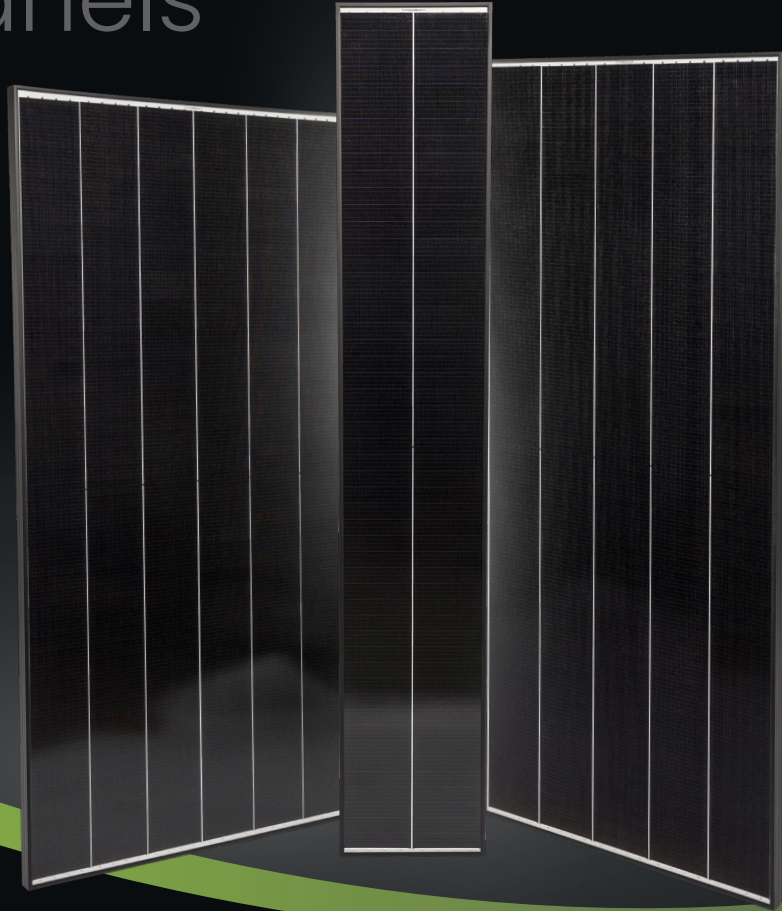


# BLACKLINE BL

## Solar panels



### BLACKLINE – Panelseries

80 W • 100 W-HVS • 110 W • 120 W-HVS

160 W • 200 W • 250 W

WATTSTUNDE solar panels from the BLACKLINE series are ideal for all those who rely on the highest quality and the latest technology. It is based on the innovative shingle cell technology. The unique parallel structure of narrow cell strips ensures unhindered energy flow. They are robust and durable due to hollow-chamber profile frames and anti-reflective glass.

- Shingle solar cells
- Cell efficiency over 20 %
- Anti-reflective glass with lotus effect
- Weatherproof junction box (IP65) and MC4 compatibility
- Salt water resistant aluminium profile frame
- Bypass diodes integrated in junction box
- 25 years performance warranty on 80 % of the performance
- 5 years product warranty

Technical changes, errors and printing mistakes are reserved stand 03.2022

Typ	WS80BL	WS100BL-HVS	WS110BL	WS120BL-HVS	WS160BL	WS200BL	WS250BL
Article no.	101-17080		101-17100		101-17160	101-30200	101-30250
Nominal power (Pmax)	80 Wp	100 Wp	110 Wp	120 Wp	160 Wp	200 Wp	250 Wp
Max. energy output (summer)	400 Wh/d	500 Wh/d	550 Wh/d	600 Wh/d	800 Wh/d	1000 Wh/d	1250 Wh/d
Max. power voltage (Umpp)	27,50 V	37,90 V	19,00 V	36,00 V	28,00 V	28,49 V	28,49 V
Max. power current (Impp)	2,89 A	2,64 A	5,77 A	3,34 A	5,71 A	6,99 A	8,55 A
Open circuit voltage (Uoc)	33,75 V	46,00 V	22,80 V	44,00 V	33,90 V	34,23 V	34,23 V
Short circuit current (Isc)	2,99 A	2,78 A	5,94 A	3,49 A	5,92 A	7,46 A	8,99 A
Bypass-diode	integrated						
Cell efficiency	≥ 20 %						
Max. working temperature	-40 °C bis + 85 °C						
Connection cable	90 cm + MC4 Connector						
Values according to STC-conditions (E= 1000W/m <sup>2</sup> , Tc=25 °C, AM=1,5)							

## Dimension

Weight	5,0 kg		7,2 kg		10,0 kg	11,5 kg	13,0 kg
Dimensions mm (L x B x H)	1530 x 275 x 35	1200 x 430 x 35	1031 x 530 x 35	1395 x 430 x 35	1530 x 530 x 35	1530 x 658 x 35	1546 x 785 x 35

## Basic Data Module

Cell material	Single mono cells
Frame	Aluminium black anodized
Junction box	IP 65
Product warranty	5 years
Warranty of performance	25 years (on 80 % of performance)
Temperature coefficient (Isc)	+ 0,03 % / K
Temperature coefficient (Uoc)	- 0,31 % / K
Temperature coefficient (Pmpp)	- 0,43 % / K

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