

Naps range of large solar modules 180-200Wp



**NP180GK / NP185GK / NP190GK
/ NP195GK / NP200GK**

Naps range of high efficiency large solar (photovoltaic, PV) modules combine power, efficiency and quality construction in highly dependable solar generators. These modules are especially designed for easy installation in grid-connected systems.

By having 5 different power ratings for the same size module, we are able to provide modules with a close tolerance from a range of cell efficiencies, whilst minimising mismatch losses in the final system.

The 180 / 185 / 190 / 195 / 200W modules contain 54 cells in series and are mainly designed for use in grid-connected systems. However, they can also be used in water pumping systems or for battery charging using a charge controller with dc/dc conversion and current boosting.

Featuring the highest standards of construction, Naps modules are able to withstand the harshest environments and continue to perform efficiently. Properly installed, these modules have a design life of at least 25 years. Cells are protected from dirt, moisture and impact by a tempered, low-iron glass front and laminated using EVA between this glass and a durable, multi-layered polymer backsheet for superior moisture resistance.

Naps modules are tested to meet or exceed international standards, quality and performance requirements. The modules' test performance and our years of experience providing dependable power in locations throughout the world assure you that Naps modules can meet your solar power needs today. Naps modules carry both 10 and 25 year limited power warranties.

- Electrically-matched, polycrystalline silicon solar cells for efficient conversion of both direct and diffuse light.
- Cells coated for reduced reflection.
- Double redundant contacts on each cell for greater circuit reliability.
- Low iron content tempered glass cover provides mechanical protection and high light transmission.
- Circuit laminated between layers of ethylene vinyl acetate (EVA) for moisture resistance, UV stability, and electrical isolation.
- Tough, multi-layered polymer backsheet for resistance to abrasion, tears and punctures.
- Rugged, lightweight anodised aluminium frame with 4 mounting holes and 2 central holes for grounding screws.
- Junction box designed for safety and environmental protection. These larger modules are pre-fitted with cables with quick connectors.
- Wired-in bypass diodes reduce potential loss of power or damage from partial array shading.
- Laboratory tested for a wide range of operating conditions (-40°C to + 85°C).
- Designed to meet or exceed the environmental requirements of IEC61215 (2nd Edition).

Specifications of Naps standard solar modules

	NP180GK	NP185GK	NP190GK	NP195GK	NP200GK
Product code	13180	13185	13190	13195	13200

Power Specifications	NP180GK	NP185GK	NP190GK	NP195GK	NP200GK
Maximum Power, Wp	180	185	190	195	200
Maximum Power Tolerance	+/-3%	+/-3%	+/-3%	+/-3	+/-3%
Current (typical A at max power), Im	7.09	7.23	7.36	7.50	7.63
Voltage (typical at max power), Vm	25.4	25.6	25.8	26.0	26.2
Short Circuit Current (typical A), Isc	7.75	7.86	8.00	8.10	8.20
Open Circuit Voltage (typical), Voc	32.5	32.7	33.0	33.1	33.4

The above values refer to standard test conditions of 1000 Wm² solar irradiance, 25°C cell temperature, Air Mass 1.5.

Mechanical Details	NP180GK	NP185GK	NP190GK	NP195GK	NP200GK
Overall length mm	1475	1475	1475	1475	1475
Overall width mm	986	986	986	986	986
Thickness at edge mm	35	35	35	35	35
Weight kg	19.5	19.5	19.5	19.5	19.5

Integral mounting holes for 6mm bolts

Long sides: centre to centre mm	790	790	790	790	790
Long sides: centre to frame end mm	342.5	342.5	342.5	342.5	342.5
Short sides: centre to centre mm	943	943	943	943	943
Short sides: centre to frame end	21.5	21.5	21.5	21.5	21.5

Construction	NP180GK	NP185GK	NP190GK	NP195GK	NP200GK
Cells	54	54	54	54	54
Cell type	poly	poly	poly	poly	poly
Cell dimensions mm	156x156	156x156	156x156	156x156	156x156
Cell layout	6x9	6x9	6x9	6x9	6x9
Cell electrical circuit	54Sx1P	54Sx1P	54Sx1P	54Sx1P	54Sx1P
Glass thickness	4mm	4mm	4mm	4mm	4mm
Junction boxes	1	1	1	1	1
Junction box type	S	S	S	S	S
Bypass diodes factory fitted	3	3	3	3	3

Prefitted cables 4mm² with connectors					
	yes	yes	yes	yes	yes
Cable option 1 (Multicontact 4mm connectors)	2 x 0.9m	2 x 0.9m	2 x 0.9m	2 x 0.9m	2 x 0.9m
Cable option 1 identification (add to name)	-QC90MC4	-QC90MC4	-QC90MC4	-QC90MC4	-QC90MC4
Cable option 2 (Huber+Suhner connectors)	2 x 1m	2 x 1m	2 x 1m	2 x 1m	2 x 1m
Cable option 2 identification (add to name)	-QC100H	-QC100H	-QC100H	-QC100H	-QC100H

NOCT	NP180GK	NP185GK	NP190GK	NP195GK	NP200GK
Normal Operating Cell Temperature	45	45	45	45	45

Cell temperature at 800Wm², 20°C ambient temperature, wind speed <=1ms⁻¹, free air access to module rear

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