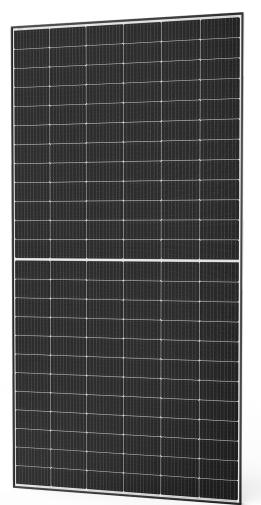
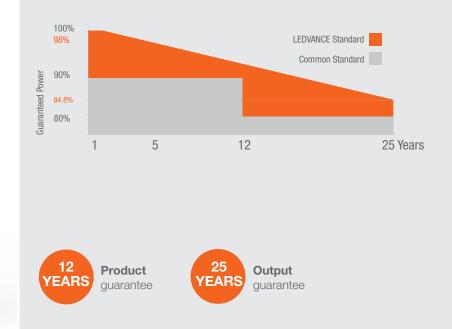
# LEDVANCE.COM





# M530~550P72LM-BF-F3

144CELLS HALF-CUT Monocrystalline PERC PV Module Black Frame





**Excellent Cell Efficiency** Multi Bus Bar technology increases the efficiency of the modules



## 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

More power output 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

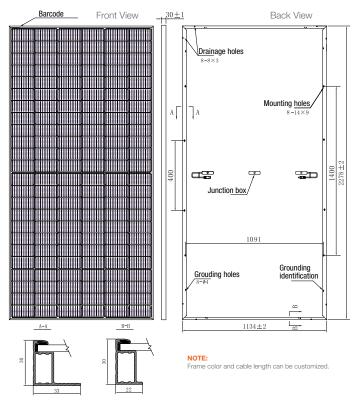
Guarantees of operational reliability and quality module implementations go far beyond requirements specified in certificates



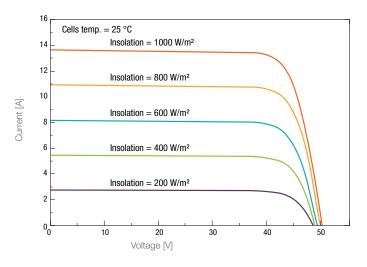
IEC 61215: Design suitability and type approval IEC 61730: Safety qualification IEC 61701: Salt mist corrosion testing IEC 62716: Ammonia corrosion testing IEC 60068: Environmental testing: Dust and sand

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)



Current-voltage curve of the module by different insolation



16 14 12 10 Current [A] 8 25°C 30°C 6 35°C 40°C 4 45°C 2 000 10 20 30 40 50 Voltage [V]

Power Level	530	535	540	545	550
Nominal power Watt P <sub>max</sub> (Wp)	530	535	540	545	550
Maximum power voltage V <sub>mpp</sub> (V)	41.57	41.80	42.03	42.25	42.48
Maximum power current Impp (A)	12.75	12.80	12.85	12.90	12.95
Open circuit voltage V₀c (V)	49.63	49.76	49.89	50.10	50.32
Short circuit current Isc (A)	13.50	13.55	13.60	13.65	13.70
Module efficiency n(%)	20.51	20.71	20.90	21.09	21.29

Measuring tolerance: ±3%

ELECTRICAL CHARACTERISTIC   NMOT <sup>2)</sup>					
Power Level	530	535	540	545	550
Maximum power P <sub>max</sub> (Wp)	401	405	409	412	416
Maximum power voltage $V_{mpp}(V)$	38.45	38.65	38.88	39.02	39.25
Maximum power current $I_{mpp}(A)$	10.43	10.48	10.52	10.56	10.60
Open circuit voltage $V_{oc}(V)$	46.16	46.28	46.40	46.59	46.80
Short circuit current $I_{\rm sc}(A)$	11.05	11.09	11.13	11.17	11.21

Measuring tolerance: ±3%

WORKING CONDITIONS	
Maximum system voltage	1500 V DC
Operating temperature	-40°C~+85°C
Operating humidity	5~85%
Maximum series fuse	25 A
Front/Rear side load	5400 Pa / 2400 Pa

MECHANICAL DATA	
Solar cells	Mono PERC
Number of cells	144 (6x24) pcs
Size of cells	182 x 91 mm
Module dimension	2278 x 1134 x 30 mm
Color	BF – black frame
Weight	27±1 kg
Glass	3.2 mm tempered glass, anti-reflective coating
Type of frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Cables	4 mm <sup>2</sup> , 300 mm or 1400 mm
Connectors	Stäubli MC4 EV0 2

#### TEMPERATURE RATINGS

NMOT	44±2 °C
Temperature coefficient of $P_{\text{max}}$	-0.35% / °C
Temperature coefficient of $V_{\text{oc}}$	-0.275% / °C
Temperature coefficient of $I_{sc}$	0.05% / °C

PACKAGING CONFIGURATION	
Piece / Box	36
Size of packing	2320 x 1135 x 1255 mm
Weight of packing	1022 kg
Piece / Container (40'HC)	720

#### FOOTNOTES:

StC (Standard Test Conditions): 1000W/m<sup>2</sup> solar irradiance, cell temperature 25°C, AM 1.5G
NMOT (nominal cell operating temperature): insolation 800W/m<sup>2</sup>, ambient temperature 20°C, AM 1.5G, wind speed 1m/s

#### CAUTION:

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.



Current-voltage curve of the PV module by temperature