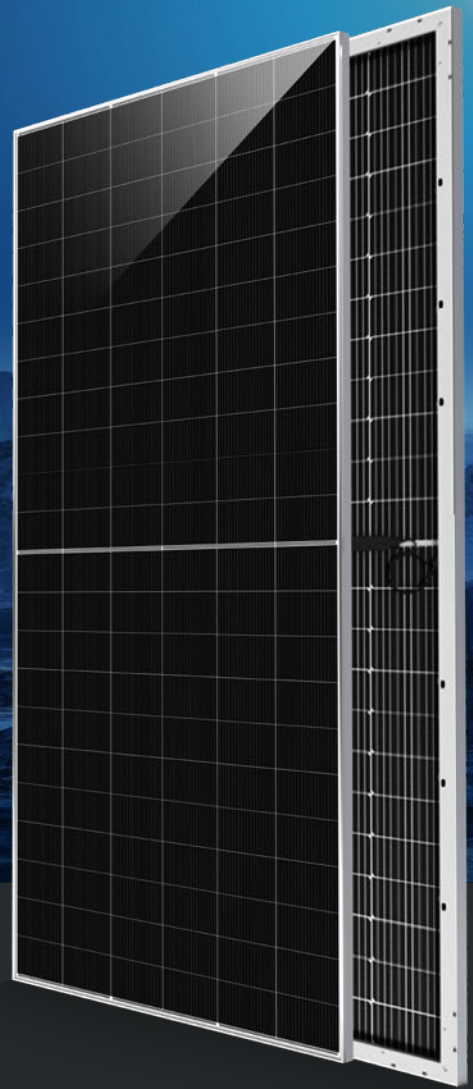




ALPS78D30-TP

630-660W

High Performance
N-type Dual Glass Bifacial Solar Module



30 LINEARITY POWER
AND
YEAR OUTPUT WARRANTY

25 EXCELLENT PRODUCTS
MATERIAL AND
YEAR PROCESS WARRANTY

KEY FEATURES



Reliable Quality

Manufactured with consistent quality and advanced technology across our global production facilities.



Exceptional Efficiency

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



Tested for Extreme Conditions

Certified under IEC 61215 and withstand 45 mm hail impact demonstrating reliability and strength.



N-Type with Low LID

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



Industry-Leading Warranty

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

COMPREHENSIVE CERTIFICATES



CALIFORNIA
ENERGY COMMISSION

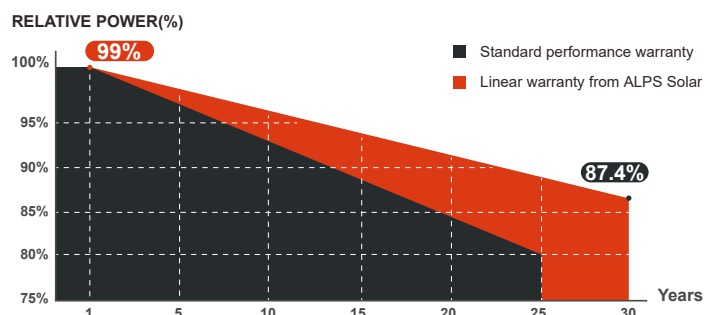
IEC 61215, IEC 61730, UL 61730

ISO 9001: 2015 / Quality Management System

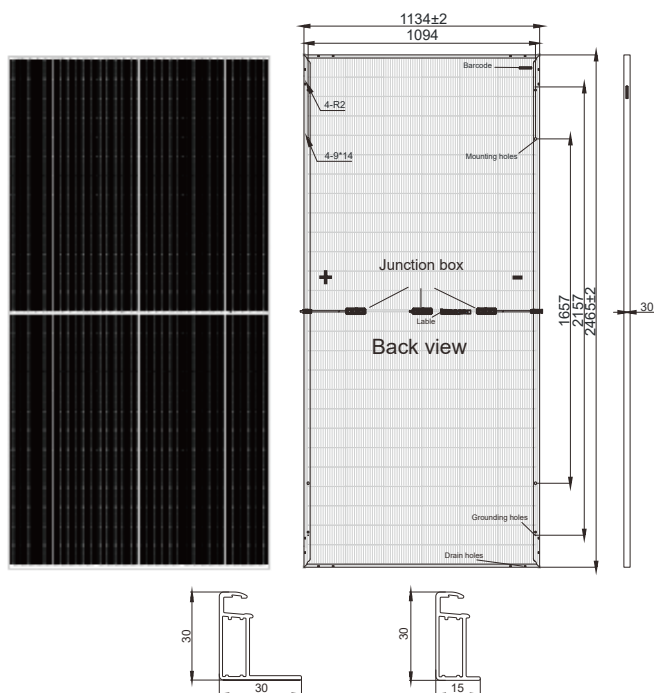
ISO 14001: 2015 / Environmental Management System

ISO 45001: 2018 / Occupational Health and Safety

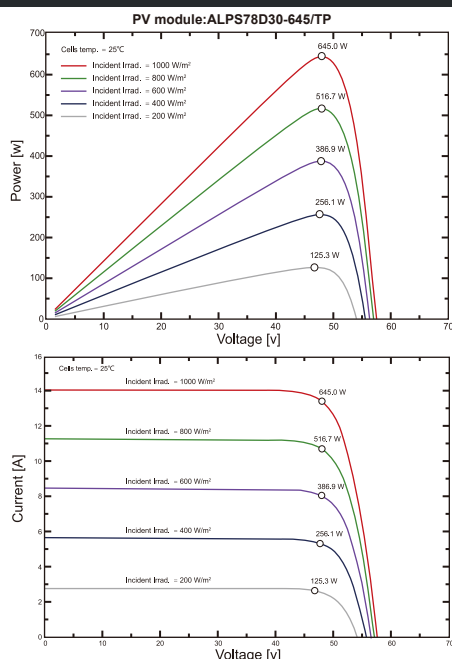
ALPS N-TYPE MODULE PERFORMANCE WARRANTY



ENGINEERING DRAWINGS



I-V CURVES



PACKING CONFIGURATION

Pieces per pallet	36 pcs
Pallet Dimension	2490 x 1135 x 1255 mm
Weight of packing	1281 kg / 2824 lb
Pieces per container	576 pcs
Size of container	40'HQ

ELECTRICAL CHARACTERISTICS (STC)

Power Level	630	635	640	645	650	655	660
Pmax (W)	630	635	640	645	650	655	660
Vmp (V)	47.50	47.70	47.90	48.10	48.30	48.50	48.70
Imp (A)	13.26	13.31	13.36	13.41	13.46	13.51	13.55
Voc (V)	57.00	57.15	57.30	57.45	57.60	57.75	57.90
Isc (A)	13.88	13.94	14.00	14.06	14.12	14.18	14.24
Module Efficiency (%)	22.54	22.72	22.90	23.07	23.25	23.43	23.61
Power Tolerance (W)	0~+3%						
Temperature Coefficient Pmax (%/°C)	-0.29						
Temperature Coefficient Isc v(%/°C)	0.044						
Temperature Coefficient Voc (%/°C)	-0.25						

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5

BIFACIAL OUTPUT-BACKSIDE POWER GAIN

	Power Output (W)	662	667	672	677	683	688	693
5%	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

WORKING CHARACTERISTICS (BNPI)

Pmax (W)	698	704	709	715	720	726	731
Vmp (V)	47.60	47.80	48.00	48.20	48.40	48.60	48.80
Imp (A)	14.66	14.72	14.77	14.83	14.88	14.93	14.99
Voc (V)	57.1	57.3	57.4	57.6	57.7	57.9	58.0
Isc (A)	15.38	15.44	15.50	15.56	15.62	15.68	15.74

BNPI: Front Irradiance 1000 W/m², Rear 135 W/m², Cell Temperature 25°C, AM=1.5

WORKING PARAMETERS

Maximum System Voltage	1500V DC (IEC)
Operational Temperature	-40~+85 °C
Maximum Series Fuse Rating	30 A
Maximum Static Load, Front	5400 Pa
Maximum Static Load, Back	3750 Pa
NOCT	45±2 °C
Safety Class	Class A

MECHANICAL CHARACTERISTICS

Solar Cells	182 N-type
Number of Cells	156 pcs (6x26)
Module Dimensions	2465 x 1134 x 30 mm
Weight	34 kg / 75.0 lb
Cable Cross Section Size	4 mm² (IEC), 12 AWG (UL)
Junction box	IP68, 3 diodes
Connectors	Stäubli EVO2
Output Cable (accept customization)	(+) 1200 mm / (-) 1200 mm
Front Glass / Back Glass	2.0 mm / 2.0 mm

MAXIMUM RATINGS

Operating Temperature	-40~85 °C
Operating Humidity	5~85 %RH
Hail Impact Resistance	Withstands 45 mm hail at 31 m/s

Revised in July 2025 1st Edition*

CAUTION: All rights and explain reserved by Alps Solar Energy Inc.
Specifications included in this datasheet are subject to change without notice.
The specific content of the product warranty refers to Alps's latest warranty.