

Areamaster™ ATEX PN Series Floodlights

Zone 2 – 21 and 22. Metal Halide, High Pressure Sodium, Mercury Vapor

Listed for simultaneous exposure to gas, combustible dusts and flammable gases or vapors.

ATEX/IECEX:
Zone 2 – 21 and 22
Ⓔ II 2 D - Ⓔ II 3 GD
IP66 - IK07/08



THORNE &
DERRICK
INTERNATIONAL

Thorne & Derrick
+44 (0) 191 410 4292
www.heatingandprocess.com

Applications

- Powerful, efficient floodlights for large areas such as industrial complexes and ship loading areas.
- Rated for use in hazardous areas.

Features

- Highly efficient, integrally ballasted floodlight. Has compact, lightweight, yet rugged die cast aluminum construction.
- Simple installation and maintenance.
- Integral ballast:
 - ATEX/IEC: 230/240 V, 50 Hz
- One piece lens cover.
- Heavy duty, high temperature silicone rubber gasket, firmly seated.
- Socket: E40 (E27 for 70 W HPS version).
- Reflectors: double segment compound parabolic with finish for maximum efficiency.
- Mounting: yoke mount.

Standard Materials

- Ballast housing and lens door: copperfree (4/10 of 1% max.) aluminum
- Gasket: silicone rubber
- Socket: heavy duty porcelain with heavy gauge brass shell
- Reflector: finished aluminum
- Yoke mount: zinc plated steel
- Bolts: stainless steel

Standard Finishes

- Ballast housing, lens cover, yoke and pole mount: architectural bronze polyester
- Socket: porcelain

ATEX/IECEX Certifications and Compliances

- Certification Type: Pjn
 - Gas: Zone 2
 - Conforming to ATEX 94/9/CE: Ⓔ II 3 G
 - Type of Protection: Ex nR IIC Gc
 - Temperature Class: T2 to T4
 - Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F) [-40 °C to +50 °C (-40 °F to 131 °F) for body size L]
 - ATEX Certificate: LCIE 08 ATEX 6035X
 - IECEX Certificate: IECEX LCI 04.0015
 - Dust: Zone 22
 - Conforming to ATEX 94/9/CE: Ⓔ II 3 D
 - Type of Protection: Ex t IIIC Dc
 - Surface Temperature: T117 °C to T228 °C (T243 °F to T442 °F)
 - Ambient Temperature: -40 °C to +55 °C (-40 °F to +131 °F) (-40 °C to +50 °C (-40 °F to 131 °F) for body size L)
 - ATEX Certificate: LCIE 08 ATEX 6035X
 - IECEX Certificate: IECEX LCI 04.0015
 - Dust: Zone 21
 - Conforming to ATEX 94/9/CE: Ⓔ II 2 D
 - Type of Protection: Ex tD A21
 - Surface Temperature: T65 °C to T182 °C (T149 °F to T360 °F)
 - Ambient Temperature: -20 °C to +40 °C (-4 °F to +104 °F)
 - CE Declaration of Conformity: 50274
 - ATEX Certificate: LCIE 02 ATEX 6246X



- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK07 with glass diffuser, IK08 with polycarbonate diffuser

EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00912

Other Certification

- Size M - Certification Type: Pjn
 - INMETRO Certificate: BVC 11.0394-X 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 tables on following pages.

Catalog Numbering Guide — Areamaster ATEX PN Series Floodlights

PN	M	1	L	25	A	G	XJ	S
Series: PN - PN Series Zone 21: ATEX certified Zone 2-22: ATEX/IECEX certified	Body Size: P - Small M - Medium L - Large	Mounting: 1 - Yoke 5 - Pole Slip-fit	Lamp Type: H - Metal Halide ③ L - High Pressure Sodium M - Mercury Vapor ③	Wattage: 70 - 70 W 15 - 150 W 25 - 250 W 40 - 400 W ① 99 - 1000 W ②	Entry Size: A - M20	Diffuser: G - Glass P - Polycarbonate ②	Options: 225 - 220 Vac, 50 Hz (Magnetic Ballast) XJ - 230/240 Vac, 50 Hz (Magnetic Ballast)	Options: S - Stainless Steel Housing

① 400 Watt is rated for Zones 21-22 and 1000 Watt is rated for Zones 2-22 when used with large body. Select glass diffuser.

② Polycarbonate diffuser is not rated for use in Zones 2-22.

③ 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.

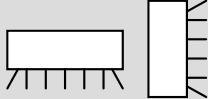
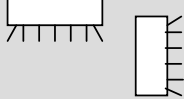
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Zone 21 (Dust)

Dust Surface Temperatures for Ta = +40 °C (+104 °F)			
Operating Position			
Lamp Type and Wattage	Glass Diffuser	Polycarbonate Diffuser	Time Before Opening in Minutes
Body Size: M	70 W High Pressure Sodium	+75 °C (+167 °F)	50
	150 W High Pressure Sodium	+101 °C (+214 °F)	25
	250 W High Pressure Sodium	+127 °C (+261 °F)	15
	250 W Metal Halide ①	+123 °C (+253 °F)	15
	250 W Mercury ①	+136 °C (+277 °F)	15
Body Size: L	400 W High Pressure Sodium	+126 °C (+26 °F)	30
	1000 W High Pressure Sodium	+177 °C (+351 °F)	30
	1000 W Metal Halide ①	+182 °C (+360 °F)	30

Zone 2 (Gas)

Lamp Type and Wattage	T Rating for Ta = +40 °C (+104 °F)	T Rating for Ta = +50 °C (+122 °F)	T Rating for Ta = +55 °C (+131 °F)
70 W High Pressure Sodium	T4	T4	T4
150 W High Pressure Sodium	T4	T4	T4
150 W Metal Halide ①	T4	T4	T4
Body Size: M	250 W High Pressure Sodium	T3	T3 — Cable T ° = +82 °C (+180 °F)
	250 W Metal Halide ①	T3	T3
	250 W Mercury ①	T3	T3 — Cable T ° = +81 °C (+178 °F)
	400 W High Pressure Sodium	T3 — Cable T ° = +87 °C (+187 °F)	T2 — Cable T ° = +92 °C (+198 °F)
	400 W Metal Halide ①	T2 — Cable T ° = +84 °C (+183 °F)	T2 — Cable T ° = +89 °C (+192 °F)
Body Size: L	400 W Mercury ①	T2 — Cable T ° = +84 °C (+183 °F)	T2 — Cable T ° = +89 °C (+192 °F)
	1000 W High Pressure Sodium	T3	—
	1000 W Metal Halide ①	T3	—

Zone 22 (Dust)

Lamp Type and Wattage	T Rating for Ta = +40 °C (+104 °F)	T Rating for Ta = +50 °C (+122 °F)	T Rating for Ta = +55 °C (+131 °F)
70 W High Pressure Sodium	117 °C (242 °F)	—	—
150 W High Pressure Sodium	130 °C (266 °F)	—	—
150 W Metal Halide ①	128 °C (262 °F)	—	—
Body Size: M	250 W High Pressure Sodium	—	T3 — Cable T ° = +82 °C (+180 °F)
	250 W Metal Halide ①	—	—
	250 W Mercury ①	—	T3 — Cable T ° = +81 °C (+178 °F)
	400 W High Pressure Sodium	T3 — Cable T ° = +87 °C (+187 °F)	T2 — Cable T ° = +92 °C (+198 °F)
	400 W Metal Halide ①	T2 — Cable T ° = +84 °C (+183 °F)	T2 — Cable T ° = +89 °C (+192 °F)
Body Size: L	400 W Mercury ①	T2 — Cable T ° = +84 °C (+183 °F)	T2 — Cable T ° = +89 °C (+192 °F)
	1000 W High Pressure Sodium	+187 °C (+369 °F) for Ta = +50 °C (+122 °F)	Cable T ° = +90 °C (+194 °F)
	1000 W Metal Halide ①	+192 °C (+378 °F) for Ta = +50 °C (+122 °F)	Cable T ° = +90 °C (+194 °F)

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Lamp Type and Wattage	Weight kg (lb)	Volume dm ³ (in ³)	Permissible lamps (not supplied)	Body Size	Catalog Number ③ ④
Standard with Lamp Glass Sealed on Frame					
70 W HPS	12.1 (26.7)	62.5 (3814)	Ovoid/Tubular	Medium	PNM1L70AGXJ
150 W HPS	12.9 (28.4)	62.5 (3814)	Ovoid/Tubular	Medium	PNM1L15AGXJ
250 W HPS	14.3 (31.5)	62.5 (3814)	Ovoid/Tubular	Medium	PNM1L25AGXJ
400 W HPS	16.0 (35.3)	62.5 (3814)	Ovoid/Tubular	Medium	PNM1L40AGXJ ①
400 W HPS	–	–	Ovoid/Tubular	Large	PNL1L40AGXJ ①
150 W MH ④	12.9 (28.4)	62.5 (3814)	Ovoid/Tubular	Medium	PNM1H15AGXJ
250 W MH ④	14.3 (31.5)	62.5 (3814)	Ovoid/Tubular	Medium	PNM1H25AGXJ
400 W MH ④	16.0 (35.3)	62.5 (3814)	Tubular	Medium	PNM1H40AGXJ ①
400 W MH ④	–	–	Ovoid/Tubular	Large	PNL1H40AGXJ ①
250 W MV ④	12.9 (28.4)	62.5 (3814)	Ovoid	Medium	PNM1M25AGXJ
400 W MV ④	13.8 (30.4)	62.5 (3814)	Ovoid/Tubular	Medium	PNM1M40AGXJ ①
With External Polycarbonate Weatherproof Protection ②					
70 W HPS	13.2 (29.1)	62.5 (3814)	Ovoid/Tubular	Medium	PNM1L70APXJ
150 W HPS	14.0 (30.9)	62.5 (3814)	Ovoid/Tubular	Medium	PNM1L15APXJ
250 W HPS	15.4 (34.0)	62.5 (3814)	Ovoid/Tubular	Medium	PNM1L25APXJ
400 W HPS	–	–	Ovoid/Tubular	Large	PNL1L40APXJ ①
150 W MH ④	14.0 (30.9)	62.5 (3814)	Ovoid/Tubular	Medium	PNM1H15APXJ
250 W MH ④	15.4 (34.0)	62.5 (3814)	Ovoid/Tubular	Medium	PNM1H25APXJ
400 W MH ④	–	–	Ovoid/Tubular	Large	PNL1H40APXJ
250 W MV ④	14.0 (30.9)	62.5 (3814)	Ovoid	Medium	PNM1M25APXJ ①

① 400 Watt is rated for Zones 21-22 and 1000 Watt is rated for Zones 2-22 when used with large body. Select glass diffuser.

② Polycarbonate diffuser is not rated for use in Zones 2-22.

③ For a 220 Vac, 50 Hz, magnetic ballast, replace the letters **XJ** in the 10th and 11th positions with the letters **225**; example: PNP1L70AG225.

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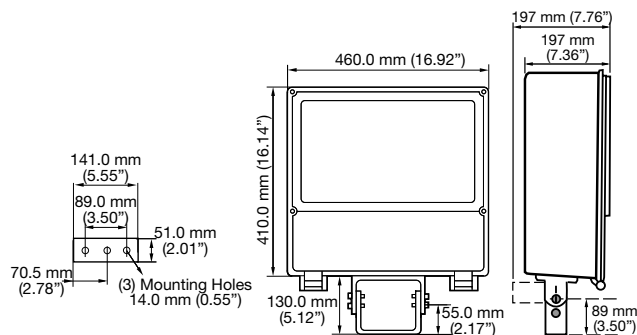
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Accessories

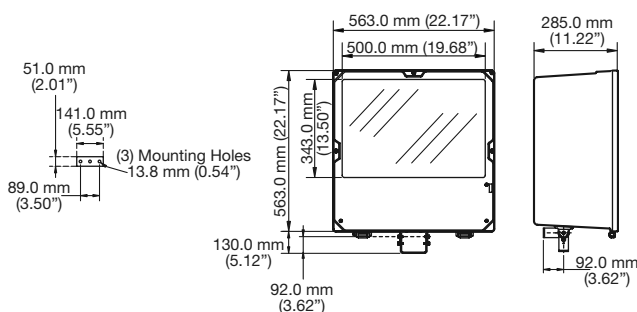
Description	Catalog Number
Fall Prevention Kit 1.2 m (3.94 in) stainless steel chain for M20 cable entry	FESCM20
 Slip-Fitter Adapter — fits medium body	G-SF20
 Slip-Fitter Adapter — fits large body/1000 Watt floodlight	G-AM-8-SF

Dimensions in Millimeters (Inches)

Size M



Size L



Photometric Data

Lamps: 70 W High Pressure Sodium

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

Degrees	Candelas (0–180)	Candelas (90–270)
0	487	487
5	439	461
10	416	387
15	372	324
20	208	290
25	129	294
30	116	319
35	111	318
40	101	289
45	86	193
50	70	150
55	84	141
60	62	132
65	22	88
70	9	15

Total Luminaire Efficiency = 74.6%

