



Blackstar

Satin

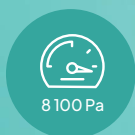
 445 W

 Made in the EU

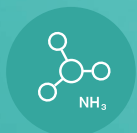
2+2 mm glass



Fire class A



Extreme load
resistance



Ammonia
resistance



Hail resistance
class 3



98,8 %
recyclable



Extremely
low-glare

30
YEAR

Product &
Efficiency
Guarantee

90%
POWER WARRANTY

Electrical data (STC*)

Maximum power (W)	445
Cell technology	N type, TOPCon - bifacial
Open circuit voltage (V_{oc}/V)	34,40
Short circuit current (I_{sc}/A)	15,79
Max power voltage (V_{mpp}/V)	29,40
Max power current (I_{mpp}/A)	15,14
Module efficiency (η)	22,27 %
Max system voltage (V)	1500
Max current (A)	30
Power tolerance	0/+5W

*Under standard test conditions (STC) of irradiance of 1000W/sq.m., spectrum AM1.5 and cell temperature of 25°C. Flash testing measurement accuracy of +/-5%.

Warranty

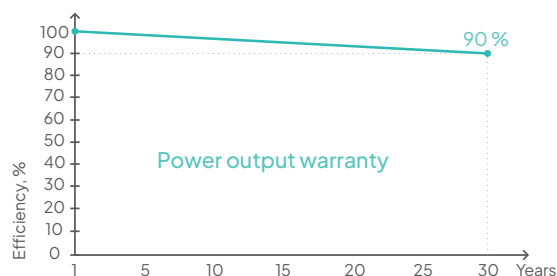
30 years product warranty

30 years efficiency warranty

First year degradation (%) 1

Annual degradation (%) 0,31

Power in year 30 (%) 90



Certifications

IEC 61215:2021; IEC 61730:2023

IEC 62716:2013 Ammonia corrosion testing

IEC 61701:2020 Salt mist corrosion testing

IEC 61215-2:2021 30 mm hailstone - Hail resistance class 3 (HW3)

ISO 9001:2015 Quality management systems

ISO 14001:2015 Environmental management systems

ISO 45001:2018 Occupational health and safety

SundaHus A level assessment

Produced using 100% renewable energy

Membership at Svensk Solenergi



Product assessed in SundaHus Material Data



PRODUCED USING 100% RENEWABLE ENERGY



Svensk Solenergi

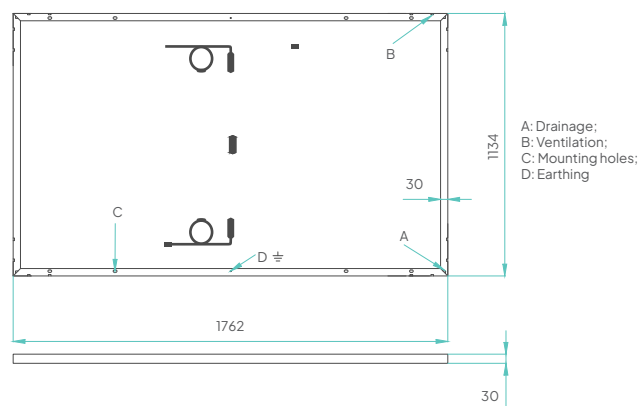


Temperature ratings

Current temperature coefficient (α)	+0,045% / °C
Voltage temperature coefficient (β)	-0,250% / °C
Power temperature coefficient (δ)	-0,300% / °C
Nominal operating module temperature	46 °C

Mechanical data

Dimensions (LxWxH) (mm)	1762x1134x30
Weight (kg)	25,5
Front glass (mm)	2, structured, satin, 3600 cd/ m ²
Back glass (mm)	2, black
Cell Size (mm)	182,2x105
Busbars	16
Cell configuration	6x16
Frame	Black anodized aluminium frame
Rated operating altitude (m)	Up to 2000
Operating temperature (°C)	-40 ÷ +85
Maximum test load (wind/snow) (Pa)	3600/8100
Junction box / IP class	Split junction box / IP68
Cable cross section size (mm ²)	4
Cable length (m)	1,2
Bypass diodes	3
Connector	MC4-EVO2



Packing information

Modules per pallet (pcs)	33
Dimensions of a pallet (LxWxH) (mm)	1854x1205x1219
Weight of a pallet (gross) (kg)	889
Pallets per 13,6 m truck (pcs)	27
Modules per 13,6 m truck (pcs)	891

