

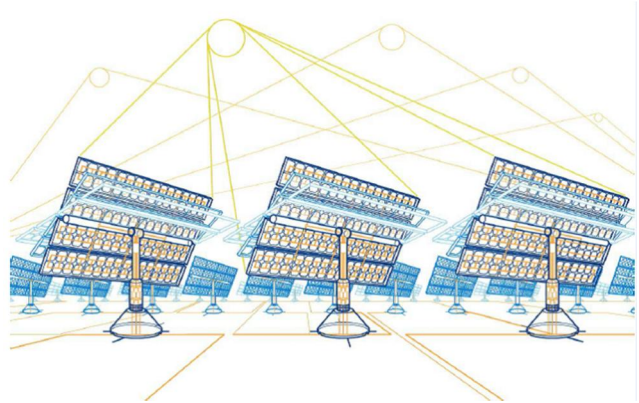
Automation Products

AC500 – Software Library

Product News – Solar Software Library for AC500

Ideal for Solar applications:

- Where direct sunlight is dominant
- Where concentration is used
- Photovoltaic (PV)
- Concentrating photovoltaic (CPV)
- Thermal to cylinder-parabolic (CSP)
- Solar tower plant



The Library Package features:

- Covers different solar tracker configurations
- Example programs for AC500 and AC500-eCo with detailed explanations and visualization
- Coordinated positioning of different oriented axes
 - Primary and secondary axes
 - Misalignment correction
- Positioning algorithms with the following accuracies:
 - NOAA algorithm 0.03 Grad
 - NREL algorithm 0.0003 Grad
- Backtracking for Photovoltaic
- Different Input / sensor adaptation,
- Different actuators / drives control and communication possible
 - Bus connection with ABB ACS Drives Library (from new Automation Builder or free download package for upgrade)
 - IO connection
 - Hydraulic actuators
- Mode blocks for all operation modes for simple
 - Commissioning,
 - Automatic and manual operation
 - Calibration

- Service
- Secure position (for storm)

Real Benefits:

Time saving, complete library package for different tracking use cases

- Proven in many thousands of trackers (ABB internal)
- Simplified programming: All needed blocks for
 - Exact positioning of different axes
 - Input / sensor adaptation
 - Communication
 - Actuators / drives control
- Simple commissioning and manual operation
 - Fast and simple calibration of the trackers, offering manual repositioning and fine tuning
- Plug and play: Example program with detailed explanations and visualizations

Energy consumption optimization

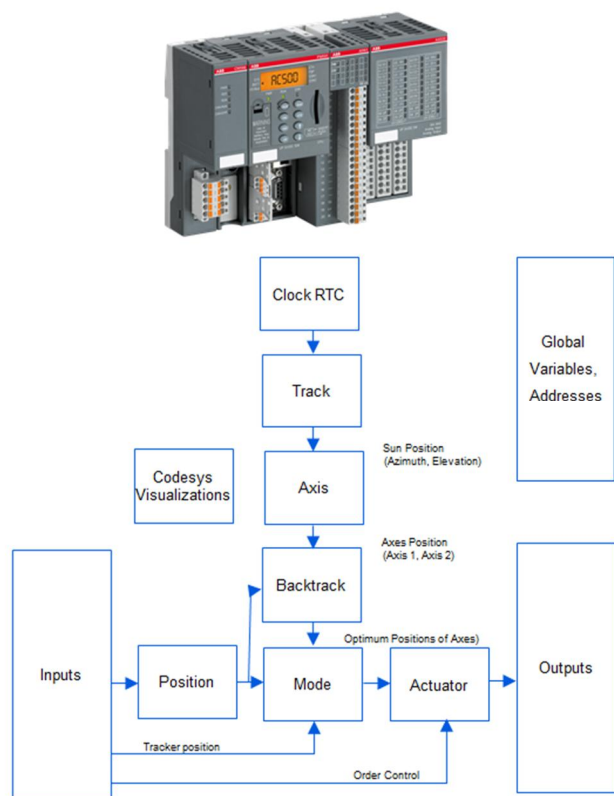
- Control of the tracker adaptable to different needs and conditions, to achieve maximum efficiency of installation

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Functional Library Structure:



Ordering Information:

Order Codes	Product Description
1SAP195000R0001	PS562-SOLAR AC500, Solar library single license, Tracker function blocks SW library, USB Stick with documentation

Choice between two position algorithms

Function	Azimuth error	Elevation error	CPU* needs (2 axes)
NOAA 	$\pm 0.01^\circ$	$\pm 0.03^\circ$	PM554 and above
NREL 	$\pm 0.0003^\circ$	$\pm 0.0003^\circ$	PM573 and above

* with full program for 2 axes

Example Tracker Components:

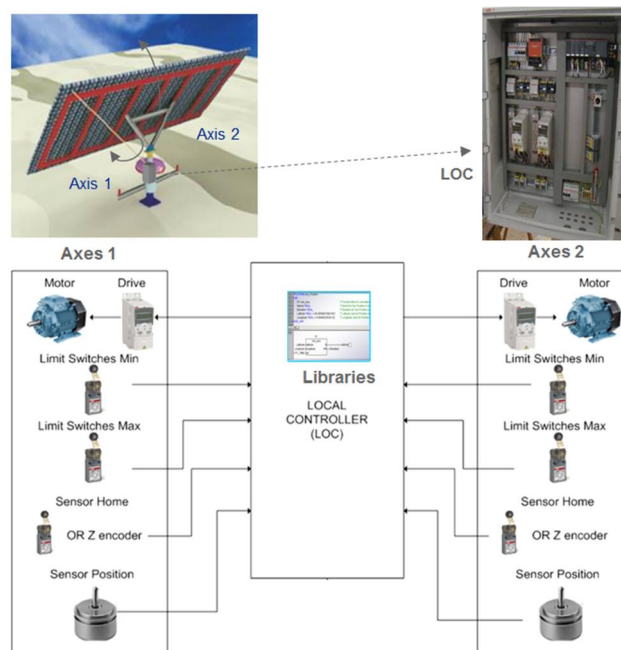


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