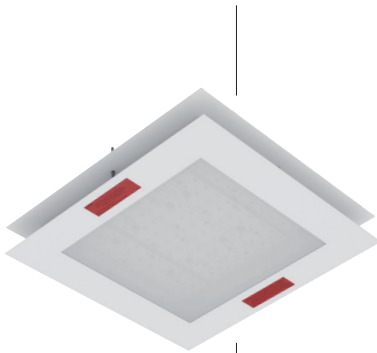


# MARS Ex-e D



## TYPE OF PRODUCTS

Recessed and compact cleanroom luminaire with LED modules, IP65, access from the top, suitable for use in areas where an explosive atmosphere due to dust is unlikely and for a short time.  
ATEX classification : II 3D Ex tc IIIC T85°C De.

## MECHANICAL CONSTRUCTION

Luminaire structure made of 1 mm steel, LaserWeld waterproof assembling technology, powder coated with KilBac white RAL9003, certified qualicoat class 1 and antibacterial. Upper clamping frame in lacquered steel of 1,5 mm. Upper cover in aluminium of 2 mm red lacquered.

## LED MODULES

**White light** : Zaghera LED modules Book7, L28W6, with an energy efficiency until 185 Lm/W, rated AA+. Assembled on a 2 mm aluminium plate to ensure an optimal heat dissipation for the lifespan of the LEDs. 3SDCM. Colour rendering index 85. Expected luminous flux : L80 at 70.000 h.

**Inactinic light** : amber (590 nm) or red (620 nm), specific led's PCB in aluminium with Zaghera Book7, L28W6, made in France.

## OPTICS

- OPVR : laminated glass 2+2 opal.

## CONTAMINATION CONTROL

### Reduced risk of microbial growth :

>> KilBac technology, broad spectrum antibacterial finish with silver ions (BioCote, validated according to ISO 22196).

The mechanical construction of the luminaire ensures a particle emission class 3 according to ISO 14644-14. This range is made without silicone.

## WALKABLE

Luminaires designed and tested to withstand the application of a 100 kg mass on the top cover corresponding to accidental feet pressure on the luminaire in the walkable plenum.

## H<sub>2</sub>O<sub>2</sub> RESISTANCE

The components that may come into contact with hydrogen peroxide during the decontamination process were tested by cyclic, direct and prolonged contact with a 35% H<sub>2</sub>O<sub>2</sub> solution, see resistance in the reference table.

## TEMPERATURE AND HUMIDITY

Reference ambient temperature : 20°C / 68°F. Operating temperature range : 5 to 25°C / 41 to 77°F (the temperature affects the lifetime of the LEDs).

## POWER SUPPLY

Luminaires supplied with European-branded EPF electronic driver. Rated voltage 220-240 V. DALI dimming (GDA) available in option Access from the top of the luminaire, without breaking the room classification.

## INSTALLATION

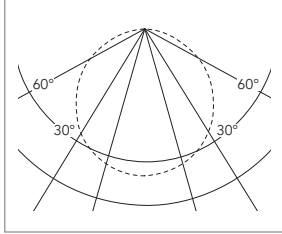
Installation in sandwich panels from 15 to 100 mm. Adaptations for different thicknesses are possible on request. Quick installation without opening the luminaire. The sealing between the false ceiling and the lower frame must be applied at the installation.

## WIRING

With an ATEX cable gland, mounted on the top of the luminaire.

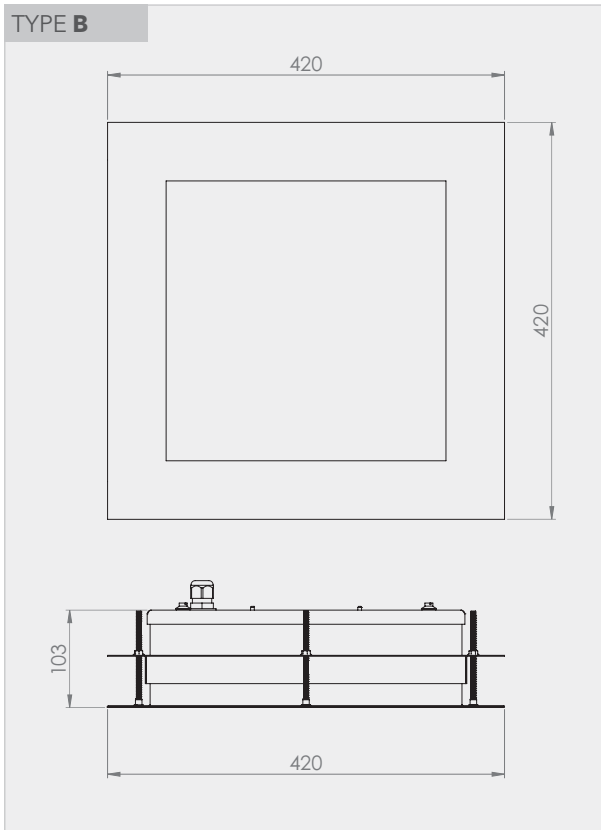


PHOTOMETRY



Opal

DIMENSIONS (mm)



REFERENCES AND FEATURES

CODE	REFERENCE	Type	Cut-out (mm)	P (W)	Emitted flux (Lm)	Weight (Kg)	H <sub>2</sub> O <sub>2</sub>
<b>OPVR optics - PMMA opal diffuser</b>							
EUP2224EPF	MARS Ex-e D OPVR LED 390/390 3500/3 28/840 EPF	B	367x367	28	3500	6	●
<b>Hybrid - 590 nm amber inactinic light and white light - OPVR optics</b>							
EUP2225EPF	MARS Ex-e D OPVR LED 390/390 2400/3500/3 75/590/840 EPF	B	367x367	75	2400 (590 nm) + 3500 (4000K)	6	●

Light and power output tolerance ± 10%

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**Standards and warranty**

*Compliance* : information on the compliance of our products with the relevant standards and directives is available on our website.

*Warranty* : our warranty conditions are indicated in our general terms and conditions of sale. There are special conditions depending on the product range. These conditions can be checked on our website : [www.isoone-cleanroom-lighting.com/conditions-generales-de-vente/](http://www.isoone-cleanroom-lighting.com/conditions-generales-de-vente/)

*Temperature and switches on* : the operating temperature and the number of daily switches have an influence on the lifetime of the products. Our luminaires are designed to withstand at least 15.000 switches on following EU 1194/2012.

Please consult us for more information.

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**Note**

ISOONE reserves the right to modify or update this document at any time within the framework of the technological evolution and the updating of our technical documentation. Despite the care taken in the design and the updating of this card, it can not under any circumstances constitute a contractual document.

# MARS Ex-e D

UE Declaration of Conformity

LA MANUFACTURE DE FRANCE SAS  
18 rue Jean Monnet  
31240 Saint-Jean

**CERTIFIES,**  
under its own responsibility, that the ISOONE luminaires **MARS Ex-e D**

EUP2224EPF

EUP2225EPF

are designed and manufactured in accordance with the following harmonized directives and standards:

**SECURITY**

2014/34/UE	Equipment and protective systems intended for use in potentially explosive atmospheres.
EN 60079-0 : 2018	Explosive atmospheres - Part 0 : General requirements.
EN 60079-31 : 2014	Explosive atmospheres - Part 31 : Equipment dust ignition protection by enclosure « t » .

**ELECTROMAGNETIC COMPATIBILITY**

2014/30/UE (26/02/2014)	European « EMC » Directive.
EN 55015 : 2013 + A1 : 2015	Limits and methods of measurement of electrical radio interference from electrical lighting and similar equipment.
EN 61000-3-2 : 2019	Electromagnetic compatibility (EMC) - Part 3-2 : Limits - Limits for harmonic current emissions (current drawn by equipment $\leq 16$ A per phase).
EN 61000-3-3 : 2014	Electromagnetic compatibility (EMC) - Part 3-3 : Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current $\leq 16$ A per phase and not subject to conditional connection.
EN 61547 : 2009	General purpose lighting equipment - EMC immunity requirements.

**ECO-CONCEPTION**

2009/125/CE (21/10/2009) + 2019/2020 (01/10/2019)	European « ErP » directive + regulation.
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**RESTRICTION OF DANGEROUS SUBSTANCES**

2011/65/UE (08/06/2011)	European directive « RoHS ».
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Certificate issued on March 15<sup>th</sup> 2024

President, Frédéric Colombo