CONTENDRE SOLAR

X SERIES

CG X120

440–460W

Mono–Perc (M10) Solar PV Module
120 Cells | Max Efficiency 21.26%
Monofacial | Bifacial

THE IDEAL SOLUTION FOR

Rooftop arrays on residential, commercial and industrial buildings

Ground–mounted solar power plants

Contendre (CGPL) is one of the world's leading solar solution experts. We are specialised in high efficiency solar module manufacturing, distribution and research. To utilise our production and technology advantage, we provide our customers with comprehensive solutions for the whole life cycle of solar project.

We use Raw Materials certified by:

Made in India

Note: Specifications subject to technical changes and tests.
Contendre reserves the right of final interpretation.

Multi Busbar Cell Technology
Shorter Distance Between Busbar Allows Better Flow of Electrons and Reduce Power Loss.

Lower LCOE
Lower LCOE with Lower BOS cost improving the value of the product with competitive ROI.

Lower Internal Resistance
Minimal power loss due to lower internal resistance in turn boosting module power.

Bifacial Gains
Upto 25% additional bifacial gains with rear side generation from reflected sunlight.

Enduring High Performance
Long–term yield security with Anti LID and Anti PID Technology, Hot–Spot Protect and Traceable Quality

Extreme Weather Resilience
High durability raw materials helps to withstand high front load of upto (5400 Pa) and back loads of upto (2400Pa)

A Reliable Investment
12 years product warranty and 25 years linear power output warranty makes it a reliable investment

MECHANICAL SPECIFICATION

Dimensions (LxWxH in mm)	1909 x 1134 x 35 (Also available in 40 mm)
Weight (kg)	23 kg
No. of Cells	120 (10 x 6 / 10 x 6) Mono Perc (M10)
Aluminum Frame (40HS)	Silver Anodized Aluminum Alloy (Also available in black)
Front Cover	Low Iron Tempered Glass (3.2 mm thick)
Encapsulate	Ethylene Vinyl Acetate (EVA) Sheet–PID free & UV resistant
Backsheet	Fluoro Polymer Based Backsheet
Junction Box with 3–Bypass diode/Rating	Split Junction Box (IP68)–Weather proof / MC4 Compatible
Application Class Rating	Class A
Fire Safety Class Rating	Class II
Mechanical Load Test (as per IEC & UL)	5400 Pa–Front; 2400 Pa–Back
Mounting Holes Pitch (Y)–mm	(A) 1360, (B) 860
Mounting Holes Pitch (X)–mm	1095

ELECTRICAL PARAMETERS (STC*)

Model	Pmax (W)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)	F.F.	Eff (%)
CG–X120–460	460W	34.99V	13.15V	41.84V	13.81A	79.63	21.26
CG–X120–455	455W	34.88V	13.06V	41.72V	13.73A	79.53	21.03
CG–X120–450	450W	34.72V	12.97V	41.59V	13.67A	79.21	20.80
CG–X120–445	445W	34.53V	12.89V	41.43V	13.60A	79.00	20.57
CG–X120–440	440W	34.38V	12.80V	41.39V	13.53A	78.90	20.34

Bifacial Output – Backside Power Gain @ STC*

5%	Nominal Maximum Power (Pmax) Module Efficiency (%)	462W 21.34%	467W 21.57%	473W 21.85%	478W 22.08%	483W 22.31%
10%	Nominal Maximum Power (Pmax) Module Efficiency (%)	484W 22.35%	490W 22.63%	495W 22.86%	500W 23.09%	506W 23.37%
15%	Nominal Maximum Power (Pmax) Module Efficiency (%)	506W 23.37%	512W 23.65%	518W 23.93%	523W 24.16%	529W 24.43%
25%	Nominal Maximum Power (Pmax) Module Efficiency (%)	550W 25.40%	556W 25.70%	563W 25.98%	569W 26.27%	575W 26.56%

(Note: The bifacial gain depends on the power plant design and site conditions.)

ELECTRICAL PARAMETERS (NMOT*)

Model	Pmax (W)	Vmp (V)	Imp (A)	Voc (V)	Isc (A)
CG–X120–440	326W	31.66V	10.30A	38.94V	10.95A
CG–X120–445	330W	31.70V	10.39A	38.97V	11.01A
CG–X120–450	334W	31.97V	10.45A	39.12V	11.07A
CG–X120–455	337W	32.11V	10.50A	39.25V	11.12A
CG–X120–460	341W	32.22V	10.58A	39.36V	11.18A

(3) NOCT irradiance 800 W/m², ambient temperature 20°C, wind speed 1 m/sec

MAXIMUM OPERATING CONDITIONS

Operating Temperature	–40°C to +85°C
Maximum System Voltage	1500V
Maximum Series Fuse Rating	25A

TEMPERATURE COEFFICIENTS

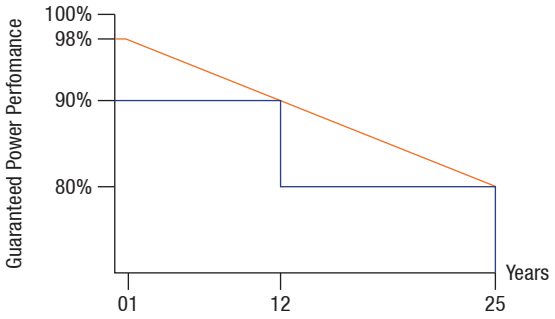
Power (Pmax)	–0.278%/°C
Voltage (Voc)	–0.230%/°C
Current (Isc)	+0.05%/°C
NMOT / NOCT	44±2°C

OTHER X SERIES PRODUCTS

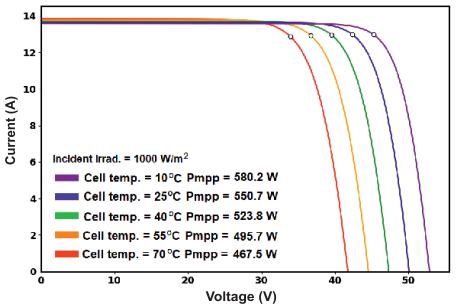
- CG–X144–XXX
- 535Wp – 550Wp

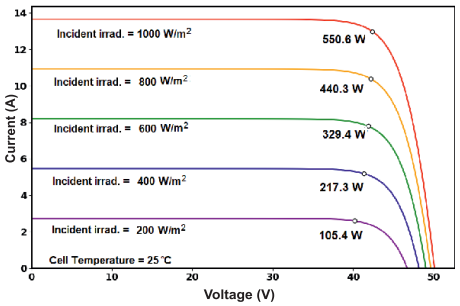
Caution: Please read safety and installation instructions before using the product. ***Power Degradation:** Linear power degradation up to 2.0% in 1st year and 0.6%/year from year 2 to year 25. Please read Contendre warranty documents thoroughly. **DISCLAIMER:** specifications included in the datasheet are subject to change without prior notice owing to continuous innovation on the product Development and R&D Activities. Contendre Solar reserves the right to make any adjustment to the information described here, Dataset contained in this specification do not form a representative of a single module data. @T&C Apply.

LINEAR PERFORMANCE WARRANTY

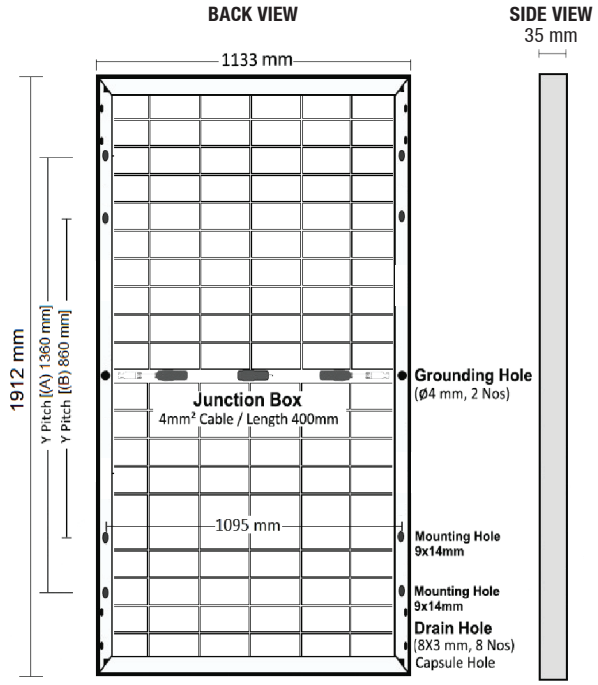


REFERENCE IV CURVE DETAIL





REAR VIEW & MOUNTING DETAIL



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