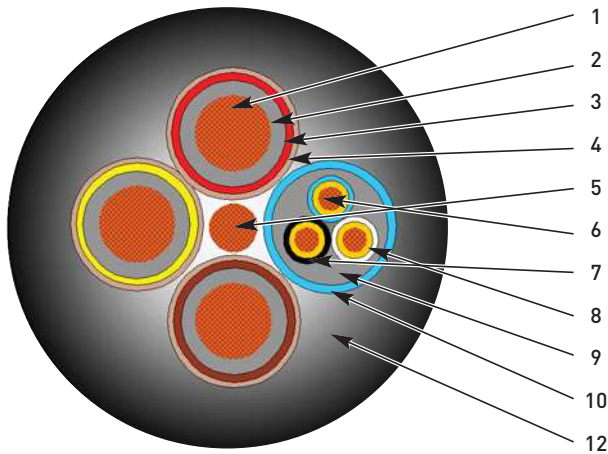




Type 307S Trailing Cable

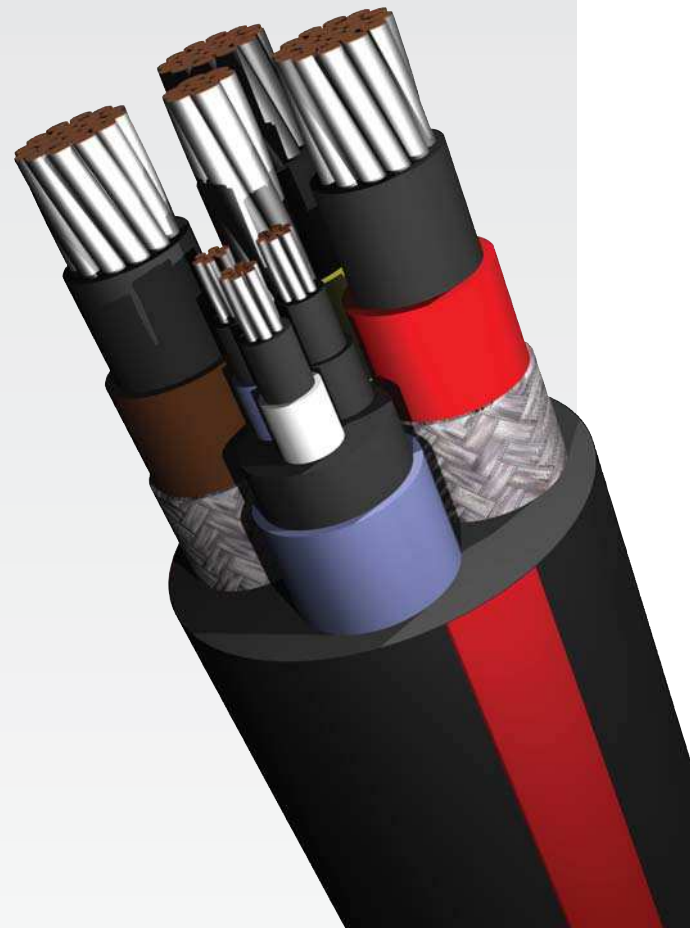
1900/3300 volt in accordance with BS 6708:1998
For use with coal cutters and similar face equipment



Item	Description	Details
1	Phase conductor	(3 off) TAC flex conductors
2	Phase insulation	Extruded MEPR black
3	Phase identification	Proofed tape – red, yellow, brown
4	Phase core screen	Composite copper/nylon braid
5	Earth conductor	(1 off) TAC flex conductor
6	Pilot conductor	(3 off) TAC flex conductors
7	Pilot insulation	Extruded MEPR black
8	Pilot identification	Proofed tape – black, white, blue
9	Pilot unit lay up/sheath	3 cores laid up and sheathed with extruded PCP black
10	Identification	Proofed tape – blue
11	Lay up	3 power cores + 1 pilot unit laid up around the uninsulated earth conductor
12	Overall sheath	Extruded heavy duty PCP black with red stripe

Description

Flexible tinned annealed copper (TAC) conductors, MEPR insulated, 3 copper/nylon screened power cores plus 1 unscreened pilot unit, laid up around a flexible TAC bare earth conductor, sheathed overall with a heavy duty flame retardant elastomeric compound. The pilot unit has 3 MEPR insulated cores laid up and sheathed to the same diameter as the screened phase cores.



Type 307S Trailing Cable To BS 6708:1998

TECHNICAL DETAILS

Phase Conductor						
Number and CSA	mm ²	3 x 50 mm ²	3 x 70 mm ²	3 x 95 mm ²	3 x 120 mm ²	3 x 150 mm ² *
Nominal stranding	mm	396/0.40	360/0.50	475/0.50	608/0.50	756/0.50
Nominal diameter	mm	10.00	11.70	13.50	15.40	17.20
Nominal diameter over insulation	mm	15.70	17.70	19.10	21.40	23.00
Nominal diameter over screen	mm	17.70	19.70	21.10	23.40	25.00
Earth Conductor						
Number and CSA	mm ²	1 x 35 mm ²	1 x 50 mm ²	1 x 50 mm ²	1 x 70 mm ²	1 x 95 mm ²
Nominal stranding	mm	276/0.40	396/0.40	396/0.40	360/0.50	475/0.50
Nominal diameter	mm	8.50	10.00	10.00	11.70	13.50
Pilot Conductor						
Number and CSA	mm ²	3 x 4 mm ²	3 x 6 mm ²	3 x 6 mm ²	3 x 10 mm ²	3 x 10 mm ²
Nominal stranding	mm	56/0.30	84/0.30	84/0.30	80/0.40	80/0.40
Nominal diameter	mm	2.60	3.50	3.50	4.40	4.40
Nominal diameter over insulation	mm	5.55	6.40	6.40	7.30	7.30
Nominal diameter over sheath	mm	17.30	19.40	20.80	23.10	24.70
Cable Details						
Overall diameter – minimum	mm	56.80	62.80	68.90	73.40	75.90
Overall diameter – maximum	mm	59.80	65.80	72.70	77.20	79.70
Minimum bending radius	mm	480	530	580	620	640
Maximum pulling tension	kgf	1200	1680	2000	2000	2000
Approximate cable weight	kg/km	5500	7300	8530	10100	12000
Electrical Details						
Continuous current rating at 25°C ambient	Amps	170	205	250	295	320
Intermittent current rating at 25°C ambient	Amps	210	255	315	360	385
Maximum d.c. resistance at 20°C:						
- Power conductor	Ω/km	0.393	0.277	0.210	0.164	0.132
- Pilot conductor	Ω/km	5.09	3.39	3.39	1.95	1.95
- 3 screens and earth in parallel	Ω/km	0.350	0.350	0.280	0.280	0.14
Nominal reactance at 50 Hz	Ω/km	0.113	0.108	0.105	0.101	0.098
Nominal reactance at 60 Hz	Ω/km	0.136	0.129	0.126	0.121	0.118
Minimum insulation resistance of power cores at 20°C	MΩ/km	950	820	720	660	600
3 Phase volt drop based on full load current	mV/A/mt	0.85	0.61	0.48	0.39	0.03

* Designed generally in accordance with BS 6708, but not included in this specification

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