

SunCrown™ 650-685

650-685 W N-Type ABC back-contact module

N-TYPE ABC BACK-CONTACT

HIGHEST OUTPUT. CELL-LEVEL SHADE OPTIMISATION.

Premium all-black module supplied, installed and supported by Lewis Green Energy. Final specification depends on the selected model and system design.



685 W

Peak rated output

25.4%

Peak module efficiency

30 years

Linear performance warranty

ELECTRICAL SPECIFICATIONS (STC)

Module type	650 W	655 W	660 W	665 W	670 W	675 W	680 W	685 W
Maximum power – P _{max} [Wp]	650	655	660	665	670	675	680	685
Open-circuit voltage – V _{oc} [V]	54.90	55.00	55.10	55.20	55.30	55.40	55.50	55.60
Maximum power voltage – V _{mp} [V]	44.79	44.89	44.99	45.09	45.19	45.29	45.39	45.49
Short-circuit current – I _{sc} [A]	15.27	15.33	15.39	15.45	15.52	15.59	15.66	15.73
Maximum power current – I _{mp} [A]	14.52	14.60	14.68	14.75	14.83	14.91	14.99	15.07
Module efficiency [%]	24.1	24.2	24.4	24.6	24.8	25.1	25.2	25.4

STC: irradiance 1000 W/m², cell temperature 25 °C, AM 1.5.

ELECTRICAL SPECIFICATIONS (NOCT)

Module type	650 W	655 W	660 W	665 W	670 W	675 W	680 W	685 W
Maximum power – P _{max} [Wp]	520	524	527	531	535	538	542	546
Open-circuit voltage – V _{oc} [V]	51.23	51.33	51.43	51.53	51.63	51.73	51.83	51.93
Maximum power voltage – V _{mp} [V]	42.98	43.07	43.16	43.25	43.34	43.43	43.52	43.61
Short-circuit current – I _{sc} [A]	13.08	13.14	13.20	13.26	13.32	13.38	13.44	13.50
Maximum power current – I _{mp} [A]	12.10	12.16	12.22	12.28	12.34	12.40	12.46	12.52

NOCT: irradiance 800 W/m², ambient temperature 20 °C, AM 1.5, wind speed 1 m/s.

MECHANICAL SPECIFICATIONS

Cell type	N-type ABC back-contact
Number of cells	144 (6 × 24)
Dimensions	2382 × 1134 × 30 mm
Weight	32.2 kg ± 3%
Front cover	2.0 mm coated semi-tempered glass
Rear cover	2.0 mm semi-tempered glass
Frame	Anodised aluminium
Junction box	IP68, 3 bypass diodes

Connector	MC4 compatible / MC4-EVO2A
Cable	4 mm ² (IEC) – (+) 400 mm, (–) 200 mm / ±1400 mm or customised length

TEMPERATURE, RATINGS AND INSTALLATION

Power tolerance	0 ~ +3%
Temperature coefficient of Pmax	–0.26 %/°C
Temperature coefficient of Voc	–0.22 %/°C
Temperature coefficient of Isc	+0.05 %/°C
Operating temperature	–40 °C ~ +70 °C
Maximum system voltage	1500 V DC
Maximum series fuse rating	30 A
Protection class	Class II
Maximum static loading	Front 5400 Pa · rear 2400 Pa
Hail test	25 mm diameter hail at 23 m/s
Fire rating	IEC Class A
Product warranty	15 years
First-year degradation	≤ 1%
Annual degradation, years 2-30	≤ 0.35%