



CONTENDRE
SOLAR

X SERIES



CG X144

535–555W

Mono–Perc (M10) Solar PV Module
144 Cells | Max Efficiency **21.48%**
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



R–72008656

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

Also Available in DCR Version



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)	2278 x 1134 x 35 (Also available in 40 mm)
Weight (kg)	28.5 kg
No. of Cells	144 (12 x 6 / 12 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) 1400, (B) 1000, (C) 400	
Mounting Holes Pitch (X)–mm	1095

ELECTRICAL PARAMETERS (STC*)

Model	Pmax (W)	Voc (V)	Vmp (V)	Imp (A)	Isc (A)	F.F.	Eff (%)
CG–X144–535	535	49.4	41.6	12.87	13.56	79.93	20.71
CG–X144–540	540	49.5	41.7	12.96	13.64	80.04	20.90
CG–X144–545	545	49.6	41.8	13.05	13.73	80.10	21.10
CG–X144–550	550	49.7	41.9	13.13	13.82	80.16	21.29
CG–X144–555	555	49.8	42.11	13.18	13.87	80.35	21.48

(1) STC: 1000/m² irradiance, 25°C cell temperature, AM1.5g spectrum according to EN 60904–3.
 (2) Power measurement uncertainty is within +/-2%.

Bifacial Output – Backside Power Gain @ STC*

Gain (%)	Nominal Maximum Power (Pmax) Module Efficiency (%)	562W 21.76%	567W 21.95%	573W 22.18%	578W 22.37%	583W 22.57%
5%						
10%	Nominal Maximum Power (Pmax) Module Efficiency (%)	589W 22.80%	594W 22.99%	600W 23.23%	605W 23.42%	611W 23.65%
15%	Nominal Maximum Power (Pmax) Module Efficiency (%)	669W 25.90%	676W 26.17%	682W 26.40%	688W 26.63%	694W 26.87%

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

ELECTRICAL PARAMETERS (NMOT*)

Model	Pmax (W)	Voc (V)	Vmp (V)	Imp (A)	Isc (A)	Eff %
CG–X144–535	397.78	46.44	39.10	10.17	10.98	15.40
CG–X144–540	401.53	46.53	39.20	10.24	11.04	15.54
CG–X144–545	405.29	46.62	37.29	10.31	11.12	15.69
CG–X144–550	408.75	46.72	39.39	10.38	11.19	15.82
CG–X144–555	412.36	46.81	39.58	10.42	11.23	15.96

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

MAXIMUM OPERATING CONDITIONS

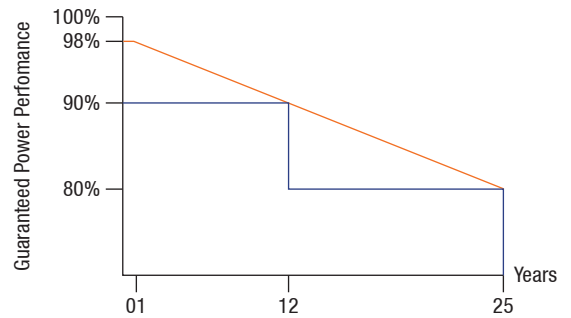
Operating Temperature	–40°C to +85°C
Maximum System Voltage	1500V
Maximum Series Fuse Rating	25A

TEMPERATURE COEFFICIENTS

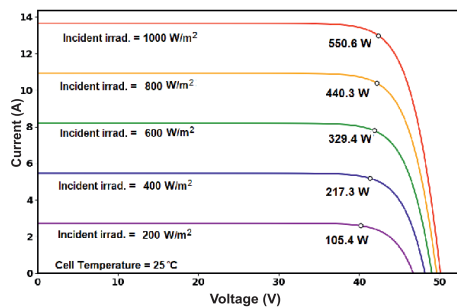
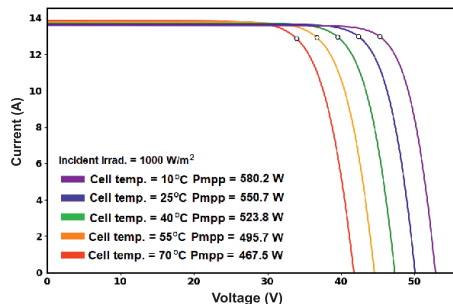
Power (Pmax)	–0.278%/°C
Voltage (Voc)	–0.230%/°C
Current (Isc)	+0.05%/°C
NMOT / NOCT	44±2°C

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.

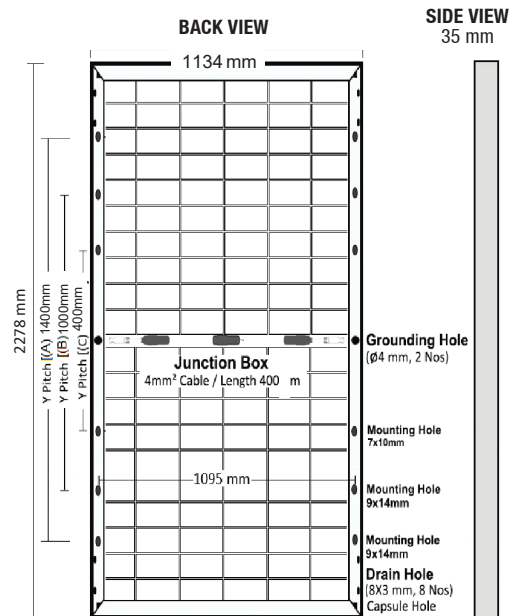
LINEAR PERFORMANCE WARRANTY



REFERENCE IV CURVE DETAIL



REAR VIEW & MOUNTING DETAIL



Note: Dimension can have ±1 mm variation.

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