Electricity Distribution

nationalgrid

Company Directive

STANDARD TECHNIQUE: SD8B/3 (Part 5)

Relating to 132kV Underground Cable Ratings

Policy Summary

This document contains 132kV cable ratings of the various types of 132kV cables used within Western Power Distribution South West and South Wales areas. It assumes that the cables will be subjected to the cyclic load as given by the load curve shown in figure one. If other load curves are required contact the Company Cable Engineer.

This Standard Technique should be used when designing any 132kV electricity distribution network that has underground cables in it.

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Implementation Date: **March 2009**

Approved by PJ Wen

Policy Manager

Date: 30-03-09

All references to Western Power Distribution or WPD must be read as National Grid Electricity Distribution or NGED

1.0 INTRODUCTION

This Standard Technique replaces Standard Technique ST: SD 8B/2.

This Part 5 document of ST: SD 8B sets out the all the WPD, 132kV underground cable Sustained ratings and Cyclic ratings for winter, spring, summer and autumn which are to be applied. These ratings are based on Crater for HV polymeric Cables, Crater for Oil filled cables and Crater for gas cables.

2.0 UNDERGROUND CABLES

The main factors governing the rating of underground cables are: -

Maximum depth of lay;

Soil thermal resistivity Tr (g);

Ground ambient temperature (^{O}C);

Air ambient temperature (^{O}C);

Cyclic loading conditions;

Maximum permissible conductor temperature;

Proximity to other cables;

Whether the cable is laid direct in the ground, in ducts or in air.

Duct dimensions

3.0 CRITERIA

3.1 General criteria for 132kV cables (applies to Oil filled, Gas cables, EPR and XLPE cables)

A winter soil resistivity of 0.9^{O}Cm/W and a summer soil resistivity of 1.2^{o}Cm/W are considered realistic for the South West and South Wales, although the possibility of localised higher values may need to be taken into account. To control the thermal resistivity of the surrounding medium then the best example would be to use cement bound sand (CBS) backfill for a cable route, but this is expensive. Generally crushed Limestone dust or crushed Granite dust 3mm to dust is suitable as this gives a Tr of 1.2^{o}Cm/W.

Ground ambient temperatures across the South West and South Wales vary between 7^{O}C in the winter and 15^{O}C in the summer. These values apply in most locations, but winter ground temperatures in the city centres such as Bristol, Cardiff, Exeter, Plymouth and Swansea will be about 2^{O}C higher.

3.2 The current ratings quoted in this document are maximum values based on balanced loads.

3.3 The current ratings quoted apply to cables supplying loads, during the requisite season.

3.4 The current ratings specified are to be adjusted where the conditions are known to vary from those quoted in this instruction i.e. high summer loads or grouping.

3.5 The maximum conductor temperature for oil filled and gas filled cable is 85^{o}C. The maximum conductor temperature for EPR and XLPE cables is 90^{o}C.

3.6 When two or more cables or trefoil groups are laid in the same trench then a derating factor needs to be applied to both circuits. The amount of derating is dependant upon the spacing of the circuits. All spacing distances quoted in this document are **centre-to-centre** spacing's of the cables or trefoil groups.

3.7 Only 132kV Ratings are now included in this document.

3.8 The ratings are detailed as **Sustained** - Winter, Spring, Summer and Autumn; **Cyclic** - Winter, Spring, Summer and Autumn; for each of the cable types included in this document.

3.9 Each cable type for which ratings have been generated the typical assumed installation conditions are given in the formation shown below: -

Depth of lay 1m;

Soil resistivity of 0.9^{O}Cm/W;

Ground ambient temperature of 10^{O}C;

Maximum conductor temperature of 85^{O}C for 132kV for 3 core Oil filled cables and 85^{O}C for 132kV single core Oil and Gas filled cables. All polymeric cables e.g. EPR and XLPE have a maximum conductor temperature of 90°C.

No allowance made for grouping of cable circuits.

4.0 DEFINITIONS

All 132kV EPR and XLPE single core circuits have been assumed in the first instance to be three single-core oil filled, gas filled or polymeric cables are laid touching, throughout their length, in trefoil formation. In the second instance the cables are laid flat spaced with the spacing set at 2D and the cables are cross bonded.

Note: - All single point bonded circuits must have an earth continuity conductor (ECC) between both ends of the circuit for the flow of fault current. For the csa of the ECC and if there any other queries then contact the Company Cable Engineer at Avonbank.

4.1 Sustained, Continuous or Steady-State rating

The sustained rating is the maximum current that can be carried, in defined conditions, without the assumed maximum conductor temperature being exceeded.

4.2 Cyclic rating

A cyclic rating is the maximum current that maybe carried during the prolonged application of a succession of identical 24-hour load cycles, without the assumed maximum conductor temperature being exceeded.

4.3 Utilisation factor

This does not apply with 132kV cables.

4.4 Load Factor

The ratio of the number of units supplied during a given period, to the number of units that would be supplied, had the maximum demand been maintained throughout that period. This is usually expressed as a percentage.

4.5 Soil thermal conductivity

The soil thermal conductivity is the thermal transmission in unit time through unit area of homogeneous soil of unit thickness, when unit difference of temperature is established between its surfaces.

4.6 Soil thermal resistivity

The ratings given are calculated for a damp thermal resistivity, which is suitable for rating cables for winter-peak loads.

4.7 Ground ambient temperature

Where a cable circuit carries a sustained load and does not have a seasonal variation it should be rated for the maximum summer value of ground temperature.

4.8 Ducts

A duct up to 15m in length can be used without derating the cable. Two or more duct lengths can be used on a section, provided that there is no more than 30m of duct in a particular 250m cable section and that there is a minimum of 10m separation between each duct length. See the example given below.

Example of two 15m-duct lengths in a 250m-cable section.

The correct duct rating shall be used if 15m or more of continuous duct is installed on a particular 250m-cable section. This rating is dependant upon the type of ducting used, for this reason the ratings given in the tables contain values for both smooth walled “PVC” and “Rigiduct” (Rigiduct is a twin walled duct) type ducting.

The rating of the cable section can be restored if the ducts are bentonited after the cables have been installed. To ensure the thermal equivalence to the direct buried parts of the route, the ducts shall be completely filled with a bentonite-sand-cement mixture.

The filling medium shall be prepared by adding 20 parts of sand and 8 parts of cements, by weight, to 100 parts of a 10:1 water/bentonite mixture.

Note: - Provided the bentonite is sealed into the duct with duct seals, and then the bentonite forms a gel, which is stabilized by the cement, and the addition of sand increases the load-bearing properties of the mixture. Should it be necessary to remove this mixture, it may be flushed out of the ducts by using high-pressure water jets.

Ducts, which are filled with a bentonite mixture, shall be installed wherever possible in a concrete surround but if not, any joints in the duct run must be effectively sealed. At the duct ends, the gap around the cable must be effectively sealed to prevent migration of the bentonite mixture and preserve its moisture content under service conditions.

In general duct lengths of up to 100m can be filled where a standard 150mm nominal bore duct is installed.

4.9 Cables exposed to the sun

To reduce the effect of solar radiation it is recommended that cables should be shielded from direct rays of the sun without restriction of ventilation.

4.10 Effects of grouping of cables

No allowance has been made for grouping in the ratings listed in the tables. Contact the Company Cable Engineer inAvonbank for various grouping arrangements.

When two or more circuits of the same voltage are laid in close proximity the ratings of the cables must be reduced by multiply the group-rating factor given in Table 1 with the relevant cable rating selected from this document. It should be noted that if thermally independence of both the circuits is required, then the circuits need a centre-to-centre spacing of 2.5m.

All spacing quoted in Table 1, are a centre-to-centre spacing for the relevant circuits.

4.11 Loading Conditions

All the ratings listed in this document are calculated for a particular typical domestic/commercial daily load curve, having a loss load factor of 0.5. See Figure 1 for the load curve.

Ratings given for cables installed in air and clipped direct to a wall are the steady-state ratings. Cables installed in this manner do NOT have a Cyclic rating just their sustained or steady state current rating.

5.0 FURTHER GUIDANCE

If required, further guidance should be sought from the Company Cable Engineer, Policy Section, Avonbank, Feeder Road, Bristol where necessary.

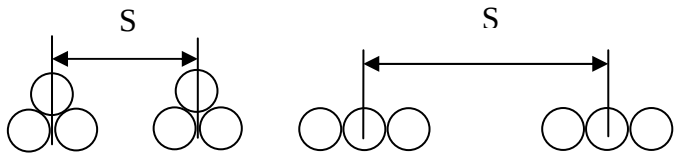
5.1 INDEX

TABLE	DESCRIPTION
H1 win	132kV single core ducted Oil Filled Lead sheath (metric) cable Trefoil- **WINTER** – Sustained & Cyclic Current Ratings.
H2 spr	132kV single core ducted Oil Filled Lead sheath (metric) cable Trefoil - **SPRING -** Sustained & Cyclic Current Ratings.
H3 sum	132kV single core ducted Oil Filled Lead sheath (metric) cable Trefoil - **SUMMER -** Sustained & Cyclic Current Ratings.
H4 aut	132kV single core ducted Oil Filled Lead sheath (metric) cable Trefoil - **AUTUMN -** Sustained & Cyclic Current Ratings.
J1win	132kV single core ducted Oil Filled Lead sheath (imperial) cable Trefoil- **WINTER** – Sustained & Cyclic Current Ratings.
J2 spr	132kV single core ducted Oil Filled Lead sheath (imperial) cable Trefoil- **SPRING -** Sustained & Cyclic Current Ratings.
J3 sum	132kV single core ducted Oil Filled Lead sheath (imperial) cable Trefoil- **SUMMER -** Sustained & Cyclic Current Ratings.
J4 aut	132kV single core ducted Oil Filled Lead sheath (imperial) cable Trefoil- **AUTUMN -** Sustained & Cyclic Current Ratings.
K1 win	132kV single core ducted Oil Filled Lead sheath (metric) cable Flat spaced- **WINTER** – Sustained & Cyclic Current Ratings.
K2 spr	132kV single core ducted Oil Filled Lead sheath (metric) cable Flat spaced - **SPRING -** Sustained & Cyclic Current Ratings.
K3 sum	132kV single core ducted Oil Filled Lead sheath (metric) cable Flat spaced- **SUMMER -** Sustained & Cyclic Current Ratings.
K4 aut	132kV single core ducted Oil Filled Lead sheath (metric) cable Flat spaced- **AUTUMN -** Sustained & Cyclic Current Ratings.
L1 win	132kV single core ducted Oil Filled Lead sheath (imperial) cable Flat spaced- **WINTER** – Sustained & Cyclic Current Ratings.
L2 spr	132kV single core ducted Oil Filled Lead sheath (imperial) cable Flat spaced - **SPRING -** Sustained & Cyclic Current Ratings.
L3 sum	132kV single core ducted Oil Filled Lead sheath (imperial) cable Flat spaced- **SUMMER -** Sustained & Cyclic Current Ratings.
L4 aut	132kV single core ducted Oil Filled Lead sheath (imperial) cable Flat spaced- **AUTUMN -** Sustained & Cyclic Current Ratings.
M1 win	132kV single core ducted Oil Filled CAS sheath cable (metric) Trefoil - **WINTER** – Sustained & Cyclic Current Ratings.
M2 spr	132kV single core ducted Oil Filled CAS sheath cable (metric) Trefoil - **SPRING –** Sustained & Cyclic Current Ratings.
M3 sum	132kV single core ducted Oil Filled CAS sheath cable (metric) Trefoil - **SUMMER –** Sustained & Cyclic Current Ratings.
M4 aut	132kV single core ducted Oil Filled CAS sheath cable (metric) Trefoil - **AUTUMN –** Sustained & Cyclic Current Ratings.
N1 win	132kV single core ducted Oil Filled CAS sheath cable (imperial) Trefoil - **WINTER** – Sustained & Cyclic Current Ratings.
N2 spr	132kV single core ducted Oil Filled CAS sheath cable (imperial) Trefoil - **SPRING –** Sustained & Cyclic Current Ratings.
N3 sum	132kV single core ducted Oil Filled CAS sheath cable (imperial) Trefoil - **SUMMER –** Sustained & Cyclic Current Ratings.
N4 aut	132kV single core ducted Oil Filled CAS sheath cable (imperial) Trefoil - **AUTUMN –** Sustained & Cyclic Current Ratings.
O1 win	132kV single core ducted Oil Filled CAS sheath cable (metric) Flat spaced - **WINTER** – Sustained & Cyclic Current Ratings.
O2 spr	132kV single core ducted Oil Filled CAS sheath cable (metric) Flat spaced - **SPRING –** Sustained & Cyclic Current Ratings.
O3 sum	132kV single core ducted Oil Filled CAS sheath cable (metric) Flat spaced - **SUMMER –** Sustained & Cyclic Current Ratings.
O4 aut	132kV single core ducted Oil Filled CAS sheath cable (metric) Flat spaced - **AUTUMN –** Sustained & Cyclic Current Ratings.
P1 win	132kV single core ducted Oil Filled CAS sheath cable (imperial) Flat spaced - **WINTER** – Sustained & Cyclic Current Ratings.
P2 spr	132kV single core ducted Oil Filled CAS sheath cable (imperial) Flat spaced- **SPRING –** Sustained & Cyclic Current Ratings.

TABLE	DESCRIPTION
P3 sum	132kV single core ducted Oil Filled CAS sheath cable (imperial) Flat spaced - **SUMMER –** Sustained & Cyclic Current Ratings.
P4 aut	132kV single core ducted Oil Filled CAS sheath cable (imperial) Flat spaced - **AUTUMN –** Sustained & Cyclic Current Ratings.
Q1win	132kV single core impregnated pressure gas cables Trefoil - **WINTER** – Sustained & Cyclic Current Ratings.
Q2 spr	132kV single core impregnated pressure gas cables Trefoil - **SPRING** – Sustained & Cyclic Current Ratings.
Q3 sum	132kV single core impregnated pressure gas cables Trefoil - **SUMMER** – Sustained & Cyclic Current Ratings.
Q4 aut	132kV single core impregnated pressure gas cables Trefoil - **AUTUMN** – Sustained & Cyclic Current Ratings.
R1win	132kV single core impregnated pressure gas cables Flat spaced - **WINTER** – Sustained & Cyclic Current Ratings.
R2 spr	132kV single core impregnated pressure gas cables Flat spaced - **SPRING** – Sustained & Cyclic Current Ratings.
R3 sum	132kV single core impregnated pressure gas cables Flat spaced - **SUMMER** – Sustained & Cyclic Current Ratings.
R4 aut	132kV single core impregnated pressure gas cables Flat spaced - **AUTUMN** – Sustained & Cyclic Current Ratings.
S1win	132kV EPR Cu. Wire MDPE oversheath Trefoil - **WINTER** – Sustained and Cyclic Current Ratings.
S2 spr	132kV EPR Cu. Wire MDPE oversheath Trefoil - **SPRING -** Sustained and Cyclic Current Ratings.
S3 sum	132kV EPR Cu. Wire MDPE oversheath Trefoil - **SUMMER -** Sustained and Cyclic Current Ratings.
S4 aut	132kV EPR Cu. Wire MDPE oversheath Trefoil - **AUTUMN -** Sustained and Cyclic Current Ratings.
T1win	132kV EPR Cu. Wire MDPE oversheath Flat spaced - **WINTER** – Sustained and Cyclic Current Ratings.
T2 spr	132kV EPR Cu. Wire MDPE oversheath Flat spaced - **SPRING -** Sustained and Cyclic Current Ratings.
T3 sum	132kV EPR Cu. Wire MDPE oversheath Flat spaced - **SUMMER -** Sustained and Cyclic Current Ratings.
T4 aut	132kV EPR Cu. Wire MDPE oversheath Flat spaced - **AUTUMN -** Sustained and Cyclic Current Ratings.

TABLE 1

GROUP DERATING FACTORS FOR CIRCUITS OF THREE SINGLE-CORE CABLES, IN TREFOIL or LAID FLAT, HORIZONTAL FORMATION, LAID DIRECT.



Type of Cable	No. of Circuits	Spacing of Circuits – Metre (S).				
		Touching				
		Trefoil	Laid Flat			
132kV Cables	Contact Company Cable Engineer in Avonbank for information.					

TABLE A1 - Win

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Winter *SUSTAINED* Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	514	474	458	588
240mm² Copper	594	540	520	688
300mm² Copper	666	599	575	782
400mm² Copper	753	667	638	899
500mm² Copper	850	740	705	1034
630mm² Copper	951	815	774	1180
800mm² Copper	1050	889	840	1332
1000mm² Copper	1141	961	904	1473
1000Smm² Copper	1190	1001	941	1557
1200Smm² Copper	1262	1056	989	1671
1600Smm² Copper	1332	1131	1058	1798
2000Smm² Copper	1414	1209	1127	1965
Aluminium conductors				
300mm² Al	525	484	467	614

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 0.9°C m/W

Ground Ambient Temperature 10°C

Air Ambient Temperature 10°C

Maximum Conductor Temperature 90°C

Ratings based on Crater for HV polymeric cables.

TABLE A1 - Win

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Winter *CYCLIC* Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	589	550	534	588
240mm² Copper	684	632	612	688
300mm² Copper	772	705	681	782
400mm² Copper	878	791	761	899
500mm² Copper	996	884	848	1034
630mm² Copper	1121	982	939	1180
800mm² Copper	1245	1079	1029	1332
1000mm² Copper	1360	1175	1119	1473
1000Smm² Copper	1424	1230	1169	1557
1200Smm² Copper	1516	1306	1240	1671
1600Smm² Copper	1613	1411	1339	1798
2000Smm² Copper	1727	1523	1442	1965
Aluminium conductors				
300mm² Al	607	566	549	614

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 0.9°C m/W

Ground Ambient Temperature 10°C

Air Ambient Temperature 10°C

Maximum Conductor Temperature 90°C

Ratings based on Crater for HV polymeric cables.

TABLE A2 - Spr

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	482	449	436	588
240mm² Copper	556	511	494	688
300mm² Copper	623	566	546	782
400mm² Copper	703	629	604	899
500mm² Copper	792	697	667	1034
630mm² Copper	885	767	731	1180
800mm² Copper	976	835	792	1332
1000mm² Copper	1058	901	852	1473
1000Smm² Copper	1104	938	886	1557
1200Smm² Copper	1169	989	931	1671
1600Smm² Copper	1233	1058	994	1798
2000Smm² Copper	1308	1129	1058	1965
Aluminium conductors				
300mm² Al	492	458	444	614

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

TABLE A2 - Spr

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	559	527	514	588
240mm² Copper	648	605	588	688
300mm² Copper	730	674	653	782
400mm² Copper	828	755	728	899
500mm² Copper	937	842	810	1034
630mm² Copper	1053	933	895	1180
800mm² Copper	1168	1024	979	1332
1000mm² Copper	1274	1113	1063	1473
1000Smm² Copper	1333	1163	1110	1557
1200Smm² Copper	1418	1234	1176	1671
1600Smm² Copper	1508	1332	1268	1798
2000Smm² Copper	1610	1434	1362	1965
Aluminium conductors				
300mm² Al	574	542	527	614

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05^{o}C m/W

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 90^{o}C

Ratings based on Crater for MV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	451	424	412	588
240mm² Copper	519	482	467	688
300mm² Copper	582	533	515	782
400mm² Copper	656	592	570	899
500mm² Copper	737	655	628	1034
630mm² Copper	823	719	687	1180
800mm² Copper	906	782	744	1332
1000mm² Copper	982	843	800	1473
1000Smm² Copper	1023	877	831	1557
1200Smm² Copper	1083	924	873	1671
1600Smm² Copper	1142	988	932	1798
2000Smm² Copper	1210	1053	991	1965
Aluminium conductors				
300mm² Al	459	432	419	614

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2 C m/W
Ground Ambient Temperature	15^{o}C
Air Ambient Temperature	15^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	528	503	491	588
240mm² Copper	611	576	561	688
300mm² Copper	687	642	622	782
400mm² Copper	778	717	693	899
500mm² Copper	880	798	770	1034
630mm² Copper	987	883	849	1180
800mm² Copper	1093	967	928	1332
1000mm² Copper	1191	1050	1006	1473
1000Smm² Copper	1246	1097	1050	1557
1200Smm² Copper	1324	1162	1111	1671
1600Smm² Copper	1406	1253	1197	1798
2000Smm² Copper	1501	1346	1283	1965
Aluminium conductors				
300mm² Al	542	516	503	614

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2 ^{o}C m/W
Ground Ambient Temperature	15^{o}C
Air Ambient Temperature	15^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	475	444	430	588
240mm² Copper	547	504	488	688
300mm² Copper	613	558	539	782
400mm² Copper	691	620	596	899
500mm² Copper	778	687	658	1034
630mm² Copper	869	755	720	1180
800mm² Copper	957	822	780	1332
1000mm² Copper	1038	886	839	1473
1000Smm² Copper	1083	923	872	1557
1200Smm² Copper	1147	972	917	1671
1600Smm² Copper	1209	1040	979	1798
2000Smm² Copper	1282	1110	1042	1965
Aluminium conductors				
300mm² Al	483	452	438	614

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	552	523	509	588
240mm² Copper	640	599	582	688
300mm² Copper	720	667	674	782
400mm² Copper	816	746	721	899
500mm² Copper	923	832	801	1034
630mm² Copper	1037	922	885	1180
800mm² Copper	1149	1011	968	1332
1000mm² Copper	1253	1098	1050	1473
1000Smm² Copper	1311	1148	1096	1557
1200Smm² Copper	1395	1217	1161	1671
1600Smm² Copper	1482	1313	1252	1798
2000Smm² Copper	1582	1413	1344	1965
Aluminium conductors				
300mm² Al	567	596	522	614

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1 C m/W
Ground Ambient Temperature	12^{o}C
Air Ambient Temperature	12^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	544	529	515	653
240mm² Copper	633	615	598	770
300mm² Copper	716	695	676	881
400mm² Copper	818	795	773	1026
500mm² Copper	937	911	884	1198
630mm² Copper	1068	1040	1008	1393
800mm² Copper	1206	1175	1138	1608
1000mm² Copper	1336	1302	1261	1810
1000Smm² Copper	1419	1376	1332	1925
1200Smm² Copper	1532	1486	1438	2097
1600Smm² Copper	1640	1582	1530	2274
2000Smm² Copper	1796	1724	1667	2554
Aluminium conductors				
300mm² Al	557	540	525	685

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9 °C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	636	609	594	653
240mm² Copper	745	712	693	770
300mm² Copper	847	809	787	881
400mm² Copper	974	930	904	1026
500mm² Copper	1123	1071	1040	1198
630mm² Copper	1290	1230	1194	1393
800mm² Copper	1467	1400	1357	1608
1000mm² Copper	1633	1561	1512	1810
1000Smm² Copper	1736	1653	1600	1925
1200Smm² Copper	1880	1793	1735	2097
1600Smm² Copper	2022	1926	1865	2274
2000Smm² Copper	2233	2117	2051	2554
Aluminium conductors				
300mm² Al	658	628	610	685

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9^{o}C m/W
Ground Ambient Temperature	10^{o}C
Air Ambient Temperature	10^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables.

TABLE B2 - Spr

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	511	505	493	653
240mm² Copper	594	586	572	770
300mm² Copper	671	662	646	881
400mm² Copper	766	756	737	1026
500mm² Copper	875	865	842	1198
630mm² Copper	996	986	959	1393
800mm² Copper	1123	1112	1082	1608
1000mm² Copper	1243	1231	1197	1810
1000Smm² Copper	1321	1301	1265	1925
1200Smm² Copper	1425	1404	1364	2097
1600Smm² Copper	1525	1492	1450	2274
2000Smm² Copper	1668	1624	1578	2554
Aluminium conductors				
300mm² Al	522	514	502	685

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	605	588	574	653
240mm² Copper	708	686	670	770
300mm² Copper	803	779	759	881
400mm² Copper	923	894	871	1026
500mm² Copper	1062	1028	1001	1198
630mm² Copper	1218	1179	1147	1393
800mm² Copper	1382	1340	1303	1608
1000mm² Copper	1536	1492	1450	1810
1000Smm² Copper	1633	1579	1534	1925
1200Smm² Copper	1767	1712	1662	2097
1600Smm² Copper	1901	1835	1784	2274
2000Smm² Copper	2095	2013	1958	2554
Aluminium conductors				
300mm² Al	642	604	589	685

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	479	479	469	653
240mm² Copper	556	556	544	770
300mm² Copper	628	627	614	881
400mm² Copper	715	716	700	1026
500mm² Copper	816	818	799	1198
630mm² Copper	928	931	909	1393
800mm² Copper	1045	1049	1024	1608
1000mm² Copper	1156	1160	1132	1810
1000Smm² Copper	1228	1225	1195	1925
1200Smm² Copper	1325	1321	1289	2097
1600Smm² Copper	1417	1403	1369	2274
2000Smm² Copper	1549	1524	1487	2554
Aluminium conductors				
300mm² Al	488	487	477	685

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2 C m/W
Ground Ambient Temperature	15^{o}C
Air Ambient Temperature	15^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	573	564	551	653
240mm² Copper	670	657	643	770
300mm² Copper	760	745	728	881
400mm² Copper	871	855	835	1026
500mm² Copper	1001	982	958	1198
630mm² Copper	1145	1124	1097	1393
800mm² Copper	1297	1276	1244	1608
1000mm² Copper	1441	1419	1383	1810
1000Smm² Copper	1532	1502	1462	1925
1200Smm² Copper	1657	1626	1583	2097
1600Smm² Copper	1782	1741	1698	2274
2000Smm² Copper	1962	1906	1861	2554
Aluminium conductors				
300mm² Al	590	578	565	685

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2 ^{o}C m/W
Ground Ambient Temperature	15^{o}C
Air Ambient Temperature	15^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	503	499	488	653
240mm² Copper	585	579	566	770
300mm² Copper	660	654	639	881
400mm² Copper	753	747	729	1026
500mm² Copper	860	854	833	1198
630mm² Copper	979	973	948	1393
800mm² Copper	1103	1098	1069	1608
1000mm² Copper	1221	1214	1182	1810
1000Smm² Copper	1297	1283	1249	1925
1200Smm² Copper	1399	1384	1347	2097
1600Smm² Copper	1497	1471	1432	2274
2000Smm² Copper	1637	1600	1557	2554
Aluminium conductors				
300mm² Al	514	508	496	685

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1 C m/W
Ground Ambient Temperature	12^{o}C
Air Ambient Temperature	12^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	598	583	570	653
240mm² Copper	699	681	665	770
300mm² Copper	794	772	754	881
400mm² Copper	911	886	865	1026
500mm² Copper	1048	1019	993	1198
630mm² Copper	1200	1168	1138	1393
800mm² Copper	1361	1326	1291	1608
1000mm² Copper	1513	1477	1436	1810
1000Smm² Copper	1609	1563	1519	1925
1200Smm² Copper	1741	1694	1646	2097
1600Smm² Copper	1872	1815	1766	2274
2000Smm² Copper	2062	1989	1937	2554
Aluminium conductors				
300mm² Al	617	599	584	685

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1 ^{o}C m/W
Ground Ambient Temperature	12^{o}C
Air Ambient Temperature	12^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	505	452	436	581
240mm² Copper	580	511	491	678
300mm² Copper	648	562	538	768
400mm² Copper	727	618	590	878
500mm² Copper	813	678	645	1004
630mm² Copper	902	737	698	1138
800mm² Copper	988	797	752	1277
1000mm² Copper	1067	856	804	1405
1000Smm² Copper	1100	890	835	1472
1200Smm² Copper	1164	938	877	1577
1600Smm² Copper	1232	1016	947	1704
2000Smm² Copper	1317	1101	1023	1870
Aluminium conductors				
300mm² Al	516	462	445	607

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 0.9°C m/W

Ground Ambient Temperature 10°C

Air Ambient Temperature 10°C

Maximum Conductor Temperature 90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	580	526	510	581
240mm² Copper	671	600	580	678
300mm² Copper	754	665	641	768
400mm² Copper	850	737	708	878
500mm² Copper	957	816	782	1004
630mm² Copper	1068	895	855	1138
800mm² Copper	1178	977	931	1277
1000mm² Copper	1279	1059	1006	1405
1000Smm² Copper	1325	1106	1050	1472
1200Smm² Copper	1407	1174	1113	1577
1600Smm² Copper	1502	1281	1212	1704
2000Smm² Copper	1616	1399	1319	1870
Aluminium conductors				
300mm² Al	598	542	525	607

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	474	428	415	581
240mm² Copper	543	483	466	678
300mm² Copper	605	531	511	768
400mm² Copper	678	583	558	878
500mm² Copper	757	639	610	1004
630mm² Copper	838	693	659	1138
800mm² Copper	916	749	709	1277
1000mm² Copper	988	803	757	1405
1000Smm² Copper	1019	834	786	1472
1200Smm² Copper	1076	878	825	1577
1600Smm² Copper	1140	950	890	1704
2000Smm² Copper	1217	1028	960	1870
Aluminium conductors				
300mm² Al	483	437	423	607

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05°C m/W

Ground Ambient Temperature 12°C

Air Ambient Temperature 12°C

Maximum Conductor Temperature 90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	550	504	491	581
240mm² Copper	635	574	556	678
300mm² Copper	711	635	614	768
400mm² Copper	801	702	677	878
500mm² Copper	900	776	746	1004
630mm² Copper	1001	850	815	1138
800mm² Copper	1103	926	885	1277
1000mm² Copper	1196	1002	955	1405
1000Smm² Copper	1238	1046	997	1472
1200Smm² Copper	1314	1109	1055	1577
1600Smm² Copper	1400	1208	1146	1704
2000Smm² Copper	1506	1316	1246	1870
Aluminium conductors				
300mm² Al	566	518	503	607

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	443	405	393	581
240mm² Copper	507	456	441	678
300mm² Copper	565	500	482	768
400mm² Copper	631	548	527	878
500mm² Copper	704	600	574	1004
630mm² Copper	778	650	620	1138
800mm² Copper	850	701	666	1277
1000mm² Copper	916	751	711	1405
1000Smm² Copper	943	780	737	1472
1200Smm² Copper	996	821	774	1577
1600Smm² Copper	1054	887	834	1704
2000Smm² Copper	1125	959	899	1870
Aluminium conductors				
300mm² Al	451	412	400	607

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	519	481	469	581
240mm² Copper	598	547	531	678
300mm² Copper	669	604	585	768
400mm² Copper	752	667	644	878
500mm² Copper	843	735	709	1004
630mm² Copper	937	804	773	1138
800mm² Copper	1030	874	838	1277
1000mm² Copper	1116	944	903	1405
1000Smm² Copper	1155	985	942	1472
1200Smm² Copper	1225	1043	995	1577
1600Smm² Copper	1305	1135	1081	1704
2000Smm² Copper	1402	1235	1173	1870
Aluminium conductors				
300mm² Al	533	494	480	607

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.2^{o}C m/W

Ground Ambient Temperature 15^{o}C

Air Ambient Temperature 15^{o}C

Maximum Conductor Temperature 90^{o}C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	466	423	410	581
240mm² Copper	534	477	460	678
300mm² Copper	595	524	504	768
400mm² Copper	666	575	551	878
500mm² Copper	743	629	601	1004
630mm² Copper	822	683	650	1138
800mm² Copper	899	737	698	1277
1000mm² Copper	969	790	746	1405
1000Smm² Copper	999	821	774	1472
1200Smm² Copper	1055	864	812	1577
1600Smm² Copper	1117	934	876	1704
2000Smm² Copper	1192	1010	945	1870
Aluminium conductors				
300mm² Al	475	431	418	607

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	543	500	486	581
240mm² Copper	626	568	551	678
300mm² Copper	701	628	608	768
400mm² Copper	789	695	670	878
500mm² Copper	886	767	738	1004
630mm² Copper	986	840	806	1138
800mm² Copper	1085	914	875	1277
1000mm² Copper	1176	988	944	1405
1000Smm² Copper	1217	1031	984	1472
1200Smm² Copper	1291	1093	1041	1577
1600Smm² Copper	1376	1191	1131	1704
2000Smm² Copper	1479	1297	1229	1870
Aluminium conductors				
300mm² Al	558	513	499	607

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN FLAT SPACED. (Dry design)

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	544	522	509	653
240mm² Copper	634	608	592	771
300mm² Copper	717	687	669	883
400mm² Copper	820	786	764	1027
500mm² Copper	940	900	874	1200
630mm² Copper	1073	1028	997	1398
800mm² Copper	1212	1162	1127	1615
1000mm² Copper	1343	1288	1248	1819
1000Smm² Copper	1426	1363	1320	1933
1200Smm² Copper	1541	1472	1425	2109
1600Smm² Copper	1647	1568	1518	2285
2000Smm² Copper	1801	1706	1651	2562
Aluminium conductors				
300mm² Al	558	534	519	689

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9^{o}C m/W
Ground Ambient Temperature	10^{o}C
Air Ambient Temperature	10^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	637	600	585	653
240mm² Copper	746	702	683	771
300mm² Copper	848	797	776	883
400mm² Copper	976	917	891	1027
500mm² Copper	1127	1055	1025	1200
630mm² Copper	1295	1213	1177	1398
800mm² Copper	1474	1380	1339	1615
1000mm² Copper	1642	1540	1491	1819
1000Smm² Copper	1744	1632	1580	1933
1200Smm² Copper	1891	1771	1713	2109
1600Smm² Copper	2031	1904	1844	2285
2000Smm² Copper	2238	2090	2025	2562
Aluminium conductors				
300mm² Al	659	618	602	689

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	512	499	488	653
240mm² Copper	595	580	566	771
300mm² Copper	673	655	639	883
400mm² Copper	768	748	730	1027
500mm² Copper	878	855	833	1200
630mm² Copper	1001	975	950	1398
800mm² Copper	1129	1102	1072	1615
1000mm² Copper	1250	1219	1186	1819
1000Smm² Copper	1327	1290	1254	1933
1200Smm² Copper	1434	1392	1353	2109
1600Smm² Copper	1532	1481	1440	2285
2000Smm² Copper	1672	1608	1564	2562
Aluminium conductors				
300mm² Al	523	509	496	689

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	606	579	566	653
240mm² Copper	709	677	660	771
300mm² Copper	805	768	749	883
400mm² Copper	925	882	860	1027
500mm² Copper	1066	1014	988	1200
630mm² Copper	1223	1163	1132	1398
800mm² Copper	1389	1322	1286	1615
1000mm² Copper	1545	1474	1431	1819
1000Smm² Copper	1641	1561	1515	1933
1200Smm² Copper	1778	1692	1643	2109
1600Smm² Copper	1910	1816	1765	2285
2000Smm² Copper	2101	1989	1935	2562
Aluminium conductors				
300mm² Al	625	596	581	689

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	479	474	464	653
240mm² Copper	557	550	539	771
300mm² Copper	629	621	608	883
400mm² Copper	717	709	693	1027
500mm² Copper	819	809	791	1200
630mm² Copper	933	922	901	1398
800mm² Copper	1051	1040	1015	1615
1000mm² Copper	1162	1149	1122	1819
1000Smm² Copper	1234	1216	1186	1933
1200Smm² Copper	1333	1311	1279	2109
1600Smm² Copper	1423	1393	1360	2285
2000Smm² Copper	1553	1510	1475	2562
Aluminium conductors				
300mm² Al	489	482	472	689

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2^{o}C m/W
Ground Ambient Temperature	15^{o}C
Air Ambient Temperature	15^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	574	556	544	653
240mm² Copper	670	649	634	771
300mm² Copper	761	736	719	883
400mm² Copper	873	844	824	1027
500mm² Copper	1004	969	946	1200
630mm² Copper	1150	1110	1083	1398
800mm² Copper	1304	1260	1228	1615
1000mm² Copper	1449	1402	1366	1819
1000Smm² Copper	1540	1485	1446	1933
1200Smm² Copper	1668	1609	1566	2109
1600Smm² Copper	1790	1724	1681	2285
2000Smm² Copper	1967	1884	1839	2562
Aluminium conductors				
300mm² Al	591	571	557	689

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2^{o}C m/W
Ground Ambient Temperature	15^{o}C
Air Ambient Temperature	15^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN FLAT SPACED. (Dry design)

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	504	494	483	653
240mm² Copper	585	573	560	771
300mm² Copper	662	648	633	883
400mm² Copper	755	739	722	1027
500mm² Copper	863	845	824	1200
630mm² Copper	983	963	939	1398
800mm² Copper	1109	1087	1059	1615
1000mm² Copper	1227	1203	1172	1819
1000Smm² Copper	1304	1272	1239	1933
1200Smm² Copper	1408	1373	1337	2109
1600Smm² Copper	1504	1460	1421	2285
2000Smm² Copper	1641	1584	1543	2562
Aluminium conductors				
300mm² Al	514	503	491	689

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables

132kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Dry design)

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	599	575	562	653
240mm² Copper	700	671	656	771
300mm² Copper	795	762	744	883
400mm² Copper	913	874	853	1027
500mm² Copper	1051	1005	980	1200
630mm² Copper	1206	1153	1123	1398
800mm² Copper	1368	1310	1275	1615
1000mm² Copper	1522	1459	1418	1819
1000Smm² Copper	1617	1545	1501	1933
1200Smm² Copper	1751	1675	1627	2109
1600Smm² Copper	1881	1796	1747	2285
2000Smm² Copper	2068	1966	1915	2562
Aluminium conductors				
300mm² Al	618	591	577	689

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	285	244	230	292
150mm² Al	321	274	258	331
185mm² Al	367	312	292	384
240mm² Al	423	358	335	447
260mm² Al	443	375	351	471
300mm² Al	481	406	379	518
350mm² Al	516	436	406	560
400mm² Al	548	462	429	600
500mm² Al	615	518	481	683
630mm² Al	702	588	544	796
Copper conductors				
120mm²	367	314	296	375
150mm²	413	352	331	427
185mm²	471	399	375	493
240mm²	541	458	429	572
260mm²	564	478	446	601
300mm²	612	517	482	661
350mm²	654	552	514	710
400mm²	691	582	541	758
500mm²	768	646	600	855
630mm²	861	721	666	978

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9^{o}C m/W
Ground Ambient Temperature	10^{o}C
Air Ambient Temperature	10^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	324	267	249	292
150mm² Al	366	300	279	331
185mm² Al	422	343	317	384
240mm² Al	487	395	365	447
260mm² Al	512	414	382	471
300mm² Al	559	450	414	518
350mm² Al	601	483	444	560
400mm² Al	640	513	470	600
500mm² Al	723	578	528	683
630mm² Al	833	660	599	796
Copper conductors				
120mm²	416	343	320	375
150mm²	472	386	359	427
185mm²	541	440	407	493
240mm²	624	505	467	572
260mm²	652	527	486	601
300mm²	713	573	527	661
350mm²	762	612	562	710
400mm²	808	647	593	758
500mm²	903	721	658	855
630mm²	1023	809	734	978

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	268	234	221	292
150mm² Al	301	262	247	331
185mm² Al	343	297	280	384
240mm² Al	395	342	321	447
260mm² Al	414	358	336	471
300mm² Al	448	386	362	518
350mm² Al	481	414	388	560
400mm² Al	510	439	410	600
500mm² Al	573	492	459	683
630mm² Al	652	557	517	796
Copper conductors				
120mm²	344	300	284	375
150mm²	387	337	318	427
185mm²	440	381	359	493
240mm²	505	437	410	572
260mm²	527	455	427	601
300mm²	571	492	461	661
350mm²	609	525	491	710
400mm²	643	553	517	758
500mm²	714	613	572	855
630mm²	799	682	634	978

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Spring *CYCLIC* Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	308	258	241	292
150mm² Al	348	290	270	331
185mm² Al	399	331	308	384
240mm² Al	461	381	353	447
260mm² Al	484	400	370	471
300mm² Al	528	433	400	518
350mm² Al	567	465	429	560
400mm² Al	604	494	454	600
500mm² Al	681	555	509	683
630mm² Al	783	633	577	796
Copper conductors				
120mm²	396	332	310	375
150mm²	448	374	348	427
185mm²	512	425	394	493
240mm²	590	488	452	572
260mm²	617	509	471	601
300mm²	673	552	509	661
350mm²	719	590	543	710
400mm²	762	623	572	758
500mm²	850	693	635	855
630mm²	961	776	707	978

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05^{o}C m/W
Ground Ambient Temperature	12^{o}C
Air Ambient Temperature	12^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	251	222	211	292
150mm² Al	281	249	235	331
185mm² Al	320	282	266	384
240mm² Al	368	324	305	447
260mm² Al	385	339	319	471
300mm² Al	417	365	344	518
350mm² Al	447	392	368	560
400mm² Al	474	414	389	600
500mm² Al	531	464	434	683
630mm² Al	603	524	489	796
Copper conductors				
120mm²	322	286	271	375
150mm²	362	320	303	427
185mm²	411	362	341	493
240mm²	471	414	390	572
260mm²	490	431	406	601
300mm²	531	465	437	661
350mm²	566	496	466	710
400mm²	597	522	490	758
500mm²	663	578	541	855
630mm²	739	642	599	978

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	291	248	232	292
150mm² Al	328	279	260	331
185mm² Al	376	318	296	384
240mm² Al	434	365	339	447
260mm² Al	456	383	355	471
300mm² Al	496	415	384	518
350mm² Al	533	445	411	560
400mm² Al	566	472	435	600
500mm² Al	638	530	487	683
630mm² Al	732	603	551	796
Copper conductors				
120mm²	374	319	299	375
150mm²	423	359	335	427
185mm²	483	407	379	493
240mm²	555	467	434	572
260mm²	580	487	452	601
300mm²	632	528	489	661
350mm²	675	564	521	710
400mm²	715	595	548	758
500mm²	797	661	608	855
630mm²	899	739	676	978

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2C m/W
Ground Ambient Temperature	15^{o}C
Air Ambient Temperature	15^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	264	231	219	292
150mm² Al	296	259	245	331
185mm² Al	338	294	277	384
240mm² Al	389	338	318	447
260mm² Al	407	354	332	471
300mm² Al	441	382	358	518
350mm² Al	473	409	384	560
400mm² Al	501	433	406	600
500mm² Al	562	486	454	683
630mm² Al	640	550	512	796
Copper conductors				
120mm²	339	297	282	375
150mm²	381	333	315	427
185mm²	433	377	355	493
240mm²	497	432	406	572
260mm²	518	450	423	601
300mm²	561	486	456	661
350mm²	599	518	486	710
400mm²	632	546	511	758
500mm²	702	606	566	855
630mm²	784	673	626	978

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	304	257	240	292
150mm² Al	344	288	269	331
185mm² Al	394	329	306	384
240mm² Al	455	379	351	447
260mm² Al	478	397	367	471
300mm² Al	520	430	397	518
350mm² Al	559	462	426	560
400mm² Al	595	490	451	600
500mm² Al	671	551	505	683
630mm² Al	771	627	573	796
Copper conductors				
120mm²	391	330	309	375
150mm²	442	371	346	427
185mm²	506	422	392	493
240mm²	582	484	449	572
260mm²	609	505	468	601
300mm²	664	548	506	661
350mm²	709	585	539	710
400mm²	751	618	569	758
500mm²	838	687	630	855
630mm²	946	769	702	978

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Aluminium conductors				
0.1in² Al	98	84	79	99
0.15in² Al	133	114	108	136
0.2in² Al	166	142	134	171
0.25in² Al	218	186	175	227
0.3in² Al	266	227	213	280
0.35in² Al	309	263	246	326
0.4in² Al	349	296	277	373
0.45in² Al	391	331	309	422
0.5in² Al	453	383	357	491
0.55in² Al	499	422	394	542
0.6in² Al	506	427	397	557
Copper conductors				
0.1in²	268	231	218	271
0.15in²	330	283	267	337
0.2in²	385	329	310	396
0.25in²	437	373	350	455
0.3in²	487	415	389	512
0.35in²	531	451	423	562
0.4in²	570	483	452	609
0.45in²	606	513	478	655
0.5in²	635	537	501	690
0.55in²	659	558	520	717
0.6in²	702	592	550	774

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9^{o}C m/W
Ground Ambient Temperature	10^{o}C
Air Ambient Temperature	10^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Aluminium conductors				
0.1in² Al	110	91	86	99
0.15in² Al	151	125	116	136
0.2in² Al	188	155	144	171
0.25in² Al	249	204	190	227
0.3in² Al	305	250	231	280
0.35in² Al	355	289	267	326
0.4in² Al	404	327	302	373
0.45in² Al	454	367	337	422
0.5in² Al	526	425	390	491
0.55in² Al	579	468	430	542
0.6in² Al	592	476	435	557
Copper conductors				
0.1in²	303	251	235	271
0.15in²	374	309	288	337
0.2in²	438	360	335	396
0.25in²	499	409	380	455
0.3in²	559	456	422	512
0.35in²	612	498	460	562
0.4in²	659	534	492	609
0.45in²	704	568	522	655
0.5in²	739	596	548	690
0.55in²	766	619	568	717
0.6in²	821	659	603	774

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Aluminium conductors				
0.1in² Al	92	81	76	99
0.15in² Al	125	109	103	136
0.2in² Al	156	136	128	171
0.25in² Al	204	178	168	227
0.3in² Al	249	217	204	280
0.35in² Al	289	250	235	326
0.4in² Al	326	282	265	373
0.45in² Al	365	315	295	422
0.5in² Al	423	365	341	491
0.55in² Al	465	402	376	542
0.6in² Al	472	406	379	557
Copper conductors				
0.1in²	253	221	210	271
0.15in²	310	271	256	337
0.2in²	361	315	297	396
0.25in²	409	356	335	455
0.3in²	456	396	372	512
0.35in²	497	430	404	562
0.4in²	532	460	432	609
0.45in²	565	488	457	655
0.5in²	593	511	479	690
0.55in²	615	530	496	717
0.6in²	653	562	525	774

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Spring *CYCLIC* Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Aluminium conductors				
0.1in² Al	105	89	83	99
0.15in² Al	143	121	113	136
0.2in² Al	179	150	140	171
0.25in² Al	237	198	184	227
0.3in² Al	290	241	224	280
0.35in² Al	337	279	259	326
0.4in² Al	382	316	292	373
0.45in² Al	429	354	326	422
0.5in² Al	497	409	377	491
0.55in² Al	547	451	416	542
0.6in² Al	558	457	420	557
Copper conductors				
0.1in²	288	244	228	271
0.15in²	356	300	280	337
0.2in²	416	349	325	396
0.25in²	474	396	368	455
0.3in²	530	441	409	512
0.35in²	579	480	445	562
0.4in²	623	515	476	609
0.45in²	665	547	505	655
0.5in²	698	574	529	690
0.55in²	724	596	549	717
0.6in²	774	634	582	774

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Aluminium conductors				
0.1in² Al	86	77	73	99
0.15in² Al	117	104	99	136
0.2in² Al	145	129	122	171
0.25in² Al	191	169	160	227
0.3in² Al	233	205	194	280
0.35in² Al	269	237	224	326
0.4in² Al	304	267	252	373
0.45in² Al	340	298	280	422
0.5in² Al	393	345	324	491
0.55in² Al	433	380	357	542
0.6in² Al	438	383	359	557
Copper conductors				
0.1in²	237	211	200	271
0.15in²	290	258	245	337
0.2in²	338	299	283	396
0.25in²	382	338	319	455
0.3in²	425	375	354	512
0.35in²	463	408	385	562
0.4in²	496	436	410	609
0.45in²	526	461	434	655
0.5in²	551	483	454	690
0.55in²	572	501	471	717
0.6in²	607	531	497	774

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Aluminium conductors				
0.1in² Al	99	85	80	99
0.15in² Al	136	116	109	136
0.2in² Al	169	144	135	171
0.25in² Al	223	190	177	227
0.3in² Al	273	231	215	280
0.35in² Al	317	268	249	326
0.4in² Al	359	302	280	373
0.45in² Al	404	338	313	422
0.5in² Al	468	391	362	491
0.55in² Al	515	431	398	542
0.6in² Al	524	437	403	557
Copper conductors				
0.1in²	273	235	220	271
0.15in²	337	288	270	337
0.2in²	393	335	313	396
0.25in²	447	380	354	455
0.3in²	500	423	393	512
0.35in²	546	460	427	562
0.4in²	587	493	457	609
0.45in²	625	524	484	655
0.5in²	656	549	507	690
0.55in²	681	570	526	717
0.6in²	727	605	557	774

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Aluminium conductors				
0.1in² Al	91	80	76	99
0.15in² Al	123	108	102	136
0.2in² Al	153	134	127	171
0.25in² Al	201	176	166	227
0.3in² Al	245	214	202	280
0.35in² Al	284	248	233	326
0.4in² Al	321	279	262	373
0.45in² Al	359	312	292	422
0.5in² Al	415	360	338	491
0.55in² Al	457	397	372	542
0.6in² Al	463	401	375	557
Copper conductors				
0.1in²	249	219	208	271
0.15in²	306	268	254	337
0.2in²	356	312	295	396
0.25in²	403	352	332	455
0.3in²	448	391	369	512
0.35in²	489	426	401	562
0.4in²	523	455	428	609
0.45in²	556	482	452	655
0.5in²	582	505	474	690
0.55in²	604	524	491	717
0.6in²	642	555	519	774

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1^{o}C m/W
Ground Ambient Temperature	12^{o}C
Air Ambient Temperature	12^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED LEAD SHEATHED DUCTED.

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Aluminium conductors				
0.1in² Al	104	88	83	99
0.15in² Al	142	120	112	136
0.2in² Al	177	149	139	171
0.25in² Al	234	196	183	227
0.3in² Al	286	240	223	280
0.35in² Al	332	277	257	326
0.4in² Al	377	313	290	373
0.45in² Al	424	351	324	422
0.5in² Al	491	406	375	491
0.55in² Al	540	448	413	542
0.6in² Al	551	454	417	557
Copper conductors				
0.1in²	285	242	227	271
0.15in²	352	298	278	337
0.2in²	411	347	323	396
0.25in²	468	393	366	455
0.3in²	523	438	407	512
0.35in²	572	477	442	562
0.4in²	615	511	473	609
0.45in²	656	543	502	655
0.5in²	689	570	526	690
0.55in²	714	591	545	717
0.6in²	764	629	578	774

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

TABLE G1 – win

132kV THREE CORE OIL FILLED CAS SHEATHED DUCTED.

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	283	243	229	292
150mm² Al	322	275	258	337
185mm² Al	366	311	291	387
240mm² Al	419	356	333	449
260mm² Al	440	373	348	476
300mm² Al	474	401	373	518
350mm² Al	509	430	400	562
400mm² Al	538	453	421	598
500mm² Al	603	507	469	679
630mm² Al	678	568	524	761
Copper conductors				
120mm²	363	311	293	374
150mm²	413	352	330	432
185mm²	466	396	370	495
240mm²	532	451	421	571
260mm²	555	470	438	602
300mm²	597	504	469	655
350mm²	637	537	499	706
400mm²	669	563	522	748
500mm²	739	620	574	838
630mm²	816	682	629	921

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED CAS SHEATHED DUCTED.

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	322	266	248	292
150mm² Al	369	302	280	337
185mm² Al	421	343	317	387
240mm² Al	486	394	363	449
260mm² Al	511	413	380	476
300mm² Al	553	445	408	518
350mm² Al	597	479	438	562
400mm² Al	632	506	462	598
500mm² Al	713	568	517	679
630mm² Al	810	640	579	761
Copper conductors				
120mm²	412	341	317	374
150mm²	473	387	359	432
185mm²	538	437	403	495
240mm²	617	499	459	571
260mm²	646	521	479	602
300mm²	698	561	514	655
350mm²	748	599	547	706
400mm²	788	629	574	748
500mm²	877	696	633	838
630mm²	978	770	696	921

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9^{o}C m/W
Ground Ambient Temperature	10^{o}C
Air Ambient Temperature	10^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED CAS SHEATHED DUCTED.

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	266	233	220	292
150mm² Al	302	263	247	337
185mm² Al	342	296	279	387
240mm² Al	392	339	318	449
260mm² Al	411	355	333	476
300mm² Al	442	381	356	518
350mm² Al	474	408	382	562
400mm² Al	501	430	401	598
500mm² Al	560	480	447	679
630mm² Al	629	537	498	761
Copper conductors				
120mm²	341	298	281	374
150mm²	386	336	316	432
185mm²	435	377	354	495
240mm²	497	429	403	571
260mm²	518	447	419	602
300mm²	556	479	448	655
350mm²	593	510	476	706
400mm²	622	534	498	748
500mm²	687	588	547	838
630mm²	756	645	598	921

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED CAS SHEATHED DUCTED.

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	306	258	240	292
150mm² Al	350	292	272	337
185mm² Al	399	331	307	387
240mm² Al	459	380	351	449
260mm² Al	483	398	367	476
300mm² Al	522	428	394	518
350mm² Al	563	461	423	562
400mm² Al	596	486	446	598
500mm² Al	671	545	498	679
630mm² Al	761	613	557	761
Copper conductors				
120mm²	392	330	308	374
150mm²	449	374	347	432
185mm²	509	421	390	495
240mm²	583	481	444	571
260mm²	610	502	463	602
300mm²	659	540	496	655
350mm²	705	576	528	706
400mm²	742	605	554	748
500mm²	825	668	610	838
630mm²	917	737	669	921

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED CAS SHEATHED DUCTED.

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	249	221	210	292
150mm² Al	282	249	236	337
185mm² Al	319	281	265	387
240mm² Al	365	321	302	449
260mm² Al	382	336	316	476
300mm² Al	411	360	338	518
350mm² Al	441	386	362	562
400mm² Al	465	406	380	598
500mm² Al	519	452	423	679
630mm² Al	582	505	470	761
Copper conductors				
120mm²	319	283	268	374
150mm²	361	319	301	432
185mm²	406	357	337	495
240mm²	462	406	383	571
260mm²	482	423	397	602
300mm²	517	453	425	655
350mm²	551	481	451	706
400mm²	577	504	472	748
500mm²	636	553	517	838
630mm²	699	606	564	921

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED CAS SHEATHED DUCTED.

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	290	248	232	292
150mm² Al	331	280	261	337
185mm² Al	376	317	295	387
240mm² Al	432	364	337	449
260mm² Al	455	381	353	476
300mm² Al	490	410	378	518
350mm² Al	528	440	405	562
400mm² Al	559	464	427	598
500mm² Al	629	519	476	679
630mm² Al	711	583	532	761
Copper conductors				
120mm²	371	317	296	374
150mm²	423	359	334	432
185mm²	479	404	375	495
240mm²	549	461	427	571
260mm²	574	480	444	602
300mm²	619	516	476	655
350mm²	661	550	506	706
400mm²	696	577	530	748
500mm²	772	637	583	838
630mm²	857	701	639	921

Parameters

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.2^{o}C m/W

Ground Ambient Temperature 15^{o}C

Air Ambient Temperature 15^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED CAS SHEATHED DUCTED.

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	262	231	218	292
150mm² Al	297	260	245	337
185mm² Al	336	293	276	387
240mm² Al	385	335	315	449
260mm² Al	404	351	329	476
300mm² Al	434	376	353	518
350mm² Al	466	403	378	562
400mm² Al	492	425	397	598
500mm² Al	550	474	442	679
630mm² Al	617	530	492	761
Copper conductors				
120mm²	336	295	279	374
150mm²	380	332	313	432
185mm²	428	373	351	495
240mm²	488	424	399	571
260mm²	509	442	414	602
300mm²	547	474	443	655
350mm²	582	504	471	706
400mm²	611	528	493	748
500mm²	674	580	541	838
630mm²	742	636	591	921

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables

132kV THREE CORE OIL FILLED CAS SHEATHED DUCTED.

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	303	256	239	292
150mm² Al	346	290	270	337
185mm² Al	394	329	305	387
240mm² Al	453	377	349	449
260mm² Al	477	395	365	476
300mm² Al	515	425	392	518
350mm² Al	555	457	420	562
400mm² Al	587	482	443	598
500mm² Al	661	540	494	679
630mm² Al	749	607	553	761
Copper conductors				
120mm²	388	328	306	374
150mm²	443	371	345	432
185mm²	502	418	388	495
240mm²	575	478	442	571
260mm²	602	498	460	602
300mm²	650	535	493	655
350mm²	695	571	525	706
400mm²	732	599	550	748
500mm²	813	662	605	838
630mm²	903	730	664	921

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1^{o}C m/W
Ground Ambient Temperature	12^{o}C
Air Ambient Temperature	12^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings based on Crater for oil filled cables

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	303	289	282	334
150mm² Al	338	322	313	378
185mm² Al	381	361	351	429
240mm² Al	441	415	402	504
260mm² Al	461	432	419	530
300mm² Al	497	464	449	576
350mm² Al	536	496	479	631
400mm² Al	568	523	504	672
500mm² Al	641	579	555	775
630mm² Al	724	643	615	891
800mm² Al	813	716	683	1021
1000mm² Al	891	763	722	1147
Copper conductors				
120mm²	389	368	357	429
150mm²	435	409	397	486
185mm²	489	457	443	551
240mm²	564	521	503	645
260mm²	588	541	523	678
300mm²	635	579	558	736
350mm²	682	616	592	804
400mm²	720	645	619	855
500mm²	805	703	671	976
630mm²	898	770	732	1110
800mm²	994	846	801	1253
1000mm²	1063	876	824	1376

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 0.9°C m/w

Ground Ambient Temperature 10°C

Air Ambient Temperature 10°C

Maximum Conductor Temperature 85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	345	329	320	334
150mm² Al	386	368	357	378
185mm² Al	436	414	401	429
240mm² Al	507	478	462	504
260mm² Al	530	498	481	530
300mm² Al	574	536	517	576
350mm² Al	621	575	554	631
400mm² Al	659	607	584	672
500mm² Al	750	677	648	775
630mm² Al	850	756	722	891
800mm² Al	960	847	807	1021
1000mm² Al	1059	908	860	1147
Copper conductors				
120mm²	443	419	407	429
150mm²	496	468	453	486
185mm²	560	524	507	551
240mm²	648	600	579	645
260mm²	678	625	603	678
300mm²	733	671	646	736
350mm²	791	716	687	804
400mm²	837	753	722	855
500mm²	943	825	787	976
630mm²	1056	909	864	1110
800mm²	1176	1007	953	1253
1000mm²	1264	1051	989	1376

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	286	278	271	334
150mm² Al	319	309	302	378
185mm² Al	359	347	337	429
240mm² Al	416	398	387	504
260mm² Al	434	414	402	530
300mm² Al	468	444	431	576
350mm² Al	504	474	459	631
400mm² Al	533	499	483	672
500mm² Al	601	552	531	775
630mm² Al	677	612	587	891
800mm² Al	760	680	651	1021
1000mm² Al	832	723	688	1147
Copper conductors				
120mm²	368	354	344	429
150mm²	410	393	382	486
185mm²	461	438	426	551
240mm²	531	499	484	645
260mm²	554	518	502	678
300mm²	597	554	536	736
350mm²	641	588	567	804
400mm²	676	616	593	855
500mm²	754	669	641	976
630mm²	840	732	698	1110
800mm²	929	803	763	1253
1000mm²	992	830	784	1376

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/w
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	329	320	312	334
150mm² Al	368	358	348	378
185mm² Al	415	402	390	429
240mm² Al	482	463	449	504
260mm² Al	504	483	468	530
300mm² Al	545	519	502	576
350mm² Al	590	557	538	631
400mm² Al	625	587	567	672
500mm² Al	709	653	627	775
630mm² Al	803	728	697	891
800mm² Al	907	814	778	1021
1000mm² Al	997	871	828	1147
Copper conductors				
120mm²	423	408	397	429
150mm²	473	455	441	486
185mm²	533	509	493	551
240mm²	617	582	563	645
260mm²	644	606	585	678
300mm²	696	649	627	736
350mm²	751	692	666	804
400mm²	793	727	699	855
500mm²	892	795	761	976
630mm²	998	875	834	1110
800mm²	1108	967	918	1253
1000mm²	1190	1007	951	1376

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05^{o}C m/W

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	262	259	253	334
150mm² Al	292	288	281	378
185mm² Al	328	322	314	429
240mm² Al	380	369	359	504
260mm² Al	396	384	373	530
300mm² Al	427	411	400	576
350mm² Al	459	439	426	631
400mm² Al	485	461	447	672
500mm² Al	546	509	491	775
630mm² Al	615	563	542	891
800mm² Al	689	625	600	1021
1000mm² Al	753	663	632	1147
Copper conductors				
120mm²	337	329	321	429
150mm²	375	365	356	486
185mm²	422	407	396	551
240mm²	485	462	449	645
260mm²	505	480	466	678
300mm²	544	513	497	736
350mm²	584	543	525	804
400mm²	615	569	549	855
500mm²	685	616	592	976
630mm²	762	673	644	1110
800mm²	842	737	703	1253
1000mm²	898	761	721	1376

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.2^{o}C m/w

Ground Ambient Temperature 15^{o}C

Air Ambient Temperature 15^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	304	301	294	334
150mm² Al	340	336	327	378
185mm² Al	383	377	367	429
240mm² Al	444	434	422	504
260mm² Al	464	452	439	530
300mm² Al	501	486	471	576
350mm² Al	542	520	504	631
400mm² Al	574	548	531	672
500mm² Al	650	608	586	775
630mm² Al	735	677	650	891
800mm² Al	828	756	725	1021
1000mm² Al	909	807	769	1147
Copper conductors				
120mm²	391	384	374	429
150mm²	437	427	415	486
185mm²	491	478	464	551
240mm²	568	545	529	645
260mm²	593	567	549	678
300mm²	640	608	588	736
350mm²	689	646	624	804
400mm²	728	679	654	855
500mm²	817	741	710	976
630mm²	913	813	777	1110
800mm²	1012	897	854	1253
1000mm²	1084	931	882	1376

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	277	271	265	334
150mm² Al	309	301	294	378
185mm² Al	348	337	329	429
240mm² Al	402	387	377	504
260mm² Al	420	403	391	530
300mm² Al	452	432	419	576
350mm² Al	487	461	447	631
400mm² Al	515	485	470	672
500mm² Al	581	536	516	775
630mm² Al	654	594	571	891
800mm² Al	734	660	632	1021
1000mm² Al	803	701	667	1147
Copper conductors				
120mm²	356	344	336	429
150mm²	397	382	372	486
185mm²	446	427	415	551
240mm²	514	485	471	645
260mm²	536	504	488	678
300mm²	577	539	521	736
350mm²	619	571	551	804
400mm²	653	599	577	855
500mm²	729	649	623	976
630mm²	811	710	678	1110
800mm²	869	778	741	1253
1000mm²	957	804	761	1376

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/w
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	319	313	305	334
150mm² Al	357	350	340	378
185mm² Al	403	392	381	429
240mm² Al	468	452	439	504
260mm² Al	489	471	457	530
300mm² Al	529	507	491	576
350mm² Al	572	543	525	631
400mm² Al	606	573	553	672
500mm² Al	687	636	612	775
630mm² Al	778	709	680	891
800mm² Al	877	792	758	1021
1000mm² Al	964	848	806	1147
Copper conductors				
120mm²	411	399	388	429
150mm²	459	444	432	486
185mm²	517	497	482	551
240mm²	598	568	550	645
260mm²	625	591	572	678
300mm²	675	634	612	736
350mm²	728	675	650	804
400mm²	769	709	682	855
500mm²	864	775	742	976
630mm²	966	852	813	1110
800mm²	1072	941	894	1253
1000mm²	1150	979	925	1376

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	453	419	406	507
0.3in²	502	462	447	569
0.35in²	544	497	479	625
0.4in²	584	528	508	673
0.45in²	616	553	532	715
0.5in²	651	579	556	765
0.55in²	686	609	584	806
0.6in²	715	629	602	848
0.65in²	739	644	616	881
0.75in²	787	677	645	953
0.85in²	833	714	679	1010
1.0in²	915	774	734	1136

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	517	480	464	507
0.3in²	574	532	514	569
0.35in²	625	573	553	625
0.4in²	671	611	588	673
0.45in²	710	641	617	715
0.5in²	753	673	646	765
0.55in²	794	710	681	806
0.6in²	829	735	704	848
0.65in²	859	754	721	881
0.75in²	919	795	759	953
0.85in²	973	842	803	1010
1.0in²	1076	918	872	1136

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	428	402	390	507
0.3in²	474	443	430	569
0.35in²	513	476	460	625
0.4in²	550	505	488	673
0.45in²	580	529	510	715
0.5in²	612	553	532	765
0.55in²	646	582	560	806
0.6in²	672	601	577	848
0.65in²	694	615	589	881
0.75in²	739	645	616	953
0.85in²	783	680	649	1010
1.0in²	858	736	700	1136

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	493	466	452	507
0.3in²	547	516	500	569
0.35in²	595	555	537	625
0.4in²	639	592	571	673
0.45in²	675	621	599	715
0.5in²	715	651	626	765
0.55in²	755	686	661	806
0.6in²	788	710	682	848
0.65in²	815	728	698	881
0.75in²	871	767	734	953
0.85in²	923	811	776	1010
1.0in²	1018	883	841	1136

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05°C m/W

Ground Ambient Temperature 12°C

Air Ambient Temperature 12°C

Maximum Conductor Temperature 85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	392	373	363	507
0.3in²	433	411	399	569
0.35in²	469	441	427	625
0.4in²	503	468	453	673
0.45in²	530	490	474	715
0.5in²	558	511	493	765
0.55in²	589	538	519	806
0.6in²	612	555	534	848
0.65in²	632	567	545	881
0.75in²	672	594	570	953
0.85in²	713	627	600	1010
1.0in²	779	677	646	1136

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	456	438	425	507
0.3in²	505	484	469	569
0.35in²	549	520	504	625
0.4in²	589	554	536	673
0.45in²	622	581	561	715
0.5in²	657	608	586	765
0.55in²	695	641	619	806
0.6in²	724	663	638	848
0.65in²	749	679	653	881
0.75in²	799	714	685	953
0.85in²	847	756	724	1010
1.0in²	931	821	783	1136

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.2^{o}C m/W

Ground Ambient Temperature 15^{o}C

Air Ambient Temperature 15^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	415	391	380	507
0.3in²	459	431	418	569
0.35in²	497	463	448	625
0.4in²	533	491	475	673
0.45in²	561	514	497	715
0.5in²	592	537	518	765
0.55in²	625	566	545	806
0.6in²	650	583	561	848
0.65in²	671	597	573	881
0.75in²	714	626	599	953
0.85in²	757	660	631	1010
1.0in²	828	714	680	1136

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	479	456	442	507
0.3in²	532	504	488	569
0.35in²	578	542	524	625
0.4in²	621	577	558	673
0.45in²	655	606	585	715
0.5in²	694	635	611	765
0.55in²	733	670	645	806
0.6in²	764	692	666	848
0.65in²	790	710	681	881
0.75in²	844	747	715	953
0.85in²	895	791	757	1010
1.0in²	985	860	819	1136

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.1°C m/W

Ground Ambient Temperature 12°C

Air Ambient Temperature 12°C

Maximum Conductor Temperature 85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	318	309	301	375
150mm² Al	356	346	337	423
185mm² Al	402	390	380	481
240mm² Al	467	454	441	568
260mm² Al	489	475	461	598
300mm² Al	529	514	499	652
350mm² Al	573	556	540	717
400mm² Al	608	591	573	766
500mm² Al	694	674	653	894
630mm² Al	792	770	745	1035
800mm² Al	901	876	847	1199
1000mm² Al	1012	985	952	1371
Copper conductors				
120mm²	410	399	389	483
150mm²	459	446	434	545
185mm²	518	503	490	620
240mm²	600	584	568	730
260mm²	628	611	593	769
300mm²	680	661	642	838
350mm²	736	716	695	921
400mm²	780	759	736	983
500mm²	886	863	837	1143
630mm²	1007	982	951	1316
800mm²	1134	1110	1074	1512
1000mm²	1256	1232	1190	1703

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 0.9°C m/w

Ground Ambient Temperature 10°C

Air Ambient Temperature 10°C

Maximum Conductor Temperature 85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	370	350	340	375
150mm² Al	415	393	382	423
185mm² Al	470	445	432	481
240mm² Al	550	520	504	568
260mm² Al	576	545	528	598
300mm² Al	625	591	572	652
350mm² Al	681	643	621	717
400mm² Al	724	684	660	766
500mm² Al	833	784	756	894
630mm² Al	955	900	867	1035
800mm² Al	1092	1029	991	1199
1000mm² Al	1234	1165	1121	1371
Copper conductors				
120mm²	477	451	439	483
150mm²	536	507	494	545
185mm²	606	574	558	620
240mm²	707	670	649	730
260mm²	741	702	680	769
300mm²	804	762	737	838
350mm²	875	828	800	921
400mm²	929	880	850	983
500mm²	1064	1007	971	1143
630mm²	1214	1151	1110	1316
800mm²	1377	1308	1261	1512
1000mm²	1532	1461	1490	1703

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9^{o}C m/W
Ground Ambient Temperature	10^{o}C
Air Ambient Temperature	10^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	301	299	292	375
150mm² Al	337	334	326	423
185mm² Al	380	377	368	481
240mm² Al	441	438	427	568
260mm² Al	461	457	446	598
300mm² Al	499	494	482	652
350mm² Al	540	535	521	717
400mm² Al	573	568	552	766
500mm² Al	652	647	629	894
630mm² Al	744	738	717	1035
800mm² Al	845	838	814	1199
1000mm² Al	948	942	913	1371
Copper conductors				
120mm²	388	385	376	483
150mm²	434	431	421	545
185mm²	489	486	474	620
240mm²	567	563	549	730
260mm²	592	588	573	769
300mm²	641	636	620	838
350mm²	693	688	670	921
400mm²	735	730	710	983
500mm²	833	828	805	1143
630mm²	945	941	915	1316
800mm²	1064	1062	1031	1512
1000mm²	1176	1177	1142	1703

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05^{o}C m/w

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	355	342	333	375
150mm² Al	398	384	374	423
185mm² Al	450	434	423	481
240mm² Al	525	507	492	568
260mm² Al	550	531	515	598
300mm² Al	597	575	558	652
350mm² Al	649	625	606	717
400mm² Al	690	665	644	766
500mm² Al	792	762	736	894
630mm² Al	907	872	843	1035
800mm² Al	1036	996	962	1199
1000mm² Al	1169	1126	1087	1371
Copper conductors				
120mm²	457	441	430	483
150mm²	513	496	483	545
185mm²	580	561	545	620
240mm²	675	653	634	730
260mm²	708	684	664	769
300mm²	767	742	719	838
350mm²	834	806	781	921
400mm²	886	856	829	983
500mm²	1012	977	945	1143
630mm²	1153	1116	1079	1316
800mm²	1306	1266	1224	1512
1000mm²	1451	1412	1366	1703

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05^{o}C m/W

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	277	280	274	375
150mm² Al	309	312	305	423
185mm² Al	348	352	344	481
240mm² Al	404	408	399	568
260mm² Al	422	426	416	598
300mm² Al	456	460	450	652
350mm² Al	493	498	486	717
400mm² Al	523	528	515	766
500mm² Al	594	600	585	894
630mm² Al	677	684	666	1035
800mm² Al	768	776	755	1199
1000mm² Al	862	870	847	1371
Copper conductors				
120mm²	356	360	353	483
150mm²	398	403	394	545
185mm²	449	453	444	620
240mm²	519	525	513	730
260mm²	542	548	535	769
300mm²	586	593	579	838
350mm²	633	640	625	921
400mm²	671	678	662	983
500mm²	759	769	749	1143
630mm²	861	872	850	1316
800mm²	967	983	957	1512
1000mm²	1069	1087	1058	1703

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.2°C m/w

Ground Ambient Temperature 15°C

Air Ambient Temperature 15°C

Maximum Conductor Temperature 85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	329	323	315	375
150mm² Al	369	362	354	423
185mm² Al	417	409	399	481
240mm² Al	486	478	465	568
260mm² Al	509	500	486	598
300mm² Al	551	542	526	652
350mm² Al	599	588	570	717
400mm² Al	636	625	606	766
500mm² Al	729	714	692	894
630mm² Al	834	817	791	1035
800mm² Al	951	932	902	1199
1000mm² Al	1072	1051	1018	1371
Copper conductors				
120mm²	424	417	407	483
150mm²	476	468	456	545
185mm²	537	529	515	620
240mm²	625	615	598	730
260mm²	654	644	626	769
300mm²	709	698	678	838
350mm²	770	757	735	921
400mm²	817	804	780	983
500mm²	932	916	888	1143
630mm²	1061	1045	1013	1316
800mm²	1198	1183	1147	1512
1000mm²	1330	1318	1278	1703

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	292	292	285	375
150mm² Al	326	326	318	423
185mm² Al	368	367	359	481
240mm² Al	427	427	416	568
260mm² Al	446	446	435	598
300mm² Al	483	482	470	652
350mm² Al	522	521	508	717
400mm² Al	554	553	538	766
500mm² Al	631	629	613	894
630mm² Al	719	717	698	1035
800mm² Al	816	815	792	1199
1000mm² Al	916	915	889	1371
Copper conductors				
120mm²	376	376	368	483
150mm²	421	420	411	545
185mm²	474	474	463	620
240mm²	549	549	535	730
260mm²	574	573	559	769
300mm²	621	620	605	838
350mm²	671	671	653	921
400mm²	711	710	692	983
500mm²	805	806	785	1143
630mm²	914	916	891	1316
800mm²	1028	1032	1004	1512
1000mm²	1136	1143	1111	1703

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.1^{o}C m/w

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	345	335	327	375
150mm² Al	387	376	366	423
185mm² Al	438	425	414	481
240mm² Al	511	496	482	568
260mm² Al	535	519	504	598
300mm² Al	580	563	546	652
350mm² Al	630	611	592	717
400mm² Al	670	650	629	766
500mm² Al	768	744	719	894
630mm² Al	880	852	824	1035
800mm² Al	1004	972	940	1199
1000mm² Al	1133	1098	1061	1371
Copper conductors				
120mm²	445	432	422	483
150mm²	499	485	473	545
185mm²	564	549	534	620
240mm²	656	639	621	730
260mm²	688	669	649	769
300mm²	746	726	704	838
350mm²	810	788	763	921
400mm²	860	836	811	983
500mm²	982	954	924	1143
630mm²	1119	1089	1054	1316
800mm²	1266	1235	1196	1512
1000mm²	1406	1377	1333	1703

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.1^{o}C m/W

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	480	467	455	569
0.3in²	534	519	505	635
0.35in²	582	565	550	701
0.4in²	626	609	592	757
0.45in²	663	645	626	807
0.5in²	704	685	665	870
0.55in²	744	723	703	914
0.6in²	779	758	735	969
0.65in²	809	787	764	1012
0.75in²	872	849	823	1103
0.85in²	928	903	876	1167
1.0in²	1037	1011	979	1336

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	560	531	517	569
0.3in²	623	593	576	635
0.35in²	682	649	629	701
0.4in²	735	700	678	757
0.45in²	780	742	719	807
0.5in²	833	791	766	870
0.55in²	879	836	810	914
0.6in²	924	878	850	969
0.65in²	961	913	884	1012
0.75in²	1040	988	956	1103
0.85in²	1106	1054	1021	1167
1.0in²	1245	1186	1147	1336

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 0.9^{o}C m/W

Ground Ambient Temperature 10^{o}C

Air Ambient Temperature 10^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	455	451	440	569
0.3in²	505	500	488	635
0.35in²	550	545	532	701
0.4in²	592	587	572	757
0.45in²	627	621	605	807
0.5in²	665	659	642	870
0.55in²	703	696	678	914
0.6in²	735	729	709	969
0.65in²	763	757	737	1012
0.75in²	822	815	793	1103
0.85in²	875	868	845	1167
1.0in²	976	969	942	1336

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05°C m/W

Ground Ambient Temperature 12°C

Air Ambient Temperature 12°C

Maximum Conductor Temperature 85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	537	519	506	569
0.3in²	597	579	563	635
0.35in²	653	633	614	701
0.4in²	704	682	663	757
0.45in²	747	723	702	807
0.5in²	796	770	747	870
0.55in²	840	814	791	914
0.6in²	882	854	828	969
0.65in²	918	888	862	1012
0.75in²	992	960	931	1103
0.85in²	1036	1024	994	1167
1.0in²	1186	1150	1115	1336

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05^{o}C m/W

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	418	421	412	569
0.3in²	464	467	457	635
0.35in²	504	508	497	701
0.4in²	543	547	535	757
0.45in²	574	579	565	807
0.5in²	608	613	599	870
0.55in²	644	648	633	914
0.6in²	672	677	661	969
0.65in²	697	704	687	1012
0.75in²	750	757	739	1103
0.85in²	800	806	787	1167
1.0in²	890	898	876	1336

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	498	490	478	569
0.3in²	554	546	532	635
0.35in²	605	596	580	701
0.4in²	652	642	625	757
0.45in²	691	681	662	807
0.5in²	735	724	703	870
0.55in²	777	765	745	914
0.6in²	815	802	780	969
0.65in²	847	834	811	1012
0.75in²	915	901	875	1103
0.85in²	975	961	935	1167
1.0in²	1092	1077	1046	1336

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.2°C m/W

Ground Ambient Temperature 15°C

Air Ambient Temperature 15°C

Maximum Conductor Temperature 85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	441	440	430	569
0.3in²	490	488	477	635
0.35in²	533	531	519	701
0.4in²	574	572	558	757
0.45in²	607	605	590	807
0.5in²	643	642	626	870
0.55in²	681	678	662	914
0.6in²	711	710	692	969
0.65in²	739	737	718	1012
0.75in²	795	794	773	1103
0.85in²	847	845	823	1167
1.0in²	944	943	918	1336

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED LEAD SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	522	508	495	569
0.3in²	581	566	551	635
0.35in²	635	619	601	701
0.4in²	685	667	649	757
0.45in²	726	707	687	807
0.5in²	773	753	731	870
0.55in²	817	796	773	914
0.6in²	857	834	810	969
0.65in²	891	868	843	1012
0.75in²	963	938	910	1103
0.85in²	1026	1000	972	1167
1.0in²	1151	1122	1089	1336

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.1^{o}C m/W

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	301	281	272	336
150mm² Al	333	309	299	374
185mm² Al	374	342	331	423
240mm² Al	432	389	375	496
260mm² Al	449	400	385	521
300mm² Al	483	427	411	564
350mm² Al	516	449	431	614
400mm² Al	542	467	447	652
500mm² Al	605	511	488	743
630mm² Al	670	555	529	840
800mm² Al	735	598	568	950
1000mm² Al	798	642	607	1055
Copper conductors				
120mm²	385	350	339	430
150mm²	426	383	370	479
185mm²	477	422	406	540
240mm²	546	472	453	629
260mm²	565	483	463	659
300mm²	607	512	490	713
350mm²	643	532	508	770
400mm²	671	549	523	814
500mm²	739	592	562	917
630mm²	803	632	599	1020
800mm²	862	669	632	1129
1000mm²	916	706	665	1227

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/w
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	343	321	312	336
150mm² Al	380	354	343	374
185mm² Al	428	395	382	423
240mm² Al	496	450	434	496
260mm² Al	517	465	449	521
300mm² Al	558	498	479	564
350mm² Al	599	526	506	614
400mm² Al	631	549	528	652
500mm² Al	709	606	580	743
630mm² Al	790	664	634	840
800mm² Al	873	721	687	950
1000mm² Al	953	780	743	1055
Copper conductors				
120mm²	439	403	389	430
150mm²	487	442	427	479
185mm²	546	489	471	540
240mm²	629	550	530	629
260mm²	652	565	544	659
300mm²	703	602	578	713
350mm²	748	630	603	770
400mm²	784	653	624	814
500mm²	869	709	676	917
630mm²	951	764	729	1020
800mm²	1027	818	778	1129
1000mm²	1097	873	830	1227

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9^{o}C m/W
Ground Ambient Temperature	10^{o}C
Air Ambient Temperature	10^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	284	270	262	336
150mm² Al	315	296	288	374
185mm² Al	353	328	319	423
240mm² Al	407	372	360	496
260mm² Al	422	383	370	521
300mm² Al	455	408	394	564
350mm² Al	485	428	412	614
400mm² Al	509	445	428	652
500mm² Al	566	486	466	743
630mm² Al	627	527	504	840
800mm² Al	686	567	540	950
1000mm² Al	744	607	577	1055
Copper conductors				
120mm²	363	336	326	430
150mm²	402	367	356	479
185mm²	450	404	390	540
240mm²	514	451	434	629
260mm²	532	461	444	659
300mm²	571	489	470	713
350mm²	603	507	486	770
400mm²	629	523	500	814
500mm²	691	562	536	917
630mm²	751	599	570	1020
800mm²	804	633	601	1129
1000mm²	853	667	632	1227

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05^{o}C m/w

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	327	312	303	336
150mm² Al	363	344	334	374
185mm² Al	408	383	371	423
240mm² Al	473	436	422	496
260mm² Al	492	450	435	521
300mm² Al	530	481	465	564
350mm² Al	568	508	490	614
400mm² Al	598	530	511	652
500mm² Al	671	583	560	743
630mm² Al	746	637	610	840
800mm² Al	822	690	660	950
1000mm² Al	896	745	712	1055
Copper conductors				
120mm²	419	391	379	430
150mm²	464	429	415	479
185mm²	520	473	458	540
240mm²	598	532	514	629
260mm²	620	547	527	659
300mm²	668	582	560	713
350mm²	710	607	583	770
400mm²	742	628	602	814
500mm²	821	681	651	917
630mm²	897	733	701	1020
800mm²	966	782	747	1129
1000mm²	1030	833	795	1227

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05^{o}C m/W

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	260	250	244	336
150mm² Al	288	275	268	374
185mm² Al	323	305	296	423
240mm² Al	372	345	334	496
260mm² Al	386	354	343	521
300mm² Al	415	377	365	564
350mm² Al	441	395	382	614
400mm² Al	463	410	396	652
500mm² Al	515	447	430	743
630mm² Al	569	485	465	840
800mm² Al	621	520	497	950
1000mm² Al	673	556	530	1055
Copper conductors				
120mm²	333	312	304	430
150mm²	368	341	331	479
185mm²	411	375	363	540
240mm²	470	418	403	629
260mm²	485	427	411	659
300mm²	521	452	435	713
350mm²	549	468	449	770
400mm²	572	481	462	814
500mm²	628	517	495	917
630mm²	681	550	525	1020
800mm²	727	580	552	1129
1000mm²	771	610	580	1227

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.2°C m/w

Ground Ambient Temperature 15°C

Air Ambient Temperature 15°C

Maximum Conductor Temperature 85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	302	293	286	336
150mm² Al	335	323	314	374
185mm² Al	377	359	349	423
240mm² Al	436	408	396	496
260mm² Al	453	421	408	521
300mm² Al	488	450	435	564
350mm² Al	522	474	458	614
400mm² Al	549	494	477	652
500mm² Al	614	542	521	743
630mm² Al	682	591	568	840
800mm² Al	749	638	612	950
1000mm² Al	816	688	660	1055
Copper conductors				
120mm²	387	367	356	430
150mm²	429	402	390	479
185mm²	480	444	430	540
240mm²	551	498	482	629
260mm²	571	511	493	659
300mm²	614	543	524	713
350mm²	652	566	544	770
400mm²	681	584	562	814
500mm²	751	632	606	917
630mm²	819	679	651	1020
800mm²	879	722	692	1129
1000mm²	937	768	735	1227

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	275	262	255	336
150mm² Al	305	288	280	374
185mm² Al	342	320	310	423
240mm² Al	394	362	350	496
260mm² Al	409	372	360	521
300mm² Al	440	397	383	564
350mm² Al	468	416	401	614
400mm² Al	492	432	416	652
500mm² Al	547	472	453	743
630mm² Al	605	511	490	840
800mm² Al	662	549	524	950
1000mm² Al	718	588	560	1055
Copper conductors				
120mm²	352	327	318	430
150mm²	389	358	346	479
185mm²	435	393	380	540
240mm²	498	439	423	629
260mm²	514	448	432	659
300mm²	552	475	457	713
350mm²	583	493	472	770
400mm²	608	507	486	814
500mm²	668	545	521	917
630mm²	725	581	553	1020
800mm²	775	613	582	1129
1000mm²	823	646	612	1227

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.1°C m/w

Ground Ambient Temperature 12°C

Air Ambient Temperature 12°C

Maximum Conductor Temperature 85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	318	305	297	336
150mm² Al	353	336	327	374
185mm² Al	396	374	363	423
240mm² Al	459	426	412	496
260mm² Al	477	439	425	521
300mm² Al	515	469	454	564
350mm² Al	551	495	478	614
400mm² Al	580	516	498	652
500mm² Al	650	568	545	743
630mm² Al	723	620	595	840
800mm² Al	795	671	642	950
1000mm² Al	866	724	693	1055
Copper conductors				
120mm²	407	382	371	430
150mm²	451	419	406	479
185mm²	505	462	448	540
240mm²	581	520	502	629
260mm²	602	533	514	659
300mm²	648	567	546	713
350mm²	688	592	568	770
400mm²	719	612	587	814
500mm²	795	663	635	917
630mm²	867	712	682	1020
800mm²	933	759	726	1129
1000mm²	996	808	773	1227

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	444	392	378	505
0.3in²	486	422	407	555
0.35in²	522	450	433	600
0.4in²	563	480	460	657
0.45in²	591	497	476	696
0.5in²	616	511	489	731
0.55in²	648	531	507	773
0.6in²	666	545	520	803
0.65in²	688	557	530	843
0.75in²	723	577	549	892
0.85in²	754	597	568	943
1.0in²	811	638	605	1030

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	508	453	438	505
0.3in²	558	490	473	555
0.35in²	600	525	506	600
0.4in²	651	562	541	657
0.45in²	685	585	562	696
0.5in²	715	604	579	731
0.55in²	753	629	602	773
0.6in²	776	647	619	803
0.65in²	805	664	634	843
0.75in²	849	690	659	892
0.85in²	889	718	686	943
1.0in²	960	774	740	1030

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	418	375	363	505
0.3in²	458	404	390	555
0.35in²	493	431	415	600
0.4in²	530	458	441	657
0.45in²	556	474	456	696
0.5in²	578	488	468	731
0.55in²	608	506	485	773
0.6in²	625	519	497	803
0.65in²	644	530	507	843
0.75in²	677	548	524	892
0.85in²	705	567	541	943
1.0in²	759	605	577	1030

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05°C m/W

Ground Ambient Temperature 12°C

Air Ambient Temperature 12°C

Maximum Conductor Temperature 85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	484	439	425	505
0.3in²	531	475	459	555
0.35in²	572	508	491	600
0.4in²	619	544	525	657
0.45in²	650	564	544	696
0.5in²	678	582	560	731
0.55in²	714	606	582	773
0.6in²	736	624	598	803
0.65in²	762	638	612	843
0.75in²	802	663	635	892
0.85in²	839	689	660	943
1.0in²	906	742	711	1030

Parameters

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	382	348	337	505
0.3in²	419	374	363	555
0.35in²	450	399	386	600
0.4in²	484	424	409	657
0.45in²	507	438	422	696
0.5in²	527	450	433	731
0.55in²	554	467	449	773
0.6in²	569	479	460	803
0.65in²	585	488	468	843
0.75in²	614	504	483	892
0.85in²	640	521	499	943
1.0in²	689	556	531	1030

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.2^{o}C m/W

Ground Ambient Temperature 15^{o}C

Air Ambient Temperature 15^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	446	412	399	505
0.3in²	490	445	431	555
0.35in²	527	476	461	600
0.4in²	570	508	491	657
0.45in²	598	527	508	696
0.5in²	623	543	523	731
0.55in²	656	565	543	773
0.6in²	676	581	559	803
0.65in²	698	593	570	843
0.75in²	734	615	591	892
0.85in²	767	639	614	943
1.0in²	828	688	661	1030

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.2^{o}C m/W

Ground Ambient Temperature 15^{o}C

Air Ambient Temperature 15^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	405	365	353	505
0.3in²	444	393	380	555
0.35in²	477	419	404	600
0.4in²	513	445	429	657
0.45in²	537	461	443	696
0.5in²	559	474	455	731
0.55in²	588	492	472	773
0.6in²	604	504	483	803
0.65in²	622	514	492	843
0.75in²	654	532	509	892
0.85in²	681	550	526	943
1.0in²	733	587	560	1030

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN TREFOIL FORMATION

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	470	429	416	505
0.3in²	516	464	449	555
0.35in²	555	496	480	600
0.4in²	601	530	512	657
0.45in²	631	550	531	696
0.5in²	658	568	546	731
0.55in²	693	591	568	773
0.6in²	713	607	584	803
0.65in²	738	621	596	843
0.75in²	777	645	619	892
0.85in²	812	670	643	943
1.0in²	877	722	693	1030

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.1^{o}C m/W

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	318	310	302	375
150mm² Al	354	344	335	419
185mm² Al	399	388	378	475
240mm² Al	464	452	439	561
260mm² Al	485	472	459	591
300mm² Al	525	511	496	642
350mm² Al	568	553	537	707
400mm² Al	603	587	570	757
500mm² Al	685	668	647	876
630mm² Al	780	762	738	1012
800mm² Al	886	868	840	1179
1000mm² Al	992	976	943	1342
Copper conductors				
120mm²	410	399	389	484
150mm²	456	444	433	540
185mm²	514	501	487	612
240mm²	596	581	565	721
260mm²	623	607	590	759
300mm²	673	657	639	825
350mm²	728	711	691	907
400mm²	771	755	732	970
500mm²	871	854	828	1118
630mm²	986	971	941	1282
800mm²	1108	1098	1062	1479
1000mm²	1221	1216	1177	1658

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/w
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	370	351	342	375
150mm² Al	412	392	381	419
185mm² Al	466	443	431	475
240mm² Al	545	518	503	561
260mm² Al	571	543	526	591
300mm² Al	619	588	570	642
350mm² Al	674	640	619	707
400mm² Al	717	681	659	757
500mm² Al	820	778	752	876
630mm² Al	938	892	862	1012
800mm² Al	1073	1023	987	1179
1000mm² Al	1209	1156	1115	1342
Copper conductors				
120mm²	477	454	442	484
150mm²	531	506	492	540
185mm²	600	572	556	612
240mm²	700	667	647	721
260mm²	733	699	678	759
300mm²	795	758	735	825
350mm²	864	824	798	907
400mm²	918	877	848	970
500mm²	1044	998	965	1118
630mm²	1187	1140	1103	1282
800mm²	1345	1298	1254	1479
1000mm²	1491	1447	1399	1658

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	302	299	292	375
150mm² Al	335	333	325	419
185mm² Al	378	375	366	475
240mm² Al	439	436	425	561
260mm² Al	459	455	444	591
300mm² Al	496	492	479	642
350mm² Al	536	532	518	707
400mm² Al	568	565	550	757
500mm² Al	644	641	623	876
630mm² Al	733	731	710	1012
800mm² Al	831	830	806	1179
1000mm² Al	930	932	905	1342
Copper conductors				
120mm²	388	386	377	484
150mm²	432	429	419	540
185mm²	487	483	472	612
240mm²	564	560	546	721
260mm²	588	585	570	759
300mm²	636	633	617	825
350mm²	687	684	666	907
400mm²	727	725	706	970
500mm²	820	820	798	1118
630mm²	927	931	906	1282
800mm²	1039	1050	1020	1479
1000mm²	1145	1162	1129	1658

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05^{o}C m/w

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	355	343	335	375
150mm² Al	396	383	373	419
185mm² Al	447	432	421	475
240mm² Al	522	505	491	561
260mm² Al	546	529	514	591
300mm² Al	592	573	556	642
350mm² Al	643	623	604	707
400mm² Al	684	662	642	757
500mm² Al	780	755	732	876
630mm² Al	892	865	838	1012
800mm² Al	1019	990	958	1179
1000mm² Al	1146	1117	1081	1342
Copper conductors				
120mm²	458	443	432	484
150mm²	510	494	482	540
185mm²	575	559	544	612
240mm²	670	651	632	721
260mm²	701	681	662	759
300mm²	760	738	717	825
350mm²	825	802	778	907
400mm²	876	852	827	970
500mm²	994	969	939	1118
630mm²	1129	1106	1072	1282
800mm²	1277	1256	1217	1479
1000mm²	1412	1398	1356	1658

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05^{o}C m/W

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	277	280	274	375
150mm² Al	308	311	304	419
185mm² Al	347	350	342	475
240mm² Al	403	406	397	561
260mm² Al	420	424	415	591
300mm² Al	454	458	448	642
350mm² Al	490	495	483	707
400mm² Al	519	525	512	757
500mm² Al	588	595	580	876
630mm² Al	668	677	660	1012
800mm² Al	756	768	748	1179
1000mm² Al	845	861	839	1342
Copper conductors				
120mm²	357	360	353	484
150mm²	397	401	392	540
185mm²	447	451	442	612
240mm²	517	522	511	721
260mm²	539	545	533	759
300mm²	582	589	576	825
350mm²	628	636	621	907
400mm²	664	674	658	970
500mm²	748	761	742	1118
630mm²	845	863	842	1282
800mm²	945	971	946	1479
1000mm²	1040	1073	1046	1658

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.2°C m/w

Ground Ambient Temperature 15°C

Air Ambient Temperature 15°C

Maximum Conductor Temperature 85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	330	324	317	375
150mm² Al	367	361	353	419
185mm² Al	414	408	398	475
240mm² Al	483	476	464	561
260mm² Al	506	498	485	591
300mm² Al	547	539	525	642
350mm² Al	594	585	569	707
400mm² Al	631	622	604	757
500mm² Al	719	708	688	876
630mm² Al	821	810	787	1012
800mm² Al	936	925	897	1179
1000mm² Al	1051	1042	1011	1342
Copper conductors				
120mm²	425	418	409	484
150mm²	473	466	455	540
185mm²	534	527	514	612
240mm²	621	613	597	721
260mm²	649	641	624	759
300mm²	703	695	676	825
350mm²	762	753	733	907
400mm²	808	800	778	970
500mm²	916	908	882	1118
630mm²	1039	1035	1006	1282
800mm²	1171	1173	1139	1479
1000mm²	1294	1304	1268	1658

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2^{o}C m/W
Ground Ambient Temperature	15^{o}C
Air Ambient Temperature	15^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	292	292	285	375
150mm² Al	325	325	317	419
185mm² Al	366	366	357	475
240mm² Al	426	425	415	561
260mm² Al	444	443	433	591
300mm² Al	480	479	468	642
350mm² Al	519	518	505	707
400mm² Al	550	550	536	757
500mm² Al	623	623	607	876
630mm² Al	709	711	692	1012
800mm² Al	803	807	788	1179
1000mm² Al	899	906	880	1342
Copper conductors				
120mm²	377	376	368	484
150mm²	419	418	409	540
185mm²	472	471	460	612
240mm²	546	546	533	721
260mm²	570	570	556	759
300mm²	616	617	602	825
350mm²	665	666	650	907
400mm²	703	706	688	970
500mm²	793	798	777	1118
630mm²	896	906	882	1282
800mm²	1004	1020	993	1479
1000mm²	1106	1129	1098	1658

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.1^{o}C m/w

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes		PVC	Rigiduct	
Aluminium conductors				
120mm² Al	346	336	328	375
150mm² Al	385	375	366	419
185mm² Al	435	423	412	475
240mm² Al	507	494	481	561
260mm² Al	531	518	503	591
300mm² Al	575	561	544	642
350mm² Al	625	609	591	707
400mm² Al	664	647	628	757
500mm² Al	758	738	715	876
630mm² Al	866	845	819	1012
800mm² Al	988	966	935	1179
1000mm² Al	1111	1089	1055	1342
Copper conductors				
120mm²	445	434	423	484
150mm²	496	484	472	540
185mm²	560	547	532	612
240mm²	652	637	619	721
260mm²	682	666	648	759
300mm²	739	722	702	825
350mm²	801	784	761	907
400mm²	851	833	808	970
500mm²	965	946	918	1118
630mm²	1096	1079	1048	1282
800mm²	1237	1225	1188	1479
1000mm²	1368	1363	1323	1658

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	482	470	457	576
0.3in²	533	519	506	637
0.35in²	575	561	546	688
0.4in²	626	611	594	760
0.45in²	663	648	630	813
0.5in²	699	683	663	861
0.55in²	740	724	703	916
0.6in²	770	753	731	954
0.65in²	807	790	766	1020
0.75in²	863	847	822	1098
0.85in²	921	907	879	1181
1.0in²	1017	1003	973	1306

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 0.9°C m/W

Ground Ambient Temperature 10°C

Air Ambient Temperature 10°C

Maximum Conductor Temperature 85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	563	536	522	576
0.3in²	623	594	577	637
0.35in²	673	644	625	688
0.4in²	737	704	682	760
0.45in²	783	747	724	813
0.5in²	826	789	765	861
0.55in²	876	838	811	916
0.6in²	912	873	847	954
0.65in²	962	919	889	1020
0.75in²	1031	987	955	1098
0.85in²	1104	1060	1025	1181
1.0in²	1220	1177	1141	1306

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	456	454	443	576
0.3in²	504	501	489	637
0.35in²	545	542	529	688
0.4in²	592	589	575	760
0.45in²	627	624	608	813
0.5in²	660	657	641	861
0.55in²	698	697	679	916
0.6in²	727	724	706	954
0.65in²	760	759	739	1020
0.75in²	812	813	791	1098
0.85in²	867	870	846	1181
1.0in²	957	962	936	1306

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	540	524	510	576
0.3in²	596	579	564	637
0.35in²	645	628	611	688
0.4in²	705	686	667	760
0.45in²	748	728	707	813
0.5in²	789	768	746	861
0.55in²	837	815	792	916
0.6in²	871	850	826	954
0.65in²	916	893	866	1020
0.75in²	982	959	930	1098
0.85in²	1050	1028	998	1181
1.0in²	1163	1142	1110	1306

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05^{o}C m/W

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	419	423	414	576
0.3in²	462	468	458	637
0.35in²	500	506	495	688
0.4in²	543	549	537	760
0.45in²	574	581	568	813
0.5in²	603	612	598	861
0.55in²	639	649	634	916
0.6in²	665	674	658	954
0.65in²	693	705	688	1020
0.75in²	740	755	737	1098
0.85in²	790	807	787	1181
1.0in²	874	893	871	1306

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	500	494	482	576
0.3in²	553	546	533	637
0.35in²	598	592	577	688
0.4in²	653	646	629	760
0.45in²	692	685	667	813
0.5in²	729	722	703	861
0.55in²	773	766	746	916
0.6in²	805	799	777	954
0.65in²	845	838	814	1020
0.75in²	904	899	874	1098
0.85in²	967	964	937	1181
1.0in²	1072	1070	1042	1306

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.2^{o}C m/W

Ground Ambient Temperature 15^{o}C

Air Ambient Temperature 15^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	442	442	432	576
0.3in²	488	489	477	637
0.35in²	528	528	516	688
0.4in²	574	574	561	760
0.45in²	607	608	593	813
0.5in²	639	640	625	861
0.55in²	676	679	662	916
0.6in²	704	706	688	954
0.65in²	735	739	720	1020
0.75in²	785	792	771	1098
0.85in²	838	846	824	1181
1.0in²	926	936	912	1306

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	85°C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE OIL FILLED CAS SHEATHED DUCTED CABLES IN FLAT SPACED FORMATION

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.25in²	525	512	499	576
0.3in²	580	567	552	637
0.35in²	628	615	598	688
0.4in²	686	671	652	760
0.45in²	727	712	692	813
0.5in²	767	751	730	861
0.55in²	813	797	774	916
0.6in²	847	831	808	954
0.65in²	890	872	847	1020
0.75in²	953	936	909	1098
0.85in²	1019	1004	975	1181
1.0in²	1129	1115	1084	1306

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.1^{o}C m/W

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings based on Crater for oil filled cables.

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID IN TREFOIL.

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	383	351	339	422
0.25in² Cu	430	389	375	481
0.3in² Cu.	477	425	409	539
0.35in² Cu	513	452	434	588
0.4in² Cu	550	479	459	636
0.45in² Cu	577	498	476	673
0.5in² Cu	604	517	494	711
0.6in² Cu	652	548	523	781
Aluminium conductors				
0.2in²Al.	303	284	275	333
0.25in² Al.	342	317	307	381
0.3in² Al.	381	349	338	429
0.35in² Al.	416	378	364	474
0.4in² Al.	444	400	385	510
0.45in² Al	471	421	405	546
0.5in² Al.	491	436	419	573
0.6in² Al	536	469	450	637

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9^{o}C m/W
Ground Ambient Temperature	10^{o}C
Air Ambient Temperature	10^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings taken from Crater for Gas cables.

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID IN TREFOIL.

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	434	404	393	422
0.25in² Cu	491	451	437	481
0.3in² Cu.	546	495	479	539
0.35in² Cu	591	530	512	588
0.4in² Cu	636	564	543	636
0.45in² Cu	668	588	565	673
0.5in² Cu	702	613	588	711
0.6in² Cu	763	655	627	781
Aluminium conductors				
0.2in²Al.	343	315	317	333
0.25in² Al.	389	365	355	381
0.3in² Al.	436	405	393	429
0.35in² Al.	478	439	425	474
0.4in² Al.	511	466	451	510
0.45in² Al	544	493	476	546
0.5in² Al.	568	512	494	573
0.6in² Al	624	555	533	637

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 0.9^{o}C m/W

Ground Ambient Temperature 10^{o}C

Air Ambient Temperature 10^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings taken from Crater for Gas cables.

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID IN TREFOIL.

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	358	332	323	422
0.25in² Cu	401	368	356	481
0.3in² Cu.	444	401	387	539
0.35in² Cu	477	426	411	588
0.4in² Cu	511	451	434	636
0.45in² Cu	535	468	450	673
0.5in² Cu	560	486	466	711
0.6in² Cu	603	515	492	781
Aluminium conductors				
0.2in²Al.	283	269	262	333
0.25in² Al.	319	300	292	381
0.3in² Al.	355	330	320	429
0.35in² Al.	387	357	345	474
0.4in² Al.	412	377	364	510
0.45in² Al	437	397	383	546
0.5in² Al.	455	411	396	573
0.6in² Al	496	441	424	637

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05^{o}C m/W
Ground Ambient Temperature	12^{o}C
Air Ambient Temperature	12^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings taken from Crater for Gas cables.

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID IN TREFOIL.

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	410	387	377	422
0.25in² Cu	463	431	419	481
0.3in² Cu.	514	473	459	539
0.35in² Cu	555	505	489	588
0.4in² Cu	597	537	518	636
0.45in² Cu	626	560	539	673
0.5in² Cu	658	582	560	711
0.6in² Cu	712	621	596	781
Aluminium conductors				
0.2in²Al.	325	312	304	333
0.25in² Al.	367	350	341	381
0.3in² Al.	410	387	376	429
0.35in² Al.	449	420	407	474
0.4in² Al.	480	445	431	510
0.45in² Al	510	470	455	546
0.5in² Al.	533	488	471	573
0.6in² Al	584	527	508	637

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05^{O}C m/W

Ground Ambient Temperature 12^{O}C

Air Ambient Temperature 12^{O}C

Maximum Conductor Temperature 85^{O}C

Ratings taken from Crater for Gas cables.

TABLE Q3 – sum

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID IN TREFOIL.

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	333	313	305	422
0.25in² Cu	373	346	336	481
0.3in² Cu.	412	377	365	539
0.35in² Cu	442	400	387	588
0.4in² Cu	473	423	408	636
0.45in² Cu	495	439	422	673
0.5in² Cu	517	455	437	711
0.6in² Cu	556	481	461	781
Aluminium conductors				
0.2in²Al.	264	254	247	333
0.25in² Al.	297	283	275	381
0.3in² Al.	330	311	302	429
0.35in² Al.	359	335	325	474
0.4in² Al.	382	354	342	510
0.45in² Al	405	372	359	546
0.5in² Al.	421	384	371	573
0.6in² Al	458	412	397	637

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2^{o}C m/W
Ground Ambient Temperature	15^{o}C
Air Ambient Temperature	15^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings taken from Crater for Gas cables.

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID IN TREFOIL.

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	386	369	360	422
0.25in² Cu	434	410	399	481
0.3in² Cu.	482	449	436	539
0.35in² Cu	520	479	464	588
0.4in² Cu	557	508	491	636
0.45in² Cu	585	529	510	673
0.5in² Cu	613	550	530	711
0.6in² Cu	662	585	563	781
Aluminium conductors				
0.2in²Al.	305	297	290	333
0.25in² Al.	345	333	325	381
0.3in² Al.	385	368	358	429
0.35in² Al.	420	398	387	474
0.4in² Al.	449	422	409	510
0.45in² Al	477	445	431	546
0.5in² Al.	497	461	447	573
0.6in² Al	544	498	480	637

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.2^{o}C m/W

Ground Ambient Temperature 15^{o}C

Air Ambient Temperature 15^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings taken from Crater for Gas cables.

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID IN TREFOIL.

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	352	328	319	422
0.25in² Cu	395	363	352	481
0.3in² Cu.	436	396	382	539
0.35in² Cu	469	420	406	588
0.4in² Cu	501	445	428	636
0.45in² Cu	525	462	444	673
0.5in² Cu	549	479	459	711
0.6in² Cu	591	507	485	781
Aluminium conductors				
0.2in²Al.	279	266	259	333
0.25in² Al.	314	296	288	381
0.3in² Al.	349	326	316	429
0.35in² Al.	380	352	341	474
0.4in² Al.	405	372	359	510
0.45in² Al	429	391	377	546
0.5in² Al.	447	405	390	573
0.6in² Al	486	434	418	637

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1^{o}C m/W
Ground Ambient Temperature	12^{o}C
Air Ambient Temperature	12^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings taken from Crater for Gas cables.

TABLE Q4 – aut

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID IN TREFOIL.

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	405	384	374	422
0.25in² Cu	456	427	415	481
0.3in² Cu.	507	468	454	539
0.35in² Cu	547	500	484	588
0.4in² Cu	587	531	513	636
0.45in² Cu	617	553	533	673
0.5in² Cu	647	575	554	711
0.6in² Cu	700	613	589	781
Aluminium conductors				
0.2in²Al.	320	309	302	333
0.25in² Al.	362	347	338	381
0.3in² Al.	404	383	373	429
0.35in² Al.	442	415	403	474
0.4in² Al.	473	440	427	510
0.45in² Al	503	465	450	546
0.5in² Al.	524	482	466	573
0.6in² Al	574	521	502	637

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.1^{O}C m/W

Ground Ambient Temperature 12^{O}C

Air Ambient Temperature 12^{O}C

Maximum Conductor Temperature 85^{O}C

Ratings taken from Crater for Gas cables.

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID FLAT SPACED.

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	411	400	390	473
0.25in² Cu	467	455	443	545
0.3in² Cu.	523	509	496	618
0.35in² Cu	568	554	539	680
0.4in² Cu	615	600	583	743
0.45in² Cu	650	634	616	792
0.5in² Cu	687	671	652	844
0.6in² Cu	761	745	723	949
Aluminium conductors				
0.2in²Al.	322	313	305	371
0.25in² Al.	366	356	347	427
0.3in² Al.	411	399	389	486
0.35in² Al.	452	439	427	540
0.4in² Al.	485	471	458	585
0.45in² Al	518	504	490	631
0.5in² Al.	543	528	513	666
0.6in² Al	603	588	570	752

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9^{o}C m/W
Ground Ambient Temperature	10^{o}C
Air Ambient Temperature	10^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings taken from Crater for Gas cables.

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID FLAT SPACED.

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	473	456	445	473
0.25in² Cu	541	520	507	545
0.3in² Cu.	608	585	569	618
0.35in² Cu	664	638	620	680
0.4in² Cu	722	693	673	743
0.45in² Cu	765	734	713	792
0.5in² Cu	811	779	756	844
0.6in² Cu	903	868	842	949
Aluminium conductors				
0.2in²Al.	371	357	348	371
0.25in² Al.	424	407	396	427
0.3in² Al.	478	458	446	486
0.35in² Al.	528	505	491	540
0.4in² Al.	568	544	528	585
0.45in² Al	609	583	566	631
0.5in² Al.	640	612	593	666
0.6in² Al	715	684	663	752

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9^{o}C m/W
Ground Ambient Temperature	10^{o}C
Air Ambient Temperature	10^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings taken from Crater for Gas cables.

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID FLAT SPACED.

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	391	387	379	473
0.25in² Cu	444	439	429	545
0.3in² Cu.	496	491	480	618
0.35in² Cu	538	534	521	680
0.4in² Cu	582	578	564	743
0.45in² Cu	615	611	595	792
0.5in² Cu	649	646	629	844
0.6in² Cu	718	716	697	949
Aluminium conductors				
0.2in²Al.	307	303	296	371
0.25in² Al.	348	344	336	427
0.3in² Al.	390	386	376	486
0.35in² Al.	428	424	413	540
0.4in² Al.	459	454	443	585
0.45in² Al	490	485	473	631
0.5in² Al.	513	508	495	666
0.6in² Al	569	565	550	752

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05^{o}C m/W

Ground Ambient Temperature 12^{o}C

Air Ambient Temperature 12^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings taken from Crater for Gas cables.

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID FLAT SPACED.

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	456	446	436	473
0.25in² Cu	520	508	496	545
0.3in² Cu.	584	571	556	618
0.35in² Cu	637	622	606	680
0.4in² Cu	692	675	657	743
0.45in² Cu	732	715	696	792
0.5in² Cu	776	757	737	844
0.6in² Cu	862	843	820	949
Aluminium conductors				
0.2in²Al.	358	349	341	371
0.25in² Al.	408	398	388	427
0.3in² Al.	459	447	436	486
0.35in² Al.	506	493	480	540
0.4in² Al.	545	530	516	585
0.45in² Al	583	567	552	631
0.5in² Al.	612	595	579	666
0.6in² Al	683	664	646	752

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05^{O}C m/W

Ground Ambient Temperature 12^{O}C

Air Ambient Temperature 12^{O}C

Maximum Conductor Temperature 85^{O}C

Ratings taken from Crater for Gas cables.

TABLE R3 – sum

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID FLAT SPACED.

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	361	362	355	473
0.25in² Cu	408	410	402	545
0.3in² Cu.	456	459	449	618
0.35in² Cu	494	498	487	680
0.4in² Cu	534	538	526	743
0.45in² Cu	563	568	555	792
0.5in² Cu	594	600	586	844
0.6in² Cu	656	664	649	949
Aluminium conductors				
0.2in²Al.	283	284	278	371
0.25in² Al.	320	321	315	427
0.3in² Al.	358	360	352	486
0.35in² Al.	393	395	386	540
0.4in² Al.	421	423	413	585
0.45in² Al	449	452	441	631
0.5in² Al.	469	472	462	666
0.6in² Al	520	524	512	752

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2^{o}C m/W
Ground Ambient Temperature	15^{o}C
Air Ambient Temperature	15^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings taken from Crater for Gas cables.

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID FLAT SPACED.

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	425	421	412	473
0.25in² Cu	484	479	469	545
0.3in² Cu.	543	538	525	618
0.35in² Cu	591	585	571	680
0.4in² Cu	641	635	619	743
0.45in² Cu	678	672	655	792
0.5in² Cu	717	711	693	844
0.6in² Cu	796	791	770	949
Aluminium conductors				
0.2in²Al.	333	330	322	371
0.25in² Al.	379	375	367	427
0.3in² Al.	426	421	411	486
0.35in² Al.	470	464	453	540
0.4in² Al.	505	498	486	585
0.45in² Al	540	533	520	631
0.5in² Al.	566	559	545	666
0.6in² Al	631	623	607	752

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.2^{o}C m/W

Ground Ambient Temperature 15^{o}C

Air Ambient Temperature 15^{o}C

Maximum Conductor Temperature 85^{o}C

Ratings taken from Crater for Gas cables.

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID FLAT SPACED.

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	380	378	370	473
0.25in² Cu	431	429	419	545
0.3in² Cu.	481	479	468	618
0.35in² Cu	522	520	508	680
0.4in² Cu	564	563	550	743
0.45in² Cu	595	595	580	792
0.5in² Cu	629	629	613	844
0.6in² Cu	695	696	679	949
Aluminium conductors				
0.2in²Al.	298	296	289	371
0.25in² Al.	338	336	328	427
0.3in² Al.	378	376	367	486
0.35in² Al.	415	413	403	540
0.4in² Al.	445	443	432	585
0.45in² Al	475	473	461	631
0.5in² Al.	497	495	482	666
0.6in² Al	551	550	536	752

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1^{o}C m/W
Ground Ambient Temperature	12^{o}C
Air Ambient Temperature	12^{o}C
Maximum Conductor Temperature	85^{o}C

Ratings taken from Crater for Gas cables.

132kV SINGLE CORE IMPREGNATED PRESSURE GAS CABLES LAID FLAT SPACED.

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Imperial sizes		PVC	Rigiduct	
Copper conductors				
0.2in² Cu.	445	437	427	473
0.25in² Cu	507	497	486	545
0.3in² Cu.	569	558	545	618
0.35in² Cu	620	608	593	680
0.4in² Cu	673	660	643	743
0.45in² Cu	712	699	680	792
0.5in² Cu	754	740	720	844
0.6in² Cu	838	824	801	949
Aluminium conductors				
0.2in²Al.	348	342	334	371
0.25in² Al.	397	389	380	427
0.3in² Al.	447	438	427	486
0.35in² Al.	493	482	470	540
0.4in² Al.	530	518	504	585
0.45in² Al	567	554	540	631
0.5in² Al.	595	582	566	666
0.6in² Al	664	649	631	752

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.1^{O}C m/W

Ground Ambient Temperature 12^{O}C

Air Ambient Temperature 12^{O}C

Maximum Conductor Temperature 85^{O}C

Ratings taken from Crater for Gas cables.

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	458	414	401	506
240mm² Copper	526	468	452	592
300mm² Copper	587	514	495	670
400mm² Copper	658	565	542	795
500mm² Copper	734	617	589	875
630mm² Copper	811	668	636	992
800mm² Copper	884	718	680	1110
1000mm² Copper	949	764	721	1216
1000Smm² Copper	964	788	743	1262
1200Smm² Copper	1012	827	777	1346
1600Smm² Copper	1059	878	821	1440
2000Smm² Copper	1115	934	870	1565
Aluminium conductors				
300mm² Al	469	424	410	530

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 0.9°C m/W

Ground Ambient Temperature 10°C

Air Ambient Temperature 10°C

Maximum Conductor Temperature 90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	519	478	467	506
240mm² Copper	601	547	531	592
300mm² Copper	673	606	587	670
400mm² Copper	760	673	650	795
500mm² Copper	854	742	715	875
630mm² Copper	951	812	781	992
800mm² Copper	1045	883	846	1110
1000mm² Copper	1130	950	908	1216
1000Smm² Copper	1156	986	941	1262
1200Smm² Copper	1220	1043	993	1346
1600Smm² Copper	1289	1120	1062	1440
2000Smm² Copper	1371	1202	1135	1565
Aluminium conductors				
300mm² Al	536	494	481	530

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9°C m/W
Ground Ambient Temperature	10°C
Air Ambient Temperature	10°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	430	393	382	506
240mm² Copper	494	444	429	592
300mm² Copper	550	487	470	670
400mm² Copper	615	534	514	795
500mm² Copper	684	581	557	875
630mm² Copper	754	628	599	992
800mm² Copper	820	673	640	1110
1000mm² Copper	886	720	682	1216
1000Smm² Copper	899	743	702	1262
1200Smm² Copper	943	777	733	1346
1600Smm² Copper	986	824	774	1440
2000Smm² Copper	1037	875	818	1565
Aluminium conductors				
300mm² Al	440	402	390	530

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay 1m

Soil Thermal Resistivity (g) 1.05°C m/W

Ground Ambient Temperature 12°C

Air Ambient Temperature 12°C

Maximum Conductor Temperature 90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	493	459	449	506
240mm² Copper	569	524	510	592
300mm² Copper	637	579	562	670
400mm² Copper	717	641	621	795
500mm² Copper	803	705	682	875
630mm² Copper	892	770	743	992
800mm² Copper	978	835	802	1110
1000mm² Copper	1066	903	865	1216
1000Smm² Copper	1089	936	896	1262
1200Smm² Copper	1148	987	942	1346
1600Smm² Copper	1210	1057	1006	1440
2000Smm² Copper	1284	1131	1073	1565
Aluminium conductors				
300mm² Al	508	473	461	530

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	406	374	364	506
240mm² Copper	465	421	409	592
300mm² Copper	517	461	446	670
400mm² Copper	577	505	487	795
500mm² Copper	640	549	528	875
630mm² Copper	705	592	567	992
800mm² Copper	765	633	604	1110
1000mm² Copper	818	671	638	1216
1000Smm² Copper	829	691	656	1262
1200Smm² Copper	869	723	684	1346
1600Smm² Copper	908	765	722	1440
2000Smm² Copper	953	811	762	1565
Aluminium conductors				
300mm² Al	414	382	371	530

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

TABLE S3 - Sum

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	470	441	432	506
240mm² Copper	541	502	489	592
300mm² Copper	605	554	539	670
400mm² Copper	680	612	594	795
500mm² Copper	760	672	651	875
630mm² Copper	842	732	707	992
800mm² Copper	921	791	762	1110
1000mm² Copper	992	847	814	1216
1000Smm² Copper	1012	877	842	1262
1200Smm² Copper	1065	924	884	1346
1600Smm² Copper	1123	987	943	1440
2000Smm² Copper	1189	1054	1003	1565
Aluminium conductors				
300mm² Al	483	454	443	530

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	427	391	380	506
240mm² Copper	489	441	427	592
300mm² Copper	545	483	467	670
400mm² Copper	609	530	510	795
500mm² Copper	677	577	553	875
630mm² Copper	746	623	595	992
800mm² Copper	811	667	635	1110
1000mm² Copper	868	708	671	1216
1000Smm² Copper	881	730	691	1262
1200Smm² Copper	924	763	721	1346
1600Smm² Copper	965	809	761	1440
2000Smm² Copper	1014	859	805	1565
Aluminium conductors				
300mm² Al	436	400	388	530

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	491	458	448	506
240mm² Copper	566	522	508	592
300mm² Copper	634	577	561	670
400mm² Copper	713	638	619	795
500mm² Copper	799	702	679	875
630mm² Copper	887	766	739	992
800mm² Copper	972	830	798	1110
1000mm² Copper	1048	890	853	1216
1000Smm² Copper	1070	922	883	1262
1200Smm² Copper	1127	972	929	1346
1600Smm² Copper	1188	1040	991	1440
2000Smm² Copper	1260	1112	1056	1565
Aluminium conductors				
300mm² Al	506	472	460	530

Note: - S = segmental conductor stranding.

Parameters

Cables laid in trefoil formation & solidly bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN FLAT SPACED. (Wet design)

Winter ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	498	483	471	568
240mm² Copper	582	563	549	672
300mm² Copper	660	638	621	770
400mm² Copper	756	731	711	897
500mm² Copper	870	839	816	1054
630mm² Copper	997	961	933	1233
800mm² Copper	1130	1089	1056	1428
1000mm² Copper	1256	1210	1173	1612
1000Smm² Copper	1336	1280	1239	1714
1200Smm² Copper	1447	1388	1343	1874
1600Smm² Copper	1555	1483	1434	2035
2000Smm² Copper	1713	1623	1567	2295
Aluminium conductors				
300mm² Al	512	495	482	598

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9^{o}C m/W
Ground Ambient Temperature	10^{o}C
Air Ambient Temperature	10^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables.

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Wet design)

Winter ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	572	548	536	568
240mm² Copper	672	643	628	672
300mm² Copper	766	732	715	770
400mm² Copper	884	843	823	897
500mm² Copper	1024	975	950	1054
630mm² Copper	1181	1123	1093	1233
800mm² Copper	1348	1283	1246	1428
1000mm² Copper	1507	1436	1392	1612
1000Smm² Copper	1604	1520	1473	1714
1200Smm² Copper	1744	1656	1603	1874
1600Smm² Copper	1888	1787	1731	2035
2000Smm² Copper	2097	1973	1910	2295
Aluminium conductors				
300mm² Al	594	567	553	598

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	0.9^{o}C m/W
Ground Ambient Temperature	10^{o}C
Air Ambient Temperature	10^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Wet design)

Spring ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	470	462	452	568
240mm² Copper	548	538	526	672
300mm² Copper	621	609	595	770
400mm² Copper	710	697	680	897
500mm² Copper	815	799	779	1054
630mm² Copper	932	913	889	1233
800mm² Copper	1054	1033	1005	1428
1000mm² Copper	1170	1146	1114	1612
1000Smm² Copper	1245	1211	1177	1714
1200Smm² Copper	1348	1312	1275	1874
1600Smm² Copper	1448	1400	1359	2035
2000Smm² Copper	1592	1529	1482	2295
Aluminium conductors				
300mm² Al	482	473	462	598

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Wet design)

Spring ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	546	530	519	568
240mm² Copper	641	621	607	672
300mm² Copper	730	706	691	770
400mm² Copper	840	812	794	897
500mm² Copper	971	937	915	1054
630mm² Copper	1117	1078	1052	1233
800mm² Copper	1272	1229	1197	1428
1000mm² Copper	1420	1373	1335	1612
1000Smm² Copper	1512	1454	1412	1714
1200Smm² Copper	1643	1582	1535	1874
1600Smm² Copper	1777	1703	1655	2035
2000Smm² Copper	1971	1877	1823	2295
Aluminium conductors				
300mm² Al	566	547	535	598

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.05°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Wet design)

Summer ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	442	440	431	568
240mm² Copper	514	511	501	672
300mm² Copper	582	578	566	770
400mm² Copper	664	661	647	897
500mm² Copper	761	756	739	1054
630mm² Copper	869	863	843	1233
800mm² Copper	981	974	951	1428
1000mm² Copper	1087	1079	1052	1612
1000Smm² Copper	1157	1140	1112	1714
1200Smm² Copper	1252	1234	1203	1874
1600Smm² Copper	1345	1315	1281	2035
2000Smm² Copper	1477	1433	1395	2295
Aluminium conductors				
300mm² Al	452	449	440	598

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2^{o}C m/W
Ground Ambient Temperature	15^{o}C
Air Ambient Temperature	15^{o}C
Maximum Conductor Temperature	90^{o}C

Ratings based on Crater for HV polymeric cables

132kV SINGLE CORE EPR INSULATED COPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Wet design)

Summer ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	518	509	499	568
240mm² Copper	608	595	584	672
300mm² Copper	691	676	663	770
400mm² Copper	794	778	761	897
500mm² Copper	916	896	876	1054
630mm² Copper	1052	1029	1005	1233
800mm² Copper	1196	1170	1142	1428
1000mm² Copper	1333	1305	1271	1612
1000Smm² Copper	1419	1381	1345	1714
1200Smm² Copper	1541	1501	1461	1874
1600Smm² Copper	1666	1614	1573	2035
2000Smm² Copper	1844	1774	1728	2295
Aluminium conductors				
300mm² Al	536	524	513	598

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.2°C m/W
Ground Ambient Temperature	15°C
Air Ambient Temperature	15°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID IN FLAT SPACED. (Wet design)

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	463	457	448	568
240mm² Copper	540	532	521	672
300mm² Copper	611	602	589	770
400mm² Copper	699	689	673	897
500mm² Copper	802	789	771	1054
630mm² Copper	916	902	879	1233
800mm² Copper	1036	1019	993	1428
1000mm² Copper	1149	1130	1100	1612
1000Smm² Copper	1223	1195	1163	1714
1200Smm² Copper	1324	1294	1259	1874
1600Smm² Copper	1422	1380	1341	2035
2000Smm² Copper	1563	1506	1462	2295
Aluminium conductors				
300mm² Al	475	468	457	598

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables

132kV SINGLE CORE EPR INSULATED COPPER WIRE WITH M.D.P.E. OUTER SHEATH CABLES, LAID FLAT SPACED. (Wet design)

Autumn ***CYCLIC*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	CYCLIC CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
185mm² Copper	540	526	516	568
240mm² Copper	634	616	603	672
300mm² Copper	721	700	686	770
400mm² Copper	830	806	788	897
500mm² Copper	958	929	908	1054
630mm² Copper	1102	1069	1043	1233
800mm² Copper	1255	1217	1186	1428
1000mm² Copper	1400	1359	1322	1612
1000Smm² Copper	1490	1439	1399	1714
1200Smm² Copper	1619	1565	1521	1874
1600Smm² Copper	1751	1684	1638	2035
2000Smm² Copper	1941	1854	1803	2295
Aluminium conductors				
300mm² Al	559	543	531	598

Note: - S = segmental conductor stranding.

Parameters

Cables laid in flat spaced (2D) formation & cross bonded.

Maximum depth of lay	1m
Soil Thermal Resistivity (g)	1.1°C m/W
Ground Ambient Temperature	12°C
Air Ambient Temperature	12°C
Maximum Conductor Temperature	90°C

Ratings based on Crater for HV polymeric cables

APPENDIX A

SUPERSEDED DOCUMENTATION

This document supersedes ST:SD8B/2 dated September 2003 which should now be withdrawn.

APPENDIX B

ASSOCIATED DOCUMENTATION

ST: CA6A/2 - Relating to the Installation of Underground Cables

APPENDIX C

IMPACT ON COMPANY POLICY

This Standard Technique has been updated to add all four seasons to the cable rating document instead of just having one season as given in the previous document. In addition the document has been broken up into manageable parts, with each part being for a particular voltage level.

APPENDIX D

IMPLEMENTATION OF POLICY

This Standard Technique shall be communicated to all relevant WPD Planning and Control staff at the next Team Briefing by the relevant Team Manager.

APPENDIX E

KEY WORDS

132kV, XLPE, EPR, Fluid filled, Group Derating, Sustained Rating, Cyclic Rating, Laid Direct Rating, Duct Rating, Air Rating.