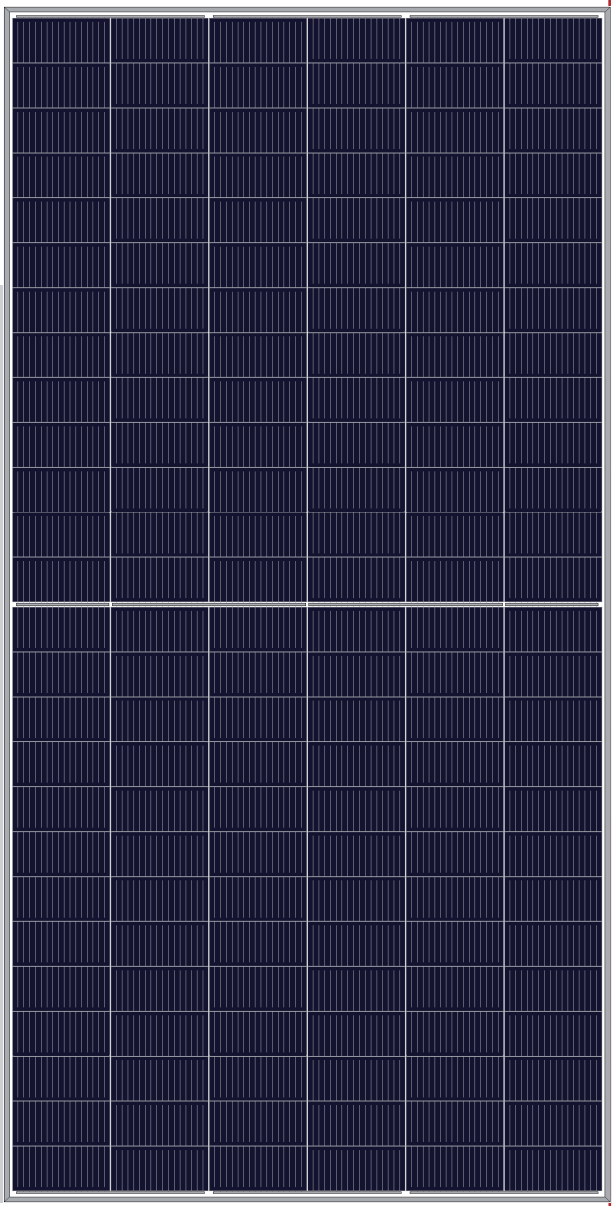
ALPS SOLAR

N-type module

ALPS78D30-TP

630-660W

High performance N-type
Dual Glass Bifacial Solar Module



European Quality
Manufactured in the EU with the highest quality standards and advanced technology.

Exceptional Efficiency
Delivers superior energy yield even in low-light or high-temperature conditions.

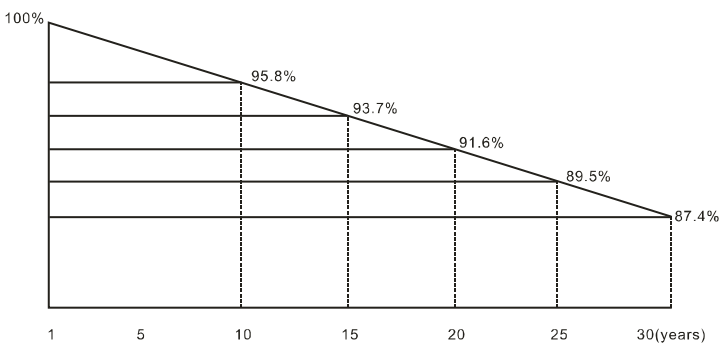
Reliable Durability
Engineered with premium tempered glass and reinforced frames for lasting reliability.

N-Type with Low LID
Advanced N-type cells minimize Light-Induced Degradation (LID) for performance stability.

Unmatched Warranty
30-year performance and 25-year product coverage surpass industry norms.

30 YEAR Linearity power and output warranty

25 YEAR Excellent products material and process warranty



Comprehensive Certificates

IEC 61215,IEC 61730 ,UL61730
ISO 9001: 2015 / Quality Management System
ISO 14001: 2015 / Environmental Management System
ISO 45001: 2018 / Occupational Health And Safety

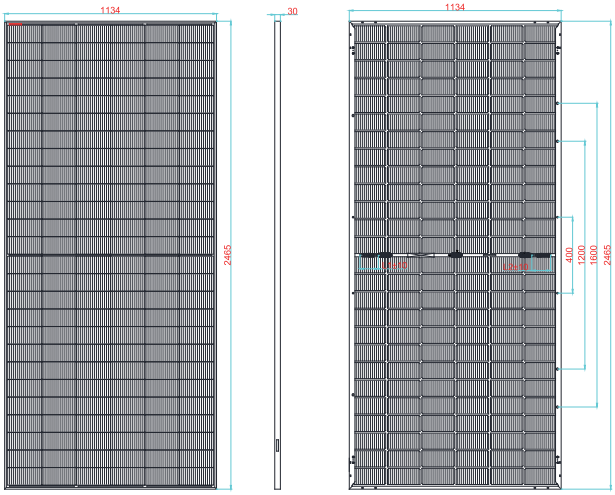
As of: Version A1 2024_en

Made in Romania

ALPS78D30-TP(630-660)

MECHANICAL PROPERTIES

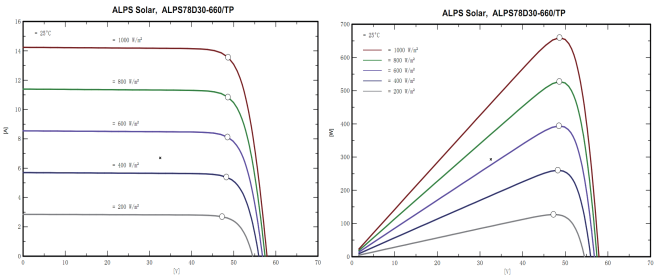
Solar Cells	182 N-type
Number of Cells	156(6×23)
Module Dimensions	2465×1134×30 mm
Weight	33kg
Cable Cross Section Size	4mm²(IEC),12AWG(UL)
Junction Box	IP68, 3diodes
Connector	MC4 / EVO 2A
Cable Length(Including Connector)	290mm
Front Glass/Back Glass	2.0mm/2.0mm (White Grid Glass)
Packaging information	36pcs/Pallet,576pcs/40HQ Container



WORKING PARAMETERS

Maximum System Voltage	1500V DC (IEC)
Operational Temperature	-40°C~+85°C
Maximum Series Fuse Rating	30A
Maximum Static Load, Front	5400 pa
Maximum Static Load, Back	2400 pa
NOCT	45+2°C
Safety Class	Class A

CHARACTERISTICS



ELECTRICAL DATA (STC&BNPI)

Model	ALPS78D30 -630/TP		ALPS78D30 -635/TP		ALPS78D30 -640/TP		ALPS78D30 -645/TP		ALPS78D30 -650/TP		ALPS78D30 -655/TP		ALPS78D30 -660/TP	
Testing Condition	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI	STC	BNPI
Rated Maximum Power (Pmax) [W]	630	698	635	704	640	709	645	715	650	720	655	726	660	731
Maximum Power Voltage (Vmp) [V]	47.50	47.60	47.70	47.80	47.90	48.00	48.10	48.20	48.30	48.40	48.50	48.60	48.70	48.80
Maximum Power Current (Imp) [A]	13.26	14.66	13.31	14.72	13.36	14.77	13.41	14.83	13.46	14.88	13.51	14.93	13.55	14.99
Open Circuit Voltage (Voc) [v]	57.00	57.1	57.15	57.3	57.30	57.4	57.45	57.6	57.60	57.7	57.75	57.9	57.90	58.0
Short Circuit Current (Isc) [A]	13.88	15.38	13.94	15.44	14.00	15.50	14.06	15.56	14.12	15.62	14.18	15.68	14.24	15.74
Module Efficiency [%]	22.54		22.72		22.90		23.07		23.25		23.43		23.61	
Power Tolerance	0~+3%													
Temperature Coefficient of Isc	+0.044%/°C													
Temperature Coefficient of Voc	-0.250%/°C													
Temperature Coefficient of Pmax	-0.290%/°C													
Standard test environment	STC:Irradiance 1000W/m2, Cell Temperature 25°C, Air Mass AM1.5 BNPI: Irradiance: front 1000W/m, rear 135W/m2, Cell Temperature 25°C, AM=1.5													

Note:Continuous innovation and product upgrades may result in changes to specifications. These parameters are intended for comparison between different models only.

BIFACIAL OUTPUT-BACKSIDE POWER GAIN

Model		ALPS78D30 -630/TP	ALPS78D30 -635/TP	ALPS78D30 -640/TP	ALPS78D30 -645/TP	ALPS78D30 -650/TP	ALPS78D30 -655/TP	ALPS78D30 -660/TP
5%	Power Output (W)	662	667	672	677	683	688	693
	Module Efficiency	23.66%	23.85%	24.04%	24.23%	24.42%	24.60%	24.79%
10%	Power Output (W)	693	699	704	710	715	721	726
	Module Efficiency	24.79%	24.99%	25.19%	25.38%	25.58%	25.78%	25.97%
20%	Power Output (W)	756	762	768	774	780	786	792
	Module Efficiency	27.05%	27.26%	27.47%	27.69%	27.90%	28.12%	28.33%