

Lighting: Incandescent & HID Lighting

PB, PC & PL Series: Floodlights – Flameproof

Zone 1 & 2 - 21 & 22

II 2 GD

ATEX / IECEx

IP66 or IP66/67 - IK10

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; i.e. 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 (Types PB and PC). 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 -40°C (-25°C for PC type and -40°C for PL type).
- Electrical components (ballast, ignitor and capacitor) are thermally separated from the lighting compartment with a bulkhead (Type PB) or with an insulating protection (Types PC and PL), 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 20 mm clearance holes throughwire cable entries supplied with:
 - One Ex e unarmored cable gland (sealing dia. 6.5 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.
- Toughened glass factory-sealed into the floodlight body (Types PC and PL) or factory-sealed into the cover frame (Type PL).
- Operates in any position (except Type PL, to be used only for 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 24 Vac/Vdc halogen version.
- Internal symmetric reflector.

Standard Materials:

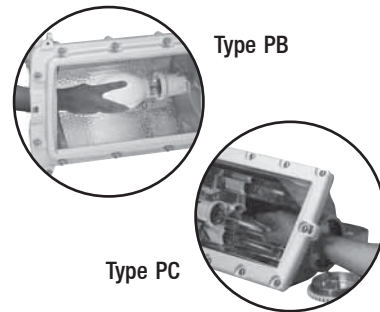
- Housing and door: copper free marine-grade aluminum alloy, painted gray.
- Lens: toughened safety glass.
- Reflector: bright highly polished aluminum.
- Stainless steel bolts.
- Polyamide cable gland and blanking plug.
- Nickel plated brass locknut.

Standard Finishes:

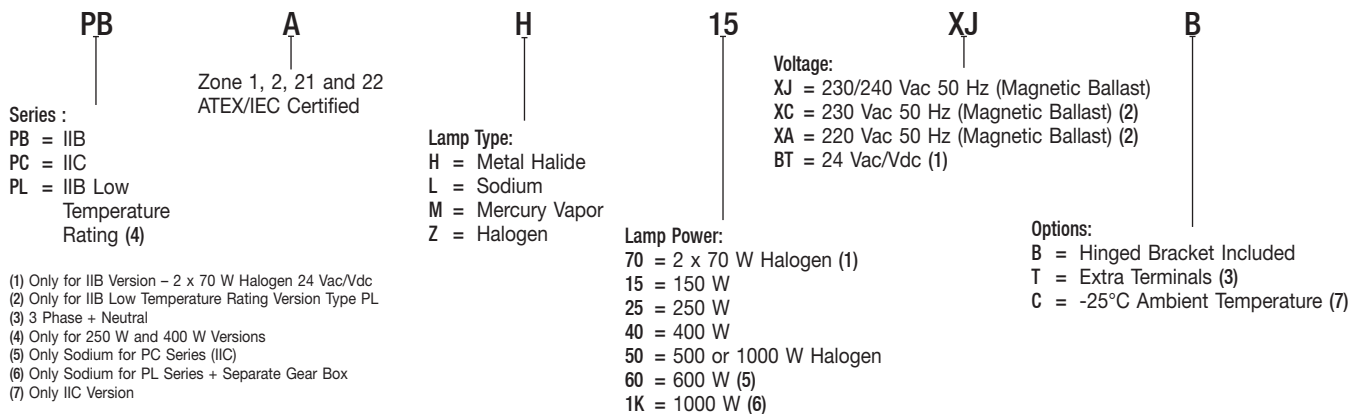
- Housing and door: gray epoxy powder paint.

Options:

- Other voltages, please consult factory.
- Terminal block with 2 more terminals for wiring with 3 phases plus Neutral in 380/415 V (loop in/loop out wiring possible): add "T" at the end of the catalog number.
- Screwed-on overhead diffuser out of galvanized steel with black painting (see accessories).
- Screwed-on zinc-coated protection guard for Types PB and PC (see accessories).
- 1000 W HP Sodium (Type PL) with separate Ex d housing for ballast.



Catalog Number Logic:



(1) Only for IIB Version – 2 x 70 W Halogen 24 Vac/Vdc
 (2) Only for IIB Low Temperature Rating Version Type PL
 (3) 3 Phase + Neutral
 (4) Only for 250 W and 400 W Versions
 (5) Only Sodium for PC Series (IIC)
 (6) Only Sodium for PL Series + Separate Gear Box
 (7) Only IIC Version

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Ordering Information:



Ex de IIB Floodlight - PB Series

Lamp Wattages	Lampholder	Voltage (+/-10%)	Lamp Type Ellipsoidal	Tubular	Weight (kg)	Volume (dm ³)	Catalog Number	Old Catalog Number
High Pressure Sodium								
150 W	E40	230/240 V 50 Hz	x	x	29.3	79.4	PBAL15XJB	095166 + 095193
250 W	E40	230/240 V 50 Hz	x	x	30.3	79.4	PBAL25XJB	095169 + 095193
400 W	E40	230/240 V 50 Hz	-	x	31.8	79.4	PBAL40XJB	095179 + 095193
Mercury Vapor								
250 W	E40	230/240 V 50 Hz	x	x	29.3	79.4	PBAM25XJB	095167 + 095193
400 W	E40	230/240 V 50 Hz	-	x	29.8	79.4	PBAM40XJB	095173 + 095193
Metal Halide								
250 W	E40	230/240 V 50 Hz	x	x	30.3	79.4	PBAH25XJB	095168 + 095193
400 W	E40	230/240 V 50 Hz	-	x	31.8	79.4	PBAH40XJB	095177 + 095193
Halogen								
500/1000 W	E40		-	x	26.3	79.4	PBAZ50B	095184 + 095193
2 x 70 W	H3	24 Vac/Vdc 50 Hz	-	-	27.3	79.4	PBAZ70BTB*	095165 + 095193

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

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



Ex de IIC Floodlight - PC Series

Lamp Wattages	Lampholder	Voltage (+/-10%)	Lamp Type Ellipsoidal	Tubular	Weight (kg)	Volume (dm ³)	Catalog Number	Old Catalog Number
High Pressure Sodium								
150 W	E40	230/240 V 50 Hz	x	x	29.0	104.4	PCAL15XJB	095155 + 095194
250 W	E40	230/240 V 50 Hz	x	x	30.0	104.4	PCAL25XJB	095156 + 095194
400 W	E40	230/240 V 50 Hz	-	x	32.0	104.4	PCAL40XJB	095157 + 095194
600 W	E40	230/240 V 50 Hz	-	x	35.0	104.4	PCAL60XJB	095160 + 095194
Mercury Vapor								
250 W	E40	230/240 V 50 Hz	x	x	30.0	104.4	PCAM25XJB	095162 + 095194
400 W	E40	230/240 V 50 Hz	-	x	30.5	104.4	PCAM40XJB	095158 + 095194
Metal Halide								
250 W	E40	230/240 V 50 Hz	x	x	30.0	104.4	PCAH25XJB	095163 + 095194
400 W	E40	230/240 V 50 Hz	-	x	32.0	104.4	PCAH40XJB	095159 + 095194
Halogen								
500/1000 W	E40		-	x	27.0	104.4	PCAZ50B	095161 + 095194

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



Ex de IIB Floodlight - PL Series

Lamp Wattages	Lampholder	Voltage (+/-10%)	Lamp Type Ellipsoidal	Tubular	Weight (kg)	Volume (dm ³)	Catalog Number	Old Catalog Number
High Pressure Sodium								
250 W	E40	230/240 V 50 Hz	x	x	37.5	104.4	PLAL25XJB	095276 + 095285
400 W	E40	220 V 50 Hz	x	x	37.5	104.4	PLAL40XAB	095277 + 095285
Halogen								
500/1000 W	E40		-	x	34.0	104.4	PLAZ50B	095283 + 095285

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

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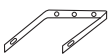
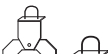


Zone 1 & 2 - 21 & 22



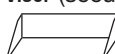
⊕ II 2 GD

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Accessories and Spare Parts:

Type	Catalog Number	Old Catalog Number	
Galvanized Steel Hinged Brackets			
 Type PB	PBHBG	095193	
Type PL	PLHBG	095285	
Type PC	PCHBG	095194	
Pole/Tube Mounting Galvanized Steel Brackets			
 Type PB/PL	1-1/4" to 1-1/2"	PNHC49G	095284
 Type PC	2"	PNHC60G	095286
Type PC	1-1/4" to 1-1/2"	PCHC49G	095171
	2"	PCHC60G	095189
Flat Surface Mounting Galvanized Steel Brackets			
 Type PB/PL	PNSBG	095197	
Type PC	PCSBG	095188	

Type	Catalog Number	Old Catalog Number
400 W Mercury Vapor Lamp		
Tubular	LM400E40	094895
Screwed-on Overhead Diffuser		
 Type PB	PBGDG	095191
Type PC	PCGDG	095186
Screwed-on Protective Guard		
 Type PB	PBPGZ	095195
Type PC	PCPGZ	095187
Visor (secured with 2 screws)		
 Type PC only	PCVG	095185

Compliances:

Hazardous Area	Gas	Dust
Certified Type	Pjd	
Zones	1 and 2	21 and 22
Conforming to ATEX 94/9/CE	CE 0081 ⊕ II 2 G	CE 0081 ⊕ II 2 D
Symbol of protection ATEX	Ex de IIB (Type PB et PL) Ex de IIC (Type PC)	Ex td A21
Symbol of protection IEC		
Temperature Rating	See tables	NA
Surface temperature	NA	See tables
Ambient temperature	-20°C ≤ Ta ≤ +55°C (Type PB and PC) (-25°C for PC Type as an option) -40°C ≤ Ta ≤ +55°C (Type PL)	
CE Declaration of conformity	50207	
ATEX Certificate	LCIE 99 ATEX 6002	
IECEx Certificate	IECEx LCI 04.0020	
Other Certifications	GOST	
Index of protection (solids and liquids)	IP66 (Type PB) IP66/67 (Types PC and PL)	
Impact resistance (shock)	IK10	

Temperature Rating Chart: Types PB

Lamp Wattage	Gas			Dust
	Temperature Rating According to Ta			Surface Temperature
	+40°C	+50°C	+55°C	
2 x 70 W - H3 (1)	T4	T4	T4	130°C
150 W Sodium	T4	T3	T3	145°C
250 W 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 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 Sodium	T2	T2	T2	257°C
500 W Halogen	T2	T2	T2	267°C
1000 W Halogen	T1	T1	T1	378°C

Temperature Rating Chart: Type PL

Lamp Wattage	Gas			Dust
	Temperature Rating According to Ta			Surface Temperature
	+40°C	+50°C	+55°C	
150 W Sodium	T4	T3	T3	145°C
250 W Sodium	T4	T3	T3	145°C
250 W Metal Halide	T3	T3	T3	197°C
250 W Mercury Vapor	T3	T3	T3	194°C
400 W Sodium	T4	T3	T3	144°C
400 W Metal Halide	T3	T3	T3	193°C
400 W Mercury Vapor	T3	T3	T3	195°C
600 W Sodium	T2	T2	T2	257°C
500 W Halogen	T2	T2	T2	267°C
1000 W Halogen	T1	T1	T1	378°C

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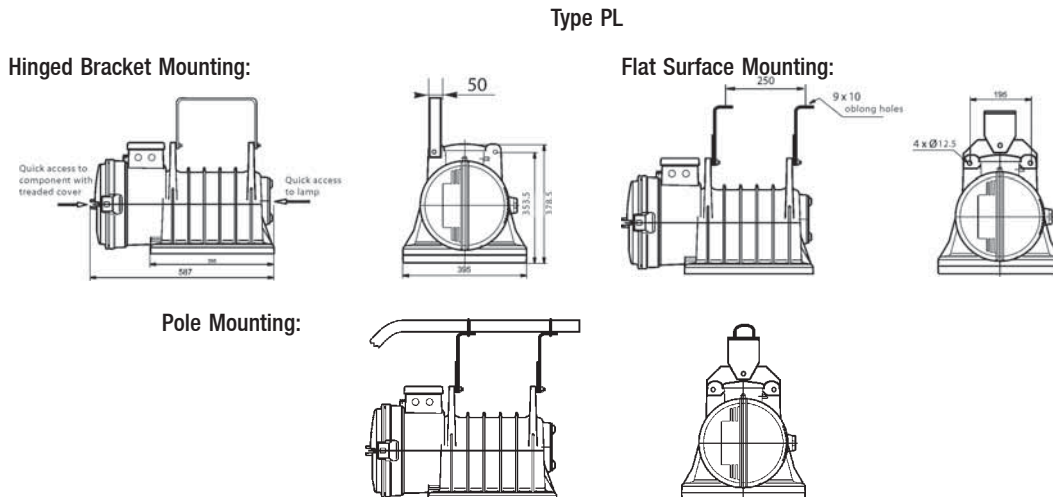
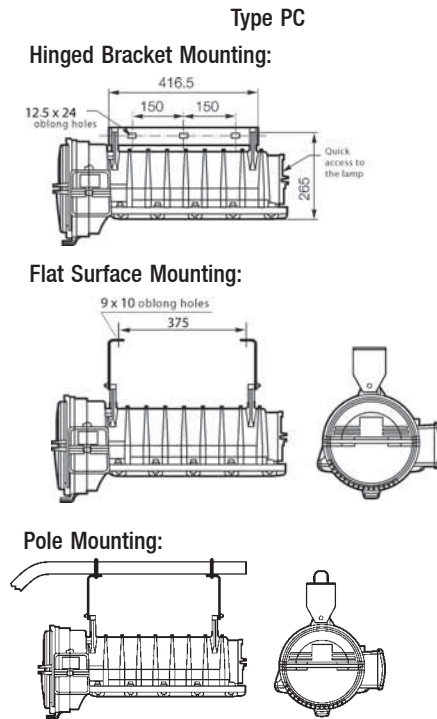
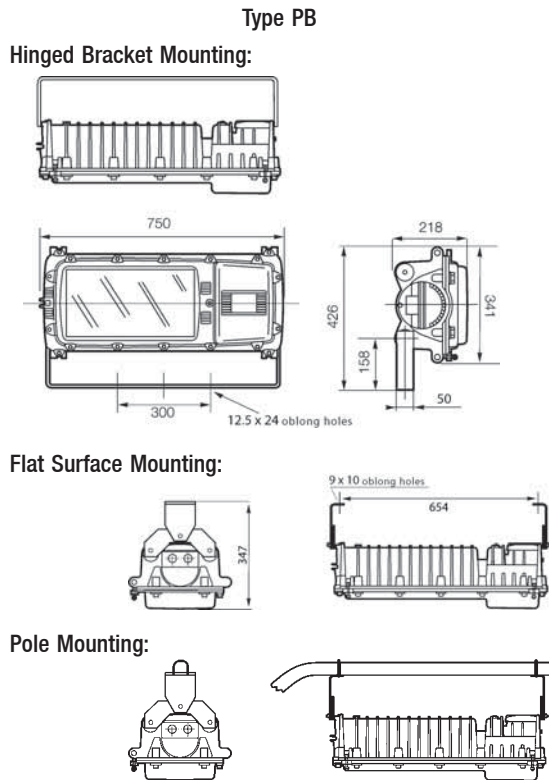
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Standards:

Ex Standards	EN / IEC 60079-0; 60079-1; 60079-7; 61241-0; 61241-1
Product Standards	EN / IEC 60598-1
EMC Standards	EN / IEC 55015; 61547
Other Standards	EN / IEC 60529 (IP), 62262 (IK)

Dimensions (mm):



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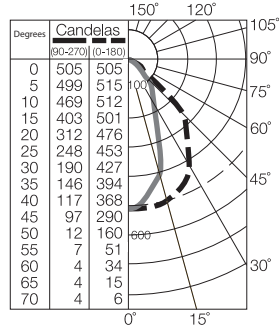
IP66 or IP66/67 - IK10

Photometric Data for Types PB and PC:

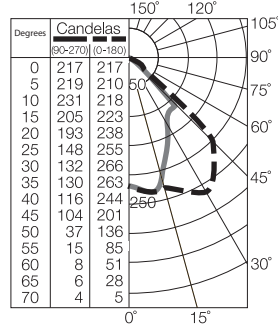
Polar curves for a lumen output of 1000 lm, as per NF C 71-121
Luminaire symbol as per NF C 71-121

--- Longitudinal
— Transverse

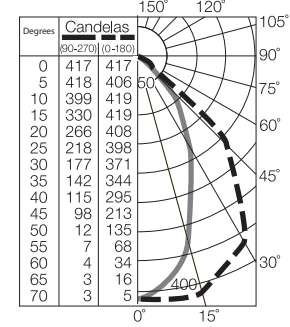
Narrow beam Metal Halide 250 W
Efficiency 68.3%
NF C 71-121: 0.68B



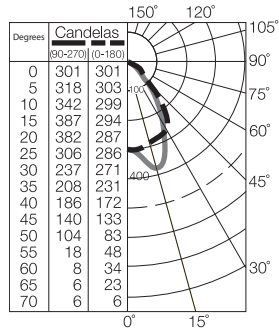
Narrow beam Metal Halide 400 W
Efficiency 49.3%
NF C 71-121: 0.49C



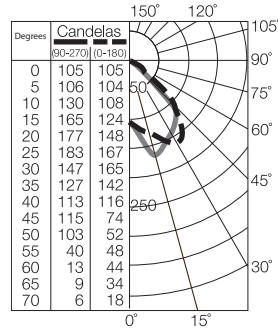
Narrow beam Halogen 1000 W
Efficiency 59.2%
NF C 71-121: 0.59B



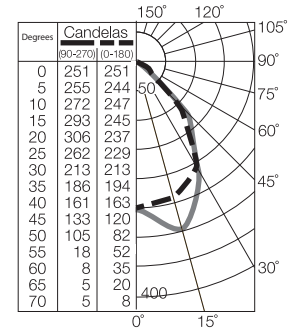
Wide beam Metal Halide 250 W
Efficiency 67.9%
NF C 71-121: 0.68C



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



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



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

North American CEC/NEC Certification:

- AEx/Ex de IIB IP 66 (Type PB only) cCSAus Ex de IIB IP 66 (Type PB only).
- 175 W Metal Halide and Pulse Start Metal Halide.
- Safety starter.