



## JAR™ Series

### LED Hazardous Location Lighting

JAR™ series hazardous location light is a reliable, durable, and high-performance luminaire designed for maximum heat dissipation, exceptional energy efficiency, and dependable operation in demanding environments.

### Compliance

NEC/CEC Standard

UL 844 Hazardous Locations

Class I Division 2, Group A, B, C, D

Class II Division 1, Group E, F, G

Class II Division 2, Group F, G

Class III

Class I, Zone 2, Group IIC

CSA C22.2 No.137

CSA C22.2 NO. 250.0:21

FCC

UL 1598 Wet Locations

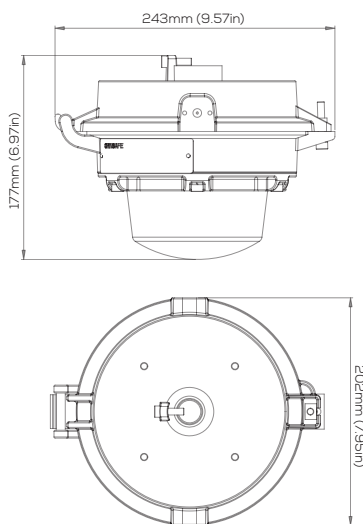
UL 1598A Marine Outside Type (Salt Water)

UL 8750 LED Safety

IP66/67 | IK09 | 5G | NEMA4X

### Dimensions

unit: mm(in)



### Warranty

10-year limited system warranty

Lumen Maintenance: L70 > 150,000 hours @ 25°C

### Technical Data

#### Electrical

|                          |                 |
|--------------------------|-----------------|
| Rated Power              | 10W / 20W / 30W |
| Input Voltage            | 100-277V/AC     |
| Input Frequency          | 50/60Hz         |
| Power Factor             | > 0.95          |
| Driver Efficiency        | ~ 90%           |
| DC output Ripple & Noise | < 200mVP-P      |

#### Optical

|                                     |                          |
|-------------------------------------|--------------------------|
| Lumen Output                        | 1500lm / 3000lm / 4500lm |
| Luminous Efficacy (Lumens per Watt) | 150 lm/W                 |
| Beam Angle                          | 110°                     |
| Correlated Color Temperature (CCT)  | 3000K 4000K 5000K        |
| CRI                                 | Ra>70                    |

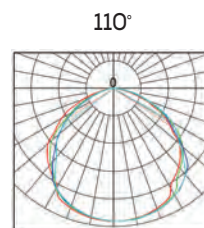
#### Environmental

|                               |             |
|-------------------------------|-------------|
| Ambient Operating Temperature | -40°C~+65°C |
| Ambient Operating Humidity    | 10%~90% RH  |
| Atmospheric pressure          | 86~106KPa   |

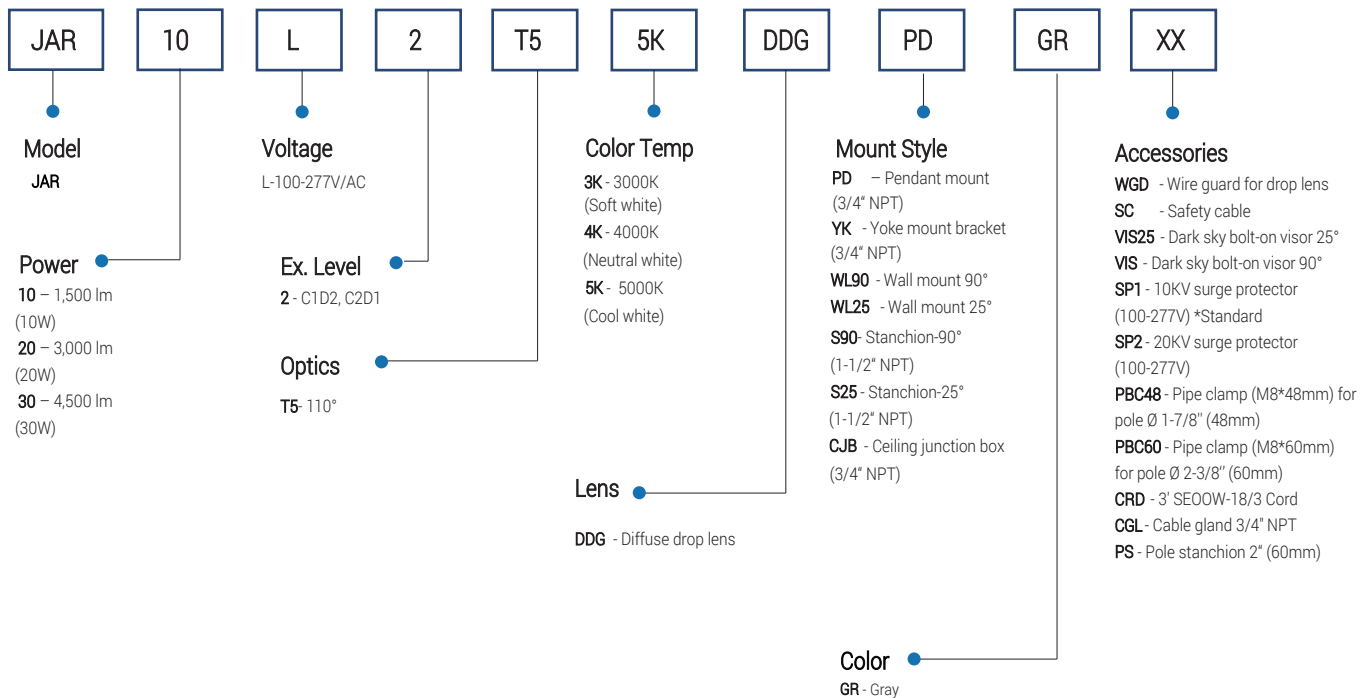
#### Technical

|                  |                                                        |
|------------------|--------------------------------------------------------|
| Lens Material    | Frosted drop lens                                      |
| Mounting Options | Pendant / Ceiling / Wall mount / Stanchion / U-Bracket |
| Cable Entries    | 3/4" NPT, 1-1/2" NPT                                   |
| Net Weight       | 2.6kg (5.37 lbs)                                       |

### Beam Distribution



## Ordering Information and Mounting Accessories



## Mounting Options



**PD**  
Pendant mount  
3/4" NPT



**YK**  
Yoke mount  
3/4" NPT



**W90**  
Wall mount 90°  
3/4" NPT



**W25**  
Wall mount 25°  
3/4" NPT



**S90**  
Stanchion mount  
90°, 1-1/2"NPT



**S25**  
Stanchion mount  
25°, 1-1/2"NPT



**CJB**  
Ceiling junction box  
3/4" NPT

## Accessories



**YK**  
Yoke mount  
3/4" NPT



**SC**  
Stainless steel  
safety cable  
Ø6 (3mm)



**WGD**  
Stainless steel wire  
guard For drop lens



**VIS25**  
Spinning aluminium  
visor 25°



**VIS**  
Spinning aluminium  
dark sky visor 90°



**CGL**  
Cable Gland  
3/4" NPT  
Suitable for C1D2



**CRD**  
3' SE00W-18/3 Cord  
(Factory installed)



**PS**  
Pole Stanchion  
2-3/8" (60mm)



10KV Surge Protector  
\*Standard  
**SP1**  
10KV (100-277V)



20KV Surge Protector  
**SP2**  
20KV (100-277V)

## Classification of Divisions and Zones

| Hazard Level                     | Division Scheme | Zone Scheme      | Definitions                                                                                                          |
|----------------------------------|-----------------|------------------|----------------------------------------------------------------------------------------------------------------------|
| Continuous Hazard                | Division 1      | Zone 0 / Zone 20 | A place in which an explosive atmosphere is continually present                                                      |
| Intermittent Hazard              |                 | Zone1 / Zone 21  | A place in which an explosive atmosphere is likely to occur in normal operation                                      |
| Hazard Under Abnormal Conditions | Division 2      | Zone2 / Zone 22  | A place in which an explosive atmosphere is not likely to occur in normal operation, but may occur for short periods |

## Hazardous Atmosphere Category

| Explosive atmosphere       | Typical Hazard Material                                                                                                                                                                | Hazard Class | Division Group                           | NEC 505 / CEC 18                   |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------------------------|------------------------------------|
| Gases, vapors, and liquids | A: Acetylene<br>B: Hydrogen, etc.<br>C: Ether, etc.<br>D: Hydrocarbons, fuels, solvents, etc.                                                                                          | Class I      | Group A<br>Group B<br>Group C<br>Group D | IIC<br>IIC or IIB+H2<br>IIB<br>IIA |
| Dusts                      | E: Metal dusts (conductive and explosive)<br>F: Carbon dusts (some are conductive, and all are explosive)<br>G: Flour, starch, grain, combustible plastic or chemical dust (explosive) | Class II     | Group E<br>Group F<br>Group G            | IIIC<br>IIIC<br>IIIB               |
| Fibers and flyings         | Textiles, wood-working, etc. (easily ignitable, but not likely to be explosive)                                                                                                        | Class III    | Not Applicable                           | IIIA                               |

## IP Codes

| Solid Objects                 | Liquids                                                    |
|-------------------------------|------------------------------------------------------------|
| 0 - No protection             | 0 - No special protection                                  |
| 1 - Objects > 50mm diameter   | 1 - Vertically dripping water                              |
| 2 - Objects > 12.5mm diameter | 2 - Vertically dripping water when enclosure tilted by 15° |
| 3 - Objects > 2.5mm diameter  | 3 - Sprayed water up to 60°                                |
| 4 - Objects > 1.0mm diameter  | 4 - Sprayed water from all directions                      |
| 5 - Dust protected            | 5 - Water jets                                             |
| 6 - Dust tight                | 6 - Powerful water jets                                    |
|                               | 7 - Temporary submersion to a depth of 1m                  |
|                               | 8 - Extended submersion to a depth of >1m                  |

## IK Codes

| IK Code | Impact energy, J |
|---------|------------------|
| IK01    | 0.14             |
| IK02    | 0.2              |
| IK03    | 0.35             |
| IK04    | 0.5              |
| IK05    | 0.7              |
| IK06    | 1                |
| IK07    | 2                |
| IK08    | 5                |
| IK09    | 10               |
| IK10    | 20               |
| IK11    | 50               |

## Temperature Classification

| Marking | NEC500 CEC | NEC 505 IEC-GROUP II |
|---------|------------|----------------------|
| 450°C   | T1         | T1                   |
| 300°C   | T2         |                      |
| 280°C   | T2A        |                      |
| 260°C   | T2B        | T2                   |
| 230°C   | T2C        |                      |
| 215°C   | T2D        |                      |
| 200°C   | T3         |                      |
| 180°C   | T3A        |                      |
| 165°C   | T3B        | T3                   |
| 160°C   | T3C        |                      |
| 135°C   | T4         |                      |
| 120°C   | T4A        | T4                   |
| 100°C   | T5         | T5                   |
| 85°C    | T6         | T6                   |

## Zone classification and Equipment protection level (EPL)

| Gas Zones  | Definition                                                                       | ATEX Category | EPL | Required Protection     |
|------------|----------------------------------------------------------------------------------|---------------|-----|-------------------------|
| Methane    | Mines with methane and dust. Equipment remains energised in explosive atmosphere | M1            | Ma  | Two Faults              |
| Methane    | Mines with methane and dust. Equipment is de-energised in explosive atmosphere   | M2            | Mb  | Severe Normal Operation |
| Zone 0     | Explosive atmosphere present continuously or for long periods, frequently        | 1G            | Ga  | Two Faults              |
| Zone 1     | Explosive atmosphere is likely to occur under normal conditions, occasionally    | 2G            | Gb  | One Fault               |
| Zone 2     | Explosive atmosphere is unlikely to occur under normal conditions, short periods | 3G            | Gc  | Normal Operation        |
| Dust Zones | Definition                                                                       | ATEX Category | EPL | Required Protection     |
| Zone 20    | Explosive atmosphere present continuously or for long periods, frequently        | 1D            | Da  | Two Faults              |
| Zone 21    | Explosive atmosphere is likely to occur under normal conditions, occasionally    | 2D            | Db  | One Fault               |
| Zone 22    | Explosive atmosphere is unlikely to occur under normal conditions, short periods | 3D            | Dc  | Normal Operation        |