

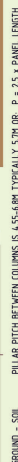
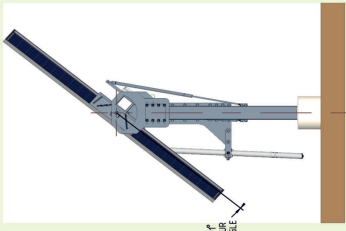
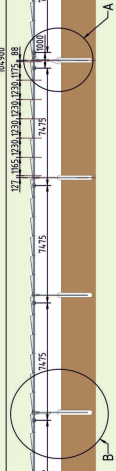
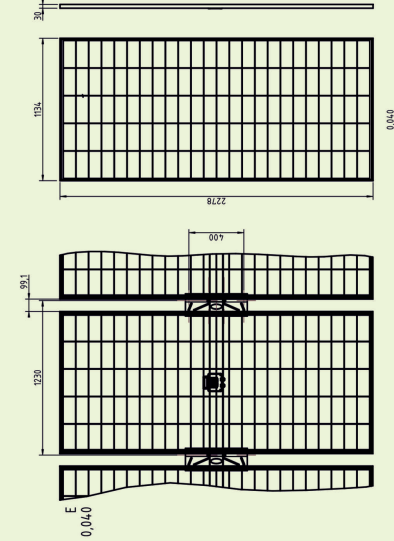


EST. 1996

Beta Tech

**Single-Axis Solar Tracker
Solutions with EPC Excellence**



[illegible]

NOTES:

- PILLARS – HAVE TO BE ACCURATE AS IS BELOW:
 - HEIGHT TOLERANCE IS ± 10 MM
 - LINE STRAIGHTNESS ± 10 MM
 - PITCH TOLERANCE IS ± 10 MM
 - SLOPE ANGLE OF TRACKER IS $\pm 5^\circ$ FROM HORIZONTAL
- IT MUST BE STRAIGHT LINE INSIDE ONE TRACKER
- TORQUE TUBE AXIS LINE STRAIGHTNESS ALONG TRACKER ± 5 MM
- IF NOT STRAIGHT AS REQUIRED THE TORSIAL TWISTING CAN OCCURE

- Constructural Notes:**
- 7) All Dimensions are in mm.
 - 8) Steel member grade is Z462, E250, S355JRH, S235JR
 - 9) Sheet member grade is Pre-galvanized tubes and profiles with 275-300g/m² which is about 25 to 35 microns of zinc layer test results are 100-400 micron for S & above 3mm thick steel and 50 micron for below 3mm thick steel by EN15301
 - 10) Electro Galvanizing specification: IS-3203, IS-4759
 - 11) Electro Galvanizing generation: IS-3203, IS-4759
 - 12) Concrete Grade: M25 / C25-C30
 - 13) Concrete maximum Slope of terrain is : +5.0°
 - 14) Tracking Range: 100° East -West 50° ± 2.5°
 - 15) Wind parameters: max. wind speed operating in any working position is 20 m/s
 - 16) Survival max. wind speed when not operating – and t able is not in safe wind position is 35 m/s
 - 17) Survival max. wind speed in safe wind position – (horizontal) is: 50 m/s
 - 18) Snow parameters: snow load up to 108 kg/m² area a2 – up to 400 m above sea level detailed wind speed table on request!
 - 19) Ground holes: The holes diameter 0.3m must be drilled 18m into ground, then hole must be filled with concrete mark C25/S30 / M25; then after 15 minutes the rectangular profile must be punched with hammer machine into soft concrete mass, after 1 day the pillar tubes must be filled with concrete until full
 - 10) Temperature range: -20°C to +60°C
 - 11) Mass of galvanized construction: 1940.601 kg

PARAMETER	DETAILS / DATA			
PRODUCT				
Model	STL- 84 BT			
Architecture	84	Module Single Row Tracker		
Module Fitting Type	Portrait - 1 Row			
Module Fitting Angle	6.00 deg		South	
Module Length est	106.175 M			
OPERATIONAL PARAMETERS				
Operating Temperature	From -40 C° to +70 C°			
Operation at humidity	0% to 100%, relative humidity			
Wind Speed Operations	Terrain Category			
	I	II	III	IV
Wind Speed at Stow, (wind gusts at 10 M height) in m/s	57.50	71.50	82.50	92.90
Wind Speed at non stow position (wind gusts at 10 M height) in m/s	26.10	32.60	37.70	42.50
Wind Speeds for Auto Stow	Programmable			
Backtracking Feature	Yes			
Auto Stow at Night	Yes			
Time Taken to stow	< 10 min			
Module Mounting Design Load	1600Pa			
SPECIFICATIONS				
Tracker Tilt (+/- in deg)	-50° to +50° (100°)			
Module ground clearance at max tilt _ Design	As per Design Sheet			
Module ground clearance at 0 tilt _ Design	As per Design Sheet			
Below ground level post considered	RCC 1.50M x 0.3M Dia (subject to change based on soil strength)			
Power consumption (incl all Aux) : LESS THAN	0.020 KWh/Tr/day		0.4177 KWh/MWp/Day	
Controller power source (auxiliary module/string tap/ Central UPS)	Grid network 90-230VAC			
Damping System	YES			
Ground Slope N-S (%)	Upto 2°			
ACTUATOR MOTOR				
Tracking System	SOLAR Linear Motor - Actuator			
Actuator Protection Class	IP63			
Power Supply	24 VDC +/- 15%			
Rated Capacity	Rated 36W Max 100 W at 20% Duty Cycle			
Construction Material	Stainless steel tubes and spindle and high carbon steel			
Maximum Static Load	1500 Kgf			
Dynamic Load Capacity	800 Kgf			
Speed at No Load	2.33 mm/s			
Backlash	max 0.15mm			
CONTROL OR POSITIONING SYSTEM				
Tracking Accuracy	< 1°, Calculations based on 0.001°			
Controller Logic	TdAPS (Time derived Astronomical Positioning System)			
Type of Positioning System	Servo driver positioner with TdAPS arc logic function calc.			
Type of Positioner	Din Rail positioner NANO or MICRO and external cables			
Type of timer	GMT clock with EOT and calendar			
Type of application program for supervision and setting	Solar tracking system monitor via Sigma's web site			
Frequency of Motor Operation	1-15 Mins programmable			
Type of cable required for power connection-size, no. of cores, insulation	2C x 6 Sqmm Copper as per design (< 0.5 Ω)			
Battery back up for Tracker Controller (Duration)	PROVIDED (upto 24h depending on consumption)			
Integrated battery charge controller	Yes			
MONITORING				
SIGMA Independent Tracking System® See the brochure for details				
WEIGHTS AND MEASURES				
Estimated Weight / Tracker -(Mechanical Parts incl Pedestals) in Kgs	1848.76		+/- 3.00%	
Estimated Weight / MWp -(Mechanical Parts Only) in MT	38.612			
Total Nett Shipment Weight in MT	57.312		+/- 3.00%	
Total Gross Shipment Weight in MT	59.031			
No of Containers / Shipments	3		+/- 3.00%	

ABOUT US

Beta Tech Consultancy and Marketing Pvt Ltd is a private limited company incorporated in August 1996. The company is engaged in the business of projects consultancy and Solar EPC Contractor. We provide full end to end solutions for all solar projects. Beta Tech Consultancy and Marketing Pvt Ltd is managed by Er. K S Saini, He is BE, ME from Malviya Regional Engineering College Jaipur (Now MNIT), Jaipur. We have a pleasure in introducing our self as one of the leading organizations with technical as well as financial expertise and long experience in renewable energy. We have a dynamic team of highly qualified and experienced professional in the area of renewable energy. Recently, We have done MOU with SAT CONTROL d.o.o Slovenia Europ for Developing its advance solar tracking system. We are exclusive distributor and licensee of SAT CONTROL Single axis tracking system and Technologies within the territory of India.

OUR SERVICES

- Site Survey
- Topography, Soil bearing Capacity (SBC), Electricity Resistivity (ERT)
- Design of entire solar power plant
- Pvsyst Report
- Structure stability analysis
- Preparation of detailed Project report (DPR)
- Preparation of complete set of documents for bank finance
- Complete Installation work such as pilling, Structure fitting, Complete DC & AC work
- Complete documentation work for connectivity, Synchronization & commissioning
- Documentation work for tender submission in Kusum Projects
- Complete documentation work for claiming CFA in Kusum Component C
- Complete consultancy services for setting UP Kusum Solar Power Plant
- Operation & Maintenance services for Solar Power Plant
- Supply of Single Axis Tracker Structure



OUR RECENT PROJECTS :-



ATRI GLARE PVT LTD., 2 MW (Badmer)
(Fixed Seasonal Tilt Structure)



SUNBEAT ENTERPRISES, 1.5 MW (Chittorgarh)
(Single Axis Tracker Structure)



ANGIRA LIME INDUSTRY, 2.52 MW (Churu)
(Single Axis Tracker Structure)

IEC :- AAACB7505Q

CIN :- U74140RJ1996PTC012519

GST :- 08AAACB7505Q1ZC



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Beta Tech



WEBSITE



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