



Introduction

This time-tested legacy module series has been proven to be one of the powerful and most reliable products offered by BR Solar and the most popular choice by PV system installers and customers around world.



Low cost



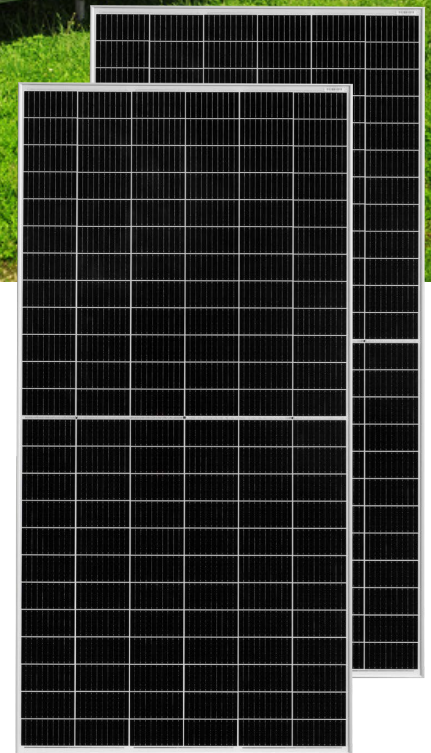
9 busbar solar cell design



Anti-PID

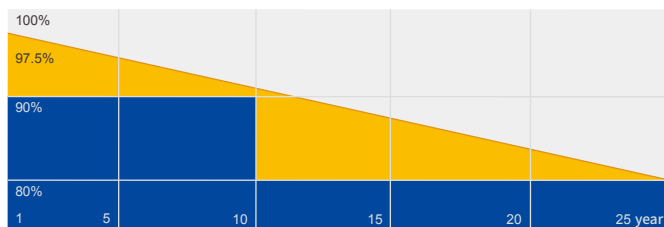


Highly reliable due to strict quality control



Superior Warranty

- 10-year product warranty
- 25-year linear power output



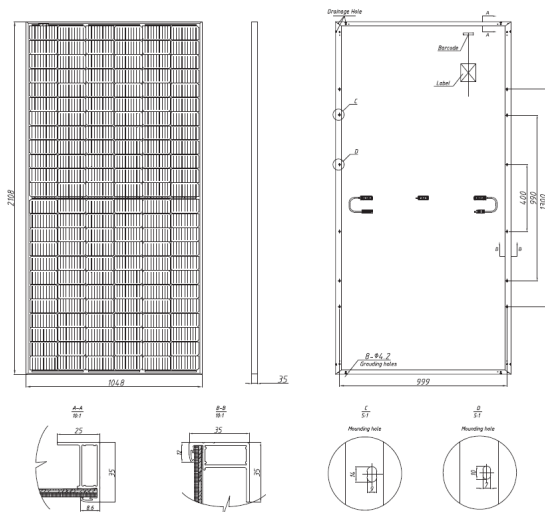
■ Linear Power Warranty ■ Industry Warranty

Comprehensive Certificates

- IEC 61215, IEC 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



MECHANICAL DIAGRAMS



Remark: customized frame color and cable length available upon request

SPECIFICATIONS

| | |
|--------------------------|--------------------------|
| Cell | PERC |
| Weight | 24.5kg |
| Dimensions | 2108×1048×35mm |
| Cable Cross Section Size | 4mm ² , 300mm |
| No. of cells | 144(2x(6x12)) |
| Junction Box | IP68, 3 diodes |
| Connector | 1500V, MC4 |
| Packaging Configuration | 30 Per Pallet |
| Container | 660pcs /40' HQ |

ELECTRICAL PARAMETERS AT STC

| TYPE | BR-M435W | BR-M440W | BR-M445W | BR-M450W | BR-M455W |
|---|---|----------|----------|----------|----------|
| Rated Maximum Power(P _{max}) [W] | 435 | 440 | 445 | 450 | 455 |
| Open Circuit Voltage(V _{oc}) [V] | 48.7 | 48.9 | 49.2 | 49.5 | 49.7 |
| Maximum Power Voltage(V _{mp}) [V] | 40.5 | 40.8 | 41.1 | 41.4 | 41.7 |
| Short Circuit Current(I _{sc}) [A] | 11.24 | 11.30 | 11.36 | 11.42 | 11.48 |
| Maximum Power Current(I _{mp}) [A] | 10.74 | 10.78 | 10.83 | 10.87 | 10.91 |
| Module Efficiency [%] | 19.63 | 19.92 | 20.14 | 20.37 | 20.60 |
| Power Tolerance | 0~+5W | | | | |
| Temperature Coefficient of I _{sc} (α _{Isc}) | +0.06%/°C | | | | |
| Temperature Coefficient of V _{oc} (β _{Voc}) | -0.30%/°C | | | | |
| Temperature Coefficient of P _{max} (γ _{Pmp}) | -0.38%/°C | | | | |
| STC | Irradiance 1000W/m ² , cell temperature 25°C, AM1.5G | | | | |

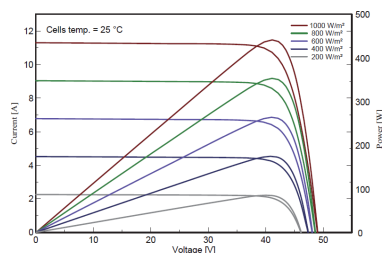
Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer. They only serve for comparison among different module types.

ELECTRICAL PARAMETERS AT NOCT

| TYPE | BR-M435 | BR-M440 | BR-M445 | BR-M450 | BR-M455 | OPERATING CONDITIONS | |
|---|--|---------|---------|---------|---------|---------------------------|---------------|
| Rated Max Power(P _{max}) [W] | 326 | 330 | 334 | 337 | 341 | Maximum System Voltage | 1500V DC(IEC) |
| Open Circuit Voltage(V _{oc}) [V] | 46.1 | 46.3 | 46.6 | 46.9 | 47.1 | Operating Temperature | -40°C~+85°C |
| Max Power Voltage(V _{mp}) [V] | 37.7 | 38.0 | 38.3 | 38.6 | 38.9 | Maximum Series Fuse | 20A |
| Short Circuit Current(I _{sc}) [A] | 9.08 | 9.13 | 9.18 | 9.23 | 9.28 | Maximum Static Load,Front | 5400Pa |
| Max Power Current(I _{mp}) [A] | 8.64 | 8.67 | 8.71 | 8.74 | 8.78 | Maximum Static Load,Back | 2400Pa |
| NOCT | Irradiance 800W/m ² , ambient temperature 20°C, wind speed 1m/s, AM1.5G | | | | | NOCT | 44±2°C |
| | | | | | | Application Class | Class A |

CHARACTERISTICS

I-V/P-V Curve at Different Irradiance(440W)



I-V Curve at Different Working Temperature(440W)

