HID CORE & COIL BALLASTS
METAL HALIDE

- 60 Hz
- Minimum starting temperature: -30° C
- Normal and High Power Factor models available

Input Volts	Catalog* Number	Circuit Type	Watts Input	Max Input Current	Nom Open Circuit Voltage	Fuse Rating	Wir Dia	Dimensions			Capacitor						Total Weight (lbs.)	Ignitor		UL Bench Top Rise
								Ref Dwg	A	B	µF	Min Volt	Dry Film Dia	Dry Film Ht	Oil Filled Oval	Oil Filled Ht		Catalog Number	Max Distance to lamp (ft)	
(1) 35/39 WATT M130 METAL HALIDE LAMP																				
120 or				.84		2														
277 or	M35TRILC3M	HX-HPF	54	.40	235	1	4	PC1	0.85	2.15	5	300	1.26	2.36	1.31x2.16	2.2	1.7	MH100-3A	5	A
347				.30		1														
120 or				.82		2														
208 or	M35MLTLC3M	HX-HPF	50	.48	230	1	3	PC1	0.85	2.0	5	277	1.26	2.83	1.31x2.16	2.2	1.7	MH100-3A	5	A
240 or				.42		1														
277				.36		1														
(1) 50 WATT M110 METAL HALIDE LAMP — Medium Base																				
120 or				1.30		3														
277 or	M50TRILC3M	HX-HPF	67	.61	250	2	5	PC1	1.05	2.55	6	300	1.26	2.83	1.31x2.16	2.2	4.25	MH100-3A	10	A
347				.48		2														
120 or				1.16		3														
208 or	M50MLTLC3M	HX-HPF	67	0.67	252	3	3	PC1	1.05	2.55	6	300	1.26	2.36	1.31x2.16	2.2	4.25	MH100-3A	10	A
240 or				0.57		2														
277				0.50		2														
(1) 70 WATT M98 METAL HALIDE LAMP - Medium Base																				
120 or				1.85		4														
277 or	M70TRILC3M	HX-HPF	91	0.80	260	2	4	PC1	1.5	2.65	8	280	1.65	2.83	1.31x2.16	2.2	5.0	MH100-3A	10	A
347				0.65		2														
120 or				1.70		4														
208 or	M70MLTLC3M	HX-PF	95	1.04	250	3	3	PC1	1.33	2.88	8	300	1.65	2.83	1.31x2.16	2.2	4.25	MH100-3A	10	B
240 or				0.87		3														
277				0.78		2														
480	M7048TLC3M	HX-HPF	100	0.50	250	1	6	PC1	1.38	2.88	8	300	1.65	2.83	1.31x2.16	2.2	4.25	MH100-3A	10	E
(1) 70 WATT M85 METAL HALIDE LAMP - Double Ended																				
120 or				1.70		4														
208 or	M70MLTLC3D	HX-HPF	95	1.04	250	3	3	PC1	1.38	2.88	8	300	1.65	2.83	1.31x2.16	2.2	4.25	MH70-3B	10	B
240 or				0.87		3														
277				0.78		2														
(1) 100 WATT M90 OR M92 METAL HALIDE LAMP - Medium Base																				
120 or				2.50		7														
277 or	M100TRILC3M	HX-HPF	125	1.10	265	3	4	PC1	1.6	2.95	12	280	1.65	2.83	1.31.2.16	3.13	5.5	MH100-3A	10	A
347				0.90		3														
120 or				2.40		5														
208 or	M100MLTLC3M	HX-HPF	130	1.45	260	4	13	PC1	1.5	2.8	12	300	1.65	2.83	1.31x2.16	3.12	5.0	MH100-3A	10	A
240 or				1.20		3														
277				1.00		3														
480	M10048TLC3M	HX-HPF	132	0.62	285	2	6	PC1	1.7	3.0	10	300	1.65	2.83	1.31x2.16	2.7	5.5	MH100-3A	10	C
(1) 100 WATT M91 METAL HALIDE LAMP - Double Ended																				
120 or				2.40		5														
208 or	M100MLTLC3D	HX-HPF	130	1.45	260	4	13	PC1	1.5	2.6	12	300	1.65	2.83	1.31x2.16	3.12	5.0	MH70-3B	10	A
240 or				1.20		3														
277				1.00		3														

[3] Capacitors are available as an option for high power factor operation.

See page 5-23 for Reference Drawings and Wiring Diagrams.

- 60 Hz
- Minimum starting temperature: -30° C
- High Power Factor models available
- Feature CWA design

HID CORE & COIL BALLASTS
METAL HALIDE

Input Volts	Catalog* Number	Circuit Type	Watts Input	Max Input Current	Nom Open Circuit Voltage	Fuse Rating	Wir Dia	Dimensions			Capacitor						Total Weight (lbs.)	Ignitor		UL Bench Top Rise
								Ref Dwg	A	B	µF	Min Volt	Dry Film Dia	Dry Film Ht	Oil Filled Oval	Oil Filled Ht		Catalog Number	Max Distance to lamp (ft)	
(1) 150 WATT M102 METAL HALIDE LAMP - Medium Base																				
120 or				3.32		10														
277 or	M150TRILC3M	HX-HPF	185	1.48	245	4	5	PC1	2.38	3.65	16	280	1.65	2.83	1.56x2.69	2.69	7.3	MH100-3A	10	D
347				0.65		2														
120 or				3.32		10														
208 or	M150MLTLC3M	HX-HPF	185	1.93	245	5	3	PC1	2.38	3.88	16	300	1.65	2.83	1.56x2.69	2.69	7.3	MH100-3A	10	D
240 or				1.66		5														
277				1.48		4														
480	M15048TLC3M	HX-HPF	185	1.00	260	3	6	PC1	2.3	3.6	16	280	1.65	2.83	1.56x2.69	2.69	7.0	MH100-3A	10	F
(1) 150 WATT M81 METAL HALIDE LAMP - Double Ended																				
120 or				3.32		10														
208 or	M150MLTLC3D	HX-HPF	185	1.93	245	5	3	PC1	2.38	3.88	16	277	1.65	2.83	1.56x2.69	2.69	7.3	MH70-3B	10	D
240 or				1.66		5														
277				1.48		4														
(1) 175 WATT M57, M107 METAL HALIDE LAMP																				
120	M175120AC3M	CWA	213	1.90	305	5	28	PC1	2.2	3.6	10	400	1.65	2.83	1.56x2.69	2.69	6.1	n/a	n/a	A
230	M175230AC3M	CWA	205	1.00	310	3	46	PC1	2.25	3.55	12	400	1.65	3.82	1.56x2.69	2.7	6.7	n/a	n/a	C
277	M175277AC3M	CWA	213	0.85	305	2	14	PC1	2.2	3.6	10	400	1.65	2.83	1.56x2.69	2.69	6.1	n/a	n/a	C
120 or				2.15		5														
277 or	M175TRIAC30	CWA	211	0.95	305	2	29	PC1	2.45	3.8	10	400	1.65	2.83	1.56x2.69	2.69	6.8	n/a	n/a	C
347				0.75		2														
120 or				1.90		5														A
208 or	M175MLTAC3M	CWA	213	1.10	305	3	16	PC1	2.2	3.6	10	400	1.65	2.83	1.56x2.69	2.69	6.1	n/a	n/a	C
240 or				0.95		3														B
277				0.85		2														C
120 or				1.94		5														
208 or				1.11		3														
240 or	M175ML5AC3M	CWA	208	1.00	300	3	25	PC1	2.3	3.6	10	400	1.65	2.83	1.56x2.69	2.69	6.8	n/a	n/a	B
277 or				0.83		2														
480				0.50		2														
480	M17548TAC3M	CWA	210	0.51	315	2	15	PC1	2.0	3.3	10	400	1.65	2.83	1.56x2.69	2.69	5.6	n/a	n/a	D
(1) 250 WATT M58 METAL HALIDE LAMP - 4" Frame																				
230	M250230AC3M	CWA	282	1.40	285	4	46	PC1	3.0	4.3	18	400	n/a	n/a	1.75	3.1	9.0	n/a	n/a	D
240	M250240AC3M	CWA	297	1.30	315	4	31	PC1	3.0	4.25	15	400	1.85	3.82	2.01x3.01	2.69	9.0	n/a	n/a	D
277	M250277AC3M	CWA	297	1.13	315	3	14	PC1	3.0	4.25	15	400	1.85	3.82	2.01x3.01	2.69	9.0	n/a	n/a	D
120 or				2.78		8														B
277 or	M250TRIAC3M	CWA	295	1.30	320	3	17	PC1	3.0	4.5	15	400	1.85	3.82	2.01x3.01	2.69	9.0	n/a	n/a	D
347				1.05		3														D
120 or				2.65		8														
208 or	M250MLTAC3M	CWA	297	1.58	315	5	16	PC1	3.0	4.3	15	400	1.85	3.82	2.01x3.01	2.69	9.0	n/a	n/a	D
240 or				1.30		4														
277				1.13		3														
120 or				2.50		8														
208 or				1.50		5														
240 or	M250ML5AC3M	CWA	280	1.25	290	4	25	PC1	3.0	4.3	15	400	1.6	3.82	2.01x3.01	2.69	9.0	n/a	n/a	C
277 or				1.10		3														
480				0.65		2														
347	M250347AC3M	CWA	293	1.05	320	3	42	PC1	3.0	4.5	15	400	1.85	3.82	2.01x3.01	2.69	9.0	n/a	n/a	D
480	M25048TAC3M	CWA	292	0.71	320	2	15	PC1	3.0	4.3	15	400	1.85	3.82	2.01x3.01	2.69	9.0	n/a	n/a	D

See page 5-23 for Reference Drawings and Wiring Diagrams.

HID CORE & COIL BALLASTS

METAL HALIDE- FEATURING MULTI-5™

- 60 HZ.
- Minimum Starting Temperature: -30° C
- Feature CWA Design

MH 250-400 WATT

Input Volts	Catalog* Number	Circuit Type	Watts Input	Max Input Current	Nom Open Circuit Voltage	Fuse Rating	Wir Dia	Dimensions			Capacitor						Total Weight (lbs.)	Ignitor		UL Bench Top Rise
								Ref Dwg	A	B	µF	Min Volt	Dry Film Dia	Dry Film Ht	Oil Filled Oval	Oil Filled Ht		Catalog Number	Max Distance to lamp (ft)	
(1) 250 WATT M58 METAL HALIDE LAMP - 4.75" Frame																				
120 or				3.05		8														
277 or	M250TRIAC4M	CWA	280	1.25	305	3	17	PC2	1.63	3.63	15	400	1.85	3.82	2.01x3.01	2.69	9.5	n/a	n/a	B
347				1.05		3														
120 or				3.05		8														
208 or	M250MLTAC4M	CWA	290	1.65	310	5	16	PC2	1.53	3.53	15	400	1.85	3.82	2.01x3.01	2.69	9.5	n/a	n/a	B
240 or				1.55		4														
277				1.25		3														
120 or				2.42		8														
208 or				1.40		5														
240 or	M250ML5AC4M	CWA	282	1.20	300	4	25	PC2	1.82	3.62	15	360	1.85	3.82	2.01x3.01	2.69	10.8	n/a	n/a	A
277 or				1.00		3														
480				0.60		2														
480	M25048TAC4M	CWA	284	0.61	300	2	15	PC2	1.82	3.62	15	360	1.85	3.82	2.01x3.01	2.69	10.8	n/a	n/a	B
(1) 400 WATT M59 METAL HALIDE LAMP																				
120	M400120AC4M	CWA	458	3.94	299	10	28	PC2	2.0	3.86	24	360	1.85	3.82	2.01x3.01	3.12	11.2	n/a	n/a	E
208	M400208AC4M	CWA	458	2.20	299	8	30	PC2	2.0	3.86	24	360	n/a	n/a	2.01x3.01	3.12	11.2	n/a	n/a	E
230	M400230AC4M	CWA	448	2.20	300	6	46	PC2	2.13	3.75	28	425	n/a	n/a	2.91	3.88	13.0	n/a	n/a	D
240	M400240AC4M	CWA	458	1.93	299	5	31	PC2	2.0	3.86	24	360	n/a	n/a	2.01x3.01	3.12	11.2	n/a	n/a	E
277	M400277AC4M	CWA	458	1.69	299	5	14	PC2	2.0	3.86	24	360	1.85	3.82	2.01x3.01	3.12	11.2	n/a	n/a	E
120 or	M40027TAC4M	CWA	458	3.94	299	10	33	PC2	2.0	3.86	24	360	n/a	n/a	2.01x3.01	3.12	11.2	n/a	n/a	E
277				1.69		5														
120 or				4.22		10														
277 or	M400TRIAC4M	CWA	455	1.67	297	5	17	PC2	2.0	3.9	24	360	1.85	3.82	2.01x3.01	3.12	11.0	n/a	n/a	C
347				1.44		5														
120 or				3.94		10														
208 or	M400MLTAC4M	CWA	458	2.20	299	8	16	PC2	2.0	3.9	24	360	1.85	3.82	2.01x3.01	3.12	11.2	n/a	n/a	E
240 or				1.93		5														
277				1.69		5														
120 or				4.00		10														
208 or				2.30		8														
240 or	M400ML5AC4M	CWA	458	2.00	300	5	25	PC2	2.0	3.9	24	360	1.85	3.82	2.01x3.01	3.12	11.2	n/a	n/a	E
277 or				1.70		5														
480				1.00		50														
480	M400480AC4M	CWA	458	1.00	300	3	32	PC2	2.0	3.9	24	360	n/a	n/a	2.01x3.01	3.12	11.0	n/a	n/a	E
480	M40048TAC4M	CWA	458	1.00	300	3	15	PC2	2.0	3.9	24	360	1.85	3.82	2.01x3.01	3.12	11.0	n/a	n/a	E

See page 5-23 for Reference Drawings and Wiring Diagrams.

- 60 Hz
- Minimum Starting Temperature: -30° C
- CWA Designs

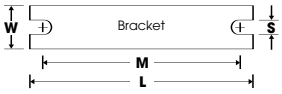
HID CORE & COIL BALLASTS
METAL HALIDE

Input Volts	Catalog* Number	Circuit Type	Watts Input	Max Input Current	Nom Open Circuit Voltage	Fuse Rating	Wir Dia	Dimensions			Capacitor						Total Weight (lbs.)	Ignitor		UL Bench Top Rise
								Ref Dwg	A	B	µF	Min Volt	Dry Film Dia	Dry Film Ht	Oil Filled Oval	Oil Filled Ht		Catalog Number	Max Distance to lamp (ft)	
(1) 1000 WATT M47 METAL HALIDE LAMP																				
120	M1000120AC5M	CWA	1085	9.05	420	23	28	PC3	2.9	4.75	24	480	n/a	n/a	2.01x3.01	4.0	19.0	n/a	n/a	D
208	M1000208AC5M	CWA	1080	5.15	425	15	30	PC3	2.9	5.05	24	480	n/a	n/a	2.01x3.01	4.0	22.0	n/a	n/a	D
230	M1000230AC5M	CWA	1080	4.70	420	13	46	PC3	3.4	5.30	30	440	n/a	n/a	2.91	3.87	21.0	n/a	n/a	C
240	M1000240AC5M	CWA	1080	4.50	425	10	31	PC3	2.9	5.05	24	480	n/a	n/a	2.01x3.01	4.0	22.0	n/a	n/a	D
277	M1000277AC5M	CWA	1080	3.95	425	10	14	PC3	2.9	5.05	24	480	n/a	n/a	2.01x3.01	4.0	22.0	n/a	n/a	D
120 or				9.00		20														D
277 or	M1000TRIAC5M	CWA	1080	3.90	435	10	17	PC3	3.0	4.95	24	480	n/a	n/a	2.01x3.01	4.0	19.0	n/a	n/a	D
347				3.20		8														E
120 or				8.95		20														
208 or	M1000MLTAC5M	CWA	1080	5.15	425	15	16	PC3	2.9	5.05	24	480	n/a	n/a	2.01x3.01	4.0	22.0	n/a	n/a	D
240 or				4.50		10														
277				3.90		10														
120 or				9.15		20														F
208 or				5.25		15														E
240 or	M1000ML5AC5M	CWA	1080	4.55	420	10	25	PC3	2.9	5.05	24	480	n/a	n/a	2.01x3.01	4.0	22.0	n/a	n/a	E
277 or				3.95		10														E
480				2.30		6														E
480	M1000480AC5M	CWA	1080	2.30	410	6	32	PC3	2.85	4.75	24	480	n/a	n/a	2.01x3.01	4.0	22.0	n/a	n/a	D
480	M100048TAC5M	CWA	1080	2.30	410	6	15	PC3	2.85	4.80	24	480	n/a	n/a	2.01x3.01	4.0	22.0	n/a	n/a	D
480	M100048TAN5M	CWA	1080	2.30	410	6	15	PC3	2.85	4.75	24	480	n/a	n/a	2.01x3.01	3.9	22.0	n/a	n/a	A
(1) 1250 WATT M180 METAL HALIDE LAMP																				
120 or				12.00		30														F
208 or				6.90		20														D
240 or	M1250MLTAC5M	CWA	1360	6.00	420	15	17	PC3	4.4	6.4	32	440	n/a	n/a	1.97x3.66	3.88	25.0	n/a	n/a	D
277				5.20		15														E
(1) 1500 WATT M48 METAL HALIDE LAMP																				
230	M1500230AC5M	CWA	1605	7.00	430	20	46	PC3	4.38	6.18	42(2x21)	480	n/a	n/a	1.96x3.65	3.9	30.0	n/a	n/a	C
120 or				13.70		40														
277 or	M1500TRIAC5M	CWA	1610	6.00	460	20	17	PC3	4.38	6.38	32	525	n/a	n/a	1.96x3.65	3.9	29.5	n/a	n/a	G
347				4.70		15														
120 or				14.30		40														F
208 or	M1500MLTAC5M	CWA	1615	8.30	455	25	48	PC3	4.4	6.4	32	525	n/a	n/a	1.96x3.65	3.9	30.0	n/a	n/a	G
240 or				7.20		20														F
277				6.20		20														E
480	M150048TAC5M	CWA	1620	3.50	445	10	15	PC3	4.4	6.4	32	525	n/a	n/a	1.96x3.65	3.9	30.0	n/a	n/a	E
480	M1500480AC5M	CWA	1620	3.50	445	10	32	PC3	4.4	6.4	32	525	n/a	n/a	1.96x3.65	3.9	30.0	n/a	n/a	E

See page 5-23 for Reference Drawings and Wiring Diagrams.

HID CORE & COIL BALLASTS
METAL HALIDE

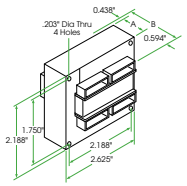
DESCRIPTION	SUFFIX *
For **Ballast Only**	000
For **Bracket Only** (see pg. 5-7)	200
For **Capacitor Only** (see pg. 5-5, 5-6)	500
For **Distributor Replacement Kit** (see pg. 5-13 thru 5-15)	500K
For **Canadian Distributor Replacement Kit** (see pg. 5-16)	502K
For **Dry-Capacitor & Ballast** (see pg. 5-6)	518
For **Bracket & Capacitor** (see pg. 5-5, 5-7)	700
For **Bracket & Dry-Capacitor** (see pg. 5-6, 5-7)	718



Ref. Dwg.	L	W	M	S
1	4.00"	0.75"	3.35"	0.25"
PC1	5.25"	1.25"	4.60"	0.25"
PC2	7.75"	2.75"	6.10"	0.25"
PC3	7.75"	2.75"	6.10"	0.25"

See p. 5-7 for adjustable mounting brackets and detailed bracket drawings.

REFERENCE DRAWING 1



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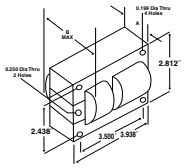

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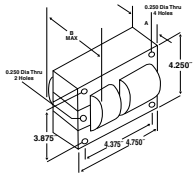
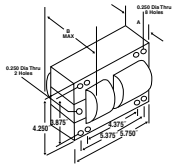
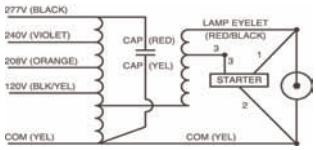


REFERENCE DRAWING PC3

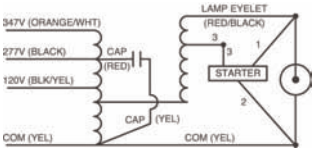


WIRING DIAGRAMS

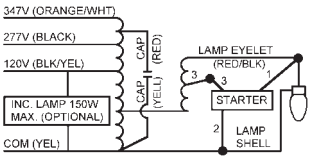
Wiring Diagram 3



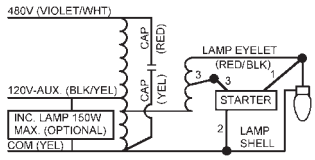
Wiring Diagram 4



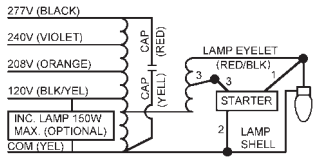
Wiring Diagram 5



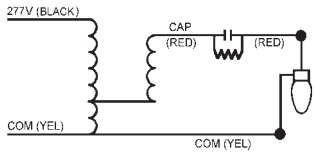
Wiring Diagram 6



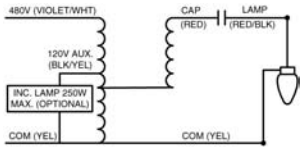
Wiring Diagram 13



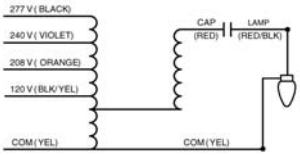
Wiring Diagram 14



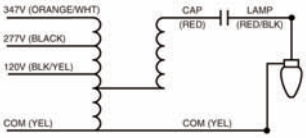
Wiring Diagram 15



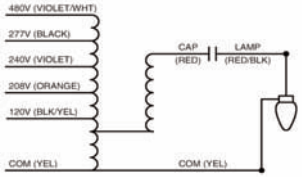
Wiring Diagram 16



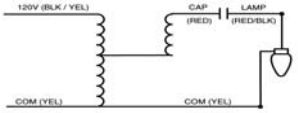
Wiring Diagram 17



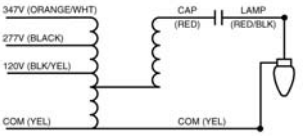
Wiring Diagram 25



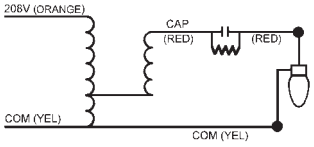
Wiring Diagram 28



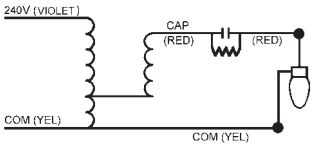
Wiring Diagram 29



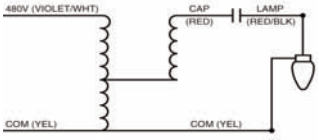
Wiring Diagram 30



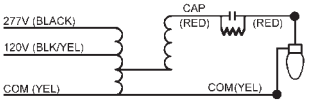
Wiring Diagram 31



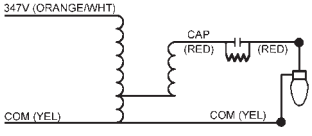
Wiring Diagram 32



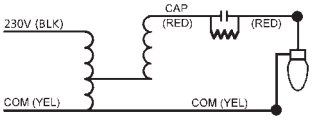
Wiring Diagram 33



Wiring Diagram 42



Wiring Diagram 46



Wiring Diagram 48