Shri Shivaji Education Society Amravati's

Shri Shivaji Arts & Commerce College Amravati

Reaccredited with "A" Grade by NAAC Bangalore

Establishment:1946

AISHE Code:C-43051

Website: https://shivajicollege.org

Email: clg_amt_sac@ssesa.org

DOCUMENTS

Criterion7 - Institutional Values and Best Practices

Key Indicator - 7.1 Institutional Values and Social Responsibilities

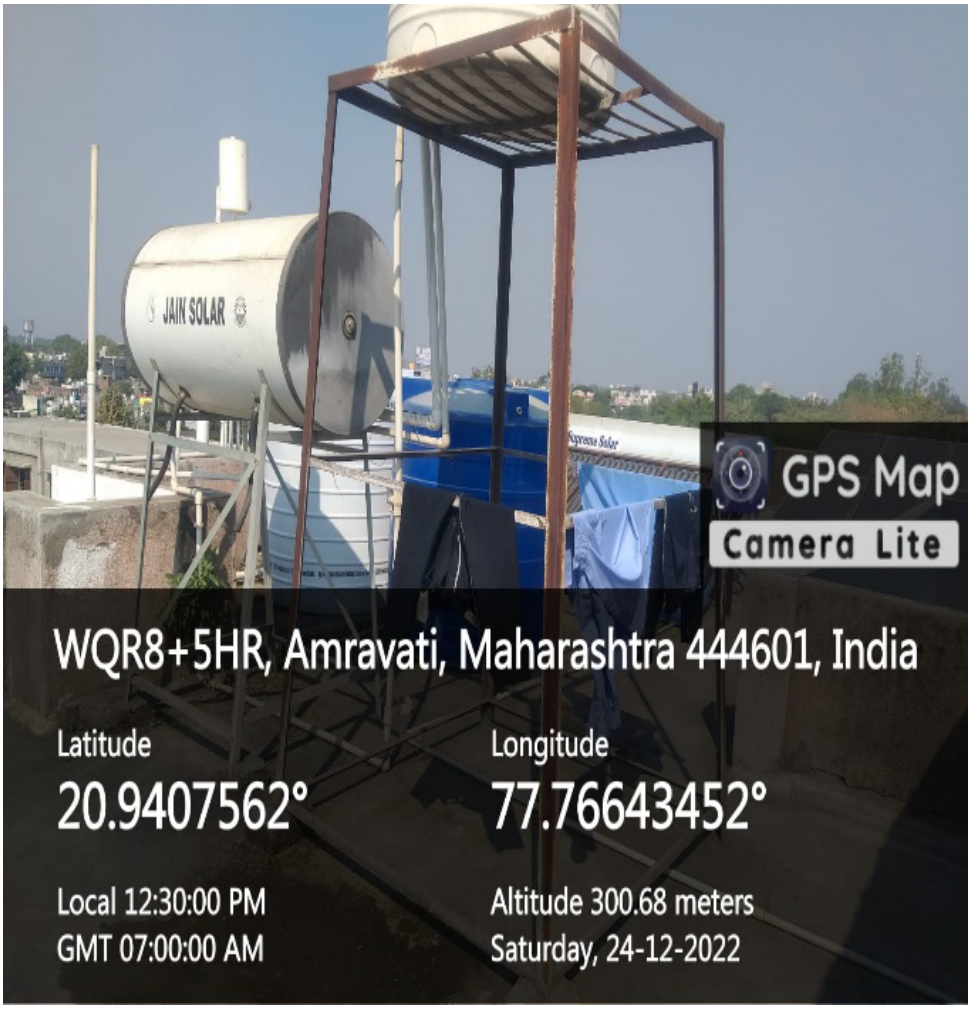
7.1.2 The Institution has facilities and initiatives for

1. ***Alternate sources of energy and energy conservation measures***
2. ***Management of the various types of degradable and non-degradable waste***
3. ***Water conservation***
4. ***Green campus initiatives***
5. ***Disabled-friendly, barrier free environment***

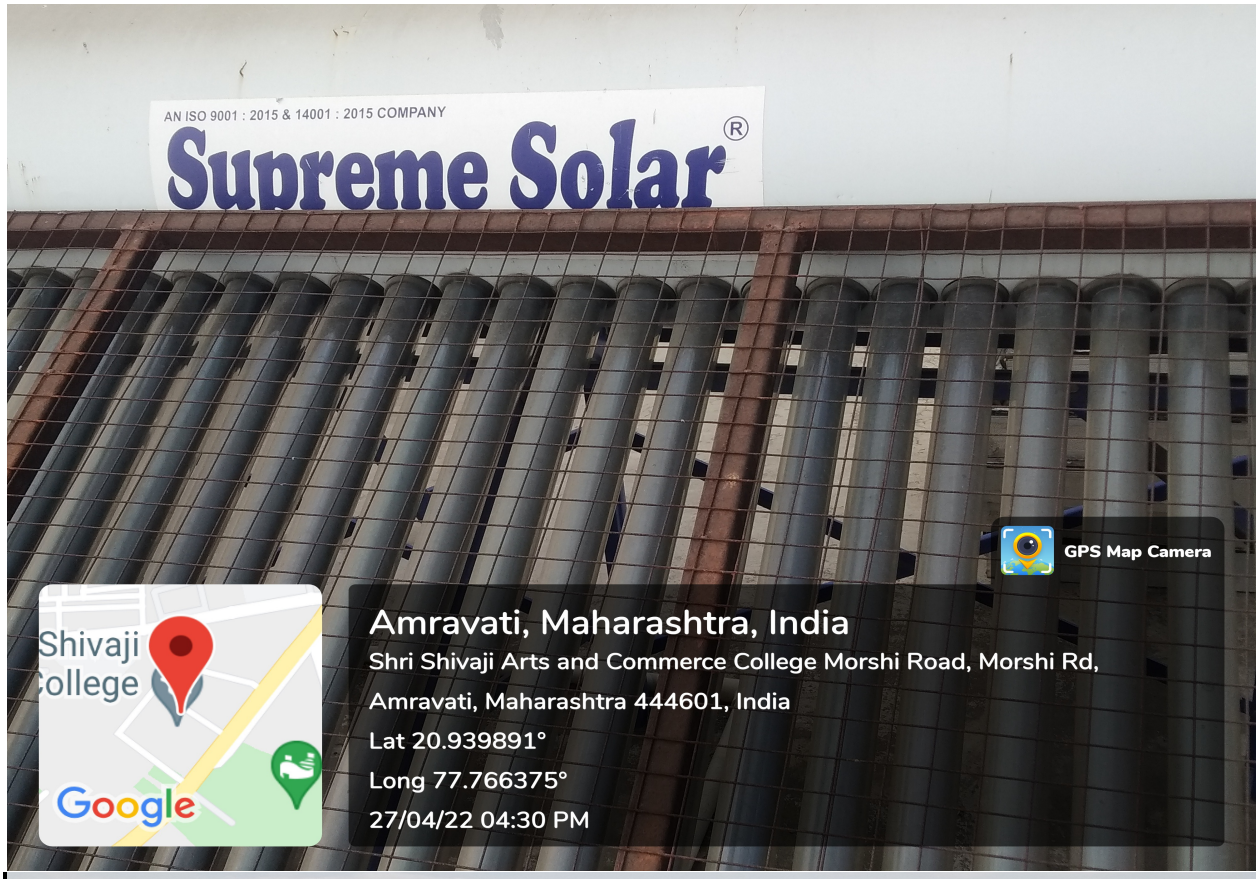
I hereby certify that the information furnished in the document is verified and correct.

Alternate sources of energy and energy conservation measures

A. Roof –top Solar Power 6KWP


JAIN SOLAR
GPS Map
Camera Lite
WQR8+5HR, Amravati, Maharashtra 444601, India
Latitude
20.9407562°
Longitude
77.76643452°
Local 12:30:00 PM
GMT 07:00:00 AM
Altitude 300.68 meters
Saturday, 24-12-2022

B. Water Solar Heater:



Management of the various types of degradable and non-degradable waste


Rain Water
Harvesting
GPS Map Camera
Amravati, Maharashtra, India
Shri Shivaji Science College Library, Opposite Neharu Stadium, Morshi Road, Morshi Rd, opposite Neharu Stadium, Amravati, Maharashtra 444601, India
Lat 20.940073°
Long 77.766125°
10/01/23 11:47 AM GMT +05:30
Google

Bio gas Plant from the Waste of the Hostel

GPS Map Camera

Amravati, Maharashtra, India

Shri Shivaji Science College Library, Opposite Neharu Stadium, Morshi Road, Morshi Rd, opposite Neharu Stadium, Amravati, Maharashtra 444601, India

Lat 20.940036°

Long 77.766197°

10/01/23 11:51 AM GMT +05:30

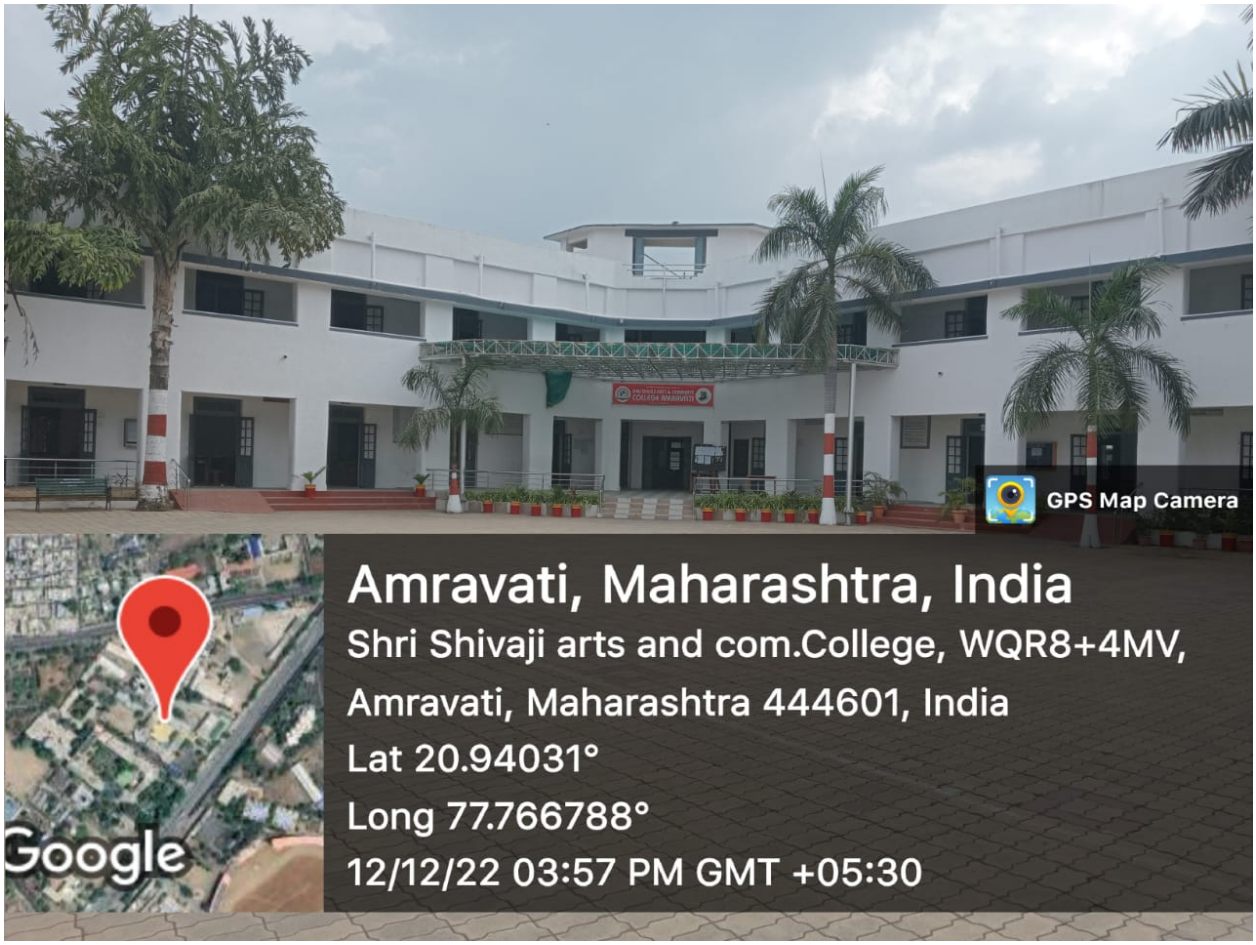
Google

Water conservation

Green campus initiatives

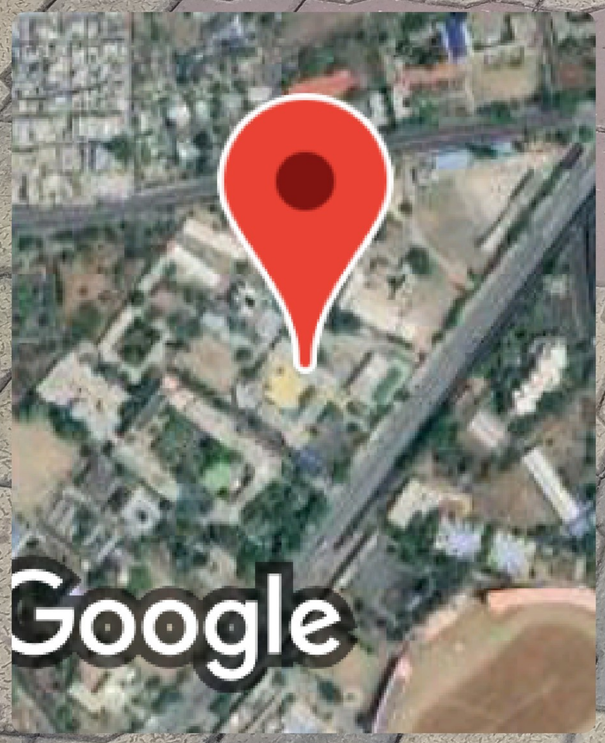
Green campus initiatives

Green campus initiatives




GPS Map Camera
Amravati, Maharashtra, India
Shri Shivaji Arts and Commerce College Morshi Road, Morshi Rd,
Amravati, Maharashtra 444601, India
Lat 20.939891°
Long 77.766375°
03/12/21 12:34 PM
Morshi Rd
Google

Disabled-friendly, barrier free environment



GPS Map Camera

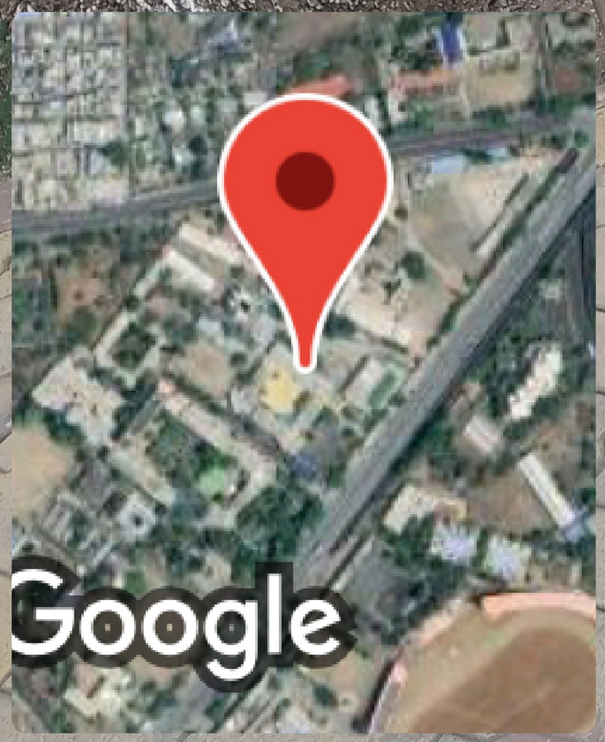
Amravati, Maharashtra, India

Shri Shivaji arts and com.College, WQR8+4MV, Amravati, Maharashtra 444601, India

Lat 20.940313°

Long 77.766869°

13/12/22 10:22 AM GMT +05:30



GPS Map Camera

Amravati, Maharashtra, India

Shri Shivaji arts and com.College, WQR8+4MV, Amravati, Maharashtra 444601, India

Lat 20.940344°

Long 77.766899°

13/12/22 10:23 AM GMT +05:30

PROVEN™
EPC Pvt. Ltd.
PROCESS ENVIRONMENT ENERGY
Enriching Environmental Values

To,
Principal SVJ College Arts,
Shivaji Nagar, Amravati

Subject: Work Completion Report for installation of 6 kWp Solar on Grid Roof Top Power plant at Principal SVJ College Arts, Shivaji Nagar, Amravati

Dear Sir

With respect to the subject cited above, we M/s Proven EPC PVT. LTD. have completed the installation of 6 kWp Solar on grid roof top power plant at Principal SVJ College Arts, Shivaji Nagar, Amravati
Consumer No.: **366470080153**

Major Components used and Installed

- Solar PV Modules 335 Wp 72 cell, Polycrystalline modules Make Novasys: 18 Nos.
- Solar Grid Tie Inverter 5 KW 3Phase Make: Sungrow : 1 No.
- Solar Module mounting structure-Fabricated as per requirement in MSHDG.
- ACJB 20 Amp type 2 SPD, earthing three phase Indicator.
- Energy meter with second level protection SPD plus RCCB proper earthing
- Suitable rating AC & DC cables of copper make: Polycab.
- Bidirectional Net Meter (Meter: L & T Make)

We request to proceed further for Net Meter and Energy Meter testing and Installation process.

For PROVEN EPC Pvt. Ltd.

Ukokate

Mr. Uday Kokate.

Head- Operations

PROVEN EPC PVT. LTD. AMRAVATI

Office: 8/17, Omkar Apartment, Lane No. 03, Shinde Nagar, Bavadhan Pune

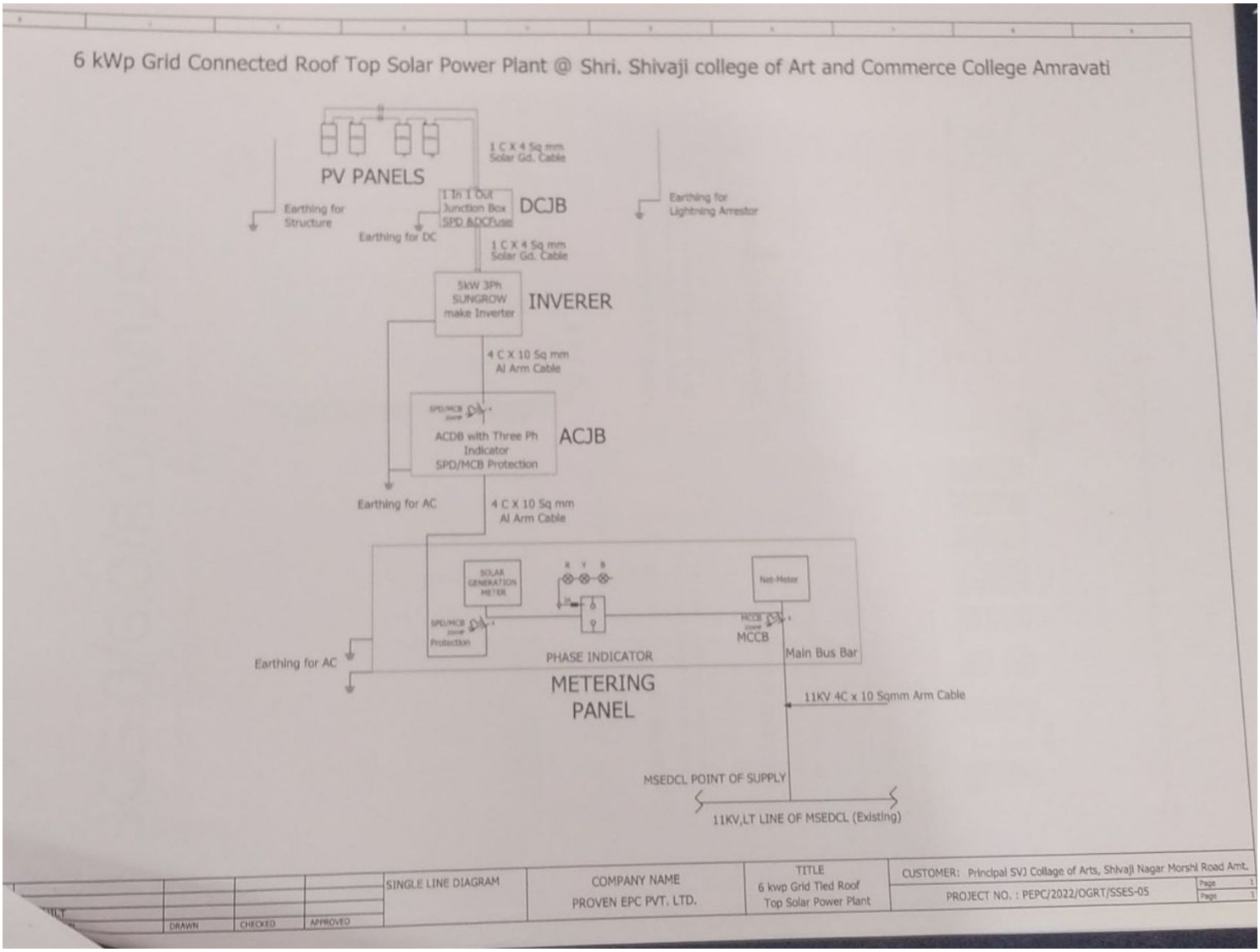
411021, Maharashtra, Contact: - 7219216500

-PROJECT DETAILS :

- Total Project Capacity : 6 kWp
- Total number of solar panels : 18 No's
- Individual solar panel capacity : 335 WP
- Individual solar panel peak voltage : 38.13 V
- Individual solar panel current : 8.79 Amp
- Solar PCU capacity : 6 KW with Inbuilt MPPT
- Solar PCU I/P Voltage and current : 270 - 800 Vdc, 9 Amp.
- Solar PCU O/P Voltage : 430 V 3 phase

BILL OF MATERIAL

Sr. No.	DESCRIPTION	MAKE	QTY	UNIT
1	335Wp, 72 cells, Polycrystalline Solar Photovoltaic modules	Nova	6000	Wp
2	Module Mounting structure Hot dip galvanized & SS hardware	Proven	6000	Wp
3	Interconnection cables 1C × 4 sq.mm solar grade UV protected.	Polycab	60	M
4	Solar module connectors MC4 type	Elcon	5	Pair
5	Junction box 1 IN 1 OUT with SPD of single MPPT	Proven	1	No.
6	Solar Grid Tie Inverter 6 KW 3 Ph	Sungrow	1	No.
7	Lightening arrestor	Copper	1	No.
8	Cable 1C × 10 sq.mm for earthing	Polycab	60	M
9	Chemical Earthing rod	Reputed	4	No.
10	6 KW panel with metering and surge protection.	Reputed	1	No.
11	Cable (Inverter to MDB) 4C× 10sq.mm copper Armored	KEI	30	M
12	Fire Extinguisher	Reputed	2	No.
13	Net Meter - 3 Ph	Secure / L&T	1	No.
14	Energy Meter	Secure / L&T	1	No.

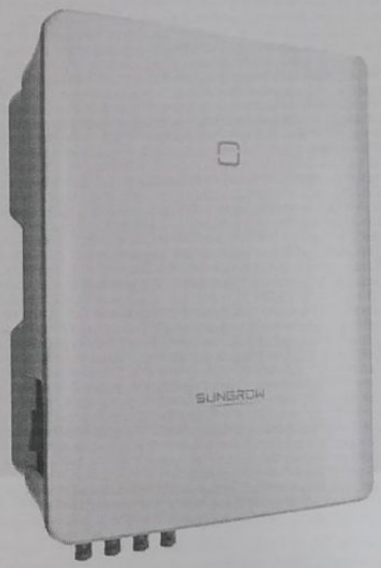

6 kWp Grid Connected Roof Top Solar Power Plant @ Shri. Shivaji college of Art and Commerce College Amravati
PV PANELS
1 C X 4 Sq mm Solar Gd. Cable
Earthing for Structure
1 In 1 Out Junction Box SPD &DCFuse
DCJB
Earthing for DC
Earthing for Lightning Arrestor
1 C X 4 Sq mm Solar Gd. Cable
5kW 3Ph SUNGROW make Inverter
INVERER
4 C X 10 Sq mm Al Arm Cable
ACDB with Three Ph Indicator SPD/MCB Protection
ACJB
Earthing for AC
4 C X 10 Sq mm Al Arm Cable
SOLAR GENERATION METER
R Y B
Net-Meter
SPD/MCB Protection
MCCB
Earthing for AC
PHASE INDICATOR
Main Bus Bar
METERING PANEL
11KV 4C x 10 Sqmm Arm Cable
MSEDCL POINT OF SUPPLY
11KV,LT LINE OF MSEDCL (Existing)
DRAWN
CHECKED
APPROVED
SINGLE LINE DIAGRAM
COMPANY NAME
PROVEN EPC PVT. LTD.
TITLE
6 kwp Grid Tied Roof Top Solar Power Plant
CUSTOMER: Principal SVJ Collage of Arts, Shivaji Nagar Morshi Road Amt.
PROJECT NO. : PEPC/2022/OGRT/SSES-05

INDIA

SG5.0/6.0/8.0/10/12RT

Multi-MPPT String Inverter for 1000 Vdc System

NEW



HIGH YIELD

- Lower startup & wider MPPT voltage
- Compatible with bifacial modules

SMART MANAGEMENT

- Optional Smart IV curve scanning
- Remote firmware updates

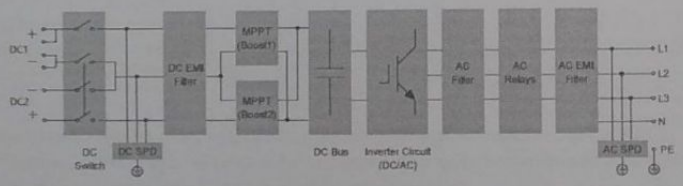
SAFE AND DURABLE

- Build-in Type II DC&AC SPD
- High anti-corrosion rating C5

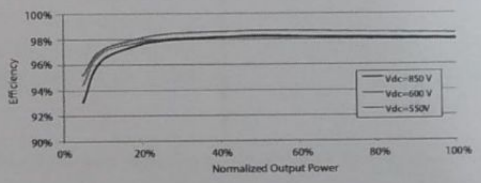
EASY AND USER FRIENDLY

- 18kg compact design
- Fast and easy commissioning via App

CIRCUIT DIAGRAM



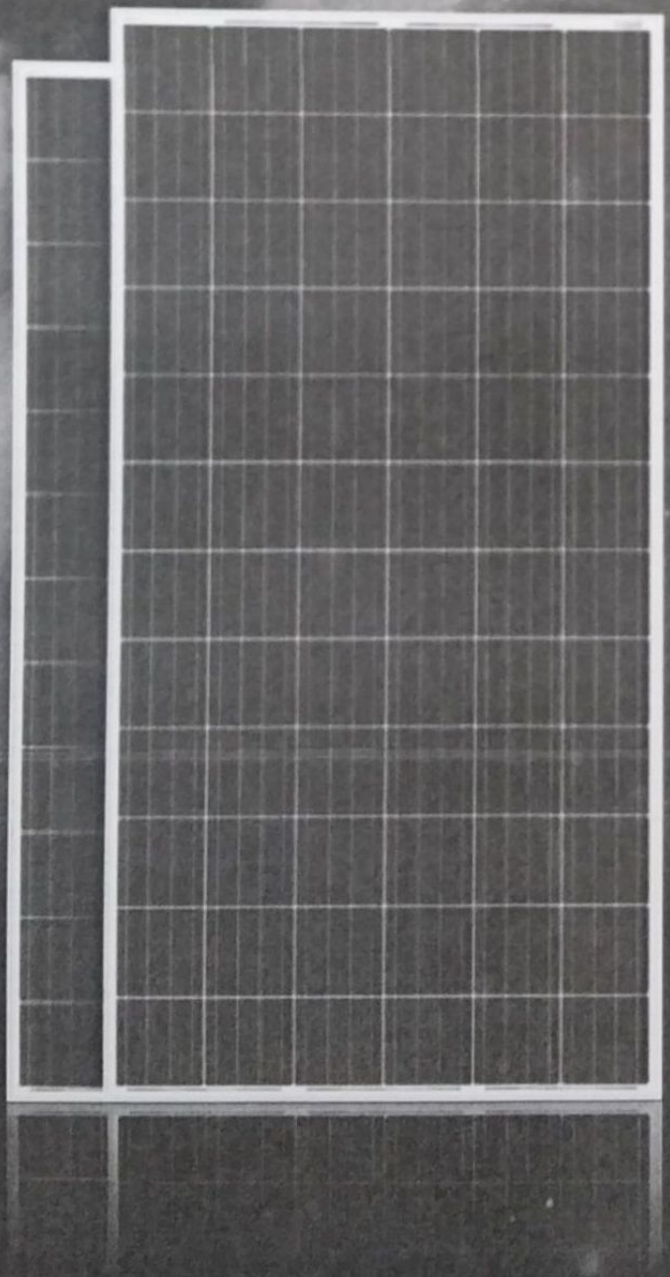
EFFICIENCY CURVE



VEGA SERIES

POLYCRYSTALLINE

SOLAR MODULES | 72 CELLS



Key Features

- High conversion efficiency
- 1500 V module
- Only positive power output tolerance
- Excellent performance in low light and low irradiance.
- 100% EL Inspected to ensure micro crack free modules.
- AR Coated high Transmission Glass
- Resistant to PID, LID and Salt-Mist/Ammonia corrosion
- Hotspot and defect free modules.
- Certified to withstand harsh environmental conditions.
- 25 years of linear output power warranty.

NOVA

Every day is a SUN day

POLY 72 CELLS MODULE

MODEL TYPE	NOVA 310P72	NOVA 315P72	NOVA 320P72	NOVA 325P72	NOVA 330P72	NOVA 335P72
Cell Type	POLY-72 CELLS	POLY-72 CELLS	POLY-72 CELLS	POLY-72 CELLS	POLY-72 CELLS	POLY-72 CELLS
MAXIMUM POWER(Pmax) Wp	**310**	**315**	**320**	**325**	**330**	**335**
MAXIMUM POWER VOLTAGE (Vmp) V	36.85	37.30	37.71	37.86	38.07	38.13
MAXIMUM POWER CURRENT(Imp) A	8.42	8.45	8.51	8.60	8.69	8.79
OPEN CIRCUIT VOLTAGE(Voc) V	45.2	45.30	45.70	45.88	46.12	46.25
SHORT CIRCUIT CURRENT(Isc) A	8.9	8.93	9.01	9.08	9.16	9.25
MODULE EFFICIENCY (>) %	15.98	16.23	16.49	16.75	17.00	17.26

Electrical Parameters At NOCT

MAXIMUM POWER(Pmax) Wp	229	233	237	241	245	248
MAXIMUM POWER VOLTAGE (Vmp) V	33.58	34.32	34.70	34.83	35.03	35.08
MAXIMUM POWER CURRENT(Imp) A	6.83	6.79	6.84	6.91	6.99	7.07
OPEN CIRCUIT VOLTAGE(Voc) V	41.59	41.68	42.05	42.21	42.43	42.55
SHORT CIRCUIT CURRENT(Isc) A	7.07	7.18	7.24	7.30	7.36	7.44

Temperature Ratings

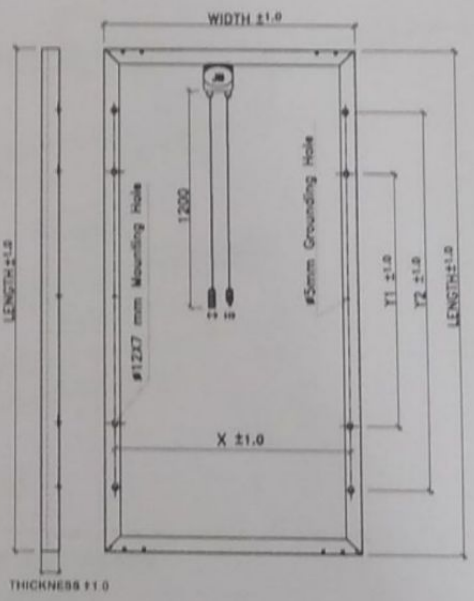
Nominal Operating Cell Temperature (NOCT)	45°C ± 2 °C
Temperature coefficient of Pmpp	-0.39%/°C
Temperature coefficient of Voc	-0.32%/°C
Temperature coefficient of Isc	+0.052%/°C

Mechanical Data

Dimensions (L x W x T) mm	1960 X 990 X 35 mm
Weight (Kgs)	23 Kg
Mounting Hole Distance (X-axis) mm	(X) - 952
Mounting Hole Distance (Y-axis) mm	(Y1) -988, (Y2) - 1481

General Data

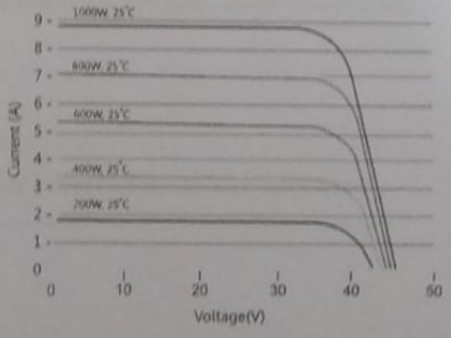
Solar Cells (mm)	157 X 157
Cell Orientation	12 X 6
Front Glass	ARC, Tempered & 3.2 mm Thickness
Frame	Anodized Aluminum Alloy
Junction Box	IP 68
Cable & Connectors	4 Sq mm, 1200 mm length with MC4 Connectors



Maximum Ratings

Operating Temperature	-40 to 85°C
Maximum System Voltage	1000 / 1500 V
Maximum Series Fuse Rating	15 A
Application Classification	A
Electrical Positive Tolerance(%)	0~3

IV Curve



Under Standard Test Condition (STC) of Irradiance of 1000 w/m2, Spectrum AM 1.5 and Cell Temperature of 25°C.

UNDER NOCT TESTING of Irradiance of 800 w/m2, Spectrum AM 1.5 and Cell Temperature of 20°C.

Note: * Refer to module installation instructions for maximum loading configurations.
* All mechanical dimension tolerance ± 1mm.

Listed specifications are subject to change without notice.

Novasys Greenergy Pvt. Ltd.
Head Office & Works Address :
Kh. No.185, Mauza: Mahalgaon, Tah. Kamptee, Nagpur- 441202, Maharashtra, India
Call: +91 07109-297601/ 02/ 03/ 04

info@novasysgreen.com | sales@novasysgreen.com
www.novasysgreen.com