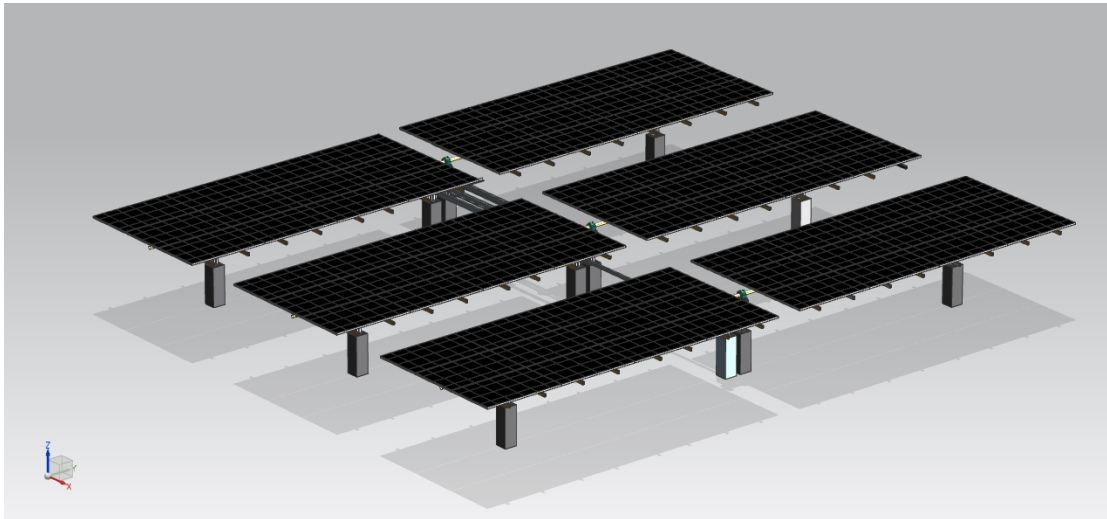


Solar Power System Program



Module Installation

Design: New Hope USA Inc.,

Date: March,2016

1.program profile

Saudi household solar power system project includes construction scale and content requirements , functional specifications , requirements, technical requirements , installation requirements of construction , inspection and acceptance of scientific proof to ensure that street lights fully able to adapt to the local climate and environment. It has a high degree of reliability and value in use

a. design practice

- System design is foresighted and its functions and performances have a leading position at home,.
- Mature technology , stable quality , high reliability, and low power consumption
- advantage technology with complete test measure technology
- Good environmental adaptability , practicality .

b.circumstances and environment for use

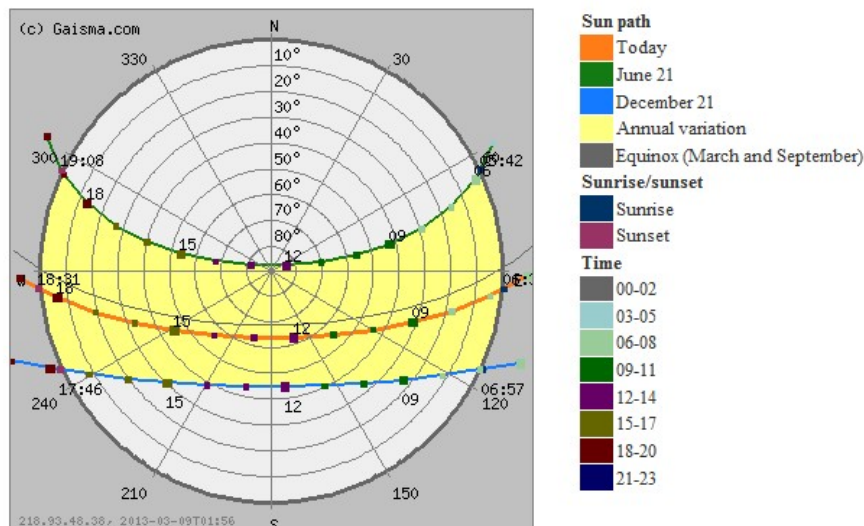
- all-weather environment (just for reference)

Jiddah, Saudi Arabia - Solar energy and surface meteorology

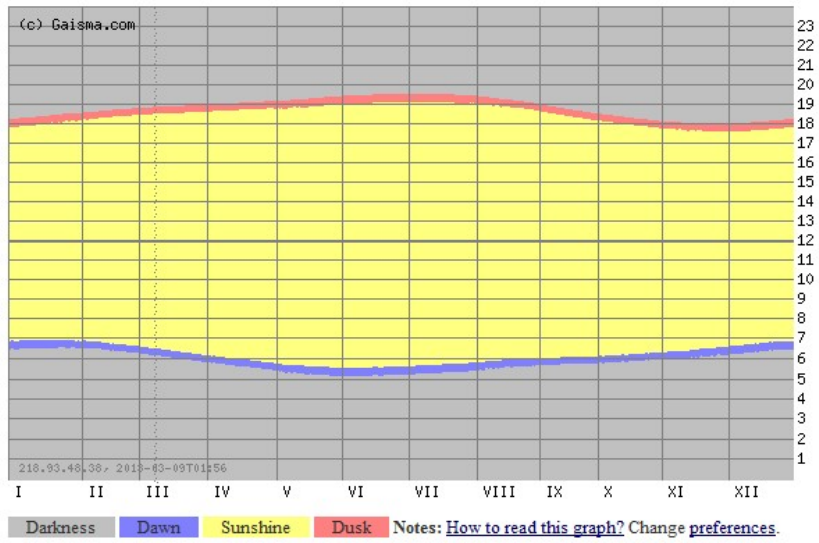
Variable	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Insolation, kWh/m ² /day	4.37	5.24	6.14	7.08	7.35	7.51	7.48	7.19	6.61	5.87	4.61	4.07
Clearness, 0 - 1	0.62	0.64	0.65	0.68	0.67	0.68	0.68	0.68	0.68	0.68	0.62	0.60
Temperature, °C	19.71	20.49	22.77	26.29	30.31	32.05	32.07	32.12	32.18	28.99	24.66	21.27
Wind speed, m/s	5.23	5.21	5.12	4.78	4.19	4.34	4.90	4.67	4.31	4.01	4.26	4.84
Precipitation, mm	15	4	4	4	2	0	0	0	0	2	20	15
Wet days, d	1.6	0.3	0.7	0.8	0.5	0.0	0.2	0.1	0.1	0.3	1.5	1.2

These data were obtained from the NASA Langley Research Center Atmospheric Science Data Center; New et al. 2002
Notes: [Help](#). Change [preferences](#).

Jiddah, Saudi Arabia - Sun path diagram



Jiddah, Saudi Arabia - Sunrise, sunset, dawn and dusk times, graph







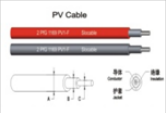
c. parameters and function (just for reference)

SOLAR SYSTEM FOR JEDDAH

NH-220-45KW-OFF

【plan1】

system parameter

No.	Name and Specification	guarantee	pictures	Working life	Note
1	MONO-Solar panel	5years		25years	35000Wp(250Wp,140 pcs)
2	Gel battery(GEL)	3years		5years	12V,200AH,220PCS
3	distribution cabinet (220V40KW converter and controller all-in one, with junction box , lightning protection , AC-protection,DC-protection, and LCD screen and , power monitor software)	2years		10years	40KW converter and controller all-in one with LCD screen and , power monitor software)
4	Structure with tracking system	1year			PV Avional brackets using with good high-temperature resistance, and corrosion resistance.
5	Accessory (PV cable, etc , bearing voltage and aging and high temperature , with TUV)	1year			High quality
6	battery bracket parts	1year			angle iron

installing guide and local	
7 commissioning for 5days and buyer : workers、 tools , equipment and crane, etc	
train user's electricians	

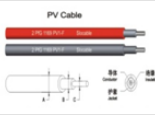
Guarantee: 1 year free services and repairs after the commission and payment , with product lifetime service.

SOLAR SYSTEM FOR JEDDAH

NH-380-45KW-OFF

【plan 2】 system parameter

No.	Name and Specification	guarantee	pictures	Working life	Note
1	MONO-Solar panel	5years		25years	35000Wp(250Wp,140 pcs)
2	Gel battery(GEL)	3years		5years	12V,200AH,220PCS
3	distribution cabinet(380V40KW converter and controller all-in one, with junction box , lightning protection , AC-protection,DC-protection, and LCD screen and , power monitor software)	2years		10years	40KW converter and controller all-in one with LCD screen and , power monitor software)
4	Structure with tracking system	1year			PV Avional brackets using with good high-temperature resistance, and corrosion resistance.

5	Accessory (PV cable, etc , bearing voltage and aging and high temperature , with TUV)	1year		High quality	
6	battery bracket parts	1year		angle iron	
7	installing guide and local commissioning for 5days and train user's electricians	buyer : workers、 tools , equipment and crane, etc			

Guarantee: 1 year free services and repairs after the commission and payment , with product lifetime service.

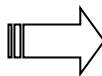
Equipment schematic plan :



square matrix



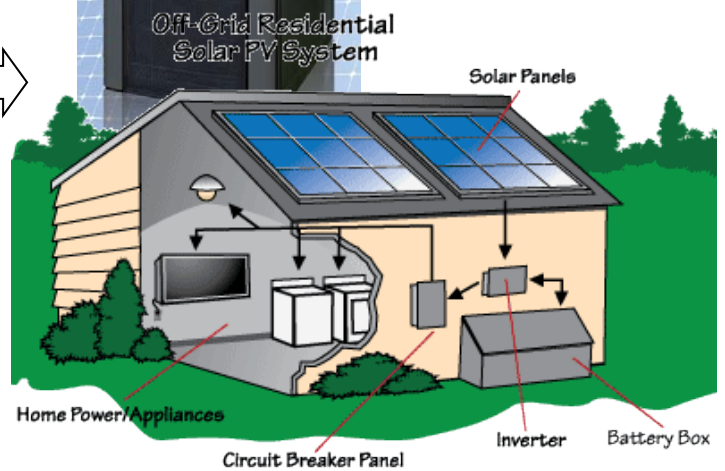
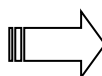
Junction box



Distribution cabinet



batteries



Jiangsu Newhope Renewable Energy S&T Co., Ltd