

What is the cross-sectional area of a 48-core OPGW optical cable



Article Overview

The cross-sectional area of a 48-core OPGW cable typically ranges from 50 mm² to 200 mm², depending on its construction and design.

Overview

A 48-core OPGW (Optical Fiber Composite Overhead Ground Wire) cable combines the functions of a ground wire and a communication medium. Its cross-sectional area is influenced by the number of metallic layers, the type of aluminum-clad steel or aluminum alloy wires, and whether it is a single-layer, double-layer, or three-layer design .

Typical Cross-Sectional Ranges

- Single-layer design: 50 mm² to 83 mm², suitable for rated voltages of 66 kV to 275 kV .
- Double-layer design: 90 mm² to 200 mm², suitable for rated voltages of 150 kV to 500 kV .
- Three-layer design: 200 mm² to 400 mm², generally used in European markets for high-voltage lines of 380 kV to 500 kV . The exact cross-sectional area is determined by the mechanical and electrical requirements, including tensile strength, short-circuit current capacity, and environmental conditions .

Construction Considerations...

Article Content

Mar 11, 2026

OPGW Design Specifications for Colombia | PDF | Optical Fiber

The document provides key design data for an OPGW cable for a customer in Colombia with 24/36 single mode optical fibers. The

Jun 07, 2026

Item # OPGW (AL-Tube)-1S 48 (M96/R82-64), OPGW Optical Ground

OPGW must be capable of withstanding the mechanical and environmental stresses inflicted on overhead cables (such those caused

Dec 08, 2025

Optical Fibre Composite Overhead Ground Wire (OPGW)

Optical fibre composite overhead ground wire (OPGW) includes fibre and at the same time maintains all the original

Feb 09, 2026

48 Core OPGW Cable_HuaDong Cable & Wire

What is 48 Core OPGW Cable ? The Central Tube Optical Ground Wire (OPGW) is surrounded by single or double layers of

Dec 10, 2025

NT-OPGW-12S.cdr

Only increase the cross-sectional area of the metal, which leads to the increase of cable diameter and cable weight, which raises

Oct 25, 2025

GTP Specifications for OPGW Cable

It provides technical specifications for the OPGW cable including its nominal cross sectional area, core and cladding details, optical

Aug 25, 2025

OPGW Optical Cable_Kolorapus (Shanghai) Communication

The cross - sectional area ranges from 35 mm² to 180mm², etc., and the specific type is determined according to the customer's

Oct 13, 2025

OPGW-48B1-90 Cable Specifications | PDF | Wire

The cable has a cross section of 90.26 mm² and contains 48 optical fibers. Key technical data includes a rated tensile strength of

Dec 26, 2025

HexaCore Optical Ground Wire OPGW | AFL EMEA

AFL HexaCore OPGW (Optical Ground Wire) cable utilizes fiber-bearing stainless steel tubes stranded alongside aluminum clad

May 03, 2026

01_OPGW.cdr

catalog | Optical Cables Optical Ground Wire| OPGW Application Suitable for installation as ground wire in powerlines. The cable

Dec 30, 2025

Fibre Optic Overhead Ground Wire (OPGW) Standard

The OPGW comprises an inner core containing optical fibres for data transmission, and an outer layer(s) of conductor strands to

Oct 21, 2025

OPGW 48 Core Optical Fiber Cable

What is OPGW 48 Core Cable? OPGW, or Optical Ground Wire, is a self-supporting cable used for the installation of optical fibers on

Jun 02, 2026

AB OPGW Brochures2025C

Introduction Aberdare Cables has expanded the range of its products on the overhead conductors range by the addition of the

Dec 02, 2025

OPGW Fiber Cable

* The effective sectional area of the three-layer design ranges from 200mm² to 400mm², suitable for rated voltages of 380kV, 420kV

Apr 27, 2026

OPGW Cable JIANGSU TONGGUANG Specifications Optical Fiber Cable

Fiber type: 48xG.652 Stranded:core and layer1 greased stranding direction of outer layer is "right" hand(Z-stranding) Cable Diameter

Jun 01, 2026

OPGW Cable Construction & Specifications | Fibre Count & Stranding ...

What is inside an OPGW cable? A central aluminium or stainless-steel tube holds the optical fibres, surrounded by stranded layers of

Jul 27, 2026

Overhead Power Ground Wire (OPGW) FIBER CABLE|Fiber Cable

OPGW cable has two constructions: • Central loose tube type The fibers is placed loosely in a sealed and water resistant stainless

Aug 24, 2025

OPGW-48B1-90 Technical Datasheet | PDF | Young's Modulus

This document provides specifications for an OPGW-48B1-90[115;42.1] aerial cable system. The cable has a cross section of 90.26

Nov 25, 2025

Item # OPGW (AL-Tube)-1S 48 (M96/R82-64), OPGW Optical Ground

The stainless optical tube is located at the center of the cable protected by single or multiple layers of aluminum clad steel, aluminum

Dec 19, 2025

OPGW Cable & System Information Guide for Hardware Selection

The following outline describes the OPGW cable information required to select proper cable attachment hardware and accessories.

Jan 15, 2026

DS Updation OPGW

The optical fibres are enclosed in a central stainless steel tube, surrounded by a layer of AS wire and a layer of AA wire. This

Feb 08, 2026

Transmission Issue: Draft 2005

The cable shall perform the dual function of the Earth wire and Optical Fiber Cable. The cable shall have good mechanical protection

Mar 11, 2026

OPGW cables

Technical data on request. Optical unit composed by 1 to 3 stranded stainless steel tubes Double or triple armour layers available on

Jun 19, 2026

FIBRE OPTIC SYSTEMS FOR OHTL

Introducing fibre optic systems for OHTL Overhead optical fibre cable systems have become a key factor in telecommunications

Contact Us

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