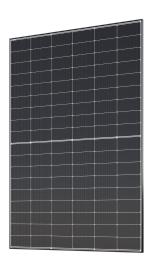


# PRODUCT DATASHEET M 510 H 54 RB -BF-F9

PV PANELS HJT-TYPE BIFACIAL BLACK | HJT bifacial photovoltaic panels with black frame



# Areas of application

- Commercial and industrial installations
- Residential installations



### Product benefits

- HJT solar cells achieve the highest degree of efficiency due to heterojunction technology
- $\ \, \text{Glass-glass modules offer improved protection against moisture, mechanical loads and fire protection}$
- HJT technology significantly reduces the power degradation of the cells over the years
- 25-years of product guarantee, 30-years of linear power output guarantee
- Limited PID-effect (potential induced degradation) thanks to strict quality control in production process
- Durable design and highest production standards guarantees operational reliability and quality

### **Product features**

- Heterojunction (HJT) solar modules with glass-glass protection
- Bifacial both sides of the panel are absorbing the light
- Original Stäubli MC4 EVO 2 connectors
- Available in a long cable version
- Frame made of anodized aluminum alloy
- Maximum static load up to 5400 Pa

# TECHNICAL DATA

# **ELECTRICAL DATA STC**

| Maximum Power Pmax (STC)        | 510 W   |
|---------------------------------|---------|
| Maximum Power Current Imp (STC) | 14.80 A |
| Short Circuit Current Isc (STC) | 15.51 A |
| Maximum Power Voltage Vmp (STC) | 34.46 V |
| Open Circuit Voltage Voc (STC)  | 41.02 V |
| Module efficiency factor (STC)  | 29.95 % |

# **ELECTRICAL DATA NMOT**

| Maximum Power Pmax (NMOT)        | 387 W   |
|----------------------------------|---------|
| Maximum Power Current Imp (NMOT) | 11.83 A |
| Short Circuit Current Isc (NMOT) | 12.40 A |
| Maximum Power Voltage Vmp (NMOT) | 32.78 V |
| Open Circuit Voltage Voc (NMOT)  | 39.15 V |

# **ELECTRICAL DATA STC and NMOT**

| Power tolerance | 3 %  |
|-----------------|------|
|                 | 0 70 |

### MECHANICAL DATA

| Type of Faciality                  | Bifacial   |
|------------------------------------|--|
| Cell material                      | Mono crystalline   |
| Number of cells                    | 96   |
| Number of bypass diodes            | 3  |
| With frame                         | Yes  |
| Type of connection                 | Staubli MC4 EVO2   |
| Width                              | 1134 mm  |
| Length                             | 1960 mm  |
| Height                             | 30 mm  |
| Product weight                     | 27600.000 g  |
| Cable length                       | 1.2 m  |
| Glass with anti-reflection coating | Yes  |
| Colour cells                       | Dark blue  |
| Colour frame                       | Black  |
| Front Glass                        | 2.0 mm coated semi-tempered glass                              |
| Back Glass                         | 2.0 mm tempered glass / Anti-reflective coating / Double glass |

# **TEMPERATURE RATINGS**

| Nominal operating cell temperature | 44 °C     |
|------------------------------------|-----------|
| Temperature coefficient lsc        | 0.040 %/K |

| Temperature coefficient Pmpp | -0.290 %/K |
|------------------------------|------------|
| Temperature coefficient Uoc  | -0.240 %/K |

# **OPERATING CONDITIONS**

| Maximum series fuse rating        | 30 A      |
|-----------------------------------|-----------|
| Temperature range in operation    | -40+85 °C |
| Front Side Maximum Static Loading | 5400 Pa   |
| Rear Side Maximum Static Loading  | 2400 Pa   |
| Reverse current load              | 30 A      |

### **EQUIPMENT / ACCESSORIES**

- Product is delivered as a whole, no assembly required from customer
- MC4 EVO 2 connectors are fitted to the panel
- 3 bypass diodes are already installed in the panel

### **DOWNLOAD DATA**

|     | Documents and certificates             | Document name   |
|-----|--|-----------------|
| PDF | User instruction / safety instructions | PV MODULE       |
| PDF | Product family datasheet               | M510H54RB-BF-F9 |

# References / Links

- For Guarantee see www.ledvance.com/guarantee

# **DISCLAIMER**

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.