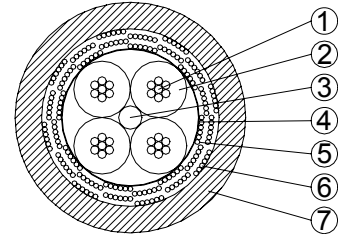


Uppgjord (även faktaansvarig om annan) - Prepared (also subject responsible if other)		Nr - No.			
ECA/T/TK Hans Nilsson		1301-TFL 301 6005			
Dokansv/Godk - Doc respons/Approved	Kontr - Checked	Datum - Date	Rev	File	
ECA/T/TKC (Mattias Andersson)		2007-03-06	C	<b>PLU030165</b>	

**HALOGEN FREE SCREENED SYMMETRICAL QUAD CABLE FOR OUTDOOR USE.**

**1 GENERAL**

Product code TFL 301 6005/4  
 Application 22 AWG outdoor cable  
 Fire requirement UL 1581 VW-1  
 Classification UL LISTED  
 Net mass 93 kg/km



**2 DIMENSIONS AND MATERIAL PROPERTIES**

Pos	Item		Limit	Value	Test method	Clause	Unit
	Number of pairs			2			
1	Conductor CU stranded tinned	∅	Nom	7x0.25			mm
2	Insulation solid PE or PP. Stripping force of insulation.	∅	Nom Min Max	1.9 2 20	IEC 60189-1 IEC 60189-1	2.2.3 3.4.2	mm N
3	Filler plastic rod or yarn. (optional).	t	Nom	0.8			mm
4	HF-screen Al-plastic Al facing out.	t	Nom	0.03			mm
5	Braid CU tinned Cov. Single braid wire	∅	Min Nom	85 0.15	IEC 60096-0-1		% mm
6	Braid CU tinned Cov. Single braid wire	∅	Min Nom	85 0.15	IEC 60096-0-1		% mm
7	Sheath TPE-U	∅	Nom Min Max	7.6 7.2 8.0	IEC 60189-1	2.2.3	mm
	Wall thickness	t	Nom	0.9	IEC 60189-1	2.2.1	mm

**3 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 product code.  
 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.

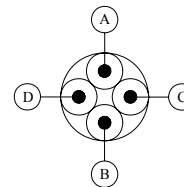
**Ericsson Network Technologies AB**

Uppgjord (även faktaansvarig om annan) - Prepared (also subject responsible if other)		Nr - No.		File	
ECA/T/TK Hans Nilsson		1301-TFL 301 6005			
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Kontr - Checked				PLU030165	

#### 4 COLOURS OF INSULATION ACCORDING TO IEC 189-2

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

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



Pair 1 is: A-core and B-core

Pair 2 is: C-core and D-core

#### 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	57.4	mΩ/m	
Resistance unbalance		DC	IEC 60708-1	24	Max	4	%	
Capacitance mutual	1	kHz	IEC 60189-1	5.4	Nom	58	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.	DC	IEC 60189-1	5.2	Min	2.5	kV 2sec
		Cond.-screen.	DC	IEC 60189-1	5.2	Min	2.5	kV 2sec
Resistance screen		DC	IEC 60189-1	5.1	Max	4	mΩ/m	
Impedance characteristic	1	MHz	IEC 61156-1	3.3.6		100 ± 15	Ω	
Attenuation	1	MHz	IEC 61156-1	3.3.2	Max	3.2	dB/100m	
Near end crosstalk NEXT.	1	MHz	IEC 61156-1	3.3.4	Min	48	dB	
Operating temperature					Min	- 40	°C.	
					Max	+75	°C.	
Fire properties			UL 1581-1080 VW1 IEC 60332-1			Pass Pass		
Bending radius					Min	20	mm	
Pulling force					Max	50	N	
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 60332-1	Tests on electric cables under fire conditions.
UL 1581	Test for Flame Propagation.

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