KKT KOLBE

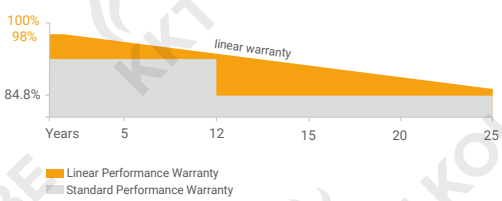
www.kolbe.de

SP425-01
425 W

MONOFACIAL PHOTOVOLTAIC MODULE

PERFORMANCE WARRANTY

- 12 Years — Enhanced Product Warranty on Materials and Work man ship.
- 25 Years — Linear Power Performance Warranty*
- ≤0.55% — Annual Degradation over 25 years no more than 0.55%



*According to the applicable KKT Kolbe Warranty Statement.

MANAGEMENT SYSTEM CERTIFICATES

ISO 9001:2015 / Quality management system

ISO 14001:2015 / Standards for environmental protection

ISO 45001: 2018 / International standards for occupational health & safety

PRODUCT CERTIFICATES

IEC 61215 / IEC 61730 / CE

CE

DEKRA certified

THE IDEAL SOLUTION FOR:

Rooftop arrays on residential buildings

High module conversion efficiency

MBB Half Cell Technology, new circuit design, lower internal current, lower Rs loss

Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control

Excellent weak light performance

More power output in weak light condition, such as cloudy, morning and sunset

Extended wind and snow load tests

Module certified to withstand extreme wind (2700 Pa) and snow loads (5400 Pa)

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SP425-01

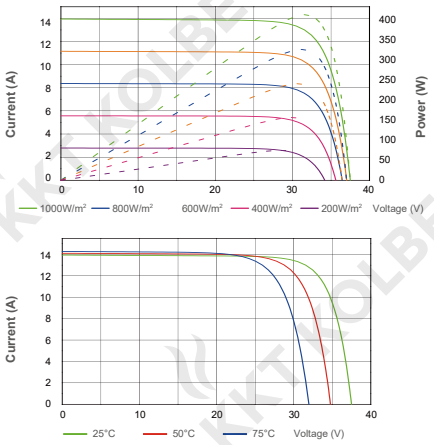
SPECIFICATIONS

Module Type		SP425-01	
		STC	NMOT
Maximum Power	(Pmax / W)	425	318
Operating Voltage	(Vmpp / V)	32.03	30.0
Operating Current	(Impp / A)	13.29	10.60
Open-Circuit Voltage	(Voc / V)	38.25	35.90
Short-Circuit Current	(Isc / A)	14.18	11.42
Module Efficiency	ηm (%)	21.7	

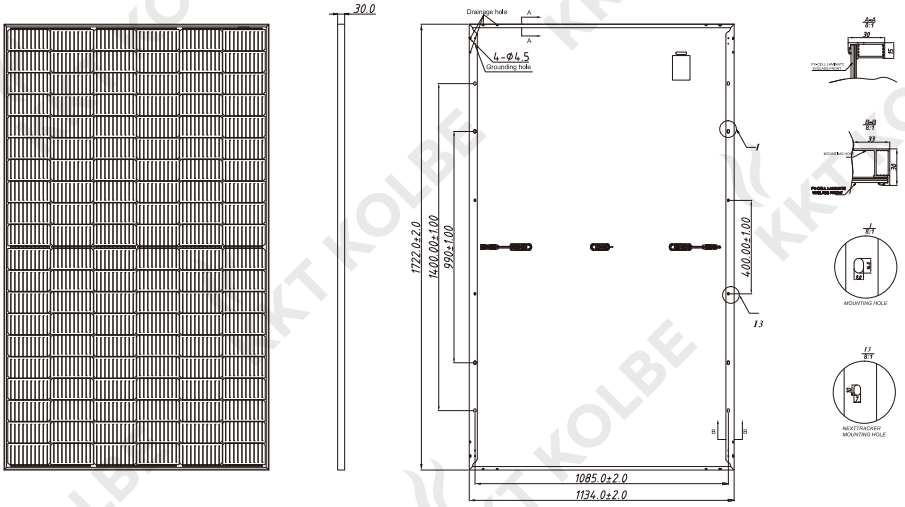
STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM 1.5

NMOT: Irradiance at 800 W/m², Ambient Temperature 20°C, Air Mass AM 1.5, Wind Speed 1 m/s

I-V CURVE



ENGINEERING DRAWINGS



MECHANICAL SPECIFICATION

Cell Type	Monocrystalline
Cell Dimensions	182 × 182 mm
Cell Arrangement	108 (6 × 18)
Weight	21.5 kg
Module Dimensions	1722 × 1134 × 30 mm
Cable Length	300 mm
Cable Cross Section Size	TUV: 4 mm² (0.006 inches²) / UL: 12 AWG
Front Glass	3.2 mm (0.13 inches) AR Coating, Tempered Glass
No. of Bypass Diodes	3
Packing Configuration	36 pcs/carton, 936 pcs / 40 hq
Frame	Anodized Aluminium Alloy
Junction Box	IP68

OPERATING CONDITIONS

Maximum System Voltage	1000V / 1500V / DC (IEC)
Operating Temperature	-40°C ~ +85 °C
Maximum Series Fuse	25 A
Static Loading	Snow Loading: 5400Pa / Wind Loading: 2400 Pa
Conductivity at Ground	≤ 0.1Ω
Safety Class	II
Resistance	≥ 100 MΩ
Connector	T01 / LJQ-3-CSY / MC4 / MC4 - EVO2

TEMPERATURE COEFFICIENT

Temperature Coefficient Pmax	-0.35 % / °C
Temperature Coefficient Voc	-0.26 % / °C
Temperature Coefficient Isc	+0.048 % / °C
NMOT	43 ± 2 °C

*Data contained in these specifications is subject to change without notice. KKT Kolbe reserves the right to final interpretation of content.

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