Propelling the Innovation

Mono

465W MBB Bifacial Mono PERC Half-cell Double Glass Module RZ-465HM-144DG Series

Introduction

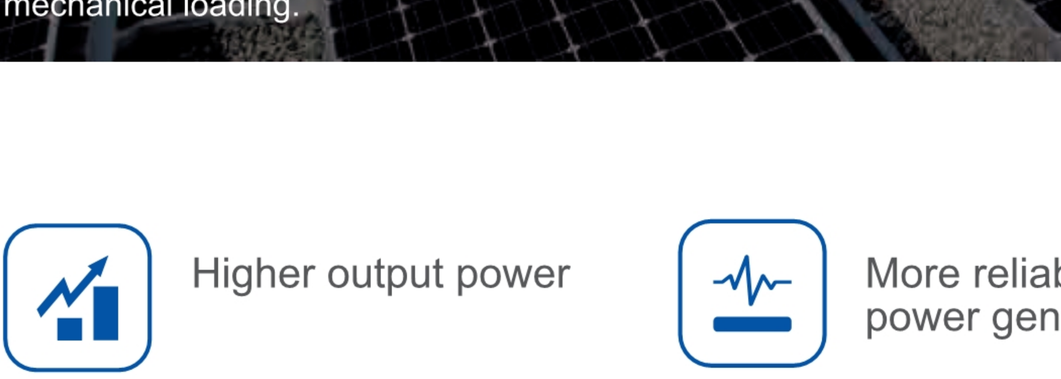
Assembled with MBB bifacial PERCIUM cells and half-cell configuration, these double glass modules have the capability of converting the incident light from the rear side together with the front side into electricity, providing higher output power, lower temperature coefficient, less shading loss, as well as enhanced tolerance for mechanical loading.

- Higher output power
- More reliable, more stable power generation
- Less shading effect
- Lower temperature coefficient

Superior Warranty

- 12-year product warranty
- 30-year linear power output warranty

0.45% Annual Degradation Over 30 years



Additional Value From 30-Year Warranty JA Standard

Comprehensive Certificates

- IEC 61215, IEC 61730,UL 61215, UL 61730
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- ISO 45001: 2018 Occupational health and safety management systems
- IEC TS 62941: 2016 Terrestrial photovoltaic (PV) modules – Guidelines for increased confidence in PV module design qualification and type approval

TÜV NORD CE INMETRO JPEA MCS ROHS IEC WEEE CEC

RUNSOL

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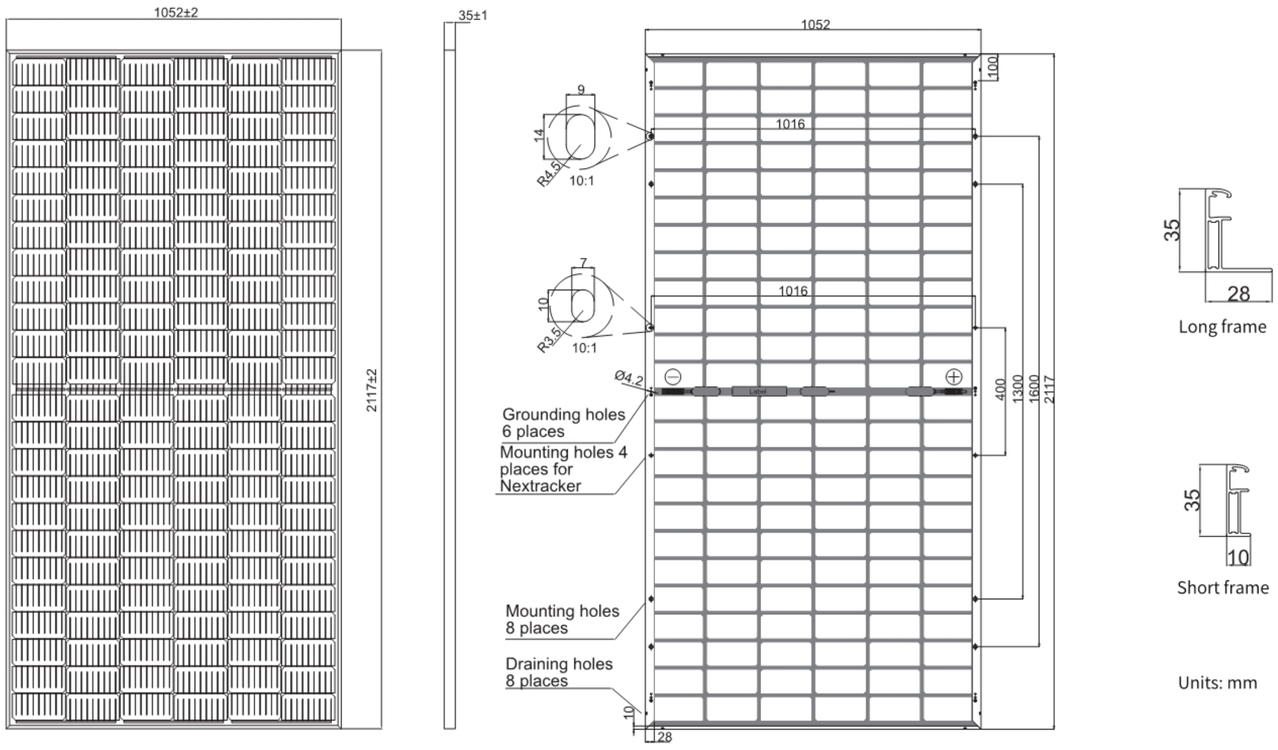
Specifications subject to technical changes and tests.
Runsol PV reserves the right of final interpretation.

JA SOLAR

RZ-440-465HM-144DG Series

MECHANICAL DIAGRAMS



Long frame

Short frame

Units: mm

Remark: customized frame color and cable length available upon request

SPECIFICATIONS

Cell	Mono
Weight	27.3kg±3%
Dimensions	2117±2mm×1052±2mm×35±1mm
Cable Cross Section Size	4mm²（IEC), 12 AWG(UL)
No. of Cells	144(6×24）
Junction Box	IP68, 3 diodes
Connector	MC4(1500V）
Cable Length (Including Connector)	Portrait:300mm(+)/400mm(-); Landscape:1200mm(+)/1200mm(-)
Front Glass/Back Glass	2.0mm/2.0mm
Packaging Configuration	30pcs/pallet, 600pcs/40ft Container

ELECTRICAL PARAMETERS AT STC

TYPE	RZ-440HM -144DG	RZ-445HM -144DG	RZ-450HM -144DG	RZ-455HM -144DG	RZ-460HM -144DG	RZ-465HM -144DG
Rated Maximum Power(Pmax) [W]	440	445	450	455	460	465
Open Circuit Voltage(Voc) [V]	49.30	49.45	49.61	49.75	49.91	50.05
Maximum Power Voltage(Vmp) [V]	40.60	40.91	41.21	41.52	41.79	42.09
Short Circuit Current(Isc) [A]	11.33	11.38	11.42	11.46	11.50	11.55
Maximum Power Current(Imp) [A]	10.84	10.88	10.92	10.96	11.01	11.05
Module Efficiency [%]	19.8	20.0	20.2	20.4	20.7	20.9
Power Tolerance	0~+5W					
Temperature Coefficient of Isc(α_Isc)	+0.044%/°C					
Temperature Coefficient of Voc(β_Voc)	-0.272%/°C					
Temperature Coefficient of Pmax(γ_Pmp)	-0.354%/°C					
STC	Irradiance 1000W/m², cell temperature 25°C, AM1.5G					

Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer.They only serve for comparison among different module types.

ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN(REFRENCE TO 445W FRONT)

Backside Power Gain	5%	10%	15%	20%	25%
Rated Max Power(Pmax) [W]	467	490	512	534	556
Open Circuit Voltage(Voc) [V]	48.80	48.80	48.80	48.90	48.90
Max Power Voltage(Vmp) [V]	41.30	41.30	41.30	41.40	41.40
Short Circuit Current(Isc) [A]	11.98	12.55	13.12	13.69	14.26
Max Power Current(Imp) [A]	11.31	11.85	12.39	12.90	13.44

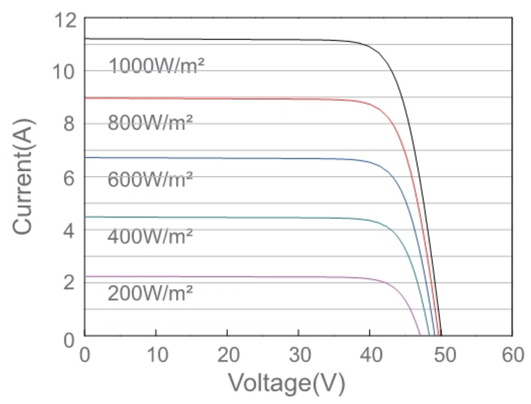
*For NexTracker installations static loading performance: front load measure 2400Pa, while back load measures 2400Pa.
**Bifaciality=Pmax,rear/Rated Pmax,front

OPERATING CONDITIONS

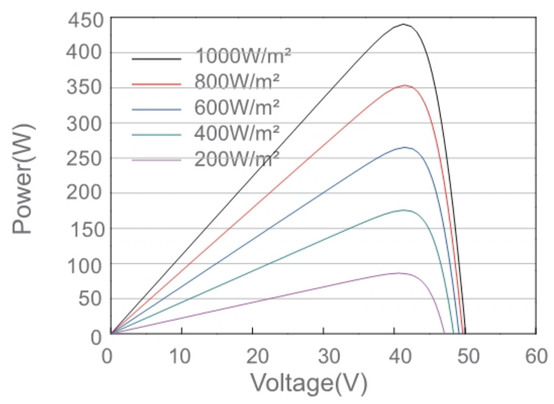
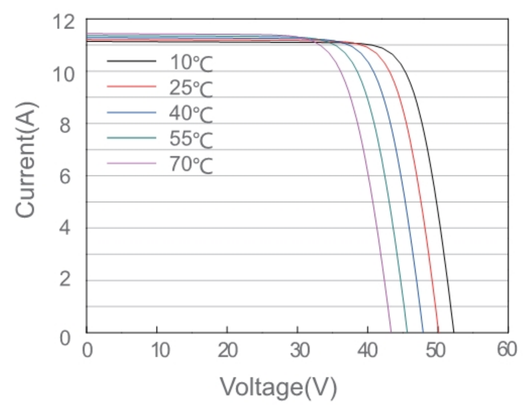
Maximum System Voltage	1500V DC
Operating Temperature	-40°C~+85°C
Maximum Series Fuse	25A
Maximum Static Load,Front* Maximum Static Load,Back*	5400Pa(112 lb/ft²) 2400Pa(50 lb/ft²)
NOCT	45±2°C
Bifaciality**	70%±10%
Fire Performance	UL Type 29

CHARACTERISTICS

Current-Voltage Curve RZ-440HM -144DG



Power-Voltage Curve RZ-440HM -144DG



Current-Voltage Curve RZ-440HM -144DG