

Solar FlexRack Self Powered Solution for Solar TDP™ Trackers



Single-Line, Self Powered Solar Tracking Controller Includes:

- Integrated (LiFePo4) battery & charger
- DC motor actuation
- Stand-alone functionality
- High precision voltage & current sensing
- cSi PV module
- Mounting structure & hardware

- A completely integrated, safe, stable and efficient self powered tracker solution provides low cost installation and maximum performance
- Low consumption modes allow batteries to last longer, ideal for off hours or low radiation days. Integrated Software manages (SoC) situations allowing for ultra-sleep mode to exclusively charge the battery after placed into safety position
- Simple and robust commissioning is enabled with enclosure-mounted key pad and LED code visual interface
- LiFePO4 - safe green energy storage with high rate discharging, high temperature and up to a 10-year life cycle
- A fully bankable LCOE solution that provides a significant savings to electrical installation costs while mitigating risk
- Integrated micro controller and supplementary circuitry allow for independent operation

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Tracker Controller	1 self-powered controller, DC motor per tracker row
Size	230 x 100 x 150 mm (tracker mounted, all-in-one assembly enclosure)
Battery	LiFePO4 (Lithium Iron Phosphate) Rechargeable 3Ah
Battery Charging	Optimum charging through CC/CV algorithm for LiFePO4 chemistries which contributes to extended battery life
SoC Monitoring	SoC achieved through OCV and Coulomb counting algorithms
Operating Temperatures	Charging: 0°C to 60°C Discharge: -10°C to 60°C
Interface	HMI (includes enclosure-mounted keypad and LED code visual interface)
Communication	Zigbee Wireless
PV Module	Crystalline Silicon 30W
Warranty	5 years on battery and control systems. Extended terms available.

40 Years & Over 2.0 Gigawatts

Solar FlexRack, a division of Northern States Metals, is an integrated solar company that offers custom-designed, fixed tilt ground mount and single-axis solar tracking systems in the commercial, community solar and utility-scale solar mounting industries. Solar FlexRack offers full turnkey packages including engineering, geotechnical, pullout testing, field, layout, and installation services to address the actual site conditions of an installation and provide a full scope of services from design to delivery and installation. Solar FlexRack has completed over 2 GW of solar racking installations in 40 states across America and five countries globally. Learn more at <http://solarflexrack.com>

