

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H01B 7/18, 9/02, 13/24		A1	(11) International Publication Number: WO 97/40504
			(43) International Publication Date: 30 October 1997 (30.10.97)
(21) International Application Number: PCT/SE97/00666		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 18 April 1997 (18.04.97)			
(30) Priority Data: 9601538-3 23 April 1996 (23.04.96) SE			
(71) Applicant (for all designated States except US): TELEFON-AKTIEBOLAGET LM ERICSSON (publ) [SE/SE]; S-126 25 Stockholm (SE).			
(72) Inventors; and (75) Inventors/Applicants (for US only): EFRAIMSSON, Lars-Olof [SE/SE]; Haraldsbovägen 1F, S-791 43 Falun (SE). JOHNSEN, Ulf [SE/SE]; Österå 220, S-791 91 Falun (SE).			
(74) Agents: BANDELIN, Hans et al.; Telefonaktiebolaget LM Ericsson, Patent and Trademark Dept., S-126 25 Stockholm (DE).		Published With international search reports.	

(54) Title: SELF-SUPPORTING CABLE

(57) Abstract

The present invention relates to self-supporting cables that include at least one insulated conductor (1, 2, 3) that comprises a conductor (4) having at least one wire (11) and an insulation (5) around the cable conductor. The cable also includes at least one longitudinally extending shield band (6), and a jacket (7). According to the invention, the shield band (6) is rigid in a radial direction and includes undulations (22, 23) that extend mainly in a tangential direction. The jacket (7) includes undulations (21) that correspond to the shield band undulations (22). When a weak radially acting compressive force is applied to cable fixing points, the jacket undulations (21) and the shield band undulations (22) come into each other, such as to enable the force of gravity acting on the cable between the cable fixing points to be transmitted into the conductors (4) as an axially acting force in the absence of slippage between the different cable layers. The cable becomes self-supporting by virtue of the mechanical strength of the conductors (4).

