

DuPont Apollo C Series Thin Film Modules

High Energy Yields

Stable Power Output

Robust Encapsulation

Easy Mounting

Low Cable Power Loss

Product Specification

Model	DA130	DA133	DA136	DA139	DA142	DA145	DA148	DA151	DA154
Technology	Amorphous / Microcrystalline Silicon (Tandem Junction)								

Mechanical Characteristics

Dimensions	L 1409 x W 1110 x T 35 mm
Weight	20 kg
Front Cover	4.0 mm TCO Glass
Encapsulant	EVA
Back Cover	Backsheet
Frame	Aluminium

Electrical Characteristics

At Standard Test Conditions (STC)

Nominal power output (Pmpp)	130W	133W	136W	139W	142W	145W	148W	151W	154W
Voltage at Pmpp (Vmpp)	114V	116V	117V	118V	119V	121V	122V	123V	124V
Current at Pm point (Impp)	1.14A	1.16A	1.17A	1.18A	1.19A	1.20A	1.22A	1.23A	1.24A
Open circuit voltage (Voc)	154V	155V	156V	156V	157V	157V	158V	158V	159V
Short circuit current (Isc)	1.40A	1.41A	1.41A	1.42A	1.42A	1.43A	1.43A	1.44A	1.44A
Open circuit voltage, initial (Voc, initial)	158V	159V	159V	160V	161V	161V	162V	162V	163V
Short circuit current, initial (Isc, initial)	1.42A	1.43A	1.43A	1.44A	1.44A	1.45A	1.45A	1.46A	1.46A

At Nominal Operating Cell Temperature (NOCT)

Nominal power output (Pmpp)	97W	99W	101W	103W	105W	107W	110W	112W	114W
Voltage at Pm point (Vmpp)	105V	107V	108V	109V	110V	111V	112V	114V	115V
Current at Pm point (Impp)	0.92A	0.93A	0.94A	0.95A	0.96A	0.97A	0.98A	0.98A	0.99A
Open circuit voltage (Voc)	142V	143V	143V	144V	145V	145V	146V	146V	146V
Short circuit current (Isc)	1.13A	1.14A	1.14A	1.14A	1.15A	1.15A	1.16A	1.16A	1.17A

Temperature Characteristics at 1000 W/m², AM 1.5

α Temperature coefficient of Isc	+ 0.09% / °C
β Temperature coefficient of Voc	- 0.35% / °C
γ Temperature coefficient of Pmpp	- 0.30% / °C

Operating Conditions

Operating temperature	- 40 ~ + 85 °C
Maximum mechanical load (front / back)	Standard: 2400 / 2400 N/m ² , Optional: 5400 / 2400 N/m ²
Maximum system voltage	1000 V (IEC) / 600 V (UL)
Maximum reverse current overload	2A
Connector	MC4 compatible
Cable size	2.5 mm ²
Cable length	400 mm, 900 mm

Standard Guarantees and Certifications

Product warranty	Standard: 5 years, Optional: 10 years
Performance warranty	80% of nominal power for 25 years 90% of nominal power for 10 years
Certifications	IEC 61646 / IEC 61730 / UL1703 / ULC1703

Packaging Details

Packaging unit	29 modules per pallet
Dimensions	L 1436 x W 1117 x H 1275 mm
Storage	928 modules (32 pallets) in 40' HQ container

Above electrical data represents stabilized module performance, unless specified otherwise.

Pmpp at STC is subject to tolerance of +/-5%.

Initial Pmpp is approximately 10-16% higher than stabilized Pmpp.

STC: 1000 W/m², AM 1.5, cell temperature 25°C.

NOCT: 43.4 ± 0.2°C, 800 W/m², AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

DA151 & DA154 are limited offerings, please check directly with our sales representative for availability.

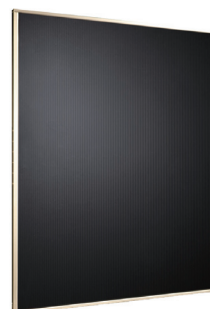
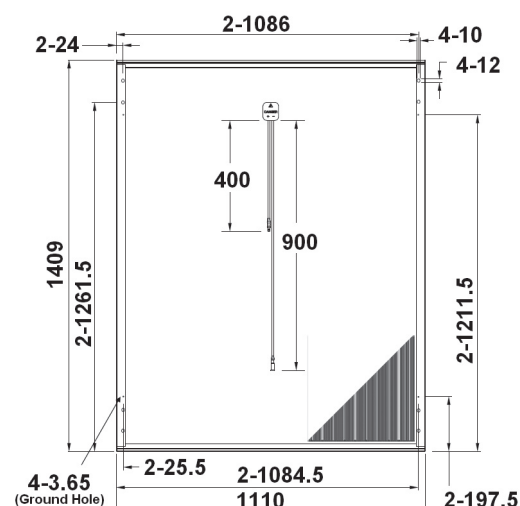
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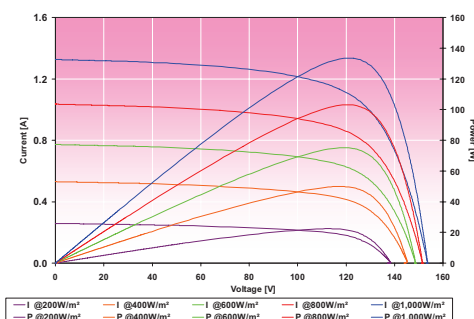
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Module Outline



Electrical Characteristics for DA130 at 25°C



Intertek