

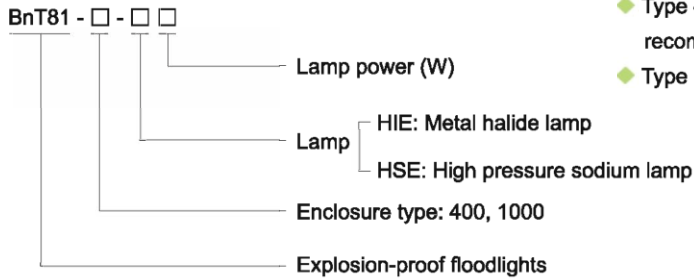


Floodlights

BnT81 Series Explosion-proof Floodlights

- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 2
 - Zone 21 and Zone 22
 - Class I, Zone 2
 - Class I, Division 2, Groups A, B, C, D
- ◆ Available lamp (max.1000W):
 - Metal halide lamp (HIE)
 - High pressure sodium lamp (HSE)
- ◆ Two enclosure types: 400, 1000.
- ◆ Type 400: lamp and ballast are of integral type.
Type 1000: lamp and ballast are split type.
- ◆ Enclosure in copper-free aluminium, powder coated surface (RAL7035).
- ◆ Both American standard and European standard are available.
- ◆ Type 400 are supplied without lamp, PHILIPS lamps are recommended.
- ◆ Type 1000 are supplied with lamp.

■ Catalogue number logic



Zones 2; 21&22

Technical data													
Explosion-proof floodlights	BnT81-400-□□												
Explosion protection Gas explosion protection Dust explosion protection	Ⓔ II 3 G Ex nR IIC xxx ¹⁾ Gc Ⓔ II 2 D Ex t IIIC Txxx°C ¹⁾ Db IP65 ¹⁾ See Selection Table												
Certificates	LCIE 12 ATEX 1012X (Gas); LCIE 12 ATEX 3052X (Dust); IECEx CQM 12.0011X FM (USA); GOST.R (Russia)												
Conformity to standards	EN 60079-0: 2009, EN 60079-15: 2010, EN 60079-31: 2009 IEC 60079-0: 2007, IEC 60079-15: 2010, IEC 60079-31: 2008												
Material Enclosure Glass cover Internal reflector Ballast Trigger Capacitor Exposed fastener	Copper-free aluminium, powder coated surface Toughened glass, stands 4J impact High-purity aluminium Chock ballast, rapid starting, stable performance General trigger Power factor ≥ 0.90 (compensated) Stainless steel												
Lamp Lamp holder Available lamp and lamp power (W)	E40 <table border="1"> <thead> <tr> <th>American standard 120V/208V/240V/277V/480V AC</th> <th>HIE</th> <th>175W, 250W, 400W</th> </tr> </thead> <tbody> <tr> <td></td> <th>HSE</th> <td>150W, 250W, 400W</td> </tr> <tr> <th>European standard 220~240V, 250V AC</th> <th>HIE</th> <td>175W, 250W, 400W</td> </tr> <tr> <td></td> <th>HSE</th> <td>150W, 250W, 400W</td> </tr> </tbody> </table>	American standard 120V/208V/240V/277V/480V AC	HIE	175W, 250W, 400W		HSE	150W, 250W, 400W	European standard 220~240V, 250V AC	HIE	175W, 250W, 400W		HSE	150W, 250W, 400W
American standard 120V/208V/240V/277V/480V AC	HIE	175W, 250W, 400W											
	HSE	150W, 250W, 400W											
European standard 220~240V, 250V AC	HIE	175W, 250W, 400W											
	HSE	150W, 250W, 400W											
Rated voltage	Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/20) American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional) European standard: 220~240V, 250V AC 50Hz (60Hz is optional)												
Earthing protection	M5 (internal & external earth bolts)												
Degree of protection	IP65												
Ambient temperature	-60°C~+55°C												
Terminal	3 x 1.5~4mm ² (L+N+PE)												
Cable entries	2 x Φ21: 1 x M20 x 1.5 plug, 1 x M20 x 1.5 cable gland (DQM-I Ex e, carbon steel)												
Applicable cable outer diameter	Φ5~Φ10 (mm)												
Weight	American standard: 16.10kg European standard: 12.85kg												



Selection Table				Dimension drawings (all dimensions in mm) - subject to alteration	
Rated voltage	Lamp	Lamp power (W)	Temperature classification		
			Gas	Dust	
220~240V 250V AC 50/60Hz	HIE	175,250	T3	T190°C	
	HSE	150,250	T3	T190°C	
	HIE	400	T252°C	T252°C	
	HSE	400	T252°C	T252°C	
120V/208V 240V/277V 480V AC 50/60Hz	HIE	175,250,400	T3	T190°C	
	HSE	150,250,400	T3	T190°C	

Floodlights

BnT81 Series Explosion-proof Floodlights

Technical data

Explosion-proof floodlights

BnT81-1000-□□

Explosion protection

Gas explosion protection
Dust explosion protection

⊕ II 3 G Ex nR IIC T2 Gc
⊕ II 2 D Ex tb IIIC T290°C Db IP65

Certificates

LCIE 13 ATEX ____ (Gas); LCIE 13 ATEX ____ (Dust); IECEx FM (USA); GOST.R (Russia)

Conformity to standards

EN 60079-0: 2009, EN 60079-15: 2010, EN 60079-31: 2009
IEC 60079-0: 2011, IEC 60079-15: 2010, IEC 60079-31: 2008

Material

Enclosure
Glass cover
Internal reflector
Ballast
Trigger
Capacitor
Exposed fastener

Copper-free aluminium, powder coated surface
Toughened glass, stands 4J impact
High-purity aluminium
Chock ballast, rapid starting, stable performance
General trigger
Power factor ≥ 0.90 (compensated)
Stainless steel

Lamp

Lamp holder
Available lamp and lamp power (W)

E40

American standard 120V/208V/240V/277V AC	HIE	1000W
	HSE	1000W
European standard 230V AC	HIE	1000W
	HSE	1000W

Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/20)

Rated voltage

American standard: 120V/208V/240V/277V AC 60Hz (50Hz is optional)
European standard: 230V AC 50Hz (60Hz is optional)

Earthing protection

M5 (internal & external earth bolts)

Degree of protection

IP65

Ambient temperature

-60°C~+55°C

Terminal

3 x 1.5~4mm²(L+N+PE)

Cable entries

lamp : 1 x G3/4" cable gland (DQM-I Ex e, brass armored cable wiring)
ballast: 2 x G3/4" cable gland (DQM-I Ex e, brass armored cable wiring)
 $\Phi 10 \sim \Phi 14$ (mm)

Applicable cable outer diameter

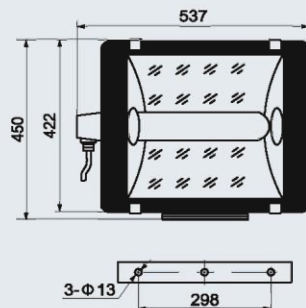
Weight

Lamp
Ballast

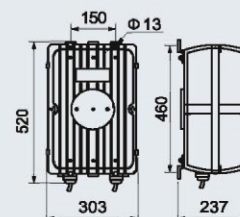
10.00kg
American standard: 21.80kg
European standard: 18.60kg



Dimension drawings (all dimensions in mm) - subject to alteration



BnT81-1000



BnT81-1000 Ballast

Photometric data

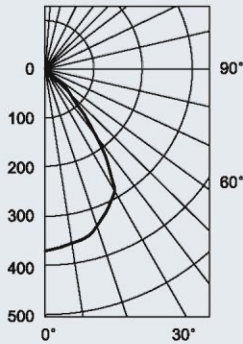
BnT81-400

Photometric data of 250W metal halide lamp

Rated luminous flux:23000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



175W Metal halide lamp*0.61

150W High pressure sodium lamp*0.65

250W High pressure sodium lamp*1.22

400W Metal halide lamp*1.65

400W High pressure sodium lamp*2.08

Angle	CP	Angle	CP
0	8658	50	4092
5	8691	55	2570
10	8577	60	1047
15	8536	65	723
20	8174	70	400
25	7812	75	75
30	7450	80	0
35	6838	85	0
40	6226	90	0
45	5615		

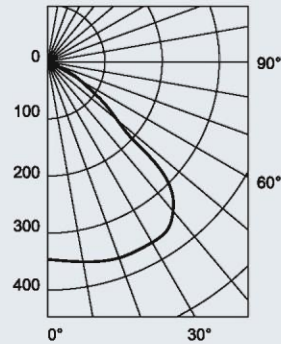
BnT81-1000

Photometric data of 1000W High pressure sodium lamp

Rated luminous flux:130000lm;

The data from PHILIPS lamp;

Luminous intensity distribution cd/1000lm



1000W Metal halide lamp*0.65

Angle	CP	Angle	CP
0	29915	50	12585
5	33198	55	6076
10	28325	60	2707
15	26070	65	1057
20	25310	70	613
25	24773	75	487
30	30708	80	320
35	29919	85	6
40	25734	90	0
45	17314		

We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

