SYSTEM DESCRIPTION

The LBA Technology, Inc. PLP38-MOB is a stand-alone, fully integrated, lightning protection system in kit form for rapid assembly and deployment as well as for longer term application for a wide spectrum of special protection needs. This lightning protection system is designed for quick installation as a reusable, fold-over mobile platform for easy assembly and movement in the desired operational area. The system employs a lightweight, rugged 38’ aluminum alloy mast; mobility-enabled base assembly, customer specified grounding attachment components, and UL-listed air terminal. The PLP-38 lightning mast components are modular and less than 7’ (2.13 m) long for stowing in a supplied hard sided, man carry case for easy surface or air transport and rapid field installation. The base incorporates water-ballast “bricks” for ballast. In addition to general field use, the PLP-38 base is suitable for non-penetrating application on rooftops and other critical surfaces. A hard transport case is provided for the (empty) water bricks.

When appropriately deployed, the PLP-38 mast has been tested to withstand wind loads equivalent to 120 mph (193 km/h). All system components are corrosion resistant and suitable for indefinite deployment periods in sea coast or other challenging environments.

All fasteners and installation hardware are captive for fast installation and to avoid loose parts that could cause foreign object damage at sensitive sites. No tools are required for installation. Installation or de-installation time is less than 30 minutes with two to three average capability personnel who are familiar with system assembly.

When assembled, the PLP-38-MOB system is 38’ (11.58 m) tall and occupies a circular area 10.8’ (3.29 m) in diameter. When stowed in the roll-away hard sided case, the system nominal dimensions are 85.5” (2172 mm) long by 20” (508 mm) wide by 18” (458 mm) high and weight of 270 pounds (123 kg) with case. Additionally, the “water bricks” are shipped together in a 44” (1118 mm) by 22” (559 mm)” by 24” (610 mm) hard sided case that weighs 38 pounds (17.2 kg) when empty.

The StrikeMaster® PLP-38-MOB is proprietary to LBA Technology and key technology is patent protected. It is fully compliant to National Fire Protection Association (NFPA) standards.
FUNCTIONALITY

The function of the system is to provide a highly conductive, easily deployed structure to deter and terminate lighting strokes which may threaten assets and personnel under the PLP-38-MOB cone of protection. PLP-38-MOB systems include streamer discharge dissipation technology to reduce the probability of lightning strikes, and serves as a UL-Listed air terminal for lightning strike termination when required.

The PLP-38-MOB protects a conical zone around it that is calculated by the “rolling ball method”. This method is described in NFPA70, as well as the protection radii required for different types of assets. Briefly stated, assets are considered protected when they don’t project into the surface of an imaginary sphere of suitable radius when it contacts both the top of the PLP and ground. A frequently used sphere has a radius of 150 feet (45.72 m). The graph below describes the PLP-38-MOB conical zone of protection for this case.

It is the user responsibility to determine the protection parameters suitable to their intended use.

The StrikeMaster® PLP-38-MOB is designed for minimum maintenance. Normal requirements are only routine inspection of base components and tightening of ground system attachment hardware if needed. Standard customer practices should be employed to protect the deployed system from unauthorized personnel or vehicular contact. For maintenance support, a replaceable spares kit is available.