



SHRI SHIVAJI EDUCATION SOCIETY, AMRAVATI'S  
**Dr. Panjabrao Alias Bhausaheb Deshmukh  
Memorial Medical College**  
Shivaji Nagar, Amravati - 444 603



**Dr. Anil T. Deshmukh**  
M.D. (Pathology)  
DEAN

**Harshvardhan P. Deshmukh**  
PRESIDENT



● Office: Tel. (0721) 2552353 ● Fax.: (0721) 2552353 ● E-mail: drpdmmc2007@rediffmail.com, drpdmmcamravati@gmail.com ● Website: <http://pdmmc.edu.in>

## Facilities for alternate source of energy and energy conservation measure

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# Alternate source of energy



**Dr. A. T. Deshmukh**  
Dean

Out No. PDMMC/Ele/2312/2016

Date: - 14/04/2016

**Electrical Department**  
**Work Order**

To,  
Jagdamba Electricals,  
3, Laddha Complex,  
Behind Chitra Talkies,  
Amravati.

Subject: Providing & Erecting 160 KVA generator for Dr. Panjabrao Deshmukh Medical College & Hospital Amravati.


Reference: 1) Quotation opens on dt 4/3/2016.  
2) Negotiation date dt 7/3/2016.

With reference to above rates negotiated with you are accepted by this office under the terms and conditions of the said work. You have to pay security deposit 5% amount will be deducted from R.A. Bills and when to be submitted by you.

The details of work as given below:

1. Name of Agency :- Jagdamba Electrical
  2. Amount of work Orders :- Rs9,47,724.00 (Excluding G.S.T.)
  3. Time limit 15 days (From the date of work order)
- G.S.T. will be paid as per government norms.

The work will be executed under the guidelines of Electrical Departments of this office.

  
Dean  
Dr. P.D.M. Medical College,  
Amravati.

Copy submitted for information:

1. The Hon'ble President, Shri Shivaji Education Society, Amravati.
2. The Hon'ble Treasurer, Shri Shivaji Education Society, Amravati.
3. The Hon'ble Secretary, Shri Shivaji Education Society, Amravati.

160 kva generator 1 work order





# Goel Power Engineers



H.O. 27, SONA UDYOG, PARSJI RANCHAYAT ROAD, ANDHERI (E), MUMBAI - 400 049. PHONE : 3245 1954, 2837 7162, FAX : (91-22) 2836 8868

## DG COMMISSIONING REPORT

Name of customer: P. D. M. C. S. No. 2572  
 Address: Near Panchawati Date: 4/7/16  
Suresh  
Amruti O.D. ID. No. \_\_\_\_\_  
 Contact Person: Mr. Dhanu Mob.: \_\_\_\_\_ Tel.: \_\_\_\_\_

Sl. No.	Description	
1	Placement of D. G. Set on foundation block / PCC flooring (uniform level)	✓
2	Earths pits - 4 Nos a) 2 nos. ear thing - 1) alternator body and 2) canopy body b) 2 nos. for alternator neutral	✓
3	Power cable 3.5 core sq. mm from alternator to Control panel and from control panel to Load panel / changeover switch.	✓
4	In case of AMF Panel mains sensing is connected. (4 core 4 mm copper armored cable)	✓
5	Engine control cable / Engine control panel to AMF Panel as per requirement.	✓
6	Battery is fully charged	✓
7	Diesel is filled in Diesel Tank (minimum 50% of tank capacity)	✓
8	Free flow of Fresh air inlet for Generators	✓
9	Flow of hot air from generator without getting re circulated with inlet fresh air	✓
10	Coolant level	✓
11	Bellow Alignment	✓
12	All power an control cables retightened	✓
13	Battery cables retightened	✓
14	Exhaust outlet and Direction Checked (With Long Bend)	✓

KVA: 160 Engine Serial No: 6FI-84041 Alternator Sr. No: S3S116E203852  
 D. G. Load Test 1620166

Sr. No.	Time	% Load	Current (Amps)			Volts	HZ	KW	Pf	Water temp	Lube Oil Pressure
			R	Y	B						
			31	26	24	415	50	15	1	016	6-57

### NOTES:

- Shut down at 10:30 AM MP: First Service due in 50 Working Hours.
- Working of Engine, Alternator, Mr. Goel Panel, Battery K. G.
- Training given to their person YES / NO Name: Mr. Dhanu
- Any abnormalities found: NO
- All Documents are given / available with customer ✓
- Name and add of Service Dealer: Dickson Engineers Pvt. Ltd.

A dedicated operator for training on operation of DG set on day to day basis.

Commissioned By: [Signature]

Customer's Signature & Stamp: [Signature]

160 kva generator 1 installation report

Shri Shivaji Education Society, Amravati's  
**Dr. Panjabrao alias Bhausahab Deshmukh**  
**Memorial Medical College**



Shivaji Nagar, Amravati - 444 603  
Phone : 0721- 2552353 / 2662323/2665545/ Fax : 0721 - 2552353  
E-mail : drpdmme2007@rediffmail.com / Web : www.pdmme.com



NABH Certi. FEH-2021-1399

**Dr. A. T. Deshmukh**  
Dean

Out No. PDMMC/Ele/ 1123 /2020

Date: - 7/12/2020

**Electrical Department**  
**Work Order**

To,  
Jagdamba Electricals,  
3, Laddha Complex,  
Behind Chitra Talkies,  
Amravati.

Subject: Providing & Erecting 160 KVA generator for Dr. Panjabrao Deshmukh Medical College & Hospital Amravati.

Reference: 1) Quotation opens on dt 13/11/2020.  
2) Negotiation date dt 20/11/2020.


With reference to above rates negotiated with you 8% below the estimated rates mentioned in schedule "B" are accepted by this office under the terms and conditions of the said work. You have to pay security deposit 5% amount will be deducted from R.A. Bills and when to be submitted by you.

**The details of work as given below:**

- |   |                                      |
|---|--------------------------------------|
| 1. Name of Agency                                   | :- Jagdamba Electricals              |
| 2. Amount of schedule B                             | :- Rs.10,30,134.00(Excluding G.S.T.) |
| 3. Accepted Rate                                    | :- 8% Below Schedule Rates           |
| 4. Amount of work Orders                            | :- Rs9,47,724.00(Excluding G.S.T.)   |
| 5. Time limit 15 days (From the date of work order) |                                      |

G.S.T. will be paid as per government norms.

The work will be executed under the guidelines of Electrical Departments of this office.

  
Dean  
Dr. P.D.M. Medical College,  
Amravati.

**Copy submitted for information:**

1. The Hon'ble President, Shri Shivaji Education Society, Amravati.
2. The Hon'ble Treasurer, Shri Shivaji Education Society, Amravati.
3. The Hon'ble Secretary, Shri Shivaji Education Society, Amravati.

160 kva generator 2 work order

**Work Done Certificate**

Date: 20/12/2020

To,  
The Dean,  
Dr. PDMMC Amt.

Subject: Regarding completion of work.

This is to certify that the installation of 160 KVA generator has been successfully installed in Dr.Panjabaro Deshmukh Medical College & Hospital, Amravati. The installation work was carried out under the guidelines of the electric department.

Details of Generator Installation:

1. Generator Capacity : 160 KVA
2. Generator Model : Mahendra
3. Installation Location : Near STP Plant in Dr.PDMMC Amt
4. Installation Date : 14/12/2020
5. Completion Date : 20/12/2020

For Jagdamba Electricals

  
Proprietor

160 kva generator 2 installation certificate



SHRI SHIVAJI EDUCATION SOCIETY, AMRAVATI'S  
(Registered Public Charitable Trust No. F/89)  
**Dr. Panjabrao Alias Bhausaheb Deshmukh**  
**Memorial Medical College**  
Shivaji Nagar, Amravati - 444 603  
(An ISO 9001 : 2000 Certified Institution)

**Dr. D. S. Jane**  
M.D. (Patho.)  
DEAN

**Adv. Arun B. Shelke**  
PRESIDENT

• Office : Tel. (0721) 2552353 Fax : (0721) 2552353  
• E-mail : drpdmmc2007@rediffmail.com Website : www.pdmmc.com

No. PDMMC/ 454 /2016

Date 26/02/2016

To,  
**M/S. Goel Power Engineers,**  
4<sup>th</sup> Floor, Paul Complex, Ajni Square,  
Wardha Road,  
Nagpur - 15  
Mob. 9370147666  
E-mail : nagpur@goelpower.in

**Subject: - Regarding the supply of 250 KVA Generator (Kirloskar Comp.).**

**Reference: -** 1) Your Quotation No. GPE/HG/14-15/343 dated 14/11/14.  
2) Your Negotiation letter dated 27/11/15.

**Sir,**

With reference to above subject, we are pleased to place the supply Order for following as per the above reference letter. Please supply the **250 KVA Generator (Kirloskar Comp.)** as per order at the earliest.

Sr. No	Item of Specification	Quantity	Total Price
1	<b>250 KVA Generator (Kirloskar Comp.)</b> Model 6SL 1500 TA G3 (Detail Specification as per Quotation)	01 Nos.	Rs.16,25,000/-

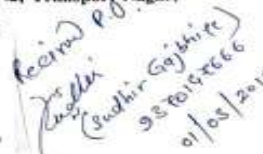
  
Dean  
Dr. P. D. M. Medical Collage,  
Amravati

**Terms & Conditions: -**

1. Price inclusive of all taxes. (i.e. Taxes, Transportation & Unloading etc.) F.O.R. Electric Dept.
2. Warranty Two Years or 5000 hours from the date of installation
3. Delivery within 3 - 4 weeks.
4. Advance Payment 30% of Rs.4,87,500/- with this order vide cheque No. dt. / /16 & Remaining 70% Payment of Rs.11,37,500/- through J.D. after Supply of Generator on site.

**Copy for Information to :-**

1. The Medical Superintendent, Dr. P.D. Hospital Amt.
2. M/s. Choudhari Light House & Generators, Plot No. 51/32, Transport Nagar, Wajgaon Road, Amravati. Mob. 9422156611
3. E/C Electric Dept. Dr. P. D. M. Medical Collage, Amravati  
In reference Letter dt.24/06/15 & 29/07/15.

  
Received P.O.  
Juglin  
(Sudhir Gajbhiye)  
9370147666  
01/05/2016

250 kva generator 3 work order



# Goel Power Controls Pvt. Ltd.

M-2, Chandralok Complex, Chanod, Vapi Silvassa Road, Vapi, Dist. Valsad, Gujarat.



## TAX / RETAIL INVOICE

DR PUNJABRAO ALIAS BHAUSAHEDESHMUKH MEMORIAL MEDICAL COLLEGE SHIVAJI NAGAR, AMRAVATI - 444603 ✓		Invoice No.: <b>191</b> Date: 04.06.2016 ✓	
KIND ATTN: MR. T S DHANDE		Order NO.	Date :
MOB. NO. 9767194176		T.R. No.	Date :
SR. NO.	PARTICULARS	QTY.	AMOUNT Rs.
1 No.	<b>250 KVA DG Set with KIRLOSKAR engine 6SL1500TAG3</b> coupled with <b>KIRLOSKAR GREEN</b> alternator with <b>STD PANEL</b> With , fuel tank, battery, first fill of oil along with sound-proof Acoustic Enclosure and other standard accessories	1 NO.	-15,14,285.00 ✓
	<b>CST@ : @ 5%</b>		75,715.00 ✓
	<b>Total Amount Payable:</b> (Rs.FIFTEEN LACK NINETY THOUSAND ONLY) ✓		<b>15,90,000.00</b> ✓
	Dispatch address: <b>SAME AS ABOVE</b>		
	PAN NO AAACG 4619 G CST NO.24750702591w.e.f.29.09.2007 VAT NO.24250702591w.e.f.29.09.2007		

### PAYMENT TERMS:

1. Our responsibility ceases immediately the goods leave our premises.
2. No claim will be entertained unless notified in writing within 6 days from the date of this bill.
3. All payments to be made by payees A/c. cheque of
4. Interest at 24% will be charged on bills not paid within 15 days
5. All our transactions and bills are subject to Mumbai jurisdiction only.

Regd. Off.: 27, Sona Udyog, Parsi Panchayat Road, Andheri (E), Mumbai 400 069 Tel: 28343511 / 28377162

FOR GOEL POWER CONTROLS PVT.LTD.

*Amr*  
*Foley*

H.O.: 27, Sona Udyog, Parsi Panchayat Road, Andheri (East), Mumbai - 400 069.  
Ph. Off. : 2834 3511, 28377162, 28361461/62, E-mail: goelmumbai@goelpower.in



250 kva generator 3 tax invoice



# Goel Power Engineers



H.O. 27, SONA UDYOG, PARS PANCHAYAT ROAD, ANDHERI (E), MUMBAI - 400 069. PHONE : 3245 1954, 2837 7162, FAX : (91-22) 2836 8868

## DG COMMISSIONING REPORT

Name of customer: Dr. panchabhai Deshmukh Hospital S. No. 2565  
 Address: Near Panchawati square Date 15/6/16  
Amravati O.D. ID. No. \_\_\_\_\_

Contact Person: Mr. dhonde Mob: 9767194176 Tel.: \_\_\_\_\_

Sl. No.	Description	
1	Placement of D. G. Set on foundation block / PCC flooring (uniform level)	✓
2	Earths pits - 4 Nos a) 2 nos. ear thing - 1) alternator body and 2) canopy body b) 2 nos. for alternator neutral	✓
3	Power cable 3.5 core sq. mm from alternator to Control panel and from control panel to Load panel / changeover switch.	✓
4	In case of AMF Panel mains sensing is connected. (4 core 4 mm copper armored cable)	✓
5	Engine control cable / Engine control panel to AMF Panel as per requirement.	✓
6	Battery is fully charged	✓
7	Diesel is filled in Diesel Tank (minimum 50% of tank capacity)	✓
8	Free flow of Fresh air inlet for Generators	✓
9	Flow of hot air from generator without getting re circulated with inlet fresh air	✓
10	Coolant level	✓
11	Bellow Alignment	✓
12	All power an control cables retightened	✓
13	Battery cables retightened	✓
14	Exhaust outlet and Direction Checked (With Long Bend)	✓

KVA: 250 Engine Serial No: F6.8736/1620122 Alternator Sr. No. GCS3L116E204106

D. G. Load Test

Sr. No.	Time	% Load	Current (Amps)			Volts	HZ	KW	PI	Water temp	Lube Oil Pressure
			R	Y	B						
			38	26	13	420	50	18.1	1	72	5.5

- NOTES: plz. balance the load equally per phase.
- Shut down at Commissioning IMP: First Service due in 50 Working Hours.
  - Working of Engine: Kir Alternator: Kir Panel: Goel Battery: Kirloskar
  - Training given to their person YES / NO Name: Mr. dhonde
  - Any abnormalities found: -NO-
  - All Documents are given / available with customer ✓
  - Name and add of Service Dealer: Dickson Eng. Pvt. Ltd.

A dedicated operator for training on operation of DG set on day to day basis.

Commissioned By: [Signature]

Customer's Signature & Stamp: [Signature]  
 Dr. P.D.M. Medical College  
 AMRAVATI

[Signature]  
 Dickson E. Pvt. Ltd.

250 kva generator 3 installation certificate.



NABH Certi. PEH-2021-1399

**Dr. A. T. Deshmukh**  
Dean

Out No. PDMMC/Ele/ 593A /2022

Date: - 4/8/2022

**Electrical Department**  
**Work Order**

To,  
Jagdamba Electricals,  
3, Laddha Complex,  
Behind Chitra Talkies,  
Amravati.

Subject: Providing & Erecting 250KVA generator for Dr. Panjabrao Deshmukh Medical College & Hospital Amravati.

Reference: 1) Quotation opens on dt 13/07/2022.  
2) Negotiation date dt 13/7/2022.

With reference to above rates negotiated with you 8% below the estimated rates mentioned in schedule "B" are accepted by this office under the terms and conditions of the said work. You have to pay security deposit 5% amount will be deducted from R.A. Bills and when to be submitted by you.

**The details of work as given below:**

- |   |  |
|---|--|
| 1. Name of Agency                                   | :- Jagdamba Electricals                |
| 2. Amount of schedule B                             | :- Rs. 24,04,616.00 (Excluding G.S.T.) |
| 3. Accepted Rate                                    | :- 8% Below Schedule Rates             |
| 4. Amount of work Orders                            | :- Rs. 22,12,247.00 (Excluding G.S.T.) |
| 5. Time limit 15 days (From the date of work order) |  |

G.S.T. will be paid as per government norms.

The work will be executed under the guidelines of Electrical Departments of this office.

  
Dean  
Dr. P.D.M. Medical College,  
Amravati.

Copy submitted for information:

1. The Hon'ble President, Shri Shivaji Education Society, Amravati.
2. The Hon'ble Treasurer, Shri Shivaji Education Society, Amravati.
3. The Hon'ble Secretary, Shri Shivaji Education Society, Amravati.

250 kva generator 4 work order

**Work Done Certificate**

Date: 23/8/2022


To,  
The Dean,  
Dr. PDMMC Amt.

Subject: Regarding completion of work.

This is to certify that the installation of 250 KVA generator has been successfully installed in Dr.Panjabaro Deshmukh Medical College & Hospital, Amravati. The installation work was carried out under the guidelines of the electric department.

**Details of Generator Installation:**

1. Generator Capacity : 250 KVA
2. Generator Model : Mahendra
3. Installation Location : Near STP Plant in Dr.PDMMC Amt
4. Installation Date : 20/8/2022
5. Completion Date : 23/8/2022

For Jagdamba  
  
Proprietor

250 kva generator 4 installation certificate

# Energy conservation

## Reducing the carbon footprint

Dr PDMMC has 430 KWh solar plant with which we have average 44,380 units of electricity generation per month which significantly reduces our energy consumption and dependence on MSEB. This much energy production from renewable source like solar power plant have resulted in significant reduction in CO<sub>2</sub> emission up to 480 tons per year. Institute has done energy audit to improve its carbon footprint. Auditor's recommendations are implemented in phase wise manner. According to the recommendation, we are shifting to energy-efficient LED bulb and other electronic and electrical equipment. Guidelines as given by auditing agency for efficient use of different equipment are followed to reduce transmission loss. With this total change made in the institute, we are able to save around 1,74,159 KWh of electricity per year which again convert into reduction in co<sub>2</sub> emission up to 46.96 tons per year.





PDMMC Electricity Bill Analysis Year 2022

Month	Solar Generation	MSEDCL Import	Export To MSEDCL	Net Billed Units	Solar Units Consumed	Total Monthly	Total Bill	MSEB Bill	Solar Bill	Net Saving	CO <sub>2</sub> Emissions Reduced
	In Units (KWh)	In Units (KWh)	In Units (KWh)	In Units (KWh)	In Units (KWh)	In Units (KWh)	In Rs.	In Rs.	In Rs.	In Rs.	In Ton
Jan-22	47258	54748	16275	38473	30983	85731	1290252	579019	193285	517948	47.258
Feb-22	51821	51585	17008	34577	17244	68829	1030370	517618	211948	300805	51.821
Mar-22	54972	92705	5090	87615	49882	142587	1913518	1175793	224835	512889	54.972
Apr-22	50543	131093	295	130798	50248	381341	2310284	1666367	206721	437197	50.543
May-22	52644	154438	155	154283	52489	206927	2690051	2005679	215314	469058	52.644
Jun-22	43056	140133	298	139835	42758	182891	2820179	2156256	176099	487824	43.056
Jul-22	26034	117213	594	116619	25440	142653	2203989	1801764	106479	295746	26.034
Aug-22	35005	109638	1718	107920	33287	142925	2191040	1654414	143170	393456	35.005
Sep-22	36704	106348	1370	104978	35334	141682	2180486	1615611	150119	414755	36.704
Oct-22	43655	89318	5553	83765	38102	127420	2060381	1354480	178549	527352	43.655
Nov-22	45429	60010	10518	49492	34911	94921	1647829	859181	185805	602843	45.429
Dec-22				0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>487121</b>									<b>4959873</b>	<b>487.121</b>

Solar Plant Capacity: 435 kWh

Total Generation for the Year 2022:- 487,121 KWh

Approximate units per kW per day: 3.39 kWh

Results: CO<sub>2</sub> emissions reduced: 487.121 Tons per year Assumptions Reduction of CO<sub>2</sub> emission per 1 kWh of solar power = 1 kg of CO<sub>2</sub>

PROVEN EPC Pvt. Ltd.

Head Office: 8/17, Omkar Apartment, Lane No.03, Bavdhan  
Pune-411021, Maharashtra, India Contact: +91 7219216500  
Email: info@proven.com | Web: www.proven.com

Total generation for year 2022 = 487,121 KWh

CO<sub>2</sub> emission reduction = 487.121

Chart showing month wise solar power generation and reduction in CO<sub>2</sub> emission

SN	Energy Conservation Opportunities (ECOs)	Annual Electricity & fuel savings (kWh & kL)	Annual CO <sub>2</sub> emission saved
1	Supplying combined load of transformers TF-1 & TF2 with one transformer TF-2 for loss reduction and keeping TF1 out of service.	35043.00	7.44tCO <sub>2</sub> e
2	Supplying load of DG-1 & DG-2 from only DG-2 and keeping DG1 out of service. DG3 will keep catering to its existing load.	1170.00	0.25tCO <sub>2</sub> e
3	Air storage tank of 150-liter capacity shall be connected to the existing compressor.	2628.00	0.56tCO <sub>2</sub> e
4	Installing 100 kVAR APFC panel to maintain PF unity and avail maximum PF incentives in electricity bill per month.	2133.00	4.53tCO <sub>2</sub> e
5	Replacing 1095 Nos. of fluorescent tubes (FTL T-12) of 40W with 20W LED tubes.	108583.2	23.05tCO <sub>2</sub> e
6	Replacing 200 kVA non-Star rated conventional transformer with a BEE 3-Star energy efficient transformer to reduce the losses significantly.	17,885.73	3.71tCO <sub>2</sub> e
7	Replacing all 46 Nos. of streetlights of 200W with 100W LED streetlights.	6716.00	1.42tCO <sub>2</sub> e
<b>Total</b>		<b>1,74,159/-</b>	<b>40.96 tCO<sub>2</sub>e</b>

Conclusion: Annual Carbon Emission foot print saved after implementation of Audit report Carbon Emission saved **40.96 tCO<sub>2</sub>e**.



This chart is showing major upgradation made in electrical system for energy conservation and decreasing transmission losses. Wherever required load adjustment is done to increase instrument's efficiency. With this changes we are able to decrease electricity consumption and cutting the CO<sub>2</sub> emission up to 40.96 ton per year.