EA510HA-Ed1

QUADED RAILWAY SIGNALING CABLES, ARMOURED PE SHEATH WITH A RF OF 0,3. ADIF SPECIFICATION


Telecommunication cable


Impact Resistant


UV Resistant


Rodent Resistant


Resistant to EM interferences

ROHS compliant

SPECIFICATIONS

Construction: ADIF ET-03.365.051.6 2nd edition

DESCRIPTION AND APPLICATION

Cables from 1 to 27 star quads, conductors of 0.9 and 1.4 mm, polyethylene insulated. The quads are stranded in layers to form the core which is then protected by an anti inductive sheath with a reduction factor of 0.3. They are used as telecommunication cables or in rail circuits, especially in rail infrastructures when protection is required against the induction of high voltage lines. For installation in ducts or directly buried. The cable is rodent resistant.

CONSTRUCTION

- ***Conductors***: Annealed copper wire, 0.9 and 1.4 mm in diameter.
- ***Insulation***: Solid polyethylene.
- ***Cabling element***: Star quads.
- ***Core formation***. Stranded in layers.
- ***Core wrapping***. Dielectric tape longitudinal applied with overlap.
- ***Cable screen***. Corrugated copper tape longitudinally applied with overlap.
- ***Inner sheath***: Polyethylene.
- ***Armour***: Two helically applied steel tapes with a thickness of 0.5 mm each.
- ***Outer sheath***: UV resistant black polyethylene.
- ***Sheath marks*** : The sheath shall be marked, at a regular intervals, with the following information
    - *Name of manufacturer/ Year/ Length marks*
    - *Other type of marks according to the costumer*

Cables de Comunicaciones Zaragoza, SL.
Polígono de Malpica, calle D, nº 83. 50016 Zaragoza - España
+34 976 729 900 | +34 976 729 974
www.cablescom.com | comercial@cablescom.com
Certified Company **ISO 9001** - **ISO 14001**

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ELECTRICAL CHARACTERISTICS (20ºC)	0,9 mm	1,4 mm
Conductor maximum resistance (Ω/km)	29,0	11,90
Resistance unbalance (%) 100x(R_{max}-R_{min})/(R_{max}+R_{min})	Average: 1 % / Maximum 2 %	
Minimum insulation resistance (MΩxkm, 20ºC, 500 V)	35000	
Mutual capacitance (nF/km, 1000 Hz)	Average: 38±3 / Maximum 45	Average: 41±4 / Maximum 48
Capacitance unbalance (pF/460m, 1000 Hz)		
Pair-pair	Average < 35 / Maximum < 250	
Pair-earth	Average < 320 / Maximum < 1200	
***Note**: average values are applied on cables of at least 7 quads.*		
Dielectric Strength (Vdc, 3 s)		
conductor – conductor	3000	
conductor - screen	5000	

TRANSMISION CHARACTERISTICS (20ºC)	0,90	1,4
Nominal attenuation (dB/km)		
1 KHz	0.70	0.46
10 KHz	1.60	0.85
30 KHz	2.10	1.30

REDUCTION FACTOR, R_k (50 Hz)	0,90	1,4
Induced Voltage (V/km)		
110	0.3	0.3
320	0.3	0.3

MECHANICAL CHARACTERISTICS

Operating temperature range : from -25º C to +75º C

Minimum radius of curvature: 15 x R_{cable}

DIMENSIONS AND WEIGHTS

Diameter : 0.90 mm

Code	no. quads	Cable Diam. (mm)	Approx. weight (kg/km)	Delivery length (m)	Drum type
EA510HA90000102N	1	19.1	597	920	A2
EA510HA90000302N	3	21.1	719	920	A4
EA510HA90000502N	5	23.6	855	920	A4
EA510HA90000702N	7	24	932	920	A4
EA510HA90001002N	10	26.4	1114	920	A4
EA510HA90001402N	14	29.8	1374	920	A6
EA510HA90001902N	19	32.7	1617	920	A6
EA510HA90002502N	25	35.8	1919	920	A6
EA510HA90002702N	27	36.9	2029	920	A8

Diameter : 0.1.4 mm

Code	no. quads	Cable Diam. (mm)	Approx. weight (kg/km)	Delivery length (m)	Drum type
EA510HAA4000102N	1	19.1	629	920	A2
EA510HAA4000302N	3	24.9	960	920	A4
EA510HAA4000402N	4	26.5	1091	920	A4
EA510HAA4000502N	5	28.7	1245	920	A4
EA510HAA4000702N	7	29.6	1425	920	A6
EA510HAA4001002N	10	3.1	1748	920	A6
EA510HAA4001402N	14	37.2	2190	920	A8
EA510HAA4001902N	19	41.5	2713	920	B0
EA510HAA4002502N	25	46.2	3326	920	BB

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