Data Sheet

HUBER+SUHNER

Flexible RF cable
ENVIROFLEX_393 Item: 22512282

Description

Enviroflex: LSFH alternatives to RG cables

RG393 LSFH, 50 Ohm, 6 GHz, 105°C, ø10.05 mm, RADOX® jacket, Flame retardant, UL AWM style 3651

Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Strand-07	2.46 mm
Dielectric	SPEX (Crosslink Foam PE)		7.25 mm
Outer conductor	Copper, Silver plated	Braid, 92%	8 mm
Outer conductor	Copper, Silver plated	Braid, 99 %	8.68 mm
Jacket	RADOX	black/bl line	10.05 mm +/- 0.15

Print: HUBER+SUHNER ENVIROFLEX 393 50 Ohm (UL logo) AWM Style 3651 (production order number)

Electrical Data

Impedance		50 Ω +/- 2
Operating Frequency		6 GHz
Capacitance		94.5 pF/m
Velocity of signal propagation		70.7 %
Signal delay		4.71 ns/m
Screening effectiveness		≥ 78 dB (up to 3 GHz)
Operating voltage		≤ 5 kV_{rms} (at sea level)
Test voltage		10 kV_{rms} (50 Hz/1 min)
Voltage Rating UL		300 V
Phase vs Temperature	-40°C... + 100°C	2800 ppm
Phase vs Bending		1.6 °/GHz

Mechanical Data

Weight		18 kg/100 m
Min. bending radius	static	30 mm
	repeated (for ≤ 10000 bendings)	100 mm
Abrasion test	MIL-T-81490 - §4.7.19 - prod. II - modified	

Environmental Data

Temperature range	-40 °C ... +105 °C
Temperature rating UL	105 °C
Installation temperature	-20 °C... +60 °C
Cold bend test	MIL-C-17 § 4.8.19
Ageing test	MIL-C-17 § 4.8.16
Thermal stress test	IEC 61196-1 § 10.9
Uv resistance test	IEC 60068-2-5, proc. C
Flame propagation test	IEC 60332-2, UL 1581 § 1080 (VW-1), EN 60332-1-2
Smoke density test	EN 61034-2
Halogen test	IEC 60754
Halogen free	Yes
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/EC (REACH)	compliant
2000/53/EC (ELV)	compliant
2012/19/EU (WEEE)	no special marking needed

Additional Information

Railway certificates discontinued by end of 2017. No replacement type.

Remarks

(For details refer to the HUBER+SUHNER RF CABLES GENERAL CATALOGUE or contact your nearest HUBER+SUHNER partner)

Suitable Connectors

Cable group	U33 7 mm / 50 Ohm

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Matrix typical Attenuation [formula: (a*f^0.5 + b*f)] and maximum Power CW [formula: (p/f^0.5)]
Coefficients:

a =	0.1704	b =	0.1153	f_{max} =	6	P at 1GHz =	495

Frequency	Nom. attenuation	Nom. attenuation	Max. CW power
(GHz)	(dB / m)	(dB / ft)	(W)
	sea level 25° C ambient temperature	sea level 25° C ambient temperature	sea level 40° C ambient temperature
0,3	0,13	0,039	904
0,6	0,2	0,061	639
0,9	0,27	0,081	522
1,2	0,33	0,099	452
1,5	0,38	0,116	404
1,8	0,44	0,133	369
2,1	0,49	0,149	342
2,4	0,54	0,165	320
2,7	0,59	0,180	301
3,0	0,64	0,195	286
3,3	0,69	0,210	272
3,6	0,74	0,225	261
3,9	0,79	0,240	251
4,2	0,83	0,254	242
4,5	0,88	0,268	233
4,8	0,93	0,282	226
5,1	0,97	0,297	219
5,4	1,02	0,310	213
5,7	1,06	0,324	207
6,0	1,11	0,338	202