


27900104	DATENBLATT	
Valid from: 18.12.2018	HITRONIC® HQW3000 Armoured Outdoor Cable	

1. Product Description

Cable designation: A-DQ(ZN)(SR)2Y

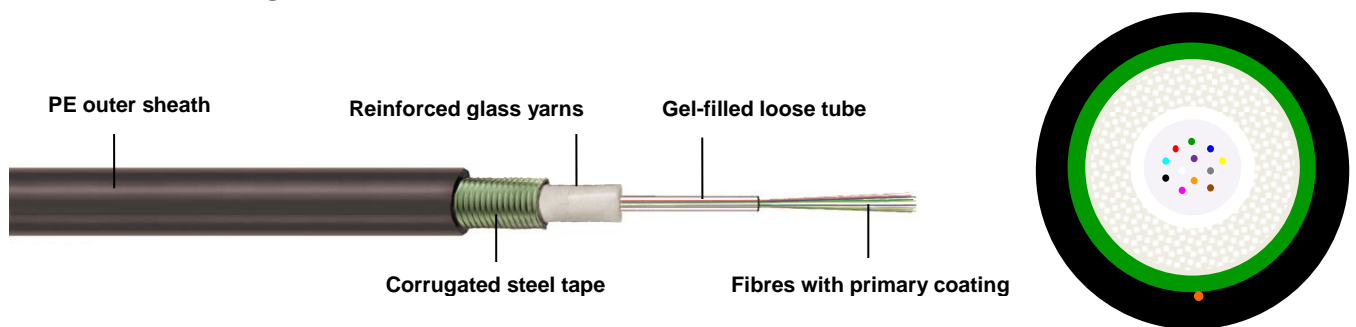
Outdoor glass fibre optic cable with corrugated steel tape armour, central loose tube, non-metallic strength elements, longitudinally and laterally watertight, excellent rodent protection, robust and halogen-free cable sheath

2. Application

For use in outdoor, direct burial, campus backbone, WAN applications, and industrial environment


Methods of deployment: empty plastic pipes, ducts and trays

3. Product Design



Cable core	Central gel-filled loose tube with up to 24 glass fibres, water-blocking reinforced glass 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	Natural
Identification of fibres	Red, green, blue, yellow, grey, violet, brown, orange, white, pink, black, turquoise/transparent
Type of armouring	Corrugated steel tape

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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	-40°C to +70°C
Installation temperature	-5°C to +50°C
Storage temperature	-40°C to +70°C

6. Mechanical Properties

Max. number of fibres	24	
Cable outer diameter (mm)	9.6 ± 0.3	
Cable weight (kg/km)	88	
Min. bending radius (mm)	without tensile load	15 x D
	with tensile load	20 x D
Max. tensile strength (N)	long-term	3000
	short-term	5000
Max. crush resistance (N/dm)	5000	

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7. Chemical Properties

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

This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

9. Approvals

- 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	Outer Ø (mm)
Multimode				
27900404	HITRONIC® HQW3000 4G 50/125 OM4	50/125 OM4	4	9.6
27900408	HITRONIC® HQW3000 8G 50/125 OM4	50/125 OM4	8	9.6
27900412	HITRONIC® HQW3000 12G 50/125 OM4	50/125 OM4	12	9.6
27900424	HITRONIC® HQW3000 24G 50/125 OM4	50/125 OM4	24	9.6
27900304	HITRONIC® HQW3000 4G 50/125 OM3	50/125 OM3	4	9.6
27900308	HITRONIC® HQW3000 8G 50/125 OM3	50/125 OM3	8	9.6
27900312	HITRONIC® HQW3000 12G 50/125 OM3	50/125 OM3	12	9.6
27900324	HITRONIC® HQW3000 24G 50/125 OM3	50/125 OM3	24	9.6
27900204	HITRONIC® HQW3000 4G 50/125 OM2	50/125 OM2	4	9.6
27900208	HITRONIC® HQW3000 8G 50/125 OM2	50/125 OM2	8	9.6
27900212	HITRONIC® HQW3000 12G 50/125 OM2	50/125 OM2	12	9.6
27900224	HITRONIC® HQW3000 24G 50/125 OM2	50/125 OM2	24	9.6
27900104	HITRONIC® HQW3000 4G 62.5/125	62.5/125 OM1	4	9.6
27900108	HITRONIC® HQW3000 8G 62.5/125	62.5/125 OM1	8	9.6
27900112	HITRONIC® HQW3000 12G 62.5/125	62.5/125 OM1	12	9.6
27900124	HITRONIC® HQW3000 24G 62.5/125	62.5/125 OM1	24	9.6
Single-mode				
27900904	HITRONIC® HQW3000 4 E 9/125 OS2	9/125 OS2	4	9.6
27900908	HITRONIC® HQW3000 8 E 9/125 OS2	9/125 OS2	8	9.6
27900912	HITRONIC® HQW3000 12 E 9/125 OS2	9/125 OS2	12	9.6
27900924	HITRONIC® HQW3000 24 E 9/125 OS2	9/125 OS2	24	9.6

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