



**Announcement**

**Swiss Luxra Group releases Datasheet for HD “Heavy Duty” PV module.**

Cham, 2024-09-05

We are pleased to announce that the development of our Luxra® Pure HD Module LX-450 TOPCon has been successfully completed and they are now available for orders. See the attached datasheet for more information. These Swiss quality PV modules excel in their high resistance to hail, snow load, and wind pressure. Why settle for less?

Wir freuen uns, Ihnen mitteilen zu können, dass die Entwicklung unserer Luxra® Pure HD Module LX-450 TOPCon erfolgreich abgeschlossen wurde und sie ab sofort bestellbar sind. Weitere Informationen finden Sie im beigefügten Datenblatt. Diese PV-Module in Schweizer Qualität zeichnen sich durch ihre hohe Widerstandsfähigkeit gegen Hagel, Schneelast und Winddruck aus. Warum sich mit weniger zufrieden geben?

#RenewableEnergy #SolarPower #SwissLuxra #SustainableFuture #LuxraPure

**Luxra® PURE ENERGY**

**HIGHEST DURABILITY**  
Heavy Duty, certified for heavy snow and wind load, hail resistance, and erosion in some areas.

**N-TYPE MBB HALF CUT TECHNOLOGY**  
6 main cell strips per half cut cell and 4 main cell strips per half cut cell.

**ANTI-LID**  
Seven anti-lid compound I.D. strips will increase dust self-cleaning.

**TOP PERFORMANCE & LOW DEGRADATION**  
1.7% annual degradation over 25 years, 40% LID annularity from year 2 to 4.

**THE PREMIUM GLASS WITH ELEGANT DESIGN IN BLACK**

**LUXRA® PURE HD MODULES**

**THE SMART SOLAR MODULE WITH FULL PERFORMANCE EVEN IN EXTREME WEATHER CONDITIONS**

**SWISS BRAND**

[WWW.LUXRA.CH](http://WWW.LUXRA.CH)

**Luxra® PURE ENERGY** **LUXRA® PURE HD LX-450 / 455N-96-BFGG (TOPCON) TECHNICAL DATA**  
HEAVY DUTY, WIND LOAD: 5.0kN/m², HAIL RESISTANCE: 25mm, SNOW LOAD: 5.0kN/m²

**22.52%** EFFICIENCY (1000W/1000V)  
**0-3%** TEMPERATURE COEFFICIENT (PMP)  
**<1.0%** TEMPERATURE COEFFICIENT (PMP)  
**<0.4%** TEMPERATURE COEFFICIENT (PMP)

**INNOVATION SMBB & HALF CUT CELLS**  
LOWER OPERATE ON TEMPERATURE

ELECTRICAL DATA AT STC*		
MODEL	LX-450	LX-455
Peak Power (P <sub>max</sub> ) [W]	450	455
Maximum Power Voltage (V <sub>mp</sub> ) [V]	23.36	23.26
Maximum Power Current (I <sub>mp</sub> ) [A]	19.45	19.54
Open-circuit Voltage (V <sub>oc</sub> ) [V]	34.76	34.79
Short-circuit Current (I <sub>sc</sub> ) [A]	16.20	16.22
Module Efficiency (%)	22.52	22.77
Operating Temperature	-40° ~ +85° C	-40° ~ +85° C
Maximum System Voltage	1500V	1500V
Maximum DC Fuse Rating	25A	25A
Maximum Interlock	10 ~ 20s	10 ~ 20s

\*STC: Standard Test Conditions: irradiance 1000W/m², Module Temperature 25° C AM1.5  
\*Or request also available in Peak Power modules of 452W, 450W in 570 steps

ELECTRICAL DATA AT NMOT*		
MODEL	LX-450	LX-455
Peak Power (P <sub>max</sub> ) [W]	590	605
Maximum Power Voltage (V <sub>mp</sub> ) [V]	23.84	23.76
Maximum Power Current (I <sub>mp</sub> ) [A]	24.73	25.47
Open-circuit Voltage (V <sub>oc</sub> ) [V]	35.67	35.62
Short-circuit Current (I <sub>sc</sub> ) [A]	13.2	13.2

\*NMOT: Higher Solar Module Operating Temperature, Irradiance of 800W/m², Spectral Irradiance at 25° C, Wind Speed 17 m/s

**BIFACIAL POWER GENERATION PARAMETERS (BACKSIDE GAINS)**

	LX-450	LX-455
5%	4.2	4.7
10%	24.0	23.9
15%	5.0	5.3
20%	44.4	44.4
25%	25.8	26.4

**TEMPERATURE CHARACTERISTICS** LX-450 / LX-455

Temperature coefficient of P<sub>max</sub>: -0.500%/°C  
Temperature coefficient of V<sub>oc</sub>: -0.240%/°C  
Temperature coefficient of I<sub>sc</sub>: 0.242%/°C  
RMI1: 43 ± 0.1

**MECHANICAL DATA** LX-450 / LX-455

Mechanical Test Load: Higher reliability on test loads: 6000Pa snow load, 4000Pa hail load  
Cell type: Mono-crystalline 6.1144" 1196.40"  
Cell Arrangement: 96cells (12x8)  
Interconnectors (top): 12x12" 30x30" 30x30"  
Wiring: 2x 2.0mm  
Glass: 2.0mm High transmittance reinforced glass  
Backsheet: 2.0mm front and back sheets in high-strength polypropylene  
Frame: Anodized aluminum alloy with black coating  
 Junction Box: IP67  
 Cable type: 4-core 2.5mm²  
 Length of Cable: 1500mm  
 Connector: Original JST-5pin MC4 2+2 connectors

**PACKAGING** LX-450 / LX-455

Wrapping type: 480x1400mm  
Pallet height: 1100mm  
Pallet/Container: 80E

**WARRANTY** LX-450 / LX-455

Product Material & Workmanship: 12 years  
Linear Performance Warranty: 25 years, 0.7% LID (0.5%)\*  
Linear performance guarantee within 25 years: 0.5%\*

**CURRENT-VOLTAGE CURVE (455W)**

**POWER-VOLTAGE CURVE (455W)**

**LINEAR PERFORMANCE WARRANTY**

**SWISS BRAND**

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<https://luxra.ch/files/123/luxra-pure-hd-module-lx-450-datasheet.pdf>

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### **About Swiss Luxra**

**Swiss Luxra Holding AG** is a Swiss holding company of which the brand was founded in the year 2010. It is a renewable energy solution provider company, with a major focus on producing high-quality Solar photovoltaic (PV) modules. The company with its diversified geographical locations is headquartered in Cham, Canton of Zug, Switzerland.

Operating across a multitude of geographical locations and verticals in the renewable energy market, Luxra is globally recognized and respected as a strong brand. Initially part of Fortune Top 500 company Saint-Gobain Building Distribution Deutschland (SGBDD) GmbH, which specialized in solar PV solutions for Germany and Europe, the Swiss Luxra Group acquired the brand and products from SGBDD in 2014, continuing operations in the global solar PV industry. Following this highly successful acquisition, Luxra became fully independent, with sales managed entirely by Swiss Luxra. This strategic independence allowed Luxra to expand its business portfolio and strengthen its presence in Germany and other European markets.

Luxra continues to serve existing, loyal customers with unparalleled high-quality, innovative products and services with a fresh focus while ambitiously targeting new customers. The company offers a range of advanced, cutting-edge solar PV products, including the Luxra® Pure (HD) module line, which features high-end, efficient, and elegantly designed solar PV modules. Luxra strategically specializes in crystalline silicon technology, offering a wide range of N-Type crystalline and TOPCon crystalline solar PV modules, all bifacial

In addition to its superior product offerings, Luxra provides comprehensive project management solutions, ensuring the seamless and successful implementation of solar energy projects through a meticulous project management life cycle approach. Luxra is well-established in Europe, India, North America, the United Kingdom, and Indonesia, with a team of highly qualified managers, engineers, solar energy specialists, technicians, and EPC experts. As a reliable, renowned and established provider of all-encompassing solar energy solutions, Luxra delivers high-quality top-tier products and services to customers all down to the end users worldwide.

In 2017, Luxra became the first Swiss company to initiate solar PV module sales in India through an OEM business model. Today, Luxra India proudly stand to be the first international company who started its own solar PV module manufacturing in India, aiming to ramp up to a 1GW+ high-quality solar PV module and cell manufacturing facility. This state-of-the-art facility will supply Swiss-branded modules manufactured in India to the global market marking another milestone in Luxra's illustrious journey.