

# Spectra HPBC Framed Solar Panels

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Data Sheet





# Spectra HPBC Framed Solar Panels

Spectra HPBC back-contact high efficiency solar panels are exclusively designed for Marlec and off-grid applications. With efficiency nearly 20% higher than conventional solar panels, they are built using the latest-generation LONGi HPBC solar cells to deliver more power from a compact size.

## Spectra HPBC Solar Panel

### Features:

- Utilises latest generation LONGi HPBC solar cells, with cell efficiency reaching up to 26.4%.
- LONGi HPBC cells lose less power in hot weather compared to other solar cell technologies
- OBB (Zero busbar) back-contact design for higher efficiency and improved power generation
- Anti-reflective treatment for better light capture
- Low UV degradation rate (0.35%) for a longer working life
- Optimised internal soldering for efficient power transfer
- Shading-optimised technology cutting power loss by up to 70%
- Full-black design with reinforced black anodised aluminium frame
- IEC Certification for salt mist and ammonia corrosion
- 0.9m, 2x4mm<sup>2</sup> cables with MC4 connectors
- 2-year product warranty with 25 year performance warranty

## Suitable Applications

- Off-grid systems
- Utilities
- Railways
- Highways
- CCTV
- Highways
- Environmental Monitoring
- Signage
- Marine Navigational Buoys
- Telecommunications
- Marine Leisure
- Motorhomes



# Spectra Framed HPBC Solar Panels

Panel Model	Spectra HPBC 30	Spectra HPBC 65	Spectra HPBC 90	Spectra HPBC 115	Spectra HPBC 160
<b>Part No</b>	CA-10/5030HPBC	CA-10/5065HPBC	CA-10/5090HPBC	CA-10/5115HPBC	CA-10/5160HPBC
<b>Cell Technology</b>	LONGi HPBC	LONGi HPBC	LONGi HPBC	LONGi HPBC	LONGi HPBC
<b>Dimensions (mm)</b>	315 x 515 x 30	676 x 494 x 35	454 x 956 x 35	580 x 956 x 35	764 x 956 x 35
<b>Weight (kg)</b>	2.05 kg	4.30 kg	5.31 kg	6.55 kg	8.29 kg
<b>Characteristics</b>					
<b>Power at STC (Pmax)</b>	30W	65W	90W	115W	160W
<b>Maximum Power Voltage (Vmp)</b>	18.35V	18.35V	18.45V	18.35V	24.63V
<b>Maximum Power Current (Imp)</b>	1.63A	3.54A	4.88A	6.27A	6.50A
<b>Open Circuit Voltage (Voc)</b>	21.68V	21.68V	21.63V	21.68V	28.44V
<b>Short Circuit Current (Isc)</b>	1.77A	3.88A	5.46A	6.78A	7.08A
<b>Tolerance (%)</b>	0~ +3%	0~ +3%	0~ +3%	0~ +3%	0~ +3%
<b>Module Efficiency</b>	19.55%	19.46%	20.74%	20.74%	21.91%
<b>NOCT</b>	45 °C	45 °C	45 °C	45 °C	45 °C
<b>Power Temperature Coefficiency (% / °C)</b>	-0.36	-0.36	-0.36	-0.36	-0.36
<b>Voltage Temperature Coefficiency (% / °C)</b>	-0.26	-0.26	-0.26	-0.26	-0.26
<b>Current Temperature Coefficiency (% / °C)</b>	0.02	0.02	0.02	0.02	0.02
<b>Max System Voltage</b>	1000V	1000V	1000V	1000V	1000V
<b>Front Glass</b>	Tempered Glass with Anti Reflective Coating				
<b>Junction Box</b>	With Terminals	Central Sealed	Central Sealed	Central Sealed	Central Sealed
<b>Cable</b>	No Cable	2x 0.9 M	2x 0.9 M	2x 0.9 M	2x 0.9 M
<b>Connector Type</b>	No Connectors	MC4	MC4	MC4	MC4

Characteristics can change without any notice. Please visit our website for latest specifications.

# Spectra Framed HPBC Solar Panels

Panel Model	Spectra HPBC 220	Spectra HPBC 240	Spectra HPBC 320	Spectra HPBC 400
<b>Part No</b>	CA-10/5220HPBC	CA-10/5240HPBC	CA-10/5320HPBC	CA-10/5400HPBC
<b>Cell Technology</b>	LONGi HPBC	LONGi HPBC	LONGi HPBC	LONGi HPBC
<b>Dimensions (mm)</b>	948 x 1048 x 35	948 x 1139 x 35	1500 x 956 x 35	1134 x 1596 x 35
<b>Weight (kg)</b>	10.9 kg	11.75 kg	15.25 kg	18.98 kg
<b>Characteristics</b>				
<b>Power at STC (Pmax)</b>	220W	240W	320W	400W
<b>Maximum Power Voltage (Vmp)</b>	33.86V	36.94V	24.63V	31.20V
<b>Maximum Power Current (Imp)</b>	6.50A	6.49A	12.99A	12.82A
<b>Open Circuit Voltage (Voc)</b>	39.11V	42.66V	28.69V	36.86V
<b>Short Circuit Current (Isc)</b>	6.89A	7.05A	13.56A	13.84A
<b>Tolerance (%)</b>	0~ +3%	0~ +3%	0~ +3%	0~ +3%
<b>Module Efficiency</b>	22.14%	22.23%	22.32%	22.14%
<b>NOCT</b>	45 °C	45 °C	45 °C	45 °C
<b>Power Temperature Coefficiency (% / °C)</b>	-0.36	-0.36	-0.36	-0.36
<b>Voltage Temperature Coefficiency (% / °C)</b>	-0.26	-0.26	-0.26	-0.26
<b>Current Temperature Coefficiency (% / °C)</b>	0.02	0.02	0.02	0.02
<b>Max System Voltage</b>	1000V	1000V	1000V	1000V
<b>Front Glass</b>	Tempered Glass with Anti Reflective Coating			
<b>Junction Box</b>	Central Sealed	Central Sealed	Central Sealed	Central Sealed
<b>Cable</b>	2x 0.9 M	2x 0.9 M	2x 0.9 M	2x 0.9 M
<b>Connector Type</b>	MC4	MC4	MC4	MC4

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