

## HITRONIC® HQA Outdoor Aerial Cable

DB\_HQA800\_EN (version 1.2)  
valid from: 14.10.2013

### 1. Product Description

Cable designation: A-DQ(ZN)B2Y ADSS

Outdoor aerial glass fibre optic cable with multiple stranded loose tubes, non-metallic strength elements, UV-resistance, robust and halogen-free cable sheath

### 2. Application

For use in outdoor, self-support aerial applications, and industrial environment

Methods of deployment: suspension from poles

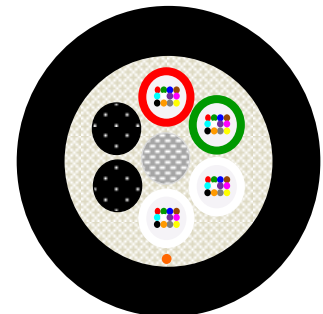
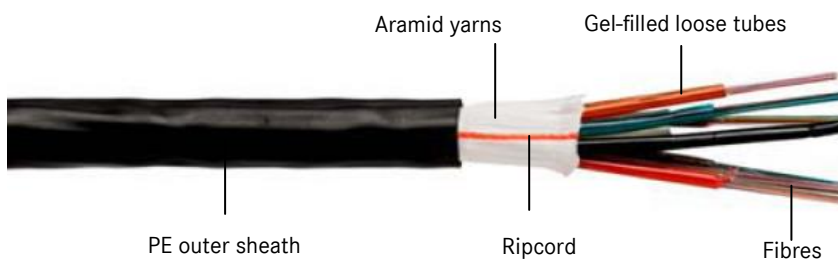
#### Aerial Installation conditions:

Wind (km/h)	Ice (mm)	Span (m)
100	0	90
0	10	80
0	15	45
60	10	60

#### NESC Aerial Installation Conditions:

	Span (m)
NESC Light	80
NESC Medium	55

### 3. Product Design



Cable core	8 stranded loose tubes with up to 96 glass fibres, a central element, aramid yarns
Cable inner sheath	-
Cable outer sheath	Polyethylene (PE) outer sheath, halogen-free, UV and water-resistant
Colour of inner sheath	-
Colour of outer sheath	Black (RAL 9005)
Colour of loose tube	Red, green, subsequent tubes are natural, fillers are black
Identification of fibres	Red, green, blue, yellow, grey, violet, brown, orange, white, pink, black, turquoise
Type of armouring	-



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## 4. Optical and Physical Properties of Cabled Fibre (and Bare Fibre)

Multimode fibre		50/125 µm	50/125 µm	50/125 µm	62.5/125 µm	
		OM4	OM3	OM2	OM1	
Attenuation	@ 850 nm	dB/km	≤ 3.5 (2.5)	≤ 3.5 (2.5)	≤ 3.5 (2.5)	≤ 3.5 (3.0)
	@ 1300 nm	dB/km	≤ 1.5 (0.7)	≤ 1.5 (0.7)	≤ 1.5 (0.7)	≤ 1.5 (0.7)
Bandwidth	@ 850 nm	MHz-km	≥ 3500	≥ 1500	≥ 500	≥ 200
	@ 1300 nm	MHz-km	≥ 500	≥ 500	≥ 500	≥ 500
Numerical aperture			0.2 ± 0.015	0.2 ± 0.015	0.2 ± 0.015	0.275 ± 0.015
Core diameter		µm	50 ± 2.0	50 ± 2.0	50 ± 2.0	62.5 ± 2.5
Cladding diameter		µm	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 2
Primary coating diameter		µm	242 ± 5	242 ± 5	242 ± 5	245 ± 10
Single-mode fibre		9/125 µm				
		(ITU-T G.652.D)				
Attenuation	@ 1310 nm	dB/km	≤ 0.4 (0.35)			
	@ 1550 nm	dB/km	≤ 0.4 (0.21)			
Chromatic dispersion	@ 1310 nm	ps/(nm-km)	≤ 3.0			
	@ 1550 nm	ps/(nm-km)	≤ 18			
Zero dispersion wavelength		Nm	1300 – 1322			
Cut-off wavelength		Nm	≤ 1260			
PMD		ps/km	≤ 0.1			
Mode field diameter		µm	9.0 ± 0.4			
Cladding diameter		µm	125 ± 1			
Primary coating diameter		µm	242 ± 7			

## 5. Thermal Properties

Operating temperature	-30°C to +70°C
Installation temperature	-5°C to +50°C
Storage temperature	-30°C to +70°C

## 6. Mechanical Properties

Max. number of fibres	96	
Cable outer diameter (mm)	Refer to range overview	
Cable weight (kg/km)	Refer to range overview	
Min. bending radius (mm)	static	15 x D
	dynamic	20 x D
Max. tensile strength (N)	EDS	2000
	MAT	800
Impact (J)	5	

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PE sheath	Non-aging, halogen-free, good stability to acids and alkalis
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**8. EC Directives**

Not applicable for fibre optic cables

**9. Approvals**

- RoHS
- Environmental and mechanical tests comply to EN 187000 and IEC 60794
- Halogen free according to IEC 60754-1

**10. Product Range Overview**

Article number	Article designation	Fibre type	No. of Fibres	Weight (kg/km)	Outer $\phi$ (mm)
<b>Multimode</b>					
26640448	HITRONIC® HQA800 48G 50/125 OM4	50/125 OM4	48	92	10.9
26640496	HITRONIC® HQA800 96G 50/125 OM4	50/125 OM4	96	121	12.4
26640348	HITRONIC® HQA800 48G 50/125 OM3	50/125 OM3	48	92	10.9
26640396	HITRONIC® HQA800 96G 50/125 OM3	50/125 OM3	96	121	12.4
26640204	HITRONIC® HQA800 4G 50/125 OM2	50/125 OM2	4	68	9.7
26640212	HITRONIC® HQA800 12G 50/125 OM2	50/125 OM2	12	73	9.7
26640248	HITRONIC® HQA800 48G 50/125 OM2	50/125 OM2	48	92	10.9
26640296	HITRONIC® HQA800 96G 50/125 OM2	50/125 OM2	96	121	12.4
26640148	HITRONIC® HQA800 48G 62.5/125	62.5/125 OM1	48	92	10.9
26640196	HITRONIC® HQA800 96G 62.5/125	62.5/125 OM1	96	121	12.4
<b>Single-mode</b>					
26640912	HITRONIC® HQA800 12 E 9/125 OS2	9/125 OS2	12	73	9.7
26640924	HITRONIC® HQA800 24 E 9/125 OS2	9/125 OS2	24	73	9.7
26640948	HITRONIC® HQA800 48 E 9/125 OS2	9/125 OS2	48	92	10.9
26640996	HITRONIC® HQA800 96 E 9/125 OS2	9/125 OS2	96	121	12.4