



# SOLID

series

# Blackstar

⚡ 455 W

🇪🇺 Made in the EU

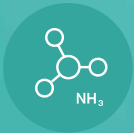
2+2 mm glass



Fire class A



8100 Pa  
Extreme load resistance



NH<sub>3</sub>  
Ammonia resistance



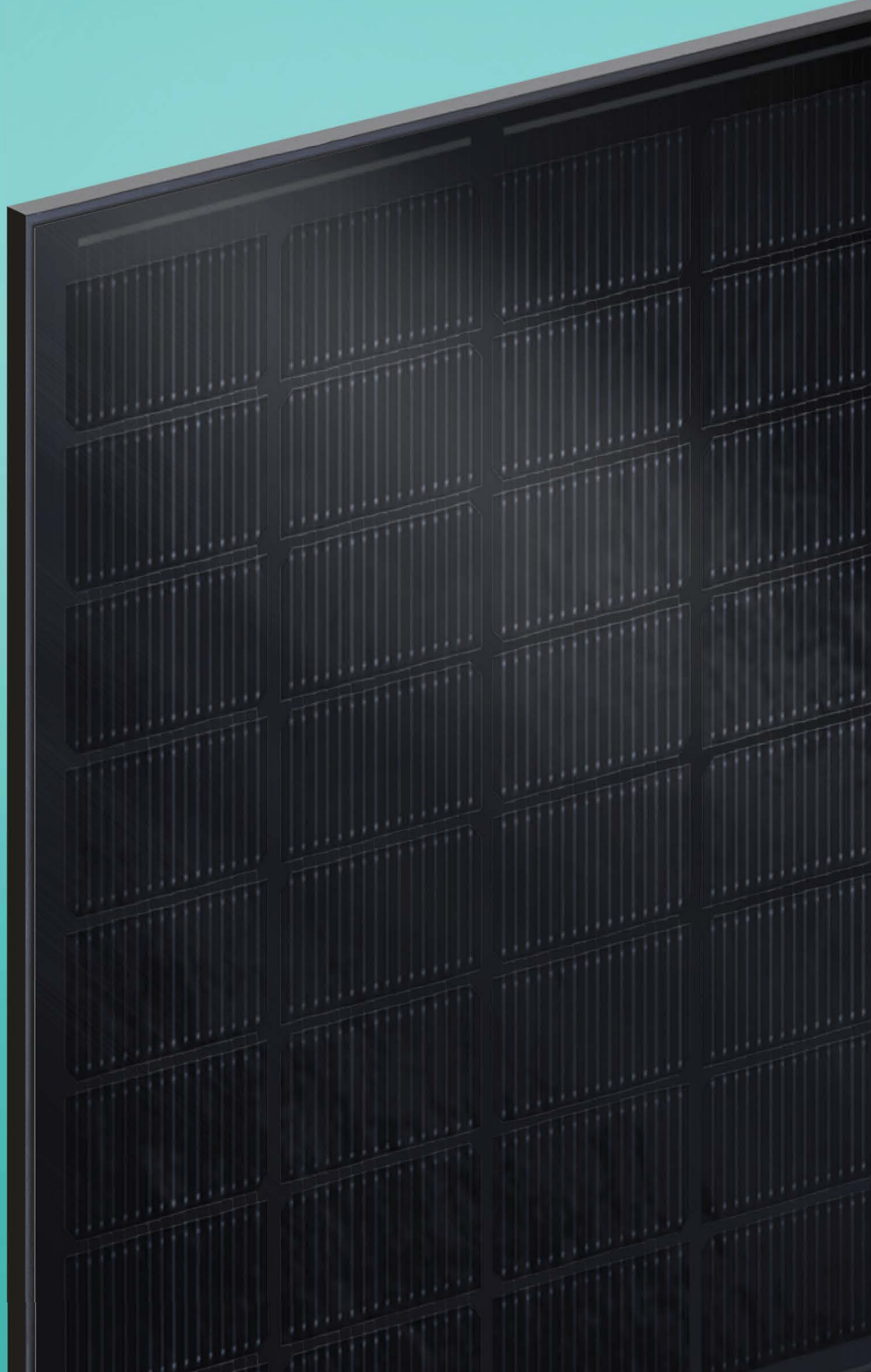
30 mm  
Hail resistance class 3



98,8 %  
recyclable



35 %  
of recycled glass content



**30** Product & Efficiency Guarantee  
YEAR

**90%** POWER WARRANTY



THE FIRST AND ONLY  
IN THE WORLD

### Electrical data (STC\*)

Maximum power (W)	455
Cell technology	N type, TOPCon - bifacial
Open circuit voltage ( $V_{oc}/V$ )	34,82
Short circuit current ( $I_{sc}/A$ )	15,97
Max power voltage ( $V_{mpp}/V$ )	29,71
Max power current ( $I_{mp}/A$ )	15,31
Module efficiency (n)	22,77 %
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

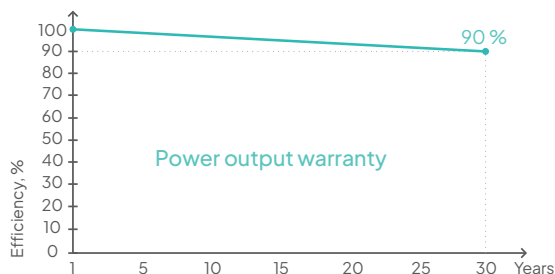
30 years product warranty

30 years efficiency warranty

First year degradation (%) 1

Annual degradation (%) 0,31

Power in year 30 (%) 90



### Certifications

IEC 61215:2021; IEC 61730:2023

Cradle to Cradle (C2C) Gold level

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

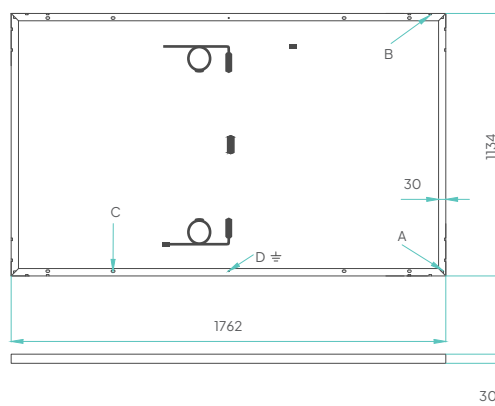


### Temperature ratings

Current temperature coefficient ( $\alpha$ )	+0,045% / °C
Voltage temperature coefficient ( $\beta$ )	-0,250% / °C
Power temperature coefficient ( $\delta$ )	-0,300% / °C
Nominal operating module temperature	46 °C

### Mechanical data

Dimensions (LxWxH) (mm)	1762x1134x30
Weight (kg)	26
Front glass (mm)	2, structured, low reflection, with AR coating
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 <sup>2</sup> )	4
Cable length (m)	1,2
Bypass diodes	3
Connector	MC4-EVO2



A: Drainage;  
B: Ventilation;  
C: Mounting holes;  
D: Earthing

### Packing information

Modules per pallet (pcs)	33
Dimensions of a pallet (LxWxH) (mm)	1835x1205x1219
Weight of a pallet (gross) (kg)	889
Pallets per 13,6 m truck (pcs)	27
Modules per 13,6 m truck (pcs)	891

