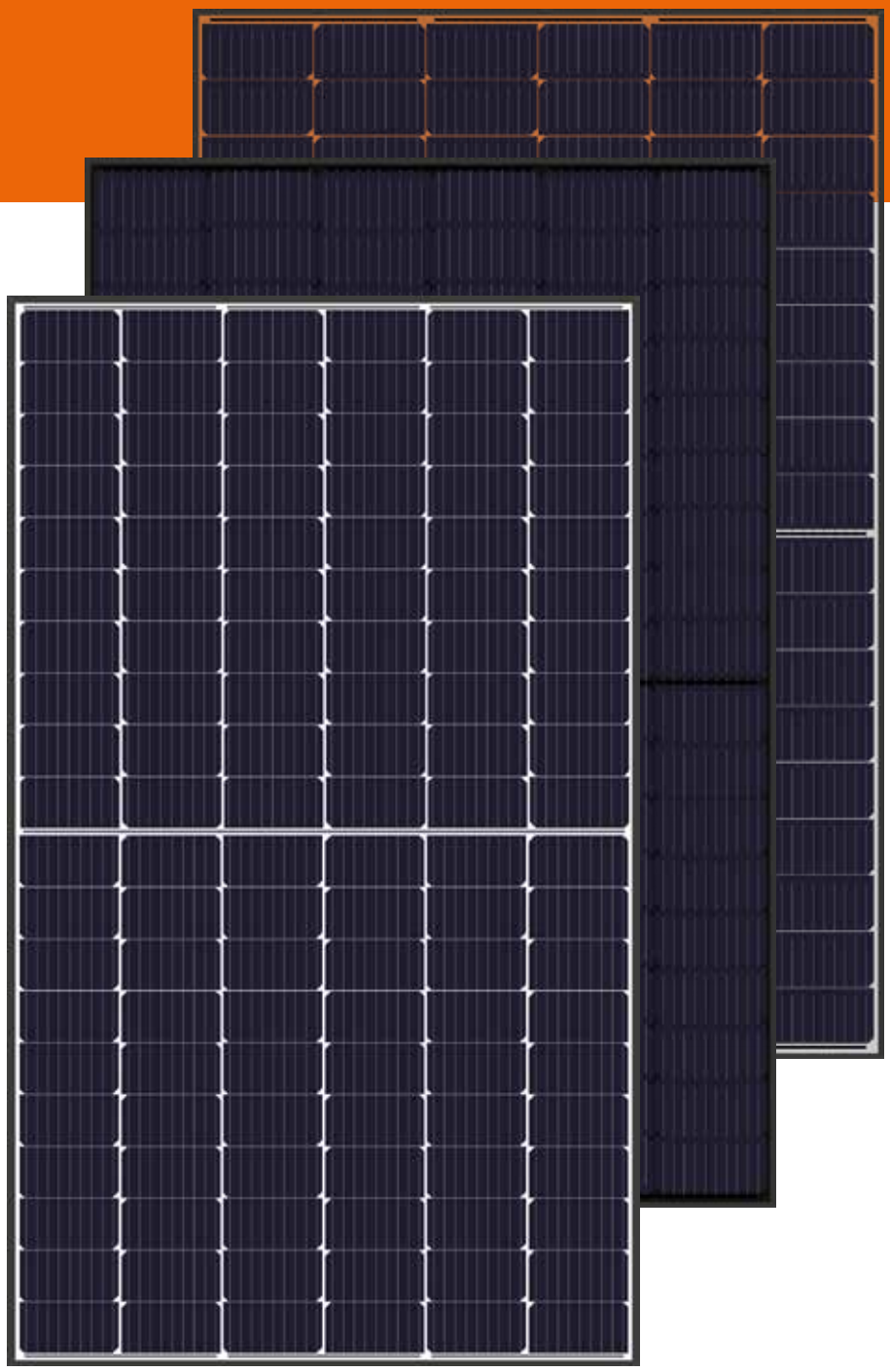
SONNENKRAFT

SOLAR MODULES

FOR STANDARD APPLICATIONS

380 Wp HC | 410 Wp HC silver | 410 Wp HC black 470 Wp HC black | 335 Wp
400 Wp HC bifacial



Top price-performance ratio
Suitable for the most diverse of standard applications and large plants

Innovative half-cell technology
Half-cell technology with optimised module interconnection with regard to shading

Decentralised junction boxes for half-cell modules
Original Stäubli MC4 EVO2 connectors with 2 x 1150 mm cable and max. system voltage of 1500 V

Homogeneous design
Anodised aluminium frame with mitre cut, solar glass panel with ideal low-light performance and reduced glare due to anti-reflective coating

EFFICIENT!
The module series with top price-performance ratio

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Glass film

SOLAR MODULE for standard applications 35 mm

Module data	380 Wp HC	410 Wp HC silver	410 Wp HC black
Pmpp	380 Wp	410 Wp	410 Wp
Umpp	34.32 V	31.30 V	31.30 V
Impp	11.08 A	13.10 A	13.10 A
Uoc	41.40 V	37.26 V	37.26 V
Isc	11.60 A	13.79 A	13.79 A
Efficiency	20.86%	20.97%	20.97%
Space requirement/kWp	4.79 m^2	4.77 m^2	4.77 m^2

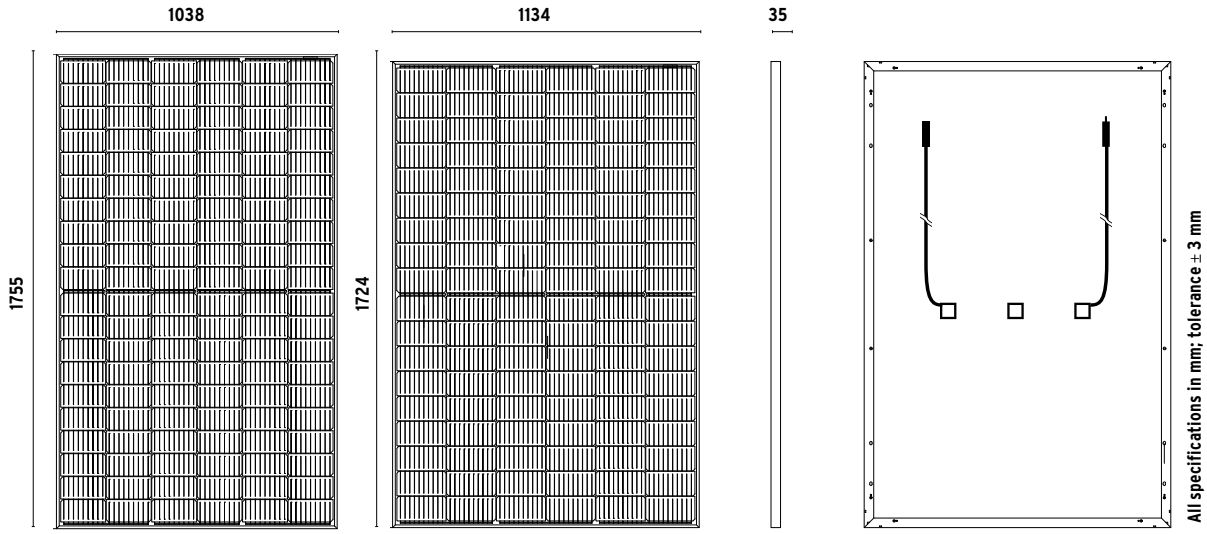
Electrical data

Cells	120 half-cells (6 x 20) 166 x 83 mm half-cut (9 busbar)	108 half-cells (6 x 18) 182 x 91 mm half-cut (10 busbar)	108 half-cells (6 x 18) 182 x 91 mm half-cut (10 busbar)
Connection and plug system	decentralised junction box with original Stäubli MC4 EVO2 connectors		
Max. system voltage	1500 V DC		
Power tolerance	+5 W / -0 W (measurement under standard test conditions)		
Temperature coefficients	Pmpp -0.350 %/K Uoc -0.270 %/K Isc +0.048 %/K		
Maximum return current	20 A		
Operating temperature	+85 °C to -40 °C		
Cable length	2 x 1150 mm		
Bypass diodes	3 piece		
Performance guarantee	min. 97% in the first year, thereafter max. reduction by 0.7% p.a. up to 25 years		
Product guarantee	12 years		

Technical data

Weight	20.00 kg	22.00 kg	22.00 kg
Dimensions (HxWxD)	1755 x 1038 x 35 mm (± 3 mm)	1724 x 1134 x 35 mm (± 3 mm)	1724 x 1134 x 35 mm (± 3 mm)
optical design	black anodised frame, backsheet: Front and rear side white	silver anodised frame, backsheet: Front and rear side white	black anodised frame, backsheet: front and rear side black
Glass specifications	3.2 mm ESG solar glass panel with anti-reflective coating (solar transmission AM 1.5 min. 94 %)		
Test certificate	IEC 61215, ed. 2, incl. extended mechanical load test up to 5400 Pa, IEC 61730 by TÜV Süd		
Extended tests	Salt mist & ammonium test, certified by TÜV Nord		
Packaging configuration	896 modules/lorry 31 + 33 modules per storage position	868 modules/lorry 31 + 31 modules per storage position	868 modules/lorry 31 + 31 modules per storage position

380 Wp **410 Wp**



The sole responsibility for ensuring that ordered and delivered goods are suitable for the customer's purposes rests with the customer. Any technical advice provided by SONNENKRAFT ENERGY GmbH, whether verbal, in writing, by means of tests or in any other way, is given to the best of our knowledge, but is subject to the exclusion of any warranty and liability. Special technical designs or special constructions may be subject to official approval. Obtaining such consent is the responsibility of the client or building owner. Any resulting changes in execution or additional services, in particular tests and proof of calculations, shall be borne by the client; we have not carried out or checked any project-related, static pre-dimensioning or the correct use of the glass panels in terms of glass technology. Measurement tolerance ±3%