

# PRODUCT DATASHEET

## M 690 N 66 UB -SF-F7

PV PANELS N-TYPE BIFACIAL SILVER | TopCon bifacial photovoltaic panels with silver frame



### Areas of application

- Utility installations
- Commercial and industrial installations
- Residential installations

### Product benefits

- TopCon technology provides higher efficiency due to better sunlight conversion than standard panels
- Glass-glass modules offer improved protection against moisture, mechanical loads and fire protection
- 25-years of product guarantee, 30-years of linear power output guarantee
- Limited PID-effect (potential induced degradation) thanks to strict quality control in production process
- Very low yearly degradation of the cells thanks to the better resistance to high temperatures
- Durable design and highest production standards guarantees operational reliability and quality

### Product features

- Bifacial - both sides of the panel are absorbing the light
- Original Stäubli MC4 EVO 2 connectors
- Available in a long cable version
- Frame made of anodized aluminum alloy
- Multi-bus bar (MBB) technology
- Maximum static load up to 5400 Pa

## TECHNICAL DATA

## ELECTRICAL DATA STC

Maximum Power Pmax (STC)	690 W
Maximum Power Current Imp (STC)	17.21 A
Short Circuit Current Isc (STC)	18.24 A
Maximum Power Voltage Vmp (STC)	40.10 V
Open Circuit Voltage Voc (STC)	47.80 V
Module efficiency factor (STC)	22.21 %

## ELECTRICAL DATA NMOT

Maximum Power Pmax (NMOT)	526 W
Maximum Power Current Imp (NMOT)	14.07 A
Short Circuit Current Isc (NMOT)	14.72 A
Maximum Power Voltage Vmp (NMOT)	37.40 V
Open Circuit Voltage Voc (NMOT)	45.30 V

## ELECTRICAL DATA STC and NMOT

Power tolerance	3 %
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## MECHANICAL DATA

Type of Faciality	Bifacial
Cell material	Mono crystalline
Number of cells	132
Number of bypass diodes	3
With frame	Yes
Type of connection	Staubli MC4 EVO2
Width	1303 mm
Length	2384 mm
Height	35 mm
Product weight	37500.000 g
Cable length	1.4 m
Glass with anti-reflection coating	Yes
Colour cells	Dark blue
Colour frame	Silver
Front Glass	2.0 mm coated semi-tempered glass

## TEMPERATURE RATINGS

Nominal operating cell temperature	43 °C
Temperature coefficient Isc	0.046 %/K
Temperature coefficient Pmpp	-0.300 %/K

Temperature coefficient Uoc	-0.250 %/K
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## OPERATING CONDITIONS

Maximum series fuse rating	30 A
Temperature range in operation	-40...+85 °C
Front Side Maximum Static Loading	5400 Pa
Rear Side Maximum Static Loading	2400 Pa
Reverse current load	30 A

## EQUIPMENT / ACCESSORIES

- Product is delivered as a whole, no assembly required from customer
- MC4 EVO 2 connectors are fitted to the panel
- 3 bypass diodes are already installed in the panel

## DOWNLOAD DATA

Documents and certificates		Document name
	User instruction / safety instructions	PV MODULE
	Product family datasheet	M685 705N66UB SF F7

## References / Links

- For Guarantee see [www.ledvance.com/guarantee](http://www.ledvance.com/guarantee)

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