

# नगर पंचायत अशरफपुर किछौछा

जनपद—अम्बेडकरनगर ।

विश्व विख्यात दरगाह—किछौछा शरीफ  
के विकास हेतु  
त्वरित आर्थिक विकास योजना  
का डी०पी०आर०

अनुमानित लागत—421.58लाख  
वर्ष 2012—13

अधिशाषी अधिकारी  
नगर पालिका परिषद जलालपुर  
अम्बेडकरनगर ।

अध्यक्ष  
नगर पालिका परिषद जलालपुर  
अम्बेडकरनगर ।

निकाय का नाम:— नगर पंचायत अशरफपुर किछौछा—अम्बेडकरनगर

## संगठनात्मक ढाँचा

अध्यक्ष का नाम:—	श्रीमती शबाना खातून
अधिशाषी अधिकारी का नाम:—	श्री आलोक कुमार सिंह
नगर का क्षेत्रफल:—	5.00 वर्ग किमी०
वर्ष 2001 की जनसंख्या:—	13438
रैपिड सर्वे के अनुसार पिछड़ी जाति संख्या:—	8028
अनुसूचित जाति की जनसंख्या:—	1632
वार्डों की संख्या:—	12

अधिशाषी अधिकारी  
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## **SPECIFICATION**

**All work Shall be carried out as per details specification of P.W.D.**

**Rates are taken by current P.W.D. Schedule rate in force from 1/6/12**

**J.E**

**E.O.**

**P.A.**

## Summary of Project Cost

**Nagar Panchayat Asharafpur Kichhauchha, Ambedker Nagar.**

<b>S.n.</b>	<b>Description of Work</b>	<b>Estimated Cost (in Lac)</b>
1	Road & Patri Work	265.24
2	Nala Nirman	56.48
3	Light Equipments	74.24
4	Water Supply	26.00
	<b>Total:-</b>	<b>421.96</b>

अधिशायी अधलकरी  
नगर पंचायत अशरफपुर कलछौछा  
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अध्यक्ष  
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अम्बेडकरनगर ।

# **Road & Patri Work**

## Road/ Patri work

Purposed work wise Cost as per Attached Rate

### NAGAR PANCHAYAT ASHRAFPUR KICHHAUCHHA-AMBEDKAR NAGAR

Sr.	Name of work	L	B	Area	Rate	Amount
1.	Construction of Interlocking From Nai Basti Bye pass to Madarsa Makhjanul Uloom at Dargah.	430	3.50	1505 m <sup>2</sup>	@832.00	12,52,160.00
2.	Interlocking work from Nai Basti to chahar Gujar Baithka at Dargah.	620	3.60	2232 m <sup>2</sup>	@832.00	18,57,024.00
3.	Interlocking work from Baithka Marg to Kamal Pandit Mandir at Dargah.	350	3.30	1155 m <sup>2</sup>	@832.00	9,60,960.00
4.	Interlocking work From Dargah Main Road to S.H.L.I. College North Gate at Dargah.	310	3.30	1023 m <sup>2</sup>	@832.00	8,51,136.00
5.	Construction of CC Road From Bhidur Road to BB Bilai Road at Dargah.	600	3.30	1980 m <sup>2</sup>	@832.00	16,47,360.00
6.	Construction of Interlocking From H/o Ibrar to BB Bilai Majar Via Basharat Baba at Dargah.	1300	3.30	4290 m <sup>2</sup>	@832.00	35,69,280.00
7.	Earth Filling & Khadra work from Bhidur Bye pass Road to East side Khadra Marg via H/o Sri Jahangeer Asharaf.	260	3.30	858 m <sup>2</sup>	@460.00	3,94,680.00
8.	Pichroad from Dargah Bhidur Road Bye pass up to H/o Sri Akbar.	410	3.30	1353 m <sup>2</sup>	@1038.00	14,04,414.00
9.	Construction of Pichroad from KCH 1st Morh to Mali Chauraha.	990	3.60	3564 m <sup>2</sup>	@1038.00	36,99,432.00
10.	Construction of Pichroad from Mali Chauraha to PWD Road South side Near Mathiya at Dargah Kichhauchha.	620	3.30	2046 m <sup>2</sup>	@1038.00	21,23,748.00
11.	Road Side earth filling & Khadanja work from H/o Jamal Ahamad to South side PWD road Near Mathiya at Kichhauchha.	2X280	1.70	952 m <sup>2</sup>	@460.00	4,37,920.00
12.	Interlocking work Both side Patri From KCH 1st Morh to H/o Dr. Ram Chandra at Kichhauchha.	2X610	1.50	1830 m <sup>2</sup>	@832.00	15,22,560.00
13.	Interlocking work From H/o Madan Lal Gupta to Dihwa Abadi up to Kamal Pandit Marg via H/o Chad Shah, Rahman Shah at Dargah	390	3.60	1404 m <sup>2</sup>	@832.00	11,68,128.00
14.	Interlocking work Rubber Molded Both side Patri From H/o Ganidar Shah at BSK Road to N.P. Office at Main Road.	2X600	2.00	2400 m <sup>2</sup>	@1483.00	35,59,200.00
15.	Interlocking work Rubber Molded Both side Patri From N.P. Office to Infant India School at Main Road.	2X100	2.00	400 m <sup>2</sup>	@1483.00	5,93,200.00
16.	Interlocking work Rubber Molded Both side Patri From Infant India School to Goalpur Chauraha at Main Road.	2X250	2.00	1000 m <sup>2</sup>	@1483.00	14,83,000.00

**Total: 2,65,24,202=00**

# NAGAR PANCHAYAT ASHRAFPUR KICHHAUCHHA-AMBEDKAR NAGAR

## Model Estimate

**Name of work:-** Construction of CC Road.  
width

Taken 10m length

3.30m

S. n.	Item of work	No.	L	B	H/D	Qty.	Rate	Amt
1.	B/edging work class 150m B/w in 1:3 Cement C. sand mortar.	1X2	10.00	0.23	0.20	0.92 m <sup>3</sup>	@3760/-	3,459.20
2.	Laying Pcc in 10:5:1 mortar in OBB, F. Sand & Cement mortar etc all.	1X1	10.00	2.85	0.10	2.85 m <sup>3</sup>	@2750/-	7,837.50
3.	Laying Cement Concrete in 1:2:4 mortar as slab in Concrete, C. sand stone gritte mortar in etc.	1X1	10.00	2.85	0.10	2.85 m <sup>3</sup>	@5700/-	16,245.00
4.	P/F Joints Funties with bitumenous Board.	1X3	-	2.85	-	8.55Rm	@45/-	384.75
5.	S/F of 125 micron polythene.	1x1	1.00	2.85	-	28.50 m <sup>2</sup>	@6.50	185.25

**Total: 28,111=70**

**Add 1% sase:(+) 281=11**

**Total: 28,392=81**

**Add 1% contingencies: 567=85**

**G. Total:28,960=66**

**Say Rs. 28,960=00**

**28,960/33 sqm=877.57**  
**say Rs. 878/=kg sqm**

# NAGAR PANCHAYAT ASHRAFPUR KICHHAUCHHA-AMBEDKAR NAGAR

## Model Estimate

**Name of work:-** Construction of CC Road.  
width

Taken 10m length

3.30m

S. n.	Item of work	No.	L	B	H/D	Qty.	Rate	Amt
1.	B/edging work class 150m B/w in 1:3 Cement C. sand mortar.	1X2	10.00	0.23	0.20	0.92 m <sup>3</sup>	@3760/-	3,459.20
2.	Laying Pcc in 10:5:1 mortar in OBB, F. Sand & Cement mortar etc all.	1X1	10.00	2.85	0.10	2.85 m <sup>3</sup>	@920/-	2,622.50
3.	S/L of 80mm thick Cement Concrete. Interlocking Bricks as specified strength not less than 30mpa and weight 4.50Kg Per No. I shapped. with 8cm base of F-sand and Joints fill up by sand etc all.	1X1	10.00	2.85	0.10	28.50 m <sup>3</sup>	@722/-	20,577.00

**Total: 26,658=20**

**Add 1% sase:(+) 266=58**

**Total: 26,924=78**

**Add 1% contingencies: 538=49**

**G. Total:27,463=27**

**Say Rs. 27,463=00**

**27,463/33 sqm=832.21**

**Say Rs. 832 m<sup>2</sup>**



**NAGAR PANCHAYAT ASHRAFPUR KICHHAUCHHA-AMBEDKAR NAGAR**  
**Model Estimate**

**Name of work:-** Interlocking work Road side Patri with Zig Zag Shapped. Rubber Molded.  
Taken 10m length 3.30m width

S. n.	Item of work	No.	L	B	H/D	Qty.	Rate	Amt
1.	B/edging work class 150m B/w in 1:3 Cement C. sand mortar.	1X2	10.00	0.23	0.15	0.69 m <sup>3</sup>	@3760/-	2,594.40
2.	Laying Pcc in 10:5:1 mortar in OBB, F. Sand & Cement mortar etc all.	1X1	10.00	2.85	0.08	2.28 m <sup>3</sup>	@920/-	2,097.60
3.	12mm thick Cement Plaster in 1:3 cement Cores & mortor including all work as Item No. NBO 17.58(i)							
4.	S/L of 80mm thick Cement Concrete. Interlocking Bricks Zig Zag shapped as specified strength not less than 40mpa and weight 4.50kg Per No. I sapped. with 8cm base of F.sand and joints fill up by sand etc. all	1X1	10.00	2.85	-	28.50 m <sup>2</sup>	@1040.50/-	29,654.25
5.	E/w in filling & its cartage up to 3km distance including all.	1X1	10.00	3.30	$\frac{(0.45+60)}{2}$	17.32 m <sup>3</sup> Deduct 12.5% Ceupation <u>2.16 m<sup>3</sup></u> <u>15.16 m<sup>3</sup></u>	@151/-	2,289.16
6.	Laying class 150m BOE pavements ... Joints fill up by lorulenth.	1X1	10.00	3.30		33.00 m <sup>3</sup>	@310/-	10,230.00
7.	Providing of a sign board.	1	-	-	-	1 No		

**Total: 46,865=41**

**Add 1% sase:(+) 474=92**

**Total: 47,977=33**

**Add 2% contingencies: 959=54**

**G. Total: 48,936=87**

**Say Rs. 48900=00**

**48,937/33sqm =1482.93**

**Say Rs. 1483/sqm**

**NAGAR PANCHAYAT ASHRAFPUR KICHHAUCHHA-AMBEDKAR NAGAR**  
**Analysis of Rate**

S/L of 80mm thick Cement Concrete. Interlocking Bricks Zig Zag shaped Rubber Molded. as specified strength not less than 40mpa and weight 4.50kg Per No. I sapped. with 8cm base of F.sand and joints fill up by sand etc. all

Cost of Interlock. as PWD Lko Schedule 2010.

	Rs. 23/= Piece.
Consumption Per Sqm = 31Piece. 31X23 =	713.00
Rate Increged. 10% =	<u>71.30</u>
	784.00
8cm thick F. sand base (chusion)=	
0.08X800/ m <sup>3</sup> =	64.00
Top Joints Filling with sand.	
0.025X800/ m <sup>3</sup> =	<u>20.00</u>
	868.30
Add 13.5% Vatt & sat (+)	<u>117.22</u>
	Rs. 985.52
	Say Rs. 985.50
Labor Laying Charge: (+)	<u>55.00</u>
	Rs.1040.50
	Rs. 1040.50 Per sqm.

**NAGAR PANCHAYAT ASHRAFPUR KICHHAUCHHA-AMBEDKAR NAGAR**  
**Analysis of Rate**

Item:- Class 150m BOE Pavements dry & Joints Fill up by by local earth.

Mutual cost

Class 150 m Brics. Per sqm =  
278.24

59.20X4700/thousand=

Add 5% C.P. (+) 13.91

Rs. 2.92.15

Labor Laying Charge: (+) 37.00

Rs. 329.15

Say Rs. 329/ **m<sup>2</sup>**

# **Nala Nirman**

## Nala Nirman

Purposed work wise Cost as per Attached Rate

### NAGAR PANCHAYAT ASHRAFPUR KICHHAUCHHA-AMBEDKAR NAGAR

<b>Sr.</b>	<b>Name of work</b>	<b>L</b>	<b>B</b>	<b>Area</b>	<b>Rate</b>	<b>Amount</b>
1.	Construction of Nala from H/o Smt. Noorjahan to Behind H/o Syed Kumel Asharaf (0.60+0.90/2)	190	Estimate Include	190Rm	@3421.00	6,49,990.00
2.	Construction of Nala From H/o Sri Syed Fakhruddin to Nai Basti Via. Public Latrine Land in Makhdoom Nagar Dargah.	250	Estimate Include	250Rm	-	9,62,500.00
3.	Nala from H/o Sri Badar Ali to Zamia Sufia Via Makhdoom-E-Shani Talab, Dargah, Nagar Panchayat Ashrafpur Kichhauchha.	325	Estimate Include	325Rm	-	39,98,000.00

**Total: 56,10,490=00**

## Details of Measurement

### Jal Nikasi

**Name of Local Body:-** Nagar Panchayat Ashrafpur Kichhauchha-Ambedkar Nagar

**Name of work:-** Construction of Nala

S. n.	Item of work	No.	L	B	H/D	Qty.	Rate	Amt
1.	Cleaning of silt & removal from site	Job				LS		3,000.00
2.	E/W in Excavation in foundation as in ordinary soil including all completion of the work Cross. S.I. No. 251	1X1	145	1.15	0.70	116.72 m <sup>3</sup>	@70/-	8,170.40
3.	Laying cement conc. in foundation in 12:1 ratio in OBB, f-sand g cement Mortor. S.I. No. 273	1X1	145	1.15	0.12	20.01 m <sup>3</sup>	@2600/-	52,026.00
4.	Class-150 M brick work in 1:4 cement & F-sand Mortor including all work. S.I. No. 305(a)	1X1 1X1 1X1 1X1	145 X 145 X 145 X 145 X	1.15 0.35 0.35 0.23	0.12 0.23 0.58 0.58	20.01 m <sup>3</sup> 23.34 m <sup>3</sup> 29.43 m <sup>3</sup> 92.12 m <sup>3</sup>	@3325/-	3,06,299.00
5.	12 mm thick plaster in 1:4 ratio including all work S.I. No. 584	1X1	1.45	2.76	-	400.20	@106/-	42,421.20
6.	RCC work in 1:2:4 ratio in cement c-sand g 20 mm dala stone girt Mortor etc all S.I. No. 284(a)	1X30	1.00X	1.15	X0.15	5.17 m <sup>3</sup>	@6400/-	33,088.00
7.	S/F of mild steel bars including cutting etc all work. S.I. No. 504				<u>5.17X78.5X1.00</u> 100	4.06Ql	@6000/-	24,360.00
8.	Earth removal from site upto 1km Distance				Same as Item No.2	105 m <sup>3</sup>	@109/50	12,702.00
9.	Provision of sign Board at Site.				Job	1 No.		6800.00

**Total: 4,88,866=60**

**Add 1% sase:(+) 4888=60**

**Total: 4,93,755=26**

**Add 1% contingencies: 2300=00**

**G. Total:4,96,055=26**

**Say Rs. 4,96,000=00**

**4,96000/145=3420.68**

**say Rs. 3,421.00/Rm**

## Detail of Measurements

**Name of Work:** Nala from H/o Sri Badar Ali to Zamia Sufia Via Makhdoom-E-Shani Talab, Dargah, Nagar Panchayat Ashrafpur Kichhauchha.

S.n	Item of work	No.	L	B	H/D	Area	Rate	Amount
1.	Earth work in filling or embankment & its cartage up to 3km distance with 8 No. Lead in or under foul position too.	1X1	240	$\frac{4.00}{2}$	$\frac{(0.90+1.20)}{2}$	504.00 m <sup>3</sup>	@227/-	1,14,408.00
2.	cleaning & Sweeping work of Nala Silt and remove from site up to 1km distance with 8No. Leads by Head load.	1X1	325	4.00	$\frac{(0.74+0.90)}{2}$	1072.50 m <sup>3</sup>	@185.5/-	1,98,948.75
3.	Extra Sweeping work as required.	Job	-	-	-	L.S	-	40,000.00
4.	S/filling of Brick bats with 1:4 Cout F. sand mortar.	1X1	300	4.22	0.60	759.60 m <sup>3</sup>	@920/-	69120.00
5.	C. Concrete in fd in 12:6:1 ratio in OBB, F. sand one coat mortar.	1X1	325	3.72	0.30 Say Rs.....	362.70 m <sup>3</sup> <u>363.00 m<sup>3</sup></u>	@2600/-	9,43,800.00
6.	C. Concrete in 1:2:4 ratio in cement. C. sand and stone gritte mortar including all.	1X1	325	2.12	0.20	137.80 m <sup>3</sup>	@5700/-	7,85,460.00
7.	1st B/w in 1:4 Cement C. sand mortar including all.	1X2	325	$\frac{(0.46+0.36)}{2}$	1.45 Say Rs.....	381.71 m <sup>3</sup> <u>382.00 m<sup>3</sup></u>	@3575/-	5,81,308.50
8.	12mm pumping in 1:3 cement C. sand mortar including all.	1X1	325	5.00	-	1625 m <sup>3</sup>	@122/-	1,98,250.00
9.	Rcc/w in 1:2:4 ratio in Cement, C. sand & stone Gritte mortar including all.	1X1	50.00	2.10	0.15	15.75 m <sup>3</sup>	@6400/-	1,00,800.00
10.	S/F of Mild steel base including Cutting &	$\frac{15.75 \times 78.5 \times 1.00}{100}$			Say Rs.....	12.363 12.360	@6000/-	74,160.00

**Total: 38,05,136.75**

**Add 2% for Talab Water discharging with Pumping: 76,102.73**

**Total: 38,81,239.48**

**Add 1% sase:(+) 38,812.39**

**Total:**

**39,20,051.87**

**Add 2% contingencies:**

**78401.23**

**G. Total: 39,98,452.90**

**Say Rs. 39,98,000.00**

# **Light Equipment**



## Light Equipments

### NAGAR PANCHAYAT ASHRAFPUR KICHHAUCHHA-AMBEDKAR NAGAR

<b>Sr.</b>	<b>Item of work</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
1.	S/F of 20mtr High Mast Lighting Bajaj Make. Near Neer Sharif North & South side & Baithka Chahar Gujar at Dargah.	3 No.	8,31,488/-	24,94,464/-
2.	S/F of 12 Watt Solar Z LED with Panel, Batteries, Poles Bajaj Make Complete.	25 No.	66,000/-	16,50,000/-
3.	S/F of 250 Watt Sodium Vapor Lamps Complete Fittings B.G.E.S. -T. I.P-65 Bajaj Make.	50 No.	9,596/-	4,79,800/-
4.	S/F of 10 KVA Capacity Solar Plant.	1 No.	28,00,000/-	28,00,000/-

**Total:- 74,24,264/- Lacs**

# Bhambri Enterprises

794, Joshi Road, Karol Bagh, New Delhi-110005

Dear Sir

Date:11/10/12

## Subject: Quotation for 1 K watt solar Power Plant

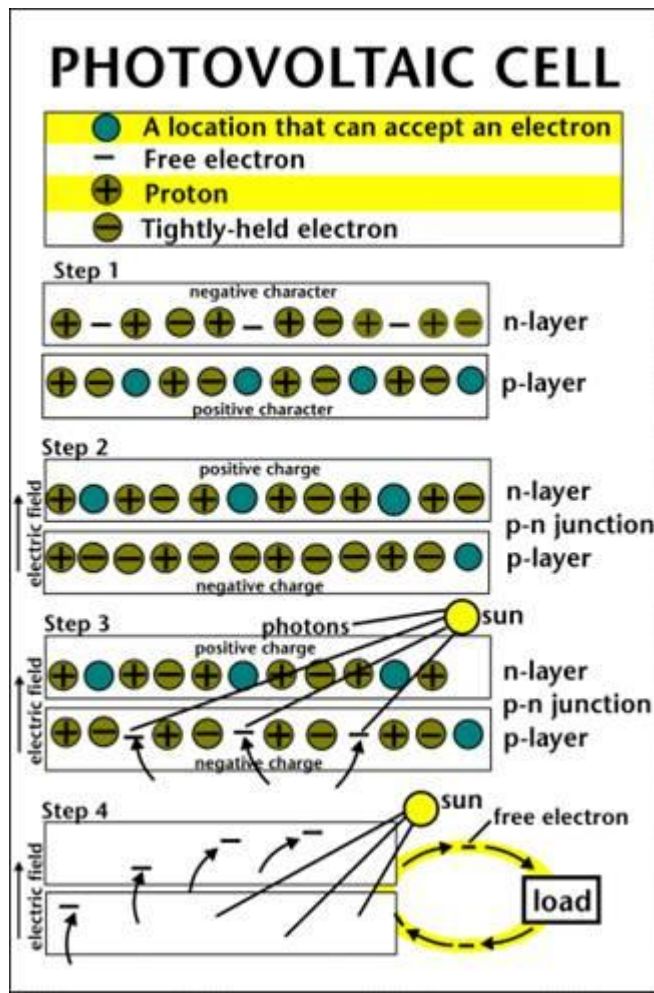
### Turnkey for Solar PV based solutions

**Bhambri Enterprises** provides end to end solution needed to conceptualize, design, engineer and construct Solar PV power projects to meet the specific requirements and expectations of the customers. Backed by on-ground experience and industry equipment and knowledge alliances, we ensure timely and quality project execution.

### System Description

Photovoltaic (PV) is the field of technology and research related to the application of solar cells which convert the sunlight, including sun ultraviolet radiation directly into electricity. PV allows you to produce electricity— without noise or air pollution. PV systems also never fuel.

Due to the growing demand for clean sources the manufacture of solar cells and photovoltaic arrays has expanded dramatically years. Photovoltaic devices use semiconducting materials to convert sunlight electricity. Usually a roof with a south face and exposure to several hours of sunlight per day required. The solar radiation used to create can fluctuate with changing conditions and the position of the Earth relative to the sun.



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electricity

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Nevertheless, almost all Indian regions have useful solar resources that can be accessed at some level.

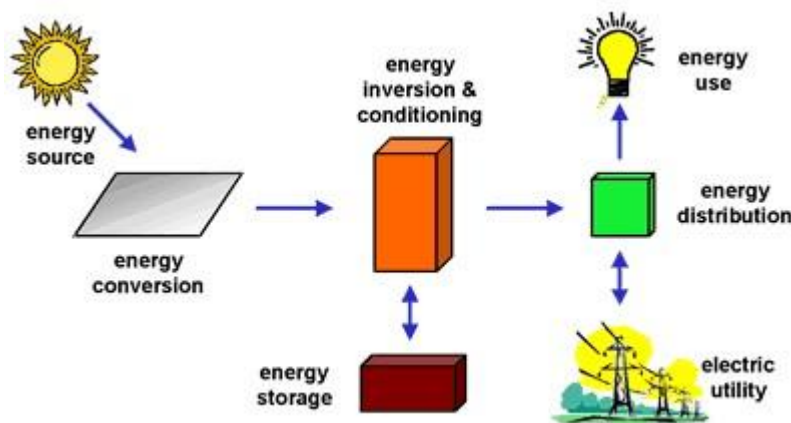
Photovoltaic (PV) cells are usually made of silicon and are called semiconductors. The way they work is that when light strikes the cell, a certain portion of the light is absorbed within the semiconductor material. This absorbed light energy is transferred to the semiconductor, which collides into electrons, allowing them to flow freely. PV cells also all have one or more electric fields that act to force electrons freed by light absorption to move, creating an electrical current.

There are two main types of solar power systems, also known as a photovoltaic (PV) system or solar electric system are off-grid systems (Stand-alone solar power systems) and on-grid system (grid-connected or utility-interactive systems).

No matter the off-grid systems or on-grid system, a system used to transform solar radiation directly into electricity. At the heart of a solar power system, are solar cells, which are interconnected to form solar modules (solar panels) and solar arrays.

The size and configuration of a system depend on its intended task. Solar modules and arrays can be used to charge batteries, operate motors, and to power any number of electrical loads. With the appropriate power conversion equipment, solar power systems can produce alternating current (AC) compatible with any conventional appliances, and can operate in parallel with, and interconnected to, the utility grid (see grid coupling).

Among the components of a complete solar power system may be a DC-AC power inverter, a battery bank, a system and battery controller, auxiliary energy sources, and sometimes the specified electrical load (appliances). In addition, an assortment of balance of system hardware, including wiring, overcurrent, surge protection and disconnect devices, and other power processing equipment.



## चण जलचपबंस

“वसंत च्वूमत”लेजमउ

The Photovoltaic (PV) Off Grid system has mainly 3 components:

- The SPV (Silicon PV) array

- Module Mounting Structure
- Charge Controller Unit (CCU) / Inverter

### ***The SPV (Silicon PV) array***

We will source state of the art, internationally tested & TUV/UL and MNRE certified SPV Modules (independently tested at our own testing facility) from key national technology vendors. If the project allows installation of relatively cheaper 'A' class SPV Modules we will arrange to procure the same. The Solar Photo Voltaic (SPV) module array shall be of high efficiency made of SPV cells and will be hermetically sealed under toughened high transmission glass to produce highly reliable weather resistant modules. The SPV modules shall satisfy the environmental test conditions as per IEC-68- 2-2 Test Bb, IEC-68-2-1 Test Ab, IEC-68-2-14, IEC-68-2-38, IS 9000 (PART 16), Clause 16.0 of QM- 333, & IEC : 61215, IEC-61701.

### ***Module Mounting Structure***

The mounting Structure shall be designed in accordance with the latitude of the place of installation. The steel for the mounting structure shall be as per IS 2062: 1992 and withstands the wind speed of 150 KM/hour. The array structure shall be so designed that it will occupy minimum space without sacrificing the output of SPV panels. The solar panels to be installed by the Vendor will have suitable mounting super structure not less than 1.0 meter in height in order to avoid any unwanted access to the same by anybody except person authorized for the same. The Panel Fastening arrangement should withstand all uplift and other loads due wind velocity (150KMPH).

### ***Charge Controller Unit (CCU)/ Inverter***

The Charge controller unit manages power supply employing grid/ diesel generator and SPV. It provides for the necessary DC power supply to the battery/ load and also protect battery bank from over charge, deep discharge, reverse polarity and short circuit, thereby ensuring that the electrical characteristics are met for optimum performance and reliability. Also Inverter converts the DC into AC power to be used for loads at Home.

## BoQ

BoQ and details of major components for the 1 KWp Solar photovoltaic (SPV) power systems with or without Battery Banks are as follows:

- Maximum of 4 SPV High Efficiency Panels Considered with rating 250 Wp amounting to approx. 1 KWp SPV system. Panel Configuration may change but combined power will be 1 KWp.

Specially designed GI module mounting structure to be made to enable mounting of SPV Modules.

- Combiners, mounted to the underside of the solar array structure, to parallel strings of modules such that maximum power is collected from the modules and transferred to the Charge Controller.
- Inverter with rating of 1 KW is considered, & company may be Optimal, Schneider, Delta or Su-kam.
- For Off Grid System with optional Battery Bank, Battery will be Solar Tubular Aprox 4 KWH (12v, 100Ah \*4) , having 3 years back to back warranty and have useful life over 4 years.
- Mounting hardware and system DC cabling – Finolex / Asian Cables/ Equivalent.
- Project Management including, design, supply, installation, Construction & Commissioning.
- Our emphasis on quality, throughout the organization, ensures that all components are mutually compatible and manufactured into a professionally engineered and integrated power system, thus enhancing system reliability, performance and longevity.

## Module Specifications (250Wp)

TYPE	250Wp
Maximum power(Pmax)@STC*	250 WP
Voltage at Pmax(Vmax) @STC*	31.10 V

## MECHANICAL CHARACTERISTICS

Solar cells	60 polycrystalline 6" silicon cells(156 x156mm) in series.
Front cover	High transparent, low iron solar glass (tempered) – 4 mm (0.157") glass.

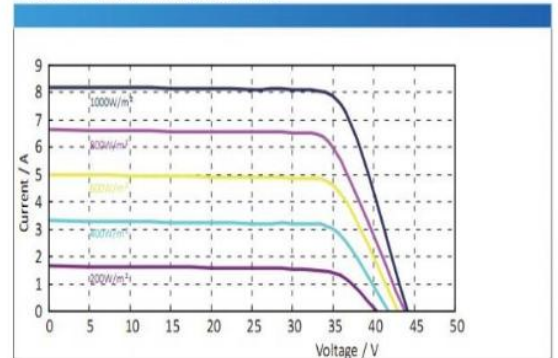
Current at Pmax(I <sub>max</sub> ) @STC*	7.78 A
Short circuit current(I <sub>sc</sub> ) @STC*	8.32 A
Open circuit voltage(V <sub>oc</sub> ) @STC*	37.84 V
Cell efficiency	16.66%
Module efficiency	15.00%
Tolerance	±3%
Efficiency reduction at 200W/m <sup>2</sup>	<5% reduction (efficiency14.30%)
Limiting reverse current(IR)	8.3 A
Temperature coefficient of I <sub>sc</sub>	(+0.06±0.018)%/°c
Temperature coefficient of V <sub>oc</sub>	(-0.38±0.004)%/°c
<b>Temperature coefficient of Pmax</b>	(-0.44±0.004)%/°c
<b>NOCT***</b>	47±2°C
<b>Maximum series fuse rating</b>	20 A
<b>Application Class(According to IEC 61730:2007)</b>	Class A Installation
<b>Max.System Voltage</b>	1000V(IEC 61730) 600V(UL)
<b>Maximum power(P<sub>max</sub>)@NOCT**</b>	188.81 Wp
<b>Voltage at P<sub>max</sub>(V<sub>max</sub>) @NOCT**</b>	28.35 V
<b>Current at P<sub>max</sub>(I<sub>max</sub>) @NOCT**</b>	6.66 A
<b>Short circuit current(I<sub>sc</sub>) @NOCT**</b>	7.23 A
<b>Open circuit voltage(V<sub>oc</sub>) @NOCT**</b>	34.9 V
<b>ABSOLUTE MAXIMUM RATINGS</b>	
Operating temperature (min to max ,°F/°C)	-40 to +194°F / -40 to +90°C
Storage temperature(min to max ,°F/°C)	-40 to +194°F / -40 to +90°C
Dielectric insulation voltage	3000 V

Encapsulant	EVA
Back cover	White polyester
Frame	Silver anodized aluminum(63400wp)
Diodes	3 pcs
Junction box	IP 65
Cables	Junction box with mc plug connector cables, 1 x4 mm <sup>2</sup> , length 900 mm
Dimensions(LXWXD)	1639x982x35 mm / 64.52 x38.66 x1.37"
Weight	22.5 kg / 50 lbs

**फन-सिखल जखल जैज दल डिमन्स**

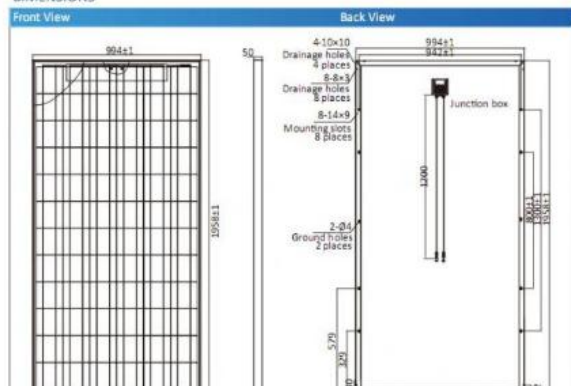
Temperature cycling range	-40°C to+85°C for 200 Cycles
Humidity freeze, damp heat	85°C and 85% relative humidity for 1000h.
Static load front and back (e.g. wind)	2400Pa(equivalent to 245kg/m <sup>2</sup> load distributed)
Front loading(e.g. snow and wind)	5400Pa****(equivalent to 550kg/m <sup>2</sup> load distributed)
Hailstone impact	25 mm hail at 23 m/s from 1m distance
Impulse voltage test	8000V waveform impulse according to high voltage test techniques IEC 60060-1 Standard.
Reverse current overload test	135% of the overcorrect protection rating for two hours.

IV CURVE AT DIFFERENT IRRADIANCE LEVELS



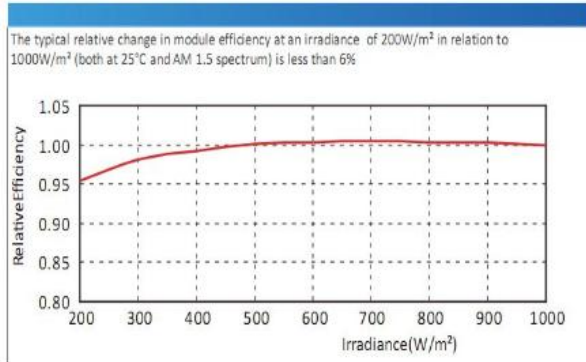
**Quality Certification for Modules**

**DIMENSIONS**



CE	Manufactured in ISO 9001: 2008 Certified factories (Appearing), conform to European community (CE), certified to IEC 61215.
TUV SAFETY	Frame modules certified by TUV Rhineland as safety class II (IEC 61730, 61730-1:2004, 61730-2:2004, 61730-1:2007, 61730-2:2007) equipment for use in system up to 1000 VDC.
UL	Underwriter's laboratories for electrical and fire safety(class C fire rating)
ERTL,MNRE	Module Pmax measurements calibrated to Eastern regional test laboratories and solar energy centre, ministry of new and renewable energy(govt. of India).

PERFORMANCE AT LOW IRRADIANCE



## PCU/PMU – Power Conditioning Unit / Power Management Unit (This includes Inverter with CCU)

Inverter		
Parameter type	Parameter name	Value
Environmental conditions	Operating Temperature	-20°C ~ 55°C
	Relative humidity	≤ 95%RH
	Altitude	≤ 2000m
	Cooling	Forced air cooling
EMC index	CE/RE	Class A
others	Efficiency	Max 97%

## **Module Mounting Structure:**

We shall be using innovative shaped base frame over the running beams, giving support at the base to withstand wind speed of 150 KMPH. Modules will be mounted at an inclination of 30<sup>0</sup> angle facing south, enabling maximum power output throughout the year.

## ***PVC Cables***

All the cables will be supplied conforming to IS 694 & shall be of 650 V/ 1.1 kV grade as per Interconnections.

## ***System Earthing***

The frames of all electrical equipment and structural steel work shall be earthed by existing earthing available at home.

## ***Batteries (Optional)***

Battery will be Lead Acid based Solar Tubular 4 KWH, having 3 years back to back warranty and have useful life over 4 years. Battery used will be MNRE approved

## **Warranty**

- Solar Modules will have 25 years life warranty.
- Complete System will have 3 years total warranty out of which 1 year is unlimited and 2nd and 3rd year will be limited warranty where boarding and lodging will be paid by the customer<sup>u</sup>

## **Commercial Proposal**

- Total System Cost for Off Grid with Battery Bank proposed Turnkey 1 KWp SPV system with H/W, Cablings, 1 KW Inverter and Mounting Structure etc. is **Rs-28,00,000.**

## **Terms & Conditions**

- Sales Tax / CST / VAT 5 % Extra at actuals as applicable at the time of delivery.
- Initial 50% Advance amount with Letter of Intent for filing application in MNRE for subsidy claim.



- Payment terms: 50% Advance, Balance 40% against Performa Invoice before dispatch. Balance 10% after I&C within 15 days or within 45 days of dispatch which so ever is earlier.
- Above Offer Includes the Installation and Commissioning, but not the civil work for mounting the base frame for modules.

Thanking you

Yours Truly

Er .Ajay Chaudhary

09711918865

[contact@kingsunsolarproducts.com](mailto:contact@kingsunsolarproducts.com)

**(For Bhabri Enterprises)**

# **Water Supply**

## **WATER SUPPLY**

### **NAGAR PANCHAYAT ASHRAFPUR KICHHAUCHHA-AMBEDKAR NAGAR**

<b>Sr.</b>	<b>Item of work</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
<b>1.</b>	Construction of Tubewell complete for proper Water Supply	1 No.	26.00	26.00

**Total:- 26.00 Lacs**

**Note:-** Working Agency for above work should be Jal Nigam Ambedkar Nagar.