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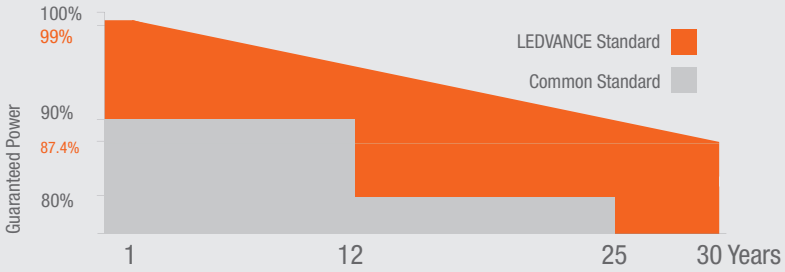
M495~515N54RB-BF

108 Half-Cut Cells
Monocrystalline N-TOPCon Bifacial PV Module
Black Frame



25 YEARS **Product** guarantee

30 YEARS **Linear Power** guarantee

495-515p **Power** range

23.17% **Maximum** efficiency

0.40% **Yearly** degradation

SMBB **Excellent Cell Efficiency**
Super multi Bus Bar technology increases the efficiency of the modules

PID **Resistance to power degradation**
Resistance to power degradation caused by Potential-Induced Degradation PID effect, thanks to strict quality control in the module production process and other subassemblies

Better Weak Illumination Response
Excellent performance in weak light conditions, such as haze, clouds and early morning

Adapted to harsh outdoor environments
Resistant to harsh environments such as salt, ammonia, sand, high temperatures and high humidity environments

Highest production standards
Guarantees of operational reliability and quality module production go far beyond requirements specified in certificates

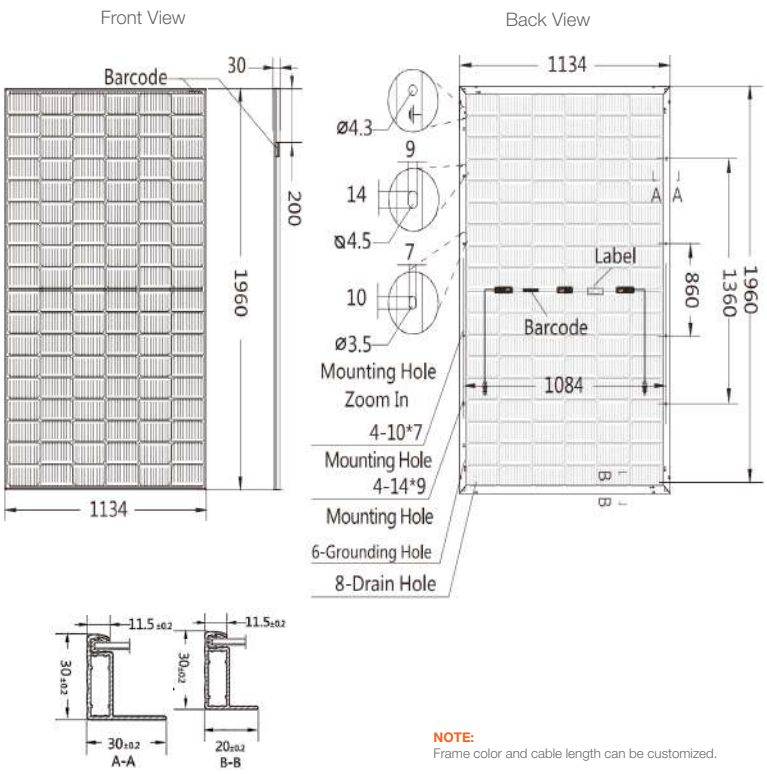
CE

TÜVRheinland

IEC 61215: Design suitability and type approval
IEC 61730: Safety qualification
IEC 61701: Salt mist corrosion testing
IEC 62716: Ammonia corrosion testing
IEC 60068: Environmental testing: Dust and sand

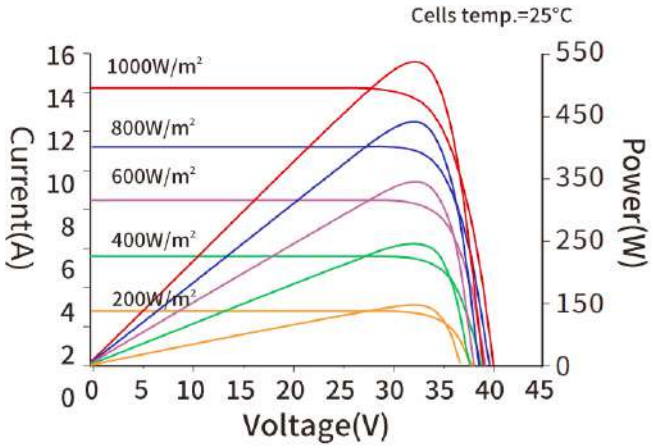
With subsidiaries in more than 50 countries and business activities in over 150 countries, LEDVANCE is committed to supplying reliable and durable PV products to customers to create together a greener planet.

Dimensions of PV module (mm)

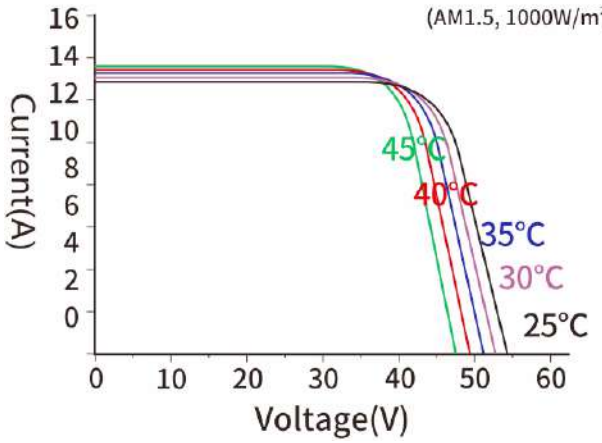


NOTE:
Frame color and cable length can be customized.

Current-voltage curve of the module by different insolation



Current-voltage curve of the PV module by temperature



ELECTRICAL CHARACTERISTIC | STC [1]					
Module	M495N54 RB-BF	M500N54 RB-BF	M505N54 RB-BF	M510N54 RB-BF	M515N54 RB-BF
Nominal power Watt P_{max} (Wp)	495	500	505	510	515
Maximum power voltage V_{mp} (V)	33.33	33.50	33.67	33.84	34.01
Maximum power current I_{mp} (A)	14.86	14.93	15.00	15.08	15.15
Open circut voltage V_{oc} (V)	39.03	39.20	39.37	39.54	39.71
Short circut current I_{sc} (A)	15.84	15.90	15.96	16.02	16.08
Module efficiency η(%)	21.27	22.50	22.72	22.95	23.17

Measuring tolerance: ±3%

ELECTRICAL CHARACTERISTIC | BNPI [2]					
Power Level	495	500	505	510	515
Maximum power P_{max} (Wp)	546.6	552.1	557.6	563.4	568.6
Maximum power voltage V_{mp} (V)	33.53	33.70	33.87	34.04	34.21
Maximum power current I_{mp} (A)	16.30	16.38	16.46	16.55	16.62
Open circuit voltage V_{oc} (V)	39.23	39.40	39.57	39.74	39.91
Short circuit current I_{sc} (A)	17.39	17.46	17.53	17.60	17.66

Measuring tolerance: ±3%

WORKING CONDITIONS	
Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
Operating humidity	5~85%
Maximum series fuse	30 A
Front/Rear load	5400 Pa / 2400 Pa

MECHANICAL DATA	
Solar cells	Monocrystalline N-TOPCon
Number of cells	108 (6x18) pcs
Size of cells	182 x 105 mm
Module dimension	1960x1134x30 mm
Frame color	BF – Black frame
Weight	27±1 kg
Glass	2.0 mm tempered glass, anti-reflective coating
Type of frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Cables	4 mm², Portrait: 1200 mm or Customized Length
Connectors	MC4-Evo2

TEMPERATURE RATINGS	
STC	25±2 °C
Temperature coefficient of P_{max}	-0.300% / °C
Temperature coefficient of V_{oc}	-0.250% / °C
Temperature coefficient of I_{sc}	0.046% / °C

PACKAGING CONFIGURATION	
Piece / Box	36
Size of packing	2000×1140×1250 mm
Weight of packing	1002 kg
Piece / Container (40'HC)	864

FOOTNOTES:
1) STC (Standard Test Conditions): 1000W/m² solar irradiance, cell temperature 25°C, AM 1.5G
2) BNPI（Bifacial Nameplate Irradiance）:Irradiance:front 1000W/m²,rear 135W/m²,Cell Temperature 25℃,AM 1.5G

CAUTION:
- Do not connect two or more strings of modules to one fuse.
- The electrical data in this product sheet does not refer to a single module and is not part of the offer, it is used to compare different types of modules only.
- Due to continuous technical innovation, development and product improvement, technical data contained in this product sheet is subject to change at any time without notice and may not be the basis for any damage claims.

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