Arc Flash Rating Explained

Technical Brief FP-GS008

Arc Flash Standards and Regulations

There are several standards published including ASTM F887, NFPA 70E, and OSHA regulations 1910 and 1926, which cover arc flash protection for workers. Some of these standards provide specific testing criteria for specific product families. Others, as is the case with OSHA, provide general requirements for the whole fall arrest system. As such, many MSA products include both ASTM F887 and OSHA ratings for arc flash protection.

ASTM F887 Arc Flash Requirements

The ASTM F887 standard requires fall protection lanyards and harnesses to be exposed to an Arc Flash of 40 cal/cm^2 and then to be subjected to a drop test according to the ANSI Z359 standards specifically. It does not have provisions for certifying products to other non-ANSI standards such as CSA or EN, nor does it have provisions for other products, such as SRLs.

MSA Product Families

For international versions of certain product “families,” MSA uses the same materials and construction across all the versions within. For example, the materials used in an ANSI certified ArcSafe lanyard are the same as those used in a CSA or EN ArcSafe Lanyard.

While MSA cannot claim certification to ASTM F887 for international versions of the ArcSafe family, we can state that the entire family of ArcSafe Lanyards meets the 40 cal/cm2 arc flash exposure testing requirements. These product labels may state “Arc Flash Rated.”

Other Arc Flash Tested Products

Additionally, there are other products not specifically covered by ASTM F887, which MSA has designed and tested to the 40 cal/cm2 arc flash followed by the relevant product standard drop testing afterward. These product labels may state “Arc Flash Rated.”