(Subject to Anmednagar Jurisdiction only)

### Dr. Vithalrao Vikhe Patil Foundation

(Vadgaon Gupta), Vilad Ghat, P.O :- M.I.D.C., Ahmednagar-414 111 Ph. No. (0241) 2778042/2779895 Fax. 2779732

### **PURCHASE ORDER**

To. M/s. Aditya Electricals X-10/3, M.I.D.C. Opp. Crompton Greaves Ahmednagar Mob. 9850078884	Ref:- DVVPFA/ PS/COE-elect. maint./2020-21/20/ Date :- 25 / 68 / 2020 Delivery Period :- Immediate
Our Enquiry No.:-	Date:-
P.C.M. :	Date:
Your Invoice No. : - 158	Date:- 26 / 07 / 2020

Dear Sir,

supply the following material as per terms & conditions mentioned overleaf.

Sr. No.	Description of Material	Quantity	Unit	Rate Rs. Ps.	Per
1.	Supply of Ceiling Fan 1200mm	64	Nos.	1059.33	No.
2.	20W LED Tube Set	60	Nos.	220.00	No.
3.	Tube Bar 36W	60	Nos.	38.14	No.
4.	EBN 136D Electronic Choke CG	60	Nos.	93.25	No.
5.	Exhaust Fan Drift Air 12" CG	07	Nos.	1144.7	No.

1. The above quoted prices are F.O.R.:- Ex-shop

2. Taxes

:- GST extra as applicable.

3. Delivery

4. Payment

: - Against delivery.

5. Discount

6. Warranty

7. Please sign. The enclosed acceptance No. ---against this order & return the same to us immediately

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how ed use

Dr. Vithalrao Vikhe Patil Foundation's College of Engineering,

C.A (Fdn.)

Vilad Ghat, Ahmednagar

Technical Dy. Director

Secretary Genera

O/c. Purchase / Store / elect. maint. dept./Account /Account Foundation/Meeting Section

Dr. Vithalrao Vikhe Patil College of Engineering Ahmednagar

(Subject to Ahmednagar Jurisdiction only)

### Dr. Vithalrao Vikhe Patil Foundation

(Vadgaon Gupta), Vilad Ghat, P.O.:- M.I.D.C., Ahmednaga -- 414111 Ph. No. (0241) 2778042/2779895 Fax. 2779782

### PURCHASE ORDER

To,  M/s. International Electricals  S. No. 61/2A+1A, Plot No. 2,  Near Venu Weight Bridge,		PFA/ PS/COE- Elect. maint./2021-22/ ] 2   12   1   1   2021
Nagar-Manmad road, Ahmednagar-414111. 0241-2344454, 2353954	Delivery Pe	eriod :- Immediate
Our Enquiry No.:- DVVPFA/ PS/COE- Elect.	Date:-	20 /10 / 2021
P.C.M.	Date:-	
Your Quotation No.: - CQ 97	Date	29 / 10 / 2021

Dear Sir,

Please arrange to supply the following material as per terms & conditions mentioned overleaf. Rate Sr. Quantity Unit **Description of Material** Ps. Rs. No. Supply of: Bundle 1508.00 Bundle 10 1.5 sqmm. PVC Copper Wire-1 core, colour -11.

RYBNG, 100 MTR. Coil, make: polycab Bundle 2428 00 2.5sqmm PVC Copper Wire,1 -core, colour Bundle 10 2. RYBNG,100 mtr. Coil, make: polycab Pkt. 120.00 Pkt. 04 Screw 75/8 SWG 3. Pkt. 55.00 Pkt 10 Screw 35/8 SWG 4. Pkt. 300.00 01 Pkt. Screw 25/10 SWG coachscrew black 5 280.00 Pkt Pkt. 02 Screw 20/10 SWG coach screw black 6 Pkt. Pkt. 08.00 50 Rawal plug grip 7 No. 39.75 PVC Gang Box (2 switch +2 socket) heavy type 120 Nos. 8 No. 57.00 PVC Gang Box (3 switch +3 socket) heavy type Nos. 50 9 No. 1150.00 Nos. 80 12 MOD SPN D.B. (Horizontal) Double door 10 make: L&T/Schneider No. 950.00 8 MOD SPN D.B. (Horizontal) Double door make: Nos. 02 11 1 &T/ Schneider No. 1885.00 FP. 40A, 30MARCCB Make: L&T/ Schneider Nos. 04 12 No. Nos. 1119.00 04 FP, 40A, MCB (Make: L&T/ Schneider 13 No. 1220.00 Nos. 04 FP 63A, MCB (Make: L&T/ Schneider 14 No. Nos. 108.00 40 SP MCB- 16 Amp make L&T/ Schneider 15 No. 108.00 Nos. 30 SP MCB-20A (Make L&T/ Schneider 16 108.00 No. 25 Nos. SP MCB-25A (Make: L&T/ Schneider 17 51.50 Mtr. 100 Mtr. 1.5 sgmm. PVC Flexible Cable 3-core, 18 Make Polycab No. 56.50 Nos. 10 16A, 3-Pin plug (Top) Make: Anchor 19 No. 124.00 Nos. 10 16A SS Combined with surface box, 20 Make: Anchor No. 60.00 05 Nos. Mini Hacksaw Frame(SS) 21 Pkt. 40.00 Pkt. 03 Mini Hacksaw Blade 22 Mtr. 118.00 Mtr. 100 10sqmm XLPE, 4-Core, Al, Arm cable, 23 Make: Polycab No. 06.20 Nos. 20

Al. Lugs -10 sgmm (pin type)

24

Dr. Vithalrao Vikhe Patil College of Engineering

Ahmednagar

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Per

Sr.	Description of Material	Quantity	Unit	Rate Rs. Ps.	Per
25	Al. Lugs -16 sqmm (pin type)	25	Nos.	7.76	No.
26	Copper Lugs- 1.5 sqmm (pin type)	50	Nos.	1.58	No.
. 27	Copper Lugs- 2.5 sqmm (pin type)	100	Nos.	1.50	No.
28	Copper Lugs- 4.00 sqmm (pin type)	40	Nos.	3.85	No.
29	Crimping plier (size: 1.5 to 10sqmm	01	Nos.	650.00	No.
30	M.S. Saddles-19mm	02	Box	150.00	Box
31	M.S. Saddles-25mm	01	Box	170.00	Box
32	Al. Lugs-16sqmm ring type	15	Nos.	3.05	No.
33	Al. Lugs 25sqmm. (ring type)	: 10	Nos.	4.05	No.
34	20w LED Tube Light Set	50	Set	174.00	Set
35	2.5 MFD Condensor (Fcos)	40	Nos.	20.00	No.
36	36w Tube Light Bat (CG)	60	Nos.	36.40	No.
37	36w Electronic Choke	60	Nos.	109.00	No.
38	36w PL Tube Side Holder (4- pin)	50	Nos.	25.00	No.
39	Watter Proof Rubber	20	Nos.	15.00	No.
40	Drill Bit 5mm. Hammer Type	10	Nos.	55.00	No
41	Drill Bit Length 12"& size-14mm Hammer Type	01	No.	185.00	No
42	PVC MCB Box (4-pole type)	05	Nos.	55.00	No
43	PVC MCB Box (single pole)	10	Nos.	20.00	No

Please send above Material & bill directly to The Principal, Note:-Dr. Vithalrao Vikhe Patil Foundation's College of Engineering, Vilad Ghat, Ahmednagar

The above quoted prices are F.O.R.:- Ex- shop, Ahmednagar.

Taxes 2.

:- GST extra

3. Delivery

Against delivery. 4. Payment

5. Discount

6. Warranty

Please sign. The enclosed acceptance No. ---against this order & return the same to us immediately

Purchase Officer

rincipal

Dy. Director Technical

Technical

O/c. Purchase / Account //Account Foundation/Meeting Section

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PRINCIPAL Dr. Vithalrao Vikhe Patil College of Engineering Ahmednagar

Secretary General



(A Govt. of Maharashtra undertaking) CIN: U40109MH2005SGC153645

Phone no:02412353645 Fax no: 0241 2344585 Email:seahmednagar@gmail.com Website: www.mahadiscom.in



Office of the, Superintending Engineer, O&M Circle, Ahmednagar. Old Power House, New Admn.Bldg, Station Road, Ahmednagar - 414 001.

No.SE/ANRC/TECH/SOLAR/AMR/

Date:

NOV 2018

M/s. Ex Officer Engineering College Vilad Ghat, Ahmednagar-414001,

Tal: Dist: Ahmednagar. Con. No. 164879000851

Sub:- Permission for connectivity/ installation of roof-top solar PV system of 300 KW for net metering in r/o existing HT consumer M/s. Ex Officer Engineering CollegeVilad Ghat, Ahmednagar-414001, Dist. Ahmednagar Consumer No.164879000851

Ref:- 01) Your application dt. 13209617/26.09.2018.

02) T.S. vide SE/ANRC/T/HT/1.3% Normative Charges/ 11 / Dtd. 2 6-11-18

03) Load sanction No. 11 Dtd. 2-6-11-14

In view of the Government of Maharashtra notification for new Renewable Policy dated 20.07.2015 and methodology for its implementation on dated 09.09.2015, MERC (Net Metering for Roof-top So ar Photo Voltaic Systems) regulations, 2015 on 10th September, 2015 and circular 258 by MSEDCL for installation of Solar PV systems on Rooftop or any mounting structure by the existing/new consumers of MSECCL in their premises for captive use so as to align the provisions as per the Regulations, 2014.

The undersigned is pleased to permit for connectivity/ installation of roof-top solar PV system of 300 KW for net metering in r/o existing HT consumer M/s. Ex Officer Engineering CollegeVilad Ghat, Ahmednagar-414001, Dist. Ahmednagar Consumer No.164879000851 at the address as mentioned above with the terms and conditions as below.

Particulars	Connected Load KW	Maximum Demand KVA	Purpose	
Existing sanctioned Load	450	360		
roof-top solar PV system	30	0	ROOF TOP SOLAR PV	

### This sanction is subject to the following conditions.

### 01) VALIDITY:

The validity of this load sanction is for the period of six month from the date of issue. You will ensure to make necessary payments within one month, however any upward revision in charges mentioned in this letter are payable by you and further ensure that you are ready for connectivity/ installation of roof-top solar PV system within the

The Company reserves the right to revalidate the power sanction subject to the conditions prevailing at the time of

As you have given consent for executing the works involved for releasing the power supply by paying 1.3 %supervision charges on the estimated cost to MSEDCL, hence permission is hereby granted to execute the works by engaging the Licensed Electrical Contractor (LEC) subject to the terms and conditions which are enclosed with the load sanction order.

In view of the above, you are requested to pay the follow

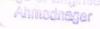
Sr. No. Particulars		Amount in Rs.	
a	Fixed Service connection charges	0	
b	1.3% charges on estimated cost	NIL	
С	Security Deposit	NIL	
d	Testing fee of T/F	Will be intimated by testing	
	TOTAL Rs. :	NTI	

The Xerox copy of payment made may be submitted to this office and the concerned division office under a covering letter and acknowledgement of which may be obtained .

03) Metering: as your load is supplied at 11 kV Volts with HT Connection, Net meter will be installed on HT side of Transformer as per MSEDCL rules regulation 7.

C.T. RATIO: -25/5 A, single core, single ratio, Accuracy class: 0.5S, VA burden 10 VA. PT RATIO: - 11KV/ $\sqrt{3}$ /110V/ $\sqrt{3}$ , single core, single ratio, Accuracy class: 0.5, VA burden 50 VA. Dr. Vithalrao Vikha

College of Engineering



College

and aso

The Eligible Consumer agrees, that he shall install, prior to connection of the Roof-top Solar PV System to the Network of the Licensee, an isolation device (both automatic and in built within inverter and external manual relays); and the Licensee shall have access to it if required for the repair and maintenance of the Distribution Network.

The Eligible Consumer shall furnish all relevant data, such as voltage, frequency, circuit breaker, isolator position in his System, as and when required by the Licensee.

#### 19) Safety:

The equipment connected to the Licensee's Distribution System shall be compliant with relevant International (IEEE/IEC) or Indian Standards (BIS), as the case may be, and the installation of electrical equipment shall comply with the requirements specified by the Central Electricity Authority regarding safety and electricity supply.

The design, installation, maintenance and operation of the Roof-top Solar PV System shall be undertaken in a manner conducive to the safety of the Roof-top Solar PV System as well as the Licensee's Network.

If, at any time, the Licensee determines that the Eligible Consumer's Roof-top Solar PV System is causing or may cause damage to and/or results in the Licensee's other consumers or its assets, the Eligible Consumer shall disconnect the Roof-top Solar PV System from the distribution Network upon direction from the Licensee, and shall undertake corrective measures at his own expense prior to re-connection.

The Licensee shall not be responsible for any accident resulting in injury to human beings or animals or damage to property that may occur due to back- feeding from the Roof-top Solar PV System when the grid supply is off.

The Licensee may disconnect the installation at any time in the event of such exigencies to prevent such accident.

### 20) Other Clearances and Approvals:

The Eligible Consumer shall obtain any statutory approvals and clearances that may be required, such as from the Electrical Inspector or the municipal or other authorities, before connecting the Roof-top Solar PV System to the distribution Network.

### 21) Period of Agreement, and Termination:

This Agreement shall be for a period for 20 years, but may be terminated prematurely by

- (a) By mutual consent; or
- (b) By the Eligible Consumer, by giving 30 days' notice to the Licensee;
- (c) By the Licensee, by giving 30 days' notice, if the Eligible Consumer breaches any terms of this Agreement or the provisions of the Net Metering Regulations and does not remedy such breach within 30 days, or such other reasonable period as may be provided, of receiving notice of such breach, or for any other valid reason communicated by the Licensee in writing.

### 22) Access and Disconnection:

The Eligible Consumer shall provide access to the Licensee to the metering equipment and disconnecting devices of Roof-top Solar PV System, both automatic and manual, by the Eligible Consumer

If, in an emergent or outage situation, the Licensee cannot access the disconnecting devices of the Roof-top Solar PV System, both automatic and manual, it may disconnect power supply to the premises.

Upon termination of this Agreement under Clause 5, the Eligible Consumer shall d sconnect the Roof-top Solar PV System forthwith from the Network of the Licensee.

### 23) Liabilities:

The Parties shall indemnify each other for damages or adverse effects of either Party's negligence or misconduct during the installation of the Roof-top Solar PV System, connectivity with the distribution Network and operation of the System.

The Parties shall not be liable to each other for any loss of profits or revenues, business interruption losses, loss of contract or goodwill, or for indirect, consequential, incidental or special damages including, but not limited to, punitive or exemplary damages, whether any of these liabilities, losses or damages arise in contract, or otherwise.

### 24) Commercial Settlement:

The commercial settlements under this Agreement shall be in accordance with the Net Metering Regulations. The Licensee shall not be liable to compensate the Eligible Consumer if his Rooftop Solar PV System is unable to inject surplus power generated into the Licensee's Network on account of failure of power supply in the orld/Network.

- 25) The existing metering System, if not in accordance with the Net Metering Regulations, shall be replaced by a bi-directional meter (whole current/CT operated) or a pair of meters (as per the definition of 'Net Meter' in the Regulations), and a separate generation meter may be provided to measure Solar power generation. The bi-directional meter (whole current/CT operated) or pair of meters shall be installed at the inter-connection point to the Licensee's Network for recording export and import of energy. The uni-directional and bi-directional or pair of meters shall be fixed in separate meter boxes in the same proximity.
- 26) The Licensee shall issue monthly electricity bill for the net metered energy or the scheduled date of meter reading. If the exported energy exceeds the imported energy, the Licensee shall show the net energy exported as credited Units of electricity as specified in the Net Metering Regulations, 2015. If the exported energy is less than the imported energy, the Eligible Consumer shall pay the Distribution Licensee for the net energy imported at the prevailing tariff approved by the Commission for the consumer category to which he belongs.

27) Connection Costs:

The Eligible Consumer shall bear all costs related to the setting up of the Roof-top Solar PV System, excluding Net Metering Arrangement costs.

PRINCIPAL
Dr. Vithalrao Vikhe Patli
College of Engineering

Ahmednagar





प्रादेशिक विद्युत निरीक्षण मंडळ, उद्योग, ऊर्जा व कामगार विभाग शिवदास ट्रेड सेंटर, प्लॉट नं.११,हॉल नं.४,पहिला मजला, त्रिमुर्ती चौक,जवाहर कॉलनी. हेडगेवार हॉस्पीटल रोड, औरंगाबाद-४३१००५

द्रध्वनी- ०२४०-२९७०४३२ जा.क्र.अअनिऔ/सअअ/ २८६ /२०१८ दिनांक:-98/०६/२०१८ E-mail- eleinsabad.se@gmail.com seaurangabad.nrg-mh@gov.in

M/s.Dr.Vithalrao Vikhe Patil Collage of Engineering. Vadgaon Gupta, Vilad Ghat, Post MIDC Ahmednagar Tq. & Dist.Ahmedangar.

> विषय:- Plan Approval of 300 KWp Net Metering Solar PV Powe- Project of M/s.Dr.Vithalrao Vikhe Patil Collage of Engineering, Vadgaon Gupta, Vilad Ghat, Post MIDC Ahmednagar, Tq. & Dist. Ahmedangar

संदर्भ :- 1) Your Letter 1595, Date .-04.06.2018

महोदय.

आपण सादर केलेल्या नकाशांना खालील अटीवर मंजुरी देण्यात येत आहे.

- विज संचमांडणीचे संपुर्ण काम केलेल्या नकाशानुसार अनुज्ञाप्तीधारक विज टेकेदाराकडुनच करवुन घ्यावे.
- विद्युत ठेकेदाराने विज संचमांडणीचे काम सुरु केल्याची सुचना या कार्यालयास दिल्याची खात्री करुन घ्यावी.
- मंजूर नकाशाप्रमाणे काम पुर्ण करुन निरीक्षणाकरीता ऑनलाईन पध्दतीने कॉलसोवत खालील प्रमाणे कागदपत्रे सादर करण्यात यावे
  - विजसंच मांडणी केल्यावावत व चाचण्या घेतल्यावावतचा उपरोक्त विज ठेकेदाराचा परिक्षण अहवाल.
  - आ. भु चाचणी अहवाल (अर्थ टेस्ट रिपार्ट)
  - ई. वीजसंच मांडणीतील सर्व विद्युत उपकरणांचे उत्पादकांचे चाचणी अहवाल.
- 4. निरीक्षणाचे वेळेस विजसंचमांडणीमध्ये दोष आढळुन आल्यास तसे फेरव दल करुन घेणे संबधी आदेश देण्याचे अधीकार या कार्यालयाकडे राखुन ठेवण्यात आलेले आहेत.
- 5. निरीक्षणाचे वेळेस निरीक्षण अधिका-यासमक्ष खालील व्यक्तींनी उपस्थित राहणे आवश्यक आहे.विजसंचमांडणीचे काम पुर्ण करणारे विद्युत ठेकेदार व त्यांचे पर्यवेक्षक आणि आपले सक्षम विद्युत अभियंता.
- 6. काम पुर्ण झाल्यावर विद्युत संचमांडणीचा कंप्लीशन प्लान सादर करावा व तसेच प्रोटेक्शन स्कीम सादर करावी, हयानंतर विज संचमांडणीचे निरीक्षण करण्यात येईल.
- प्रबंध संचालकाने सर्व विद्युत सुरक्षा नियम पाळण्यात येतील हयाचे लेखी अभिवेदन सादर करावे.
- 8. विज संचमांडणीमध्ये भविष्यात कोणतेही फेरबदल करावायाचे असल्यास ते हया कार्यालयाची पूर्वपरवानगी घेवुनच करावे व हे काम पारवानाधारक कंत्राटदाराकडूनच करण्यात यावे.
- सदर नकाशा मंज्री एक (०१) वर्षापर्यंत ग्राहय राहील.
- 10. नकाशावर नमुद केलेल्या अटीस अधीन राहुन नकाशा मंजुरी देण्यात येत आहे.
- 11. आपल्या सोलार संचावर किती युनिट विज निर्मिती करतात हयाची माहिती दर महिन्यास विद्युत निरोक्षक,अहमदनगर / नाशिक यांना कळविण्यात यावी तसेच शासनाने निर्गमित केलेल्या प्रचलित नियमानुसार आपणास लागु असल्यास विद्युत शुल्क भरावे लागेल
- 12. सदरील सोलार संचाची मुख्य विद्युत निरीक्षक,मुंबई यांच्या कार्यालयात नोंदणी करुन नोंदणी प्रमाणपत्र हया कार्यालयास व संबंधीत विद्युत निरीक्षक कार्यालयास सादर करावी.
- 13. Earthing shall be as per IS 3043 & IEEE80

14. Feeritality certificate from MSEDLL he submitted

अधीक्षक अभियंता, प्रादेशिक विद्युत निरीक्षण मंडळ उ.ऊ.व का.विभाग, औरंगाबाद

सोबत:- मंज्र नकाशा (०१ प्रतीत)

प्रव:-विद्युत निरीक्षक, विद्युत निरीक्षण विभाग, उद्योग ऊर्जा व काम्प्रार विभाग क्षहमदनगर यांना म हितीस्तव अग्रेषि

> Dr. Vithalrao Vikhe Patil Ahmednagar





अधीक्षक अभियंता यांचे कार्यालय

प्रादेशिक विद्युत निरीक्षण मंडळ, उद्योग, ऊर्ज व कामगार विभाग शिवदास ट्रेड सेंटर, प्लॉट नं.११,हॉल नं.४,पहिला मजला. त्रिमुर्ती चौक,जवाहर कॉलनी, हेडगेवार हॉस्पीटल रोड, औरंगाबाद-४३१००५

दुरध्वना- ०२४०-२९७०४३२

जा.क्र.अअनिऔ/सअअ/ ३०४ /२०१८ दिनांक :२ 🗠 /०६/२०१८

E-mail- eleinsabad.se@gmail.com seaurangabad.nrg-mh@gov.in

भारतीय विज अधिनियम २००३ नुसार व केंद्रीय विद्युत प्राधिकरण विनियम २०१० नुसार विनियम ४३ अंतर्गत या संबधीत नियमाप्रमाणे M/s Shree Energy Solutions, Pune, M.C.34978, Supervisor Name: Puranik Meghesh, M.S. No.52944 यांनी प्रमाणित केलेल्या संचमांडणीचे दि.२५.०६.२०१८ रोजी निरीक्षण करण्यांत आलेले आहे.खालील विवरणाच्या संचमांडणीस विद्युत पुरवठा जोडून कार्यान्वीत करण्यासाठी केंद्रीय विद्युत प्राधिकरण विनियम २०१० नुसार विनियम ४३ च्या अंतर्गत व विज अधिनियम २००३ च्या कलम १६२ अन्वये प्रदान केलेल्या अधिकारानुसार कायम परवानगी देण्यात येत आहे. या संचमांडणीत विज पुरवठा जोडल्याचा दिनांक या कार्याल्यास त्वरीत कळविण्यात यावा.

विद्युत संचमांडणीचे विवरण:- 300 KWp Roof Top Net Metering Solar Power Project with allied equipment:-

SR No.	Name of Equipment	Make	Equipment Serial no.	Rating	Qty
1	Solar PV Modules	RenewSys	As per list attached	325Wp	924 Nos.
$\int_{0}^{2}$	Solar Inverters	ABB	1812114804,1812114822, 1815119139,1815119156, 1816119983,1816119993	50KW	06 Nos.
3	Solar Genaeration Mater	Secure	D1013453	ELITE 440-445	01 No.
4	Solar ACDB Panel	Saitech Electricals		4P, 630A	01 No.
5	DC Cable	Siechem		1Cx4Sqmm UV Protected DC Solar cable	6000 Mtr
6	AC Cable	Polycab	NA	4C x 25 Sqmm Cu. Armoured Cable	80 Mtr
:7	AC Cable	Polycab	NA	3.5C x 240 Sqmm Al. Armoured Cable	400 Mtr
8	Lightening Arrester	TOP BOSS	1621	70KA	01 No.

At M/s.Dr.Vithalrao Vikhe Patil Collage of Engineering, Vadgaon Gupta, Vilad Ghat, Tq.&Dist.Ahmednagar.

१. ही संचमांडणी वेळो<mark>वेळी शासनाने सुधारीत केले</mark>ल्या केंद्रीय विद्युत प्राधिकरण विनियम २०१० नुसार विनियम ४३ प्रमापो <mark>धोक्यापासुन सुरक्षित राहील हयाची ग्राहक/पुरवठाकार नेहमी काळजी घेतील.त्</mark>यावर कोणताही विद्युत अपघात झाल्यास ग्राहक/पुरवठाकार जवाबदार राहतील.

२. वरील संचमांडणीचे हवा कार्यालयाकडुन वार्षिक निरीक्षण करण्यात येईल.तरी त्यासाठी संबंधित निरीक्षण करणाऱ्या अधिकाऱ्यास योग्य चाचण्या घेण्यासाठी घेण्यासाठी उपकरणाची व्यवस्था करावी लागेल.

३. वरील संचमांडणीचे केंद्रीय विद्युत प्राधिकरण विनियम २०१० नुसार विनियम क्रं.३,१९,२९ च्या अंतर्गत अधिकृत व परवानाधारक व्यक्तीतर्फेच पुण सुरक्षिततेच्या साधनांचा अवलंब करुन देखभाल व दुरस्ती केली पाहीजे.

४. ही परवानगी मिळाल्यानंतर वरील संचमांडणी ६ महिन्यापर्यंत जर कार्यान्वीत झाली नाही तर परवानगी रह होईल. यास्तव संचमांडणीचे पुर्निनरीक्षण करून नवीन परवानगी पत्र प्राप्त करून ध्यावे लागेल.

५. हया संचमांडणीत कोणतेही बदल या कार्यालयाच्या लेखी परवानगी शिवाय करता येणार नाही.

६. हया संचमांडणीवर कोण<mark>ताही विद्युत अपघात झाल्</mark>यास महाराष्ट्र शासनाची अधिसुचना क्रं.इएलडी/२०१२ प्र.क्र.८६/उजं-१ दि १७/०४/२०१३ प्रमाणे विद्युत निरीक्षकास २४ **तासांच्याआत तोंडी व ४८** तासाच्या आत लेखी सुचना विहीत नमुन्यात देण्यात यावी.

७.सदर परवानगी दोष पुर्ततेच्या अधिन राहुन देण्यांत येत आहे.

८. आपल्या सोलार संचावर किती युनिट विज निर्मिती करतात हयाची माहिती दर महिन्यास विद्युत निरीक्षक, अहमदनगर/नाशिक यांना कळविण्यात यावी तसेच शासनाने निर्गमित केलेल्या प्रचलित नियमानुसार आपणास लागु असल्यास विद्युत शुल्क भरावे लागेल

९. सदरील सोलार संचाची मुख्य विद्युत निरीक्षक, मुंबई यांच्या कार्यालयात नॉदणी करून नॉदणी प्रमाणपत्र हया कार्यालयास व संबंधीत विद्युत निरीक्षक कार्यालयास सादर करावी

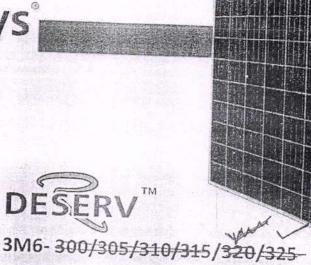
[वि.व.नागदेव] अधीक्षक अभियंता, प्रादेशिक विद्युत निरीक्षण मंडळ उ.ऊ.व का विभाग औरंगाबाद,

प्रत : मे.डॉ.विडुलराव विखे पाटील कॉलेज ऑफ इंजिनिअरींग, वडगांव गुप्ता,विलाड घाट, ता.चि.अहुमुदनगर यांना माहितीस्तव.

प्रत : विद्युत निरीक्षक, विद्युत निरीक्षण विभाग, अहमदनगर यांना माहितीस्तव.

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Dr. Vithalrao Vikhe Patil
College of Engineering
Ahmednagar





DESERV 3M6 72 cells PV Modules Series are offered with power ratings ranging from 300 Wp to 325 Wp. The high performance Multi Crystalline Silicon Modules are designed for on-grid as well as off-grid applications.

### KEY FEATURES



Made in India



Positive power tolerance



Highly reliable Anti-reflective coated glass





Windspeed - 2400 Pa Snowload - 5400 Pa



IP67 Junction box



1000 V Vdc



PID resistant



Limited power output warranty



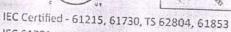
Product warranty



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IEC 61701 (Salt mist corrosion resistant- Severity 6) IEC 62716 (Ammonia corrosion resistant)

IEC 60068-2-68 (Sand Abrasign all)
Listed in Dewa Community

IMS Certified Company (ISO 9001:2015 & OHSAS 18001:2007)

# Performance under standard test conditions (1000W/m² AM 1.5, 25°C)

	DESERV 3M6-300	DESERV 3M6-305	DESERV 3M6-310	DESERV 3M6-315	DESERV 3M6-320	DESERV 3M5-325	
Rated power (Pmax), Wo	300	305	310	315	320	325	
Max power voltage (Vmp), V	36.52	36.75	36.86	36,92	37.20	37.41	
Max power current (Imp), A	08.22	08,30	08.41	08.55	08.61	08.69	
Open circuit voltage (Voc), V	45.65	45.94	46.08	46.15	46.18	46.21	
Short circuit current (Isc), A	08.56	08.65	08.76	08.91	09.06	09.18	
Module efficiency (%)	15.48	15.74	16.00	16 76	16.61	16.77	

### **Operating Conditions**

Ambient temperature, °C	-40 to + 85
Maximum system voltage,Vdc	1000
Hail impact velocity, m/sec	23
Maximum surface load capacity, Pascals	5400

### Cell Temperature Coefficients

Open circuit voltage	-0.30 % / °C
Short circuit current	+0.05 % / °C
Nominal power	-0.40%/°C

### **Physical Parameters**

No. of cells	72	-
Module dimensions (mm)	1957 X 990	_
Module thickness (mm)	40	
Approximate weight (kg)	21.5	-

### Mechanical Characteristics

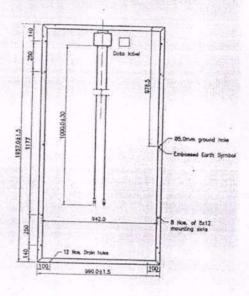
Cable	NO. 12 AWG, 4mm² (1 m standard, 1.2 m available on request)
Pv connectors	MC4/MC4 (Compatible)/TYCO
Frame Transmission Frame	Anodized Aluminum Alloy
Junction box	IP67 Junction Box With 4 Rail
Glass	3.2mm Thick Low Iron Tempered

Registered Office , , 98, Jolly Maker Chambers No.2, 225 Nariman Point, Mumbai - 400 021, Maharashtra, India Tel.: +91 22 30040500

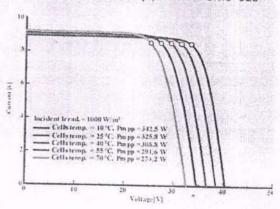
Factory.

Plot No.6, Survey # 114/P, Srinagar Village, Maheshwaram Mandal, Dist-Rangareddy, Hyderabad - 501 359, Telangana, India. Tel.: + 91 40 67303000 Fax: + 91 40 67303003

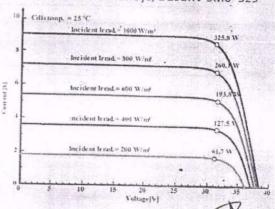
### 72 Cells PV Solar Module Dimensions



PV modules: RenewSys, DESERV 3M6-325



### PV modules: RenewSys, DESERV 3M6-325



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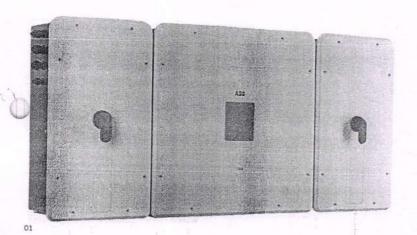
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Ahmednagar



SOLAR INVERTERS

# ABB string inverters

# TRIO-TM-50.0-400 / TRIO-TM-60.0-480 50 to 60 kW



The TRIO-TM-50.0/60.0 is ABB's latest three-phase string solution for cost efficient large decentralized photovoltaic systems for both commercial and utility applications.

01 TRIO-TM-50.0/60.0 outdoor string inverter

This new addition to the TRIO family, with 3 independent MPPT and power ratings of up to 60 kW (480 V version), has been designed with the objective to maximize the ROI in large systems with all the advantages of a decentralized configuration for both rooftop and ground-mounted installations.

### Modular design

The TRIO-TM-50.0/60.0 has a modular design to guarantee maximu. It swibility, thanks to the different versions available.

The separate and configurable AC and DC compartments increase the ease of installation and maintenance with their ability to remain separately wired from the inverter module inside the system. The TRIO comes with the most complete wiring box configurations available including up to 15 DC inputs with fast connectors, string protection fuses, AC and DC switches and type II AC and DC surge arresters.

### Design flexibility

The double stage conversion topology offers the advantage of a wide input voltage range for maximum flexibility of system design.

The TRIO-TM comes with a forced air cooling system, used also in the previous TRIO products, designed for a simple and fast maintenance, allowing a maximum flexibility of plant design. The inverter comes with mounting supports for both horizontal and vertical installations, which allow for the best use of space available beneath the solar panels.

Embedded multi communication interfaces (WLAN,

Dangagaga

Ethernet, RS485) combined with a Sunspec compliant Mocbus protocol (RTU/TCP) allow the inverter to be easily integrated with any third party monitoring and control systems.

### Improved commissioning and maintenance

Thanks to the build-in Web User Interface (WUI) the installer can commission the inverter wirelessly and change advanced parameters by using any standard WLAN enabled device (smartphone, tablet or PC). Integrated logging capability allows remote monitoring of the plant without the need of any additional external loggers.

Remote firmware update of the inverter system and components via Aurora Vision\*.

### Highlights

- 3 Independent MPPT
- · Transformerless inverter
- Double stage topclogy for a wide input range
- Large set of specific grid codes available which can be selected directly in the field
- Separate AC and DC compartments are available in different configurations
- Both vertical and horizontal installation
- 2 available sizes, 50 and 60 kW with 400 and 480 Vac of output voltage, respectively
- · Wireless access to embedded user interfaces
- · Ethernet daisy chain enabled
- Modbus TPC/RTU Sunspec compliant
- Remote monitoring and firmware update via Aurora
  Vision\* (logger free)

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# ABB string inverters

TRIO-TM-50.0-400 TRIO-TM-60.0-480 50 to 60 kW

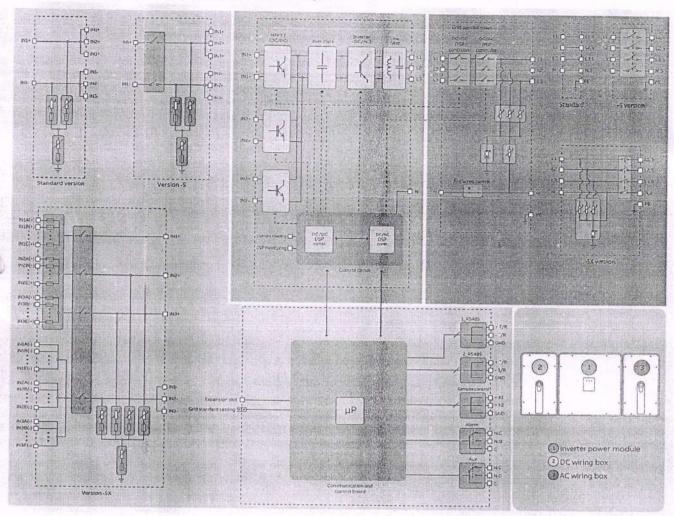


Technica	data	and	types
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rechnical data and types	*******				
Type code	TOIO THE SOCIAL				
Input side	TRIO-TM-50.0-400	TRIO-TM-60.0-480			
Absolute maximum DC input voltage (Vmax,abs)	1000:4				
Start-up DC input voltage (Vstart)	1000 V 420700 V (Default 420 V) 420				
Operating DC input voltage range (VdcminVdcmax)	07.1/	.700 V (Default 500 V)			
Rated DC input voltage (V <sub>dcr</sub> )	610 Vdc	ar:950 V (min 360 V)			
Rated DC input power (Pdcr)	52000 W	720 Vdc			
Number of independent MPPT		61800 W			
Maximum DC input power for each MPPT (Purtines)	3 17500 W				
MPPT input DC voltage range (VMPPTmin VMPPTmax) at Pacr	480-800 Vdc	21000 W			
Maximum DC input current (Idemax) for each MPDT	36 A	570-800 Vdc			
Maximum input short circuit current for each MPPT	55 A (165 A in case of parallel MPPT)				
Number of DC input pairs for each MPPT	5				
DC connection type	Screw terminal block (Standard and -S version)				
Input protection	or PV quick fit connector 3 (-SX and SX2 version)	)			
Reverse polarity protection	V . W				
Input over voltage protection for each MPPT - varistor	Yes, from limited current source				
Input over voltage protection for each MPPT - plug in module-	Yes, 1 for each MPPT				
surge arrester	Type 2 (option) with monitoring				
Photovoltaic array isolation control	According to local standard				
DC switch rating for each MPPT (version with DC switch)	60 A / 1000 V for each MPPT (180 A in case of parallel I	ADDT			
Fuse rating (version with fuses) Output side	15 A / 1000 V	MPP1)			
AC grid connection type	3311/10001				
Rated AC power (Pacr@cosp=1)	Three-phase (3W+PE or 4W+PE)				
Maximum AC output according	50000 W	5000011			
Maximum AC output power (Pamax @cosφ=1) Maximum apparent power (Smax)	50000 W	60000 W			
Rated AC grid voltage (Vac.r)	50000 VA	60000 W			
AC voltage range	400 V	60000 VA			
Maximum AC output current (Iacmax)	320480 V <sup>1)</sup>	480 V 384571 V <sup>1)</sup>			
Contributory fault current	77 A	304371 V			
Rated output frequency (f <sub>r</sub> )	92 A				
Output frequency range (fminfmax)	50 Hz / 60 Hz				
Nominal power factor and adjustable range	4753 Hz / 5763 Hz <sup>2)</sup>				
Total current harmonic distortion	> 0.995; 01 inductive/capacitive with maximum S				
Maximum AC cable	<3%				
AC connection type	95 mm² copper only (150 mm² copper/alluminum with TRIO-AC	-WIRING-KIT)			
Output protection	Screw terminal block, cable gland PG42				
Anti-islanding protection					
Maximum external AC overcurrent protection	According to local standard				
Output overvoltage protection - varistor	100 A				
Output overvoltage protection - plug in modular surge arrester	Yes				
Operating performance	Type 2 (option) with monitoring				
Maximum efficiency (nmax)					
Weighted efficiency (EURO)	98.3%	98.5%			
Communication	98.0%/-	98.0% / -			
Embedded communication interfaces	3- PC405 2 F.1				
Communication protocols	2x RS485, 2x Ethernet (RJ45), WLAN (IEEE802.11 b/g/n @ 2	,4 GHz)			
Remote monitoring services	Modbus RTU / TCP 'Sunspec compliant); Aurora Proto Standard level access to Aurora Vision monitoring por	col			
Advanced features	integrated Web User Interface Display (option).				
Environmental	Embedded logging and direct transferring of data to Clo	ud			
Ambient temperature range	-25+60°C (-13140°F)	-60°C (-13140°F)			
Relative humidity	with derating above 45 °C (113 °F) with derating al	bove 45 °C (113 °F)			
Sound pressure level, typical	4% 100% condensing	- American A			
Maximum operating altitude	75 dB(A) @1 m				
Physical	2000m / 6561ft				
Environmental protection rating					
Cooling	IP65 (IP54 for cooling section)				
Dimension (HxWxD)	Forced air				
Weight Mounting system	725 mm x 1491 mm x 315 mm / 28.5" x 58.7" x 12.4"				
Mounting system	95 kg / 209 lbs overall, 66 kg / 145 lbs electronic compartn 15 kg / 33 lbs AC wiring box (full optional), 14kg / 31 lbs DC wiring bo	nent,			
Mounting system	Wall bracket, horizonta support	x (full optional)			
13 _ 7	- Janet, norizonta support	^			

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### ABB TRIO-TM-50.0-400 / TRIC-TM-60.0-480 string inverter block diagram



Technical data and types			
Type code	TRIO-TM-50.0-400	TRIO TM 500 400	
Safety	1810-11-1-20:0-400	TRIO-TM-60.0-480	
Isolation level	Transform	orlace	
Marking	CE	eriess	
Safety and EMC standard	IEC/EN 62109-1, IEC/EN 62109-2, EN 61000-6-2, EN 61000-6-3, EN 61000-3-11, EN 61000-3-12		
Grid standard (check your sales channel for availability)	CEI 0-21, CEI 0-16, DIN V VDE V 012 EN 50438 (not for all national appendices), RD	6-1-1, VDE-AR-N 4105, G59/3, 1699, RD 413, RD 661, P.O. 12.3, AS 4777	
Available product variants	BDEW, NRS-097-2-1, MEA, PEA, IEC 61727, IEC	. 60068, IEC 61683, VFR-2014, IEC 62116	
Inverter power module	TRIO-TM-50.0-400-POWER MODULE	TRIO THE COR ARE SOURCE MORNING	
DC wiring box options 4)	THIS THE SOLD FOUR POWER PRODUCE	TRIO-TM-60.0-480-POWER MODULE	
Input connections with terminal blocks	DCWB-TRIO-TM-50.0-400	DOWR TELO THE SO O 100	
Input connections with terminal blocks + DC switch	DCWB-S-TRIO-TM-50.0-400	DCWB-TRIO-TM-60.0-480 DCWB-S-TRIO-TM-60.0-480	
15 quick input connections + fuses (single pole) + DC switch 53	DCWB-SX-TRIO-TM-50.0-400	DCWB-SX-TRIO-TM-60.0-480	
15 quick input connections + fuses (both poles) + DC switch 5)	DCWB-SX2-TRIO-TM-50.0-400	DCWB-SX2-TRIO-TM-60,0-480	
AC wiring box options	2010 DAE 1110-111-33.0-400	DCWB-3X2-1RIO-1M-80.0-480	
AC output connections with term nal blocks	ACWB-TRIO-TM-50.0-TL-OUTD	ACWR TRIG TH GOOTI CUITO	
AC output connections with terminal blocks + AC switch 5)	ACWB-SX-TRIO-TM-50.0-TL-OUTD	ACWB-TRIO-TM-60.0-TL-OUTD	
Optional available	7.5.1.5 3A.11.10-11-30.0-11-001D	ACWB-SX-TRIO-TM-60.0-TL-OUTD	
TRIO-GROUNDING-KIT	A CONTRACTOR OF THE PARTY OF TH		
TRIO-AC-WIRING-KIT	Available	Available	
	Available	Available	

The AC voltage range may vary depending on specific country grid standards

Type 2 surge arresters available as optional, with dedicated wiring box version Remark. Features not specifically listed in the present data sheet are not included in

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The Frequency range may vary depending on specific country grid standards

The Frequency range may vary depending on specific country grid standards

Please refer to the document "String inverters – Product manual acceleration of the specific country grid standards and the specific country grid standards are specific country grid standards." "www.abb.com/solarinverters for information on the quick-fit connected used in the inverter

<sup>#</sup> DCW8 with display is available as optional, with dedicated wiring box version

To,

The Secretary General,

Dr Vithalrao Vikhe Patil Founation,

Ahmednagar, MS - 414111

# Sub: 300Kwp Solar Power Generating System.

Ref: 1: Purchase Order: DVVPFA/PS/COE/255 dated 31<sup>ST</sup> Jan 2018.

2: Invoice No: 180016955 dated 26<sup>th</sup> June 2018.

Invoice No: 180017651 dated 29th June 2018.

Sir,

Reference to purchase order, received the tax invoices for the aforementioned work. We have paid advance as per the terms of the purchase order. The tax invoices be adjusted accordingly and balance paid to the party, as per terms of PO.

Request to kindly inform the concerned department accordingly.

6)1:1

Sunil Kalhapure

Dy Director (Tech)

Dr Vithalrao Vikhe Patil Foundation,

Ahmednagar

11 3/18

RU3/81



for necessary action

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Ahmednagar

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Figt 11 . . . . 63, Bommasandra-Jigani Link Road Industrial Area,

Rajapura, : "age, Jigani Hobli,

Annekel Tq, Bangalore - 562106 India

Page 1 of 1

### Details of Consignee(Ship-to)

Dr Vithalrao Vikhe Patil Foundation Vadgaon Gupta(Vilad Ghat) P.O MIDC Ahmednagar-414111 GSTIN-27AAATP2304C1Z5 State Code:27#Maharashtra

### Details of Receiver(Bill-to)

Dr Vithalrao Vikhe Patil Foundation Vadgaon Gupta(Vilad Ghat) P.O MIDC Ahmednagar-414111 GSTIN-27AAATP2304C1Z5 State Code:27#Maharashtra

### TAX INVOICE

Tax Invoice Number
Date of Tax Invoice
CIN
PAN
GSTIN
Contact person of Acc.
Bosch Document Number

180016955 26.06.2018 L85110KA1951PLC000761 AAACM9840P 29AAACM9840P1ZP

155500447

Supplier Code Customer Code Your PAN P.O. No. & Date:

17026951 AAATP2304C DVVPFA/PS/COE/255 /31.01.2018

Delivery Terms

Insurance

Header Note

LR No

Carrier

DAP-Delivered at place

300kWp Solar Power Generating System.

**Payment Terms** 

P298-10% Adv,80% Prorate,5% on install,5%on

commissioni

Freight Vehicle No

No of Packages /Weight-

00000/20,306.000KG

Material / Description Quantity Unit Rate/Unit Taxable Value/INR 01 F002.Y38.052-KC8 923.000 PC 7,623.16 7,036,176.68 Subsidy 0.00 2,179,574.00-Integrated GST 5.00% 242,830.00 Solar PV Module Poly-325Wp-72C Description **Customer Part No** HSN/SAC Code 85414011 **Delivery Number** 1183705805 PO No & Date DVVPFA/PS/COE/255/31.01.2018

Amount In Words Tax Amount-INR: Total Value-INR:

Two Lakh Forty Two Thousand Eight Hundred Thirty Rupees
Fifty Lakh Ninety Nine Thousand Four Hundred Thirty Two Rupees Sixty Eight Paise:

Total Taxable Value 4,856,602.68
Tax Amoun: 242,830.00
Total Value 5,099,432.68

21/8/18 755 ansit

Dr. Vii Colle

Dr. Vithalrao Vikhe Patil College of Engineering Ahmednagar

**Authori** 

For Bosch Limited

MARINE

Cheques should be made payable to Bosch Limited. Duly crossed Account Payee Only Payment should be made within due date as applicable from the date of displatch of materials

BANKERS: State Bank of India, Canara Bank, Citi Bank, Deutsche Bank AG

WHETHER TAX IS PAYABLE ON REVERSE CHARGE BASIS: NO

Registered Office: Hosur Road, Adugodi, Bangalore - 560030, India Phone: 080-22220088, 22992111, Telefax: 080-22272728

BOSCH

Piot no 26<sup>-1</sup> Bommasandra-Jigani Link Road Industrial Area,

Rajayura Viliage, Jigani Hobli,

Annekel Tq, Bangalore - 562106 India

Page 1 of 1

### Details of Consignee(Ship-to)

Dr Vithalrao Vikhe Patil Foundation Vadgaon Gupta(Vilad Ghat) P.O MIDC Ahmednagar-414111 GSTIN-27AAATP2304C1Z5 State Code:27#Maharashtra

### Details of Receiver(Bill-to)

Dr Vithalrao Vikhe Patil Foundation Vadgaon Gupta(Vilad Ghat) P.O MIDC Ahmednagar-414111 GSTIN-27AAATP2304C1Z5 State Code:27#Maharashtra

### TAX INVOICE

Tax Invoice Number Date of Tax Invoice CIN PAN **GSTIN** Contact person of Acc. **Bosch Document Number**  180017651 29.06.2018 L85110KA1951PLC000761 AAACM9840P 29AAACM9840P1ZP

Supplier Code **Customer Code** Your PAN P.O. No. & Date :

17026951 AAATP2304C DVVPFA/PS/COE/255/31.01.2018

**Delivery Terms** 

DAP-Delivered at place

Payment Terms

P298-10% Adv,80% Prorate,5% on install,5%on comm ssioni

155500461

Insurance LR No Carrier Header Note

300kW Solar Power Generating System.

Freight Vehicle No No of Packages /Weight-

00000/450.000KG

STNo	Material / Description	Quantity	Unit	Rate/Unit	Taxable Value/INR
01	F002.Y39.780-KC8	6.000	PC Subsidy	489,615.17 0.00	2,937,691.02
	Description	Solar String Inverter 50kW-ABB	Integrated		909,999.00- 101,385.00
Customer Part No Delivery Number		HSN/S	The State of the S	35044010 DVVPFA/PS/COE/255/3	31.01.2018
	In Words	n One Thousand Three Hundred Eighty	Ta	tal Taxable Value x Amourt tal Value	2,027,692.02 101,385.00 2,129,077.02

WHETHER TAX IS PAYABLE ON REVERSE CHARGE BASIS: NO



Dr. Vithalrao Vikhe Patil College of Engineering Ahmednagar

For Bosch

Authorised Signatory

e payable to Bosch Limited. Duly crossed "Account Payee Only" Payment should be made within due date as a Canara Bank, Citi Bank, Deutsche Bank AG

ad, Adugodi, Bangalore - 560030, IndiaPhone:080-22220088,22992111,Telefax:080-22272728

sch Limited

10 263, Bommasandra-Jigani Link Road Industrial Area,

oura Village, Jigani Hobli,

kel Tq, Bangalore - 562106 India

BOSCH

Page 1 of 1

tails of Consignee(Ship-to)

/ithalrao Vikhe Patil Foundation gaon Gupta(Vilad Ghat) MIDC

nednagar-414111 FIN-27AAATP2304C1Z5 e Code:27#Maharashtra

tails of Receiver(Bill-to)

/ithalrao Vikhe Patil Foundation gaon Gupta(Vilad Ghat)

nednagar-414111 TIN-27AAATP2304C1Z5 te Code:27#Maharashtra TAX INVOICE

Tax Invoice Number Date of Tax Invoice

CIN PAN **GSTIN** Contact person of Acc. **Bosch Document Number** 

AAACM9840P 29AAACM9840P1ZP 155500484

L85110KA1951PLC000761

180020888

16.07.2018

Supplier Code

**Customer Code** Your PAN P.O. No. & Date :

17026951 AAATP2304C

DVVPFA/PS/COE/255/31.01.2018

ivery Terms

DAP-Delivered at place

**Payment Terms** 

P298-10% Adv,80% Prorate,5% on install,5%on

commissioni

Freight Vehicle No

No of Packages /Weight-

00000/0.000KG

urance No rier ader

10

300kW Solar Power Generating System.

Unit

Rate/Unit 2,581,950.00 Taxable Value/INR 2.581,950.00 799.802.00

89,107.00

Description **Customer Part No** 

F0C2.Y41.596

Material / Description

1183725256 **Delivery Number** F002.Y41.597

**BOS** and Electrical Accessories HSN/SAC Code PO No & Date

1.000

1.000

Quantity

1.000

PC Subsidy Integrated GST

PC

Subsidy

Integrated GST

8502 DVVPFA/PS/COE/255/31.01.2018 742,971.00

0.00

5.00%

742,971.00 230,148.00-0.00 92,308.00 18.00%

Description **Customer Part No Delivery Number** F002.Y41.598

1183725256

1183725256

MS/HDG Structure and Accessories HSN/SAC Code PO No & Date

73089090

DVVPFA/PS/CCE/255/31.01.201/8

614,038.00 614,038.00 PC 190,209.00-0.00 Subsidy 28.00% 118,672.00 Integrated GST

Description **Customer Part No Delivery Number** 

Other Installation Accessories

HSN/SAC Code PO No & Date

39269099

DVVPFA/PS/COE/255 /31.01.2018

Total Taxable Value Tax Amount Total Value

2,718,800.00 300,087.00 3,018,887.00

nount In Words x Amount-INR: tal Value-INR:

Three Lakh Eighty Seven Rupees Thirty Lakh Eighteen Thousand Eight Hundred Eighty Seven Rupees:

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Cerlege

Dr. Vithalrao Vikhe Patil College of Engineering Ahmednagar

For Bosch Limited Title

Authorised Signatory

HETHER TAX IS PAYABLE ON REVERSE CHARGE BASIS: NO

as applicable from the date of dispatch of materials ques should be made payable to Bosch Limited., Duly crossed "Account Payee Only" Payment should be

IKERS:State Bank of India, Canara Bank, Citi Bank, Deutsche Bank AG

istered Office: Hosur Road, Adugodi, Barigalore - 560030, IndiaPhone:080-22220088,22992111, Telefax:080-22272728

**Bosch Limited** 

Plot no 263, Bommasandra-Jigani Link Road Industrial Area,

Rajapuca Village, Jigani Hobli,

Annekel Tq, Bangalore - 562106 India

BOSCH

Page 1 of 1

### Details of Receiver(Bill-to)

Dr Vithalrao Vikhe Patil Foundation Vadgaon Gupta(Vilad Ghat) -P.O MIDC Ahmednagar414111 GSTIN-27AAATP2304C1Z5 State Code:27#Maharashtra Country of Destination India

### TAX INVOICE

Tax Invoice Number Date of Tax Invoice CIN PAN GSTIN Contact person of Acc. **Bosch Document Number**  180020935 12.07.2018 L85110KA1951PLC000761 AAACM9840P 29AAACM9840P1ZP

144914124

Supplier Code **Customer Code** Your PAN P.O. No. & Date :

17026951 AAATP2304C DVVPFA/PS/COE/255 /31.01.2018

**Delivery Terms** 

DAP-Delivered at place

**Payment Terms** 

P29810% Adv,80% Prorate,5% on install,5%on

commissioni-

Project NO Kind Attention Original Invoice r Note

00.00.0000

300KWp Solar Power Generating System.

Invoice Date

Rate/Unit Unit Taxable Value/INR Quantity SI No Material / Description 1,494,070.00 1,494,070.09 01 F002.Y41.001 1.000 PC 0.00 462,813.00-Subsidy Integrated GST 18.00% 185,626.00 Installation & Commissioning Service Description **Customer Part No** HSN/SAC Code 998732 1,031,257.00 185,626.00 Total Taxable Value

Amount In Words Tax Amount-INR: Total Value-INR:

One Lakh Eighty Five Thousand Six Hundred Twenty Six Rupees Twelve Lakh Sixteen Thousand Eight Hundred Eighty Three Rupees:

Tax Amount 1,216,883.00 Total Value

press & Alc forn

Date:

Caring hmed need

Dr Vithalirao Vikhe Patil College of Engineering Ahmednagar

Limite

WHETHER TAX IS PAYABLE ON REVERSE CHARGE BASIS: NO

Authorised Signator

For Bosch Limited

Date: 31 | 01 | 2018

# DR. VITHALRAO VIKHE PATIL FOUNDATION

Vadgaon Gupta (Vilad Ghat), P. O. - M.I.D.C., Ahmednagar - 414 111. (Maharashtra)

Ph. No.: (0241) 2778206, 2779895

Email: vikhef@rediffmail.com

Tel.Fax No.: (0241) 2778043

Website: pdvvpfa.org

Refro.: DVVPFA PS COE 1255

Bosch Limited,

Regd. Off:

P.B.No.3000, Citadel 3rd Floor,

Hosur Road, Adugodi,

Bangalore-560030

Purchase Order for Engineering, Procurement and Construction of 300 kWp Grid Tied Solar PV Power Plant.

Kind Attn: Mr. Chandan Singh (Regional Manager)

Subject: Supply of Solar PV Components for 300Kwp Roof Top Solar PV System

Ref: Binding Commercial offer submitted by Bosch limited (your offer letter, dated: 20th Jan 2018 & quotation, dated: 18th Jan 2018)

Dear Sir.

Referring to the offer please find the purchase order for Supply of Components for 300kWp RCC Roof Top Solar PV System as per the Annexure 1-5 enclosed. Kindly provide the signed copy of the Purchase Order as a token of acceptance.

Delivery Address:

Dr. Vithalrao Vikhe Patil Foundation's College of Engineering, Vadgaon Gupta, Vilad Ghat, Post: MIDC, Ahmednagar-414 111

Invoicing Address:

The Principal, Dr. Vithalrao Vikhe Patil Foundation's College of Engineering, Vadgaon Gupta, Vilad Ghat, Post: MIDC, Ahmednagar-414 111

Your's faithfully,

Authorised Signatory and Seal

De Vithaireo Vikhe Patil Foundation Vadgaon Guptofvilad Ghab, Alunednagar Enclosures:-

Annexure 1 : Breakup of Purchase Order

Annexure 2 : Payment Terms

Annexure 3: Scope of Purchase Order Annexure 4: Preliminary Bill of material

Annexure 5: Warranty Terms and Conditions

Lift-cu Sep 2 Principal, Office Supermity

billege of Engil Ahm**edn**agar

Vadgaon Gupta (Vilad Ghat), P. O. - M.I.D.C., Ahmednagar - 414 111. (Maharashtra)

Ph. No.: (0241) 2778206, 2779895

Email: vikhef@rediffmail.com

Tel.Fax No.: (0241) 2778043

Website: pdvvpfa.org

Date :

Ref. No. :

Purchase Order No.:

Annexure 1: Breakup of Purchase Order

DESCRIPTION	CODF.	AMOUNT	Subsidy Amount	After Subsidy	GST	GST INR	Customer Payable
Solar Power Generating System- Solar PV Modules	85414011	7,036,179	2,179,574	4,856,605	5.0%	242,830	5,099,435
Solar Power Generating System- Solar Inverters	85044010	2,937,691	909,999	2,027,692	5.0%	101,385	2,129,077
Solar Power Generating System- Balance of System and Electrical Accessories	8502	2,581,950	799,802	1,782,148	5.0%	89,107	1,871,255
Solar Power Generating System- MS/HDG Structure and Accessories	73089090	742,971	230,148	512,823	18.0%	92,308	615,131
Solar Power Generating System- Other Accessories	39269099	614,038	190,209	423,830	28.0%	118,672	542,501
Installation, Testing and commissioning of Solar Power Generating System	998732	1,494,070	462,813	1,031,257	18.0%	185,626	1,216,884
ି ପ୍ରଥମ ନମ୍ବର		15405789	1772345	(10,834,035)		320,023	11,474,283

Customer Payable After Subsidy (Including Taxes):- Rs. One Crore Fourteen Lakh Sixty Four Thousand Two Hundred & Eighty three only.

Other terms & conditions (Inclusive in above price)

1. One person for M/s. BOSCH for plant operation & maintenance for one year.

2.Performance Bank Gaurantee for 10% of generation at current tariff for period of one year.

3.Structure Galvanization upto 100 micron, but we will be using galvium sheets which are per galvanized as discussed.

4.One Signage/Digital Display Board at one location displaying plant generation and details on real time basis.

Bank Details:-

Account Name	BOSCH LIMITED
Bank:	DEUTSCHE Bank
Bank Address:	No. 2-17, Raheja Towers, M G Road, Bangalore-560001
Current Account No.	2050300004
IFSC code for RTGS/NEFT	DEUT0797BGL

Dr. Vithalrac Vikhe Patil College of Engineering Secretary Gener

Ahmednagar Authorised Signafory and Seal

Date:

# DR. VITHALRAO VIKHE PATIL FOUNDATION

Vadgaon Gupta (Vilad Ghat), P. O. - M.I.D.C., Ahmednagar - 414 111. (Maharashtra)

Ph. No.: (0241) 2778206, 2779895

Email: vikhef@rediffmail.com

Tel.Fax No.: (0241) 2778043

Website: pdvvpfa.org



Ref. No.:

Purchase Order No.:

Annexure 2: Payment Terms

The General payment terms are proposed below

	. ,	- Frakosca scrow
Sr.No.		Our Proposed Payment Terms
1	Payment Terms	<ol> <li>Amount Equivalent to 10% of the Order value as Project advance through Cheque/Demand Draft/RTGs infavour of Bosch Limited.</li> <li>90% LC (Letter Of Credit) from Nationalized Bank</li> <li>Terms of LC disbursement:         <ul> <li>a. Amount equivalent to 80% of the Order Value on pro-rate basis against material readiness and Proforma Invoice/Commercial invoice.</li> <li>b. Amount equivalent to 10% of the total Order Value against</li></ul></li></ol>
2	Taxes and Duties	a) Solar PV Modules: 5% GST b) MMS: 18% GST c) BOS: Components of solar power generating system: 5% d) Other BOS components not falling under the ambit of solar power generating system: 28% e) Service: 18% is applicable on the service component Taxes are considering GST rates as per applicability with the current understanding and data available. We have taken up with MNRE for GST of 5% on Solar Power Generating System but clarity is yet to come. Based on clarification which emerges later, actual GST will be charges at the time billing The price offered is based on prevailing rates, taxes and duties. Any impact in price increase/decrease due to change in rates, taxes, duties, antidumping duties, change infresh law, statutory rule or order shall be borne by the Customer.
3	Time of Completion	Solar PV Components shall be delivered within 3 months from the Effective Date as defined above.  We agree that within seven (7) working days from the Effective Date (Agreement signing date) the following actions (Prerequisites) shall be concluded in sequence failing which revised dates of commissioning of the Project will be mutually agreed to between the Parties:  a) Release of advance amount of Rs. 1146428.50 Or 10% of consideration amount by the Customer.  b) Issuance of 'Notice to Proceed' (NTP) by the Project Owner to Contractor.  c) Access to unencumbered dispute free roof/land is provided to Contractor by the Customer.



Authorised/Sighilforf and Sudatic

Vadgaon Gupta (Vilad Ghat), P. O. - M.I.D.C., Ahmednagar - 414 111. (Maharashtra)

Ph. No.: (0241) 2778206, 2779895

Email: vikhef@rediffmail.com

Tel.Fax No.: (0241) 2778043

Website: pdvvpfa.org

Date :

Ref. No.:

Purchase Order No.:

Annexure 3: Scope of Purchase Order

The broad scope of work under M/s. Bosch Limited includes the following:

a. Supply of the Solar PV Modules and arrays with associated components comprising of DC cables, String Inverters, Mounting Structures, AC Cables, Communiction Cables, Remote Monitoring, Weather Monitoring System, Earthing System and Lightnign Arrestorat power plant with necessary packaging and transportation.

b. Supply of the suitable fire protection equipment's as per the statutory requirements.

c. Supply of danger board, sign-boards etc. as per the statutory needs.

d. Water piping for Module cleaning from the nearest water availability point on roof.

Exclusion to the Purchase Order:

e. Car Port Structure/Elevated Structure on the rooftop.

f. Construction of Stair/Ladder to access roofs' terrace, Walkway and Handrails.

g. Any modification in the Existing LT Panels for evacuating Solar Power Plant

h. Spare Feeder supply for connecting solar power plant.Reverse Power Relay/Protection System to avoid reverse power flow to Diesel Genset.

i. Fencing, control room, access roads and drainage.

The broad scope of work under our scope includes the following:

j. Fees in form of DD/Bank Guarantees towards all the Statuaries Approvals shall be paid by us.

k. All the Statutory approvals are on our account.

1. We shall provide unhindered roof access to install and operate solar roof top system with clear approach for 5 years

m. We agree that there is no obstacle for the shadow free area to install solar

n. We shall provide the approach road for material movement.

o. Identification and procurement/lease of roof/land for setting up of power plant including tree cutting and any other existing infrastructure removal on roof.

p. Identification of nearest LT-Panel for Power evacuation and connectivity approvals

q. NOC from Gram Panchayat/statutory authority wherever required

r. Approach roads for transport of goods from the nearest motorable road to Project Site.

s. Construction Power and Water on each terrace for installation & Operational maintenance for 5 years.

t. Provision of Water Source on Roof Terrace with 4 to 5 Bar Pressure including pressure pump for module cleaning system.

u. Any Modification in the Existing Infrastructure like roof strengthening, step-up transformer, associated switchgears, cables, CT, PT's.

v. Internet Connection and associated cost to be provided by Project Owner along with Static IP for remote monitoring of Solar PV System.

w. Net Metering to be done by Bosch but payment not linked to Net-metering

x. AC cabling above 100 mtrs is in customer scope.

Dr. Vithairao Vikhe Patik College of Engineering Ahmednagar

Authorised Signafory and Seal

Vadgaon Gepta (Villad Ghat), Ahreed

Vadgaon Gupta (Vilad Ghat), P. O. - M.I.D.C., Ahmednagar - 414 111. (Maharashtra)

Ph. No.: (0241) 2778206, 2779895

Email: vikhef@rediffmail.com

Tel.Fax No.: (0241) 2778043

Website: pdvvpfa.org



Sr.	hase Order No. :			Da	ate :
No.	Item	Specification/Description	Qty	UOM	Make
1	01-SPV Module	325 Wp, 72 Cells, Poly Crystalline Module with 1000 mm length module cable certified as per UL or IEC 61215 Edition -II and IEC 61730-1, & -2.		Nos.	Adani/Renewsys
2	02-MMS	Module Mounting Structure as per SECI Standard	1 Set	kWp	Bosch
3	03-Inverters	String Inverter 50kVA,400V AC,MPPT	06		
4	04-Data Logger	Web Based Monitoring System (Interconnection Connection with Static IP to be provided by Customer)	1	Nos.	ABB Delta
5	04-Sensors	Cell Based Irradiation Sensors	01	Nies	, , , , , , , , , , , , , , , , , , ,
6	05-LT Panel	LT Panel with Incomer(4P,100A,MCB, OC,SC Release) and 1 Outgoing,300A,4P,MCB,OC,SC Release, SPD Type-II, MFM Meters, IP65 Enclosure.	1	Nos.	MC Reputed
7	07-Connectors	Straight Through +Ve and -Ve PV Connectors for Stringing	60	Sets	MC4/Amphenol
3	08-DC Cable	1CX4Sq.mm,Copper,EBXLPO,1.5kV,Solar Cable for String Interconnection and connect upto Inverter Input	2500	Mtrs	Siechem/Apar
)	09-AC Cable	AC CABLE - 4Cx25Sq.mm, Cu.XLPE 1.1Kv	75	Mtrs	Siechem/Apar
)	10-LT Cable	3.5Cx240Sq.mm, Aluminum Armored, XLPE,1.1kV as per IS 694 complete all as specified and directed. (LT Panel to Customer Main LT)	50	Mtrs	Siechem/Apar
	13-BOS	Safety Items , Fire Extinguisher, Danger Boards, First Aid Kit, Safety Chart, Sign Boards	150	kWp	Bosch Approved
		Communication Cable, 2 Pair , RS485 Shielded	200	Mtrs	Apar/Siechem/Polyca
		Lightning Arrestor - ESE/Conventional	1	Nos.	JEF/JMV/SGI
		Chemical Earthing with Chambers	06	Nos.	JEF/JMV/SGI
		Installation Accessories like Lugs, Conduits , Glands , Insulators , Trays and Supports	300	kWp	Bosch Approved
1.		Module Cleaning System with CPVC Pipes and Fittings	300	kWp	Bosch Approved
(	14-Installation & Commissioning	Installation, Testing , Commissioning and Hand over of complete Solar Power Plant make of the components and quantity shall characteristics.	300	kWp	Bosch Approved

on and make of the components and quantity shall change during Detailed Engineering as per the requirement

ege of Engineering Authorised Signatory and Seal

Secretary General Or. Vithalrao Vikhe Patii Foundation Vadgaon Gupta(Vilad Ghat), Ahmednagar

Vadgaon Gupta (Vilad Ghat), P. O. - M.I.D.C., Ahmednagar - 414 111. (Maharashtra)

Ph. No.: (0241) 2778206, 2779895

Email: vikhef@rediffmail.com

Tel.Fax No.: (0241) 2778043

Website: pdvvpfa.org

Date:

Ref. No. :

Purchase Order No. :

# Annexure 5: Warranty Conditions

Bosch Limited provides warranty for material and workmanship of various components supplied as a part of the solar PV power plant, whereas System warranty for workmanship of installation and performance of the system. The conditions of these warranties are elaborated in this document:

A) Product Warranty:

Warranty for PV Module:

5 years product warranty

25 years performance guarantee (90% up to 10 years, 80% up to 25 years)

### Warranty for Solar Inverter:

10 years product warranty

B) Warranty for Balance of System items

- 5 year from the date of supply in accordance with the warranty conditions of the used
- Warranty for the structural safety and stability of the mounting system for a period of 5

Until the end of the warranty period plus the operating period of the Project, Bosch shall have access right to all parts of the plant and to the reports on its work and output.

- Parts and components, which are repaired or replaced during such period, are warranted for the original warranty period only and will not carry any extended warranty. If the equipment is not repairable at site the same has to be sent at the workshop on freight prepaid basis after obtaining consent from Bosch in writing and Bosch shall make good the defect and return back to the Customer.
- For the components which are bought out by Bosch and supplied to the project, the warranty shall be applicable as per the original manufacturer's warranty only and shall be transferred to the final customer upon supply of the components.

C) Workmanship Warranty:

Workmanship related warranties are as below:

1. Electric installation works such as interconnection of strings, connection of string combiner boxes, AC/DC Cables, power evacuation infrastructure shall carry warranty for 60 months.

2. Structural safety and stability of the mounting system shall be covered for a period of 60 months.

> Dr. Vithalrao Vikhe Patli College of Engineering Ahmednagar

Authorised Signatory and Seal Gs. Vichatroo Viling Pasif Foundary Vadgaon Gupta(Villad Ghat), Alimedica-

Vadgaon Gupta (Vilad Ghat), P. O. - M.I.D.C., Ahmednagar - 414 111. (Maharashtra)

Ph. No.: (0241) 2778206, 2779895

Email: vikhef@rediffmail.com

Tel.Fax No.: (0241) 2778043

Website: pdvvpfa.org

Date:

Ref. No.:

Purchase Order No.:

D) Conditions of Warranty

### 1. General Conditions:

1. Claimsarising from or in connection with this warranty must be filed inwriting within the applicable warranty period. No extension of warranty period shall be provided, regardless of legal basis.

2. Until the end of the warranty period, Bosch Limited shall have an access right to all parts of the

plant, reports on its working and output.

3. The final customer shall be responsible to ascertain any warranty claims directly with the original manufacturer as per the limited warranty certificate from original manufacturer. However if -Bosch Limited has been contracted for operation and maintenance services, then under the contract period, Bosch Limited shall liaise between the final customer and original equipment manufacturer for valid warranty claims.

4. The disputes pertaining to this project shall be subjected to Bangalore Jurisdition only.

### E) Disclaimers/Limitations of Liability :

1. These warranties are valid for normal use and only undernormal operating conditions. The warranties assume that the performance of the system has not been reduced by actions or events outside the sphere of influence of Bosch Limited, in particular.

2. Modifications/damage as a consequence of force majeure (storms, hall, fire, power outage, lightning, flood, snow damage, avalanches, frost,earthquakes, tornadoes, volcanic eruptions, landslides, plagues of insects and other detrimental effects by animals, acts of war etc.) or damage caused by third parties due to vandalism or theft.

3. Unprofessional operation, improper removal and/or re-installation of modules, willful damage or negligence, normal wear and tear, improper installation and/ or maintenance by final customer or a third party, misuse or abuse of equipment, modifications or alterations made by customer or a third

party without consent from Bosch.

4. Impairment due to external influences (e.g. :dirt, smoke, salt, chemicals and other impurities)

Warranty cannot be transferred to a third party without prior consent from Bosch Limited.

6. Notwithstanding anything contained in this Agreement or any of its annexures and schedules, the liability of Bosch for any loss suffered by the Customer and or any breach of conditions of this Agreement and its annexures and or the termination of this Agreement shall not exceed 2% of the total order value.

### F) Warranty Claims:

7. In case of warranty claims, Bosch Limited shall remedy the defects, co-ordinate without original manufacturers for replacement of components with functional ones or repair the same component, as per the limited warranty conditions of the original manufacturer.

8. No other claim shall be derived from this warranty.

For components newly supplied for repaired, only remaining time of original time of original warranty shall be applicable.

> Dr. Vithalrao Vikhe Patil College of Engineering Ahmednagar

Authorised Signatory and Seal

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Store COF