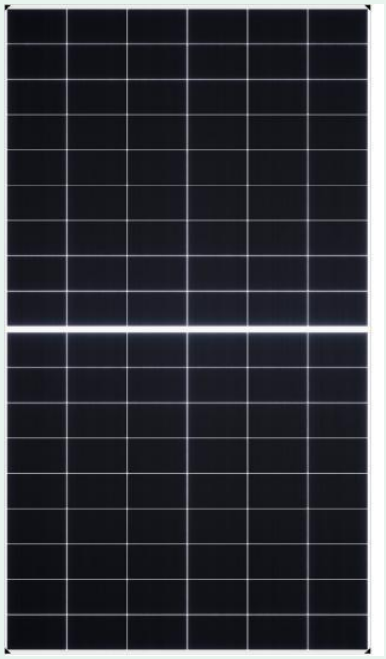
FRAMELESS LIGHTWEIGHT PV

TOPCon lightweight modules | 500-510 W

PRODUCT DATA / EQUIPMENT SELECTION



500-510 W
STC power range

2.2 mm
Module thickness*

10.0 kg
Stated module weight

Compare electrical fit, module construction and mounting requirements as one configuration. Select equipment against the actual project conditions.

WAYTON supports equipment matching, documentation and supply coordination. Confirm the exact model, installation conditions and applicable document revision before procurement.

SPECIFY THE ELECTRICAL FIT

Electrical performance.

Compare like-for-like test conditions across the three power ratings.

Characteristic	500 W	505 W	510 W
Model reference*	G2-120B-500	G2-120B-505	G2-120B-510
Pmax [W] - STC	500	505	510
Pmax [W] - NMOT	385	388.8	392.7
Vmp [V] - STC	33.76	33.85	33.91
Vmp [V] - NMOT	27.00	27.08	27.13
Imp [A] - STC	14.83	14.94	15.06
Imp [A] - NMOT	13.94	14.04	14.16
Voc [V] - STC	39.72	39.87	40.03
Voc [V] - NMOT	32.17	32.29	32.42
Isc [A] - STC	15.36	15.40	15.45
Isc [A] - NMOT	14.59	14.63	14.68

STC: AM1.5, 1,000 W/m², cell temperature 25°C; stated test error ±3%. NMOT: 800 W/m², ambient temperature 20°C, wind speed 1 m/s. Values reproduce the declared product data; confirm the model-specific released datasheet for project design.

Temperature characteristics

Parameter	Value
Temperature coefficient of Pmax	-0.33%/°C
Temperature coefficient of Voc	-0.27%/°C
Temperature coefficient of Isc	+0.045%/°C
NOCT	45 ±2°C

* Display references omit the supplier prefix. The exact orderable reference, revision and supporting documents are confirmed before supply. Technical data are not a certificate of conformity.

CHECK THE WHOLE CONFIGURATION

Construction and operating limits.

Assess the module, mounting method and electrical design together.

Mechanical characteristics

Parameter	Stated value
Cell Type	Topcon cell 182.3*105mm
Module dimensions	1957*1130*2.2mm
Glass	Single glass,1.1mm reinforced glass
Weight	10.0kg
Output cable	4mm² ,wire length 400mm (customizable)
Connector	MC4 EVO2 Series
Junction boxes	3 IP68-rated junction box

Application characteristics

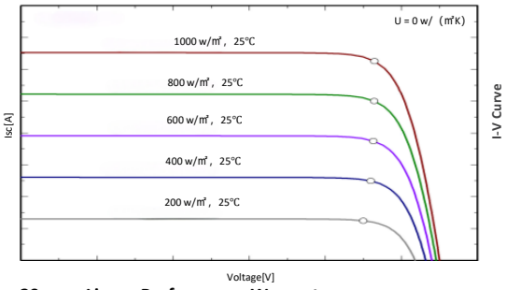
Parameter	Stated value
Max. System Voltage	DC 1500V
Power Tolerance	0-+5W
Operating Temperature Range	-40°C-+85°C
Max. Series Fuse Rating	25A
Mechanical Load	Front 2400Pa,back 2400Pa
Wind Resistance Class	Lv.17
Hailstone Test	25mm hailstone at the speed of 23m/s

The source literature states 4.5 kg/m² areal weight. Confirm the permitted mounting or bonding system, dimensions and loading against the current installation guide. Test loads are not site design loads. Any access on modules must follow the model-specific handling procedure.

FROM DATASHEET TO PROCUREMENT

Confirm the supporting documents.

Installation instructions, model-specific evidence and warranty scope complete the equipment specification.



I-V CURVE

Original curve and labels retained. Irradiance: 1,000 / 800 / 600 / 400 / 200 W/m², at 25°C. The curve is a reference characteristic, not additional rated variants.

Published performance statements

Item	Source product literature states
Maximum efficiency	22.9%
First-year degradation	≤1%
Annual degradation, years 2-30	≤0.4%
Retained power at year 30	87.4% (labelled performance curve)
Product / performance warranty	15 years / 30 years, subject to issuer terms

These are source product statements, not a new warranty issued by WAYTON. Obtain the applicable manufacturer terms for the exact model and market, including exclusions for non-static use. No certification or insurance seals are reproduced without model-specific evidence.

Packing and logistics

Transport	Modules	Per pallet
40' HQ	1080	60
13m	1200	60
17.5m	1680	60

Match the equipment to your project.

Send the country, target capacity, installation details, inverter specification, quantity and required delivery date.

www.waytonenergy.com/products/solar-panels/

WAYTON edition: 25 November 2026 | Technical basis: 202605_V4.1.2_EN. Confirm the current model release and project applicability before ordering.