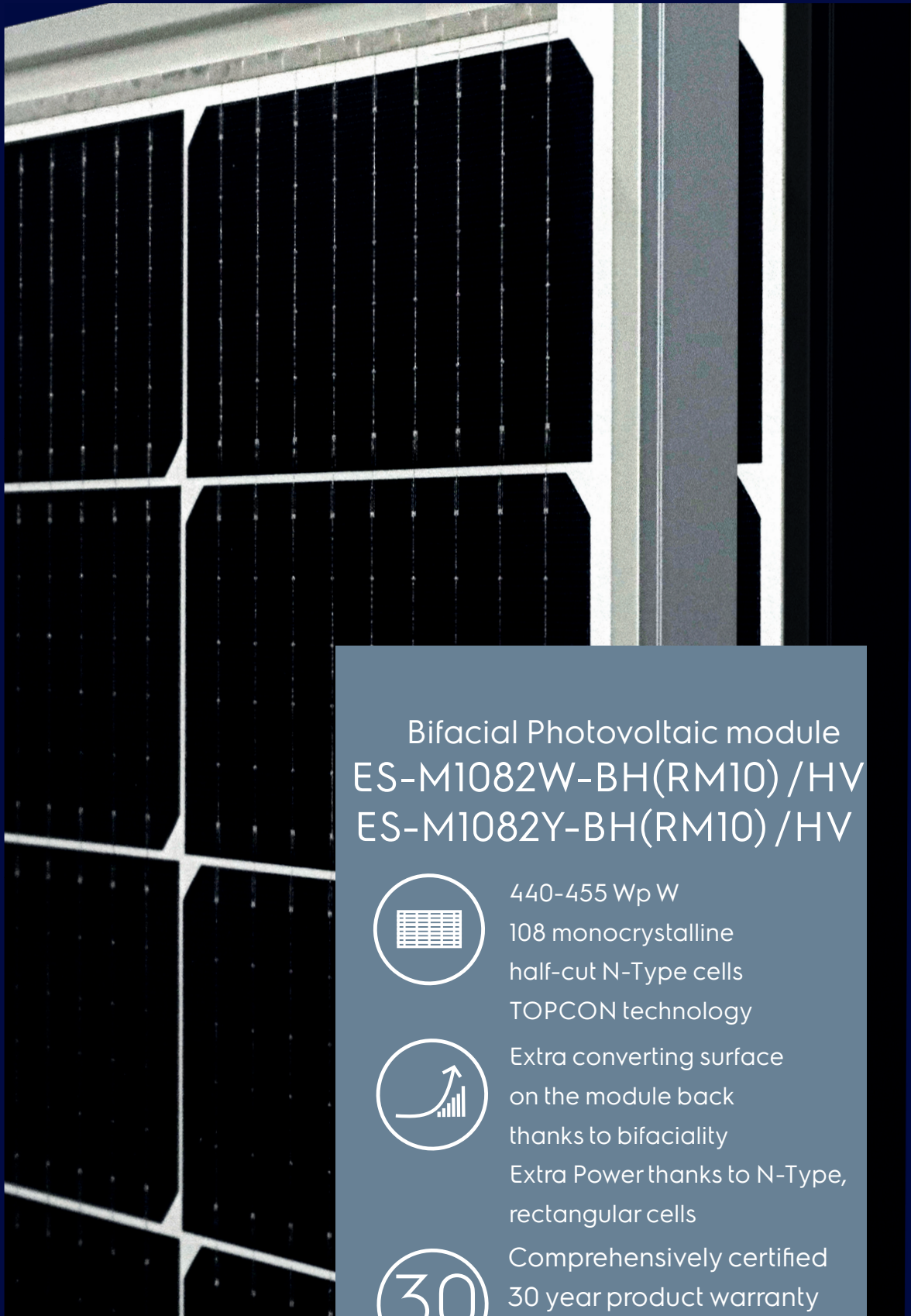




Electrolux



Bifacial Photovoltaic module ES-M1082W-BH(RM10) /HV ES-M1082Y-BH(RM10) /HV



440-455 Wp W
108 monocrystalline
half-cut N-Type cells
TOPCON technology



Extra converting surface
on the module back
thanks to bifaciality
Extra Power thanks to N-Type,
rectangular cells



Comprehensively certified
30 year product warranty
30 year power warranty

ES-M1082W-BH(RM10) / HV - ES-M1082Y-BH(RM10) / HV BIFACIAL GLASS-GLASS PHOTOVOLTAIC MODULE

PRODUCT SERIES & NAMECODE (PNC)

ELECTROLUX PREMIUM SERIES

ES-M1082W-BH(RM10)-440/445/450/455/HV, white back side pattern (glazed glass), silver frame
ES-M1082Y-BH(RM10)-440/445/450/455/HV, white back side pattern (glazed glass), black frame

CERTIFICATIONS

System	ISO 9001, ISO 14001, ISO 45001
Product	IEC 61215-1:2016, IEC 61215-1-1:2016, IEC 61215-2:2016, IEC 61730-1/-2:2016, EN 61215-1:2016, EN 61215-1-1:2016, EN 61730-1/-2:2018, EN 61730-1/-2:2018/AC:2018-06

ELECTRICAL CHARACTERISTICS AT STC^{1,2}

Nominal Power (Pmax)	[Wp]	440	445	450	455
Power Sorting ³	[W]	0-5	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	32.89	33.11	33.32	33.53
Maximum Power Current (Imp)	[A]	13.39	13.45	13.51	13.57
Open Circuit Voltage (Voc)	[V]	39.22	39.42	39.62	39.82
Short Circuit Current (Isc)	[A]	13.93	13.99	14.05	14.11
Module Efficiency (ηm)	[%]	22.02	22.27	22.52	22.77
Maximum System Voltage	[V]	1500	1500	1500	1500
Maximum Series Fuse	[A]	30	30	30	30

WARRANTIES

Product warranty ⁶	[years]	30
Performance warranty (linear) ⁷	[years]	30

TEMPERATURE CHARACTERISTICS

NMOT	[°C]	45 (±2)
Pmax Temp. Coefficient (γ)	[%/°C]	-0.31
Voc Temp. Coefficient (β)	[%/°C]	-0.26
Isc Temp. Coefficient (α)	[%/°C]	0.038
Operating temperature	[°C]	-40~+85

ELECTRICAL CHARACTERISTICS AT NMOT⁴

Maximum Power (Pmax)	[W]	331	335	339	343
Maximum Power Voltage (Vmp)	[V]	30.65	30.86	31.06	31.25
Maximum Power Current (Imp)	[A]	10.84	10.89	10.94	10.99
Open Circuit Voltage (Voc)	[V]	37.32	37.51	37.70	37.89
Short Circuit Current (Isc)	[A]	11.20	11.25	11.30	11.35

ELECTRICAL SPECIFICATIONS - INTEGRATED POWER / POWER GAIN⁵

Bifaciality factor	80 ± 10%			
Pmax Gain		10%	15%	20%
Maximum Power (Pmax)	[W]	484	506	528
Maximum Power Voltage (Vmp)	[V]	36.18	38.00	39.50
Maximum Power Current (Imp)	[A]	15.00	15.40	16.06
Open Circuit Voltage (Voc)	[V]	43.14	45.10	47.06
Short Circuit Current (Isc)	[A]	15.32	16.01	17.00

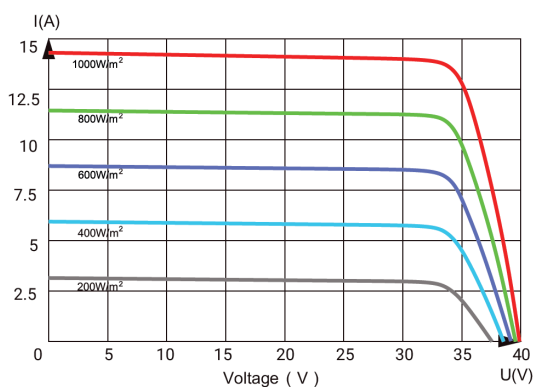
MECHANICAL CHARACTERISTICS

Solar cells	monocrystalline [pcs]	108
	Dimensions [mm]	RM10 Half-cut [182 x 199]
Front glass	high-transparency	
	Thickness [mm] / [in]	1.6 / 0.06
Back glass	High strengthened glass	1.6 / 0.06
Encapsulant	EVA	
Frame	Anodized aluminum alloy	silver or black
Junction box	Split-type, IP68	
	Bypass diodes	3
UV-resistant cables	Length [mm] / [in]	1100/43.31
	Section [mm ²] / [AWG]	4.0/12.0
Connectors	MC4 Compatible	
Dimensions	H x L x W [mm]	1762 x 1134 x 30
	H x L x W [in]	69.37 x 44.64 x 1.18
Weight	[kg] / [lbs]	20.7 / 54.00
Maximum load	Wind / Snow [Pa]	2400 / 5400
Fire Class	Class A	

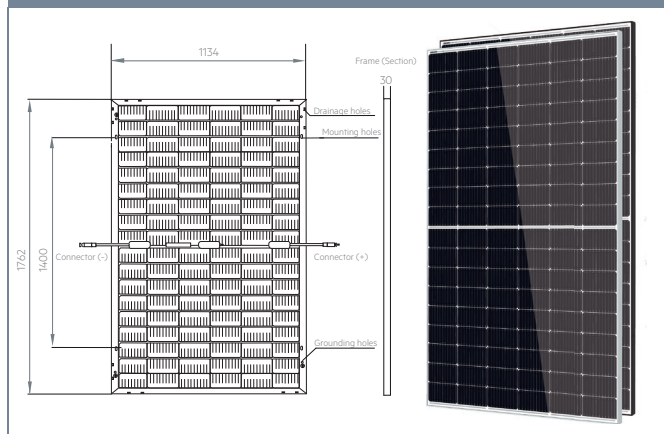
PACKAGING

Packing configuration	[pcs/pallet]	36
Loading capacity	[pcs/40 ft container]	936

I/V CURVES - IRRADIANCES



TECHNICAL DRAWINGS



NOTES

- 1-Standard Test Conditions (STC): Irradiance 1000 W/m², Air Mass AM = 1.5, Cell Temperature 25°C
 - 2-Measurement tolerances (IEC 61215:2016): Pmax±3%, Voc±3%, Isc±4%
 - 3-Electrolux photovoltaic modules are classified according to a principle of positive power tolerance: the Power Output measured at STC of the delivered modules exceeds their assigned Nameplate Nominal Power
 - 4-NMOT: Nominal Operating Cell Temperature, Irradiance 800 W/m², Wind Speed 1m/s; Ambient Temperature 20°C, Air Mass AM=1.5
 - 5-Electrical characteristics with different rear power gain. Reference to 440 W
 - 6-Full text of the Warranty Terms available at: www.electroluxsolar.com.
 - 7-(PRE/GG) No less than 99% of the minimum "Peak Power at STC" in the first year; power output decline no more than 0.4% per year thereafter, ending with 87.4%.
- Dimensions in the technical picture are expressed in mm with tolerance ±2 mm (±0.079 ") / Version 2023.12.01.EN © Solar Solutions Group. Specifications in this datasheet are subject to change without notice.
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