

# Lighting: LED High Bay Lighting Fixture (Compatible with Antenna barrier), DFDR2 Series

Flameproof/ Increased Safety and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

## Application

The DFDR2 series are suitable for zone 1 & 2 Ex-gas and zone 21 & 22 Ex-dust hazardous area, such as chemical, petrochemical, platforms, shipyard, electric power, loading docks, wastewater treatment etc.

## Specification

- Body material : Marine grade copper-free aluminium alloy with polyester powder coated, RAL 7032 (grey) (optional offshore painting-acrylic polyurethane coating)
- Lens : Heat and high impact resistant clear glass (4J impact)
- Bolts : Stainless steel, SUS 304 (optional SUS 316)
- Bracket : Hot-dip galvanized steel (optional SUS 304 or SUS 316)
- Sealing (O-ring) : Silicone

## LED System

- Luminous efficient : 120 lm/W
- Colour temperature : Standard 5700 K (daylight) (optional 3000K, 3500K, 4000K, 4500K, 5000K, 6500K etc.)
- Color Rendering Index (Ra) : ≥ 80
- Chip : LUXEON 5050 - LumiLEDs (optional Cree, Bridgelux, Nichia)
- Beam angle : Average 100° without lens with lens 30-100W.; 90° 110-240W.; 30°, 60°, 90° (other beam angle, please specify)
- Lifespan : >50,000 Hrs. (70% lumen maintenance)

## Technical Data

<b>Hazardous Area</b>	<b>Gas</b>	<b>Dust</b>
<b>Zones</b>	<b>1 &amp; 2</b>	<b>21 &amp; 22</b>
<b>Equipment Group/Category</b>	<b>Ex II 2G</b>	<b>Ex II 2D</b>
<b>Symbol of Protection</b>	<b>Ex db eb IIC T6..T4 Gb</b>	<b>Ex tb IIIC T85°C..T135°C Db</b>
<b>Certificate No.</b>	<b>KDB 24 ATEX 0001X</b> <b>IECEX KDB 24.0001X</b>	
<b>Conformity to standards</b>	EN IEC 60079-0:2018, EN 60079-1:2014, EN IEC 60079-7:2015/A1:2018, EN 60079-31:2014 IEC 60079-0:2017, IEC 60079-1:2014, IEC 60079-7:2015, IEC 60079-31:2013	
<b>Ambient Temperature</b>	-40°C to +60°C	
<b>Index of Protection</b>	IP66/ IK10	
<b>Entries</b>	2- M20x1.5, 2- M25x1.5 (1-stopping plug) or 2- 1/2" NPT, 2- 3/4" NPT (1-stopping plug)	
<b>Mounting</b>	Bracket mounting	
<b>Connection</b>	L, N and PE ; for 1-4mm. <sup>2</sup> cable (Through wiring system with an extra terminal block for cable connection at both ends.)	
<b>Rated Voltage</b>	110-240V.ac 50/60Hz., THDi < 20%, P.F. ≥ 0.95	

## Catalogue Number Logic

**DFDR2 -** ■■■■ ○ - □□ - ○

Series	LED Power	LED Power	Entries	Option
	(see ordering requirement table below)	<b>A</b> Standard LED driver <b>B</b> LED driver with dimming function	<b>M1</b> M20x1.5 <b>M2</b> M25x1.5 <b>N1</b> 1/2" NPT <b>N2</b> 3/4" NPT	<b>G</b> Guard <b>AN</b> Antenna (ANTE series) <b>SP</b> Surge protection 10kA, 8/20μF

## Ordering Requirements

Cat. No.	LED Power	Voltage	Temp. Class (for zone 1 & 2)		Max. Surface Temp.* (for zone 21 & 22)	
			Ta 40 °C	Ta 60 °C	Ta 40 °C	Ta 60 °C
DFDR2-30 ○-□□-○	30W.	110-240V.ac 50/60Hz.	T6	T6	T85°C	T85°C
DFDR2-40 ○-□□-○	40W.					
DFDR2-50 ○-□□-○	50W.					
DFDR2-60 ○-□□-○	60W.					
DFDR2-70 ○-□□-○	70W.					
DFDR2-80 ○-□□-○	80W.					
DFDR2-90 ○-□□-○	90W.					
DFDR2-100 ○-□□-○	100W.					
DFDR2-110 ○-□□-○	110W.					
DFDR2-120 ○-□□-○	120W.					
DFDR2-130 ○-□□-○	130W.					
DFDR2-140 ○-□□-○	140W.					
DFDR2-150 ○-□□-○	150W.					
DFDR2-160 ○-□□-○	160W.					
DFDR2-170 ○-□□-○	170W.					
DFDR2-180 ○-□□-○	180W.					
DFDR2-190 ○-□□-○	190W.					
DFDR2-200 ○-□□-○	200W.					
DFDR2-210 ○-□□-○	210W.					
DFDR2-220 ○-□□-○	220W.					
DFDR2-230 ○-□□-○	230W.					
DFDR2-240 ○-□□-○	240W.					
			T5	T4	T100°C	T135°C

Remark \* : The maximum surface temperatures are specified for dust free condition. The dust layer which may cover around the lighting fixture will cause higher surface temperature.



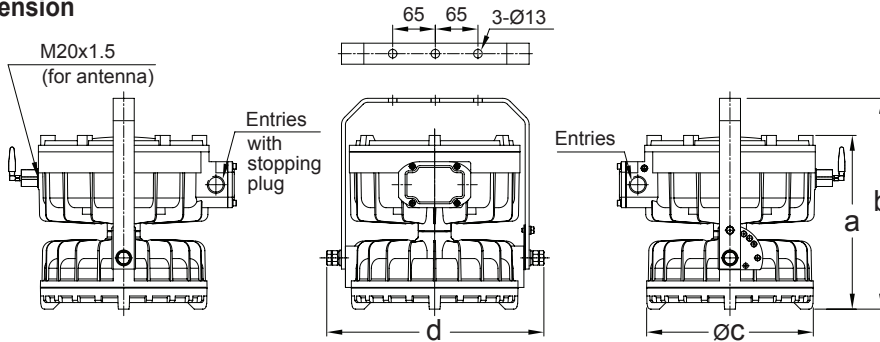
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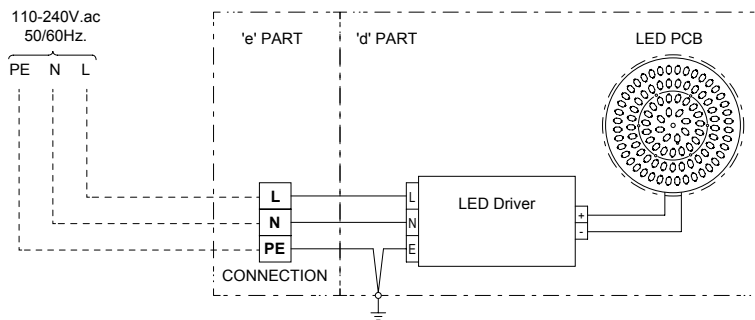
## Dimension



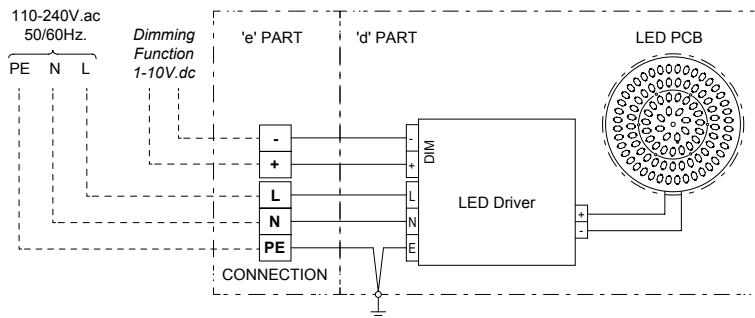
LED Power	Dimension in mm.				Approx. Weight (kgs.)	
	a	b	øc	d	without AN	with AN
30W. to 90W.	273	306	254	314	10.5	13.0
100W.	265	341	254	331	12.5	13.0
110W. to 240W.	278	389	338	401	23.0	24.0

## Wiring Diagram

### Standard LED driver



### LED Driver with dimming function



### Optional for LED network control

