



The SPOT: Alencon's Utility Scale DC-DC Optimizer

Increase Energy Production from 5-10% from an Existing PV Plant



Alencon's **String Power Optimizer and Transmitter, the SPOT**, is the solution to maximizing energy production from your PV plant. Alencon's SPOT is a complete energy harvesting system that can easily be retrofitted into any existing PV plant with a central inverter. Alencon's SPOT will allow you to generate from 5 to 10% more energy from an existing PV plant by offering more granular maximum power point tracking (MPPT), voltage step up to minimize conduction losses and fixed voltage to the inverter to improve DC to AC power conversion efficiency. Additionally, Alencon's SPOT is an effective operations and maintenance (O&M) tool because it allows you to isolate faults to the string level and provides you up-to-the-minute performance data on your PV array.

Features

Benefits

Advantages

Maximum Power Point Tracking (MPPT) on 4 Strings at once

Increase energy yield
Mitigate panel mismatch issues caused by uneven soiling, cloud cover, module degradation and/or sporadic damage

More energy produced
Single SPOTs offer twice the number of MPPT inputs as the next closest competitor

Boost and Fix System Voltage

Reduce conduction losses
Improve the efficiency of your central inverter

Highest step up voltage of any PV DC-DC optimizer on the market today

Active Fault Detection

Improve system safety

Inject safety into a PV plant with a single device

Easy to install

Quick retrofit installation

Faster deployment means less installation costs

Galvanic Isolation

Creates complete isolation between the PV strings and a central inverter

Allows for safer isolation of arc and ground faults from the rest of the system, minimizing downtime and making O&M much easier
Offers greater flexibility in interfacing to any central inverter

String Level Monitoring via the PV-IoT™

String level monitoring of PV plant performance
Remote control over every string

Improved monitoring of your plant's energy production
Easier O&M



The Alencon Advantage: Full Galvanic Isolation • PV-IoT™

Alencon's SPOT is your secret weapon for assuring maximum energy production from your PV plant. The SPOT employs a great deal of proprietary technology you can only get from Alencon to assure your PV plant is producing the most possible power while making O&M more efficient and less expensive than ever before.

The Alencon SPOT is the only utility scale DC-DC optimizer that offers full galvanic isolation between each string and a

central inverter. The SPOT's galvanic isolation offers you an unparalleled level of protection from the harmful effects of faults in the PV array.

Alencon's SPOT is a wireless, internet of things (IoT) ready device, using Alencon's proprietary PV-IoT™ technology. Each SPOT in the field communicates wirelessly back to a central aggregator which allows you to monitor the performance of each string from anywhere in the world.

Technical Specifications

INPUT	
String Operating Voltage Range	300V - 1000V
String MPPT Voltage Range	550V - 800V
Maximum String Voltage	1000V
Maximum Current	10A
Reverse Polarity Protection	
Maximum Input Power per String	6.25kW
Grounding Configuration	Positive, Negative or Ungrounded
Active Protection	ARC and Insulation Fault Protection
OUTPUT	
Nominal Voltage	600V / 1000V / 1500V / 2500V
Maximum Current	10A / 25A
Maximum Power	25kW
Reverse Polarity Protection	Reverse Diode
EFFICIENCY	
Peak Efficiency	98.6%
CEC Weighted Efficiency	98.0% Weighted
STANDARDS & COMPLIANCE	
Certifications	UL1741 / IEC 62109-1 / CSA C22.2
ENVIRONMENTAL	
Storage Temperature	-40°C to 85°C
Cooling	Natural Convection
Environmental Rating	NEMA 4 & IP 66
Humidity	0% to 95%
Operating Ambient Temperature	-40°C to 50°C
CHARACTERISTICS	
Size (H x W x D)	0.43m x 0.39m x 0.27m
Weight	27kg

Specifications subject to change without notice.



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