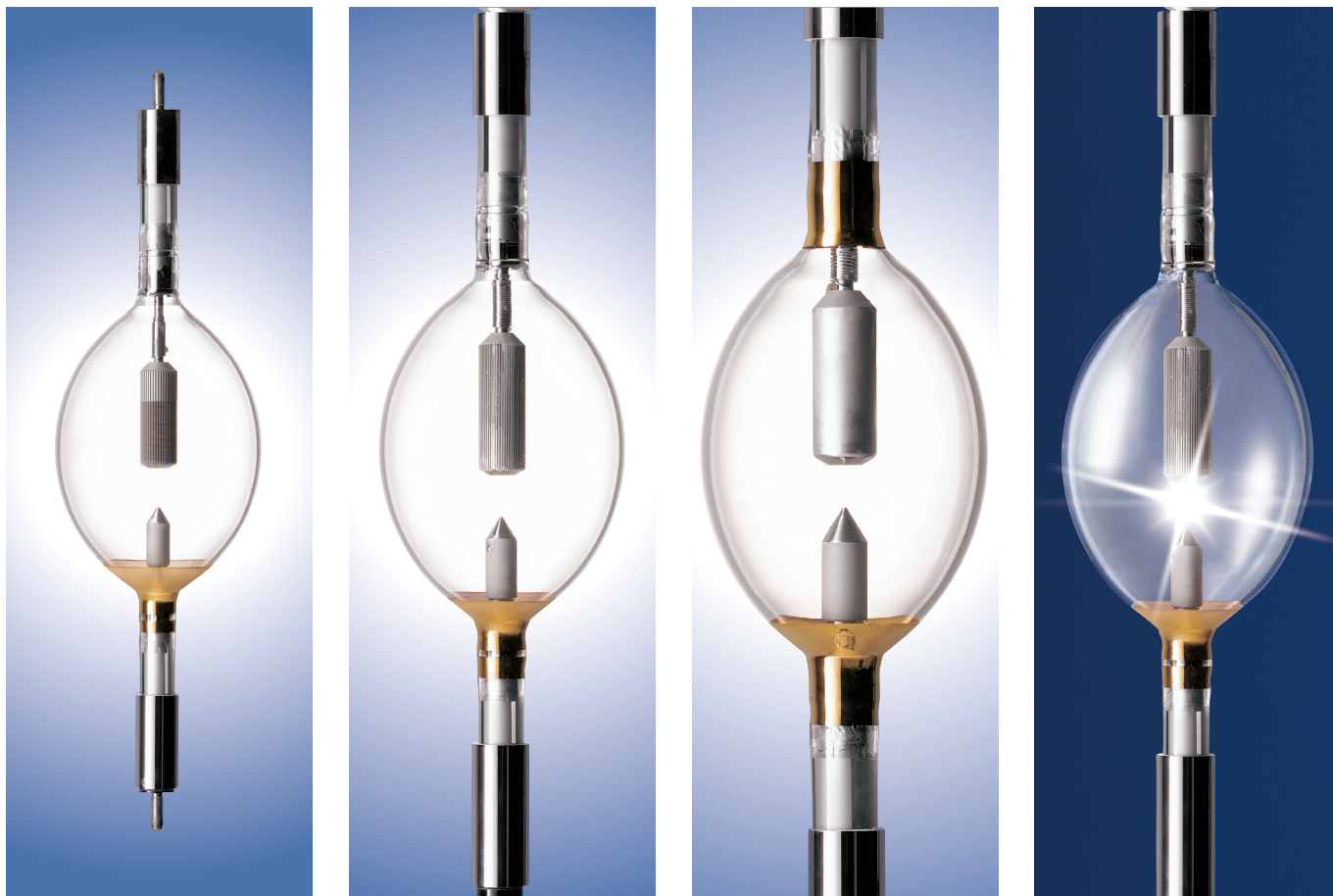


SUPER HIGH PRESSURE SHORT ARC UV LAMPS

ショートアーク UV ランプ

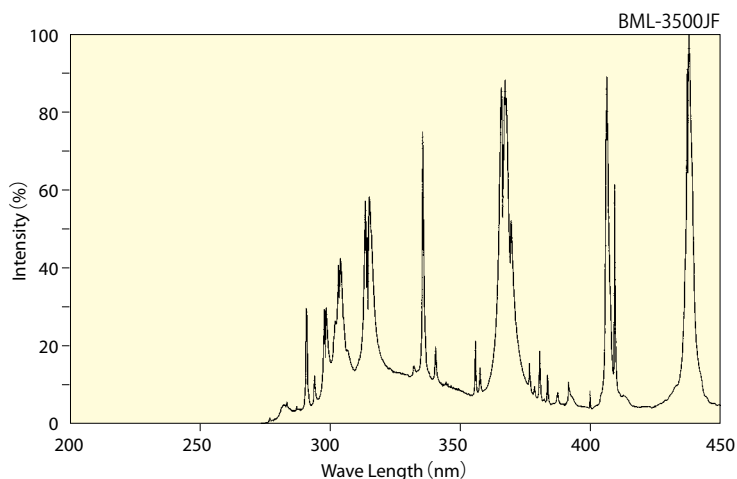


WACOM presents UV light sources to realize higher precision in the electronic device field and large-sized display panels in the display panel field.

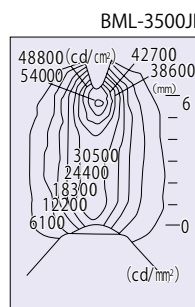
WACOM super high pressure Short Arc UV lamp is used as UV light source for semiconductor manufacturing systems (exposure system) such as a semiconductor device, display panel and printed wiring boards. Being a point light source of high luminance, this lamp radiates emission line spectrum of 365nm, 405nm, and 436nm, which are necessary for exposure.

当社では、先端メモリ LSI・ロジック LSI などの半導体デバイス製造分野における配線パターン形成、先端半導体パッケージサブストレートや多層ビルドアップ基板などのプリント配線板製造分野におけるファイン配線パターン形成、TFT-LCD や LCD 用カラーフィルター・プラズマディスプレイ・有機 EL ディスプレイなどのフラットパネルディスプレイ製造分野におけるファイン配線パターン形成、その他電子デバイス製造分野で使用されている平行光露光装置用ショートアーク UV ランプを幅広く取り揃えております。

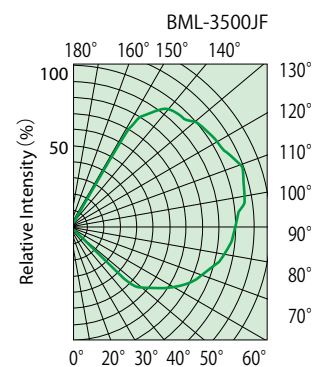
■ Spectral distribution of radiation



■ Luminance distribution in Arc



■ Luminous intensity distribution

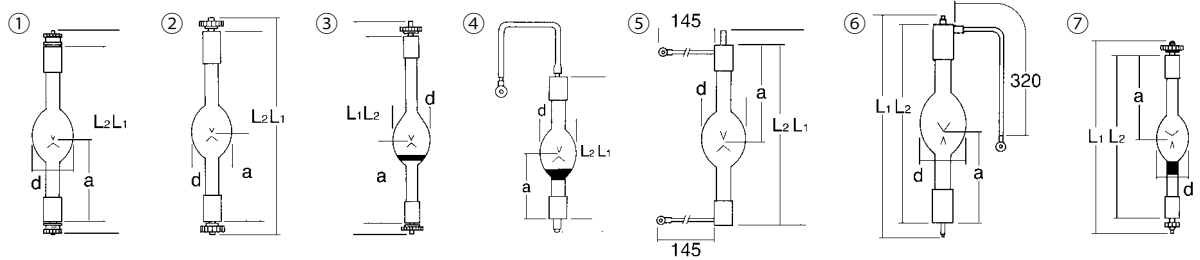


Super High Pressure Short Arc UV Lamps For Semiconductor Manufacturing (半導体回路形成用光源)

Specification Model	Wattage (W)	Voltage (V)	Current (A)	Average Life * 1 (h)	Gap cold	L ₁ max (mm)	L ₂ max (mm)	a (mm)	d (mm)	Metal Base		Figure No.
										Anode	Cathode	
BMI-200D1	200	56	3.6	1,000	2.0	121	99	41	φ 17	φ 10 NO.8-32	φ 10 NO.8-32	①
BML-250D3	250	40	6.3	1,000	2.0	152	125	62	φ 20	UNC φ 13	UNC φ 13	②
BML-250D4	250	40	6.3	600	2.0	152	125	62	φ 20	M5-P0.8 φ 13	M5-P0.9 φ 13	②
BMI-350D1	350	60	6.0	1,000	3.0	128	103	47.5	φ 20	M5-P0.9 φ 10	M5-P0.9 φ 10	①
BML-350DP	350	60	6.0	1,000	2.9	122	101	48	φ 20	NO.8-32 UNC	NO.8-32 UNC	①
BMO-500D1	500	77.5	6.5	600	4.8	165	141	68	φ 27.5	φ 10 NO.8-32	φ 10 NO.8-32	②
BMO-500DM	500	60	8.5	600	4.1	190	160	75	φ 29	UNC φ 13	UNC φ 13	②
BMO-500S	500	52.5	9.5	600	3.1	165	142	68	φ 28	M4-P0.7 φ 13	M4-P0.7 φ 13	②
BML-1000DSF	1,000	38	28	600	3.0	240	206	91	φ 40	φ 15 M6-P1.0	φ 15 M6-P1.0	③
BMO-1002DF1	1,000	80	12.5	400	4.2	288	248	114	φ 38	φ 15 M6-P1.0	φ 15 M6-P1.0	③
BML-1003FAL	700/1,000	47	16	1,500	3.0	205	192	104	φ 30	φ 19 φ 9.6 pin	φ 15	④
BMO-2001S	2,000	37	54	1,000	3.0	290	265	140	φ 62	φ 27	φ 27 φ 10 pin	⑤
BMO-2002SA	2,000	37	54	750	3.0	332	270	140	φ 62	φ 27 HEX M8-P1.25	φ 27 M8-P1.25	③

Super High Pressure Short Arc Deep UV Lamps (半導体回路形成用短波長光源ランプ)

Specification Model	Wattage (W)	Voltage (V)	Current (A)	Average Life * 1 (h)	Dimensions of Luminous Area (mm)	L ₁ max (mm)	L ₂ max (mm)	a (mm)	d (mm)	Base		Figure No.
										Anode	Cathode	
KXM-501A	500	25	20	600	3.0	180	150	80	φ 29	φ 13 M5-P0.9	φ 13 M5-P0.9	⑦
KXM-501D	500	25	20	600	3.0	180	150	80	φ 29	φ 13 M5-P0.9	φ 13 M5-P0.9	⑦
KXM-5000MF	5,000	50	100	750	7.5	360	318	143.5	φ 80	φ 33.5 φ 9.4 pin	φ 33.5 φ 7.85 pin	⑥

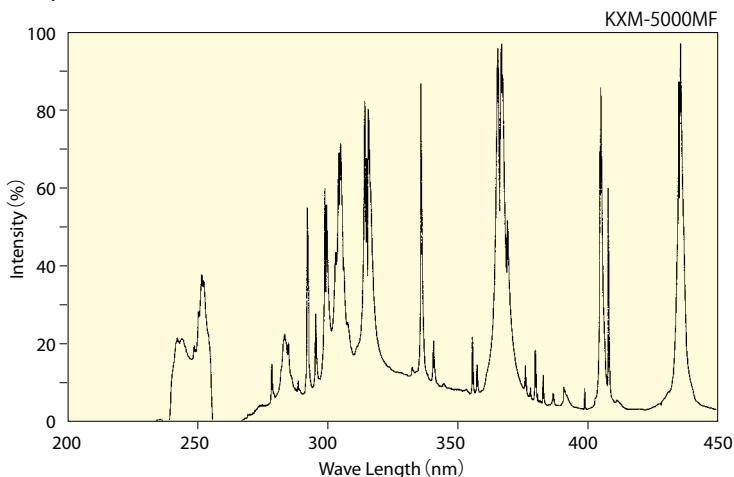


* 1 Average Life: IN cases of continuous burning at rated lamp current.

* 1 平均寿命：定格電流で連続点灯した場合の平均値。点滅、環境等点灯条件により短くなります。

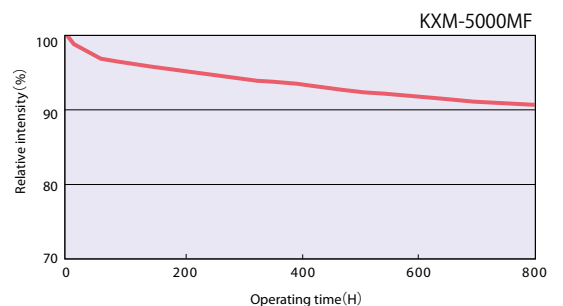
Model : KXM-5000MF

Spectral distribution of radiation



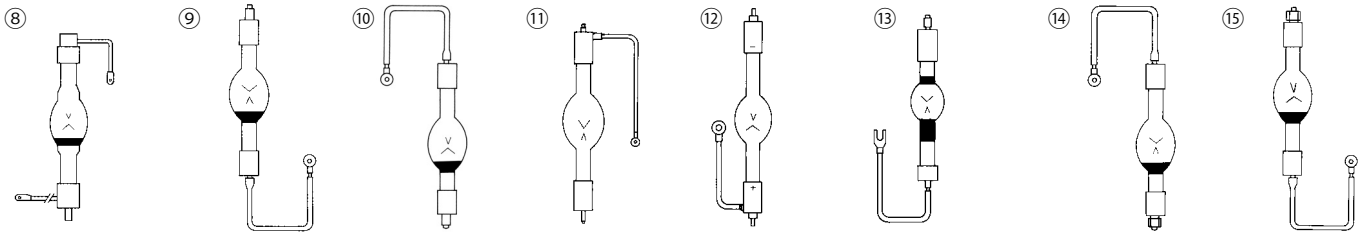
Model : KXM-5000MF

Intensity degradation data (i line)



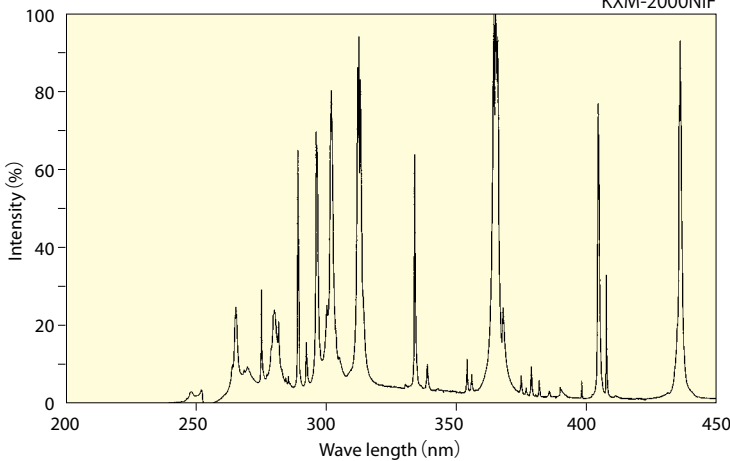
Super High Pressure Short Arc UV Lamps For i Line Stepper (i 線ステッパー用キセノンマーキュリーランプ)

Equipment	Lamp Type	Wattage (W)	Voltage (V)	Current (A)	Lifetime (h)	Figure No.	
Nikon	NSR-2005 i8 A	KXM-2000NIF,H	1,750	26	68	1,500	⑨
	NSR-2005 i9, i10, NSR-2205 i11	KXM-2001NIF	1,750	26	68	1,500	⑩
	NSR-2205 i11 SHRINC3	KXM-2002NIF,H	1,750	26	68	1,500	⑭
	NSR-2205 i12	KXM-2011NIF,H	2,000	25	80	1,500	⑭
	NSR-2205 i14 E	KXM-2510NIF	2,500	23	109	1,500	⑭
	NSR-2205 i14 E2	KXM-2510NIH	2,500	23	109	1,500	⑭
	NSR-4425 i	KXM-2501NIF	2,500	23	109	1,500	⑮
	NSR-SF100, SF110	KXM-3500NIF	3,500	26	134	1,500	⑬
Canon	FPA-2000 i1, FPA-2500 i2, i3	KXM-1500CIL	1,500	23	65	1,500	⑧
	FPA-3000 i4, i5, i5+, iW,MR	KXM-2001CIL	2,000	26	77	1,500	⑧
	FPA-3000 i5++	KXM-2700CIL	2700	24.5	110	1,500	⑧
ASML	PAS 5500/100C/100D	KXM-1500AIF	1,500	23	65	1,500	⑫
	PAS 5500/200	KXM-2500AIF	2,500	28	90	1,500	⑪
	PAS 5500/200B/200C/400B/400C	KXM-3500AIL	3,500	23	148	1,500	⑪



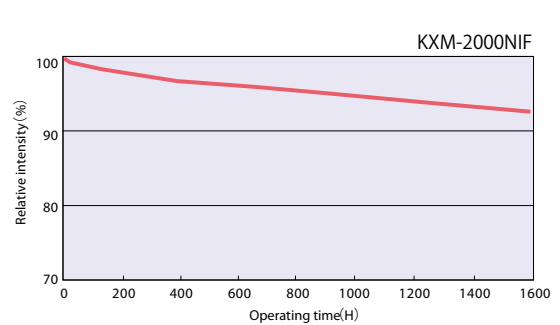
■ Model : KXM-2000NIF

Spectral distribution of radiation



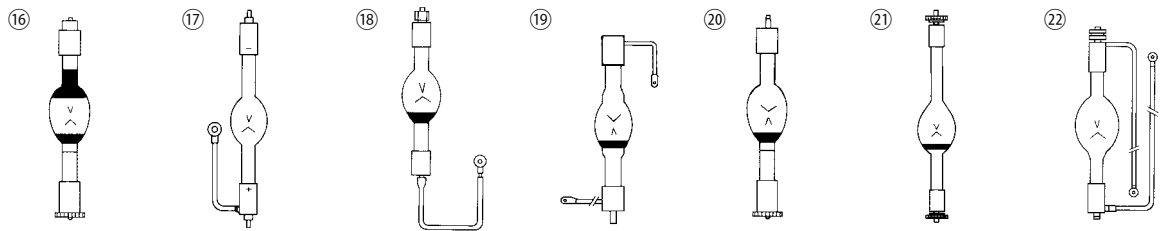
■ Model : KXM-2000NIF

Intensity degradation data (i line)

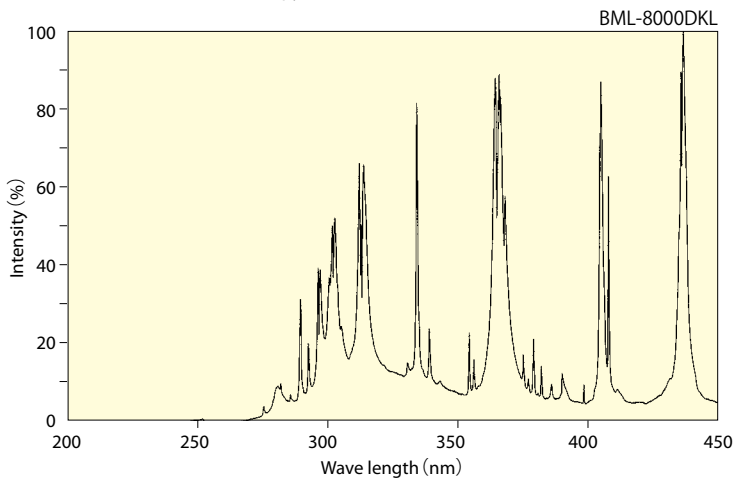


Super High Pressure Short Arc UV Lamps For FPD Manufacturing (FPD 露光装置用ランプ)

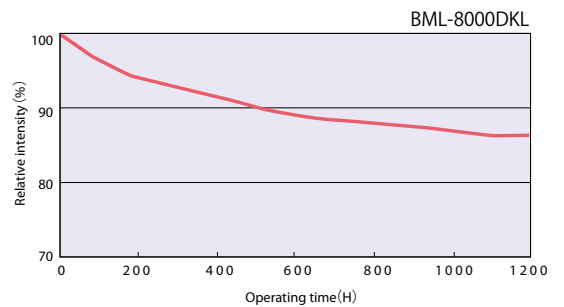
Equipment		Lamp Type	Wattage (W)	Voltage (V)	Current (A)	Lifetime (h)	Figure No.
SCREEN	MA1000 ~ 6700 series	BML-3502DK	3,500	62	56	750	⑳
		BML-5000DK	5,000	70	72	750	㉑
		BML-8000DKL	8,000	72.5	110	1,000	㉒
Nikon	FX-201B,301D, 401E, 402E, 501D	BML-3501PNLF	3,500	62	56	1,500	㉓
	FX-501B3, 601F	BML-4300NHL	4,300	45	97	1,500	㉓
HITACHI	LE-4000A	DEL-3500H	3,500	62	56	750	㉔
	LE-series	DEO-3500H	3,500	62	56	750	㉔
	LE-4050	DEL-5000H	5,000	70	71	750	㉔
	LE-series	DEO-5000H	5,000	70	71	750	㉕
	LE-5565	DEU-5000H	5,000	70	71	750	㉕
	LE-8000S	DEL-8000H	8,000	72.5	110	750	㉔
	LE-8000A	DEL-8004H	8,400	75	112	750	㉕
	LE-9100S	BML-10001DE	10,000	94	106	750	㉖



■ Model : BML-8000DKL
Relative spectral energy distribution



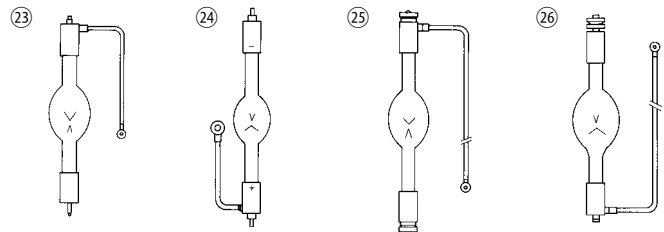
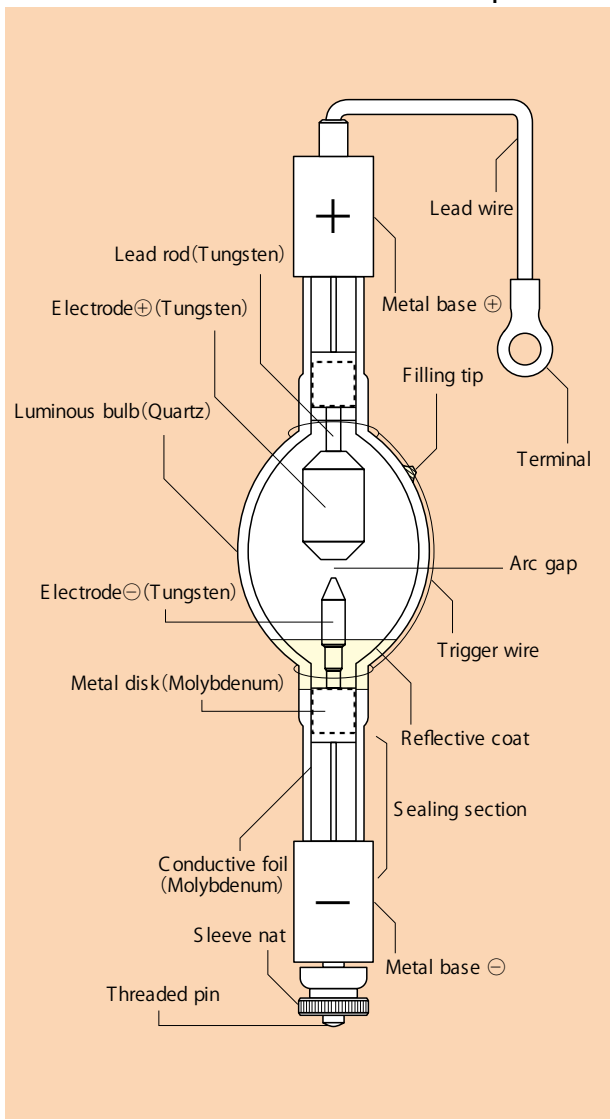
■ Model : BML-8000DKL
Intensity degradation data (i line)



Super High Pressure Short Arc UV Lamps For FPD Manufacturing (FPD 露光装置、電子デバイス露光装置用ランプ)

Equipment	Lamp Type	Power (W)	Voltage (V)	Current (A)	Lifetime (h)	Figure NO.
WACOM Standard For FPD,PWB,PHOTO ETCHING	BML-3500JF	3,500	56	62.5	750	⑳
	BML-5000UJF	5,000	62	80	750	㉑
	BML-5000JF	5,000	70	72	750	㉒
	BML-8000UJF	8,000	72	110	750	㉓
	BML-8001F	8,000	72	110	750	㉔
	BML-10000UJF	10,000	95	105	750	㉕
	BML-16000	16,000	133	120	750	㉖
	BML-17000	17,000	135	126	750	㉗
	BML-18000	18,000	144	125	750	㉘
	BML-25000	25,000	190	132	750	㉙
	BML-35000	35,000	233	150	750	㉚

Construction of short arc UV lamp



Handling Precautions

1. Be sure to turn on a lamp in a lamp house because the lamp radiates strong UV when lighting and increases the voltage in the lamp.
2. Never look at a lamp when lighting. Strong UV radiated from the lamp injures human eyes.
3. Clean a lamp with alcohol before fixing. Due to such stains as fingerprints and impurities, the lamp loses transparency and life is reduced.
4. If a lamp should be fixed at the both metal base in a lamp house, the lamp might be damaged due to heat expansion. Leave one end unfixed giving 2 ~ 3mm movable space.
5. This UV lamp is designed for vertical lighting. Be sure to place the UP metal base top. Be sure to place the cathode and the anode as specified. Erroneous fixing causes breakage of the lamp.

取扱上の注意

1. ランプ点灯中は強力な紫外線を放射し、ランプ内の圧力が高くなりますので、必ずランプハウスの中で点灯して下さい。
2. ランプ点灯中は絶対に直視しないで下さい。ランプから放射される強力な紫外線により眼を害する危険性が有ります。
3. ランプは使用前にアルコール類で拭いてから取付けて下さい。指紋や異物などの汚れが付いていますと失透などのトラブルが発生し寿命を短くします。
4. ランプは口金の両端を固定すると熱膨張により破損する事が有ります。取付の際には片方が 2 ~ 3mm 可動出来る構造にして下さい。
5. UV ランプは垂直点灯です。UP 表示の有る口金を必ず上にして下さい。また、極性(陰極⊖・陽極⊕)に誤りが無いように接続して下さい。間違えますと破損などのトラブルが発生する原因になります。

Power Supplies for Super High Pressure Short Arc UV Lamps (ショートアーク UV ランプ用点灯装置)

Model	Specification	Input Voltage AC50/60Hz (V)	Input current (A)	Input Power (KVA)	No-load Voltage (V)	Load Voltage (V)	Load Current (A)	Max. Ripple Current (%)	Dimension (mm)	Weight (kg)	Color		Starter
											Panel	Cover	
BMS-251S		100	6	0.6	110	40	6.5	3	160×145×377	5	Hairline	N4 Leather	Enclosed
BMS-351S		100	7	0.7	120	60	6	3	160×145×377	5	Hairline	tone N4	Enclosed
BMS-501S		100	9.3	0.93	120	77.5	6.5	3	160×145×377	6	Hairline	Leather tone	Enclosed
KSG-1002MHW		1 φ 200	11	2.2	85	38	28	5	350×190×475	16	N7 Half	N. D. G	DC· Booster
KSG-2002MHW		1 φ 200	20	4	150	37	54	5	380×235×560	25	Polished N7	N. D. G	Enclosed DC·
KSG-3502MHW		1 φ 200	35	7	150	56	62.5	5	380×235×560	30	Half Polished	N. D. G	Booster Enclosed
KSG-5003MHW		3 φ 200	29	7.3	110	60	80	5	400×265×650	40	N7 Half	N. D. G	DC· Booster
KSG-8003MFW		3 φ 200	46	10.5	130	80	100	5	400×265×650	45	Polished N7	N. D. G	Enclosed
KSG-		3 φ 200	45	15.6	160	95	105	5	420×297×680	50	Half Polished	N. D. G	Enclosed
10003HFW		3 φ 200	65	22.2	200	13.5	126	5	550×415×695	60	N7 Half	N. D. G	Enclosed
KSG-		3 φ 200	105	36.4	350	200	125	5	480×850×795	130	Polished N7	N. D. G	Enclosed
17003HFW		3 φ 200	132	45.7	450	225	156	5	680×1338×850	300	Half Polished	N. D. G	Enclosed

WACOM's power supply is designed to conform to the characteristics of WACOM super high pressure UV lamp.

WACOM's power supply is smaller in size and lighter in weight than before by adoption of a new switching method realized by the latest transistor.

A power supply develops an extremely high voltage condition when lighting. Carefully follow the handling manual for actual lighting.

Use WACOM's power supply when lighting WACOM super high pressure UV lamp.

当社の点灯安定化電源は、ショートアークUVランプが有する特性を最大限に引き出すことを目的に設計されており、制御方式にスイッチングレギュレータ方式を採用したことにより高効率化・コンパクト化・軽量化を実現いたしました。この電源と当社のショートアークUVランプをセットでご使用いただくことにより、点灯初期より点灯末期まで安定かつ安全な点灯動作が可能となります。



Example to use WACOM Short arc lamp

