

Insured by





ISO 9001:2008 & ISO 14001 management systems



Wind load up to 3800 Pa / Snow load up to 5400 Pa



IEC 61215 & IEC 61730 standard quality



Salt mist and ammonia corrosion tests passed



0-5 W positive power sorting



25-year performance warranty / 10-year product warranty



Stable performance under weak light conditions















































## **Electrical Characteristics**

STC	LNFF-180M	LNFF-185M	LNFF-190M	LNFF-195M
Optimum Operating Voltage (Vmp)	36.1V	36.4V	36.6V	37.0V
Optimum Operating Current (Imp)	4.99A	5.09A	5.19A	5.27A
Open Circuit Voltage (Voc)	44.4V	44.6V	44.8V	45.0V
Short Circuit Current (Isc)	5.35A	5.46A	5.52A	5.62A
Maximum Power at STC (Pmax)	180W	185W	190W	195W
Cell Efficiency	16.47%	16.93%	17.38%	17.84%
Operating Module Temperature	-40 °C to +85 °C			
Maximum System Voltage	1000 V DC (IEC) / 600V DC (UL)			
Maximum Series Fuse Rating	15 A			
PowerTolerance	0/+5W			

STC: Irradiance 1000 W/m2, module temperature 25 °C, AM=1.5;

Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/- 3%

NOCT	LNFF-180M	LNFF-185M	LNFF-190M	LNFF-195M
Maximum Power at NOCT (Pmax)	130W	134W	137W	141W
Optimum Operating Voltage (Vmp)	32.9V	33.2V	33.4V	33.7V
Optimum Operating Current (Imp)	3.95A	4.04A	4.11A	4.17A
Open Circuit Voltage (Voc)	40.7V	40.9V	41.1V	41.3V
Short Circuit Current (Isc)	4.32A	4.42A	4.47A	4.55A

NOCT: Irradiance 800 W/m2, ambient temperature 20 °C, AM=1.5, wind speed 1 m/s;

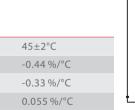
Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/- 3%

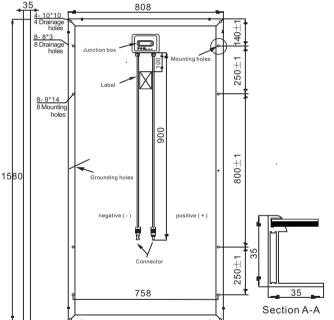
## **Mechanical Characteristics**

Solar Cell	Mono-crystalline silicon 125 $\times$ 125 mm (5 inches)
No. of Cells	72 (6 × 12)
Dimensions	1580 × 808 × 35mm
Weight	15.5 kgs
Front	Glass 3.2 mm tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP65/IP67 rated (3 bypass diodes)
Output Cables	TÜV (2Pfg1169:2007), UL 4703, 4.0 mm2,
	symmetrical length (-) 900mm and (+) 900mm
Connectors	MC 4 compatible
Mechanical load test	5400Pa
Resistance	277g steel ball falls down from 1m height and 60m/s wind

## **Temperature Charateristics**

Nominal Operating Cell Temperature (NOCT)	45±2°C
Temperature Coefficient of Pmax	-0.44 %/°C
Temperature Coefficient of Voc	-0.33 %/°C
Temperature Coefficient of Isc	0.055 %/°C





## **Packing Configuration**

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Container	20' GP	40' GP
Pieces per pallet	29	29
Pallets per container	12	28
Pieces per container	348	812

LUXEN SOLAR ENERGY CO., LTD. T:+86 512 67081572 F:+86 512 67081570 sales@luxensolar.com www.luxensolar.com

LUXEN designs, manufactures and delivers high-quality solar panel 1W - 320W, for both on-grid and off-grid systems. OEM/ODM services also can be offered by providing customized design and best cost-effective / proven-performance solar products.

The ISO 9001 management system and a comprehensive range of tests and quality control procedures established according to IEC 61215 / 61730 requisites are implemented in LUXEN's manufacturing facilities, only for one goal: We deliver RELIABLE solar products.