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10 October 2011

Dr. RAGHUBIR SINGH ANAND
Principal Research Engineer

Quotation for 4 x 2D Trackers for 5KW Photovoltaic Modules of Crystalline, Multi-Crystalline, Amorphous Thin Film Silicon and CIGS Thin Films

Sealed Quotations are invited for 4 x 2D Trackers for 5KW Photovoltaic Modules of Crystalline, Multi-Crystalline, Amorphous Thin Film Silicon and CIGS Thin Films. The characteristics of Tracker are given below:

- (1) Automotive two Axis Following System
Movement is to be fully automated and guarantees Perpendicular incidence of Sun on the Photovoltaic Tracker
To include manual system also to adjust and clean the machine
Structure: Manufactured in laminated conformed Steel and hot galvanized.
Machine to last more than 25 years and withstand wind speed over 120 km/h
- (2) Two Axes, one Horizontal and one Vertical
Horizontal Rotation Angle from 0° to 280°
Vertical Rotation Angle from 0° to 60°
- (3) Different Grid to Hold panels of different size and motors to manipulate different weight modules as given below:
 - (i) Crystalline Silicon Modules
No. of modules required for 5KW are 25 Nos.
Dimension of single module in mm 1580x808x40, Weight 16 Kg, 205W
Total area of 25 modules $25 \times 1.58\text{m} \times 0.808\text{m} = 31.916 \text{ m}^2$
 - (ii) Multi Crystalline Silicon Modules
No. of modules required for 5KW are 22 Nos.
Dimension of single module in mm 1667x1000x50, Weight 19.4 Kg
Total area of 22 modules $22 \times 1.667\text{m} \times 1.0\text{m} = 36.67 \text{ m}^2$

- (iii) Amorphous Silicon Modules
No. of modules required for 5KW are 53 Nos.
Dimension of single module in mm 1300x1100x7, Weight 24 Kg, 95W
Total area of 53 modules $53 \times 1.3 \text{m} \times 1.1 \text{m} = 75.79 \text{ m}^2$
- (iv) CIGS Thin Film Modules
No. of modules required for 5KW are 50 Nos.
Dimension of single module in mm 1190 (+3/-1)x789.5 (+3/-1)x7.3, Weight 16.5 Kg, 100W
Total area of 50 modules $50 \times 1.192 \text{m} \times 0.792 \text{m} = 47.233 \text{ m}^2$
- (4) Total power of Tracker as per panels of different technologies
(5) Firm Basement as to withstand wind other weather conditions.
Offer to include other necessary accessories for manipulation and operation of the Trackers.
(6) Offer to include assembly and installation.
(7) Validity of Quotation: 3 months
Freight: CIF New Delhi (OCEAN FREIGHT) if overseas otherwise CIF Kanpur.

PAYMENT TERMS : 90% LETTER OF CREDIT AND 10% AFTER INSTALLATION BY TELEGRAPHIC TRANSFER.

Last date for submission of Quote is 25 Oct 2011.

The Quotation should be sent to the following address:

Dr Raghbir Singh Anand,
EE Department, IIT Kanpur
Kanpur 208 016

Thanking you,
Yours sincerely,



(RS Anand)