RDB98

explosion–proof maintenance–free energy–saving lamps(IIB、IIC、DIP)



Application

◆Applicable to Area 1 and 2 of explosive gas atmospheres;
◆Applicable to Area 21 and 22 of combustible dust atmospheres;
◆Applicable to IIA, IIB, IIC of explosive gas atmospheres;
◆Applicable to T1~T6 temperature group;
◆With emergency functions according to user requirements;
◆Applicable to petroleum mining, storage, chemical industry, military industry, military installation and other explosive dangerous environments.

Model implication

RDB 98-□ □ □

- F:Flood type (no note is allowable), T:project-light type
- 安装方式: M:Road-lamp type; Z: Support type
- Light-source power
- Design serial number
- Explosion-proof, maintenance-free, energy-saving lamp

Note: 1. The series lamps are equipped with light source of electrodeless lamp and power source when delivery.
2. Select model item by item according to light-source powers, installation ways and accessories when placing an order.

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Product feature

1.Housing is made of aluminum alloy with high pressure casting formation and the high voltage electrostatic spray is carried out on the surface after shot blasting;
2.Exposed fastener is made of stainless steel with high antiseptic property;
3.One-piece structure is used for light source cavity and power source cavity, and the power source cavity is equipped with hinge, therefore, it is more convenient to install lamps;
4.Separate structure is used for light source cavity and power source cavity, so as to ensure that the heat in light source cavity can't be transmitted to the supply power;
5.It is specially to manufacture high efficiency, constant current and voltage driving source with wide voltage input and constant power output. The power factor is ⩾0.98. It has many functions of multichannel shunt, constant current, overvoltage protection, overcurrent protection and surge current protection;
6.Labyrinth seal structure is used between housing and cover to resist aging and have high protection level by combining with heatproof silicone rubber sealing strip;
7.Armorplate glass can resist 4J high energy impact and heat fusion as well as have high light transmittance;
8.Design of modular light source is good for power upgrade and replacement, reduce use and maintenance cost of lamps;
9.International famous Chip is used for LED light source. It can save 60% electricity than gas discharge lamp by combining with specially–made high efficiency, constant current driving source;
10.Secondary light distribution system is designed based on professional optical to have reasonable distribution of light beam and uniform illumination and effectively improve lighting effect of lamps;
11.Light distribution element is specially designed for each lamp type (flood type and project–light type) to give full play to use property of lamps;
12.Heat–conduction and heat–radiation structure of specially–made aluminum substrate can ensure the heat generated by light source to effectively transmit to cooling fin and improve heat emission efficiency;

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13.Housing surface has high density cooling fin to greatly improve heating radiating area, take away the heat by air motion and fully ensure the cooling requirements and long service life of LED.

14.Fully sealing structure is for LED assembly with waterproof, dustproof, without internal cleaning and maintenance. Unit failure shall not impact on the regular work of other assemblies by especially designed modular circuit.

15.It can provide high quality lighting and health security for the user working in the interior for long time without ultraviolet radiation;

16.The rotation angle of wall type installation is adjustable and cable wiring is used for it. Cable or steel pipe wiring is used for ceiling type installation;

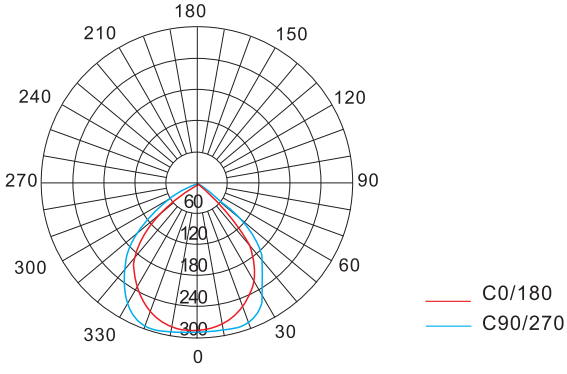
17.Cable or steel pipe wiring.

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Distribution curve flux



Main technical parameters

Executive standard： GB 3836.1、GB 3836.2、GB 3836.3、GB 3836.9、IEC60079
Ex–mark： ExdembIICT6Gb/ExtD A21 IP65 T80℃
Rated voltage： AC 220V
Equipped light source： LED
Rated power： 40W、50W、60W、70W、80W、100W、120W
Light source power： ⩾160lm/W
Power factor： ⩾0.98
Corrosion–proof–class： WF1、WF2
Entry spec： G3/4"
Cable's outer diameter： Φ9mm ~ Φ14mm

Light source features

High luminous efficiency

Light effect is 7–14lm/W for incandescent lamp and 80–100lm/W for high pressure sodium lamp. Most of power consumption is turned into heat loss. Light effect is up to 140–160lm/W for LED with good monochromaticity, narrow spectrum, selected color temperature and good color rendering.

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Low power consumption

Single LED power is 1–3W with DC drive. Driving voltage for single tube is 3–3.5V and current is 0.35–1A with fast reaction speed and high frequency operation. Under the same condition of lighting effect, its power consumption is 1/8 of that of incandescent bulb and 1/2 of that of fluorescent lamp.

Long service life

Electronic field radiation emitting light is used for ordinary light source with easy fired lamp filament, heat deposition, light decay and other defects. LED light source can sustain high strength mechanical shock and vibration as well as is nonbreakable with small size, light weight and epoxy resin package. Theoretical service life is up to 0.1 million hours to greatly reduce maintenance cost and avoid frequently replacing the lamp.

High safe reliability

It has cold light source and can accurately control lighting type and angel, without heat radiation, glare, as well as without mercury, sodium and other substances being harm to health.

Built–in microprocessing system can control light intensity and adjust light way.

Low use cost

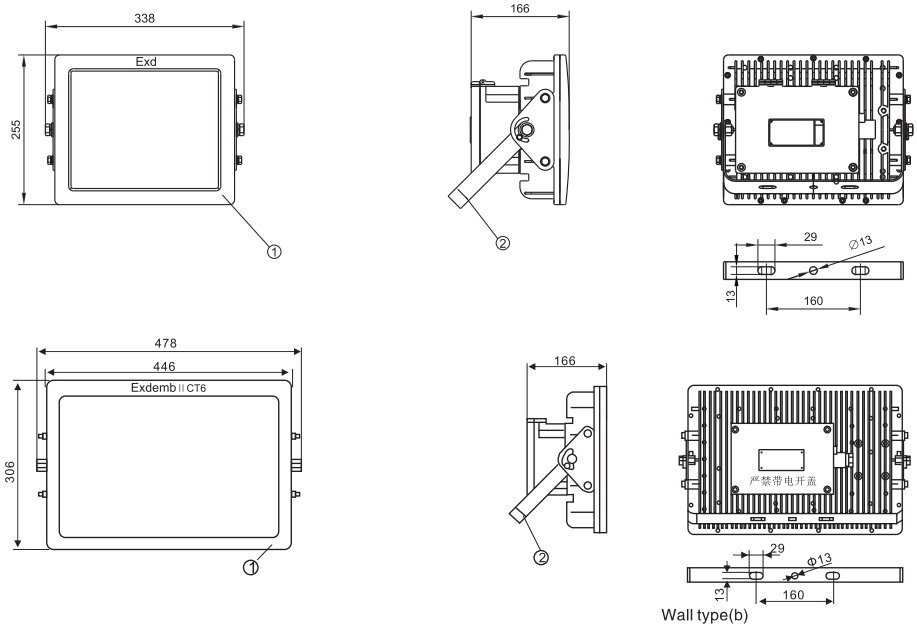
The cost of LED light source is slightly higher than traditional light source, but the investment can be recovered through energy conservation for one year. LED is maintenance–free light source and can save maintenance cost for a few years and greatly reduce use cost.

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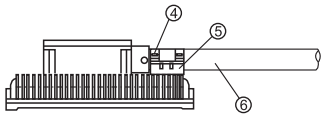
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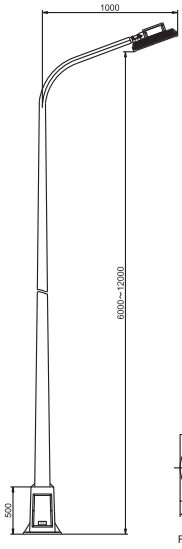
Outlines & installation dimensions

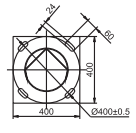


Wall type(b)

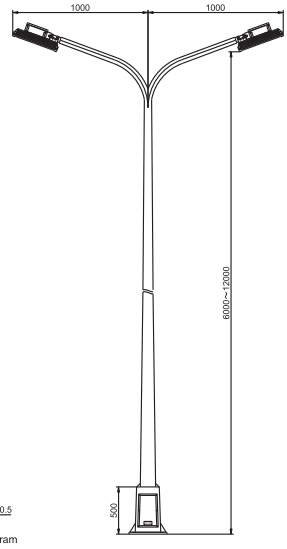


Installation way of road lamp





Flange schematic diagram



1、Explosion–proof lamp
2、Wall installation rack
3、Ceiling installation rack
4、Road–lamp hoop
5、Road–lamp hoop
6、Road lamp pole