

# PRODUCT DATASHEET M 690 N 66 UB -SF-F7

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



#### 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	0.3 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 lsc	0.046 %/K
Temperature coefficient Pmpp	-0.300 %/K

Temperature coefficient Uoc	-0.250 %/K

# **OPERATING CONDITIONS**

Maximum series fuse rating	30 A
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	
POF	User instruction / safety instructions	PV MODULE
POF	Declarations of conformity	PV PANELS F7
POF	Product family datasheet	M685 705N66UB SF F7

## LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854593352	Unpacked 1	2,384 mm x 1,303 mm x 33 mm	37.50 g	102.51 dm <sup>3</sup>
4099854593369	Shipping box 33	2,386 mm x 1,100 mm x 1,300 mm	1259500.00 g	3411.98 dm <sup>3</sup>

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

#### **References / Links**

- For Guarantee see www.ledvance.com/guarantee

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