SUNDAY®

Variable Tilt Mounting System

Model : SdVT

SunDay Series

SunDay a Technology Frontier! All the products that are needed to build a PV power plant have been self developed to complete the SunDay Series. SunDay Series include PV modules, inverters, trackers, mounting systems, monitoring systems, switchboards, junction boxes, sensors and PV application products. As the "Total Solution Provider" with the completion of SunDay series, along with supplying single items and EPCM, we are the future leader of the world PV market!

Tilt adjustment

Setting Seasonal position

Tilt adjustment

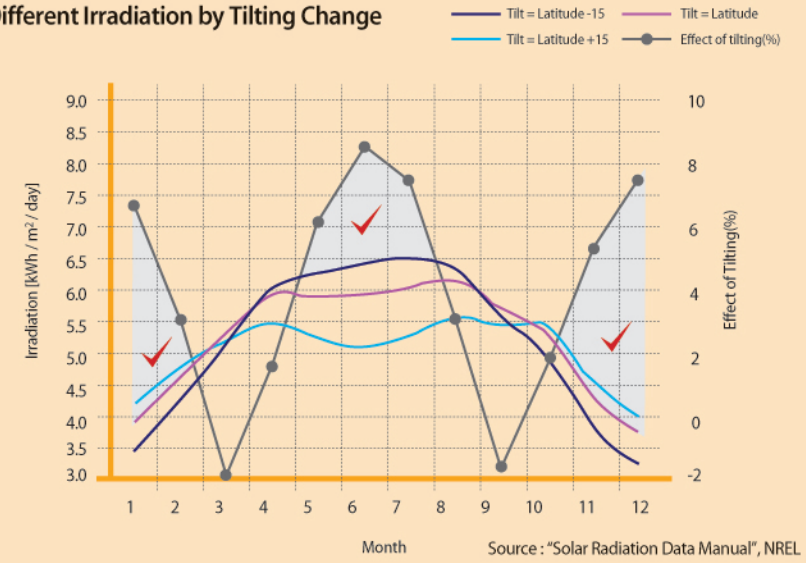
▸ Comparison of Fixed Tilt type and Variable Tilt

	Fixed Tilt	Variable Tilt
Features	· Installation of modules at a constant angle · Simple structure makes installation easy	· Installation of modules at a constant angle · Simple structure makes installation easy · Altering angles twice per a year manually
Output	· 100% Standard	· 105% (increases 5% compared to Fixed Tilt)
Array Installation	· Can be extended depending on the site	· Can be extended depending on the site
Maintenance and Repair	· Semi-Permanent Installation	· Semi-Permanent Installation
Materials	· Zinc HDG (Hot dip galvanized) steel structure for long lasting plant	

105%

Model : SdVT

▸ Different Irradiation by Tilting Change

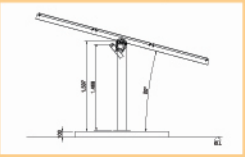


Source : "Solar Radiation Data Manual", NREL

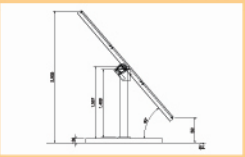
▸ Tilting Angle Comparison

Referring to the chart shown in the left, the system's efficiency is increased by the aggregation of the effect of tilting(%).

20 degree during Spring ~ Summer
(Standard in Korea)



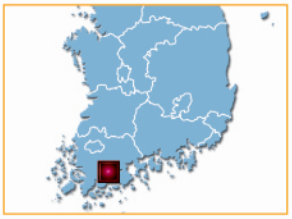
40 degree during Fall ~ Winter
(Standard in Korea)



▸ Performance(In Korea)

- Horizontal Irradiation : 3.75kWh/m²/day
- Location : Jeonnam Suncheon & Goheung
- Power Generation Data gathered for Y2012

Name of PVGS	Capacity	Generation start	Generation in 2012 (kWh)	Generation time (h/day)
Gook-ki	99.18kW	2008. May	143,023	3.95
Gayari	100kW	2010. Apr	163,621	4.45
Dodeok	100kW	2010. Sep	165,239	4.49
Pungyang	498.69kW	2009. Feb	713,924	3.92




Gook-ki 99.18kW


Gayari 100kW


Dodeok 100kW


Pungyang 498.69kW

▸ Performance(In Overseas)

- Horizontal Irradiation : 3.79kWh/m²/day
- Location : Bulgaria
- Power Generation Data gathered for Y2012

Month	OK	ASM	RAS (Sliven)	R1(Sliven)	RES
	5MW, Variable	20MW,Variable	5MW, Variable	4MW, Variable	21MW, Variable
Avg. Actual Power Generation(h/day)	4.39	4.08	4.14	4.11	3.65
Evaluated Power Demand by Mott MacDnald*	3.69	3.61	3.65	3.66	3.36


OK


ASM


Sliven


RES

* Mott MacDnald is a well known evaluation corp. for Renewable Technology Evaluation and doing £ 1 B global consultancy work hiring 14,000 employees.

SUNDAY®
SDN Company Ltd.
3110 Technomart 546-4, Guui-Dong, Gwangjin-Gu, Seoul, 143-721 Korea
Tel. 02)446-6691 Fax. 02)3424-3818 Homepage. www.sdn-i.com www.krel.co.kr www.energyfarm.co.kr