POLYCHAB SOLAR
NEW INITIATIVE FOR EMPOWERING YOUR LIFE
Background

Polycab Wires Pvt. Ltd. which has made great strides in Wire and Cable Industry have now introduced a new SOLAR DIVISION.

Our efforts will be to continuously work on the reliability and unique features to harvest maximum energy from solar with following solutions:

- Solar Inverters
- Solar Cables
Solar Grid-tie Inverters

EMPOWERING YOUR LIFE
Solar Inverters

What is an Inverter?
An Inverter is a device that converts Direct Current (DC) into Alternating Current (AC). The AC output from the Inverter is fed to Load.
Polycab Solar – String Grid-tie Inverters

**PSIS - Single Phase Series**
- 1 KW, 1.5KW, 2KW, 3KW, 4KW, 5KW

**PSIT - Three Phase Series**
- 6KW, 10KW, 15KW, 20KW, 30KW, 36KW, 40KW, 50KW
Polycab Inverter - Single Phase

**PSIS-1K, PSIS-1.5K, PSIS-2K**

- Single phase output
- Over 96.7% Max Efficiency
- 50V – 400V MPPT range.
- Single MPPT with precise algorithm.
- Compact and light design for one person installation.
- IP 65 certified
- RS 485, WI-FI/GPRS interface (optional).
- Numerous Protection functions.
Topology
Polycab Inverter - Single Phase

PSIS-3K, PSIS-4K, PSIS-5K

- Single phase output
- Over 97.8% Max Efficiency
- 100V – 500V MPPT range.
- Dual MPPT with precise algorithm.
- Compact and light design for one person installation.
- IP 65 certified
- RS 485, WI-FI/GPRS interface (optional).
- Numerous Protection functions.
Topology
Polycab Inverter - Three Phase

PSIT-6K, PSIT-10K, PSIT-15K

- Three phase output.
- Over 98.2% Max Efficiency
- 200V – 800V input voltage range
- Dual MPPT design with precise MPPT algorithm
- Compact and light design for one person installation.
- IP 65 certified
- RS 485, WI-FI/GPRS interface (optional).
- Numerous Protection functions.
Topology
Polycab Inverter - Three Phase

**PSIT-20K, PSIT-25K, PSIT-30K, PSIT-36K, PSIT-40K**

- Three phase output
- Over 98.6% Max Efficiency
- 200V – 850V input voltage range
- 7” LCD colour screen
- Four MPPT design with precise MPPT algorithm
- Compact and light design
- IP 65 certified
- RS 485, WI-FI/GPRS interface (optional)
- Numerous Protection functions.
Topology
Polycab Solar 50KW & 60KW Inverters

Leading Features

- Transformer-less inverters
- Maximum efficiency over 98.8%, EU efficiency over 98.4%
- Wide MPPT voltage range with 4 MPPT design and precise MPPT algorithm
- IP 65 certified
- Lowe Harmonics Distortion, THDi<3%
- Integrated DC Switch
- 5 Years standard warranty with extended warranty option
- Onboard SPDs for DC & AC Sides
Polycab Inverters – Efficiency Curve

High Efficiency

![Efficiency Curve Graph]

- 400V
- 600V
- 800V

% of Rated Output Power
Polycab Inverters – Internal Components

Quality of the components used inside
Polycab Inverters – Key Features

- **Product Reliability**
  - IP 65 Enclosure
  - Wide Operating Temperature Range
  - Relative Humidity 0-100%
  - More than 20 yrs Design Life
  - Five years replacement warranty with extended warranty option up to 15 years
  - Protection (Over Voltage, Over Current, Under Voltage, Under Current, Surge Protection, Anti-Islanding, THD, etc.)

- **Easy to install and user friendly interface for operation**
- **20% DC Over Loading**
Polycab Inverters - Remote Monitoring System

Accessibility Details

- Wi-Fi – Stick
- GPRS – Stick
- Wi-Fi-Box
- GPRS – Box

With the help of above features Polycab String inverters can communicate remotely with our cloud based server through WiFi / GPRS and you can see all generation parameters either through Web Portal or Mobile App.
Polycab Inverters - Remote Monitoring System

MONITORING SETUP

- Inverter 1
  - RS485 IN/OUT
- Inverter 2
  - RS485 IN/OUT
- Inverter n
  - RS485 IN/OUT

Polycab Wi-Fi box
  - Router Ethernet
  - Internet

PC

GPRS monitoring

Wi-Fi monitoring

Wi-Fi box

Smart phone monitoring

Internet

Router

Web server
Polycab Inverters - Remote Monitoring System

MONITORING PAGE

POLYCAR WIRE PRIVATE LIMITED

Energy Production

- Power Now: 5.13 kW
- Today's Energy: 2.77 kWh
- Monthly Energy: 148.54 kWh
- Yearly Energy: 1.94 MWh
- Total Energy: 7.62 MWh
- Efficiency: 0.49 kWh/kW/day

Plant Information
- Plant Name: 15kWp SPV System
- Plant Address:
- Country: India
- Commissioned: Apr/06/2014
- Last Updated: Nov/20-2015
- System Size: 10kWp
- Inverter Model: polycab wires private limited

All values reflected here are only for example
Polycab Inverters - Remote Monitoring System

DISPLAY PARAMETERS

The following parameters are available for display on inverter –

- DC input voltage per MPPT.
- DC input current per MPPT.
- Grid Voltage.
- Grid Current.
- Output Power Value.
- Inverter Status.
- Grid Frequency.
- Total energy output.
- Monthly energy generation
Polycab Inverters - Remote Monitoring System

Energy Generation and Power Generation Report

Cables/Wires/ Switches/ Lighting/ Fans/ Switchgears/ Glands/ Pipes/ Solar
Polycab Inverters - Remote Monitoring System

Project Site Information
Password or Email Address changes
Complete Electrical Parameters
Plant Overview
Complete Electrical Parameters
Inverters fault messages
Email Alerts
Remotely Stop Inverter Grid
Inverters Controlling
**Polycab Inverters - Remote Monitoring System**

**Over View – Electrical Parameters**

<table>
<thead>
<tr>
<th>No.</th>
<th>Inverter S/N</th>
<th>DC Input</th>
<th>AC Output</th>
<th>Total Energy(kWh)</th>
<th>Temperature(°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Channel</td>
<td>Voltage(V)</td>
<td>Current(A)</td>
<td>Phase</td>
</tr>
<tr>
<td>1</td>
<td>000420016815204</td>
<td>DC1</td>
<td>417.1</td>
<td>8.8</td>
<td>L1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DC2</td>
<td>297.7</td>
<td>2.6</td>
<td>L2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L3</td>
<td></td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Polycab Inverters – Accessories Provided

The inverter is provided with ready to install kit which includes –

- Wall mounting bracket.
- Locking screws.
- AC side connector.
- DC side connectors.
Polycab Solar – Service Support

24 x 7 After Sales Service Support

- Three layers support covered
  - Online / Over the phone
  - Distributors services team
  - Polycab dedicated service team and through third party associates also

- Well qualified and experienced service teams

- Turnaround time within 48 hrs.

- PAN India Network through branches and associates

- Customer Care Help Line
IEC Certificates

Cables/Wires/Switches/Lighting/Fans/Switchgears/Glands/Pipes/Solar
MNRE Empanelment Certificate

[Certificate Image]

Date of Empanelment: 21-06-2016
Valid upto: 21-06-2016

M/S Polycab Wires Private Limited
(Registration No.: U31300DL1996PTC266483)

Under
Grid Connected Rooftop and Small Solar Power Plants Programme

Empannelment Number: MNRE/CP/GCRT/A/1921

Ms. Veena Sinha
Director
Authorized Signatory
Grid Connected Rooftop and Small Solar Power Plants Programme
Credential – Major Clients

Sterling & Wilson, Mumbai
Greentek India, Secundrabad
Aditya Green Energy, Latur
Imagenous Engineering, Kolkata
Goldi Green, Surat
DK Solar, Chennai

Rays Power Infra, Jaipur
Attuned Energies, Kochi
Geo Power India, Delhi
Taiyo Solar, Ahmedabad
Neulite Products, Mysore
Novel Advanced Power, Indore

Installation-base in all Regions in India
~18MW+ Grid-tie Inverters Supplied
~3000+ Units Working On-ground

Cables/Wires/Switches/Lighting/Fans/Switchgears/Glands/Pipes/Solar
Photographs - Installed Projects (Few)

500 KW Installation at Nashik (Under commissioning)
Photographs - Installed Projects (Few)

100 KW Installation in Rajasthan
Photographs - Installed Projects (Few)

100 KW Installation in Kalinga, Chhattisgarh
Photographs - Installed Projects (Few)

100 KW Installation in Vijaywada
Photographs - Installed Projects (Few)

60 KW Installation in Ongole, AP
Photographs - Installed Projects (Few)

36 KW Installation in Hyderabad
Photographs - Installed Projects (Few)

25 KW Installation in Pune
Photographs - Installed Projects (Few)

10 KW Installation in Kota Rajasthan.
Photographs - Installed Projects (Few)

4 KW installation in Surat on residence of Goldigreen Director Mr. Chetan Shah.
Photographs - Installed Projects (Few)

30 KW Installation in Amravati
Photographs - Installed Projects (Few)

6 KW Installation in Nashik
Photographs - Installed Projects (Few)

30 KW Mysore
Photographs - Installed Projects (Few)

15 KW Installation in MAHAD
Photographs - Installed Projects (Few)

6kW Installation in Vijaywada
Photographs - Installed Projects (Few)

30 KW Installation in Washim, Akola
Photographs - Installed Projects (Few)

30 KW Installation in Pune
Why Polycab?

- Polycab is India’s No.1 Cables and Wires Company
- Glorious track record of over 40 years in manufacturing and engineering excellence
- MNRE Channel Partner for Grid-connected Solar PV Rooftop System
- Polycab has been rated ‘SP 1A’ category by Fitch Group as Solar Grading
- Offers world class Cables & String Inverters under one roof
- Offering 2\textsuperscript{nd} Generation technology String Inverters with high efficiency and reliability
- Highly qualified team with more than a decade experience in the field of solar energy
- High quality design and engineering complying with Indian and International standards & codes
- Offered Performance Guarantee for solar energy generation
- Excellent dealers and distributors network across the country (over 4000 nos.)
THE POWER OF SUN.
FOR A BRIGHTER TOMORROW.

Thank You..!