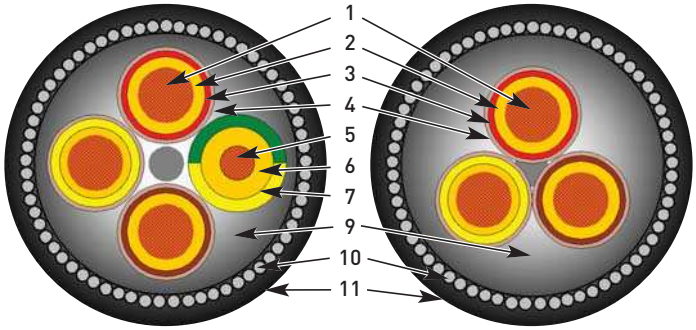
Type 201 and 211 Flexible Trailing Cables with Galvanised Steel Pliable Wire Armouring

640/1100 volt in accordance with BS 6708:1998

For use as mine roadway extension cables and mechanically protected trailing cables in quarries and coalface lighting. BCS 504 refers



Type 211 Type 201

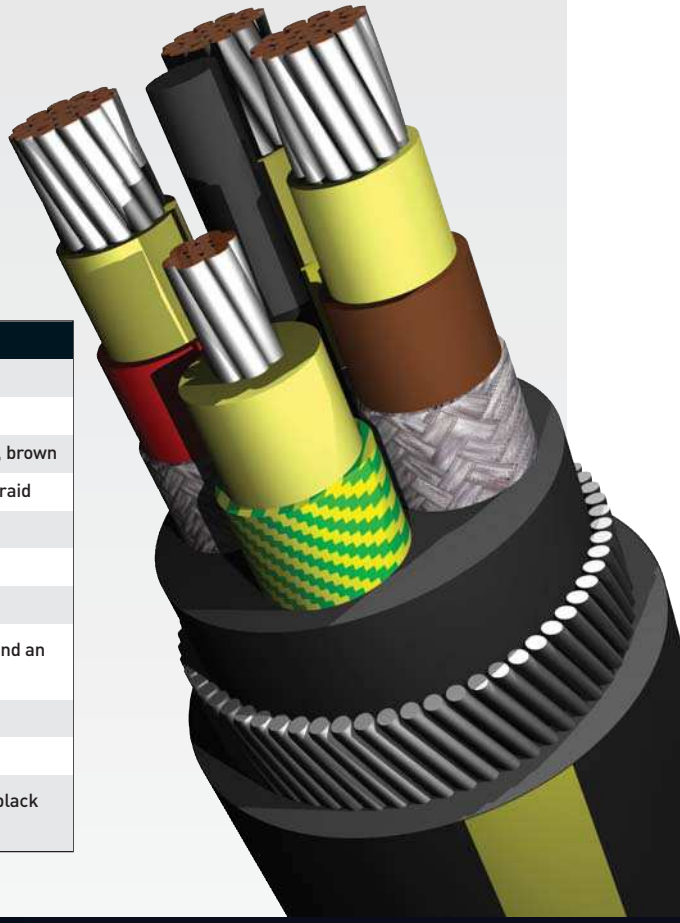
Description

Type 211

3 off flexible tinned annealed copper (TAC) conductors, MEPR insulated and copper/nylon screened, plus 1 unscreened earth core, laid up around a PCP centre, elastomeric bedding, pliable galvanised steel wire armoured and sheathed overall with a heavy duty flame retardant elastomeric compound.

Type 201

3 off flexible tinned annealed copper (TAC) conductors, MEPR insulated and copper/nylon screened, laid up around a PCP cradle centre, elastomeric bedding, pliable galvanised steel wire armoured and sheathed overall with a heavy duty flame retardant elastomeric compound.



Item	Description	Details Type 211	Details Type 201
1	Phase conductor	TAC flex conductors x 3	TAC flex conductors x 3
2	Phase insulation	Extruded MEPR yellow	Extruded MEPR yellow
3	Phase identification	Proofed tape – red, yellow, brown	Proofed tape – red, yellow, brown
4	Phase core screen	Composite copper/nylon braid	Composite copper/nylon braid
5	Earth conductor	TAC flex conductor x 1	
6	Earth insulation	Extruded MEPR yellow	
7	Earth identification	Proofed tape – green, yellow	
8	Lay up	3 power cores + 1 earth core laid up around an elastomeric centre	3 power cores laid up around an elastomeric cradle centre
9	Bedding sheath	Extruded PCP black	Extruded PCP black
10	Pliable armour	Galvanised steel wires	Galvanised steel wires
11	Overall jacket	Extruded heavy duty PCP black with yellow stripe	Extruded heavy duty PCP black with yellow stripe

AEI CABLES

Type 201 and 211 Flexible Trailing Cables

TECHNICAL DETAILS Type 201

Phase Conductor									
Number and nom CSA	mm^2	3 x 10 mm^2	3 x 16 mm^2	3 x 25 mm^2	3 x 35 mm^2	3 x 50 mm^2	3 x 70 mm^2	3 x 95 mm^2	3 x 120 mm^2
Nominal diameter over insulation and tape	mm	7.70	9.15	10.65	11.90	13.90	16.00	17.55	20.35
Nominal diameter over screen	mm	9.70	11.15	12.65	13.90	15.90	18.00	19.55	22.35
Cable Details									
Diameter over inner sheath - minimum	mm	25.50	28.70	32.20	35.20	39.50	44.50	52.50	56.60
Diameter over inner sheath - maximum	mm	27.50	30.70	34.20	37.20	41.50	47.00	55.50	59.60
Overall diameter – minimum	mm	37.30	40.60	44.60	48.30	53.60	60.70	71.80	76.70
Overall diameter - maximum	mm	39.80	43.40	47.40	51.10	57.40	64.50	75.80	81.00
Minimum bending radius	mm	400	440	480	510	580	650	760	810
Maximum pulling tension	kgf	180	290	450	630	900	1260	1710	2000
Approximate cable weight	kg/km	2900	3400	4100	4800	5900	7700	10900	12500
Electrical Details									
Continuous current rating at 25°C ambient	Amps	63	85	110	135	170	205	250	295
Maximum d.c. resistance at 20°C:									
- Power conductor	Ω/km	1.950	1.240	0.795	0.565	0.393	0.277	0.210	0.164
- Screens in parallel	Ω/km	1.330	1.610	1.100	1.200	1.400	0.700	0.850	0.500
- Armour	Ω/km	1.970	1.760	1.450	1.030	0.715	0.504	0.382	0.299
Nominal reactance at 50 Hz	Ω/km	0.121	0.111	0.107	0.102	0.099	0.097	0.096	0.095
Nominal reactance at 60 Hz	Ω/km	0.145	0.134	0.128	0.123	0.119	0.116	0.116	0.114
Minimum insulation resistance of power cores at 20°C	MΩ/km	560	435	375	325	285	260	250	250
3 Phase volt drop based on full load current at 50 Hz	mV/A/mt	4.11	2.62	1.68	1.20	0.85	0.61	0.47	0.38

TECHNICAL DETAILS Type 211

Phase Conductor									
Number and nom. CSA	mm^2	3 x 10 mm^2	3 x 16 mm^2	3 x 25 mm^2	3 x 35 mm^2	3 x 50 mm^2	3 x 70 mm^2	3 x 95 mm^2	3 x 120 mm^2
Nominal diameter over insulation and tape	mm	7.70	9.15	10.65	11.90	13.90	16.00	17.55	20.35
Nominal diameter over screen	mm	9.70	11.15	12.65	13.90	15.90	18.00	19.55	22.35
Earth Conductor									
Number and nom. CSA	mm^2	1 x 10 mm^2	1 x 16 mm^2	1 x 16 mm^2	1 x 25 mm^2	1 x 35 mm^2	1 x 50 mm^2	1 x 70 mm^2	1 x 70 mm^2
Diameter over insulation and tape	mm	9.70	11.15	12.65	13.90	15.90	18.00	19.55	22.35
Cable Details									
Diameter over inner sheath - minimum	mm	27.90	31.60	35.40	38.80	43.70	51.80	60.30	64.90
Diameter over inner sheath - maximum	mm	29.90	33.60	37.40	40.80	46.20	54.80	63.30	67.90
Overall diameter – minimum	mm	39.80	44.00	48.50	52.70	59.70	68.80	80.60	86.20
Overall diameter - maximum	mm	42.30	46.80	51.30	56.50	63.50	72.80	84.90	90.50
Minimum bending radius	mm	430	470	520	570	640	730	850	910
Maximum pulling tension	kgf	240	380	540	780	1110	1560	2000	2000
Approximate cable weight	kg/km	3200	3900	4700	5600	7300	9500	13300	15400
Electrical Details									
Continuous current rating at 25°C ambient	Amps	63	85	110	135	170	205	250	295
Maximum d.c. resistance at 20°C:									
- Power conductor	Ω/km	1.950	1.240	0.795	0.565	0.393	0.277	0.210	0.164
- Earth conductor	Ω/km	1.950	1.240	1.240	0.795	0.565	0.393	0.277	0.277
- Screens in parallel	Ω/km	1.330	1.610	1.100	1.200	1.400	0.700	0.850	0.500
- Armour	Ω/km	1.810	1.630	1.450	1.030	0.715	0.504	0.382	0.299
Nominal reactance at 50 Hz	Ω/km	0.121	0.111	0.107	0.102	0.099	0.097	0.096	0.095
Nominal reactance at 60 Hz	Ω/km	0.145	0.134	0.128	0.123	0.119	0.116	0.116	0.114
Minimum insulation resistance of power cores at 20°C	MΩ/km	560	435	375	325	285	260	250	250
3 Phase volt drop based on full load current at 50 Hz	mV/A/mt	4.11	2.62	1.68	1.20	0.85	0.61	0.47	0.38