

TECHNICAL DATA SHEET

EPN **H121A00**

vers V1

date **06-12-02**

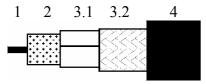
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COAX H121 AL PVC

APPLICATION

Coaxial cables used in cabled distribution networks designed according the European Standard EN 50117 operating at frequencies between 5 MHz and 2150 MHz and the International Standard IEC 1196.

CONSTRUCTION



1 Inner conductor Solid soft annealed copper

2 Dielectric Gas injected PE3.1 Foil AL-PET-AL

3.2 Braid Annealed tinned copper

4 Sheath PVC according the European Standard HD 624.

REQUIREMENTS AND TEST METHODS

Test methods in accordance with European standard EN 50117-1.

Mechanical characteristics

1. Inner conductor.

Diameter: $0.8 \text{ mm} \pm 0.015 \text{ mm}$

2. Dielectric:

Diameter: $3.5 \text{ mm} \pm 0.15 \text{ mm}$ Adhesion: 6.3 - 63 N at 25 mm

3. Outer conductor:

Diameter screen: $4.1 \text{ mm} \pm 0.15 \text{ mm}$

Foil overlap: $\geq 2 \text{ mm}$ Coverage braid: $37 \% \pm 4 \%$

4. Sheath:

Diameter: $5.0 \text{ mm} \pm 0.3 \text{ mm}$ Tensile strength: $\geq 12.5 \text{ N/mm}^2$ Elongation at break: $\geq 150 \%$

5. Cable:

Crush resistance of cable: < 1% (load of 700N) Storage/operating temperature: -15°C to +70°C

Minimum installation temperature: -5 °C Minimum static bend radius: 25 mm Total weight: 24.6 g/m



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Electrical characteristics

Mean characteristic impedance: $75 \pm 3 \Omega$ Regularity of impedance:> 40 dBDC loop resistance: $\leq 75 \Omega/\text{km}$ DC resistance inner conductor: $\leq 35 \Omega/\text{km}$ DC resistance outer conductor: $\leq 40 \Omega/\text{km}$

Capacitance: 53 pF/m \pm 2 pF/m

Velocity ratio: 0.84 ± 0.02 Insulation resistance: $> 10^4 \text{ M}\Omega.\text{km}$

Voltage test of dielectric:2 kVdcScreening efficiency 30-1000 MHz:≥ 85 dBReturn loss at5-30 MHz:≥ 20 dB*30-470 MHz:≥ 20 dB*

470-862 MHz: $\geq 20 \text{ dB}$ 470-862 MHz: $\geq 18 \text{ dB}^*$ 862-2400 MHz: $\geq 16 \text{ dB}^*$

*Max. 3 peak values 4 dB lower than

specified.

Attenuation at Nominal Attenuation at Nominal 5 MHz: 1.7 dB/100m 1000 MHz: 26.1 dB/100m 50 MHz: 5.6 dB/100m 1350 MHz: 30.7 dB/100m 7.9 dB/100m 100 MHz: 1600 MHz: 33.6 dB/100m 200 MHz: 11.3 dB/100m 1750 MHz: 35.3 dB/100m 400 MHz: 16.2 dB/100m 2150 MHz: 39.4 dB/100m 600 MHz: 20.0 dB/100m 2400 MHz: 41.9 dB/100m

800 MHz: 23.2 dB/100m

Maximum attenuation is 10% higher.

MARKING

Text Inkjet printing

BELDEN VENLO HOLLAND YYYY H121 SATV GAS INJECTED

Metermarking: Yes

YYYY: Year of production.

Other marking on request.

PACKAGING

Belden code Delivery length Remark 46421×172 $100 \text{ m} \pm 2\%$ Carton box

46421 xxxx 011 500 m \pm 2% Non returnable reel

xxxx: Color code
Other packaging or lengths on request.