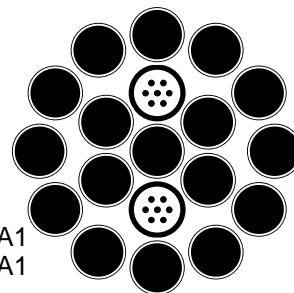


# **OPGW 120-A20SA, 48 G.657A1**

01. Cross Section			: 120
Cross Section Ratio			: --
02. Structure			
A20SA (ACS)	- Core -	No. Of Wires / Ø [mm]	: 1 / 3.00
		Cross Section [mm <sup>2</sup> ]	: 7.07
A20SA (ACS)	- Layer 1 -	No. Of Wires / Ø [mm]	: 4 / 3.00
		Cross Section [mm <sup>2</sup> ]	: 28.27
A20SA (ACS)	- Layer 2 -	No. Of Wires / Ø [mm]	: 12 / 3.00
		Cross Section [mm <sup>2</sup> ]	: 84.82
		Total Cross Section [mm <sup>2</sup> ]	: 120.17
O/F-T.(st. steel)	- Layer 1 -	No. Of Tube / Ø [mm]	: 2 / 3.00
		No. Of Fibres / -type	: 24 / G.657A1
		No. Of Fibres / -type	: 24 / G.657A1
		Total Cross Section [mm <sup>2</sup> ]	: 14.14
03. Rated Cross Section		[mm <sup>2</sup> ]	: 120.2
04. Rated Diameter		[mm]	: 15.0
05. Electrical Efficient Cross Section		[mm <sup>2</sup> ]	: 30.0
06. Weight of Wire		[kg/km]	≈ 854.2 (Al: 83.1 / 9.7%)
Part of A20SA (ACS)		[kg/km]	: 810.7 (Al: 83.1)
Part of O/F-T.(st. steel) + Compound		[kg/km]	: 27.9 + 9.7
Part of Grease (Nominal-)		[kg/km]	: 5.9
07. Rated Tensile Strength (RTS)		[kN]	: 161.0
08. Medium Tensile Strength (16%RTS)		[N/mm <sup>2</sup> ]	: 214
09. Max. permitted Tensile Strength (42%RTS)		[N/mm <sup>2</sup> ]	: 563
10. Endurance Tensile Strength (72%RTS)		[N/mm <sup>2</sup> ]	: 965
11. Modulus Of Elasticity		[kN/mm <sup>2</sup> ]	: 162
12. Coefficient of linear Expansion		[1/K*E-06]	: 13,0
13. Short time Current		[kA]	: 8.7 (75.0 kA <sup>2</sup> s)
final temp.: 200°C; initial temp.: 20°C at 1.00 s			
14. Ohmic Resistance		[Ω/km]	: 0.676
15. Current carrying capacity		[A]	≈ 243
Speed of Wind: 0.6m/s, Ambient temp.: 35.0°C, Rope temp.: 80.0°C, Coeff.absorb:0.5 1/K			




Gross / Wirz  
worked out / reviewed

PSO2 / FT  
Department

04.02.2014  
Date

  
worked out

  
reviewed

Release 1.4.86

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