

Item	Quantity	Description	Total
		<p>Mono S4 Halfcut Trend Full Black 445-450 W</p> <p>The Solar Fabrik Mono S4 Halfcut Trend Full Black module with a maximum system voltage of 1500 V is a double-glass module with bifacial monocrystalline half-cell technology.</p> <p>Mechanical design</p> <ul style="list-style-type: none"> - Bifacial glass-glass module (black mesh) - Dimensions L x B x D: 1,762 x 1,134 x 30 mm - Weight: approx. 24.9 kg - Front glass: 2.0 mm tempered solar glass with anti-reflective coating - Back glass: 2.0 mm tempered solar glass - Frame: black anodized aluminum with hollow chamber profile - Mechanical load capacity (according to IEC 61215): load capacity up to 5,400 Pa = 550 kg/m² <p>Electrical design</p> <ul style="list-style-type: none"> - Solar cells: 108 pieces, monocrystalline, N-Type TopCon, bifacial technology, (6 x 18 mm) - Connection technology: central, IP68, cable 1100 mm / 4 mm², MC4 or similar - Protection class: II (according to IEC 61140) - Max. system voltage: 1,500 V - Reverse current carrying capacity I_R: 30 A <p>Electrical properties at STC (1,000 W/m², 25±2°C, AM 1.5)</p> <ul style="list-style-type: none"> - Nominal power P_{max}: 445 – 450 Wp (100% plus sorting, ±3 % measurement tolerance) - Current at maximum power I_{mpp}: 13.20 – 13.27 A (±3 % measurement tolerance) - Open-circuit voltage U_{oc}: 40.05 – 40.25 V (±3 % measurement tolerance) - Short-circuit current I_{sc}: 14.10 – 14.17 A (±3 % measurement tolerance) - Efficiency η_m: 22.30 – 22.50 % (±3 % measurement tolerance) - Bifaciality coefficient: P_{max}: 80% ± 10% <p>Thermal properties</p> <ul style="list-style-type: none"> - Operating temperature range: -40°C ~ +85°C - Temperature coefficient P_{max}: -0.290 %/°C - Temperature coefficient U_{oc}: -0.250 %/°C - Temperature coefficient I_{sc}: 0.048 %/°C - Nominal operating temperature of the cell: 42°C ± 2° C <p>Product and company certificates</p> <ul style="list-style-type: none"> - IEC 61215-1/-1-1/-2:2016 and IEC 61730-1/-2:2016 (including protection class II) - Fire protection class A (according to IEC 61730-2/UL 790, UL 1703) - Hail protection class 4: Ice balls with a maximum diameter of 40 mm and a speed of up to 29.2 m/s <p>Warranties in accordance with the “Warranty Conditions for Glass-Glass Modules”</p> <ul style="list-style-type: none"> - 30-year product warranty - 30-year linear performance warranty <p>Special product features</p> <ul style="list-style-type: none"> - Maximum yield reliability over the entire product life cycle thanks to: <ul style="list-style-type: none"> o Durability and fire safety due to glass front and back o Resistance to ammonia, salt, and hail <p>Easy product handling and uncomplicated return</p>	