



Sr No.	Technical Parameters	Unit	ELEGAR
1	Cable size		1Cx4 mm²
2	Electrical properties		
	Nominal DC Voltage	KV	1.5 kV
	Maximum permissible operating DC Voltage	KV	1.8 kV
	Test Voltage	KV	For (a.c.) - 6.5kV For (d.c.) - 15kV
3	Design Life of Cable		> 25 Years
4	Type of cable		
	Armoured / Unarmoured		Unarmoured
	Earthed/Unearthed		Unearthed
5	Conductor		
	Material		Electrolytic annealed tinned copper (according to VDE 0295 / IEC 60228)
	Shape of conductor		Round
	Flexibility Class		Class 5
	No of wire(strands)	Nos.	52
	Wire(strands) dia Approx.	mm	0.3
	Max. DC Resistance of Cable		
	a) 20°C	Ohm/Km	5.09
	b) 70°C	Ohm/Km	6.09
	c) 90°C	Ohm/Km	6.49
6	Current ratings		
	In Ground	A	52 A
	In Duct	A	68 A (max 20° depth 1m)
	In Air	A	55 A
	Short Circuit Temperature	°C	Max Short Circuit Temperature 280 °C as per IEC 60216

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7	Insulation Composition of Insulation Thickness (nom) Type of Curing Min. Insulation resistance at 20 °C	 mm MΩ.km	XLPO, Flame Retardant, Halogen free, electron beam cross-linked 0.7 mm E-beam 580
8	Outer sheath Material Thickness (nom) Color of sheath Continuous Temperature withstand Capability	 mm °C	XLPO, Flame Retardant, Halogen free, electron beam cross-linked, UV resistance 0.8 mm 50 % Quantity - Black with White stripes 50 % Quantity - Black with Red stripes 120°C
9	Mechanical properties Max. Overall Diameter(with tolerance) Safe pulling force when pulled by pulling eye on the conductor Dynamic penetration resistance Tensile strength and elongation Min. Bending Radius Approx. Net wt of Cable	mm N/mm ² Kg/Km	5.50 ± 0.2 mm 40 N/mm ² Yes EN 60811 > 4 x OD (fixed installation) > 5 x OD (occasionally moved) 60 Kg/Km
10	Thermal & chemical Properties Operating Temperature Ambient Temperature Under Short circuit condition Fire resistance requirement Damp heat resistance ozone resistance Halogen free Flame retardant Acid and alkaline resistance	°C °C °C 	-50 °C up to +120 °C -50 °C up to +90 °C 280 °C LSZH EN 60068-2-78 at 85% humidity IEC 60811-403 EN 50525-1:2011 IEC 60332-1-2 EN 60811-404
13	De-rating Factor Variation in Ambient air & Ground temperature- a) at 40Deg.C in air b) at 30Deg.C in ground Variation in Thermal resistivity of soil-a)two Cables touching & b)three Cables touching		1.18 0.93 (at 1000mm depth) a)Two Cables touching - 0.87 b)Three Cables touching - 0.77
14	Drum Type (Wood/Steel) Approx. Wt of Cable drum with Cables Max/Standard length per drum Tolerance allowed in cable length per drum Marking on cable	Kg mtr. %	Wood / Plywood 70 1000 m, 2000 to 5000 m per drum on request +3% (No Negative tolerance) ELEGAR SOLAR Energie Konnect 128 FLEX 1500V DC 1X4 MM ² H1Z2Z2-K EN50618/62930 IEC131 HALOGEN FREE LOW SMOKE <Lot No.>