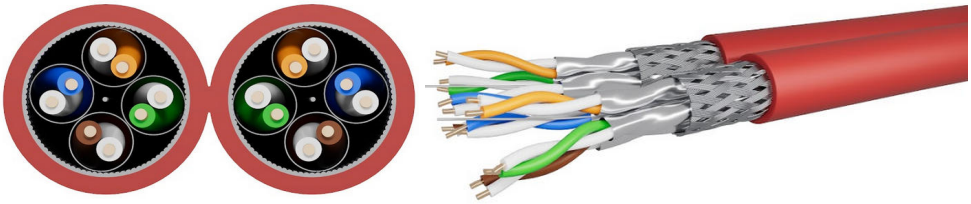
HES Cabling Systems

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Technical Specification

Cable Type: 2x(4x2x23#) S/FTP FIG-8 (Siamese) Category 7 100 Ohm LS0H Horizontal Data Cable
HCS P/N: H07-00824-xxx-DA35Wx
Revision: 07/25 Date: 02 March 2025



Category 7 S/FTP indoor cable, conforming to ISO/IEC-11801 and IEC 61156-5 Category 7 limits, tested up to 1200MHz. The cable contains 8 individually foil-shielded twisted pairs cabled in two 4-pair cores, each overall shielded with a tinned-copper braid and overall jacketed in a FIG-8 (Siamese) formation with LS0H compound for indoor use. This cable fully supports IEEE 802.3an 10GBASE-T and all IEEE 802.3 PoE applications including Type 1, 2, 3 & 4, CISCO UPoE & UPoE+ and HDBase-T PoH. The cable conforms to EU Regulation 305/2011 (CPR) Class Dca-s1a,d1,a1.

Physical Description

Basic Conductor	Solid 23AWG, bare annealed copper (UL 444)
Insulation	SFS-PO.
Total number of insulated conductors	16, twisted in two cores of 4 pairs each.
Color code in each core	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 of each core	Tin-coated copper wire braid, 35±5% coverage.
Drain wire in each core	Solid tin-coated copper wire, 0.40±0.01 mm laid in close contact with the aluminum and the braid shields.
Outer jacket	Low-smoke, Zero-halogen, Flame-retardant compound for indoor use, FIG-8 (Siamese) formation.
Core identification	Surface printing shall be always on the same core.
Outer jacket thickness	0.55±0.1mm
Optional jacket colors	
P/N H07-00824-xx0-DA35W0	**Gray RAL 7001**
P/N H07-00824-xx0-DA35W1	**Light-Gray RAL 9002**
P/N H07-00824-xx1-DA35W0	**Blue RAL 5015**
P/N H07-00824-xx2-DA35W0	**Orange RAL 2003**
P/N H07-00824-xx3-DA35W0	**Green RAL 6024**
P/N H07-00824-xx5-DA35W0	**White RAL 9003**
P/N H07-00824-xx6-DA35W0	**Red RAL 3000**
P/N H07-00824-xx8-DA35W0	**Yellow RAL 1021**
P/N H07-00824-xx9-DA35W0	**Purple RAL 4005**
Overall Diameter	7.2x14.5 mm nom.
Surface Marking (Black ink)	HCS H07-00824 2x(4x2x23#) S/FTP CATEGORY 7 DataLink 600 SHIELDED LS0H CABLE Tested to 1200MHz VERIFIED to CAT 7 ISO/IEC-11801 & IEC 61156-5 FR IEC 60332-1 CE CPR Class Dca-s1a,d1,a1 CE 2011/65/EU (RoHS-2) [Meter Mark] METER **wwSnnxxx**
Note	**Batch number wwSnnxxx ww=week number Snn=cabling machine number xxx=master reel number.**

Mechanical Properties

Bend Radius	Dynamic: 8xD min. Static: 4xD min.
Storage Temperature	-20 to +75C
Temperature installation range	0 to +50C
Temperature operating range	-20 to +60C
EU Regulation 305/2011 (CPR) conformance	CENELEC EN 13501 Class Dca-s1a,d1,a1. NB 2652
Flame Tests	IEC 60332-1 (Flame propagation), IEC 60754 (Acid gas release) & IEC 61034 (Smoke generation)
Pulling force	150 N max.
Caloric value	1320 kJ/m
Total Weight	103 kg/km nom.

Electrical Properties

Mean Impedance	100±5 Ohm @ 100 MHz
Vp	74% nom.
Capacitance unbalance to ground	1.6 pF/m max. @ 1 kHz
Insulation Resistance	5.0 GOhm•km min.
DC Resistance	77 Ohm/km max. (2% max. resistance unbalance).
DC Loop Resistance	154 Ohm/km max. (2% max. resistance unbalance).
DC Resistance unbalance	2% max.
Voltage rating	72Vdc max.
Coupling attenuation	IEC 61156-5 Type Ib.
Transfer Impedance	IEC 61156-5 Grade 1.
Phase delay	$534+36/f^{1/2}$ nS/100m max. @ f=1-1200 MHz.
Delay Skew	25 nS/100m max.

Transmission Properties @ 20C - Conforming to IEC 61156-5 Category 7

FREQ.	Insertion Loss		NEXT		PS NEXT		ACR-F		PS ACR-F		RL		TCL	EL-TCTL	PS ANEXT	PS AACR-F
MHz	dB/100m		dB		dB		dB/100m		dB/100m		dB		dB	dB	dB	dB
	Max	Nom	Min	Nom	Min	Nom	Min	Nom	Min	Nom	Min	Nom	Min	Min	Min	Min
1	2.06	1.8	78.0	100	75.0	97	78.0	105	75.0	103	20.0	23	40.0	35.0	67.0	67.0
4	3.74	3.4	78.0	100	75.0	97	78.0	93	75.0	91	23.0	25	40.0	23.0	67.0	67.0
8	5.24	4.8	78.0	100	75.0	97	75.9	87	72.9	85	24.5	30	40.0	16.9	67.0	67.0
10	5.86	5.4	78.0	100	75.0	97	74.0	85	71.0	83	25.0	30	40.0	15.0	67.0	67.0
16	7.41	6.8	78.0	100	75.0	97	69.9	81	66.9	79	25.0	30	38.0	10.9	67.0	67.0
31.25	10.41	9.6	78.0	100	75.0	97	64.1	75	61.1	73	23.6	28	35.1	5.1	67.0	63.3
62.5	14.88	13.7	75.5	100	72.5	97	58.0	69	55.1	67	21.5	28	32.0	NS	67.0	57.3
100	19.02	17.4	72.4	100	69.4	97	54.0	65	51.0	63	20.1	25	30.0	NS	67.0	53.2
250	30.97	28.1	66.4	90	63.4	87	46.0	57	43.0	55	17.3	25	26.0	NS	67.0	45.2
500	45.26	40.0	61.9	86	58.9	83	40.0	50	37.0	48	17.3	23	NS	NS	67.0	39.2
600	50.10	44.8	60.7	85	57.7	82	38.4	49	35.4	47	17.3	23	NS	NS	65.8	37.6
700	NS	48.0	NS	84	NS	81	NS	48	NS	46	NS	23	NS	NS	64.8	36.3
800	NS	51.0	NS	83	NS	80	NS	47	NS	45	NS	23	NS	NS	64.0	35.1
1000	NS	58.4	NS	82	NS	79	NS	45	NS	43	NS	20	NS	NS	62.5	33.2
1200	NS	68.0	NS	70	NS	69	NS	40	NS	38	NS	18	NS	NS	NS	NS

Transmission parameters indicated above 600MHz are non-binding nominal values provided for reference only.

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