

HUBER+SUHNER® DATA SHEET

Coaxial Cable: ENVIROFLEX_178



Description

PE Foam cross-linked - 50 Ohm - single screen (UL AWM Style 3651)

Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Steel, Copper+Silver plated	Strand-07	0.305 mm
Dielectric	SPEX (Crosslink Foam PE)		0.82 mm
Outer conductor	Copper, Silver plated	Braid, 95 %	1.35 mm
Jacket	RADOX	RAL 5010 - bl	1.84 mm +/- 0.07
Print	HUBER+SUHNER ENVIROFLEX 178 50 Ohm (UL logo) AWM Style 3651 (PA no.)		

Electrical Data

Impedance	50	Ω +/- 2
Max. operating frequency	3	GHz
Capacitance	94.5	pF/m
Velocity of signal propagation	70.7	%
Signal delay	4.71	ns/m
Insulation resistance	$\geq 1 \times 10^7$	M Ω m
Min. screening effectiveness	>40	dB (up to 3 GHz)
Max. operating voltage	1	kV _{rms} (at sea level)
Test voltage	2	kV _{rms} (50 Hz/1 min)
Voltage Rating UL	300	V

Mechanical Data

Weight	0.65	kg/100 m
Min. bending radius	static	5 mm
	repeated (for max. 50 bendings)	20 mm
	dynamic	30 mm

Environmental Data

Temperature range	-40 °C... + 105 °C
Temp. Rating UL	105 °C
Installation temperature	-20 °C... + 60 °C
Flammability	UL 1581 § 1100
Halogen free	IEC 60754
Uv resistance test	IEC 60068-2-5, proc. C
Solar radiation	IEC 60068-2-5, proc. C
2002/95/EC (RoHS)	compliant

Ordering Information

Order as ENVIROFLEX_178

Additional Information

Remarks

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

Cable group U1 1 mm / 50 Ohm

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Matrix **Attenuation** [formula: $(a \cdot f^{0.5} + b \cdot f)$] and **Power CW** [formula: $(p \cdot f^{0.5})$]

Coefficients:

a=	1.4067	b=	0.2229	f _{max} =	3	p _{at} 1GHz =	60
	Frequency		Nom. attenuation		Nom. attenuation		Max. CW power
	(GHz)		(dB / m)		(dB / ft)		(watt)
			sea level 25° C ambient temperature		sea level 25° C ambient temperature		sea level 40° C ambient temperature
	0.2		0.67		0.204		134
	0.3		0.84		0.256		110
	0.5		1.11		0.338		85
	0.6		1.22		0.372		77
	0.8		1.44		0.439		67
	0.9		1.54		0.469		63
	1.1		1.72		0.524		57
	1.2		1.81		0.552		55
	1.4		1.98		0.603		51
	1.5		2.06		0.628		49
	1.7		2.21		0.674		46
	1.8		2.29		0.698		45
	2.0		2.44		0.744		42
	2.1		2.51		0.765		41
	2.3		2.65		0.808		40
	2.4		2.71		0.826		39
	2.6		2.85		0.869		37
	2.7		2.91		0.887		37
	2.9		3.04		0.927		35
	3.0		3.11		0.948		35

HUBER+SUHNER is certified according to ISO 9001 and ISO 14001

WAIVER!

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HUBER+SUHNER AG
RF Industrial
9100 Herisau, Switzerland
 Phone +41 (0)71 353 41 11
 Fax +41 (0)71 353 45 90
 www.hubersuhner.com

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