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: 31 | 01 | 2018

ReTINO : DVVPFA PS/COE 255/49

Bosch Limited, Regd. Off:

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

Hosur Road, Adugodi,

Baugalore-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 September General

DeMithaireo Vikko Patii Foundation Yaagaon Gupto(Viko**o Ghat),**Alimednagar

Enclosures:

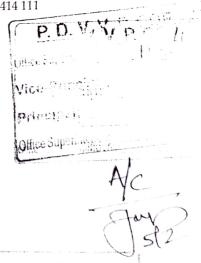
Annexure 1 : Breakup of Purchase Order

Annexure 2 · Payment Terms

Annexure 3 : Scope of Purchase Order

Annexure 4 : Preliminary Bill of material

Annexure 5 : Warranty Terms and Conditions



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

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Tel.Fax No.: (0241) 2778043

Website: pdvvpfa.org



Date:

Ref. No.:

Purchase Order No.:

Annexure 1 : Breakun of Purchase Order

Annexure 1: Breakup of Purchase Order							
Su	pply Price	for 300 KWp	Roof Top Se	olar PV Syste	m Comp	onents	,
ITEMS/ DESCRIPTION	CODE	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	8502	2,581,950	799,802	1,782,148	5.0%	89,107	1,871,255
Solar Power Generating System- MS/HDG Structure	73089090	742,971	230,148	512,823	18.0%	92,308	615,131
and Accessories 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	998732	1,494,070	462,813	1,031,257	18.0%	185,626	1,216,884
Generating System	1	12/4009898	~\[772 3 45	10,634,355		329,923	17,474,283

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:-

Bank Details.	The state of the s
Account Name	BOSCH LIMITED
Bank:	DEUTSCHE Bank
Dura	No. 2-17, Raheja Towers, M G Road, Bangalore-560001
Bank Address:	2050300004
Current Account No.	DEUT0797BGL
IFSC code for RTGS/NEFT	DEU10/9/BGE

Secretary Gener v. Vieindreo Vikhe Patti F Authorised Signatory 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

Sr.No.	distribution of	Our Proposed Payment Terms
11		· · · · · · · · · · · · · · · · · · ·
	1	1. Amount Equivalent to 10% of the Order value as Project advance through Cheque/Demand Draft/RTGs infavour of Bosch Limited.
		2. 90% LC (Letter Of Credit) from Nationalized Bank
		Terms of LC disbursement:
11	Payment Terms	a. Amount equivalent to 80% of the Order Value on pro-rate basis against
	rayment rerins	material readiness and Proforma Invoice/Commercial invoice.
	<i>i</i>	b. Amount equivalent to 10% of the total Order Value against
100	1	i. Commissioning of Solar PV System.
	1	ii.CEIG Certificate
Syri		a) Solar PV Modules : 5% GST
为抗激烈	1	b) MMS: 18% GST
	1	c) BOS: Components of solar power generating system :5%
	1	d) Other BOS components not falling under the ambit of solar power
	1	generating system: 28%
	1	e) Service: 18% is applicable on the service component
	Taxes and	Taxes are considering GST rates as per applicability with the current
2	Duties	understanding and data available. We have taken up with MNRE for GST of
	Duties	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
1		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
	٧.	Customer.
是自然		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
	1	(Agreement signing date) the following actions (Prerequisites) shall be
	CHDG OI	concluded in sequence failing which revised dates of commissioning of the
3	Completion	Project will be mutually agreed to between the Parties:
	1	a) Release of advance amount of Rs. 1146428.50 Or 10% of consideration
	1	amount by the Customer.
		b) Issuance of 'Notice to Proceed' (NTP) by the Project Owner to Contractor.
	1	c) Access to unencumbered dispute free root/land is provided to
		Contractor by the Customer.

Secretary General

Authorised/Sightfory and Sentatic

guon Guna (Vilas Chal), Ahmednac

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.

Authorised Signatory Caneral
wad your Gups (Viled Chat), Alence

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



PNah	ase Order No. :			Date:		
Sr. 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.	92	Nos.	Adani/Renewsys	
2	02-MMS	Module Mounting Structure as per SECL Standard	1 Set	kWp	Bosch	
3	03-Inverters	String Inverter 50kVA,400V AC,MPPT	06	Nos.	ABB	
4	04-Data Logger	Web Based Monitoring System (Interconnection Connection with Static IP to be provided by Customer)	01	Nos.	Delta	
5	04-Sensors	Cell Based Irradiation Sensors	01	Nos.	MC	
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	Set	Reputed	
7	07-Connectors	Straight Through +Ve and -Ve PV Connectors for Stringing	60	Sets	MC4/Amphenol	
8	08-DC Cable	1CX4Sq.mm,Copper,EBXLPO,1.5kV,Solar Cable for String Interconnection and connect upto Inverter Input	2500	Mtrs	Siechem/Apar	
9	09-AC Cable	AC CABLE - 4Cx25Sq.mm, Cu.XLPE 1.1Kv	<i>7</i> 5	Mtrs	Siechem/Apar	
10	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	
11	13-BOS	Safety Items , Fire Extinguisher, Danger Boards, First Aid Kit, Safety Chart, Sign Boards	150	kWp	Bosch Approved	
12		Communication Cable, 2 Pair , RS485 Shielded	200	Mtrs	Apar/Siechem/Polyc b	
13		Lightning Arrestor - ESE/Conventional Type	1	Nos.	JFF/JMV/SGI	
14		Chemical Earthing with Chambers	06	Nos.	JEF/JMV/SGI	
15		Installation Accessories like Lugs, Conduits , Glands , Insulators , Trays and Supports	300	kWp	Bosch Approved	
16		Module Cleaning System with CPVC Pipes and Fittings	300	kWp	Bosch Approved	
17	14-Installation & Commissioning	Installation, Testing , Commissioning and Hand over of complete Solar Power Plant	300	kWp	Bosch Approved	

Note: The specification and make of the components and quantity shall change during Detailed Engineering as per the requirement

Authorised Signatory and Seal

Secretary General
Or. Vithalmo Vikhe Patil Foundation
Vadgaon Gupta(Vilad Ghat), Ahmednagar

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 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 inverters.
- 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.

Authorised Signatory and Seal Or Vithaltono Vitime Fuelt Founder Vadgaon Gupta(Vilad Ghat , Abmedice

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:

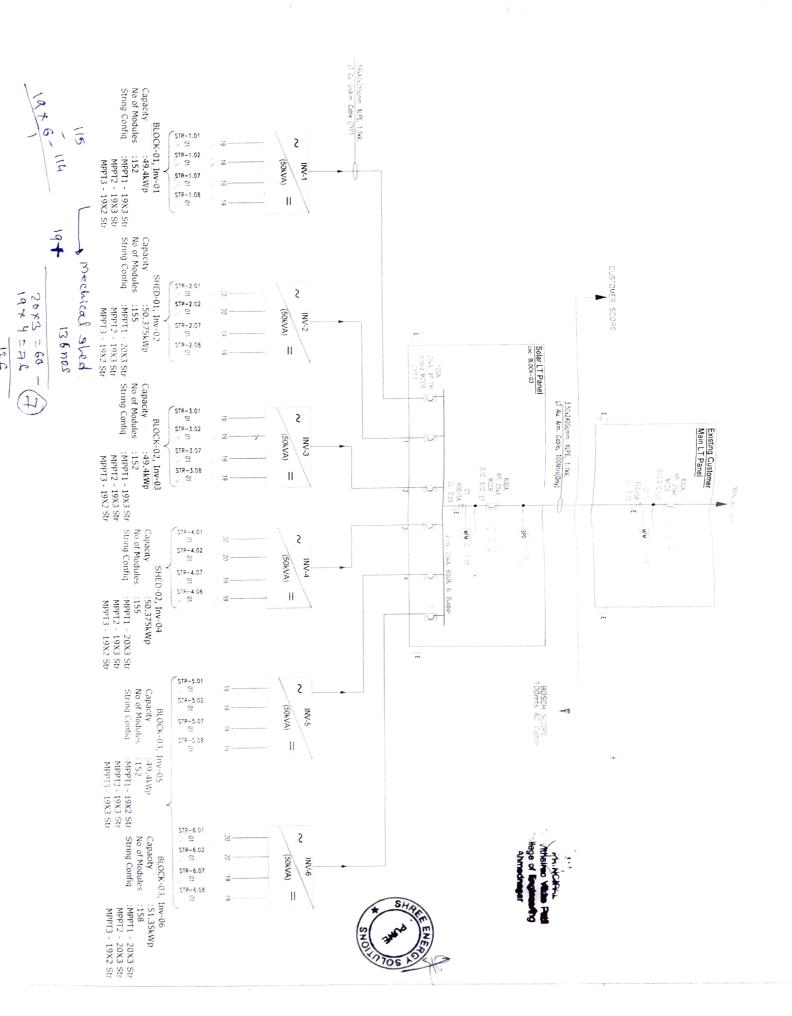
- These warranties are valid for normal use and only undernormal operating conditions. The warranties assume that the performance of the system has not been reduced by actions or events outside the sphere of influence of Bosch Limited, in particular.
- 2. Modifications/damage as a consequence of force majeure (storms, hail, 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.
- 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.
- 9. For components newly supplied for repaired, only remaining time of original time of original warranty shall be applicable

Authorised Signatory and Seal and on Grand What Charmainas

Store COF.



Date: 11th August 2018

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 31ST Jan 2018.

2: Invoice No: 180016955 dated 26th 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)11

Sunil Kalhapure

Dy Director (Tech)

Dr Vithalrao Vikhe Patil Foundation,

Ahmednagar

12/11/3.

18/8/



Engli colpge action for necessary

Bosch Limited

their 63, Bommasandra Jigani Link Road Industrial Area.

Rojapura : "age, Jigani Hobli,

Annekel 1q. 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.

180016955 26.06.2018 L85110KA1951PLC000761 AAACM9840P 29AAACM9840P1ZP

155500447 **Bosch Document Number**

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

17026951 AAATP2304C DVVPFA/PS/COE/255/31.01.2018

5,099,432.68 (

Delivery Terms

DAP-Delivered at place

Payment Terms

Freight

Vehicle No

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

Insurance LR No Carrier Header Note

300kWp Solar Power Generating System.

No of Packages /Weight-

Total Value

00000/20,306.000KG

Silo	Material / Description	Quantity	Unit	Ra	te/Unit	Taxable Value/INR
01	F002.Y38.052-KC8	923.000		5 7,6 bsidy egrated GST	0.00 5.00%	7,036,176.68 2,179,574.00- 242,830.00
	Description Customer Part No Delivery Number			8541401	1 /PS/COE/255 /:	31.01.2018
				Total Taxal Tax Amour		4,856,602.68 242,830.00

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:

21/8/18 200 amin

WHETHER TAX IS PAYABLE ON REVERSE CHARGE BASIS: NO

For Bosch Limited

Authorised

© osch Limited

Plot no 263 Bommasandra-Jigani Link Road Industrial Area,

 Ω aja η ura Viliage, Jigani Hobli,

Annekol Tq, Bangalore - 562106 India

(A) BOSCH

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 155500461

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 commissioni

Freight Vehicle No

No of Packages /Weight-

00000/450.000KG

Insurance LR No Carrier Header Note

300kW Solar Power Generating System.

SiNo	Material / Description	Quanti	ty Uni	t	Rate/Unit	Taxable Value/INR
01	F002.Y39.780-KC8	6.000		PC	489,615.17	2,937,691.02
				Subsidy	0.00	909,999.00-
	Description	Solar String Inverter 50kW-ABB		Integrated GST	5.00%	101,385.00
Customer Part No Delivery Number	1100700	ISN/SAC Code O No & Date		4010 PFA/PS/COE/255 <i> </i> /3	31.01.2018	
	In Words ount-INR: One Lakt	One Thousand Three Hundred E	Fighty Five Rune	Tax An		2,027,692.02 101,385.00 2,129,077.02

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

One Lakh One Thousand Three Hundred Eighty Five Rupees

Twenty One Lakh Twenty Nine Thousand Seventy Seven Rupees Two Paise:

WHETHER TAX IS PAYABLE ON REVERSE CHARGE BASIS: NO

For Bosch

Authorised Signatory

Te payable to Bosch Limited. Duly crossed "Account Payee Only" Payment should be made within due date as applicable from

Canara Bank, Citi Bank, Deutsche Bank AG

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

osch Limited

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

japura Village, Jigani Hobli,

nekel Tq. Bangalore - 562106 India

BOSCH

Page 1 of 1

etails of Consignee(Ship-to)

r Vithalrao Vikhe Patil Foundation adgaon Gupta(Vilad Ghat) O MIDC hmednagar-414111 STIN-27AAATP2304C1Z5 tate Code:27#Maharashtra

)etails of Receiver(Bill-to)

)r Vithalrao Vikhe Patil Foundation adgaon Gupta(Vilad Ghat) O MIDC hmednagar-414111 3STIN-27AAATP2304C1Z5 State Code:27#Maharashtra

TAX INVOICE

Tax Invoice Number **Date of Tax Invoice** CIN

PAN **GSTIN** Contact person of Acc.

29AAACM9840P1ZP 155500484

Bosch Document Number

180020888

16.07.2018

AAACM9840P

Supplier Code **Customer Code**

Your PAN P.O. No. & Date: 17026951 AAATP2304C

DVVPFA/PS/COE/255/31.01.2018

L85110KA1951PLC000761

Delivery 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

nsurance _R No Carrier ,u leaderic'nie

300kW Solar Power Generating System.

>! No	Material / Description	Qu	antity	Unit	Rate	/Unit	Taxable Value/INR
01	F002.Y41.596	1.000		PC	2.581	,950.00	2,581,950.00
				Subsidy	_,	0.00	799,802.00
				Integrate	d GST	5.00%	89,107.00
	Description	BOS and Electrical Access	sories	J			,
	Customer Part No		HSN/SAC C	ode	8502		
	Delivery Number	1183725256	PO No & Da	te	DVVPFA/P	S/COE/255 /3	1.01.2018
02	F002.Y41.597	1.000		PC	742,9	71.00	742,971.00
				Subsidy		0.00	230,148.00-
				Integrate	d GST	18.00%	92,308.00
	Description	MS/HDG Structure and Ad	ccessories				
	Customer Part No		HSN/SAC C	ode	73089090		*.*
	Delivery Number	1183725256	PO No & Da	ite	DVVPFA/P	S/COE/255 /3	1.01.2018
03	F002.Y41.598	1.000		PC	614,0	38.00	614,038,00
				Subsidy		0.00	190,209.00-
				Integrate	ed GST	28.00%	118,672.00
	Description	Other Installation Accesso					,
	Customer Part No		HSN/SAC C		39269099		
	Delivery Number	1183725256	PO No & Da	ite	DVVPFA/P	S/COE/255 /3	1.01.2018
					Total Taxable	e Value	2,718,800.00

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

Three Lakh Eighty Seven Rupees

Thirty Lakh Eighteen Thousand Eight Hundred Eighty Seven Rupees:

WHETHER TAX IS PAYABLE ON REVERSE CHARGE BASIS: NO

angenatha

Tax Amount

Total Value

For Bosch Limited 111

Cheques should be made payable to Bosch Limited。Duly crossed "Account Payee Only" Payment should be BANKERS: State Bank of India, Canara Bank, Citi Bank, Deutsche Bank AG

within due date as applicable from the date of dispatch of materials Authorised Signator

3,018,887.00

300,087.00

Bosch Limited

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

Rajapu 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

TAX INVOICE

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

180020935 12.07.2018 L85110KA1951PLC000761 AAACM9840P 29AAACM9840P1ZP

Contact person of Acc. Bosch Document Number

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 He r Note

300KWp Solar Power Generating System.

Invoice Date

00.00.0000

SI No	Material / Descripti	on Quantity	Unit	Rate/Unit	Taxable Value/INR
01	F002.Y41.001	1.000	PC Subsidy	1,494,070.00	1,494,070.09
	Service Description Customer Part No	Installation & Commissioning	Integrated G	0.00 GST 18.00%	462,813.00- 185,626.00
HSN/SAC Code	998732				
	In Words	Lakh Eighty Five Thousand Six Hundred Tv	Tax	al Taxable Value Amount al Value	1,031,257.00 185,626.00 1,216,883.00
		ve Lakh Sixteen Thousand Eight Hundred [wenty Six Rupees Eighty Three Rupees:		* ;

wres & Alc for n. a

COEA
Inward No: 655
Date: 16/8/18

WHETHER TAX IS PAYABLE ON REVERSE CHARGE BASIS: NO

For Bosch Limited

Authorised Signatory

Limi



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

10

Product warranty









IEC Certified - 61215, 61730, TS 62804, 61853

UL Certified 1703

IEC 60068-2-68 (Sand Abragion all)

Listed in Dewa Colombia Corrosion resistant)

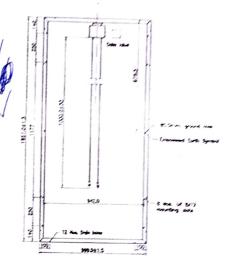
2 2 2 | 24 | 2011

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

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

72 Cells PV Solar Module Dimensions

	DESERV 3M6-300	DESERV 3M6-305	DESERV 3M6-310	DESERV 3M6-315	DESERV 3M6-320	DESERV 3M6-325
Rated power (Pmax), Wp	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	93.41	12 75	08.61	03.59
Open circuit voltage (Voc), V	4,60	4,194	11.17	er 10	46.13	15.21
Short circuit current (Isc), A	08.50	03.05	08.76	68.91	69.06	09.18
Module efficiency (%)	15.48	15.74	16.00	16.26	16.51	16.77



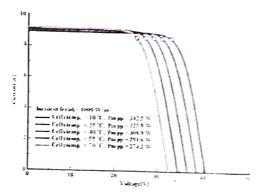
Operating Conditions

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

PV modules: RenewSys, DESERV 3M6-325

Cell Temperature Coefficients

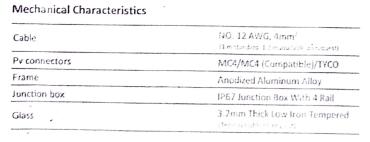
Open circuit voltage	- 0.30 % / °C	
Short circuit current	+ 0.05 % / °C	_
Nominal power	- 0.40 % / ^a C	

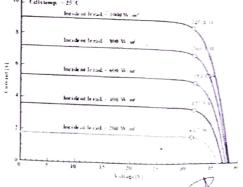


Physical Parameters

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

PV modules: RenewSys, DESERV 3M6-32S





Registered Office

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

Factory

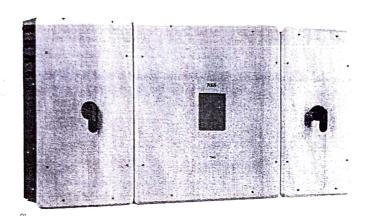
Plot No.6, Survey # 114/P, Srinagar Village, Maheshwaram Mandal, Dist-Rangareddy, Hyderabad - 501 359, Telangana, India. Tel.: + 91 40 67303000 Fax: + 91 40 67303003



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 maximum flexibility, 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,

Ethernet, RS485) combined with a Sunspec compliant Modbus 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.

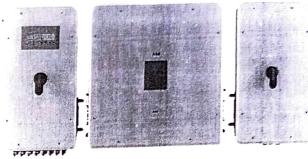
Remote firmware update of the inverter system and components via Aurora Vision*.

Highlights

- 3 Independent MPPT
- · Transformerless inverter
- · Double stage topology 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)

ABB string inverters

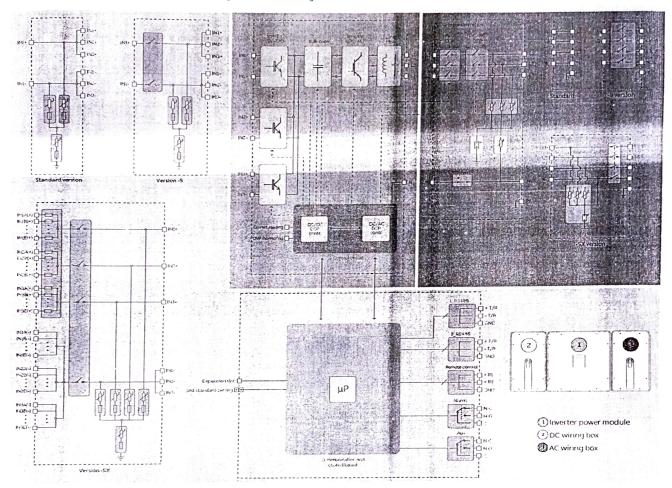
TRIO-TM-50.0-400 TRIO-TM-60.0-480 50 to 60 kW



_	TOTTETT TOTTE		
Technical data and types	TRI TRI TRI	0-TM-60.0-48C	
Type code	TRIO-TM-50.0-400		
Input side	1000 V		
Absolute maximum DC input voltage (Vmaxabs)	120 700 1	(Default 500 V)	
Start-up DC input voltage (Vstart)	420700 V (Derault 420 V)	0 V (min 360 V)	
Operating DC input voltage range (VdcminVdcmax)	U, / X V start 330 V (////// 300 T)	720 Vdc	
Rated DC input voltage (V ₆₀)	610 Vdc	61800 W	
Rated DC input power (Poer)	52000 W		
Number of independent MPPT	3	21000 W	
Maximum DC input power for each MPPT (Pwora)	17500 W	570-800 Vdc	
MPPT input DC voltage range (VMPPTmin VMPPTmax) at Pacr	480-800 Vdc	3,000	
Maximum DC input current (Idemax) for each MPPT	36 A	The last of the la	
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 Screw terminal block (Standard and -S version)		
DC connection type	or PV quick fit connector ³ (-SX and SX2 version)		
Input protection	Yes, from limited current source		
Reverse polarity protection	Yes, 1 for each MPPT		
Input over voltage protection for each MPPT - varistor	The second secon		
Input over voltage protection for each MPPT - plug In modular	Type 2 (option) with monitoring		
surge arrester	According to local standard		
Photovoltaic array isolation control	60 A / 1000 V for each MPPT (180 A in case of parallel MPPT)		
DC switch rating for each MPPT (version with DC switch)	15 A / 1000 V		
Fuse rating (version with fuses)	15/1/ 2000 -		
Output side	Three-phase (JW+PE or 4W+PE)		
AC grid connection type	50000 W	60000 W	
Rated AC power (P _{scr} @cosφ=1)	50000 W	60000 W	
Maximum AC output power (Pacmax @cosφ=1)	50000 VA	60000 VA	
Maximum apparent power (Smax)	400 V	480 V	
Rated AC grid voltage (Vac,r)	320480 V ¹⁾	384571 V 1)	
AC voltage range	The second secon	304371	
Maximum AC output current (Iacmax)	77 A 🗸		
Contributory fault current	92 A		
Rated output frequency (f.)	50 Hz / 60 Hz		
Output frequency range (fminfmax)	4753 Hz / 5763 Hz ²⁾		
Nominal power factor and adjustable range	> 0.995; 01 inductive/capacitive with maximum Smax		
Total current harmonic distortion	<3%		
Maximum AC cable	95 mm² copper only (150 mm² copper/alluminum with TRIO-AC-WIR	NG-KIT)	
AC connection type	Screw terminal block, cable gland PG42		
Output protection			
Anti-islanding protection	According to local standard		
Maximum external AC overcurrent protection	100 A		
Output overvoltage protection - varistor	Yes		
Output overvoltage protection - plug In modular surge arrester	Type 2 (option) with monitoring		
Operating performance			
Maximum efficiency (ıjmax)	98.3%	98.5%	
Weighted efficiency (EURO)	98.0% / -	98.0% / -	
Communication	20.0707	36.0707	
Embedded communication interfaces	2x RS485, 2x Ethernet (RJ45), WLAN (IEEE802.11 b/g/n @ 2,4 G	LI3)	
	Modbus RTU / TCP (Sunspec compliant); Aurora Protocol	772)	
Communication protocols	place of the first term of the		
Remote monitoring services	Standard level access to Aurora Vision monitoring portal		
Advanced features	Integrated Web User Interface; Display (option); Embedded logging and direct transferring of data to Cloud		
Environmental			
Ambient temperature range	-25+60°C (-13140 °F) -25+60°C with derating above 45 °C (113 °F) with derating above	(-13140 °F)	
Relative humidity	with derating above 45 °C (113 °F) with derating above 4% 100% condensing	43 ((113 1)	
Sound pressure level, typical	75 dB(A) @1 m		
Maximum operating altitude			
Physical	2000m / 6561ft		
invironmental protection rating	IDEC (IDEC)		
Cooling	IP65 (IP54 for cooling section)		
Dimension (H x W x D)	Forced air		
A SECRETARY OF THE PROPERTY OF	725 mm x 1491 mm x 315 mm / 28.5" x 58.7" x 12.4"		
Veight	95 kg / 209 lbs overall, 66 kg / 145 lbs electronic compartment,	antional)	
founting system	15 kg / 33 lbs AC wiring box (full optional), 14kg / 31 lbs DC wiring box (full	optionary	
2 - 2 T T T T T T T T T T T T T T T T T	Wall bracket, horizontal support		

Wall bracket, horizontal support

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



Technical data and types

Type code	TRIO-TM-50.0-400	TRIO-TM-60.0-480		
Safety				
Isolation level	Transformerless			
Marking	CE			
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 0126-1-1, VDE-AR-N 4105, G59/3, EN 50438 (not for all national appendices), RD 1699, RD 413, RD 661, P.O. 12-3, AS 4777, BDEW, NRS-097-2-1, MEA, PEA, IEC 61727, IEC 60068, IEC 61683, VFR-2014, IEC 62116			
Available product variants				
Inverter power module	TRIO-TM-50.0-400-POWER MODULE	TRIO-TM-60.0-480-POWER MODULE		
DC wiring box options 4)				
Input connections with terminal blocks	DCWB-TRIO-TM-50.0-400	DCWB-TRIO-TM-60.0-480		
Input connections with terminal blocks + DC switch	DCWB-S-TRIO-TM-50.0-400	DCWB-S-TRIO-TM-60.0-480		
15 quick input connections + fuses (single pole) + DC switch 5)	DCWB-SX-TRIO-TM-50.0-400	DCWB-SX-TRIO-TM-60.0-480		
15 quick input connections + fuses (both poles) + DC switch 51	DCWB-SX2-TRIO-TM-50.0-400	DCWB-SX2-TRIO-TM-60.0-480		
AC wiring box options		DCTTO-3X2-TRIO-TT		
AC output connections with terminal blocks	ACWB-TRIO-TM-50.0-TL-OUTD	ACWB-TRIO-TM-60.0-TL-OUTD		
AC output connections with terminal blocks + AC switch 59	ACWB-SX-TRIO-TM-50.0-TL-OUTD	ACWB-SX-TRIO-TM-60.0-TL-OUTD		
Optional available		ACWB-SX-IRIO-INFO0.0 12		
TRIO-GROUNDING-KIT	Available	Available		
rio-AC-Wiring-kit	Available	Available		

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

The Frequency range may vary depending on specific country and standards.

Please refer to the document "String inverters." Product manual appendix, available at www.abb.com/solarinverters for information on the quick-fit connector brand and model. used in the inverter

[&]quot;DCWB with display is available as optional, with dedicated wiring box version "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 the product." the product

(Subject to Ahmednagar 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. 2779782

PURCHASE ORDER

	10001 22/122/
To	Ref:- DVVPFA/ PS/COE-Hostel A&B/2021-22/ 122
M/s. International Electricals	
	Date:- 10 / 01 / 2022
Name Manmad road, Ahmednagar-414111.	Delivery Period :- Immediate
0241-2344454,2353954	Date :- 20 /12 / 2021
Our Enquiry No.:- DVVPFA/ PS/COE/2021-22	
P.C.M. :	Date:- 28 / 12 / 2021
Your Quotation No. : - 651	Date:- 28 / 12 / 2021
Tour water	

Dear Sir,

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

ear Sir Plea	ase arrange to supply the following material as per to	erms & condi	10113 111011	Rate	Per
r.	Description of Material	Quantity	Unit	Rs. Ps.	• •
No.				474.00	Set
	Supply of:	100	Set	174.00	
1	20W LED Tube Light Set	90	Nos.	36.40	No.
2	36 W Tube Light Bar	55	Nos.	25.00	No.
3	36W PL Tube Side Holder- 4 pin	35	Nos.	170.00	No.
4	Fan Dimer (socket type)	150	Nos.	24.60	No.
5	6 A 5 Pin Socket (Anchor Penta)	60	Nos.	39.75	No.
6	2 Switch + 2 Socket PVC Gang Box	07	Pkt.	55.00	Pkt.
7	Screw 35/8 SWG	70	Pkt.	8.00	No
8	Rawai Plug (grip)	40	Nos.	20.00	No.
9	Fan Clamps Pin With Nut	05	Nos.	55.00	No.
10	D W 5% From Concrete Plain	05	Bundle	560.00	Bundle
11	1.5 sqmm PVC Al. 2 Core Service Wire 90 Mtr.				1

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

18% GST extra

Delivery

4. Payment

Against delivery.

5. Discount

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

O/c. Purchase /Store/ Elect. dept. /Account/Account Foundation/Meeting Section

Secretary