

ATX™ PL Series Floodlights

Flameproof. Metal Halide, High Pressure Sodium, Mercury Vapor, Halogen

ATEX/IECEx:
Zone 1 and 2 - 21 and 22
Ex II 2 GD
IP66/67 - IK10



THORNE &
DERRICK
INTERNATIONAL

Thorne & Derrick
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Applications

- Designed for large area lighting in industrial outdoor and indoor hazardous areas.
- Ideal for use in Zones 1 and 2 and 21 and 22 in the oil and gas industry. In locations such as: refineries, pipelines, warehouses, offshore platforms and drilling rigs.

Features

- Gray epoxy painted light marine grade aluminum housing and door.
- The cover is fitted with a short safety chain.
- Lampholder can be easily field-adjustable for either a narrow or wide beam.
- Fixtures operate safely in high ambient temperatures up to +55 °C (+131 °F) and in low ambient temperature up to -40 °C (-40 °F).
- Electrical components (ballast, ignitor and capacitor) are thermally separated from the lighting compartment with an insulating protection, providing extended life.
- Easy and efficient wiring due to separate Ex e terminal box with wiring onto 2 captive terminals 2 x 6 mm² (2 x 0.009 in²); 2 internal earth terminals capacity 4 mm² (0.006 in²) and 1 external earth terminal capacity 4 mm² (0.006 in²).
- 2 x 20 mm (2 x 0.79 in) clearance holes throughwire cable entries supplied with:
 - One Ex e unarmored cable gland — 6.5 mm to 14.5 mm (0.2 in to 0.57 in) sealing diameter.
 - One blanking plug.
 - Two M20 locknuts.
- For use with either tubular or ellipsoidal shape lamps. See ordering information for details.
- Choice of mounting with galvanized hinged bracket fixed mounting or tube/pole mounting with galvanized brackets.
- Thermoshock and impact-resistant glass factory sealed into the cover frame.
- Operates in wall-mounting or down lighting applications.
- Reversible hinge allows for fixture access from either side.
- E40 or H3 lampholders for the 2 x 70 W Vac/Vdc halogen version.
- Internal symmetric reflector.

Standard Materials

- Housing and door: copperfree marine-grade aluminum alloy
- Lens: toughened safety glass
- Reflector: bright highly polished aluminum
- Bolts: stainless steel bolt
- Cable gland and blanking plug: polyamide
- Locknut: nickel plated brass

Standard Finishes

- Housing and door: gray epoxy powder paint

Options

- 1000 W HP Sodium with separate Ex d housing for ballast.
- Other voltages, please contact your sales representative.
- Hinged bracket available: add suffix **-B** at the end of the catalog number.
- Terminal block with 2 more terminals for wiring with 3 phases plus Neutral in 380/415 V (loop in/loop out wiring possible): add suffix **-T** at the end of the catalog number.



- Asymmetrical light distribution is available, add suffix **-A** to end of catalog number.
- Screwed-on overhead diffuser out of galvanized steel with black painting (see accessories).
- Screwed-on zinc-coated protection guard (see accessories).

ATEX/IECEx Certifications and Compliances

- Certification Type: Pjd
 - Gas: Zone 1 and 2
 - Conforming to ATEX 94/9/CE: Ex II 2 G
 - Type of Protection: Ex de IIB
 - Temperature Class: See *T Rating (Gas) and Surface Temperature (Dust) Table*
 - Dust: Zone 21 - 22
 - Conforming to ATEX 94/9/CE: Ex II 2 D
 - Type of Protection: Ex tD A21
 - Surface Temperature: See *T Rating (Gas) and Surface Temperature (Dust) Table*
- Ambient Temperature: -40 °C ≤ Ta ≤ +55 °C (-40 °F ≤ Ta ≤ +131 °F)
- CE Declaration of Conformity: 50207
- ATEX Certificate: LCIE 99/ ATEX 6002
- IECEx Certificate: IECEx LCI 04.0020
- Index of Protection according EN/IEC 60529: IP66/67
- Impact Resistance (shock): IK10

EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00912

Other Certification

- INMETRO Certificate: BVC12.2098 ①

① Inmetro certification available on special request only. Contact your local sales representative for more information.

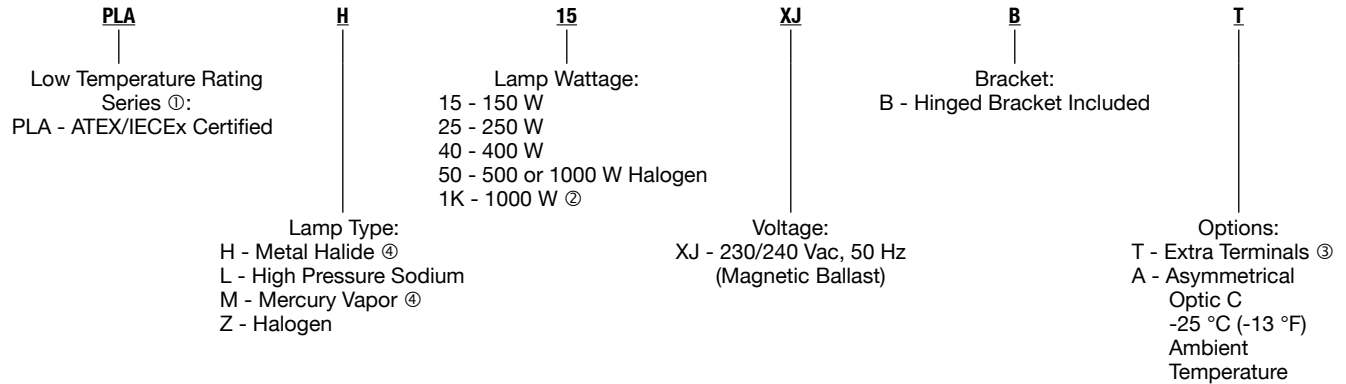
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Order using catalog numbering guide below or select catalog number from the following pages.

Catalog Numbering Guide — PL Series Floodlights



T Rating (Gas) and Surface Temperature (Dust) Table

Lamp Type and Wattage	Gas Temperature Rating According to Ta			Dust Surface Temperature °C (°F)
	+40 °C (+104°F)	+50 °C (+122°F)	+55 °C (+131°F)	
150 W High Pressure Sodium	T4	T3	T3	+145 (+293)
250 W High Pressure Sodium	T4	T3	T3	+145 (+293)
250 W Metal Halide	T3	T3	T3	+197 (+387)
250 W Mercury Vapor	T3	T3	T3	+194 (+381)
400 W High Pressure Sodium	T4	T3	T3	+144 (+291)
400 W Metal Halide	T3	T3	T3	+193 (+379)
400 W Mercury Vapor	T3	T3	T3	+195 (+383)
600 W High Pressure Sodium	T2	T2	T2	+257 (+495)
500 W Halogen	T2	T2	T2	+267 (+513)
1000 W Halogen	T1	T1	T1	+378 (+712)

① Only for 250 W and 400 W Versions.

② Available for High Pressure Sodium Lamp Only + Separate Gear Box.

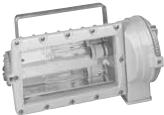
③ 3 Phase + Neutral.

④ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

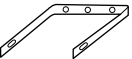
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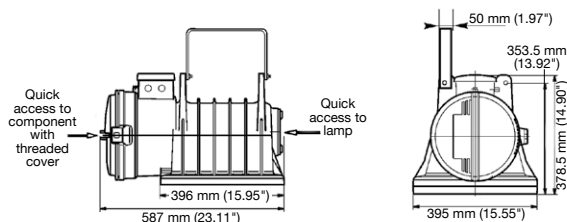
	Lamp Wattages	Lampholder	Voltage (+/-10%)	Lamp Type		Weight kg (lb)	Volume dm³ (in³)	Catalog Number ① ② ③
				Ellipsoidal	Tubular			
	High Pressure Sodium							
	250	E40	230/240 V 50 Hz	x	x	37.5 (83)	104.4 (6374)	PLAL25XJB
	400	E40	220 V 50 Hz	x	x	37.5 (83)	104.4 (6374)	PLAL40XAB
	Halogen							
	500/1000	E40		–	x	34.0 (75)	104.4 (6374)	PLAZ50B

Accessories and Replacement Parts

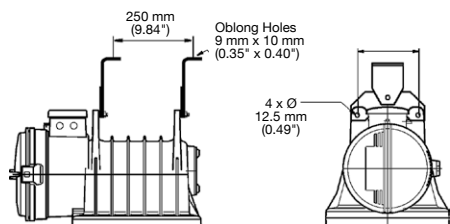
					Catalog Number
Galvanized Steel Hinged Brackets					
					PCHBG
Galvanized Steel Brackets					
		Pole/Tube Mounting	1-1/4" to 1-1/2"	PNHC49G	
			2"	PNHC60G	
Pole/Tube	Flat Surface	Flat Surface Mounting	PNSBG		
400 W Mercury Vapor Lamp					LM400E40

Dimensions in Millimeters (Inches)

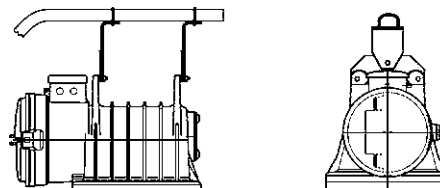
Hinged Bracket Mounting



Flat Surface Mounting



Pole Mounting



Note: Floodlights supplied with hinged mounting bracket, 1 plug, 1 M20 cable gland — diameter 6.5 mm to 14.5 mm (0.26 in to 0.57 in). Lamps are not included.

- ① Hinged bracket available: add suffix **-B** at the end of the catalog number.
- ② Terminal block with 2 more terminals for wiring with 3 phases plus Neutral in 380/415 V: add suffix **-T** at the end of the catalog number.
- ③ Asymmetrical light distribution is available, add suffix **-A** to end of catalog number.

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Photometric Data

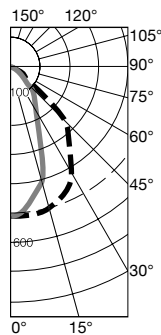
Polar curves for a 1000 lm flux, according to NF C 71-120
Luminaire symbol according to NF C 71-121

— Longitudinal
— Transverse

Narrow beam Metal Halide 250 W
Efficiency 68.3%
NF C 71-121: 0.68B

CANDELA DISTRIBUTION

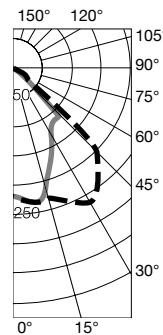
0-180	90-270
0	505 505
5	515 499
10	512 469
15	501 403
20	476 312
25	453 248
30	427 190
35	394 146
40	368 117
45	290 97
50	160 12
55	51 7
60	34 4
65	15 4
70	6 4



Narrow beam Metal Halide 400 W ①
Efficiency 49.3%
NF C 71-121: 0.49C

CANDELA DISTRIBUTION

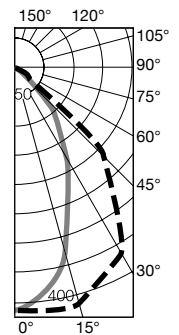
0-180	90-270
0	217 217
5	210 219
10	218 231
15	223 205
20	238 193
25	255 148
30	266 132
35	263 130
40	244 116
45	201 104
50	136 37
55	85 15
60	51 8
65	28 6
70	5 4



Narrow beam Halogen 1000 W
Efficiency 59.2%
NF C 71-121: 0.59B

CANDELA DISTRIBUTION

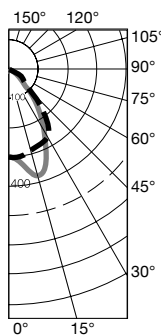
0-180	90-270
0	417 417
5	406 418
10	419 399
15	419 330
20	408 266
25	398 218
30	371 177
35	344 142
40	295 115
45	213 98
50	135 12
55	68 7
60	34 4
65	16 3
70	5 3



Wide beam Metal Halide 250 W
Efficiency 67.9%
NF C 71-121: 0.68C

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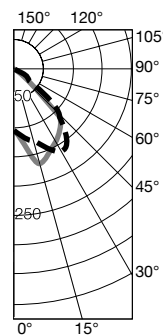
0-180	90-270
0	301 301
5	303 318
10	299 342
15	294 387
20	287 382
25	286 306
30	271 237
35	231 208
40	172 186
45	133 140
50	83 104
55	48 18
60	34 8
65	23 6
70	6 6



Wide beam Metal Halide 400 W ①
Efficiency 46.7%
NF C 71-121: 0.46C

CANDELA DISTRIBUTION

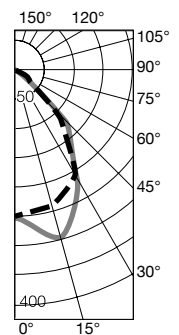
0-180	90-270
0	105 105
5	104 106
10	108 130
15	124 165
20	148 177
25	167 183
30	165 147
35	142 127
40	116 113
45	74 115
50	52 103
55	48 40
60	44 13
65	34 9
70	18 6



Wide beam Halogen 1000 W
Efficiency 57.7%
NF C 71-121: 0.57C

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0-180	90-270
0	251 251
5	244 255
10	247 272
15	245 293
20	237 306
25	229 262
30	213 213
35	194 188
40	163 161
45	120 133
50	82 105
55	52 18
60	35 8
65	20 5
70	8 5



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HID/FLOODLIGHT: ATEX/IECEX FLAMEPROOF



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