

UL 3741 VS MLPEs

DUAL PATHWAYS FOR RAPID SHUTDOWN



RAPID SHUTDOWN

GIVE FIREFIGHTERS THE UPPER HAND WITH UNIRAC'S
UL 3741 COMPLIANT SYSTEMS AND MLPE SAFETY SOLUTIONS



UL3741 PV HAZARD CONTROL SYSTEMS

MODULE-LEVEL POWER ELECTRONICS (RSDS, OPTIMIZERS, & MICROINVERTERS)

KEY ADVANTAGES	• Provides multiple layers of enhanced electrical protection for firefighters who may need to perform work in the proximity of PV arrays. • Consolidates arrays layouts and provides greater accessibility for roof laborers, installers, and maintenance workers across multiple industries.	• Simplified method to deenergize conductors in a PV array where rapid shutdown is required. • Allows for flexible design layout on roofs with complicated geometries. • Module-level power optimization for more efficient production on roofs with shading throughout the day.
TARGET ROOF TYPES	• Large continuous arrays with minimal obstructions and/or subarrays.	• Roofs with multiple and/or varied mounting planes. • Roofs with severe shading. • Roofs with multiple broken up arrays.
O&M ACCESSIBILITY	• Eliminates the need to service failed MLPEs in the middle of a large array. • More robust wire management for system longevity. • Fewer physical DC-to-DC connectors which are potential failing points in PV system. • Reduces E-waste.	• Module-level monitoring for faster identification of electric issues. • Oversee performance of modules at an individual level, in real time.
FINANCIAL IMPACT	• Lower upfront cost with the elimination of MLPEs. • Faster return on investment (ROI). • Eliminates labor cost of O&M on MLPEs.	• Optimizes system to maximize the total power produced by the PV system. • Potentially less upfront design work with standardized process procedures.
RAPID-SHUTDOWN COMPLIANCE	• String-level PV Hazard Control as referenced in NEC 690.12 (B)(2)(1)	• Conductor attenuation between modules Complies with NEC 690.12 (B)(2)(2)