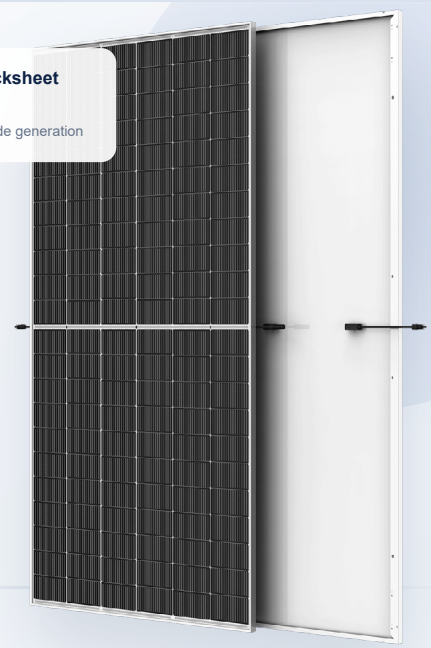
N-TYPE TOPCon / MONOFACIAL BACKSHEET

High-output energy. Built for scale.

A 585W monofacial module engineered for commercial and utility-scale projects, balancing dependable output, system compatibility and long-term value.

MODEL
SM5-72HTH-585M

585W



Monofacial backsheet module
High-output front-side generation

21.6%	0 to +5W	12 years	30 years
Maximum module efficiency	Positive power tolerance	Product warranty	Linear power guarantee

PROJECT ADVANTAGES

More power across the full system lifecycle.

01 Higher system value
High module power supports fewer balance-of-system components, efficient string design and stronger project economics.

02 Advanced cell platform
N-type TOPCon architecture supports high conversion efficiency, reliable low-light performance and controlled degradation.

03 Durable mono-glass design
Tempered front glass, a weather-resistant backsheet and anodised aluminium frame provide dependable field performance.

04 Consistent energy yield
Optimised electrical behaviour and temperature performance support stable production across changing operating conditions.

PERFORMANCE WARRANTY

Long-term output confidence.

12 YEAR PRODUCT

1%	0.4%	87.4%
First-year degradation	Annual attenuation	Guaranteed at year 30

COMPLIANCE & SYSTEM CERTIFICATES

Validated for demanding project environments.

IEC 61215 / IEC 61730 / IEC 61701 / IEC 62716

ISO 9001
Quality management

ISO 14001
Environmental management

ISO 45001
Occupational health & safety

ISO 14067
Product carbon footprint

SMX-M SERIES / SM5-72HTH-585M

N-type TOPCon / Monofacial backsheet

Electrical performance

STC and NOCT operating conditions

Parameter	STC	NOCT
Peak power - Pmax (Wp)	**585**	446
Power selection (W)	0 to +5	-
Maximum power voltage - Vmp (V)	39.50	37.10
Maximum power current - Imp (A)	14.82	12.02
Open-circuit voltage - Voc (V)	47.50	45.00
Short-circuit current - Isc (A)	15.68	12.64
Module efficiency (%)	21.6	-

STC: 1000W/m², cell temperature 25°C, AM1.5. **NOCT:** 800W/m², ambient temperature 20°C, wind speed 1m/s. Measuring tolerance applies according to the approved production specification.

Module performance

01 Electrical

Power tolerance	**0 to +5W**
System voltage	**1500V DC**
Series fuse	**35A**
Protection	**Class II**

02 Qualification

Static load	**Front 5400Pa / rear 2400Pa**
Hail test	**IEC qualified**
Fire rating	**Regional certification**
Junction box	**IP68**

Electrical values follow the supplier-approved 585W reference configuration.

Operating ratings

Temperature

NOCT	**43°C ± 2°C**
Pmax coefficient	**-0.30%/°C**
Voc coefficient	**-0.24%/°C**
Isc coefficient	**+0.04%/°C**

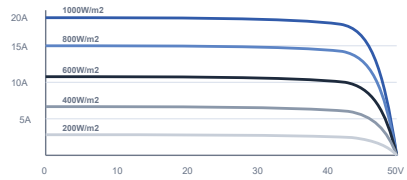
Application

Operating range	**-40°C to +85°C**
System voltage	**1500V DC**
Series fuse	**35A**
Junction box	**IP68**

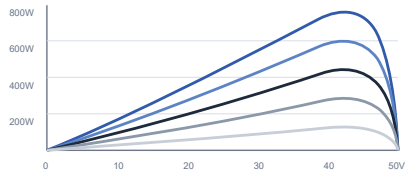
PV module curves

Reference curves for this product class

I-V curve



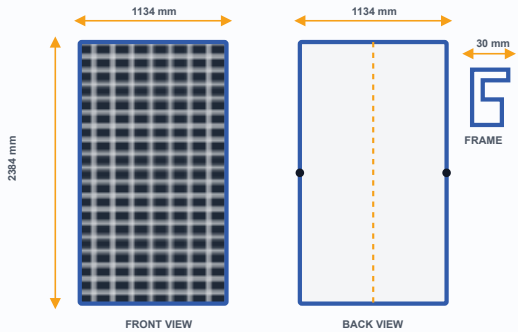
P-V curve



Mechanical specification

Module construction and reference dimensions

Solar cells	N-type TOPCon monocrystalline
Cell count	132 cells
Module dimensions	**2384 x 1134 x 30 mm**
Weight	28.2 kg ±3%
Front glass	3.2 mm tempered high-transmission glass
Backsheet	High-weather-resistant backsheet
Frame	30 mm anodised aluminium alloy
Cables	4.0 mm² / customised length available
Connector	MC4 compatible / MC4 EVO2*
Packaging	36 modules per pallet / 720 per 40 ft HC



Reference drawing. Mounting, grounding and drainage-hole positions follow the approved manufacturing drawing for this module format.

*Connector names are general designations; supplied connector type is subject to the applicable certification and production documents.