

PB Series Floodlights IIB

Flameproof. Metal Halide, Sodium, Mercury Vapor, Halogen

Zone 1 and 2 - 21 and 22
Gas (G) and Dust (D)

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.
- Fast and easy lamp replacement via threaded cover on the side of the fixture. 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 and in low ambient temperature up to -20 °C.
- Electrical components (ballast, ignitor and capacitor) are thermally separated from the lighting compartment with a bulkhead, 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 internal earth terminals capacity 6 mm² and 1 external earth terminal capacity 4 mm².
- 2 x M20 clearance holes throughwire cable entries supplied with:
 - One Ex e unarmored cable gland — sealing diameter 6.5 mm to 14.5 mm
 - 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 any position.
- 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

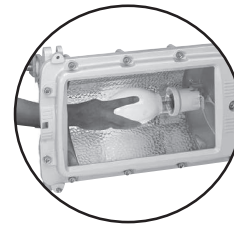
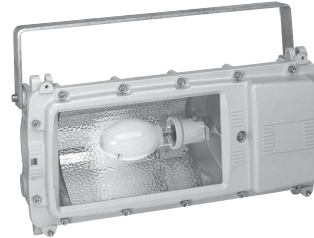
- Housing and door: copperfree marine-grade aluminum alloy
- Lens: toughened safety glass
- Reflector: bright highly polished aluminum
- Bolts: stainless steel bolt
- Cable gland and blanking plug: polyamide
- Locknut: nickel plated brass

Standard Finishes

- Housing and door: gray epoxy powder paint

Options

- Other voltages, please contact your sales representative.
- 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).



Certifications and Compliances

◆ ATEX/IECEx Certification

- **Certification Type: PjD**
 - Gas: Zone 1 and 2
 - Conforming to ATEX 94/9/CE: Ⓔ II 2 G
 - Type of Protection: Ex de IIB
 - Temperature class: See Table on following page
 - Dust: Zone 21 - 22
 - Conforming to ATEX 94/9/CE: Ⓔ II 2 D
 - Type of Protection: Ex tD A21
 - Surface Temperature: See Table on following page
 - Ambient Temperature: -20 °C ≤ to ≤ +55 °C
 - 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 (Type PB)
 - Impact Resistance (shock): IK10

◆ EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00912

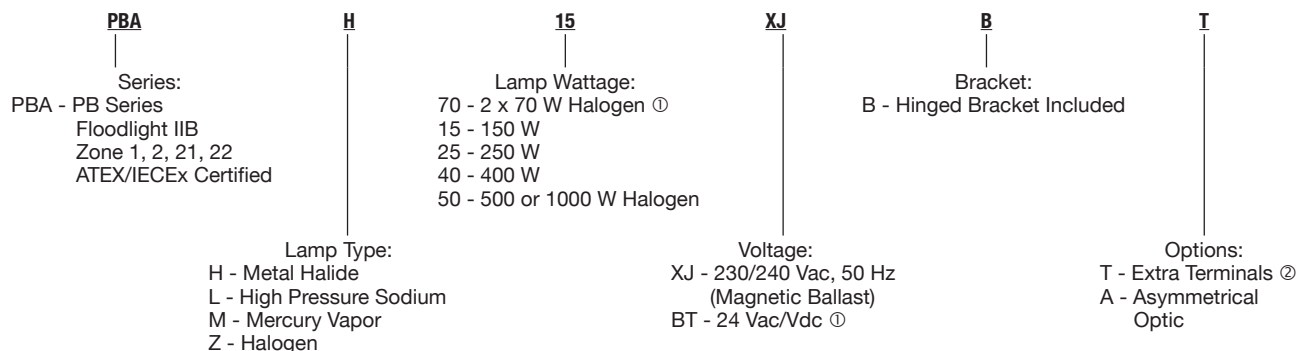
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Order using catalog numbering guide below or select catalog number from the following pages.

Catalog Numbering Guide – PB Series Floodlights



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

| Lamp Type and Wattage | Gas Temperature Rating According to Ta | | | Dust Surface Temperature °C |
|----------------------------|--|-----------|-----------|--------------------------------|
| | +40 °C | +50 °C | +55 °C | |
| 2 x 70 W - H3 ① | T4 | T4 | T4 | +130 °C |
| 150 W High Pressure Sodium | T4 | T3 | T3 | +145 °C |
| 250 W High Pressure Sodium | T3 | T3 | T3 | +195 °C |
| 250 W Metal Halide | T3 | T3 | T3 | +197 °C |
| 250 W Mercury Vapor | T3 | T3 | T3 | +194 °C |
| 400 W High Pressure Sodium | T3 | T3 | T3 | +189 °C |
| 400 W Metal Halide | T3 | T3 | T3 | +193 °C |
| 400 W Mercury Vapor | T3 | T3 | T3 | +195 °C |
| 600 W High Pressure Sodium | T2 | T2 | T2 | +257 °C |
| 500 W Halogen | T2 | T2 | T2 | +267 °C |
| 1000 W Halogen | T1 | T1 | T1 | +378 °C |

① 2 x 70 W Halogen 24 Vac/Vdc.

② 3 Phase + Neutral.

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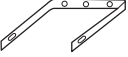


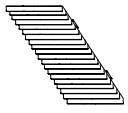
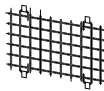
Ordering Information – IIB Versions

Floodlights supplied with hinged mounting bracket, 1 plug, 1 M20 cable gland — 6.5 mm to 14.5 mm diameter. Lamps are not included

| Lamp Wattages | Lampholder | Voltage (+/-10%) | Lamp Type | | Weight kg | Volume dm ³ | Catalog Number ② ③ |
|-----------------------------|------------|-------------------|-------------|---------|-----------|------------------------|-----------------------|
| | | | Ellipsoidal | Tubular | | | |
| High Pressure Sodium | | | | | | | |
| 150 | E40 | 230/240 V, 50 Hz | x | x | 29.3 | 79.4 | PBAL15XJB |
| 250 | E40 | 230/240 V, 50 Hz | x | x | 30.3 | 79.4 | PBAL25XJB |
| 400 | E40 | 230/240 V, 50 Hz | – | x | 31.8 | 79.4 | PBAL40XJB |
| Mercury Vapor | | | | | | | |
| 250 | E40 | 230/240 V, 50 Hz | x | x | 29.3 | 79.4 | PBAM25XJB |
| 400 | E40 | 230/240 V, 50 Hz | – | x | 29.8 | 79.4 | PBAM40XJB |
| Metal Halide | | | | | | | |
| 250 | E40 | 230/240 V, 50 Hz | x | x | 30.3 | 79.4 | PBAH25XJB |
| 400 | E40 | 230/240 V, 50 Hz | – | x | 31.8 | 79.4 | PBAH40XJB |
| Halogen | | | | | | | |
| 500/1000 | E40 | – | – | x | 26.3 | 79.4 | PBAZ50B |
| 2 x 70 | H3 | 24 Vac/Vdc, 50 Hz | – | – | 27.3 | 79.4 | PBAZ70BTB ① |



Accessories

| | Catalog Number |
|---|---------------------------------|
| Galvanized Steel Hinged Brackets | |
|  | PBHBG |
| Pole/Tube Mounting Galvanized Steel Brackets | |
|  | 1-1/4" to 1-1/2" PNHC49G |
| | 2" PNHC60G |
| Flat Surface Mounting Galvanized Steel Brackets | |
|  | PNSBG |
| Screwed-on Overhead Diffuser | |
|  | PBGDG |
| Screwed-on Protective Guard | |
|  | PBPGZ |

① Supplied with 2 x 70 W H3 bulbs, 24 Vac/Vdc.

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.

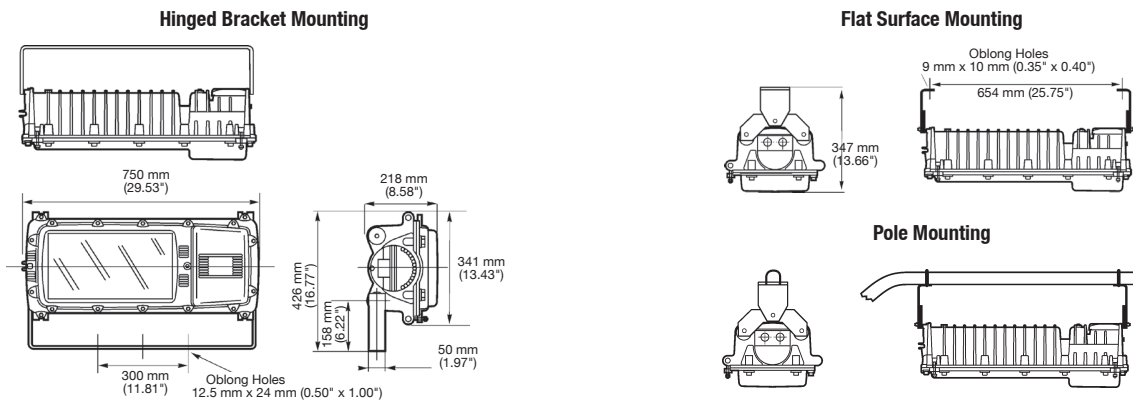
Shaded catalog numbers are normally stocked items. All other items are made to order.

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Dimensions in Millimeters (Inches)



Photometrics

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

— Longitudinal
- - - Transverse

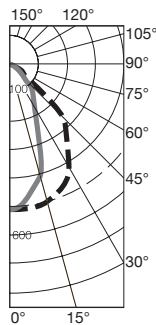
Narrow beam Metal Halide 250 W

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 |



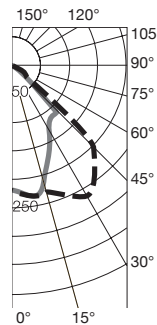
Narrow beam Metal Halide 400 W ①

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 |



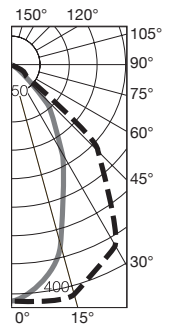
Narrow beam Halogen 1000 W

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 |



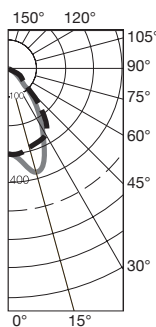
Wide beam Metal Halide 250 W

Efficiency 67.9%

NF C 71-121: 0.68C

CANDELA DISTRIBUTION

| | 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 |



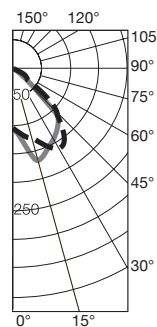
Wide beam Metal Halide 400 W ①

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 |



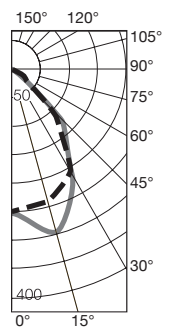
Wide beam Halogen 1000 W

Efficiency 57.7%

NF C 71-121: 0.57C

CANDELA DISTRIBUTION

| | 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 |



① 400 W Metal Halide: Efficiency rate lower than 250 W due to thermal deflector between glass and lamp, requested for T3.