

HID Ballast Information - HPS Reference Table

| LAMP WATTAGES | LAMP TYPE | BALLAST TYPE | POWER FACTOR | PRIMARY VOLTAGE | STARTING CURRENT (AMPS) | OPERATING CURRENT (AMPS) | OPEN CIRCUIT CURRENT | LINE INPUT WATTS | OPERATING VOLTAGE RANGE* | MINIMUM STARTING AMBIENT (°C) |
|---------------|-----------|--------------|--------------|-----------------|-------------------------|--------------------------|----------------------|------------------|--------------------------|-------------------------------|
| 35 | S-76 | R | NPF | 120 | 1.35 | 0.83 | — | 46 | A | -40 |
| 50 | S-68 | R | NPF | 120 | 1.80 | 1.18 | — | 62 | A | -40 |
| | | HX | HPF | 120 277 | 0.65 0.30 | 0.61 0.26 | 0.99 0.44 | 66 | A | -40 |
| 70 | S-62 | R | NPF | 120 | 2.10 | 1.6 | — | 86 | A | -40 |
| | | HX | HPF | 120 | 0.75 | 0.81 | 1.45 | 91 | A | -40 |
| | | | | 208 | 0.45 | 0.47 | 0.85 | | | |
| | | | | 240 | 0.37 | 0.40 | 0.75 | | | |
| 277 | 0.35 | 0.35 | 0.65 | 93 | A | -40 | | | | |
| 480 | 0.21 | 0.21 | 0.36 | | | | | | | |
| 100 | S-54 | R | NPF | 120 | 3.05 | 2.1 | — | 115 | A | -40 |
| | | HX | HPF | 120 | 1.30 | 1.15 | 2.20 | 130 | A | -40 |
| | | | | 208 | 0.76 | 0.67 | 1.27 | | | |
| | | | | 240 | 0.66 | 0.58 | 1.10 | | | |
| 277 | 0.60 | 0.50 | 0.85 | 130 | A | -40 | | | | |
| 480 | 0.33 | 0.29 | 0.57 | | | | | | | |
| 150 | S-55 | R | NPF | 120 | 4.5 | 3.2 | — | 170 | A | -40 |
| | | HX | HPF | 120 | 2.0 | 1.65 | 2.80 | 188 | A | -40 |
| | | | | 208 | 1.15 | 0.95 | 1.60 | | | |
| | | | | 240 | 1.0 | 0.83 | 1.40 | | | |
| 277 | 0.85 | 0.72 | 1.25 | 188 | A | -40 | | | | |
| 480 | 0.50 | 0.42 | 0.70 | | | | | | | |
| 200 | S-66 | CWA | HPF | 120 | 1.55 | 2.22 | 1.32 | 240 | B | -40 |
| | | | | 208 | 0.89 | 1.28 | 0.76 | | | |
| | | | | 240 | 0.78 | 0.11 | 0.66 | | | |
| | | | | 277 | 0.67 | 0.96 | 0.57 | | | |
| 480 | 0.38 | 0.56 | 0.33 | | | | | | | |
| 250 | S-50 | CWA | HPF | 120 | 1.60 | 2.70 | 2.20 | 295 | B | -40 |
| | | | | 208 | 0.95 | 1.50 | 1.15 | | | |
| | | | | 240 | 0.85 | 1.36 | 1.00 | | | |
| | | | | 277 | 0.70 | 1.15 | 0.95 | | | |
| 480 | 0.40 | 0.65 | 0.60 | | | | | | | |
| 310 | S-67 | CWA | HPF | 120 | 1.70 | 3.37 | 1.90 | 365 | B | -40 |
| | | | | 208 | 0.89 | 1.94 | 1.10 | | | |
| | | | | 240 | 0.85 | 1.68 | 0.90 | | | |
| | | | | 277 | 0.75 | 1.45 | 0.80 | | | |
| 480 | 0.41 | 0.84 | 0.45 | | | | | | | |
| 400 | S-51 | CWA | HPF | 120 | 2.70 | 3.80 | 2.00 | 457 | B | -40 |
| | | | | 208 | 1.70 | 2.20 | 1.20 | | | |
| | | | | 240 | 1.40 | 1.90 | 0.95 | | | |
| | | | | 277 | 1.30 | 1.70 | 0.85 | | | |
| 480 | 0.70 | 1.00 | 0.55 | | | | | | | |
| 750 | S-111 | CWA | HPF | 120 | 6.68 | 7.12 | 3.0 | 850 | B | -40 |
| | | | | 208 | 3.85 | 4.10 | 1.73 | | | |
| | | | | 240 | 3.34 | 3.56 | 1.50 | | | |
| | | | | 277 | 2.90 | 3.10 | 1.30 | | | |
| 480 | 1.67 | 1.78 | 0.75 | | | | | | | |
| 1000 | S-52 | CWA | HPF | 120 | 6.35 | 9.50 | 4.8 | 1100 | B | -40 |
| | | | | 208 | 3.80 | 5.50 | 2.7 | | | |
| | | | | 240 | 3.20 | 4.75 | 2.4 | | | |
| | | | | 277 | 2.75 | 4.15 | 2.2 | | | |
| 480 | 1.60 | 2.30 | 1.2 | | | | | | | |

*See table at lower right.

High Pressure Sodium Ballast

(and Low-Wattage Metal Halide Ballasts)

Remote ballast-to-lamp mounting distances for these ballasts are limited by the capabilities of the ignitor, because the ignitor must always be mounted with the ballast.

Volt Range (Volts)

Atlas Lighting Supply
 2828 S. Linwood St
 Visalia, CA 93277
 Ph: 559-697-6764, F: 888-605-2324
 www.atlaslightingsupply.com

| A (5%) RATED | | | B (10%) RATED | | |
|--------------|-----|-----|---------------|-----|-----|
| HIGH | LOW | | HIGH | LOW | |
| 126 | 114 | 120 | 132 | 108 | 120 |
| 218 | 198 | 208 | 229 | 187 | 208 |
| 252 | 228 | 240 | 264 | 216 | 240 |
| 291 | 263 | 277 | 305 | 249 | 277 |
| 504 | 456 | 480 | 528 | 432 | 480 |

HID Ballast Information - Metal Halide Reference Table

| LAMP WATTAGES | LAMP TYPE | BALLAST TYPE | POWER FACTOR | PRIMARY VOLTAGE | STARTING CURRENT (AMPS) | OPERATING CURRENT (AMPS) | OPEN CIRCUIT CURRENT | LINE INPUT WATTS | OPERATING VOLTAGE RANGE* | MINIMUM STARTING AMBIENT (°C) |
|---------------|---------------|--------------|--------------|---------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|------------------|--------------------------|-------------------------------|
| 50 | M-110 | HX | HPF | 120 277 | 0.60 0.25 | 0.65 0.30 | 1.00 0.45 | 72 | A | -30 |
| 70 | M-98 | HX | HPF | 120 208 240 277 | 0.55 0.30 0.25 0.25 | 0.85 0.50 0.40 0.40 | 1.90 1.00 0.90 0.80 | 90 | A | -30 |
| 100 | M-90 | HX | HPF | 120 208 240 277 | 1.15 0.66 0.58 0.50 | 1.15 0.66 0.58 0.50 | 2.60 1.50 1.30 1.15 | 129 | A | -30 |
| 175 | M-57, H-39 | CWA | HPF | 120 208 240 277 480 | 1.30 0.75 0.65 0.55 0.35 | 1.80 1.05 0.90 0.80 0.45 | 1.80 1.05 0.90 0.80 0.45 | 210 | B | -30 |
| 250 | M-58, H-37 | CWA | HPF | 120 208 240 277 480 | 2.10 1.40 1.10 1.00 0.60 | 2.50 1.45 1.25 1.10 0.60 | 1.55 0.90 0.80 0.70 0.50 | 285 | B | -30 |
| 400 | M-59, H-33 | CWA | HPF | 120 208 240 277 480 | 3.25 1.90 1.65 1.40 0.85 | 4.00 2.30 2.00 1.75 1.00 | 3.40 1.95 1.70 1.50 0.95 | 458 | B | -30 |
| 1000 | M-47, H-36 | CWA | HPF | 120 208 240 277 480 | 8.0 4.6 4.0 3.5 2.0 | 9.0 5.2 4.5 3.9 2.3 | 3.5 2.0 1.8 1.5 0.9 | 1080 | B | -30 |
| 1500 | M-48, H-36 | CWA | HPF | 120 208 240 277 480 | 13.5 7.7 6.7 5.9 3.3 | 13.5 7.8 6.8 5.9 3.4 | 4.8 2.5 2.2 2.0 1.1 | 1605 | B | -30 |

*See table at lower left.

Metal Halide Ballasts

The distance at which most Metal Halide Ballasts can be located from their respective lamps are limited by the ballast-to-lamp size.

Note: The ballasts for the new, low-wattage Metal Halide lamps require an ignitor for starting. The maximum distance to the lamp for these is limited by the ignitor as shown on the High Pressure Sodium page.

Volt Range (Volts)

| A (5%) RATED | | | B (10%) RATED | | |
|-----------------|-----|-----|------------------|-----|-----|
| HIGH | LOW | | HIGH | LOW | |
| 126 | 120 | 114 | 132 | 120 | 108 |
| 218 | 208 | 198 | 229 | 208 | 187 |
| 252 | 240 | 228 | 264 | 240 | 216 |
| 291 | 277 | 263 | 305 | 277 | 249 |
| 504 | 480 | 456 | 528 | 480 | 432 |

Atlas Lighting Supply

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www.atlaslightingsupply.com

HID Ballast Information - Pulse Start Metal Halide Reference Table

| LAMP WATTAGES | LAMP TYPE | BALLAST TYPE | POWER FACTOR | PRIMARY VOLTAGE | STARTING CURRENT (AMPS) | OPERATING CURRENT (AMPS) | OPEN CIRCUIT CURRENT | LINE INPUT WATTS | OPERATING VOLTAGE RANGE* | MINIMUM STARTING AMBIENT (°C) |
|---------------|-----------|--------------|--------------|-----------------|-------------------------|--------------------------|----------------------|------------------|--------------------------|-------------------------------|
| 150 | M-102 | HX | HPF | 120 | 0.95 | 1.60 | 3.65 | 185 | A | -30 |
| | | | | 208 | 0.55 | 0.90 | 2.10 | 185 | A | -30 |
| | | | | 240 | 0.50 | 0.80 | 1.80 | 185 | A | -30 |
| | | | | 277 | 0.42 | 0.70 | 1.58 | 185 | A | -30 |
| 150 | M-102 | CWA | HPF | 120 | 0.95 | 1.75 | 1.40 | 189 | B | -30 |
| | | | | 277 | 0.40 | 0.76 | 0.60 | 189 | B | -30 |
| | | | | 347 | 0.30 | 0.62 | 0.48 | 189 | B | -30 |
| 175 | M-137 | CWA | HPF | 120 | 1.30 | 1.80 | 1.80 | 208 | B | -30 |
| | | | | 208 | 0.75 | 1.05 | 1.05 | 208 | B | -30 |
| | | | | 240 | 0.65 | 0.90 | 0.90 | 208 | B | -30 |
| | | | | 277 | 0.55 | 0.80 | 0.80 | 208 | B | -30 |
| 200 | M-136 | CWA | HPF | 120 | 1.20 | 2.00 | 2.20 | 232 | B | -30 |
| | | | | 208 | 0.70 | 1.15 | 1.25 | 232 | B | -30 |
| | | | | 240 | 0.60 | 1.00 | 1.10 | 232 | B | -30 |
| | | | | 277 | 0.55 | 0.85 | 0.95 | 232 | B | -30 |
| | | | | 480 | | 0.50 | | 232 | B | -30 |
| 250 | M-138 | CWA | HPF | 120 | 2.30 | 2.50 | 1.40 | 288 | B | -30 |
| | | | | 208 | 1.30 | 1.45 | 0.80 | 288 | B | -30 |
| | | | | 240 | 1.15 | 1.25 | 0.70 | 288 | B | -30 |
| | | | | 277 | 1.00 | 1.10 | 0.60 | 288 | B | -30 |
| 320 | M-132 | CWA | HPF | 120 | 1.80 | 3.25 | 2.30 | 368 | B | -30 |
| | | | | 208 | 1.05 | 1.90 | 1.35 | 368 | B | -30 |
| | | | | 240 | 0.90 | 1.65 | 1.15 | 368 | B | -30 |
| | | | | 277 | 0.80 | 1.40 | 1.00 | 368 | B | -30 |
| | | | | 480 | | 0.80 | | 368 | B | -30 |
| 350 | M-131 | CWA | HPF | 120 | 2.20 | 3.40 | 2.20 | 400 | B | -30 |
| | | | | 208 | 1.30 | 2.00 | 1.30 | 400 | B | -30 |
| | | | | 240 | 1.10 | 1.70 | 1.10 | 400 | B | -30 |
| | | | | 277 | 1.00 | 1.50 | 1.00 | 400 | B | -30 |
| | | | | 480 | | 0.90 | | 400 | B | -30 |
| 400 | M-135 | CWA | HPF | 120 | 2.85 | 3.90 | 2.20 | 452 | B | -30 |
| | | | | 208 | 1.65 | 2.20 | 1.50 | 452 | B | -30 |
| | | | | 240 | 1.45 | 1.90 | 1.10 | 452 | B | -30 |
| | | | | 277 | 1.25 | 1.65 | 0.95 | 452 | B | -30 |
| | | | | 480 | | 1.00 | | 452 | B | -30 |
| 450 | M-144 | CWA | HPF | 120 | 3.20 | 4.25 | 2.15 | 508 | B | -30 |
| | | | | 208 | 1.80 | 2.50 | 1.25 | 508 | B | -30 |
| | | | | 240 | 1.60 | 2.15 | 1.10 | 508 | B | -30 |
| | | | | 277 | 1.40 | 1.85 | 1.00 | 508 | B | -30 |
| | | | | 480 | | 1.10 | | 514 | B | -30 |
| 750 | M-149 | CWA | HPF | 120 | 5.10 | 7.0 | 4.10 | 812 | B | -30 |
| | | | | 208 | 5.10 | 4.0 | 2.40 | 812 | B | -30 |
| | | | | 240 | 5.10 | 3.5 | 2.10 | 812 | B | -30 |
| | | | | 277 | 5.10 | 3.0 | 1.80 | 812 | B | -30 |
| | | | | 480 | 5.10 | 2.0 | 1.00 | 818 | B | -30 |
| 1000 | M-141 | CWA | HPF | 120 | 5.40 | 9.20 | 5.50 | 1080 | B | -30 |
| | | | | 208 | 5.40 | 5.30 | 3.50 | 1080 | B | -30 |
| | | | | 240 | 5.40 | 4.60 | 3.10 | 1080 | B | -30 |
| | | | | 277 | 5.40 | 4.00 | 2.80 | 1080 | B | -30 |
| | | | | 480 | 5.40 | 2.30 | 1.60 | 1080 | B | -30 |

*See table at lower right.

Pulse Start Metal Halide Ballast

Remote ballast-to-lamp mounting distances for these ballasts are limited to two feet; this means that the ignitor must be mounted in the ballast housing.

Volt Range (Volts)

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| HIGH | A (5%) RATED | | HIGH | B (10%) RATED | |
|------|--------------|-----|------|---------------|-----|
| | LOW | LOW | | LOW | LOW |
| 126 | 120 | 114 | 132 | 120 | 108 |
| 218 | 208 | 198 | 229 | 208 | 187 |
| 252 | 240 | 228 | 264 | 240 | 216 |
| 291 | 277 | 263 | 305 | 277 | 249 |
| 504 | 480 | 456 | 528 | 480 | 432 |