



Key Features

- **Monocrystalline Panels** – Features substantial conversion efficiency and power output.
- High module conversion efficiency
- 10 Year – Material and workmanship warranty
- Top ranked PTC (Production Tax Credit) rating
- **PERC Silicon Solar Cells** – Provides both cost savings and overall better power output performance.
- No hot spots guaranteed
- 25 Year – Power output warranty

Technical Specifications

	Renogy X 405W	Renogy X 450W
Electrical Data		
Max. Power at STC	405W	450W
Optimum Operating Voltage	31.09V	34.67V
Optimum Operating Current	13.02A	12.98A
Open Circuit Voltage (Voc)	37.31V	41.25V
Short Circuit Current (Isc)	13.87A	13.89A
Module Efficiency	20.5%	20.8%
Max System Voltage	1500 VDC	1500 VDC
Max Series Fuse Rating	25A	25A
Mechanical Data		
Solar Cell Type	PERC Monocrystalline (7.2 x 3.6 in)	PERC Monocrystalline (7.2 x 3.6 in)
Number of Cells	108 (6 x 18), 60 cells in series	120 (6 x 20), 60 cells in series
Dimensions	67.8" x 44.7" x 1.4"	75.2" x 44.6" x 1.4"
Weight	47.4 lbs.	52.7 lbs.
Front Glass	Tempered Glass 0.13"	Tempered Glass 0.13"
Frame	Anodized Aluminum Alloy	Anodized Aluminum Alloy
Connector	Solar Connector	Solar Connector
Fire Rating	Class C	Class C
Thermal Data		
Operating Temp. Range	-40F to 185F	-40F to 185F
Temp Coefficient of Pmax	-0.35 %/C	-0.35 %/C
Temp Coefficient of Voc	-0.26 %/C	-0.28 %/C
Temp Coefficient of Isc	0.048 %/C	0.05 %/C
Certifications		
EN IEC61730	Yes	Yes
EN IEC61215	Yes	Yes
ISO 9001: QMS	Yes	Yes
ETL, UL61730	Yes	Yes