

Commit to  
**Green**  
Your World



## Black Knight Series

6 x 10 up to **250Wp**



### High Stability

Positive tolerance up to +5Wp



### High Wind and Snow Load

Certified to Withstand High Wind  
Load 2400Pa and Snow Load 5400Pa



### CHUBB Insurance

Secured by CHUBB Errors and Omissions  
(E&O) Insurance



### Highly Automated Manufacturing

Highly automated manufacturing lines  
from Germany and Japan  
More Reliable. Higher Performance



# Black Knight Series

## Electrical Characteristics(STC)

STC (Standard Test Conditions): 1,000 W/m<sup>2</sup>, (25 ± 2)°C, AM 1.5 in accordance with EN 60904-3

Capacity rating	P <sub>max</sub>	250W	245W	240W	235W	230W
Module efficiency	%	15.3	15.0	14.7	14.4	14.1
Maximum power voltage	V <sub>mp</sub> (V)	30.74	30.57	30.40	30.23	30.06
Maximum power current	I <sub>mp</sub> (A)	8.14	8.02	7.90	7.78	7.66
Open circuit voltage	V <sub>oc</sub> (V)	38.40	38.23	38.07	37.90	37.74
Short circuit current	I <sub>sc</sub> (A)	8.56	8.45	8.34	8.22	8.11
Maximum system voltage		1000 V DC (IEC) / 600 V DC (UL)				

## Electrical Characteristics(NOCT)

NOCT (Normal Operating Cell Temperature): 800 W/m<sup>2</sup>, NOCT, AM 1.5

Capacity rating	P <sub>max</sub>	179W	176W	172 W	168W	165W
Maximum power voltage	V <sub>mp</sub> (V)	27.12	26.97	26.82	26.67	26.51
Maximum power current	I <sub>mp</sub> (A)	6.61	6.51	6.42	6.32	6.22
Open circuit voltage	V <sub>oc</sub> (V)	34.94	34.79	34.64	34.49	34.34
Short circuit current	I <sub>sc</sub> (A)	6.91	6.82	6.73	6.64	6.55

## Temperature coefficients

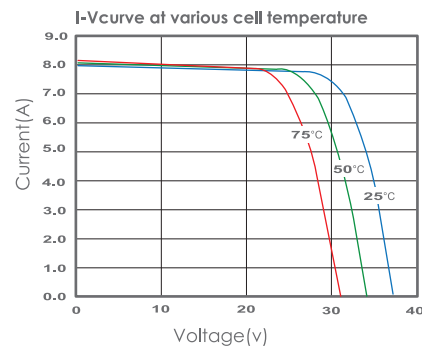
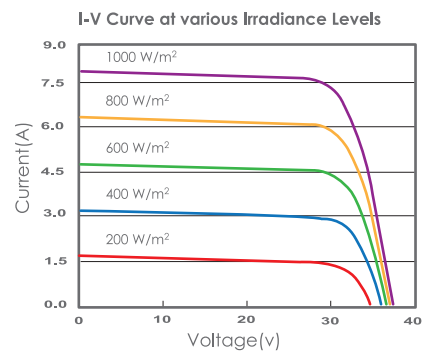
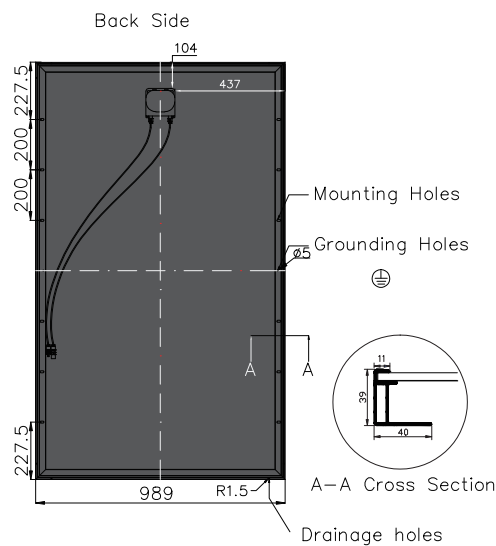
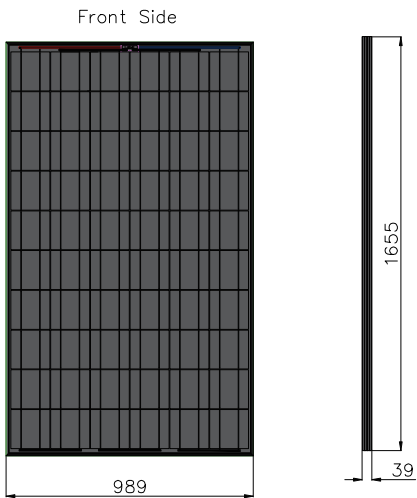
Temperature coeff. of V <sub>oc</sub>	- 0.33% / °C
Temperature coeff. of I <sub>sc</sub>	0.04% / °C
Temperature coeff. of P <sub>max</sub>	- 0.46% / °C

## Working Conditions

Temperature range	- 40 °C to +85°C
NOCT	47°C ± 2°C
Maximum series fuse	15A
Maximum surface load capacity	Tested up to 5,400 Pa according to IEC 61215 (Advanced Test)
Resistance against hail	Maximum diameter of 28 mm with impact speed of 86 km/h
Wind resistance	Positive & negative wind pressure of 3600 Pa, equivalent to 276km/h
Grounding conductivity	<0.01Ω
Application class	Class A according to IEC 61730
Insulation resistance	>100MΩ

## Mechanical Characteristics

Dimensions (L x W x D, mm)	1655 x 989 x 39
Weight	19.6 kg
Junction box	1 junction box with 3 bypass diodes
Cable	Tyco Solarlok cable, length 1,000 mm
Front glass	3.2mm, high transparent, low iron, tempered glass
Solar cells	60 (6x10) black cells, polycrystalline (156 x156 mm)
Cell encapsulation	EVA (Ethylene Vinyl Acetate)
Back side	Black composite film
Frame	Anodized black aluminum frame with double-wall profile and drainage holes
Connect type	Tyco Solarlok



\* Up To **10** Year Zero Defect Limited Liability **10** Year 90% Power Output **25** Year 80% Power Output

\*Depends on actual business terms.



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