# **COULEE SOLAR MODULE**

84 CELL MONOCRYSTALLINE MODULE

**400-420W**POWER OUTPUT RANGE

18.35% MODULE EFFICIENCY

**0 - +3**% POSITIVE POWER TOLERANCE

Coulee Limited, electrical specialists and creators of energy saving designs for domestic and commercial applications.

Coulee solar panel manufacturing processes utilize the best quality materials available and industry-leading equipment from around the world. We stand behind our promise of quality workmanship in all of our solar products.

Coulee super-high efficiency module adopt Advanced PERC(Passivated Emitter and Rear Cell) technology. Its higher conversion efficiency and better anti-PID performance bring installers the maximize power yield per unit area.

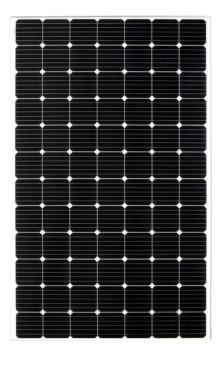
#### **Management System**

ISO9001: Quality Management System
ISO14001: Environmental Management System
OHSAS 18001: Occupation Health and Safety
Management System



Coulee Limited https://couleenergy.com





#### **Ideal For Large Scale Installations**

- Reduce BOS cost by connecting more modules in a string
- Up to 1500VDC system voltage

#### **Maximum Limited Space**

• Up to 18.35W/m<sup>2</sup> power density

#### **Highly Reliable Due to Stringent Quality Control**

- Over 30 in-house tests (UV, TC, HF, etc.)
- In-house testing goes well beyond certification requirements
- Fire Class A tested
- 100% EL double inspection

#### **Severe Weather Resilience**

- 2400Pa wind load
- 5400Pa snow load
- 35mm hail stones at 97km/h

#### **Durability Against Extreme Environmental Conditions**

• Salt mist corrosion tested, perfect for harsh climatic conditions

### **Linear Performance Warranty**

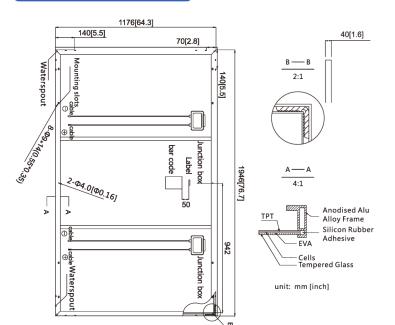




#### **Construction Materials**

Front Glass	3.2mm, Low Iron, Tempered Glass		
Frame	Anodized Aluminum Alloy		
Junction Box	IP67 Rated		
Output Cables	4mm², Length: 900mm		
Connector	MC4 (IP67)		
Encapsulation Material	EVA		
Backsheet	TPT (White OR Black)		
Fixing Adhesive	Silicone Sealant		

# **Mechanical Diagrams**



#### **Mechanical Data**

Solar Cells	Mono 156.75mm × 156.75mm
Number of Cells	84Cells (7 × 12)
Module Dimensions	1946mm × 1176mm × 40mm
Weight	25.3kg

# **Temperature Coefficient**

Power Tolerance	0 ~ +3%		
Temperature Coefficient of Pmax	(-0.43 ± 0.05)%/°C		
Temperature Coefficient of Voc	(-0.33 ± 0.02)%/°C		
Temperature Coefficient of Isc	(0.058 ± 0.01)%/°C		
NOTC	(45 ± 2) °C		

# **Operating Conditions**

Max. System Voltage	1500VDC (IEC)	
Max. System Fuse Rating	15A	
Operating Temperature	-40 ~ +85°C	
Max. Static Load, Front (Snow)	5400Pa	
Max. Static Load, Back (Wind)	2400Pa	

#### **Electrical Parameters at STC**

Module type	CL400M6-84 Series			
Rated Maximum Power (Pmax/W)	400	410	420	
Maximum Power Voltage (Vmp/V)	44.25	44.47	44.78	
Open-circuit Voltage (Voc/V)	54.87	55.01	55.48	
Maximum Power Current (Imp/A)	9.05	9.22	9.38	
Short-circuit Current (Isc/A)	9.39	9.60	9.88	
Module Efficiency (%)	17.48	17.92	18.35	
STC: Irradiance 1000W/m, Cell Temperature 25°C, AM = 1.5				

#### **Packaging Configuration**

Pieces Per Pallet: 52 | Pallets Per 40HQ: 9 | Pieces Per 40HQ: 468

# IV Curves

