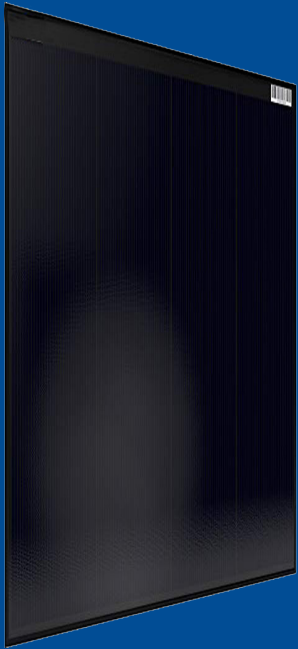




spectra  
solar

# Spectra PERC-S Solar Panels



Marlec's new PERC Shingle which uses seamless soldering technology solar panels meaning you get more cell coverage for the size of panel, making them an efficient way to generate free solar energy while using the minimum of space and weight. You can enjoy faster charging to run all the things you want whether it's for leisure or for critical commercial use.

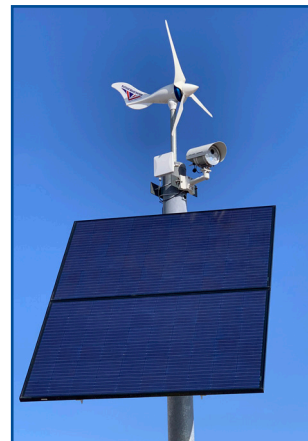
## Available in:

30W, 65W, 85W, 110W, 150W, 220W, 240W, 300W & 400W  
(other sizes available on request)

## Typical Applications

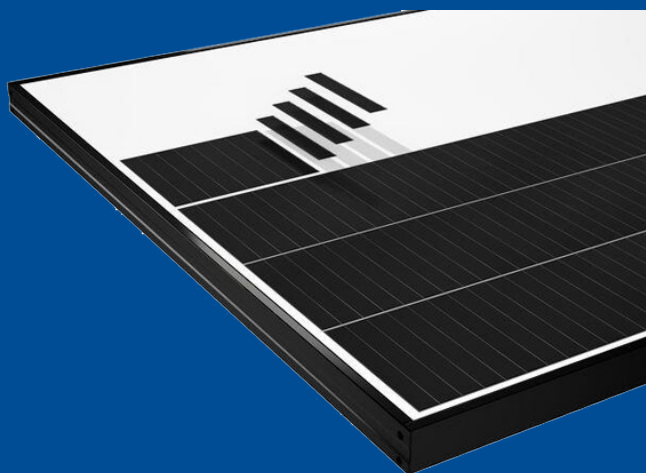
The Spectra PERC-S are designed for battery charging in off-grid power applications such as:

- Motor homes & caravans
- Off-grid homes & cabins
- Sail boats
- Isolated telecoms & security systems
- Traffic signage & street lighting



## How does it work?

PERC-S Seamless Soldering technology is an innovative solar module encapsulation technique that achieves a "tiled" connection of individual solar cells by using a solder ribbon. Unlike traditional panels with a 2-mm-wide gap between cells, Seamless Soldering eliminates this gap, allows for more solar cells to be packed into the same panel area, resulting in higher cell density and greater power output. They have the added benefit of withstanding higher wind loads without being damaged.



## Features

- Monocrystalline solar cells
- Seamless soldering technology
- Potted junction box with 900mm flying lead and MC4 type connectors
- Reinforced black aluminium frame withstands high wind loads
- Safety glass



## The Marlec Assurance

We are proud to include the PERC-S panels to Marlec's own brand Spectra range alongside other quality and trusted solar and wind energy products. Founded in 1978, we are the UK's longest established renewable energy company bringing our 40 years of unrivalled experience to our valued customers. Contact our expert sales team at [www.marlec.co.uk](http://www.marlec.co.uk) or [sales@marlec.co.uk](mailto:sales@marlec.co.uk).



**Marlec Engineering Co Ltd**  
Rutland House, Trevithic Road, Corby,  
NN17 5XY, UK

[sales@marlec.co.uk](mailto:sales@marlec.co.uk)    [www.marlec.co.uk](http://www.marlec.co.uk)



# Spectra PERC-S

## Technical Specifications



Specifications									
Panel Model	PERC S30	PERC S65	PERC S85	PERC S110	PERC S150	PERC S220	PERC S240	PERC S300	PERC S400
Part No	CA-10/521	CA-10/565	CA-10/522	CA-10/523	CA-10/524	CA-10/5220	CA-10/5240	CA-10/5300	CA-10/527
Cell	Monocrystalline PERC solar cells with shingle technology								
Dimension of module (LxWxD)	318 x 515 x 30mm	668 x 486 x 35 mm	454 x 942 x 35mm	561 x 942 x 35mm	775 x 942 x 35mm	1096 x 942 x 35mm	1203 x 942 x 35mm	1524 x 942 x 40 mm	1690 x 1106 x 40mm
Unit Weight	2.3kg	4.2kg	5.3kg	6.3 kg	8.3kg	11.3kg	12.5kg	20kg	21kg
Characteristics									
Power at STC (Pm)	30W	65W	85W	110W	150W	220W	240W	300W	400W
Maximum power voltage (Vmp)	20.8V	19V	20.8V	25.28V	22.75V	36.6V	55V	52.8V	67.3V
Maximum power current (Imp)	1.44A	3.42A	4.09A	4.35A	6.59A	6.02A	4.36A	5.68A	5.94A
Open circuit voltage (Voc)	22.5V	21.7V	22.5V	28.78V	25.68V	40.96V	63.3V	57.3V	78.8V
Short circuit current (Isc)	1.58A	3.59A	4.56A	4.57A	6.84A	6.48A	4.68A	6.18A	6.34A
Tolerance (%)	0 ~ +3								
Module efficiency	20.02%	20.02%	19.88%	20.81%	20.63%	20.93%	21.18%	20.93%	20.93%
STC: Irradiance 1000 W/m <sup>2</sup> , cell temperature 25 °C, AM1.5									
Operating temperature	-40 ~ +90°C								
Components & Mechanical Data									
Front Glass	Tempered Glass with Anti Reflective Coating (Typical Grain Upto 3.1%)								
Junction Box	IP-68 with 2 Bypass Diodes	IP-68 with 2 Bypass Diodes						IP-68 with 3 Bypass Diodes	
Cable	Wireable Junction Box	900 mm x 2 ea 4.0mm <sup>2</sup>							
Connector Type		MC4							
Frame	Anodized aluminium								

\* Specifications are subject to change without notice.

