

TECHNICAL DATA SHEET

LPI® STORMASTER-ESE-TELCO

Key Benefits

- Specially designed for the protection of transmission equipment on telecommunication towers
- Complies to standard NF C 17-102 (2011)
- Tested in an accredited high voltage laboratory
- Easy to install
- Cost effective



Introduction

Many telecommunication sites contain tall slender towers in elevated and open areas where the risk from a direct lightning strike is considered high, particularly in areas of frequent lightning activity. In servicing this market segment LPI has developed the STORMASTER-ESE-TELCO especially for enhanced protection of transmission equipment on telecommunication towers. The STORMASTER-ESE-TELCO provides a more reliable solution in comparison to conventional protection systems.

Product Description

The LPI STORMASTER-ESE-TELCO provides a more reliable system for the protection of transmission equipment on telecommunication towers from direct lightning strikes. The LPI STORMASTER-ESE-TELCO captures the lightning energy at a preferred point. The energy is conveyed to ground via a downconductor(s). When the energy enters the dedicated lightning earth, it is safely dissipated without risk to personnel and equipment.

Technical Data



Ordering Code	STORMASTER-ESE-TELCO
Description:	Stormaster, ESE, Air Terminal for Telecommunication Towers
Sphere Dimensions:	106mm (Diameter), 344mm (Height)
Panel Material:	Anodised Aluminium
Terminal Colour:	Blue
Weight:	1.80kg
Insulation Material:	UV Rated Evoprene
Connector:	Threaded GI Adaptor (Female Thread 2 inch BSP)

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Protection Performance

The protection radius (Rp) of a Stormaster ESE terminal is calculated using the following formula as defined by the French National Standard NF C 17-102 (July 2011)

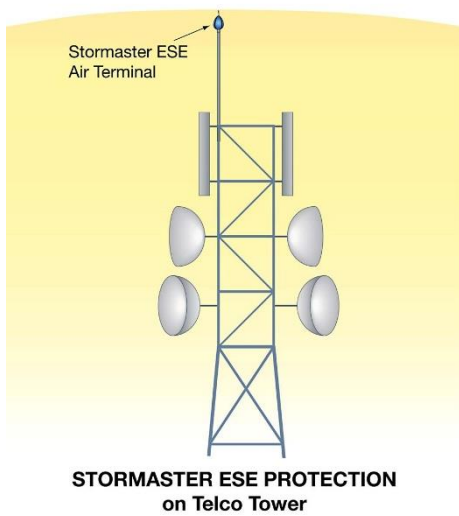
The following key parameters determine the calculation of Rp.

$$R_p = \sqrt{h(2D - h) + \Delta T(2D + \Delta T)} \quad \text{for } h \geq 5m \text{ where:}$$

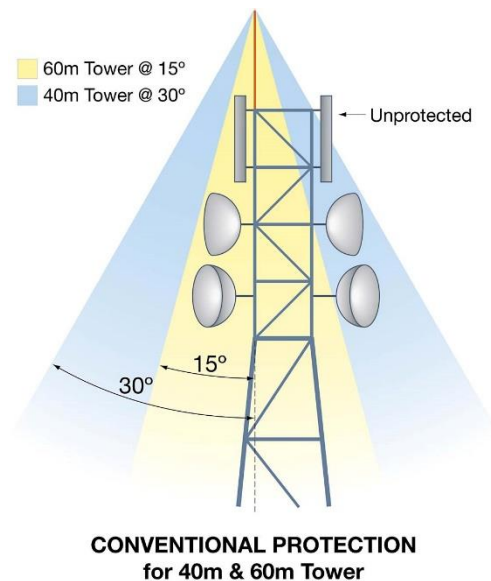
$\Delta T = 10 \mu s$, as established during the test.

h = actual height of Stormaster terminal above the area to be protected (m).

$D = 45 m$ as a level III protection specified in Section 5.2.3.2 of the standard NF C 17-102.(2011).



Distance from Top of Terminal (m)	Radius of Protection (m)
2	15
3	30
5	38
10	42
15	46
20	49
30	53
40	55
50	55
60	55



Advantages over Conventional LPS

The STORMASTER-ESE-TELCO has the following advantages over the conventional LPS:

- A) ESE Terminal is an effective preferred point of attachment for lightning and therefore minimizes risk of damage to equipment mounted on tower.
- B) Reduces operational expenses and down time of telecommunication system.
- C) Experienced engineers, technical sales staff and an extensive distribution network allow LPI to carry out final inspection and certification of installation once completed