

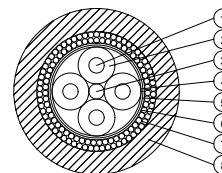
Uppgjord (även faktaansvarig om annan) - Prepared (also subject responsible if other)		Nr - No.	
ECA/T/TK Hans Nilsson		1301-TEL 301 6004/4	Uen
Dokansv/Godk - Doc respons/Approved	Kontr - Checked	Datum - Date	Rev
ECA/T/TKC (Mattias Andersson)		2004-08-19	B
		File	=/LZB 101 01/10B

HALOGEN FREE SCREENED SYMMETRICAL CABLE FOR OUTDOOR USE.

1

GENERAL

Product code TEL 301 6004/4.
 Application 120Ω specified to 1 MHz.
 Fire requirement UL 1581 VW-1
 Classification UL LISTED
 Net mass 30 kg/km



2

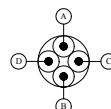
DIMENSIONS AND MATERIAL PROPERTIES

Pos	Item	Limit	Test method	Clause	Unit
	Number of pairs		2		
1	Conductor CU solid tinned	∅ Nom 0.4			mm
2	Insulation PE solid	∅ Nom 0.96	IEC 60189-1	2.2.3	mm
	Stripping force of insulation	Min 1	IEC 60189-1	3.4.2	N
	Max 18				
3	Filler plastic yarn or thread (optional)	∅ Nom 0.4			mm
4	Plastic foil	t Nom 0.02			mm
5	HF-screen Al-PP-Al	t Nom 0.03			mm
6	Drain wire Cu tinned	∅ Nom 0.4			mm
6	Braid CU tinned Cov. Single braid wire	∅ Min 60	IEC 60096-0-1		% mm
	Nom 0.15				
7	Sheath TPE-U	∅ Nom 4.7	IEC 60189-1	2.2.3	mm
	Min 4.2				
	Max 5.2				
	Wall thickness	t Nom 0.7	IEC 60189-1	2.2.1	mm

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COLOURS OF INSULATION ACCORDING TO IEC 189-2

Quad no.	A-core	B-core	C-core	D-core
1	White	Blue	Turquoise	Violet



A stripe or ring on A or (A and B) core with the opposite insulations colour is allowed.

4

SHEATH MARKING

Marking on sheath shall be twice per metre, sheath colour black and marking colour white.

NAME XXXX YYWW PRODUCT CODE FIRE RATING PAIR GAUGE TEMP LENGTH

NAME ERICSSON.
 XXXX Identification code for manufacturing location (given after approval by EIC).
 YYWW Year and week of manufacture, e.g. 0003. once per metre.
 PRODUCT CODE ERICSSON or Customer product code (Customer code for use outside ERICSSON only).
 FIRE RATING Type of fire rating cable shall comply with.
 PAIR Number of pairs.
 GAUGE Dimension of conductor in AWG.
 TEMP Maximum operation temperature for cable in degrees Celsius.
 LENGTH Sequential length markers once per metre, continuous length marking is allowed.

Ericsson Network Technologies AB

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5 ELECTRICAL, MECHANICAL AND ENVIRONMENTAL PROPERTIES

All measurements are to be performed at 20°C unless otherwise stated in the table below.

Characteristic	Freq. (f)	Unit	Test method	Clause	Limit	Value	Unit
Resistance conductor		DC	IEC 60189-1	5.1	Max	153	mΩ/m
Resistance unbalance		DC	IEC 60708-1	24	Max	4	%
Capacitance mutual	1	kHz	IEC 60189-1	5.4	Nom.	49	pF/m
Capacitance earth unbalance	1	kHz	IEC 60189-1	5.5	Max	3000	pF/km
Insulation Resistance		DC	IEC 60189-1	5.3	Min	5000	MΩkm
Dielectric strength cond.-cond. Cond.-screen.		DC	IEC 60189-1	5.2	Min	2.5	kV 2sec
		DC	IEC 60189-1	5.2	Min	2.5	kV 2sec
Resistance screen		DC	IEC 60189-1	5.1	Max	20	mΩ/m
Transfer impedance	30	MHz	IEC 61156-1	3.2.7	Max	10	mΩ/m
Screening attenuation	30	MHz	U.C		Min	50	dB
Impedance characteristic	1	MHz	IEC 61156-1	3.3.6		120 ± 15	Ω
Attenuation	1	MHz	IEC 61156-1	3.3.2	Max	3.3	dB/100m
Near end crosstalk NEXT.	1	MHz	IEC 61156-1	3.3.4	Min	48	dB
Bending radius					Min	20	mm
Pulling force					Max	25	N
Operating temperature					Min	- 40	°C.
					Max	+75	°C.
Fire properties			UL 1581-1080 VW1 IEC 60332-1			Pass Pass	
Amount of acid halogen gas			IEC 60754-2		Max	1	%
UV resistant			UL 1581	1200		Pass	

6 REFERENCE STANDARDS

- ECA 105 49-101 Communications Cable.
- IEC 60096 Radio-frequency cables
- IEC 60189 Low-frequency cables and wires with PVC Insulation and PVC Sheath. – Part 1: General Test and Measuring Methods. – Part 2: Cables in Pairs, Triples, Quads and Quintuples for inside installations.
- IEC 60708 Low-frequency cables with polyolefin insulation and moisture barrier polyolefin sheath - Part 1: General design details and requirements
- IEC 61156 Multicore and symmetrical pair/quad cables for digital communications.
- IEC 60332 Tests on electric cables under fire conditions.
- UL 1581 Test for Flame Propagation.

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