

## 72-cell monocrystalline module family

### LDA series



The photo is showing LDAxxx-A11

#### Characteristics

##### Dimensions

Length	1580mm (tolerance +/-3mm)
Width	802mm (tolerance +/-3mm)
Depth	46mm
Weight	18kg (standard: 2400Pa) 19kg (for heavy snow: 5400Pa)

##### Standard operating conditions\*

Standard operating conditions*	Avoid excess exposure to smoke, dust, saltwater
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Maximum system voltage	DC1000V
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##### Insulation performance

Insulation resistance	50 MΩ or over (DC500V)
Ability to withstand voltage	DC 3000V for 1 min

##### Thermal characteristics

NOCT	47°C
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##### Temperature coefficient

Voc (Open circuit voltage)	- 0.32% / °C
Isc (Short circuit current)	+ 0.04% / °C
Pmax (Maximum power output)	- 0.38% / °C

\*maximum performance limits conform to IEC 61215 standards



#### Design Features:

##### Maximized Power Output

- Monocrystalline cells with 16 - 17% efficiency give highest power output even in low light conditions
- Individual cell outputs matched for optimal module performance
- Highly transparent glass maximizes energy yield

##### Robust, Reliable Construction

- Extra thick 46mm anodized aluminium frame
- Strengthened glass and protective back sheet prevent damage and water ingress
- Junction box filled with silicon gel
- Gasket provides extra protection against water ingress

##### Seamless System Integration

- Fitted with standard MC3 / MC4 connectors and a cable of about 1m
- 3 bypass diodes in junction box to minimize system power loss caused by shading of module

##### Warranty

- In accordance with our limited warranty conditions
- Materials & Workmanship - 5 years
  - 90% of the specified min. output power - 10 years
  - 80% of the specified min. output power - 25 years

##### Eco -Friendly

- Using Lead-Free solder

##### Certification

- Module Certificates  
IEC61215 ed2, IEC61730, CE
- Factory Certificates  
ISO9001:2000
- Manufactured in Japan



##### Model Name Description

LDAXXX-x xx xx

- ↳ BW: Black frame\*\* / White backsheet
- ↳ - -: Silver frame / White backsheet
- ↳ 11: 2 busbar cell, Motech
- ↳ A: Standard / D: For heavy snow\*\* (MC3)
- ↳ E: Standard / I: For heavy snow\*\* (MC4)
- ↳ Maximum output

\*\*option

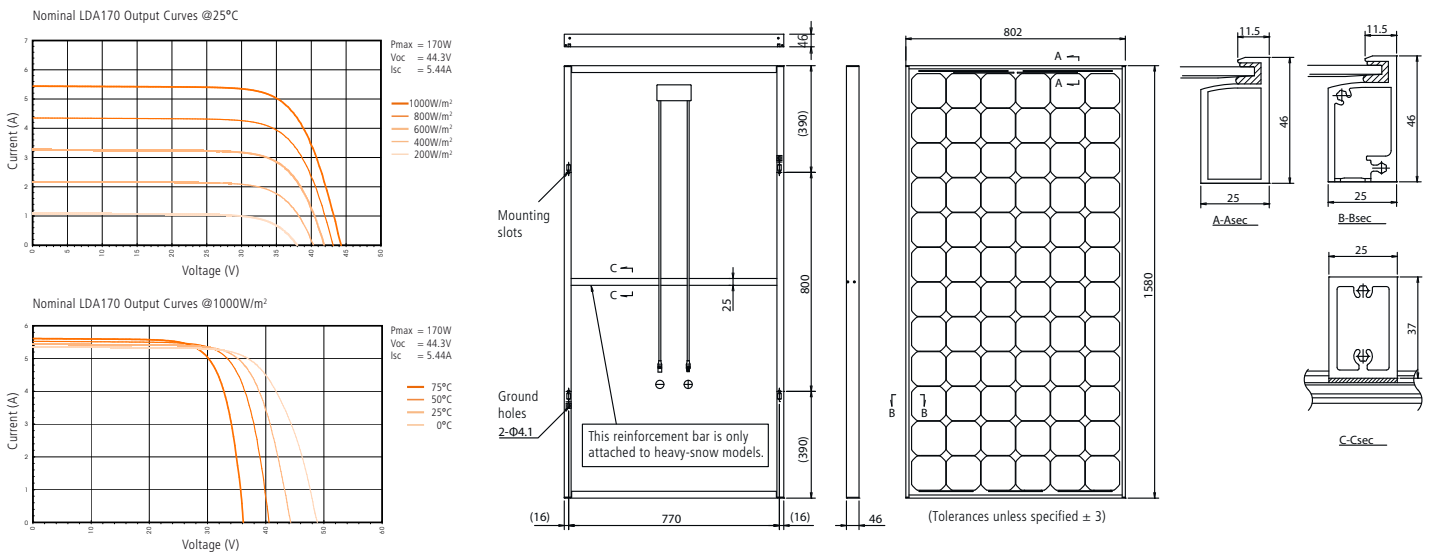
# 72-cell monocrystalline module family

## LDA series

### Electrical Characteristics

	LDA160	LDA165	LDA170	LDA175	LDA180	tolerance
At standard test conditions of 1000W/m <sup>2</sup> irradiance, AM1.5 spectrum, 25°C cell temperature (STC)						
Maximum output	160W	165W	170W	175W	180W	+5% -3%
Maximum power voltage	34.6V	34.8V	35.1V	35.3V	35.6V	-
Maximum power current	4.63A	4.75A	4.85A	4.96A	5.07A	-
Open circuit voltage	43.8V	44.0V	44.3V	44.5V	44.8V	±10%
Short circuit current	5.22A	5.33A	5.44A	5.55A	5.66A	90% or over
Conversion efficiency	12.6%	13.0%	13.4%	13.8%	14.2%	-
Maximum reverse current	8.9A	8.9A	8.9A	8.9A	8.9A	-

At nominal operating cell temperature of 800W/m <sup>2</sup> irradiance, AM1.5 spectrum, 20°C ambient temperature, 1m/s wind speed (NOCT)						
Maximum output	113W	116W	120W	123W	127W	-
Maximum power voltage	30.2V	30.3V	30.6V	30.8V	31.0V	-
Maximum power current	3.73A	3.83A	3.91A	4.00A	4.09A	-
Open circuit voltage	38.7V	38.9V	39.2V	39.4V	39.6V	-
Short circuit current	4.18A	4.26A	4.35A	4.44A	4.53A	-



### Construction

item	number	comment
cell	72	125mm x 125mm monocrystalline, Motech
front cover	1	strengthened patterned glass t3.2
back cover	1	white
filler		EVA resin
frame	1	46mm anodized aluminium
edge filler		gasket
+ output wire	1	eco 4sq, MC3 / MC4 connector
- output wire	1	eco 4sq, MC3 / MC4 connector
junction box	1	58 x 125 x 15, IP65
bypass diode	3	45V

### Tested Operating Conditions

temperature	-40°C - +85°C*
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\* This temperature range was applied during the Temperature Cycle Test



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