

ETATRACK active 2500-6

Single-axis Tracking System for Schüco Modules

Main Features

- total module surface up to c. 26m²
- suitable for the following module types:
 - Schüco MS05, PS09 or PS14
- no failure-prone light sensor
- no unnecessary tracking movements
- low power consumption (c. 2 kWh/year)
- statics according to German and European standards
- high reliability and life-expectancy
- maintenance-free
- cost-efficient tracking system
- no AC Power required
- enphase D380 Ready

Application

- single-axis tracking system for PV module types Schüco MS05 or PS09
- additional energy yield of up to 40% compared to fixed installations

Design

Tracking Unit

- single-axis tracking system
- angle of second axis 30°, other angles on request
- elevation East-West: 90°
- module surface up to c. 26m²
- frame and pole: steel, hot-dip Zn-coated
- screw set: steel, Zn-coated
- module fixation with stainless steel clips
- suitable for high wind speeds: statics according to German and European standards
- low energy consumption c. 2kWh/year
- maintenance-free

Control

- electronics incl. battery in weatherproof housing
- supply voltage: 12 VDC (nominal voltage) up to 50 Voc (open-circuit voltage), by one of the tracked modules**
- stepwise tracking, depending on the daily sunshine duration (length of day)
- South position in darkness
- synchronisation of multiple units possible
- standby mode in periods of low irradiation***

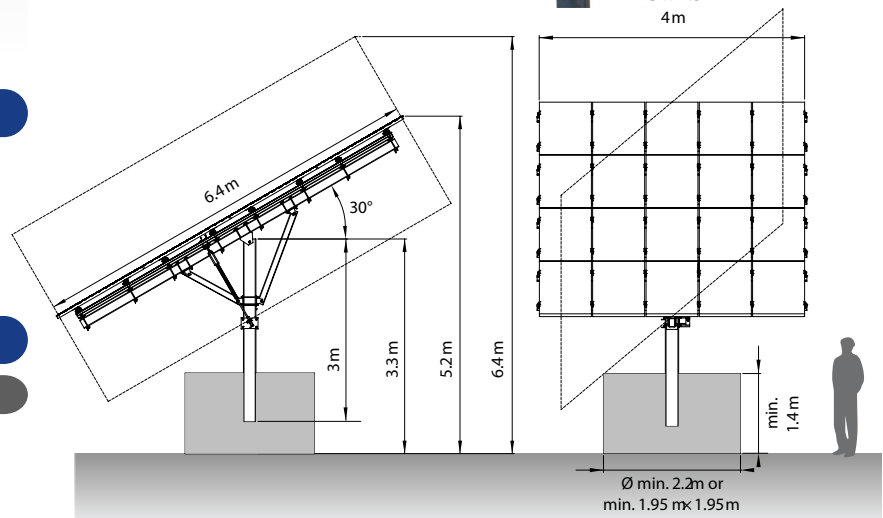
BERNT LORENTZ GmbH & Co. KG

Errors excepted and possible alterations without prior notice.

* for framed PV modules according to IEC 61215, UL 1703 ** for safe operation in specific system designs, an additional small module might be necessary, cf. installation manual *** for safe operation, cf. installation manual



German Engineering



Example: system dimensions with 20 PV modules 1,593 mm x 790 mm

Drive

- DC linear drive
- maintenance-free
- optional: stainless steel rod end bearings

Foundation

- Ontario Engineered Foundation System (design on reverse page)
- additional engineered mounting solutions ready - Drill Mount and Pre-Cast

Storage and Operating Conditions

- ambient temperature range: -30°C to +50 °C
- daily average ambient humidity: max. 80%
- air salinity: max. 2µg/m³, or distance from coast: min. 1 km
- altitude: -400 m to +3,000 m MSL
- detailed description of ambient conditions for safe operation, cf. installation manual
- designs for other conditions on request

Included in Delivery

- kit tracking unit
- control
- drive
- stainless steel mounting clamps (J-clips) with M8 nuts for module fixation, 48 sets per tracking unit for up to 20 PV modules
- installation manual
- not included in delivery: module clamps (middle and end) with M8 screw set

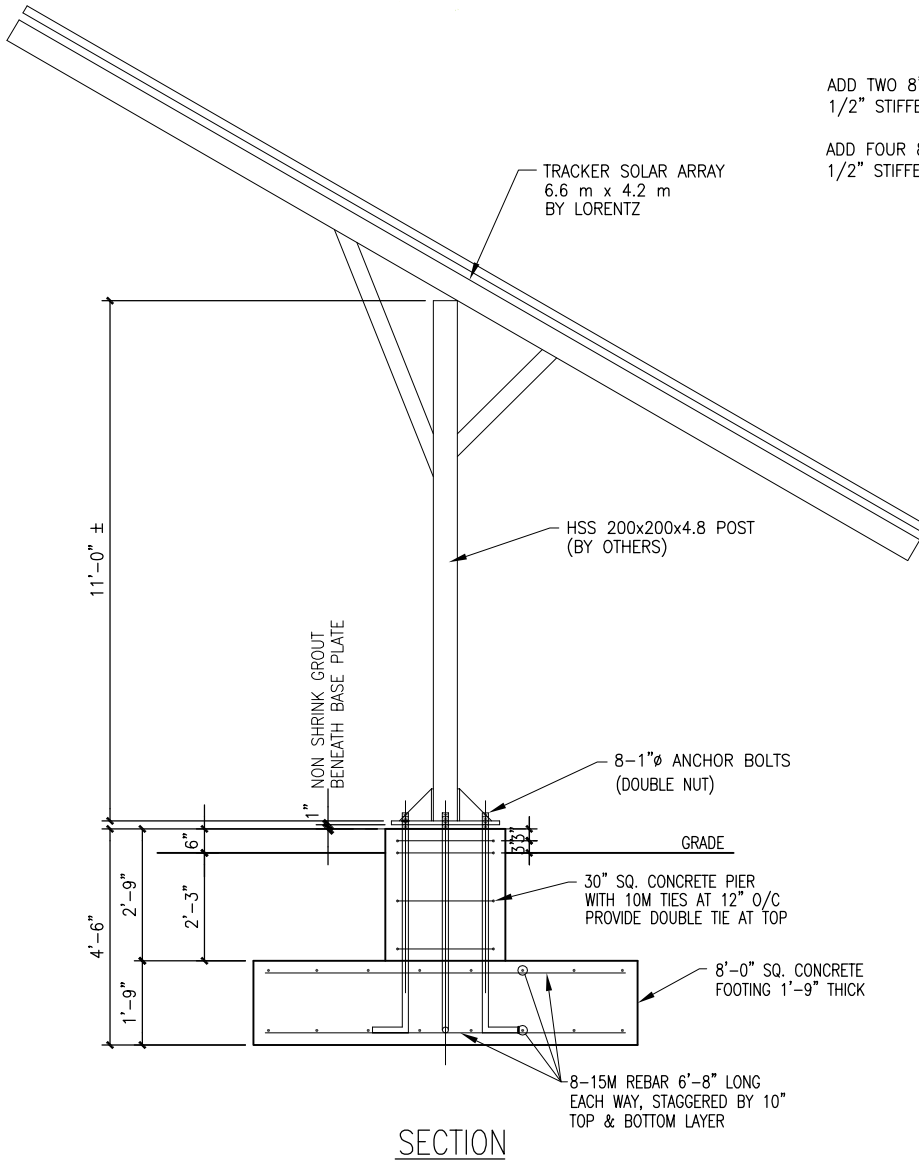
Accessories

- stainless steel screw set
- Enphase D380 Installation hardware

Also Available

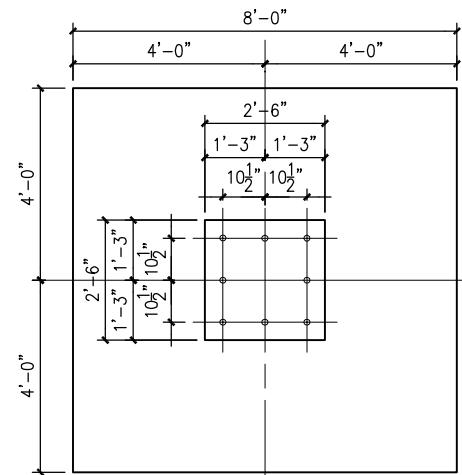
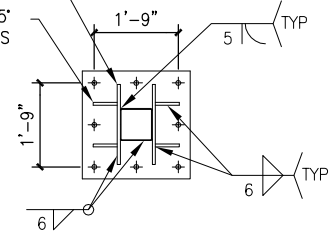
- Pre-Engineered, ESA Approved BOS

View Live Installations Online
<http://www.strathconasolar.com/photo-gallery/>



ADD TWO 8" HIGH x 24"
1/2" STIFFENER PLATES

ADD FOUR 8" HIGH, 45"
1/2" STIFFENER PLATES

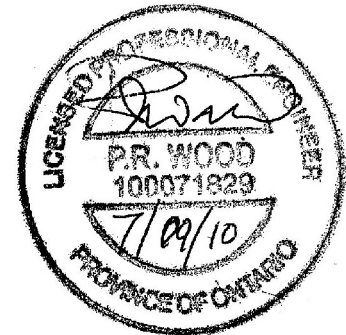
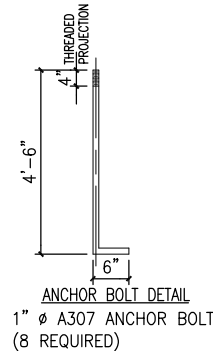


GENERAL NOTES

1. CONCRETE IS SPECIFIED USING CSA A23.1 AS FOLLOWS:

PARAMETER	EXTERIOR CONCRETE
EXPOSED CLASS (TABLE 1)	F-2
AIR CONTENT (TABLE 4)	2
MAX. W/C RATIO (TABLE 2)	0.55
CURING TYPE	1
MIN. COMPRESSIVE STRENGTH @ 28 DAYS	30 MPa

- FABRICATION AND PLACING OF REBAR TO BE IN ACCORDANCE WITH CSA A23.1 AND THE REINFORCING STEEL INSTITUTE OF CANADA'S 'REINFORCING STEEL MANUAL OF STANDARD PRACTICE'.
- REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO CSA G30.18 M92, $F_y=400$ MPa
- CONCRETE SHALL NOT BE POURED UNTIL REBAR HAS BEEN INSPECTED.
- CONCRETE COVER FOR REINFORCING STEEL SHALL BE 40 mm AS PER TABLE 17 OF CSA 23.1
- ALL REINFORCING BARS SHALL BE ACCURATELY PLACED AND ADEQUATELY SUPPORTED BY CONCRETE, ADDITIONAL BARS, STIRRUPS, TIES OR APPROVED CHAIRS AGAINST DISPLACEMENT
- FOUNDATION IS SUITABLE FOR SOILS WITH A BEARING CAPACITY OF 2000 PSF (100 kPa) OR BETTER. SHOULD UNUSUALLY SOFT SOILS BE ENCOUNTERED, CONTACT THE ENGINEER
- FOUNDATION SHALL BE CONSTRUCTED OR PLACED ON UNDISTURBED SOIL WITH ADEQUATE BEARING CAPACITY.
- THESE PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE. DESIGN CRITERIA: $I=1.0$, $q=0.6$ (1 IN 50).



THIS DRAWING AND DESIGN IS THE PROPERTY OF STRATHCONA SOLAR INITIATIVES AND SHALL NOT BE REPRODUCED, ALTERED, DISTRIBUTED, OR COPIED IN WHOLE OR IN PART WITHOUT THE EXPRESSED WRITTEN CONSENT OF STRATHCONA SOLAR INITIATIVES OR MRW.

PROJECT:

TRACKER SOLAR ARRAY FOUNDATION
FOR TYPICAL INSTALLATIONS IN
THE PROVINCE OF ONTARIO

DATE:

OCT. 15, 2010

DRAWN:

PRW

DESIGNED:

PRW

TITLE:

FOUNDATION DETAIL

PROJECT No.:

K10016-9

DRAWING No.:

F1