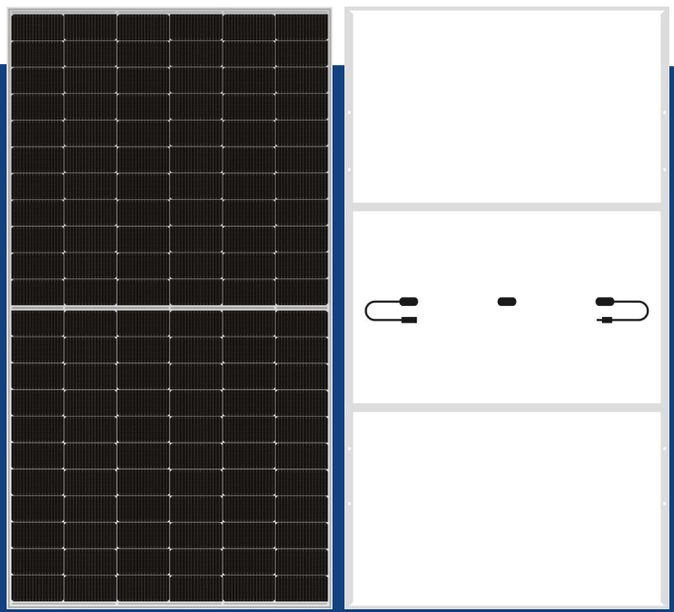
P Type



Lightweight Half-Cell Module

ENE-LF132PA

455W~475W

475W	19.7%	0~+5W
Maximum Power Output	Maximum Module Efficiency	Power Output Tolerance

Key Features

Lightweight
Optimized composite materials, 50% lighter at the same power

Half Cell, SMBB Technology
Series-then-parallel cell connection design, more reliable soldering technology

Low NMOT
As low as 43°C，improving the power generation efficiency

Easy transportation and installation
Original design making it far less costly for transportation and installation

Customization
Customization for various senarios, high additional value

Superior Low Irradiance Performance
Excellent low irradiance performance, increase power generation in low-light conditions like mornings, evenings and cloudy days

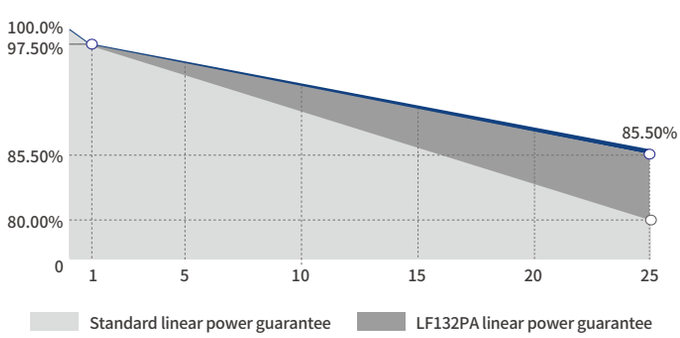
Product and Quality Certifications

IEC 61215, IEC 61730

ISO 9001：Quality Management System

ISO 14001：Environment Management System

ISO 45001：Occupational Health and Safety Management System



-2.50% 1st-year Degradation

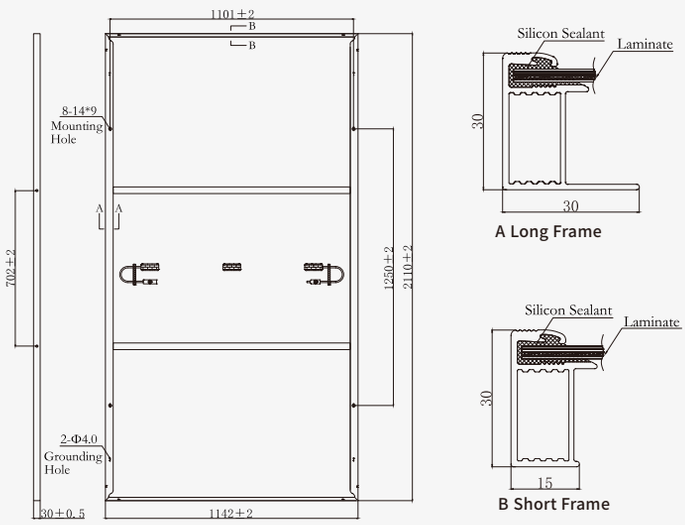
-0.50% Annual Degradation

12 Years materials and workmanship warranty

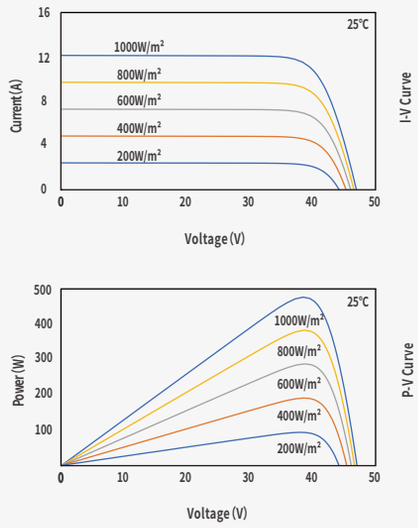
25 Years linear power warranty

Leading product and power warranty

Engineering Drawing (mm)



Characteristic Curves(470W)



Electrical Parameters (STC *)

Nominal Max. Power(Pmax/W)	455	460	465	470	475
Open Circuit Voltage(Voc/V)	45.50	45.65	45.79	45.93	46.06
Short Circuit Current(Isc/A)	12.67	12.76	12.85	12.93	13.02
Operating Voltage(Vmp/V)	37.72	37.87	38.01	38.15	38.28
Operating Current(Imp/A)	12.06	12.15	12.24	12.32	12.41
Efficiency(%)	18.9	19.1	19.3	19.5	19.7

STC * : Irradiance = 1000 W/m², Cell Temperature = 25°C, AM = 1.5
Test condition is based on the front side

Mechanical Parameters

Cell Type	P Type
Module Size	2110×1142×30mm
Module Thickness	30mm
Module Weight	11.3Kg
Output Cable	4mm², cable length 250mm (can be customized)
Connector	MC4 Similar
Junction Box	IP68, 3 bypass diodes
Frame	Anodized aluminium alloy

Electrical Parameters (NMOT *)

Nominal Max. Power(Pmax/W)	341.7	345.5	349.2	353.0	356.7
Open Circuit Voltage(Voc/V)	43.35	43.50	43.63	43.76	43.89
Short Circuit Current(Isc/A)	10.21	10.28	10.35	10.42	10.49
Operating Voltage(Vmp/V)	35.16	35.30	35.43	35.57	35.69
Operating Current(Imp/A)	9.72	9.79	9.86	9.93	9.99

NMOT *: Irradiance = 800 W/m², Ambient Temperature = 20°C, AM = 1.5,
Wind Speed = 1 m/s
Test condition is based on the front side

Operating Parameters

Max. System Voltage	DC1500V
Power Tolerance	0 ~ +5 W
Operating Temperatue	-40°C ~ +85°C
Max. Fuse Rated Current	22A
Static Load	Front 5400Pa, Back 2400Pa

Temperature Coefficients

Short Circuit Current(Isc)	+0.038%/°C
Open Circuit Voltage(Voc)	-0.262%/°C
Nominal Max. Power(Pmax)	-0.341%/°C
NMOT	43 ±2°C

Packing Data

Packing Type	20'GP	40'HQ
Piece/Pallet	36	36
Pallet/Container	5	22
Piece/Container	180	792

Version number：ENE-MS-042-A03.V01