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Technical Specification 43-126: Part 3

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**FITTINGS FOR OVERHEAD LINE OPTICAL  
CABLES – OPTICAL PHASE WIRE CABLES**

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## **FITTINGS FOR OHL OPTICAL CABLE – PART 3 OPPC**

### **FOREWORD & SCOPE**

This specification is for Optical Phase Wire OPPC overhead line fittings used on lattice tower and wood pole lines from 11kV up to 275kV. It includes down lead fittings and splice enclosures and associated fittings, used at phase potential. Standard splice enclosures at ground potential will not be considered.

### **1 INTRODUCTION**

This specification outlines the requirements for overhead line optical cable fittings.

Optical Phase Conductor OPPC is a conductor with embedded optical fibres contained within an optical sub element that can be located at the core of the conductor or replace one of the strands. OPPC requires fittings that perform similar duties to that of a standard conductor without compromising the optical elements of the OPPC. In addition OPPC needs insulators and fittings that guide the optical fibres from phase to ground potential.

Fittings in common use are been described in this specification, however they are not intended to be the only fittings that can be used on an installation. New fittings designs may from time to time become available that offer enhanced performance, simpler installation or are cheaper to manufacture. Any new designs however shall meet the general requirements in this specification.

### **2 REFERENCES**

BS 464	Specification for thimbles for wire ropes
BS 3288	Insulator and conductor fittings for overhead power lines
BS 3643	ISO metric screw threads. Principles and basic data
BS3692	ISO metric precision hexagon bolts, screws and nuts - specification
BS 4190	ISO metric black hexagon bolts, screws and nuts. Specification
BS 5714	IEC 60468 Method of measurement of resistivity of metallic materials
BS EN 1301	Aluminium and aluminium alloys. Drawn wire
BS EN ISO 1461	Hot dip galvanized coatings on fabricated iron and steel articles
BS ISO 1891	Fastener Terminology
BS EN 10244	Steel wire and wire products. Non-ferrous metallic coatings on steel wire
BS EN 10270	Steel wire for mechanical springs
BS EN 50182	Conductors for overhead lines. Round wire concentric lay stranded conductors
BS EN 60793	Optical fibres. Measurement methods and test procedures
BS EN 61284	Overhead lines. Requirements and tests for fittings
BS EN 61897	Overhead lines. Requirements and tests for Stockbridge type aeolian vibration dampers
ENA TS 43-15	Insulator binds and equivalent helical fittings for overhead lines
ENA TS 43-108	Suspension clamps for conductors
ENA TS 43-125	Design Guide and Technical Specification for Overhead Lines Above 45kV
ASTM B415	Standard Specification for Hard-Drawn Aluminum-Clad Steel Wire

### **3 DEFINITIONS**

For the purposes of this document the following definitions apply.