

# Global Business Unit Electronics

## Technical Data Sheet



### HARTING RJ Industrial® Standard Cable

p/n : 09 45 600 0100      100m ring  
 p/n : 09 45 600 0110      500m non-returnable reel

#### Design:

##### **Wire:**

Bare copper wire       $\varnothing$  0.64 mm (0.025 in)  
 Insulation of Polyethylen (PE)       $\varnothing$  1.5 mm (0.059 in)

##### **Core:**

Filler as central element  
 1. layer: 4 wire twisted  
 Sequence of colors: WH-YE-BU-OG  
 Plastic tape, overlapped  
 Inner jacket: Polyvinylchloride (PVC)       $\varnothing$  3.9 mm (0.154 in)  
 Alulminate foil overlapped, applied longitudinally  
 Shield braiding of tinned copper wires 0.13 mm dia  
 Coverage about 90%       $\varnothing$  4.5 mm (0.177 in)

##### **Jacket:**

Polyvinylchloride (PVC) GN  
 Wall thickness about 0.9 mm       $\varnothing$  (6.5  $\pm$ 0.2) mm (0.256  $\pm$ 0.008 in)

#### **Electrical data at 20°C**

Loop resistance       $\leq$  124 Ohm/km  
 Signal run time       $\leq$  5.3 ns/m  
 Insulation resistance       $\geq$  500 MOhm\*km  
 Characteristic impedance 1 – 100 MHz      (100  $\pm$ 15) Ohm  
 Surface transfer impedance 10 MHz       $\leq$  10 mOhm/m  
 Test voltage (wire/wire/screen rms 50Hz 1min)      = 2000 V

#### **Near-end crosstalk attenuation**

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100
CAT 5E requirements (dB – 100m) $\geq$	65.3	56.3	50.3	47.3	45.8	42.9	38.4	35
typ. Value (dB – 100m)	80	75	70	65	63	60	55	50

#### **Attenuation**

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100
CAT 5E requirements (dB – 100m) $\leq$	2.0	4.1	6.5	8.2	9.3	11.7	17.0	22.0
typ. Value (dB – 100m)	1.6	3.2	5.2	6.9	7.8	10.5	15	19.5

The electrical requirements acc. to EN 50288-2-1

### Mechanical and thermal characteristics

Conductor material acc. to DIN EN 13602 Cu-ETP-A...

Screen material acc. to DIN EN 13602 Cu-ETP-A...-B

Insulating material acc. to DIN EN 50290-2-23 (VDE 0819), table L/MD (HD 624.3)

Jacket material acc. to DIN EN 50290-2-22 (VDE 0819), compoundtype TM52 (HD 624.2)

Flame retardant acc. to IEC 60332-1-2

Flame retardant acc. to UL 1685 (CSA FT 4)

UL-File E119100 Vol.1 Sec.12 Page 1

UL-File E119100 Vol.3 Sec. 1 Page 2

UL-File E116441 Vol.1 Sec. 6 Page 8

UL-Style 20201

### Application / Special feature

Limited oil resistance

Sunlight resistant acc. to UL 1581 Sec.1200

Tensile loading:

Permissible temperature range:

During laying:

Transport temperature range:

Min. bending radius allowed:

PVC weight with Phthalate:

PVC weight without Phthalate:

Weight about :

≤ 150 N

- 40 °C up to +70 °C

- 20 °C up to +60 °C

- 40 °C up to +70 °C

repeated 7,5X ø

single 3X ø

32 Kg/km

0 Kg/km

66 Kg/km (45 lb/1000ft)



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