

XLPE Insulated Wire Armored and PVC Sheathed Power Cables (6350/11000V)

CABLE DESCRIPTION

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To provide distribution of power in coal mines, both on the surface and underground

Cable to BCS 656 Part2 6350/11000V

Plain Annealed Copper (PAC) Conductors, Semi con. XLPE/XLPE Insulated/Semi con. XLPE, Copper Taped, Laid Up, PVC Bedded, Single (SWA) or Double (DWA) Galvanised Steel Wire Armoured and PVC Sheathed.

The SWA designs can also be supplied with a steel tape binder over the single wire armour. All designs contain a PETP tape and a bitumen compounded hessian tape over the bedding sheath.

In the case of the Double Wire Armoured designs a bitumen compounded hessian tape is also applied between the two layers of armour. Bitumen compound is applied under, between and over the armour wires in all designs.



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Formerly Pirelli Cables

XLPE Insulated Wire Armored and PVC Sheathed Power Cables (6350/11000V)

3 CORE WITH SWA AND STEEL TAPE

Phase Conductor

Size of conductors
mm²

70

95

120

150

185

Cable Details

Size of phase conductor mm ²	Nominal diameter over inner sheath mm	Approximate overall diameter mm	Minimum bending radius mm	Maximum pulling tension Kgf	Approximate cable weight Kg/Km
70	48.0	60.2	750	1260	6850
95	51.3	63.3	800	1710	7800
120	55.5	68.1	850	2000	9200
150	58.3	70.5	850	2000	10000
185	62.3	75.1	950	200	11780

Electrical Details

Size of Phase conductor mm ²	Continuous current rating at 25°C Ambient -in air Amps	Continuous current rating at 15°C Ambient -in ground Amps	Maximum d.c. resistance at 20°C		Maximum a.c. resistance at 90°C Power conductor Ohms/Km	Nominal reactance at 50 Hz Ohms/Km	Nominal reactance at 60 Hz Ohms/Km
			Power Conductor Ohms/Km	Armour Ohms/Km			
70	280	260	0.268	0.447	0.343	0.106	0.127
95	335	300	0.193	0.322	0.247	0.100	0.120
120	385	345	0.153	0.255	0.196	0.097	0.116
150	435	385	0.124	0.207	0.159	0.094	0.113
185	500	430	0.099	0.165	0.128	0.092	0.110

3 CORE WITH DWA

Phase Conductor

Size of conductors
mm²

70

95

120

150

185

XLPE Insulated Wire Armored and PVC Sheathed Power Cables (6350/11000V)

3 CORE WITH DWA

Cable Details

Size of Phase conductor mm ²	Nominal diameter over inner sheath mm	Approximate overall diameter mm	Minimum bending radius mm	Maximum pulling tension Kgf	Approximate cable weight Kg/Km
70	48.7	66.5	800	1260	9480
95	51.3	69.9	850	1710	10820
120	55.5	74.4	900	2000	12370
150	58.3	76.8	950	2000	13380
185	62.3	81.4	1000	2000	14870

Electrical Details

Size of Phase conductor mm ²	Continuous current rating at 25°C Ambient -in air Amps	Continuous current rating at 15°C Ambient -in ground Amps	Maximum d.c. resistance at 20°C		Maximum a.c. resistance at 90°C Power conductor Ohms/Km	Nominal reactance at 50 Hz Ohms/Km	Nominal reactance at 60 Hz Ohms/Km
			Power conductor Ohms/Km	Armour Ohms/Km			
70	280	260	0.268	0.357	0.343	0.106	0.127
95	335	300	0.193	0.257	0.247	0.100	0.120
120	385	345	0.153	0.204	0.196	0.097	0.116
150	435	385	0.124	0.165	0.159	0.094	0.113
185	500	430	0.099	0.132	0.128	0.092	0.110

Notes:

1. The designs shown in the above tables contain circular stranded Class 2 conductors.
2. The above designs are the more popular sizes/designs. Information on the availability of other sizes/designs can be provided upon request.



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