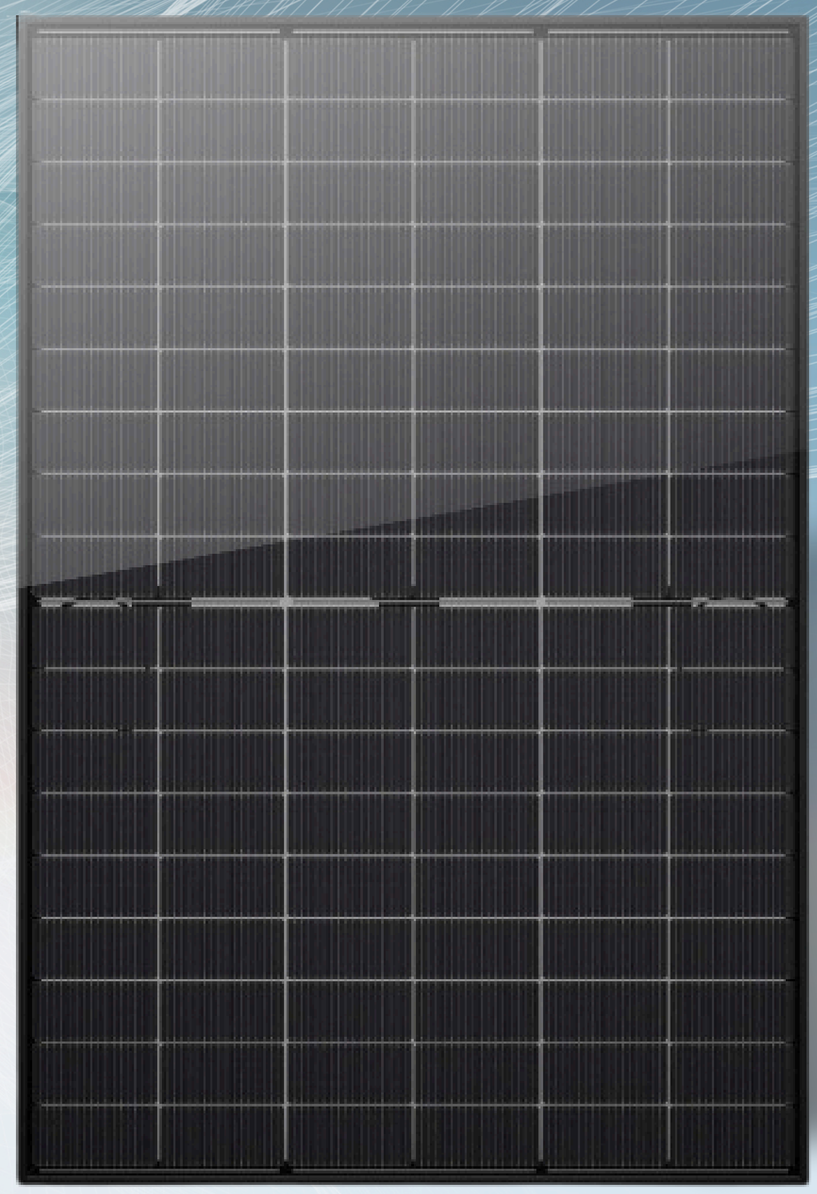
MAPLE LEAF
power systems



SPMLBI430W

Maple Leaf All Black Bifacial Solar Panel 430W

Maple Leaf Solar's 430W All-Black Bifacial Solar Panel redefines solar efficiency, providing 10-30% more power over its 30-year lifespan compared to conventional P-type modules. Featuring N-type solar cells with zero Light Induced Degradation (LID), it naturally increases power generation.

Key Features

10-30% Additional Power Generation

30 years lifespan brings 10-30% additional power generation comparing with conventional P-type module.

ZERO LID (Light Induced Degradation)

N-type solar cell has no LID naturally which can increase power generation.

Better Weak Illumination Response

Higher power output even under low-light environments like on cloudy or foggy days.

Better Temperature Coefficient

Higher power generation under working conditions, thanks to passivating contact cell technology.

Higher Reliability

Adopted latest S-TOPCo 2.0 technology, No polysilicon wrap around, Full electrical isolation, Zero leakage current; Much Safer for roof.

Product Certification

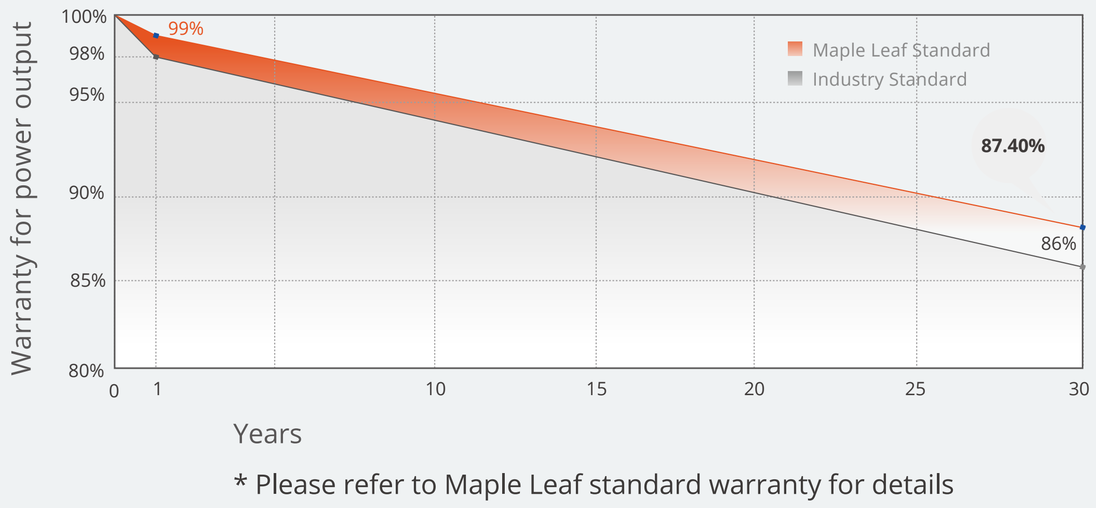
Quality Management System And Product Certification

IEC61215/61730, IEC62804(PID), IEC61701(Salt).
IEC62716 (Ammonia), IEC60068-2-68(Sand).
ISO 9001:2015/quality management system.
ISO 14001:2015/environmental management system.
ISO 45001:2018/occupation health safety management system.
ISO 50001:2011/energy management system.
IEC TS 62941-2016/PV industry quality management system.

Warranty

25 Years — **Materials & Processing Warranty**

30 Years — **Extra Linear Power Output**



* Please refer to Maple Leaf standard warranty for details

22.02%
Max. Module Efficiency

1-888-211-2550

526 Bryne Drive, Barrie, Ontario

mapleleafpowersystems.com

410-430W

N-type TOPCon Bifacial Dual Glass Solar Module

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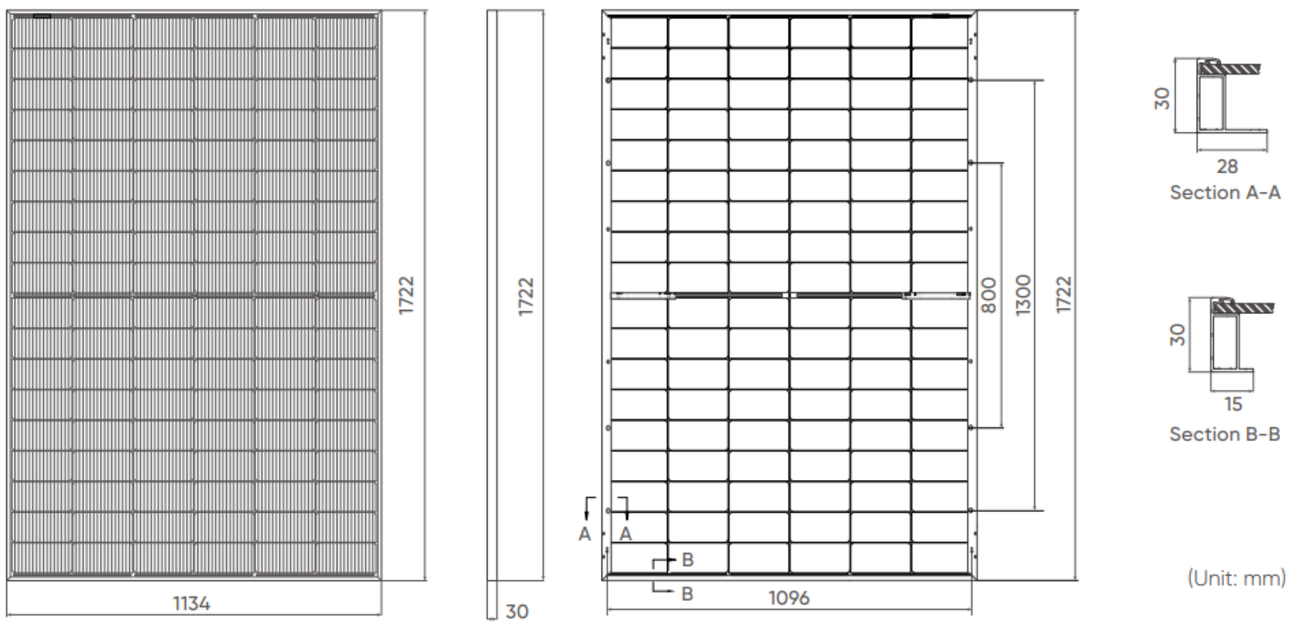
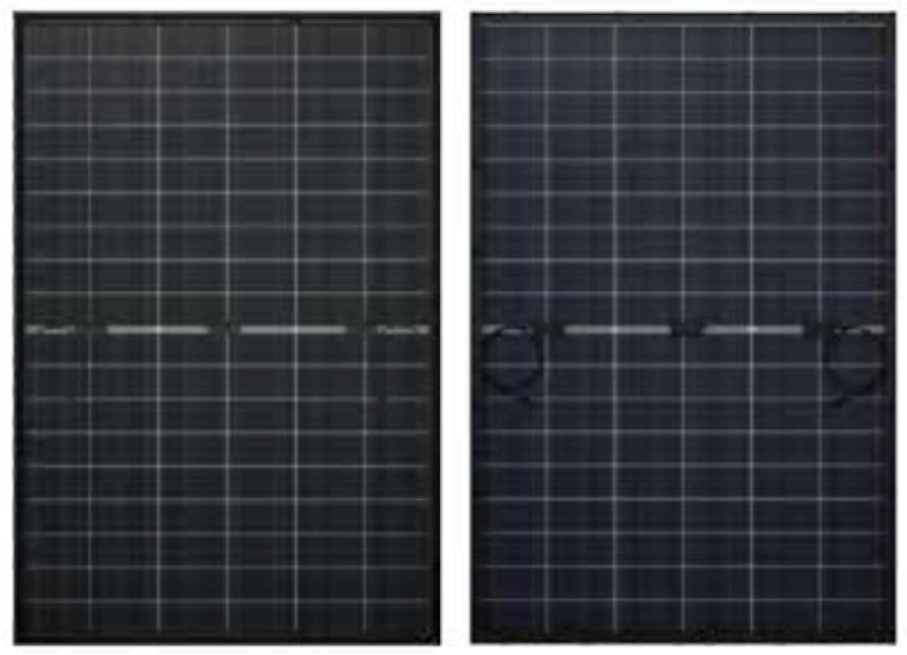
Drawings



Product Images



Mechanical Parameters

Solar Cells	N-type Mono
No. of Cells	108 (6x18)
Dimensions	1722 x 1134 x 30mm
Weight	23.5kg
Glass	Front: 2.0mm coated semi-tempered glass; Back: 2.0mm semi-tempered glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 rated (3 by pass diodes)
Output Cables	4mm², 300mm (+) / 300mm (-), Length can be customized
Connectors	Mc4 compatible
M echanical load testll	5400Pa
Packaging	36pcs/box, 216pcs/20'GP, 936pcs/40'HQ

Operating Characteristics

Operating Module Temperature	-40°C to +85°C
Maximum System Voltage	1500 DC (IEC)
Maximum Series Fuse Rating	30A
Power Tolerance	0/+5W

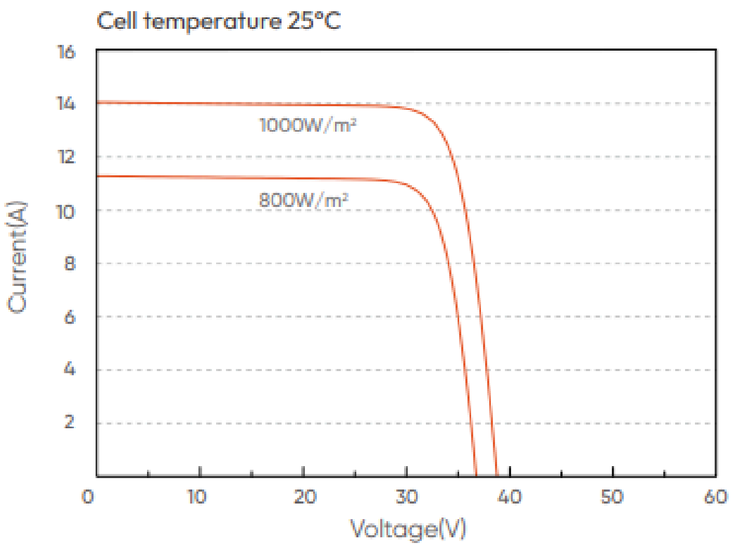
Temperature Characteristics

Nominal Operating Temperature (NMOT)	45±2°C
Temperature Coeffcient of Pmax	-0.29%°C
Temperature Coeffcient of Voc	-0.25%°C
Temperature Coeffcient of Isc	+0.045%°C

Electrical Characteristics

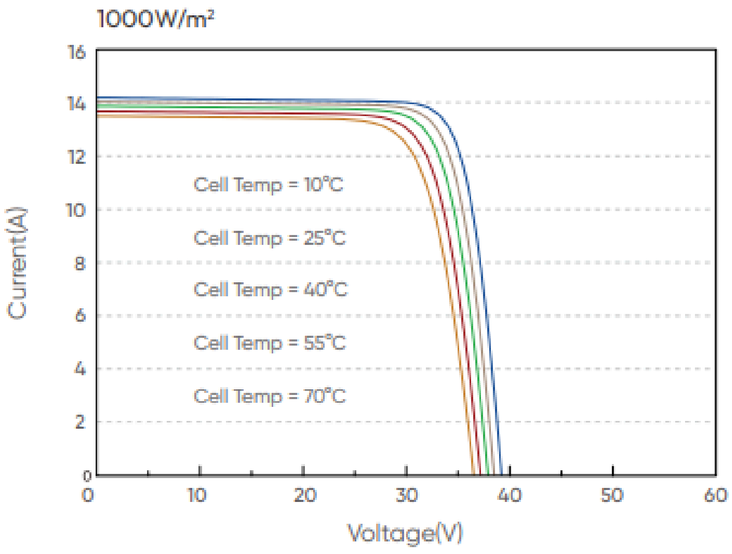
Module Type:	410	415	420	425	430
Maximum power (Pmax/W)	410	415	420	425	430
Open Circuit Voltage (Voc/V)	38.01	38.25	38.49	38.73	38.96
Short Circuit Current (Isc/A)	13.85	13.92	13.99	14.06	14.13
Voltage at Maximum power (Vmpp/V)	31.20	31.42	31.63	31.84	32.04
Current Maximum Power (Impp/A)	13.14	13.21	13.28	13.35	13.42
MODULE EFFICIENCY (%)	21.00	21.25	21.51	21.76	21.02

I-V Curve



Bifacial Output-Rearsid Power Gain

5%	Maximum Power (Pmax/W)	431	436	441	446	452
	Module Effciency STC (%)	22.05	22.31	22.58	22.85	23.12
15%	Maximum Power (Pmax/W)	472	477	483	489	495
	Module Effciency STC (%)	24.15	24.44	24.73	25.03	25.32
25%	Maximum Power (Pmax/W)	513	519	525	531	538
	Module Effciency STC (%)	26.25	26.57	26.89	27.21	27.53



1. Standard Test Conditions [STC]: irradiance 1000W/m2; AM 1.5; ambient temperature 25°C according to EN 60904-3; 2. Tolerance of Pm: 0~+5W, Measuring uncertainty of power: ±3%. Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A]: ±3%.

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