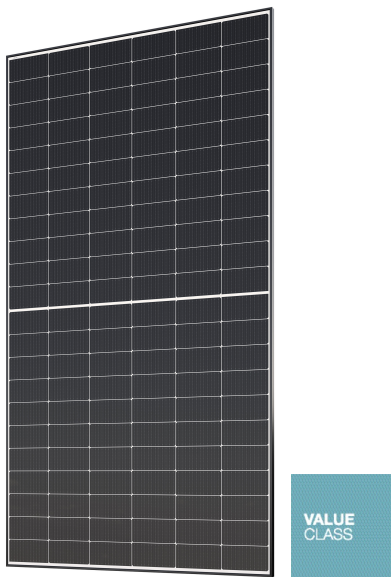


PRODUCT DATASHEET

M 660 P 66 UM -BF-F3

PV PANELS P-TYPE MONOFACIAL BLACK | PERC monofacial photovoltaic panels with black frame



Areas of application

- Commercial and industrial installations
- Residential installations

Product benefits

- 12-years of product guarantee, 25-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

- 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)	660 W
Maximum Power Current Imp (STC)	17.45 A
Short Circuit Current Isc (STC)	18.50 A
Maximum Power Voltage Vmp (STC)	37.83 V
Open Circuit Voltage Voc (STC)	45.64 V
Module efficiency factor (STC)	21.24 %

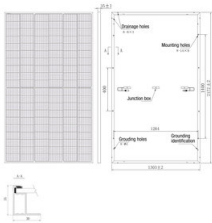
ELECTRICAL DATA NMOT

Maximum Power Pmax (NMOT)	499 W
Maximum Power Current Imp (NMOT)	14.28 A
Short Circuit Current Isc (NMOT)	15.14 A
Maximum Power Voltage Vmp (NMOT)	34.95 V
Open Circuit Voltage Voc (NMOT)	42.45 V

ELECTRICAL DATA STC and NMOT

Power tolerance	3 %
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MECHANICAL DATA



Type of Faciality	Monofacial
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	32900.000 g

Cable length	1.4 m
Glass with anti-reflection coating	Yes
Colour backsheet	White
Colour cells	Dark blue
Colour frame	Black
Front Glass	2.0 mm coated semi-tempered glass

TEMPERATURE RATINGS

Nominal operating cell temperature	44 °C
Temperature coefficient I _{sc}	0.040 %/K
Temperature coefficient P _{mp}	-0.340 %/K
Temperature coefficient U _{oc}	-0.250 %/K




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
	Declarations of conformity	CE Certificate PV Panels
	Product family datasheet	M650-670P66UM-BF-F3_EN

LOGISTICAL DATA

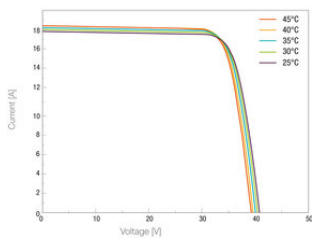
Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075836006	Shipping box 31	1,350 mm x 1,130 mm x 2,400 mm	1039900.00 g	3661.20 dm ³

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products.

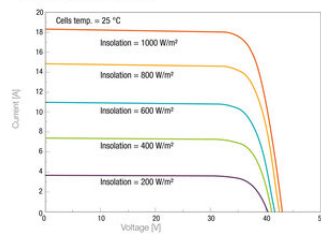
When placing an order, for the quantity please enter single or multiples of a shipping unit.

ADDITIONAL CATALOG INFORMATION

Current-voltage curve of the module



Current-voltage curve of the module



DISCLAIMER

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.