ABSTRACT

A submarine photoelectric composite cable (100) includes an optical fiber component (10), a conductor layer (20), a shield layer (30), a protective layer (50), an armor layer (60) and an outer sheath layer (70) which are sequentially cladded from inside to outside, where the conductor layer (20) includes conductor components (21), the conductor components (21) are twisted outside the optical fiber component (10), the submarine photoelectric composite cable (100) further includes ground wire components (40), the ground wire components (40) are filled in gaps between the conductor layer (20) and the shield layer (30) and/or between the conductor layer (20) and the optical fiber component (10), the conductor components (21) include conductors (211), a cross section of each of the conductors (211) in a radial direction of the conductor components (21) is taken as a first cross section, the ground wire components (40) include second conductors (41), cross sections of the second conductors (41) in a radial direction of each of the ground wire components (40) are taken as second cross sections, an area of any one of the first cross sections is smaller than a total area of the second cross sections, and the optical fiber component (10) includes an optical fiber unit (11) and a heat insulation layer (12), the heat insulation layer (12) being cladded outside the optical fiber unit (11). The submarine photoelectric composite cable (100) can effectively lead out a short circuit current and prevent the optical fiber from being in a high-temperature environment.

Fig. 1