

54-cell monocrystalline module family

PCA series



The photo is showing PCAxxx-A01

Characteristics

Dimensions

Length	1480mm (tolerance +/-3mm)
Width	985mm (tolerance +/-3mm)
Depth	46mm
Weight	19kg (standard: 2400Pa) 20kg (for heavy snow: 5400Pa)

Standard operating conditions*

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

Insulation performance

Insulation resistance	50 MΩ or over (DC500V)
Ability to withstand voltage	DC3000V for 1 min

Thermal characteristics

NOCT	47°C
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Temperature coefficient

	PCAxxx-A01/04	PCAxxx-A23
Voc (Open circuit voltage)	- 0.37% / °C	- 0.31% / °C
Isc (Short circuit current)	+0.03% / °C	+0.03% / °C
Pmax (Maximum power output)	- 0.51% / °C	- 0.37% / °C

*maximum performance limits conform to IEC 61215 standards



Design Features:

Maximized Power Output

- Monocrystalline cells with 16 - 17.5% 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

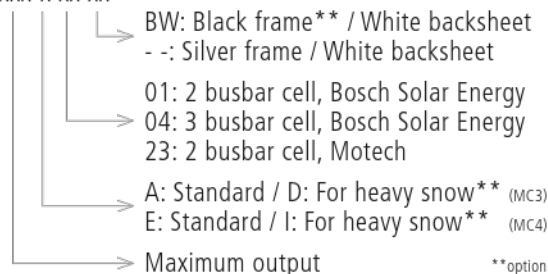
Certification

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



Model Name Description

PCAxxx-x xx xx



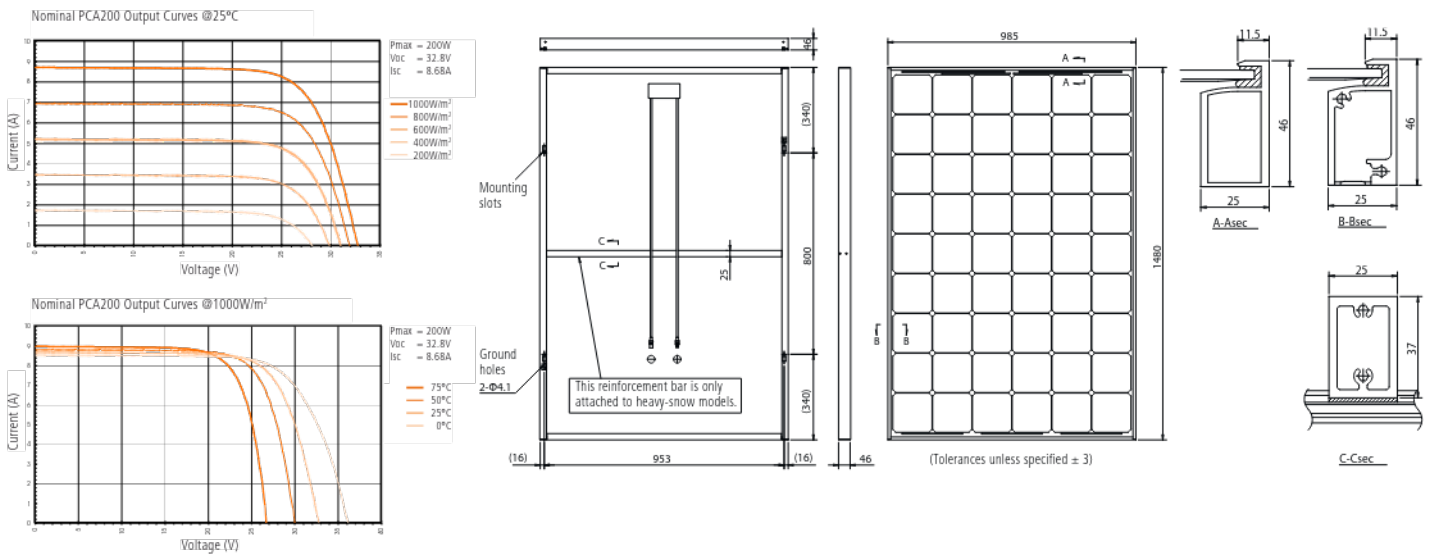
**option

PCA series

Electrical Characteristics

	PCA190	PCA195	PCA200	PCA205	PCA210	PCA215	tolerance
At standard test conditions of 1000W/m ² irradiance, AM1.5 spectrum, 25°C cell temperature (STC)							
Maximum output	190W	195W	200W	205W	210W	215W	+5% -3%
Maximum power voltage	25.6V	25.7V	25.7V	25.8V	25.8V	25.9V	-
Maximum power current	7.42A	7.60A	7.78A	7.96A	8.14A	8.31A	-
Open circuit voltage	32.7V	32.8V	32.8V	32.9V	32.9V	33.0V	±10%
Short circuit current	8.62A	8.65A	8.68A	8.71A	8.74A	8.77A	90% or over
Conversion efficiency	13.0%	13.3%	13.7%	14.0%	14.4%	14.7%	-
Maximum reverse current	10A	10A	10A	10A	10A	10A	-

At nominal operating cell temperature of 800W/m ² irradiance, AM1.5 spectrum, 20°C ambient temperature, 1m/s wind speed (NOCT)							
Maximum output	134W	137W	141W	144W	148W	152W	-
Maximum power voltage	22.3V	22.4V	22.4V	22.5V	22.5V	22.6V	-
Maximum power current	5.98A	6.13A	6.28A	6.42A	6.57A	6.70A	-
Open circuit voltage	28.9V	29.0V	29.0V	29.1V	29.1V	29.2V	-
Short circuit current	6.90A	6.92A	6.95A	6.97A	6.99A	7.02A	-



Construction

item	number	comment
cell	54	156mm x 156mm monocrystalline, Bosch Solar Energy, 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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