

Global Business Unit Electronics Technical Data Sheet



HARTING RJ Industrial® Stranded Cable

p/n : 09 45 600 0102

100m ring

p/n : 09 45 600 0112

500m non-returnable reel

Design

Wire:

Stranded tinned copper wire 7 X 0.25
Insulation of Polyethylen (PE)

ø 0.75 mm (0,030 in)
ø 1.5 mm (0,059 in)

Core:

Filler as central element
1. layer: 4 wires
Sequence of colors: WH-YE-BU-OG
Plastic tape, overlapped
Inner jacket: Polyvinylchloride (PVC)
Alulaminat foil overlapped
Shield braiding of tinned copper wires 0.13 mm dia
Coverage about 85%

ø 3.9 mm (0,154 in)
ø 4.7 mm (0,185 in)

Jacket:

Polyvinylchloride (PVC) GN
Wall thickness about 0.9 mm

ø (6.5 ±0.2) mm (0,256 ±0,008 in)

Electrical data at 20°C

Loop resistance
Signal run time
Insulation resistance
Characteristic impedance 1 – 100 MHz
UL-Rating
Surface transfer impedance 10 MHz
Test voltage (wire/wire/screen rms 50Hz 1min)

≤ 120 Ohm/km
≤ 5.3 ns/m
≥ 500 MOhm*km
(100 ±15) Ohm
600 V
≤ 100 mOhm/m
= 2000 V

Near-end crosstalk attenuation

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100
CAT 5E requirements (dB – 100m) ≥	65,3	56,3	50,3	47,2	45,8	42,9	38,4	35,3
typ. Value (dB – 100m)	80	76	70	65	63	60	55	50

Attenuation

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100
CAT 5E requirements (dB – 100m) ≤	3,2	6,0	9,5	12,1	13,6	17,1	24,8	32,0
typ. Value (dB – 100m)	2.1	4	6.3	8	9	11.4	16.5	21.3

The electrical requirements similar to EN 50288-2-1

Mechanical and thermal characteristics

Conductor/Screen material acc. to DIN EN 13602 Cu-ETP-A...-B
Insulating material acc. to DIN EN 50290-2-23 (VDE 0819), table 2/A (HD 624.3)
Jacket material acc. to DIN EN 50290-2-22 (VDE 0819), compoundtype TM52 (HD 624.2)
Flame retardant acc. to UL 1685 (CSA FT 4)
Sunlight resistant acc. to UL 1581 Sec.1200

UL File E119100 Vol.1 Sec. 12 Page 1
UL File E116441 Vol.1 Sec. 6 Page 8
UL-Style 20201

Other characteristics:

Permissible temperature range : -40°C up to +70 °C
During laying : -20°C up to +60°C
Transport temperature range : -50°C up to +70°C
Min. bending radius allowed : repeated 5X \varnothing , single 3X \varnothing

PVC weight with Phthalate :	30.6 Kg/km
PVC weight without Phthalate :	0.0 Kg/km
Weight about:	67 Kg/km

Application / Special feature:

Tensile loading:	≤ 150 N
Permissible temperature range:	- 40°C up to +70 °C
During laying :	- 20°C up to +60 °C
Transport temperature range:	- 40°C up to +70 °C
min. bending diameter allowed:	multiple 7 X \varnothing single 3 X \varnothing
PVC weight with Phthalate :	30.6 Kg/km
PVC weight without Phthalate :	0.0 Kg/km
Weight about :	67 Kg/km

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