390~420 Watt

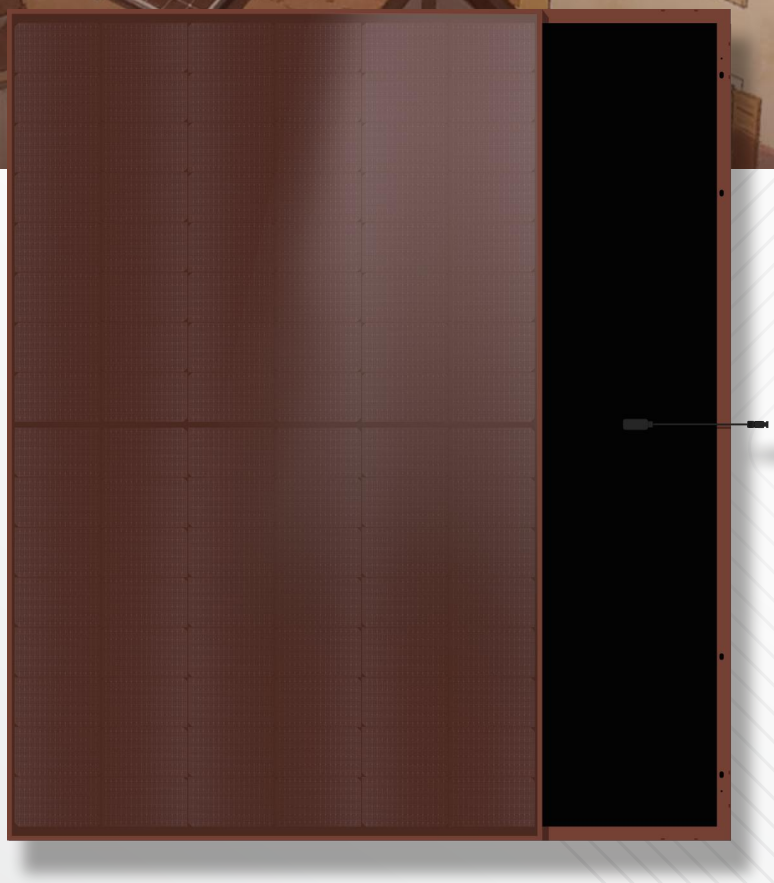
HORAY | TIER1 BloombergNEF

HS 210R-96 TC *Orange* *N-type Mono-facial Modules*

Orange colored glass and frame (similar to RAL 8001*)

Ideal for traditional roofs with terracotta tiles and historical areas

*All images and colour reference (RAL) shown are for lustration purpose ony.
Product appearance may vary acording to the instaltion, light and ambient refection.



SMBB Half-Cell Technology
More uniform current distribution, reducing heat loss in internal cells.

Higher Output Power
The output power of 96 half-cell monocrystalline modules is up to 420W.

Mechanical Load Enhanced
Heavy snow load up to 5400 Pa, wind load up to 2400 Pa.

Better Weather Adaptability
Excellent low light performance, lower temperature coefficients and power loss under high temperature.

Lower Power Attenuation
Anti-PID and negligible LID/LeTID, which reduces power loss.

IEC 61215:2021

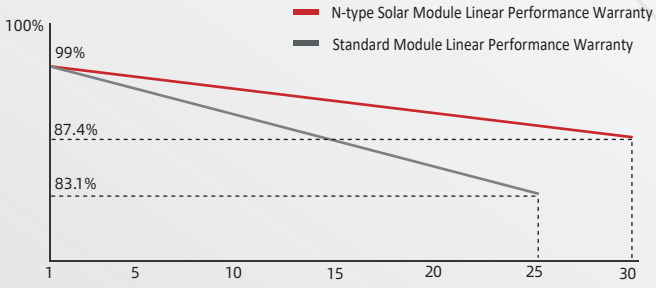
IEC 61730:2023

ISO 9001:2015 Quality Management System

ISO 14001:2015 Environmental Management System

ISO 45001:2018 Occupational Health and Safety Management System

CE Marking: European Conformity



12 12-year product warranty

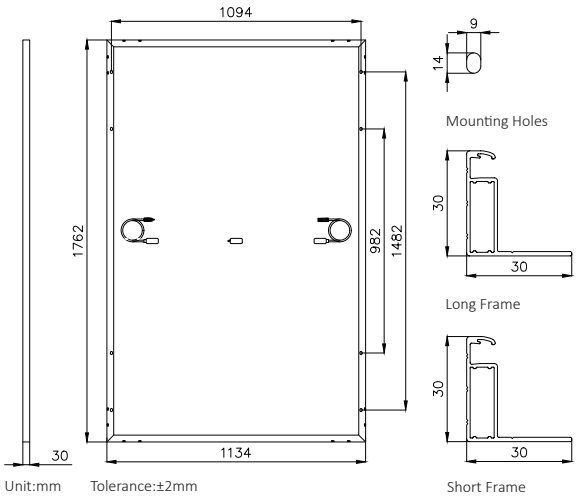
25 25-year linear power output warranty

HEADQUARTER: HORAY SOLAR CO., LTD.
sales@horaysolar.com www.horaysolar.com +86-510 83580688
No.300 Huiming Road, Huishan District, 214177 Wuxi, Jiangsu, P.R. China

GLOBAL MARKETING AND SERVICE: HORAY SOLAR GMBH
info@horaysolar.com www.horaysolar.com
Robert-Bosch-Straße 27-29, 63225 Langen, Germany

HS 210R-96 TC *Orange*

MECHANICAL DIAGRAMS



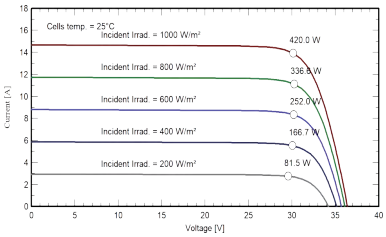
Unit:mm Tolerance:±2mm

MECHANICAL PARAMETERS

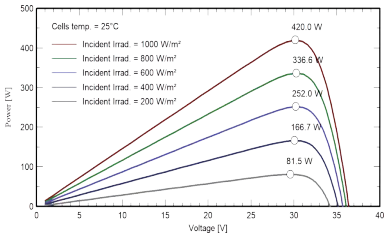
Weight	22.0kg
Dimension	1762×1134×30mm
Cell Orientation	96 (6×16)
Junction Box	IP68, three diodes
Output Cable	4mm², ±300mm (length can be customized)
Connector	MC4 compatible
Glass	3.2mm AR coated tempered glass
Frame	Anodized aluminum alloy frame
Packaging	37pcs per pallet/962pcs per 40'HC

MECHANICAL PARAMETERS

HS420TC-MHA(O)



HS420TC-MHA(O)



ELECTRICAL CHARACTERISTICS AT STC

Module Type	HS390TC-MHA(O)	HS400TC-MHA(O)	HS410TC-MHA(O)	HS420TC-MHA(O)
Testing Condition	STC	STC	STC	STC
Maximum Power(Pmax/W)	390	400	410	420
Open Circuit Voltage(Voc/V)	35.35	35.69	36.04	36.39
Short Circuit Current(Isc/A)	14.02	14.24	14.46	14.67
Maximum Power Voltage(Vmp/V)	29.38	29.66	29.95	30.24
Maximum Power Current(Imp/A)	13.28	13.48	13.69	13.89
Module Efficiency(%)	19.5	20.0	20.5	21.0

* Standard Test Conditions (STC): Irradiance 1000W/m², AM 1.5, cell temperature 25°C. Power measurement tolerance: ±3%.

ELECTRICAL CHARACTERISTICS AT NMOT

Module Type	HS390TC-MHA(O)	HS400TC-MHA(O)	HS410TC-MHA(O)	HS420TC-MHA(O)
Testing Condition	NMOT	NMOT	NMOT	NMOT
Maximum Power(Pmax/W)	304	312	320	328
Open Circuit Voltage(Voc/V)	35.10	35.44	35.79	36.13
Short Circuit Current(Isc/A)	10.94	11.11	11.28	11.44
Maximum Power Voltage(Vmp/V)	29.06	29.34	29.63	29.91
Maximum Power Current(Imp/A)	10.47	10.63	10.79	10.95

* Nominal Module Operating Temperature (NMOT): Irradiance 800W/m², AM 1.5, ambient temperature 20°C, wind speed 1 m/s. Power measurement tolerance: ±3%.

OPERATING PARAMETERS

Operating Temperature Range	-40°C~+85°C
Power Output Tolerance	0~3%
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	30A
Nominal Module Operating Temperature	45±2°C
[T98]max	≤70°C
Protection Class	Class II
Fire Rating	IEC Class C

MECHANICAL LOADING

Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

TEMPERATURE RATINGS (STC)

Temperature Coefficient of Isc	+0.04%/°C
Temperature Coefficient of Voc	-0.23%/°C
Temperature Coefficient of Pmax	-0.28%/°C

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.
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Specifications included in this datasheet are subject to change without notice.
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