



HES Cabling Systems

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Technical Specification

Cable Type: 4x2x26# U/FTP Category 6A 100 Ohm LS0H Patch Cable

HCS P/N: F6A-00490-xx0-FA00W0

Revision: 11/24 Date: 05 March 2024



Physical Description

Basic Conductor	Stranded 7x0.16 mm, 26AWG, bare annealed copper.
Insulation	FPO, 0.99±0.05 mm OD.
Total number of insulated conductors	8, twisted into 4 pairs.
Color code	Blue x White, Orange x White, Green x White, Brown x White.
Individual pair shield	Aluminum foil, providing 100% coverage, foil face out.
Overall shield	None.
Drain wire	Stranded 7x0.16 mm, 26AWG, tin-coated annealed copper laid in close contact with all 4 pairs.
Outer Jacket	Low-smoke Flame-retardant Halogen-free (LS0H, HFFR) compound for indoor use.
Color	Grey RAL 7032.
Overall Diameter	6.0±0.3 mm.
Surface Marking	HCS F6A-00490 4x2x26# U/FTP CATEGORY 6A LS0H FLEX CABLE VERIFIED to ANSI/TIA-568-C.2 & ISO/IEC 11801 FR IEC 60332-1 CE 2011/65/EU (RoHS-2) [Month, Year] [Batch Number]

Mechanical Properties

Bend Radius	50 mm min.
Storage Temperature	-20 to +75C
Temperature operating range	-20 to +75C
Flame Test	IEC 60332-1 (flame propagation), IEC 60754 (acid gas release) & IEC 61034 (smoke generation).
Pulling force	48 N max.
Total Weight	39 kg/km nom.

Electrical Properties @ 20C

Characteristic Impedance	100±15 Ohm @ 1-300 MHz 100±25 Ohm @ 300-500 MHz
Vp	78% nom. 66% min.
Capacitance	40 pF/m nom @ 1 kHz
Capacitance unbalance (wire to ground)	1600 pF/m max @ 1 kHz
Insulation resistance	5000MOhm·km min.
DC Resistance	145 Ohm /km max.
DC Resistance unbalance	2% max.
Voltage rating	72Vdc max.
Delay Skew	45 nS/100m max.

Transmission Properties - Conforming to IEC 61156-6 & ANSI/TIA-568-C.2 Category 6A

FREQ.	Insertion Loss	NEXT Loss	PS NEXT Loss	ACR-F	PS ACR-F	Return Loss	Prop. Delay	TCL	EL-TCTL	PS ANEXT	PS AACR-F
MHz	dB/100m	dB	dB	dB/100m	dB/100m	dB	nS/100m	dB	dB	dB	dB
	Max	Min	Min	Min	Min	Min	Max	Min	Min	Min	Min
1	3.1	75.30	73.30	68.00	65.00	20.00	570.00	40.00	35.00	67.00	67.00
10	8.9	60.30	58.30	48.00	45.00	25.00	545.38	40.00	15.00	67.00	58.20
20	12.6	55.78	53.78	41.98	38.98	25.00	542.05	36.99	8.98	67.00	52.18
25	14.1	54.33	52.33	40.04	37.04	24.2	541.20	36.02	7.04	67.00	50.24
30	15.4	53.14	51.14	38.46	35.46	23.3	540.57	35.23	5.46	67.00	48.66
62.5	22.5	48.36	46.36	32.08	29.08	20.7	538.55	32.04	NS	65.56	42.28
100	28.7	45.30	43.30	28.00	25.00	19.0	537.60	30.00	NS	62.50	38.20
200	41.4	40.78	38.78	21.98	18.98	16.4	536.55	26.99	NS	57.98	32.18
250	46.6	39.33	37.33	20.04	17.04	15.6	536.28	26.02	NS	56.53	30.24
300	51.4	38.14	36.14	18.46	15.46	15.6	536.08	25.23	NS	55.34	28.66
400	60.1	36.27	34.27	15.96	12.96	15.6	535.80	23.98	NS	53.47	26.16
500	67.9	34.82	32.82	14.02	11.02	15.6	535.61	23.01	NS	52.02	24.22

This cable fully conforms to EU Directive 2011/65/EU (RoHS-2)