

HARTING RJ Industrial® Stranded Cable



Wire:	
Stranded tinned copper wire 7 X 0.25 (22 AWG)	ø 0.75 mm (0,030 in)
Insulation of Polyethylen (PE)	ø 1.55 mm (0.061 in)

Core:	
Filler as central element	
1. layer: 4 wire twisted	
Sequence of colors: WH-YE-BU-OG	
Plastic tape, overlapped	
Jacket: Polyvinylchloride (PVC)	ø 3.9 mm (0.154 in)
Alulaminat foil overlapped, applied longitudinally	
Shield braiding of tinned copper wires 0.13 mm dia (36 AWG)	
Coverage about 85%	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	≤ 120 Ohm/km
Signal run time	≤ 5.3 ns/m
Insulation resistance	≥ 500 MOhm*km
Characteristic impedance 1 – 100 MHz	(100 ± 5) Ohm
Surface transfer impedance 10 MHz	≤ 100 mOhm/m
Test voltage (wire/wire/screen rms 50Hz 1min)	= 2000 V

Technical Data Sheet

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	47.2	45.8	42.9	38.4	35,3
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) $\leq$	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
(dB – 100ft)	(0.6)	(1.2)	(1.9)	(2.4)	(2.7)	(3.5)	(5.0)	(6.5)

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 2/A (HD 624.3)
Jacket material acc. to DIN EN 50290-2-22 (VDE 0819), compoundtype TM52 (HD 624.2)
Sunlight resistant acc. to UL 1581 Sec.1200
Flame retardant acc. to UL 1685 (CSA FT 4)
UL-File E119100 Vol.1 Sec.12 Page 1
UL-File E116441 Vol.1 Sec. 6 Page 8
UL-Style 2570

Other characteristics:

Torsional strength (must be testified)	
- 1000 cycles	
- Torsional angle $\pm 180^\circ$ on 1 meter	
Limited oil resistance	
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:	31.3 Kg/km
PVC weight without Phthalate:	0 Kg/km
Weight about	68 Kg/km (46 lb/1000ft)



People | Power | Partnership

Technical Data Sheet

part numbers:	colour:	length:
09 45 600 0102	green	100 m
09 45 600 0142	green	50 m
09 45 600 0132	green	20 m
09 45 600 0112	green	500 m non-returnable reel

Version 1.4 – 01.02.2006
Technical modification reserved!

