CREE LED® High Efficacy
LED Modules MOD-48R620x50-JR5050K-6V

DK240510

MOD-48R620x50-JR5050K-6V family are LED modules based on the CREE LED® J_Series® 5050 K-class 6V optimized for cost effective and high efficacy applications MOD-48R620x50-JR5050K-6V modules are providing optimized and easy integration, with excellent quality, reliability and precision.

High efficacy **193 lm/W** and up to **46908 lm**.

LM-80 lifetime projections (IEC 62717)
> 109 000 (L70B10)*

EPREL registered product.

➢ SPECIFICATION

LED FAMILY	MOD-48R620x50-JR5050K-6V						
CCT/SDCM	2700K 3-STEP	3000K 3-STEP	3500K 3-STEP	4000K 3-STEP	5000K 3-STEP	5700K 3-STEP	6500K 3-STEP
Viewing Angle	120°						
Nominal Module Lumen Output[2]	CRI 70						
	18843 lm	19803 lm	20123 lm	20809 lm	20809 lm	20809 lm	20809 lm
	CRI 80						
	17791 lm	18477 lm	18980 lm	19437 lm	19437 lm	19437 lm	19437 lm
Nominal Efficacy[2]	CRI 70						
	175 lm/W	184 lm/W	187 lm/W	193 lm/W	193 lm/W	193 lm/W	193 lm/W
	CRI 80						
	165 lm/W	172 lm/W	176 lm/W	181 lm/W	181 lm/W	181 lm/W	181 lm/W
CRI	70; 80						
Nominal Driving Current	2400 mA						
Voltage DC (typ.) [2]	44.8V						
Power Consumption[2]	107 W						
Max. LED module working current [3]	**6000 mA / module**						
Voltage DC (max)[3]	**51.6 V**						
Max power[3]	**292 W**						
Max. LED module lumen output[3]	**CRI 70**						
	42684	**44640**	**45362**	**46908**	**46908**	**46908**	**46908**
	CRI 80						
	40104	**41650**	**42784**	**43815**	**43815**	**43815**	**43815**
Number of LEDs	48						
Power Supply Type	Constant Current						
Risk Group Classification[4]	RG-1 Low Risk for 2700K, 3000K, 3500K, 4000K; RG-2 Moderate Risk for 5000K, 5700K, 6500K when above 365 mA per LED						
Energy Class	**J class CRI 80**						
	C	**C**	**B**	**B**	**B**	**B**	**B**
	J class CRI 90						
	C	**C**	**C**	**C**	**C**	**C**	**C**
Operating Temperature	-30°C ÷ +60°C						
Tc max.	85°C						
Lifetime[1]/Tc life	>109 000 h @ 85°C, 480/750 mA,						

[1] **Lifetime of LEDs as declared by the manufacturer CREE LED® according to IES LM-80-2015 Testing Results Revision:32 :2025.**
[2] **Source performance in real-life conditions at Tc=55°C, 2400 mA without heatsink.**
[3] **External heatsink required.**
[4] **According to Eye safety Cree document**

➢ FEATURES

Application:

- ❖ Decorative lighting
- ❖ Accent lighting
- ❖ Task lighting
- ❖ General lighting
- ❖ Recessed furniture LED spotlight

Feature:

- ❖ The module is dimmable by current set (0-100%)
- ❖ Long Lifetime
- ❖ Energy Saving

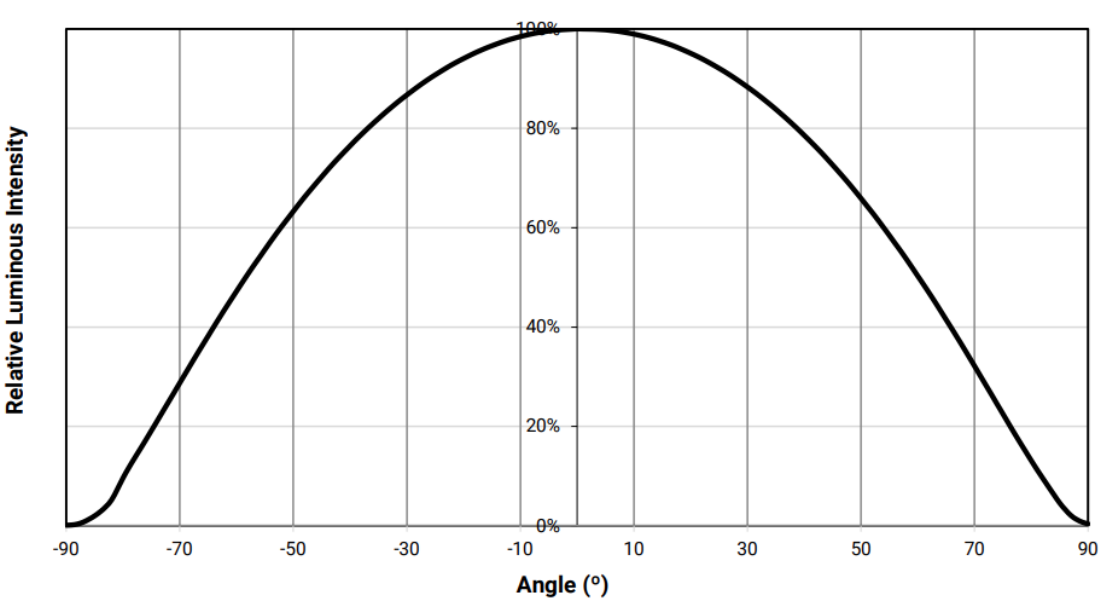
EPREL Database link

QR CODE

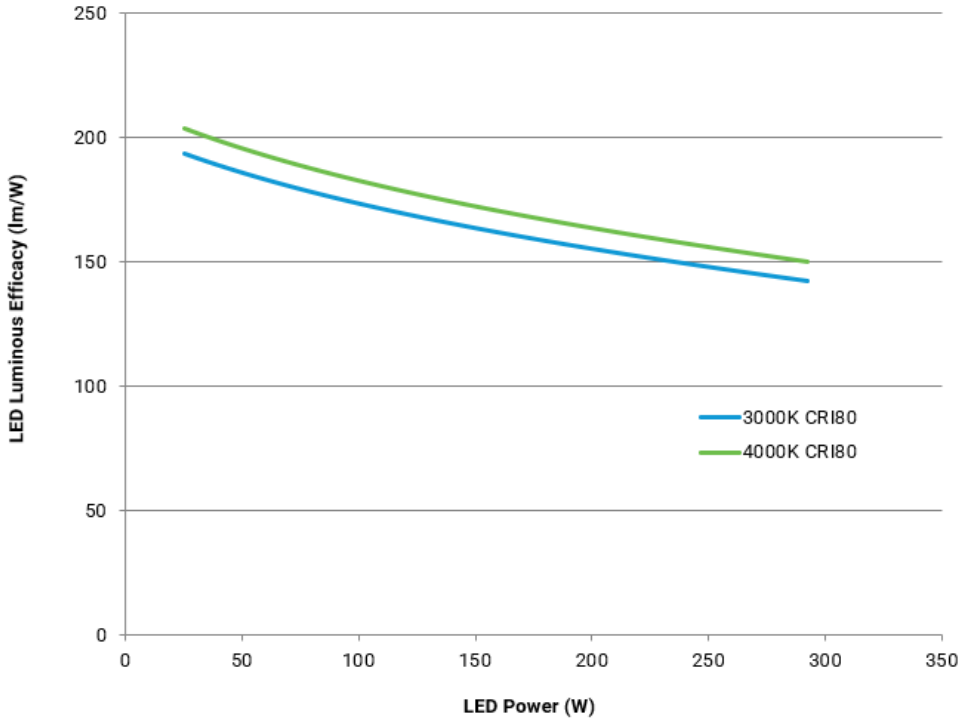
2700K 70CRI 3000K 70CRI 3500K 70CRI 4000K 70CRI 5000K 70CRI 5700K 70CRI 6500K 70CRI

2700K 80CRI 3000K 80CRI 3500K 80CRI 4000K 80CRI 5000K 80CRI 5700K 80CRI 6500K 80CRI

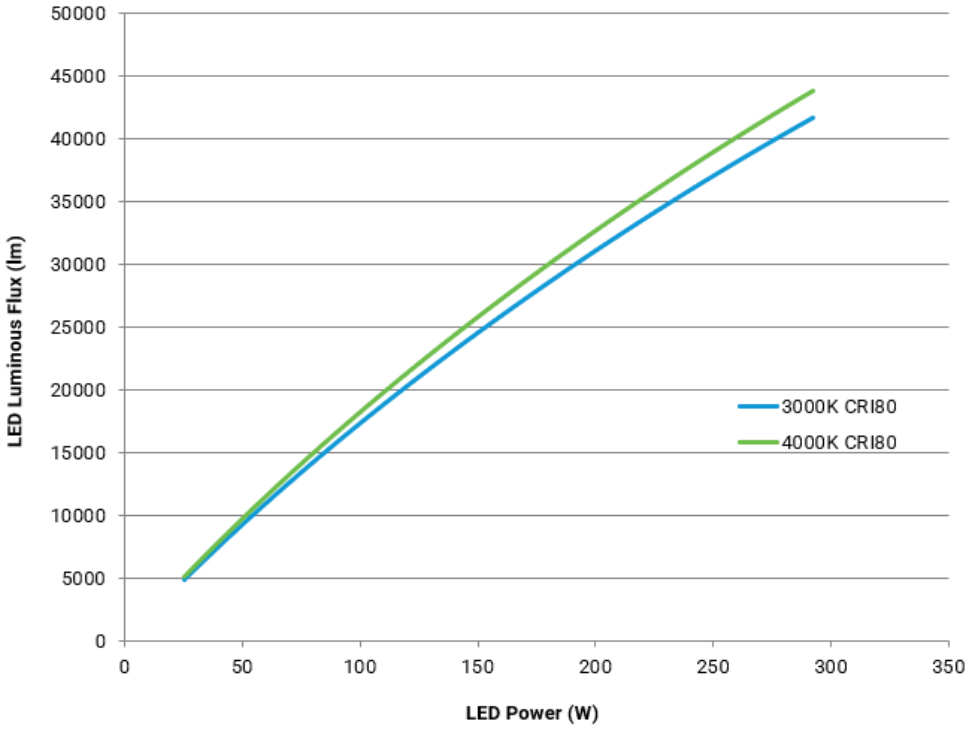
➢ TYPICAL SPATIAL DISTRIBUTION



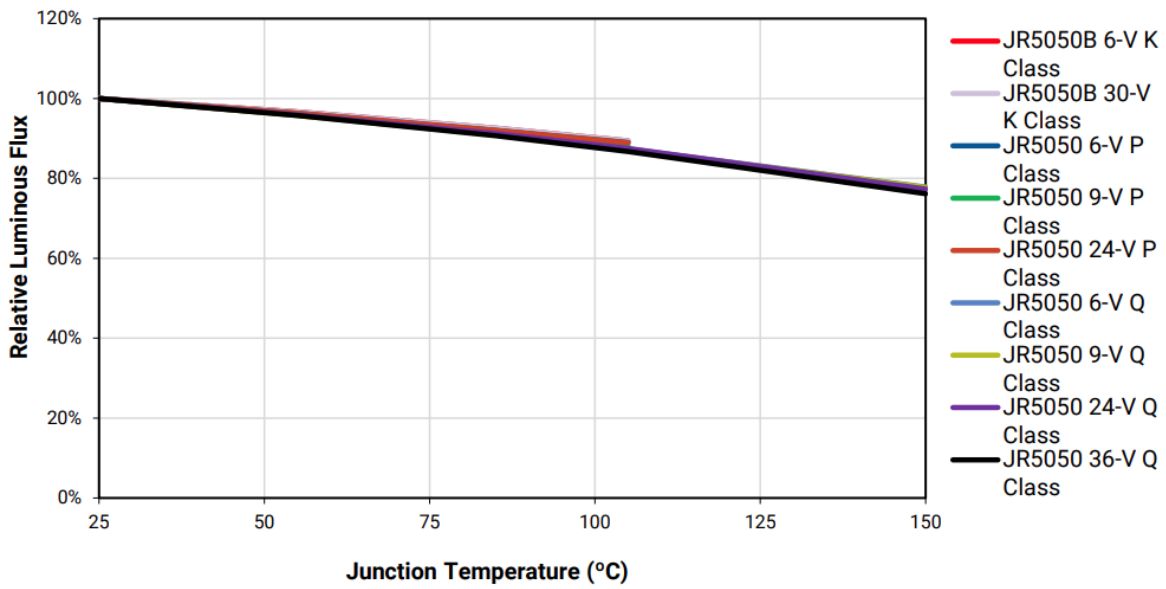
- **LUMINOUS EFFICACY VS. POWER**



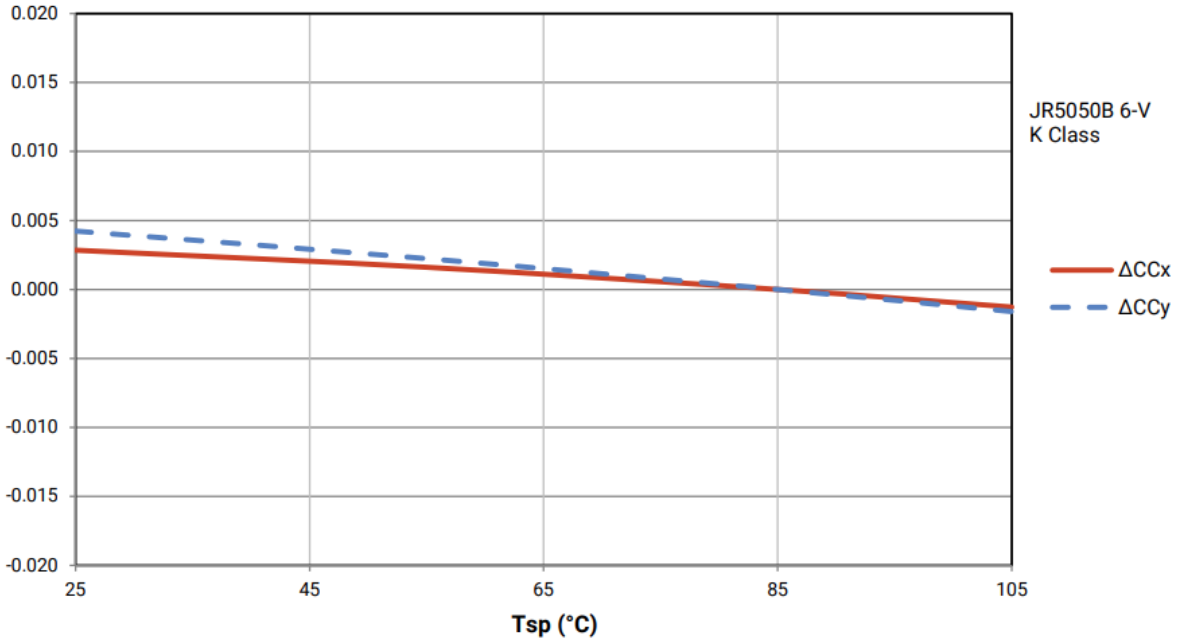
- **LUMINOUS FLUX VS. POWER**



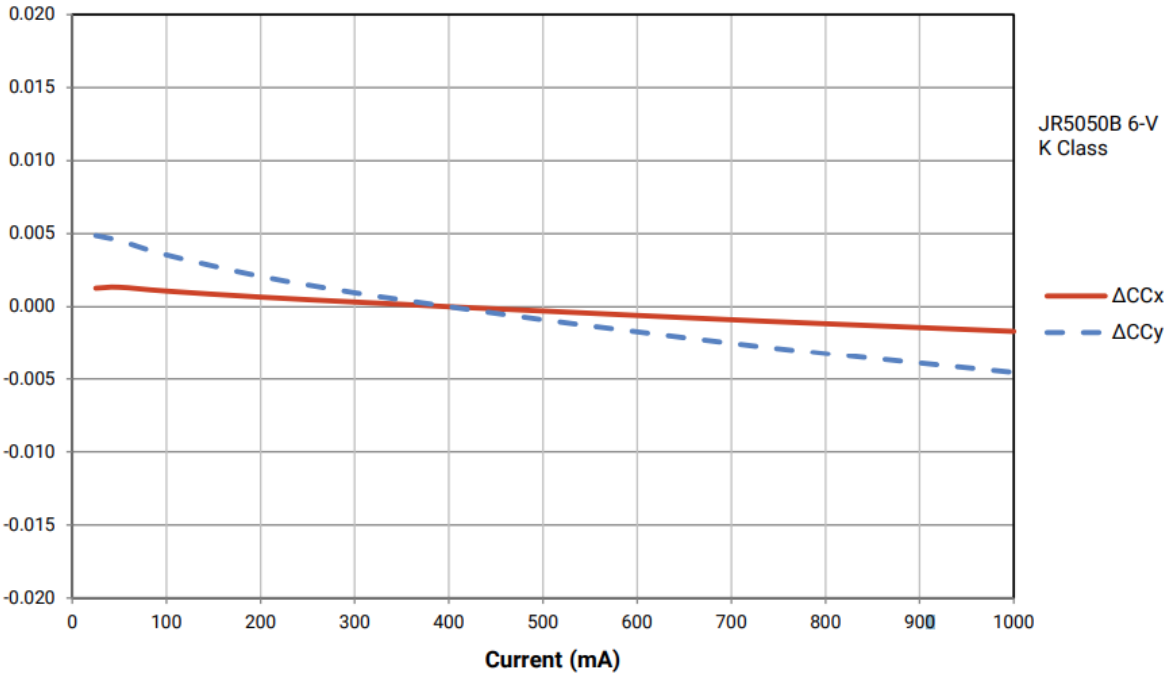
➢ **LUMINOUS FLUX VS. JUNCTION TEMPERATURE**



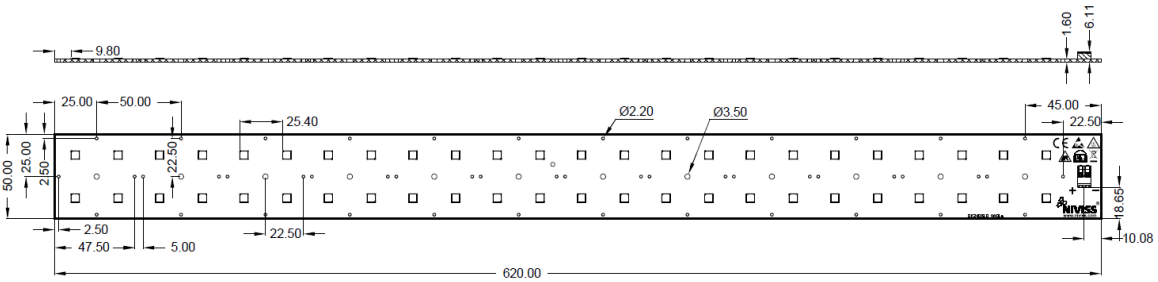
➢ **RELATIVE CHROMATICITY VS. TEMPERATURE**



➢ RELATIVE CHROMATICITY VS. CURRENT



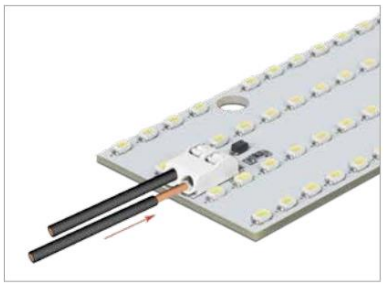
➢ DIMENSIONS



Notes:
Drawing is not to scale.
All dimensions are in millimeters.

MECHANICAL SPECIFICATION	
Dimensions	620 x 50 mm
Board Thickness	1.6 mm
Board Material	MCPCB; white soldermask
Shape	Rectangular

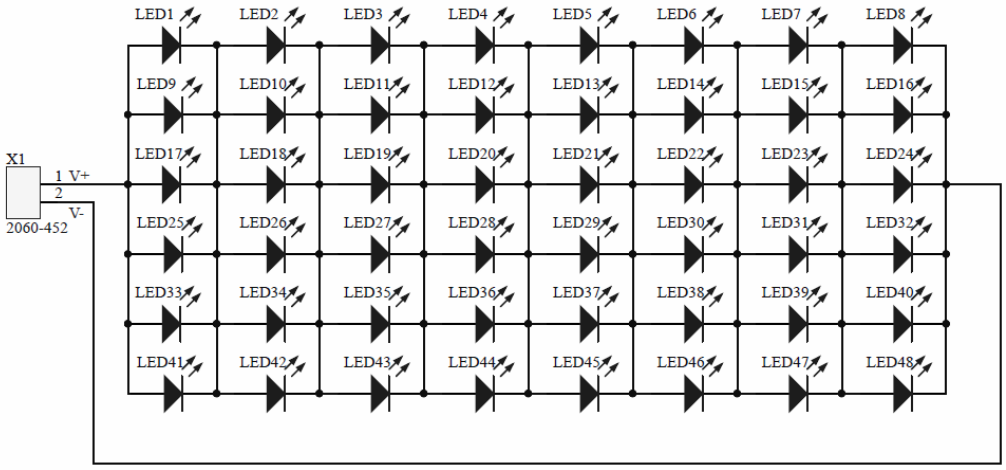
➢ CONNECTION



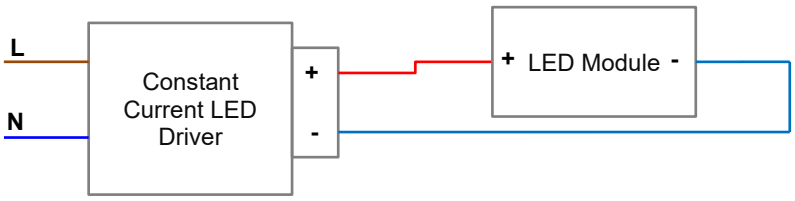
Inserting solid conductors via push-in termination.

Inserting/removing fine-stranded conductors by lightly pressing on push-button (e.g., using a 206-860 operating tool).

➢ ELECTRICAL SCHEMA



➢ ELECTRICAL INSTALLATION



➢ ORDERING CODE

ORDERING CODE / ARTICLE CODE	DESCRIPTION
MOD-48R620x50-JR5050K-6V-2770-VA01	Linear Led Module 620x50mm, High Efficacy, High Reflectivity White Soldermask, 48 LED, JR5050K, 2700K, CRI 70, 1.6 mm MCPCB
MOD-48R620x50-JR5050K-6V-3070-VA01	Linear Led Module 620x50mm, High Efficacy, High Reflectivity White Soldermask, 48 LED, JR5050K, 3000K, CRI 70, 1.6 mm MCPCB
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➢ COMMERCIAL INFORMATION

COMMERCIAL INFORMATION	
Connector	WAGO 2060-452
Available Lenses	LENS-KH-04 LENS-HK-50 LENS-LI-STRADA-2x2-M LENS-LI-STRADA-2x2-T LENS-LI-STRADA-2x2-A LENS-LI-STRADA-2x2-D LENS-LI-STRADA-2x2-V LENS-LI-STRADA-2x2-X LENS-LI-STRADA-2x2-C LENS-LI-STRADA-2x2-F LENS-LI-STRADA-2x2-S LENS-LI-STRADA-2x2-P LENS-LI-STRADA-2x2-B LENS-LI-STRADA-2x2-L
Minimum Order Quantity	10 pcs.
Warranty	3 years

➢ GENERAL TERMS OF USE

1. The range of acceptable input voltages must include the expected voltage dropout across the LED string check on CREE LED Website J Series® 5050
2. Connecting to the power supply should be done when the power supply is off.
3. Modules should be connected to heatsink to dissipate heat form LED module. Temperature on the module shouldn't be higher than recommended by Cree®. Due to power of the module, appropriate heatsink should be used with thermal conductive tape or paste. The lower temperature on LED module causes longer lifetime.
4. During installation of the LED module it is absolutely necessary to use ESD protection. Luminaire design should protect the module from ESD. Installation of the LED module should be done by qualified person.
5. Lenses, diodes and other components on the module must be protected against mechanical damage and exposure to liquids and dirt.
6. The modules shouldn't have contact with hazardous and corrosive substances or aromatic organic compounds such as toluene, acetone, xylene, benzene.
7. For installation of modules use substances recommended and tested by the CREE LED®. List of substances available on the manufacturer's website: cree-led.com

Niviss is not responsible for any damage or failure due to not comply with above rules.

Otherwise, the complaint will not be taken into account.

➢ ENVIRONMENTAL CAUTION

Caution!

It is prohibited to dispose of obsolete and waste electrical and electronic equipment together with regular household wastes. They should be properly sorted and recycled. Old electrical and electronic equipment should be returned to a waste collection point established by a waste-management service. Waste electrical and electronic equipment can be broken down to base materials and then recycled. For more information regarding waste management please contact your local authorities, waste-management service or the seller of electrical and electronic devices.

➢ DATA DOWNLOAD

- ➢ 3D PDF FILE
- ➢ STEP FILE
- ➢ EU DECLARATION OF CONFORMITY (CE)