

M10 590 W N-TOPCon Module

Rooftop and C&I-ready; N-TOPCon platform

ZAP91

Rooftop and commercial & industrial-ready N-TOPCon dual-glass bifacial module — engineered for harsh environments and long-term performance consistency.

Key electrical and mechanical specifications

PEAK POWER (P _{MAX}) 590 Wp	MODULE EFFICIENCY 21.9%
OPEN CIRCUIT VOLTAGE (V _{OC}) 53.1 V	SHORT CIRCUIT CURRENT (I _{SC}) 14.2 A
VOLTAGE AT P _{MAX} (V _M P) 44.6 V	CURRENT AT P _{MAX} (I _M P) 13.2 A
DIMENSIONS (MM) 2278 x 1134 x 30	WEIGHT 28 kg
CELL CONFIGURATION 144 half-cells, 182 mm	MAX SYSTEM VOLTAGE 1500 V DC
OPERATING TEMPERATURE -40 C to +85 C	WARRANTY 12 yr product / 30 yr power

Mechanical

Front glass	2.0 mm ARC heat-strengthened
Rear cover	2.0 mm heat-strengthened glass
Frame	Anodized aluminium alloy (silver)
Junction box	3-split, IP68 rated
Connector	MC4 compatible
Cable	4.0 mm ² / 400 mm length

Temperature & loading

P_{max} temp coefficient	-0.29 %/C
V_{oc} temp coefficient	-0.24 %/C
I_{sc} temp coefficient	+0.042 %/C
NOCT	45 +/- 2 C
Bifaciality	80 +/- 10%
Load (front / rear)	5400 / 2400 Pa

Certifications & compliance

IEC 61215, IEC 61730, IEC TS 62804 (PID), ISO 9001, ISO 14001, ISO 45001. BIS / ALMM listed.