



D-DAC HFFR Dca

24x SM G.657.A2 (4x6)

Article number: 75555

Date: 19-11-2021

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Product characteristics

Cable type	DAC
Fibre type	Single mode 9/125
Optical fibre standard	ITU-T G.657.A2
Number of fibers	24
Number of fibers per optical element	6
Number of cores	4
Strain relief	Yes
Optical element	Soft tube
Cable metal free	Yes
Stripability outer sheath	1000 mm
Stripability optical element	> 100 mm, down to primary coating
Type of strain relief	FRP + Aramid
Material outer sheath	HFFR
Colour outer sheath	Black
Outer sheath thickness	1,7 mm
Outer diameter approx.	5,9 mm
Max. outer diameter	6,1 mm



Product characteristics

Marking	ACE - TKF D-DAC HFFR Dca 24x SM G.657.A2 (4x6) 75555 {Batch} [-CE-] DoP0081 {Year} {Length}
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Application

Standardization	EN IEC 60794-2
Test procedures	EN IEC 60794-1-2
Application	Inside/Outside
Euro fire class according to EN 13501-6	Dca
Euro class smoke production according to EN 13501-6	s1
Euro class flaming droplets/particles according to EN 13501-6	d1
Euro class acidity according to EN 13501-6	a1

Mechanical specification

Tensile load short term (Tm)	1000 N
Cable strain by Tm	0,6 %
Max. fiber strain at Tm	0,6 %
Tensile load Long Term (TI)	300 N
Max. fiber strain at TI	0,2 %
Min. bending radius during installation	45 mm
Min. bending radius after installation	60 mm
Crush resistance E3A short (1min)	2500 N/dm
Crush resistance E3A long	1000 N/dm
Crush load E3A long application time	10 min
Striking surface radius	300 mm
Torsion resistance	1800 °/m
Kink resistance	60 mm



Optical specification

Category according to EN 50173	OS2
Max. attenuation @ 1310 nm	0,38 dB/km
Max. attenuation @ 1550 nm	0,25 dB/km
Max. attenuation @ 1625 nm	0,30 dB/km

Environmental specification

Longitudinal water blocking cable	Yes
Longitudinal watertight construction	Super Absorbing Polymer
Installation temperature	-10/50 °C
Operational temperature range Ta1 - Tb1	-30/70 °C
Max. attenuation increase during Ta1 - Tb1	0,05 dB
Operational temperature range Ta2 - Tb2	-40/70 °C
Max. attenuation increase during Ta2 - Tb2	0,15 dB
TC sample length for TC acc. F1 or F12	1000 m
UV resistant	Yes
UV-protection	ISO 4892/2
Color fastness	Blue wool scale 8

Other specification

Halogen free (acc. EN 60754-1/2)	Yes
Halogen free	IEC 60754-1&2 / EN 50257-2-1 / EN 50267-2-2 / EN50267-2-3
Low smoke (acc. EN 61034-2)	Yes
Smoke density	IEC 61034-1&2 / EN 50268-1&2
Vertical flame propagation (for single cable)	IEC 60332-1-2 / EN 50265-2-1
Vertical flame spread (for bunched cables)	IEC 60332-3-25 / EN 50266-2-5 (cat.D)



Logistical specifications

Unit	meter
Weight (kg)	0.039
Default packaging	H X 2000/100



Fibre specification G.657.A2

ACE-DS-OT-VSP-SM-G657A2-v05-e

date : 11-08-2020

Technical product information

Product characteristics - optical fibers

Fibre

Type of fibre	Hydrogen passivated, dispersion unshifted, groove assisted, bending loss insensitive single mode fibre 9/125 µm Full compatible with G.652.D fibre Optical and geometrical properties exceed ITU-recommendations G.652.D and G.657.A1
Standard	IEC-60793-2-50, B-657.A2
Standard	ITU-T G.657.A2

Characteristics

Parameter	Properties	Unit
Mode field diameter: 1310 nm	8.6 ± 0.4	µm
Mode field diameter: 1550 nm	9.6 ± 0.5	µm
Core/cladding concentricity error	max. 0.5	µm
Cladding diameter	125.0 ± 0.5	µm
Cladding non-circularity	max. 0.7	%
Coating diameter	242 ± 5	µm
Coating/cladding concentricity error	max. 8	µm
Temperature sensitivity: -60 to +85 °C	max. 0.05	dB/km
Bending sensitivity - 100 turns around Ø50 mm - 1550 nm	max. 0.05	dB
Bending sensitivity - 100 turns around Ø60 mm - 1625 nm	max. 0.05	dB
Bending sensitivity - 10 turns around Ø30 mm - 1550 nm	max. 0.03	dB
Bending sensitivity - 10 turns around Ø30 mm - 1625 nm	max. 0.1	dB
Bending sensitivity - 1 turn around Ø20 mm - 1550 nm	max. 0.1	dB
Bending sensitivity - 1 turn around Ø20 mm - 1625 nm	max. 0.2	dB
Bending sensitivity - 1 turn around Ø15 mm - 1550 nm	max. 0.5	dB
Bending sensitivity - 1 turn around Ø15 mm - 1625 nm	max. 1.0	dB
Proof test level	min. 0.70	GPa
Fibre curl	min. 4	m
Cable cut-off wavelength	max. 1260	nm
Zero-dispersion wavelength	1300 – 1324	nm
Zero-dispersion slope	max. 0.090	ps/nm ² ·km
Chromatic dispersion: 1550 nm	max. 18	ps/nm·km
Chromatic dispersion: 1625 nm	max. 22	ps/nm·km
Polarisation mode dispersion: max. individual fibre	max. 0.1	ps/nm·km
PMD _Q	max. 0.06	ps/√km
Max. attenuation at 1383 nm (α ₁₃₈₃) [note a]	< max. α ₁₃₁₀	-
Effective group core refractive index: 1310 nm	1.4676	-
Effective group core refractive index: 1550 nm	1.4683	-
Effective group core refractive index: 1625 nm	1.4685	-

note a: after hydrogen ageing