

ICS IE TOUGH CAT 7S

S/FTP Installation Cable for tougher environments



Dca
CPR

CABLE FEATURES

Latest version of this data sheet is available for download: [ProductFamily238897](#)

GENERAL INFO

Generic Data transmission. This cable is a Cat.7 S/FTP cable meant for use as installation/horizontal cable in tougher electrical and mechanical environment, including ships and offshore units.

CERTIFICATIONS AND DESIGN STANDARDS



IEC 61156-5
EN 50288-4-1
ISO/IEC 11801
EN 50173

Datacom cables
Datacom cables up to 600 MHz
Generic telecom cabling for customer premises
Information technology - Generic cabling systems

CABLE CONSTRUCTION

Conductor category	Class 1 = solid
Conductor material	Copper
Conductor surface	Bare
AWG size	23
Core insulation material	Polyethylene (PE)
Nominal diameter over insulation [mm]	1.4
Screen over stranding element	Foil
Number of stranding elements	4
Identification of stranding elements	Core colors: blue/white; orange/white; green/white; brown/white
Screen material	Copper, tinned
Screen over stranding	Braiding
Material outer sheath	Thermoplastic polymer
Cable shape	Helical
Nominal outer diameter [mm]	7.6

APPLICATION PROPERTIES

Operation temperature (min) [°C]	-40	(max) [°C]	85
Installation temperature (min) [°C]	-15	(max) [°C]	70
Bending radius (rule)	Installation: 8 x outer diameter; Installed: 4 x outer diameter		

FIRE PROPERTIES

Flame retardant	In accordance with EN/IEC 60332-3-24
Halogen free	acc. IEC/EN 60754-1/2
Low smoke	acc. IEC/EN 61034-2
Reaction-to-fire class (acc. EN 13501-6)	Dca
Smoke development class (acc. EN 13501-6)	s2
Euro class flaming droplets/particles (acc. EN 13501-6)	d1
Euro class acidity (acc. EN 13501-6)	a1
Fire load [MJ/km]	670
DOP number	1000945

ELECTRICAL PROPERTIES

Test voltage [kV]	1
Category	7
NVP value [%]	76
Propagation delay (max) [ns/100m]	427
Delay skew (max) [ns/100m]	12
Characteristic impedance [Ohm]	100
Nominal mutual capacitance [pF/m]	43
Loop resistance [Ohm]	138
Coupling attenuation [dB]	85
Insulation resistance [MΩ·km]	5,000
Transfer impedance at 10 MHz [mOhm/m]	8
Segregation classification (acc. EN 50174-2)	d

CAT.7 TRANSMISSION CHARACTERISTICS (AT 20°C)

Frequency (MHz)	Attenuation (dB/100 m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100 m)	PS-ACR (dB/100 m)	ACRF (dB/100m)	PS-ACRF (dB)	Return Loss (dB)
1	1.8	100	97	98	95	105	102	-
4	3.3	100	97	97	94	105	102	27
10	5.2	100	97	95	92	97	94	30
16	6.6	100	97	93	90	93	90	30
20	7.4	100	97	93	90	91	88	30
31.2	9.3	100	97	91	88	87	84	30
62.5	13.4	100	97	87	84	81	78	30
100	17.2	100	97	83	80	77	74	30
125	19.4	95	92	76	73	75	72	26
155.5	21.8	94	91	72	69	73	70	26
175	23.3	93	90	70	67	72	69	25
200	25.1	92	89	67	64	71	68	25
250	28.4	90	87	62	59	69	66	24
300	31.4	89	86	58	55	67	64	24
450	39.5	87	84	48	45	64	61	23
600	46.6	85	82	38	35	61	58	22
750	53.2	83	80	30	27	59	56	21
900	59.2	82	79	23	20	58	55	20
1000	63.1	81	78	18	15	57	54	20

PRODUCT ORDER DATA

Product name	Nominal outer diameter [mm]	Max. tensile strength during installation [kN]	Copper weight [kg/km]	SAP code	Packaging type	Standard packaging quantity	Gross weight
TOUHCAT C7S LSHF-FR 4X2/0.56	7.6	0.14	38	60015280	Drum	1	68.463
TOUHCAT C7S LSHF-FR 4X2/0.56	7.6	0.14	38	60015282	Drum	500	34

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