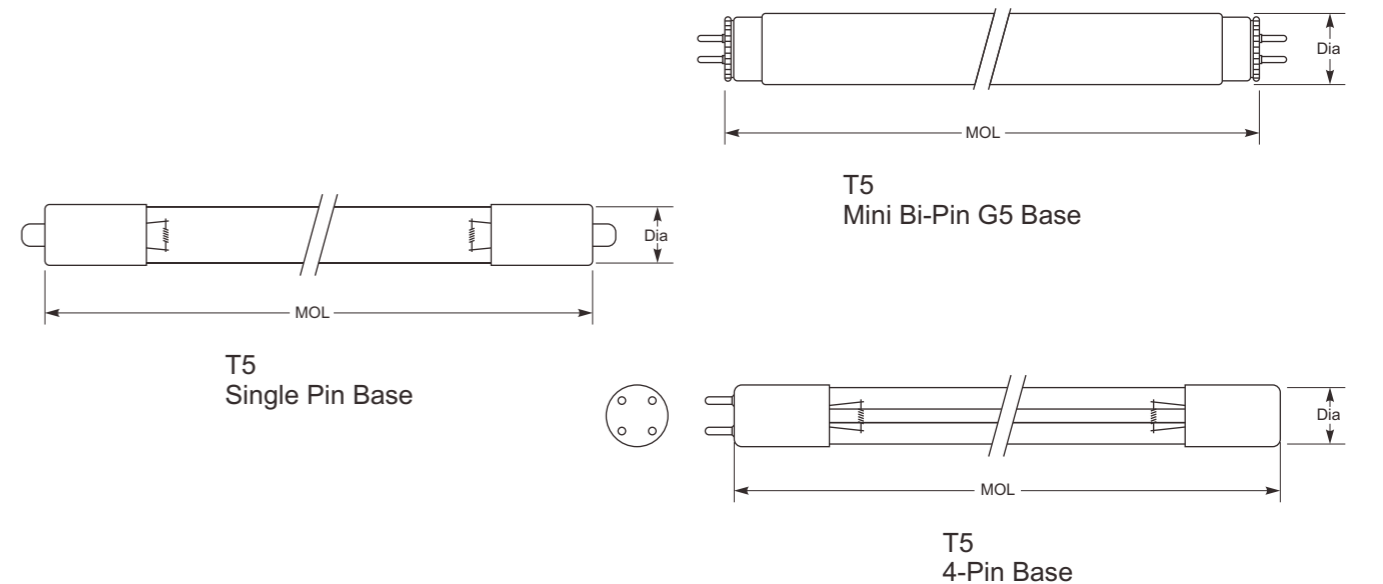
WARNING: This lamp can cause serious skin burn and eye inflammation from short wave ultraviolet radiation if the outer envelope of the lamps is broken or punctured. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available. This products conforms to the following federal regulations: U.S.A: 21 CFR 1040.30 and CANADA: SOR/80-381

GERMICIDAL LAMPS

Watts	Bulb	Base	Item#	Description	Voltage (V)	Case Qty.	Dimension MOL (in)	Dia (in)	Current (A)	Spectral Peak (nm)	UV Output (W)	Avg.Life (Hours)	Manufacture Production Code
T5 - Miniature Bi-Pin G5 Base													
4	T5	G5	5000	G4T5	29	50	5.30	0.61	0.170	253.70	0.80	6000	U04050502901
6	T5	G5	*5007	G6T5	42	50	8.29	0.61	0.160	253.70	1.80	8000	U06050504201
7	T5	G5	*5008	G7T5	30	50	6.50	0.61	0.230	253.70	1.60	8000	U07050503001
8	T5	G5	*5009	G8T5	57	50	11.30	0.61	0.145	253.70	2.20	8000	U08050505701
11	T5	G5	*5010	G11T5	37	50	8.29	0.61	0.330	253.70	2.20	8000	U11050503701
16	T5	G5	*5011	G16T5	50	50	11.30	0.61	0.350	253.70	3.20	8000	U16050505001
20	T5	G5	*5012	G20T5	62	50	15.75	0.61	0.400	253.70	5.50	8000	U20050506201
T5 - Single Pin													
10	T5	Single Pin	*5013	G10T5L	40	50	14.06	0.61	0.400	253.70	3.00	8000	U10050104001
14	T5	Single Pin	*5014	G14T5L	55	50	11.30	0.61	0.425	253.70	5.30	9000	U14050105501
22	T5	Single Pin	*5015	G22T5L	62	50	17.16	0.61	0.420	253.70	7.00	8000	U22050106201
36	T5	Single Pin	*5016	G36T5L	115	50	33.31	0.61	0.425	253.70	13.00	9000	U36050111501
64	T5	Single Pin	*5017	G64T5L	250	50	61.17	0.61	0.425	253.70	127.00	9000	U64050125001
T5 - 4-Pin Base													
10	T5	4-Pin	*5018	G10T5L/4P	40	50	14.06	0.61	0.400	253.70	3.00	8000	U10050404001
14	T5	4-Pin	*5019	G14T5L/4P	55	50	11.30	0.61	0.425	253.70	5.30	9000	U14050405501
22	T5	4-Pin	*5020	G22T5L/4P	62	50	17.16	0.61	0.420	253.70	7.00	8000	U22050406201
36	T5	4-Pin	*5021	G36T5L/4P	115	50	33.31	0.61	0.425	253.70	13.00	9000	U36050411501
64	T5	4-Pin	*5022	G64T5L/4P	250	50	61.17	0.61	0.425	253.70	127.00	9000	U64050425001

* Items only available for special orders

All measurements are shown in inches unless noted
 Manage in Accordance with Disposal Laws
 See: www.lamprecycle.org or 1-888-529-6660
 See page 91 for safety handling and warning purposes



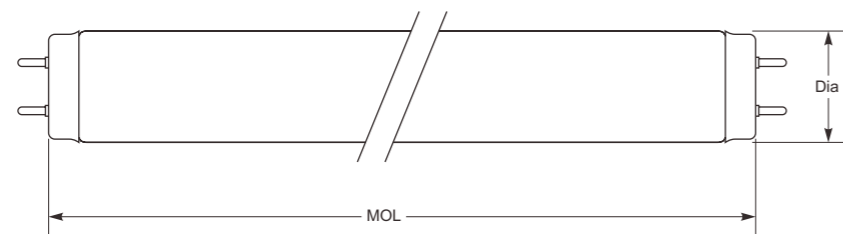
GERMICIDAL LAMPS

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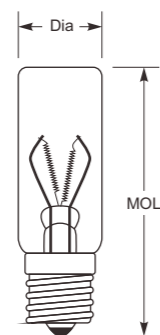
Watts	Bulb	Base	Item#	Description	Voltage (V)	Case Qty.	Dimension MOL (in)	Dimension Dia (in)	Current (A)	Spectral Peak (nm)	UV Output (W)	Avg.Life (Hours)	Manufacture Production Code
T8 - Medium Bi-Pin G13 Base													
10	T8	G13	5023	G10T8	46	15	12.99	1.00	0.230	253.70	2.70	8000	U10081304601
15	T8	G13	5001	G15T8	55	15	17.16	1.00	0.305	253.70	4.90	8000	U15081305501
25	T8	G13	*5024	G25T8	46	15	17.16	1.00	0.600	253.70	6.90	8000	U25081304601
30	T8	G13	5002	G30T8	99	15	35.16	1.00	0.355	253.70	13.90	8000	U30081309901
55	T8	G13	*5025	G55T8	83	15	35.16	1.00	0.770	253.70	18.00	8000	U55081308301
T10 - G13 Base													
20	T10	G13	*5026	G20T10	58	15	23.17	1.28	0.360	253.70	7.50	8000	U20101305801
40	T10	G13	*5027	G40T10	106	15	47.17	1.28	0.420	253.70	19.80	8000	U40101310601
E17 Base													
3		E17	5003	GTL3	10.5	15	2.48	0.79	0.300	253.70	0.16	3000	U03031701001

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T8 & T10
Med Bi-Pin G13 Base



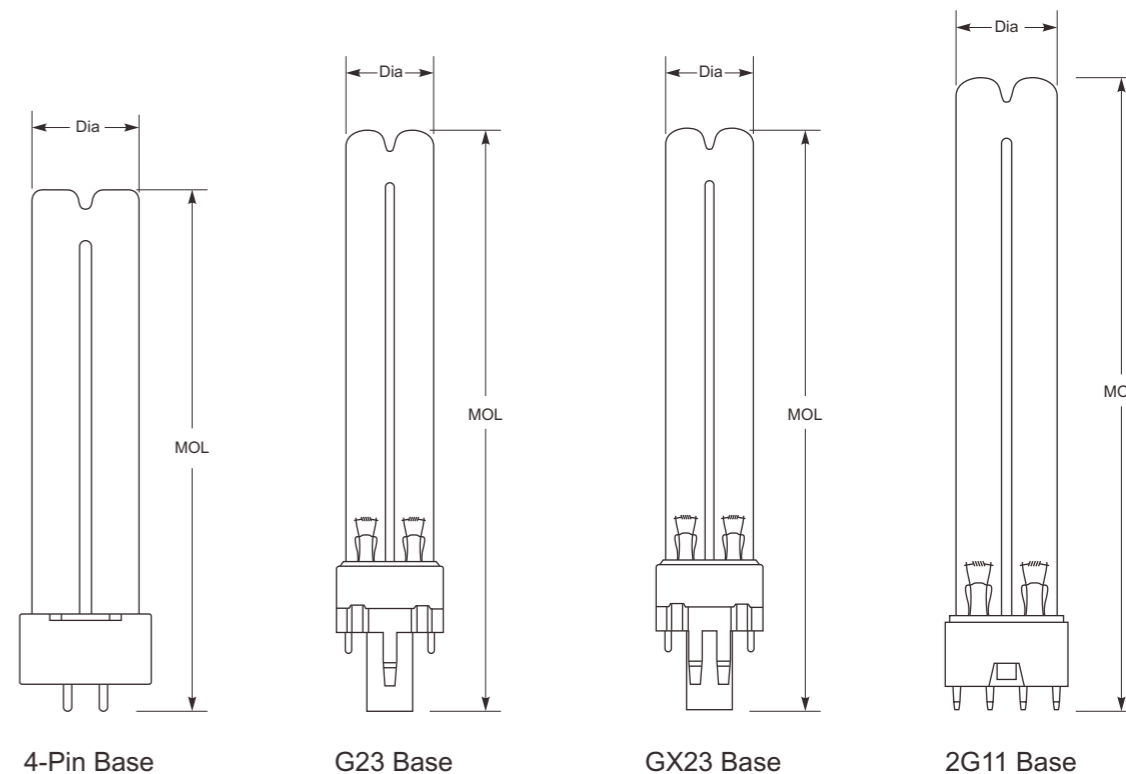
E17 Base

GERMICIDAL LAMPS

Watts	Bulb	Base	Item#	Description	Voltage (V)	Case Qty.	Dimension MOL (in)	Dimension Dia (in)	Current (A)	Spectral Peak (nm)	UV Output (W)	Avg.Life (Hours)	Manufacture Production Code
H - Shaped 4-Pin Base													
6	PL	4-Pin	*5028	GUL6	42	15	4.41	1.38	0.160	253.70	1.60	3000	U06020404201
H - Shaped G23/GX23 Base													
5	PL	G23	*5029	GPX5	35	15	3.35	1.10	0.180	253.70	1.20	8000	U05022303501
7	PL	G23	*5030	GPX7	45	15	4.53	1.10	0.180	253.70	1.90	8000	U07022304501
9	PL	G23	5004	GPX9	59	15	5.71	1.10	0.180	253.70	2.40	8000	U09022305901
11	PL	G23	*5031	GPX11	91	15	8.46	1.10	0.155	253.70	3.00	8000	U11022309101
13	PL	GX23	*5032	GPX13	59	15	6.59	1.10	0.285	253.70	3.60	8000	U13022305901
H - Shaped 2G11 Base													
18	PL	2G11	5005	GPL18K	58	15	8.86	1.57	0.375	253.70	5.50	8000	U18021105801
36	PL	2G11	5006	GPL36K	106	15	16.34	1.57	0.435	253.70	12.00	8000	U36021110601

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4-Pin Base

G23 Base

GX23 Base

2G11 Base

CROSS REFERENCE GUIDE

Metal Halide Pulse Start Magnetic Ballast

Item No	Plusrite Description	Venture Product No	Advance Product No	Universal Product No
175W Metal Halide Pulse Start Lamp	M137/M152			
	BAPS175-CWAV4	V90D7211		P175MLTAC3L
	BAPS175-CWAV3	V90J7210	71A55A3-500D	P175TRIAC3M
200W Metal Halide Pulse Start Lamp	M136			
	BAPS200-CWAV4	V90D7312		
	BAPS200-CWAV3	V90J7310	71A56A2-500D	P200TRIAC4M
250W Metal Halide Pulse Start Lamp	M153			
	BAPS250-CWAV4	V90D8411		P250MLTAC40
	BAPS250-CWAV3	V90J8410	71A57A2-500D	P250TRIAC4M
320W Metal Halide Pulse Start Lamp	M132/M154			
	BAPS320-CWAV4	V90D7413		P320MLTAC40
	BAPS320-CWAV3	V90J7411	71A58A2-500D	P320TRIAC4M
	BAPS320-HXV4	V90D7430		
	BAPS320-HXV3	V90J7430		
350W Metal Halide Pulse Start Lamp	M131			
	BAPS350-CWAV4	V90D7512	71A5993-001D	P350MLTAC4M
	BAPS350-CWAV3	V90J7512	71A59A3-500D	P350TRIAC4M
	BAPS350-HXV4	V90D7530		
	BAPS350-HXV3	V90J7530		
400W Metal Halide Pulse Start Lamp	M135/M155			
	BAPS400-CWAV4	V90D7612	71A6092-001D	
	BAPS400-CWAV3	V90J7612	71A60A2-500D	P400TRIAC4M
450W Metal Halide Pulse Start Lamp	M144			
	BAPS450-CWAV4	V90D8512	71A6393-500D	P450MLTAC4M
	BAPS450-CWAV3	V90J8511	71A63A3-500D	P450TRIAC4M
575W Metal Halide Pulse Start Lamp	M178			
	BAPS575-HXV4	V90D5530		
750W Metal Halide Pulse Start Lamp	M149			
	BAPS750-CWAV4	V90D7910	71A64E2-500D	P750MLTAC5M
	BAPS750-CWAV3	V90J7910	71A64F2-500D	P750TRIAC5M
	BAPS750-CWAV480	V90Y7910T	71A64F2-500DT	P75048TAC5M
1000W Metal Halide Pulse Start Lamp	M141			
	BAPS1000-CWAV4	V90D7810	71A6593-500	M1000MLTAC5M
	BAPS1000-CWAV3	V90J7810	71A65F3-500T	M1000TRIAC5M
	BAPS1000-CWAV480	V90Y7811T		M100048TAC5M

CROSS REFERENCE GUIDE

Metal Halide Magnetic Ballast

Item No	Plusrite Description	Venture Product No	Advance Product No	Universal Product No
50W Metal Halide Lamp	M110			
	BAMH50-HXV4	V90D5731	71A5181-500D	M50MLTLC3M
	BAMH50-HXV3	V90J5731		M50TRILC3M
70W Metal Halide Lamp	M98			
	BAMH70-HXV4	V90D5833		M70MLTLC3M
	BAMH70-HXV3	V90J5832	71A52A2-001D	M70TRILC3M
100W Metal Halide Lamp	M90			
	BAMH100-HXV4	V90D5932	71A5390-001D	M100MLTLC3M
	BAMH100-HXV3	V90J5932	71A53A0-001D	M100TRILC3M
125W Metal Halide Lamp	M150			
	BAMH125-CWAV4	V90D8812		
	BAMH125-CWAV3	V90J8811		
150W Metal Halide Lamp	M102			
	BAMH150-HXV4	V90D7130	71A5492-500D	M150MLTLC3M
	BAMH150-HXV3	V90J7130	71A54A2-500D	M150TRILC3M
175W Metal Halide Lamp	M57			
	BAMH175-CWAV4	V90D6112		M175MLTAC3M
	BAMH175-CWAV3	V90J6112		M175TRIAC30
250W Metal Halide Lamp	M58			
	BAMH250-CWAV4	V90D6211	71A5771-001D	M250MLTAC3M
	BAMH250-CWAV3	V90J6211	71A57A0-001D	M250TRIAC3M
	BAMH250-CWAV4	V90D6215		M250MLTAC4M
	BAMH250-CWAV3S	V90J6212	71A57A0-001D	M250TRIAC4M
400W Metal Halide Lamp	M59			
	BAMH400-CWAV4	V90D6414		M400MLTAC4M
	BAMH400-CWAV3	V90J6413	71A60A1-001D	M400TRIAC4M
1000W Metal Halide Lamp	M47			
	BAMH1000-CWAV4			
	BAMH1000-CWAV3	V90J6514	71A65A2-001	M1000TRIAC5M
	BAMH1000-CWAV480	V90Y6517T		M100048TAC5M
1500W Metal Halide Lamp	M48			
	BAMH1500-CWAV4	V90D6612	71A6772-001	M1500MLTAC5M

CROSS REFERENCE GUIDE

High Pressure Sodium Magnetic Ballast

Item No	Plusrite Description	Venture Product No	Advance Product No	Universal Product No
35W High Pressure Sodium Lamp	S76			
	BALU35-HPF/V120	V90B1020	71A7707-001DB	1233251W
50W High Pressure Sodium Lamp	S68			
	BALU50-HX/V2	V90H1132	71A7801-001D	S50MLTLC3M
70W High Pressure Sodium Lamp	S62			
	BALU70-HX/V4	V90D1233	71A7971-001D	S70MLTLC3M
	BALU70-HX/V3	V90J1232	71A79A1-001D	S70TRILC3M
100W High Pressure Sodium Lamp	S54			
	BALU100-HX/V4	V90D1333	71A8071-001D	S100MLTLC3M
	BALU100-HX/V3	V90J1332	71A80A1-001D	S100TRILC3M
150W High Pressure Sodium Lamp	S55			
	BALU150-HX/V4	V90D1435	71A8172-001D	S150MLTLC3M
	BALU150-HX/V3	V90J1434	71A81A2-001D	S150TRILC3M
200W High Pressure Sodium Lamp	S66			
	BALU200-CWA/V4			
250W High Pressure Sodium Lamp	S50			
	BALU250-CWA/V4	V90D1711	71A8271-001D	S250MLTAC4M
	BALU250-CWA/V3	V90J1711	71A82A1-001D	S250TRIC4M
400W High Pressure Sodium Lamp	S51			
	BALU400-CWA/V4	V90D1912	71A8473-001D	S400MLTAC4M
	BALU400-CWA/V3	V90J1911	71A84A3-001D	S400TRIC4M
	BALU400-CWA/V480	V90Y1912T	71A8443-001D	S40048TAC4M
600W High Pressure Sodium Lamp	S106			
	BALU600-CWA/V4	V90D2111		S600MLTAC5M
1000W High Pressure Sodium Lamp	S52			
	BALU1000-CWA/V4	V90D2311	71A8773-001	S1000MLTAC5M
	BALU1000-CWA/V3	V90J2310	71A87A3-001	S1000TRIC5M
	BALU1000-CWA/V480	V90Y2311T	71A8743-001	S100048TAC5M

