

BAT53 Series Explosion-proof Floodlighting



BAT53 series is our latest updated integral lighting, entitled with exclusive property right and related patents. It conforms to IEC, EN standard and 94/9/EC instruction.

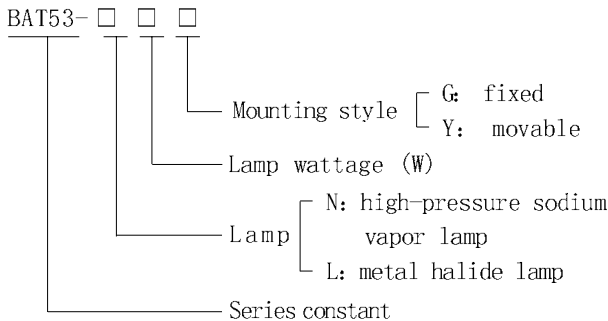
BAT53 series lighting has passed type test by LCIE and has gained LCIE certificate of conformity.

For use in hazardous area Zone 1, Zone 2 and Zone 20, Zone 21, Zone 22; IIA and IIB explosive gas atmospheres.

Typical application includes chemical and petrochemical processing facilities, off-shore and dockside installations, military industry and warehouse.



◇ Catalog number logic



◇ Compliances

94/9/EC instruction
 IEC 60079-0, IEC60079-1, IEC60079-7
 EN 50014, EN50018, EN50019
 GB3836.1-2000, GB3836.2-2000, GB3836.3-2000

◇ Certificates of conformity No.:

LCIE 05 ATEX 6143

◇ Features

1. Housings made of die-cast aluminum alloy, with semi-auto hydraulic facilities one-off formation under high temperature and high-pressure for strength and resistance to corrosion.
2. Roboblast and epoxy resin finish by semi-auto high-voltage electrostatic spray applied for housings, corrosion-free and exposure free, resin protection layer of great adhesive force.
3. Toughened glass transparent door frame for 4J impact and more than 98% light transmittance.
4. Steel guard supplied with galvanized, epoxy resin finish for resistance to corrosion.
5. All external hardware—stainless steel for resistance to corrosion.
6. The ballast is integral into the lighting with isolator between the ballast and the lamp, offering heat removal, long service life and easy installation.
7. Specially designed opening for lamp provides easy relamping and maintenance without opening the transparent door frame.
8. 100 type and 250 type floodlighting lamp holder can be easily adjustable to aim light where it is needed.
9. Offer a choice of 100 type, 250 type and 400 type, available with sodium and metal halide lamp of 400 W and below.
10. Two mounting styles—fixed mounting and movable mounting are available to satisfy all mounting requirements.
11. If required extra capacitor is designed inside the lighting, power factor is $\cos\varphi \geq 0.85$.
12. Separate chamber ensures easy connection and maintenance.
13. Cable of $3 \times 2.5-4\text{mm}^2$ with diameter of 10-17mm is available.



100 type: fixed (G)

100 type: movable (Y)



250 type: fixed (G)

250 type: movable (Y)



400 type: fixed (G)

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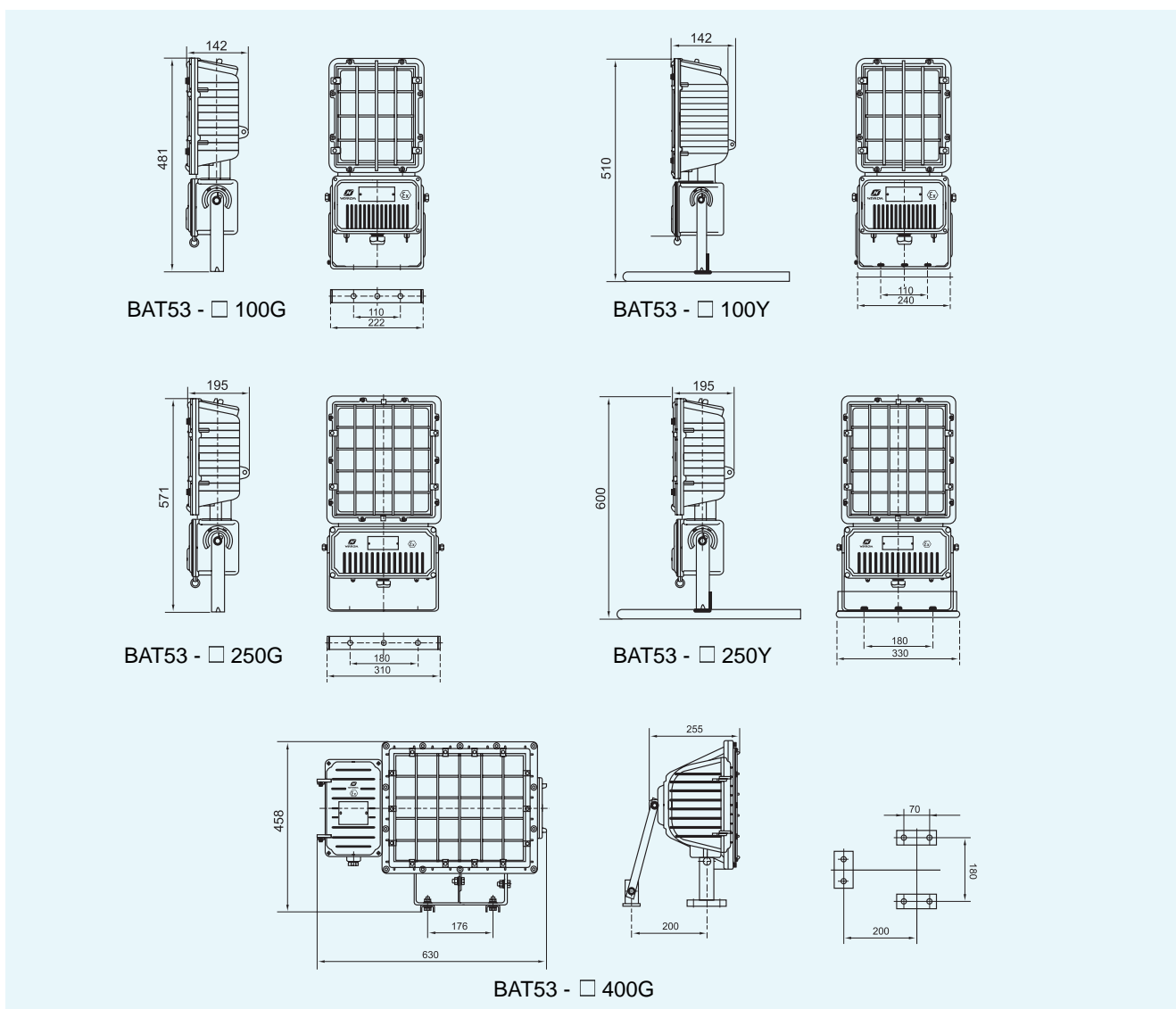
◇ Technical data

Description	Marking	Power	Lamp holder	Weight (kg)	Protection	Corrosion protection	Cable O.D(φ)(mm)
BAT53- □ 100	⊕ II 2G EExde II BT4	AC220V 50HZ	E27	6.5	IP65	WF 1	G3/4"
BAT53- □ 250	⊕ II 2G EExde II BT3		E40	13			
BAT53- □ 400			E40	14			

◇ Lamp power available

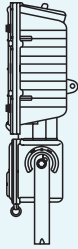
Description	High-pressure sodium vapor lamp	Metal halide lamp	lamp thread	Lamp brand
BAT53- □ 100	70W、100W	70W、100W	E27	PHILIPS
BAT53- □ 250	150W、250W	175W、250W	E40	
BAT53- □ 400	400W	400W	E40	

◇ Dimension versions



LIGHTING

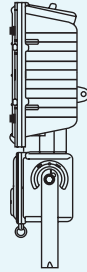
Photometric data



Luminous intensity data for 100W high-pressure sodium vapor lamp

70W High-pressure sodium vapor lamp: rated luminous flux 6000lm
 100W High-pressure sodium vapor lamp: rated luminous flux 8500lm
 70W Metal halide lamp: rated luminous flux 5600lm
 100W Metal halide lamp: rated luminous flux 8000lm

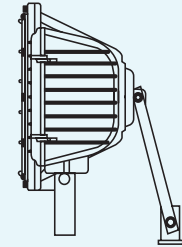
The rated luminous flux from PHILIPS lamp



Luminous intensity data for 250W high-pressure sodium vapor lamp

150W High-pressure sodium vapor lamp: rated luminous flux 16000lm
 250W High-pressure sodium vapor lamp: rated luminous flux 28000lm
 175W Metal halide lamp: rated luminous flux 14000lm
 250W Metal halide lamp: rated luminous flux 20500lm

The rated luminous flux from PHILIPS lamp

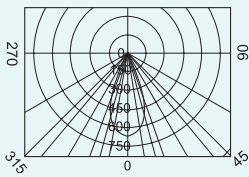


Luminous intensity data for 400W high-pressure sodium vapor lamp

400W High-pressure sodium vapor lamp: rated luminous flux 48000lm
 400W Metal halide lamp: rated luminous flux 35000lm

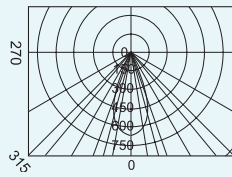
The rated luminous flux from PHILIPS lamp

Luminous intensity distribution



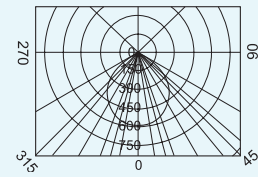
For a 70W High-pressure sodium vapor lamp multiply by 0.70
 For a 70W Metal halide lamp multiply by 0.66
 Lighting efficiency 73.4%

Luminous intensity distribution



For a 150W High-pressure sodium vapor lamp multiply by 1.14
 For a 150W Metal halide lamp multiply by 2
 Lighting efficiency 51.8%

Luminous intensity distribution



For a 400W High-pressure sodium vapor lamp multiply by 1.37
 Lighting efficiency 55.3%

Luminous intensity data

Angle	CP	Angle	CP	Angle	CP
0	5602	60	26	120	0
5	5557	65	16	125	0
10	5167	70	10	130	0
15	4574	75	4	135	0
20	3282	80	3	140	0
25	2175	85	1	145	0
30	1314	90	0	150	0
35	610	95	0	155	0
40	290	100	0	160	0
45	104	105	0	165	0
50	61	110	0	170	0
55	35	115	0	180	0

Luminous intensity data

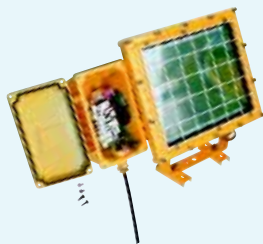
Angle	CP	Angle	CP	Angle	CP
0	18068	60	83	120	0
5	17925	65	51	125	0
10	1667	70	32	130	0
15	14755	75	11	135	0
20	10585	80	7	140	0
25	7017	85	4	145	0
30	4238	90	0	150	0
35	1968	95	0	155	0
40	934	100	0	160	0
45	336	105	0	165	0
50	196	110	0	170	0
55	112	115	0	180	0

Luminous intensity data

Angle	CP	Angle	CP	Angle	CP
0	27024	60	7187	120	0
5	26448	65	3586	125	0
10	25872	70	973	130	0
15	25200	75	352	135	0
20	25138	80	87	140	0
25	23760	85	34	145	0
30	21600	90	3	150	0
35	19440	95	0	155	0
40	16885	100	0	160	0
45	14456	105	0	165	0
50	12384	110	0	170	0
55	9632	115	0	180	0

All lighting designs and lighting data come from DIALUX software of Germany upon stimulated situation and working condition.

◇ Power connection



Screw the ballast box open, through the cable entry, cable is connected to connector. After connection, lock the cable entry and cover the ballast box, screw tight. Note: Power can't be connected before lighting mounting, and movable support fixed for the movable mounting.



Lamp of proper power selected according to the description on nameplate. Lamp of other power is not available! Otherwise, damage the ballast and trigger.



Screw the lamp into the holder through the opening on top or side, screw the opening cover tight ensuring good contact and reliable sealing. Available with relamping.

◇ Movable mountings



During movable mounting, take out the lighting and the movable support out of the same package, screw out the M12 bolt on yoke. Connect the U support and movable support with M12 bolt, offering free placement of lamp.

◆ Lighting aiming angle adjustment and maintenance.

For trouble shooting, the lighting should be put down off mounting position, repaired and maintained by professionals.



Loosen the screw applied for connection of the U support and the lighting, adjust the lighting aiming angle. More lighting aiming angle can be achieved by adjustment of screw in the groove of the U support.



Defective component must be replaced with Warom components through local exclusive agency. The component other than Warom is not allowed.

◆ Ordering information

- Select the product according to catalog number logic such as proper lamp, lamp wattage and mounting style.
- Please note if any special requirements for power and for group II C.
- Components ordering code below as a reference, not included if no code.
- Lamp is not included when ex-works. Please adopt suitable lamp, technical requirements provided for reference. PHILIPS is recommended.
- Ordering example:
Enquiry: 250W sodium lighting, movable mounting style, AC220V/50Hz
Ordering code: BAT53-N250Y.
- We reserve the power of final interpretation and to make alterations to the technical data, weights, dimensions, designs and products available without notice.

◆ Accessories

Picture	Description	Ordering code	Picture	Description	Ordering code	
	100 type ballast	N70	53001		125 type	53015
		L70	53002		250 type	53016
		N100	53003		400 type	53017
		L100	53004		125 type	53018
		N100	53005		250 type	53019
	250 type ballast	N250	53006	400 type	53020	
		L175	53007		Terminal block	53021
		L250	53008			
	400 type ballast	N400	53009		Trigger	53011
L400		53010				
	Extra capacitor	125 type	53012			
		250 type	53013		E40 Lamp holder	53023
		400 type	53014			