WESTERN POWER DISTRIBUTION

Serving the South West and Wales
Gwasanaethu'r De Orllewin a Chymru

Company Directive

STANDARD TECHNIQUE: SD8B/3 (Part 3)

Relating to 33kV Underground Cable Ratings

Policy Summary

This document contains 33kV cable ratings of the various types of 33kV 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 33kV 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

1.0 INTRODUCTION

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

This Part 3 document of ST: SD 8B sets out the all the WPD, 33kV underground cable Sustained ratings, Cyclic ratings and Distribution ratings for winter, spring, summer and autumn which are to be applied. These ratings are based on Electrical Network Association Engineering Recommendation P17, Crater for MV Cables, ERA Report F/T 183 and manufacturers' data.

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 33kV cables (applies to Paper, 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 MIND paper cable is 65^{o}C. The maximum conductor temperature for Oil filled and impregnated pressure gas 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 33kV 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; **Distribution** - 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 0.8m;

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

Ground ambient temperature of 10^{O}C;

Maximum conductor temperature of 65^{O}C for 33kV for 3 core MIND paper cables and 70^{O}C for 33kV single core PILC cables. The maximum conductor temperature for Oil filled and impregnated pressure gas cable is 85^{o}C. 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 33kV EPR triplex circuits, for the purpose of this document, have been assumed to be three single-core polymeric cables laid touching, throughout their length, in trefoil formation. That the copper wire screens or the lead sheaths of the cables have been solidly bonded together and earthed at both ends of the circuit.

It should be noted that when triplex or single core cable, which has been laid in trefoil, a maximum of 12% of the TOTAL ROUTE LENGTH, can be laid in flat space configuration without affecting the trefoil rating. If more than 12% of the Total Route Length is laid in flat space configuration then high circulating currents will flow in the copper wire screens or the lead sheath of the single core cables. This must be avoided. If the 12% cannot be achieved 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 Distribution rating

Distribution ratings are ratings calculated for stated conditions commonly occurring on distribution systems. The tabulated ratings given are 3 to 5 day limited time cyclic ratings.

The basis of the Distribution ratings is given below: -

Quantity and value assumed in calculating Distribution Ratings	**Conditions for which valid.**
Assumed maximum conductor temperature	90°C
Depth of Laying 0.8m	Nominal laying depth, direct or in ducts.
Soil Ambient Temp. 10°C	Winter peak loads in UK.
Soil Thermal resistivity for cables laid direct or in ducts g = 0.9°C.m/W	(a) Summer load not greater than 75% of winter load. (b) Either special measures taken for difficult soils OR increased risk accepted.
Soil Thermal Diffusivity needed for transient conditions 0.5×10^{-6} m²/s	G = 0.9°C.m/W
Ambient conditions Cables in Air 10°C Solar gain neglected	(a)Maximum load in winter. (b) Heating from adjacent equipment not excessive. (c) Shielded from the sun.
Other Heat Sources None	No allowance made for grouping.
Cyclic Loading For cables laid direct or in ducts 24 hr load cycle.	Daily cyclic load typical domestic/commercial type.
Limited-time Rating Normal conditions restored after 3 – 5 days.	Two-feeder open-ring operation.

4.4 Utilisation factor

The percentage of a cable's distribution rating which is not exceeded during its normal operational condition. Distribution ratings are based on an initial cable utilisation of 50%; if a circuit has a higher utilisation factor such as 75% then the Distribution rating must be reduced by 2.5%.

4.5 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.

4.6 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.

4.7 Soil thermal resistivity

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

4.8 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.

4.9 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.

4.10 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.

4.11 Effects of grouping of cables

No allowance has been made for grouping in the ratings listed in the tables. Use the correction factors given in Table 1 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.

4.12 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 or Distribution rating just their sustained or steady state rating.

5.0 FURTHER GUIDANCE

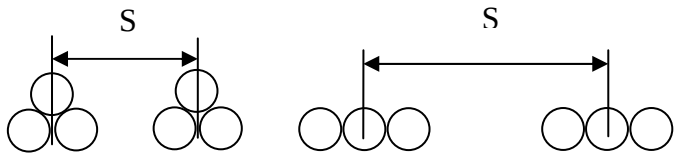
If required, further guidance should be sought from the Company Cable Engineer, Policy Section, Avonbank, Feeder Road, Bristol where necessary.

5.1 INDEX

TABLE	DESCRIPTION
H1 win	33kV single core PILC (copper) metric& imperial - **WINTER** – Sustained, Cyclic & Distribution Current Ratings.
H2 spr	33kV single core PILC (copper) metric & imperial - **SPRING -** Sustained, Cyclic & Distribution Current Ratings.
H3 sum	33kV single core PILC (copper) metric & imperial - **SUMMER -** Sustained, Cyclic & Distribution Current Ratings.
H4 aut	33kV single core PILC (copper) metric & imperial - **AUTUMN -** Sustained, Cyclic & Distribution Current Ratings.
J1 win	33kV single core PILC (Aluminium) metric & imperial - **WINTER -** Sustained, Cyclic & Distribution Current Ratings.
J2 spr	33kV single core PILC (Aluminium) metric & imperial - **SPRING -** Sustained, Cyclic & Distribution Current Ratings.
J3 sum	33kV single core PILC (Aluminium) metric & imperial - **SUMMER -** Sustained, Cyclic & Distribution Current Ratings.
J4 aut	33kV single core PILC (Aluminium) metric & imperial - **AUTUMN -** Sustained, Cyclic & Distribution Current Ratings.
K1 win	33kV three core ducted Oil Filled Lead sheath (metric) cable - **WINTER** – Sustained & Cyclic Current Ratings.
K2 spr	33kV three core ducted Oil Filled Lead sheath (metric) cable - **SPRING -** Sustained & Cyclic Current Ratings.
K3 sum	33kV three core ducted Oil Filled Lead sheath (metric) cable - **SUMMER -** Sustained & Cyclic Current Ratings.
K4 aut	33kV three core ducted Oil Filled Lead sheath (metric) cable - **AUTUMN -** Sustained & Cyclic Current Ratings.
L1 win	33kV three core ducted Oil Filled Lead sheath (imperial) cable - **WINTER** – Sustained & Cyclic Current Ratings.
L2 spr	33kV three core ducted Oil Filled Lead sheath (imperial) cable - **SPRING -** Sustained & Cyclic Current Ratings.
L3 sum	33kV three core ducted Oil Filled Lead sheath (imperial) cable - **SUMMER -** Sustained & Cyclic Current Ratings.
L4 aut	33kV three core ducted Oil Filled Lead sheath (imperial) cable - **AUTUMN -** Sustained & Cyclic Current Ratings.
M1 win	33kV three core ductless Oil Filled CAS sheath cable - **WINTER** – Sustained, Cyclic & Distribution Current Ratings.
M2 spr	33kV three core ductless Oil Filled CAS sheath cable - **SPRING -** Sustained, Cyclic & Distribution Current Ratings.
M3 sum	33kV three core ductless Oil Filled CAS sheath cable - **SUMMER -** Sustained, Cyclic & Distribution Current Ratings.
M4 aut	33kV three core ductless Oil Filled CAS sheath cable - **AUTUMN -** Sustained, Cyclic & Distribution Current Ratings.
N1 win	33kV three core impregnated pressure gas cables - **WINTER** – Sustained & Cyclic Current Ratings.
N2 spr	33kV three core impregnated pressure gas cables - **SPRING** – Sustained & Cyclic Current Ratings.
N3 sum	33kV three core impregnated pressure gas cables - **SUMMER** – Sustained & Cyclic Current Ratings.
N3 aut	33kV three core impregnated pressure gas cables - **AUTUMN** – Sustained & 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	0.15	0.20	0.3	0.45
33kV Cables	2	0.78	0.80	0.81	0.82	0.85	0.88
	3	0.66	0.69	0.71	0.73	0.76	0.80
	4	0.60	0.63	0.65	0.67	0.72	0.76
	5	0.55	0.58	0.61	0.63	0.68	0.73

Figure 1

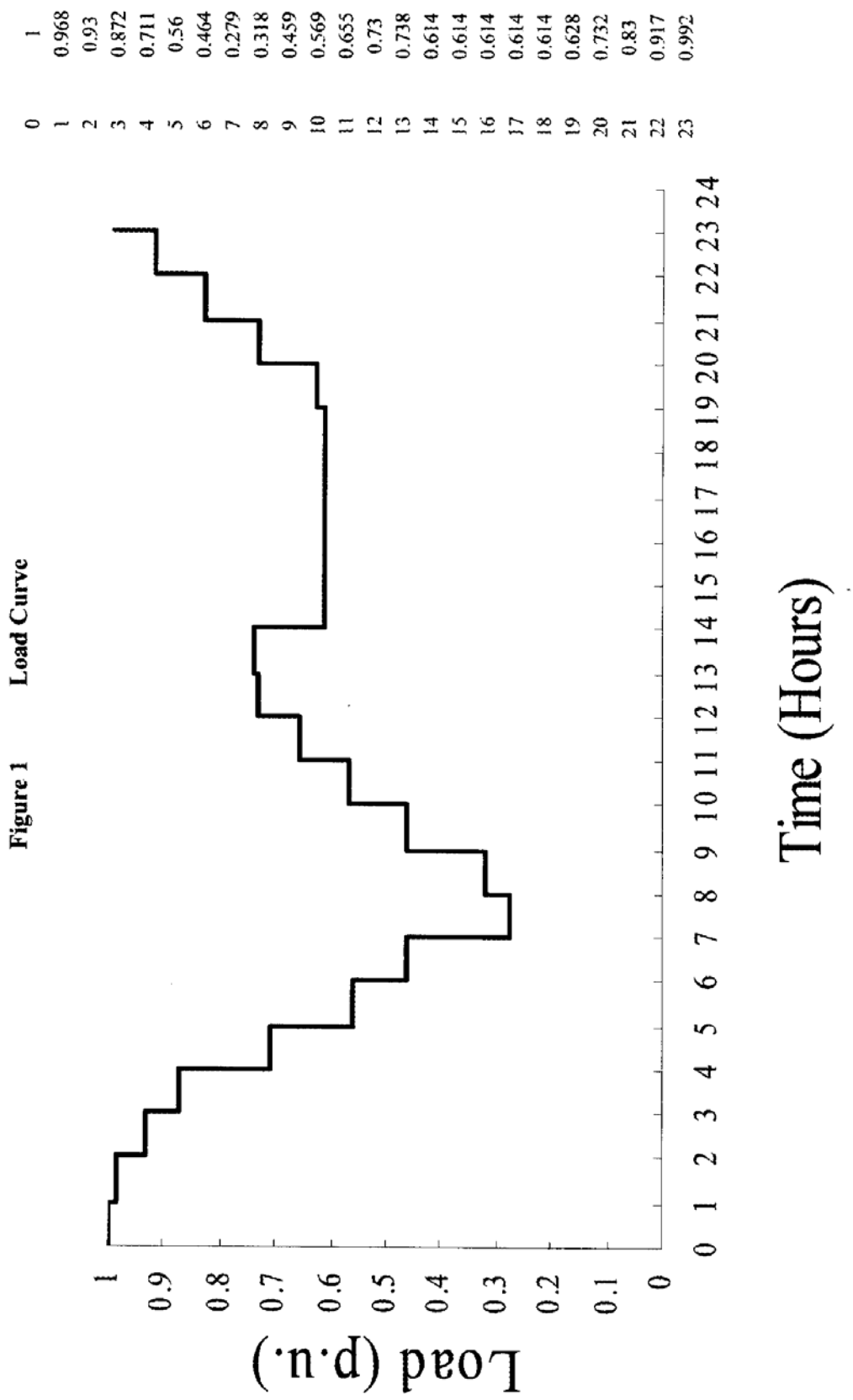


Figure 1 Load Curve
0 1
1 0.968
2 0.93
3 0.872
4 0.711
5 0.56
6 0.464
7 0.279
8 0.318
9 0.459
10 0.569
11 0.655
12 0.73
13 0.738
14 0.614
15 0.614
16 0.614
17 0.614
18 0.614
19 0.628
20 0.732
21 0.83
22 0.917
23 0.992
Load (p.u.)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Time (Hours)

TABLE A1 - Win

33kV 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				
70mm² Copper	No Ratings Available			
95mm² Copper	No Ratings Available			
120mm² Copper	425	357	334	508
150mm² Copper	477	400	374	575
185mm² Copper	538	451	421	656
240mm² Copper	621	521	486	766
300mm² Copper	700	587	546	877
400mm² Copper	795	666	618	1014
630mm² Copper	1004	841	775	1331
Aluminium conductors				
70mm² Al	No Ratings Available			
240 mm² Al	486	407	380	598
300mm² Al	549	460	428	686

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	90°C

Ratings based on Crater for MV polymeric cables.

TABLE A1 - Win

33kV 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				
70mm² Copper	No Ratings Available			
95mm² Copper	No Ratings Available			
120mm² Copper	481	392	362	508
150mm² Copper	541	440	406	575
185mm² Copper	613	498	458	656
240mm² Copper	710	577	529	766
300mm² Copper	805	653	597	877
400mm² Copper	918	744	678	1014
630mm² Copper	1173	948	855	1331
Aluminium conductors				
70mm² Al	No Ratings Available			
240mm² Al	555	451	414	598
300mm² Al	630	511	468	686

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 90°C

Ratings based on Crater for MV polymeric cables.

TABLE A1 - Win

33kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Winter *DISTRIBUTION* Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
70mm² Copper	No Ratings Available			
95mm² Copper	No Ratings Available			
120mm² Copper	528	413	378	508
150mm² Copper	594	465	424	575
185mm² Copper	675	527	480	656
240mm² Copper	783	611	555	766
300mm² Copper	890	693	627	877
400mm² Copper	1019	792	713	1014
630mm² Copper	1310	1015	904	1331
Aluminium conductors				
70mm² Al	No Ratings Available			
240mm² Al	612	478	434	598
300mm² Al	696	543	491	686

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 90^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV polymeric cables.

TABLE A2 - Spr

33kV 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	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
70mm² Copper	No Ratings Available			
95mm² Copper	No Ratings Available			
120mm² Copper	397	342	322	508
150mm² Copper	454	383	360	575
185mm² Copper	502	431	405	656
240mm² Copper	579	498	466	766
300mm² Copper	652	560	524	877
400mm² Copper	740	635	592	1014
630mm² Copper	933	799	741	1331
Aluminium conductors				
70mm² Al	No Ratings Available			
240 mm² Al	453	389	365	598
300mm² Al	511	439	411	686

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 90°C

Ratings based on Crater for MV polymeric cables.

TABLE A2 - Spr

33kV 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				
70mm² Copper	No Ratings Available			
95mm² Copper	No Ratings Available			
120mm² Copper	454	381	353	508
150mm² Copper	540	427	395	575
185mm² Copper	578	483	445	656
240mm² Copper	669	559	514	766
300mm² Copper	756	631	579	877
400mm² Copper	863	719	657	1014
630mm² Copper	1100	913	828	1331
Aluminium conductors				
70mm² Al	No Ratings Available			
240mm² Al	522	437	402	598
300mm² Al	593	495	454	686

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 90^{o}C

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Spring ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
70mm² Copper	No Ratings Available			
95mm² Copper	No Ratings Available			
120mm² Copper	502	406	373	508
150mm² Copper	598	456	418	575
185mm² Copper	640	517	472	656
240mm² Copper	743	599	546	766
300mm² Copper	843	679	616	877
400mm² Copper	964	775	700	1014
630mm² Copper	1238	990	886	1331
Aluminium conductors				
70mm² Al	No Ratings Available			
240mm² Al	580	468	427	598
300mm² Al	660	532	483	686

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 90^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV polymeric cables.

33kV 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	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
70mm² Copper	No Ratings Available			
95mm² Copper	No Ratings Available			
120mm² Copper	371	326	308	508
150mm² Copper	415	365	344	575
185mm² Copper	468	411	387	656
240mm² Copper	539	473	445	766
300mm² Copper	607	532	500	877
400mm² Copper	688	602	564	1014
630mm² Copper	866	756	705	1331
Aluminium conductors				
70mm² Al	No Ratings Available			
240 mm² Al	421	370	348	598
300mm² Al	476	417	392	686

Parameters

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 MV polymeric cables.

TABLE A3 - Sum

33kV 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				
70mm² Copper	No Ratings Available			
95mm² Copper	No Ratings Available			
120mm² Copper	427	367	341	508
150mm² Copper	480	411	381	575
185mm² Copper	543	465	430	656
240mm² Copper	628	537	496	766
300mm² Copper	710	607	559	877
400mm² Copper	809	690	633	1014
630mm² Copper	1030	874	797	1331
Aluminium conductors				
70mm² Al	No Ratings Available			
240mm² Al	491	420	388	598
300mm² Al	556	475	438	686

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 90^{o}C

Ratings based on Crater for MV polymeric cables.

TABLE A3 - Sum

33kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Summer ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
70mm² Copper	No Ratings Available			
95mm² Copper	No Ratings Available			
120mm² Copper	475	396	364	508
150mm² Copper	534	445	408	575
185mm² Copper	606	503	461	656
240mm² Copper	702	583	533	766
300mm² Copper	796	660	601	877
400mm² Copper	910	752	682	1014
630mm² Copper	1167	959	862	1331
Aluminium conductors				
70mm² Al	No Ratings Available			
240mm² Al	549	456	416	598
300mm² Al	624	517	471	686

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 90^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV polymeric cables.

33kV 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	SUSTAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
70mm² Copper	No Ratings Available			
95mm² Copper	No Ratings Available			
120mm² Copper	391	339	319	508
150mm² Copper	437	379	356	575
185mm² Copper	493	427	401	656
240mm² Copper	569	493	462	766
300mm² Copper	640	554	519	877
400mm² Copper	726	628	586	1014
630mm² Copper	915	789	733	1331
Aluminium conductors				
70mm² Al	No Ratings Available			
240 mm² Al	445	385	361	598
300mm² Al	502	434	507	686

Parameters

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 MV polymeric cables.

TABLE A4 - Aut

33kV 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				
70mm² Copper	No Ratings Available			
95mm² Copper	No Ratings Available			
120mm² Copper	448	378	351	508
150mm² Copper	503	424	393	575
185mm² Copper	569	479	443	656
240mm² Copper	659	555	511	766
300mm² Copper	745	627	576	877
400mm² Copper	850	713	653	1014
630mm² Copper	1083	905	822	1331
Aluminium conductors				
70mm² Al	No Ratings Available			
240mm² Al	515	434	400	598
300mm² Al	584	491	451	686

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	90°C

Ratings based on Crater for MV polymeric cables.

TABLE A4 - Aut

33kV SINGLE CORE X.L.P.E. INSULATED LEAD SHEATH & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Dry design)

Autumn ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
70mm² Copper	No Ratings Available			
95mm² Copper	No Ratings Available			
120mm² Copper	469	405	372	508
150mm² Copper	558	455	417	575
185mm² Copper	633	515	471	656
240mm² Copper	734	598	545	766
300mm² Copper	832	677	615	877
400mm² Copper	952	772	699	1014
630mm² Copper	1221	986	883	1331
Aluminium conductors				
70mm² Al	No Ratings Available			
240mm² Al	573	467	426	598
300mm² Al	652	530	482	686

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 90°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV polymeric cables.

TABLE B1 - Win

33kV SINGLE CORE X.L.P.E. INSULATED COPPER WIRE SCREEN & 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				
70mm² Copper	303	292	285	346
95mm² Copper	362	346	336	418
120mm² Copper	412	389	378	481
150mm² Copper	461	432	419	544
185mm² Copper	521	483	467	621
240mm² Copper	601	549	530	726
300mm² Copper	677	611	588	830
400mm² Copper	769	685	657	959
630mm² Copper	976	852	812	1263
Aluminium conductors				
70mm² Al	236	200	189	269
240 mm² Al	471	399	343	569
300mm² Al	532	451	420	651

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	90°C

Ratings based on Crater for MV polymeric cables.

TABLE B1 - Win

33kV SINGLE CORE X.L.P.E. INSULATED COPPER WIRE SCREEN & 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				
70mm² Copper	341	323	313	346
95mm² Copper	409	384	371	418
120mm² Copper	467	435	418	481
150mm² Copper	525	484	465	544
185mm² Copper	595	543	520	621
240mm² Copper	689	620	592	726
300mm² Copper	780	693	660	830
400mm² Copper	890	781	741	959
630mm² Copper	1142	981	923	1263
Aluminium conductors				
70mm² Al	265	218	203	269
240mm² Al	540	441	406	569
300mm² Al	613	499	458	651

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 90^{o}C

Ratings based on Crater for MV polymeric cables.

TABLE B3 - Win

33kV SINGLE CORE X.L.P.E. INSULATED COPPER WIRE SCREEN & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Winter ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
70mm² Copper	373	349	336	346
95mm² Copper	448	416	399	418
120mm² Copper	513	471	452	481
150mm² Copper	577	526	503	544
185mm² Copper	655	591	564	621
240mm² Copper	761	677	643	726
300mm² Copper	863	759	718	830
400mm² Copper	989	858	809	959
630mm² Copper	1277	1085	1014	1263
Aluminium conductors				
70mm² Al	290	228	211	269
240mm² Al	596	466	424	569
300mm² Al	678	529	480	651

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 90^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV polymeric cables.

TABLE B1 - Spr

33kV SINGLE CORE X.L.P.E. INSULATED COPPER WIRE SCREEN & 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				
70mm² Copper	284	247	234	346
95mm² Copper	339	295	279	418
120mm² Copper	385	335	316	481
150mm² Copper	431	375	353	544
185mm² Copper	486	422	397	621
240mm² Copper	561	487	457	726
300mm² Copper	631	548	513	830
400mm² Copper	716	621	580	959
630mm² Copper	907	784	729	1263
Aluminium conductors				
70mm² Al	221	192	182	269
240 mm² Al	440	382	358	569
300mm² Al	496	431	403	651

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 90°C

Ratings based on Crater for MV polymeric cables.

TABLE B2 - Spr

33kV SINGLE CORE X.L.P.E. INSULATED COPPER WIRE SCREEN & 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				
70mm² Copper	323	272	254	346
95mm² Copper	387	326	304	418
120mm² Copper	441	371	345	481
150mm² Copper	495	416	386	544
185mm² Copper	561	471	436	621
240mm² Copper	649	544	502	726
300mm² Copper	734	615	566	830
400mm² Copper	837	700	642	959
630mm² Copper	1072	892	812	1263
Aluminium conductors				
70mm² Al	251	212	198	269
240mm² Al	509	427	394	569
300mm² Al	577	483	445	651

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 90^{o}C

Ratings based on Crater for MV polymeric cables.

TABLE B3 - Spr

33kV SINGLE CORE X.L.P.E. INSULATED COPPER WIRE SCREEN & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Spring ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
70mm² Copper	356	289	268	346
95mm² Copper	427	347	320	418
120mm² Copper	488	395	364	481
150mm² Copper	549	444	408	544
185mm² Copper	623	503	461	621
240mm² Copper	722	583	533	726
300mm² Copper	819	660	601	830
400mm² Copper	937	753	683	959
630mm² Copper	1208	966	867	1263
Aluminium conductors				
70mm² Al	276	225	208	269
240mm² Al	566	457	418	569
300mm² Al	643	519	472	651

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	90^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE X.L.P.E. INSULATED COPPER WIRE SCREEN & 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				
70mm² Copper	266	236	224	346
95mm² Copper	317	282	267	418
120mm² Copper	360	320	302	481
150mm² Copper	403	357	338	544
185mm² Copper	454	402	380	621
240mm² Copper	523	463	436	726
300mm² Copper	588	521	490	830
400mm² Copper	666	589	553	959
630mm² Copper	843	742	694	1263
Aluminium conductors				
70mm² Al	207	184	174	269
240 mm² Al	410	363	342	569
300mm² Al	462	410	385	651

Parameters

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 MV polymeric cables.

TABLE B2 - Sum

33kV SINGLE CORE X.L.P.E. INSULATED COPPER WIRE SCREEN & 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				
70mm² Copper	304	263	246	346
95mm² Copper	364	315	294	418
120mm² Copper	415	358	334	481
150mm² Copper	466	402	373	544
185mm² Copper	527	454	421	621
240mm² Copper	610	524	485	726
300mm² Copper	689	591	546	830
400mm² Copper	785	672	619	959
630mm² Copper	1004	855	781	1263
Aluminium conductors				
70mm² Al	237	205	192	269
240mm² Al	478	411	381	569
300mm² Al	541	465	429	651

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 90^{o}C

Ratings based on Crater for MV polymeric cables.

TABLE B3 - Sum

33kV SINGLE CORE X.L.P.E. INSULATED COPPER WIRE SCREEN & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Summer ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
70mm² Copper	338	282	262	346
95mm² Copper	405	339	314	418
120mm² Copper	462	386	356	481
150mm² Copper	520	433	399	544
185mm² Copper	589	490	451	621
240mm² Copper	683	568	520	726
300mm² Copper	774	642	586	830
400mm² Copper	885	732	666	959
630mm² Copper	1139	936	844	1263
Aluminium conductors				
70mm² Al	262	220	204	269
240mm² Al	536	445	408	569
300mm² Al	608	505	461	651

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	90^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE X.L.P.E. INSULATED COPPER WIRE SCREEN & 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				
70mm² Copper	280	245	232	346
95mm² Copper	334	292	276	418
120mm² Copper	379	332	313	481
150mm² Copper	424	371	350	544
185mm² Copper	478	418	393	621
240mm² Copper	551	482	453	726
300mm² Copper	620	542	508	830
400mm² Copper	703	574	574	959
630mm² Copper	890	775	721	1263
Aluminium conductors				
70mm² Al	218	191	181	269
240 mm² Al	432	378	355	569
300mm² Al	488	426	400	651

Parameters

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 MV polymeric cables.

33kV SINGLE CORE X.L.P.E. INSULATED COPPER WIRE SCREEN & 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				
70mm² Copper	319	271	253	346
95mm² Copper	381	324	302	418
120mm² Copper	435	369	343	481
150mm² Copper	488	414	384	544
185mm² Copper	553	468	433	621
240mm² Copper	640	541	500	726
300mm² Copper	723	611	562	830
400mm² Copper	824	695	638	959
630mm² Copper	1055	885	807	1263
Aluminium conductors				
70mm² Al	248	211	197	269
240mm² Al	501	424	392	569
300mm² Al	568	480	442	651

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	90^{o}C

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE X.L.P.E. INSULATED COPPER WIRE SCREEN & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Autumn ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric sizes				
Copper conductors				
70mm² Copper	352	288	268	346
95mm² Copper	422	346	320	418
120mm² Copper	482	394	364	481
150mm² Copper	542	443	408	544
185mm² Copper	615	502	460	621
240mm² Copper	714	581	532	726
300mm² Copper	808	658	599	830
400mm² Copper	925	751	681	959
630mm² Copper	1192	962	865	1263
Aluminium conductors				
70mm² Al	273	224	208	269
240mm² Al	559	456	417	569
300mm² Al	635	517	472	651

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	90°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE E.P.R. INSULATED COPPER WIRE SCREEN & 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				
70mm² Copper	291	249	235	326
95mm² Copper	348	298	281	395
120mm² Copper	397	339	319	456
150mm² Copper	446	380	358	517
185mm² Copper	505	430	404	591
240mm² Copper	584	497	465	694
300mm² Copper	660	561	524	795
400mm² Copper	751	638	594	922
500mm² Copper	851	721	670	1064
630mm² Copper	959	811	751	1223
Aluminium conductors				
70mm² Al	226	193	183	253
240 mm² Al	455	390	365	543
300mm² Al	518	441	412	623

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	90°C

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE E.P.R. INSULATED COPPER WIRE SCREEN & 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				
70mm² Copper	324	269	252	326
95mm² Copper	390	324	302	395
120mm² Copper	446	369	344	456
150mm² Copper	503	415	386	517
185mm² Copper	571	471	436	591
240mm² Copper	664	546	504	694
300mm² Copper	753	618	569	795
400mm² Copper	863	706	648	922
500mm² Copper	983	803	733	1064
630mm² Copper	1114	907	824	1223
Aluminium conductors				
70mm² Al	252	209	196	253
240mm² Al	520	428	395	543
300mm² Al	591	486	448	623

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	90°C

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE E.P.R. INSULATED COPPER WIRE SCREEN & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Winter ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes				
Copper conductors				
70mm² Copper	351	281	261	326
95mm² Copper	424	338	314	395
120mm² Copper	487	386	257	456
150mm² Copper	549	436	402	517
185mm² Copper	625	495	455	591
240mm² Copper	729	575	527	694
300mm² Copper	829	653	596	795
400mm² Copper	954	748	679	922
500mm² Copper	1090	853	770	1064
630mm² Copper	1240	967	868	1223
Aluminium conductors				
70mm² Al	273	218	203	253
240mm² Al	570	451	413	543
300mm² Al	651	513	468	623

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	90^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE E.P.R. INSULATED COPPER WIRE SCREEN & 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
Metric sizes				
Copper conductors				
70mm² Copper	274	240	227	326
95mm² Copper	328	287	272	395
120mm² Copper	373	326	308	456
150mm² Copper	418	365	345	517
185mm² Copper	473	412	389	591
240mm² Copper	547	476	448	694
300mm² Copper	617	536	504	795
400mm² Copper	702	609	570	922
500mm² Copper	794	688	643	1064
630mm² Copper	893	772	719	1223
Aluminium conductors				
70mm² Al	213	186	177	253
240mm² Al	428	373	351	543
300mm² Al	485	422	396	623

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	90°C

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE E.P.R. INSULATED COPPER WIRE SCREEN & 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
Metric sizes				
Copper conductors				
70mm² Copper	307	262	246	326
95mm² Copper	370	315	295	395
120mm² Copper	423	359	335	456
150mm² Copper	476	403	376	517
185mm² Copper	540	457	425	591
240mm² Copper	627	529	491	694
300mm² Copper	711	599	553	795
400mm² Copper	813	684	629	922
500mm² Copper	926	776	711	1064
630mm² Copper	1048	875	799	1223
Aluminium conductors				
70mm² Al	239	204	191	253
240mm² Al	491	415	385	543
300mm² Al	558	471	435	623

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	90°C

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE E.P.R INSULATED COPPER WIRE SCREEN & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Spring ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	**DISTRIBUTION CURRENT RATINGS-AMPS**			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes				
Copper conductors				
70mm² Copper	336	277	258	326
95mm² Copper	406	333	310	395
120mm² Copper	465	381	353	456
150mm² Copper	524	429	396	517
185mm² Copper	596	486	448	591
240mm² Copper	694	565	519	694
300mm² Copper	789	641	586	795
400mm² Copper	906	734	668	922
500mm² Copper	1035	835	757	1064
630mm² Copper	1176	945	852	1223
Aluminium conductors				
70mm² Al	261	215	201	253
240mm² Al	543	443	407	543
300mm² Al	619	503	461	623

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	90°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE E.P.R. INSULATED COPPER WIRE SCREEN & 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
Metric sizes				
Copper conductors				
70mm² Copper	257	229	218	326
95mm² Copper	307	274	260	395
120mm² Copper	350	311	295	456
150mm² Copper	392	349	330	517
185mm² Copper	442	393	372	591
240mm² Copper	511	454	428	694
300mm² Copper	576	511	481	795
400mm² Copper	654	579	545	922
500mm² Copper	740	653	613	1064
630mm² Copper	831	732	686	1223
Aluminium conductors				
70mm² Al	200	178	170	253
240mm² Al	400	356	336	543
300mm² Al	453	402	379	623

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	90°C

Ratings based on Crater for MV polymeric cables.

TABLE C3 - Sum

33kV SINGLE CORE E.P.R. INSULATED COPPER WIRE SCREEN & 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
Metric sizes				
Copper conductors				
70mm² Copper	291	254	238	326
95mm² Copper	350	304	285	395
120mm² Copper	399	347	324	456
150mm² Copper	449	389	364	517
185mm² Copper	509	441	411	591
240mm² Copper	591	510	474	694
300mm² Copper	669	577	535	795
400mm² Copper	765	658	607	922
500mm² Copper	870	745	686	1064
630mm² Copper	984	840	770	1223
Aluminium conductors				
70mm² Al	226	197	185	253
240mm² Al	463	400	372	543
300mm² Al	526	433	420	623

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	90°C

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE E.P.R. INSULATED COPPER WIRE SCREEN & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Summer ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes				
Copper conductors				
70mm² Copper	320	271	253	326
95mm² Copper	386	326	303	395
120mm² Copper	442	372	345	456
150mm² Copper	498	419	388	517
185mm² Copper	566	475	438	591
240mm² Copper	658	551	507	694
300mm² Copper	748	624	573	795
400mm² Copper	858	714	652	922
500mm² Copper	979	811	738	1064
630mm² Copper	1111	917	830	1223
Aluminium conductors				
70mm² Al	249	211	197	253
240mm² Al	516	432	398	543
300mm² Al	587	490	450	623

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	90°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE E.P.R. INSULATED COPPER WIRE SCREEN & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Autumn ***SUSTAINED*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	SUSTSAINED CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes				
Copper conductors				
70mm² Copper	270	238	226	326
95mm² Copper	323	284	269	395
120mm² Copper	367	323	306	456
150mm² Copper	412	362	342	517
185mm² Copper	465	408	385	591
240mm² Copper	538	471	444	694
300mm² Copper	607	531	499	795
400mm² Copper	690	603	565	922
500mm² Copper	780	680	636	1064
630mm² Copper	877	763	712	1223
Aluminium conductors				
70mm² Al	210	185	175	253
240mm² Al	421	370	348	543
300mm² Al	477	418	393	623

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	90°C

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE E.P.R. INSULATED COPPER WIRE SCREEN & 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
Metric sizes				
Copper conductors				
70mm² Copper	304	261	245	326
95mm² Copper	365	313	293	395
120mm² Copper	417	357	334	456
150mm² Copper	470	401	374	517
185mm² Copper	533	454	422	591
240mm² Copper	618	526	488	694
300mm² Copper	701	595	550	795
400mm² Copper	802	679	626	922
500mm² Copper	912	770	707	1064
630mm² Copper	1032	869	794	1223
Aluminium conductors				
70mm² Al	236	203	190	253
240mm² Al	484	412	383	543
300mm² Al	550	468	433	623

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	90°C

Ratings based on Crater for MV polymeric cables.

33kV SINGLE CORE E.P.R. INSULATED COPPER WIRE SCREEN & M.D.P.E. OUTER SHEATH CABLES, LAID IN TREFOIL. (Wet design)

Autumn ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
Metric sizes				
Copper conductors				
70mm² Copper	333	276	258	326
95mm² Copper	402	333	310	395
120mm² Copper	460	380	352	456
150mm² Copper	519	428	396	517
185mm² Copper	590	485	448	591
240mm² Copper	686	564	518	694
300mm² Copper	780	639	585	795
400mm² Copper	895	731	667	922
500mm² Copper	1022	832	755	1064
630mm² Copper	1161	941	850	1223
Aluminium conductors				
70mm² Al	259	215	201	253
240mm² Al	537	370	406	543
300mm² Al	612	502	460	623

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	90°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV polymeric cables.

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	228	196	186	249
0.15in² Cu.	281	240	228	311
0.2 in² Cu.	327	279	264	366
0.25 in² Cu.	370	314	296	417
0.3in² Cu.	411	348	328	469
0.4in² Cu.	477	403	378	554
0.5in² Cu.	525	442	414	619
Metric sizes				
Copper conductors				
70mm² Cu	236	202	192	257
95mm² Cu	283	242	229	313
120mm² Cu	322	274	259	358
150mm² Cu	361	307	289	406
185mm² Cu	406	344	323	462
240mm² Cu	467	395	370	540
300mm² Cu	522	439	410	612

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	65^{o}C

Ratings based on Crater for MV paper cables.

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	252	209	197	249
0.15in² Cu.	313	258	242	311
0.2 in² Cu.	366	301	281	366
0.25 in² Cu.	416	339	317	417
0.3in² Cu.	465	377	351	469
0.4in² Cu.	544	438	406	554
0.5in² Cu.	603	483	446	619
Metric sizes				
Copper conductors				
70mm² Cu	263	217	204	257
95mm² Cu	317	261	244	313
120mm² Cu	362	296	277	358
150mm² Cu	408	332	309	406
185mm² Cu	462	374	347	462
240mm² Cu	535	430	398	540
300mm² Cu	602	481	443	612

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	65°C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

Winter ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	271	227	211	249
0.15in² Cu.	338	282	261	311
0.2 in² Cu.	396	330	305	366
0.25 in² Cu.	452	375	344	417
0.3in² Cu.	506	419	384	469
0.4in² Cu.	549	491	447	554
0.5in² Cu.	661	544	493	619
Metric sizes				
Copper conductors				
70mm² Cu	280	231	215	257
95mm² Cu	340	279	258	313
120mm² Cu	389	318	293	358
150mm² Cu	440	358	329	406
185mm² Cu	500	405	371	462
240mm² Cu	581	469	427	540
300mm² Cu	657	527	478	612

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	65°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	214	188	179	249
0.15in² Cu.	264	230	218	311
0.2 in² Cu.	307	267	253	366
0.25 in² Cu.	347	300	284	417
0.3in² Cu.	385	333	314	469
0.4in² Cu.	446	384	361	554
0.5in² Cu.	490	421	395	619
Metric sizes				
Copper conductors				
70mm² Cu	222	194	184	257
95mm² Cu	266	232	220	313
120mm² Cu	302	262	248	358
150mm² Cu	338	293	277	406
185mm² Cu	380	328	309	462
240mm² Cu	436	376	353	540
300mm² Cu	486	418	392	612

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	65^{o}C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	240	203	191	249
0.15in² Cu.	298	250	235	311
0.2 in² Cu.	348	290	272	366
0.25 in² Cu.	395	327	306	417
0.3in² Cu.	441	364	340	469
0.4in² Cu.	515	422	392	554
0.5in² Cu.	570	430	430	619
Metric sizes				
Copper conductors				
70mm² Cu	250	210	198	257
95mm² Cu	301	252	237	313
120mm² Cu	343	286	268	358
150mm² Cu	387	320	299	406
185mm² Cu	437	360	336	462
240mm² Cu	506	414	384	540
300mm² Cu	568	462	427	612

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	65°C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

Spring ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	259	221	206	249
0.15in² Cu.	323	274	254	311
0.2 in² Cu.	378	321	296	366
0.25 in² Cu.	431	363	335	417
0.3in² Cu.	482	406	373	469
0.4in² Cu.	565	475	433	554
0.5in² Cu.	628	526	477	619
Metric sizes				
Copper conductors				
70mm² Cu	268	224	209	257
95mm² Cu	324	271	251	313
120mm² Cu	370	309	285	358
150mm² Cu	419	347	320	406
185mm² Cu	475	392	360	462
240mm² Cu	552	454	414	540
300mm² Cu	622	509	463	612

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	65°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	201	178	170	249
0.15in² Cu.	247	218	208	311
0.2 in² Cu.	286	253	240	366
0.25 in² Cu.	323	284	269	417
0.3in² Cu.	358	314	298	469
0.4in² Cu.	414	362	342	554
0.5in² Cu.	455	397	374	619
Metric sizes				
Copper conductors				
70mm² Cu	207	184	175	257
95mm² Cu	248	219	209	313
120mm² Cu	281	248	236	358
150mm² Cu	314	277	262	406
185mm² Cu	352	310	293	462
240mm² Cu	404	354	334	540
300mm² Cu	450	393	370	612

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	65^{o}C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	227	194	183	249
0.15in² Cu.	281	239	225	311
0.2 in² Cu.	328	278	261	366
0.25 in² Cu.	372	313	293	417
0.3in² Cu.	415	347	325	469
0.4in² Cu.	484	402	375	554
0.5in² Cu.	535	442	411	619
Metric sizes				
Copper conductors				
70mm² Cu	236	201	190	257
95mm² Cu	284	241	227	313
120mm² Cu	323	273	256	358
150mm² Cu	363	306	286	406
185mm² Cu	410	344	321	462
240mm² Cu	474	395	367	540
300mm² Cu	531	440	408	612

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	65°C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

Summer ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	246	213	199	249
0.15in² Cu.	306	264	245	311
0.2 in² Cu.	358	308	285	366
0.25 in² Cu.	407	349	322	417
0.3in² Cu.	455	389	358	469
0.4in² Cu.	533	454	415	554
0.5in² Cu.	591	503	458	619
Metric sizes				
Copper conductors				
70mm² Cu	253	216	201	257
95mm² Cu	306	260	242	313
120mm² Cu	350	296	274	358
150mm² Cu	395	333	307	406
185mm² Cu	448	376	346	462
240mm² Cu	519	434	397	540
300mm² Cu	585	487	443	612

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	65^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	212	186	177	249
0.15in² Cu.	261	228	217	311
0.2 in² Cu.	303	265	251	366
0.25 in² Cu.	342	297	282	417
0.3in² Cu.	379	329	311	469
0.4in² Cu.	439	380	358	554
0.5in² Cu.	483	417	392	619
Metric sizes				
Copper conductors				
70mm² Cu	219	192	183	257
95mm² Cu	262	230	218	313
120mm² Cu	297	260	246	358
150mm² Cu	333	290	274	406
185mm² Cu	374	325	307	462
240mm² Cu	429	372	350	540
300mm² Cu	478	413	388	612

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	65°C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	238	202	190	249
0.15in² Cu.	295	248	234	311
0.2 in² Cu.	345	289	271	366
0.25 in² Cu.	391	325	305	417
0.3in² Cu.	436	362	338	469
0.4in² Cu.	510	419	390	554
0.5in² Cu.	564	461	428	619
Metric sizes				
Copper conductors				
70mm² Cu	247	209	197	257
95mm² Cu	298	251	235	313
120mm² Cu	340	285	267	358
150mm² Cu	383	319	298	406
185mm² Cu	432	358	334	462
240mm² Cu	500	412	382	540
300mm² Cu	561	459	425	612

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	65°C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

Autumn ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	257	220	205	249
0.15in² Cu.	320	273	254	311
0.2 in² Cu.	375	319	285	366
0.25 in² Cu.	427	362	334	417
0.3in² Cu.	478	404	371	469
0.4in² Cu.	560	472	431	554
0.5in² Cu.	621	523	475	619
Metric sizes				
Copper conductors				
70mm² Cu	265	224	208	257
95mm² Cu	321	270	250	313
120mm² Cu	367	307	284	358
150mm² Cu	415	346	319	406
185mm² Cu	470	390	359	462
240mm² Cu	546	451	413	540
300mm² Cu	615	506	461	612

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 65^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	
Imperial Sizes				
Aluminium conductors				
0.1in² Al	177	152	145	194
0.15in² Al	219	188	178	243
0.2in² Al	256	219	207	286
0.3in² Al	324	276	259	369
0.4in² Al	380	322	302	439
0.5in² Al	422	356	334	494
Metric sizes				
Aluminium conductors				
95mm² Al	221	189	179	244
120mm² Al	252	215	203	280
150mm² Al	283	241	227	318
185mm² Al	320	272	256	363
240mm² Al	371	314	294	427
300mm² Al	417	352	329	486

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	65^{o}C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	196	163	154	194
0.15in² Al	244	202	189	243
0.2in² Al	287	235	221	286
0.3in² Al	367	298	278	369
0.4in² Al	432	349	324	439
0.5in² Al	483	388	359	494
Metric sizes				
Aluminium conductors				
95mm² Al	247	204	191	244
120mm² Al	283	232	217	280
150mm² Al	320	260	243	318
185mm² Al	363	295	274	363
240mm² Al	424	342	317	427
300mm² Al	479	385	355	486

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	65^{o}C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

Winter ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Imperial Sizes				
Aluminium conductors				
0.1in² Al	212	177	165	194
0.15in² Al	265	220	204	243
0.2in² Al	312	259	239	286
0.3in² Al	402	331	303	369
0.4in² Al	477	391	356	439
0.5in² Al	534	437	396	494
Metric sizes				
Aluminium conductors				
95mm² Al	264	218	201	244
120mm² Al	303	250	230	280
150mm² Al	342	282	258	318
185mm² Al	390	321	293	363
240mm² Al	456	374	340	427
300mm² Al	517	424	383	486

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	65^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	
Imperial Sizes				
Aluminium conductors				
0.1in² Al	167	146	139	194
0.15in² Al	206	180	171	243
0.2in² Al	241	209	198	286
0.3in² Al	304	263	248	369
0.4in² Al	355	306	289	439
0.5in² Al	394	339	319	494
Metric sizes				
Aluminium conductors				
95mm² Al	208	181	172	244
120mm² Al	236	206	195	280
150mm² Al	265	230	217	318
185mm² Al	299	259	245	363
240mm² Al	346	299	281	427
300mm² Al	388	334	314	486

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	65°C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	187	158	149	194
0.15in² Al	232	195	183	243
0.2in² Al	272	228	214	286
0.3in² Al	348	288	269	369
0.4in² Al	410	337	313	439
0.5in² Al	457	374	347	494
Metric sizes				
Aluminium conductors				
95mm² Al	235	197	185	244
120mm² Al	269	224	210	280
150mm² Al	303	251	235	318
185mm² Al	344	284	265	363
240mm² Al	400	329	306	427
300mm² Al	452	370	342	486

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 65^{o}C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

Spring ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Imperial Sizes				
Aluminium conductors				
0.1in² Al	203	172	160	194
0.15in² Al	253	214	199	243
0.2in² Al	298	251	232	286
0.3in² Al	383	320	294	369
0.4in² Al	454	378	345	439
0.5in² Al	508	422	384	494
Metric sizes				
Aluminium conductors				
95mm² Al	252	212	196	244
120mm² Al	288	242	223	280
150mm² Al	326	273	251	318
185mm² Al	371	311	284	363
240mm² Al	433	362	330	427
300mm² Al	491	409	371	486

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	65°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	
Imperial Sizes				
Aluminium conductors				
0.1in² Al	156	135	132	194
0.15in² Al	193	166	162	243
0.2in² Al	224	193	188	286
0.3in² Al	283	249	236	369
0.4in² Al	330	289	273	439
0.5in² Al	366	320	302	494
Metric sizes				
Aluminium conductors				
95mm² Al	193	171	163	244
120mm² Al	220	195	185	280
150mm² Al	246	217	206	318
185mm² Al	278	245	232	363
240mm² Al	321	282	266	427
300mm² Al	360	315	297	486

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	65°C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	177	147	143	194
0.15in² Al	219	181	176	243
0.2in² Al	257	211	205	286
0.3in² Al	327	274	257	369
0.4in² Al	385	321	299	439
0.5in² Al	429	356	331	494
Metric sizes				
Aluminium conductors				
95mm² Al	221	188	177	244
120mm² Al	253	214	201	280
150mm² Al	285	240	225	318
185mm² Al	323	271	253	363
240mm² Al	376	314	292	427
300mm² Al	424	352	327	486

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	65^{o}C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED (Cont.)

Summer ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Imperial Sizes				
Aluminium conductors				
0.1in² Al	192	161	155	194
0.15in² Al	240	200	191	243
0.2in² Al	282	234	223	286
0.3in² Al	362	307	283	369
0.4in² Al	428	362	331	439
0.5in² Al	479	404	368	494
Metric sizes				
Aluminium conductors				
95mm² Al	238	203	188	244
120mm² Al	272	233	215	280
150mm² Al	308	262	241	318
185mm² Al	350	298	273	363
240mm² Al	408	346	316	427
300mm² Al	462	391	356	486

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	65^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	
Imperial Sizes				
Aluminium conductors				
0.1in² Al	165	145	138	194
0.15in² Al	204	178	170	243
0.2in² Al	237	207	197	286
0.3in² Al	300	261	246	369
0.4in² Al	350	303	286	439
0.5in² Al	388	336	316	494
Metric sizes				
Aluminium conductors				
95mm² Al	205	179	170	244
120mm² Al	233	204	193	280
150mm² Al	261	228	215	318
185mm² Al	295	257	243	363
240mm² Al	341	296	279	427
300mm² Al	382	331	311	486

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	65°C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED

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	185	157	148	194
0.15in² Al	230	194	183	243
0.2in² Al	270	226	213	286
0.3in² Al	344	286	267	369
0.4in² Al	405	334	311	439
0.5in² Al	452	371	345	494
Metric sizes				
Aluminium conductors				
95mm² Al	233	196	184	244
120mm² Al	266	223	206	280
150mm² Al	300	250	234	318
185mm² Al	340	283	264	363
240mm² Al	396	327	304	427
300mm² Al	447	367	340	486

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	65^{o}C

Ratings based on Crater for MV paper cables

33kV H.S.L. CABLES OIL IMPREGNATED PAPER INSULATED LEAD SHEATH & ARMOURED (Cont.)

Autumn ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Imperial Sizes				
Aluminium conductors				
0.1in² Al	201	171	160	194
0.15in² Al	251	213	198	243
0.2in² Al	296	250	231	286
0.3in² Al	380	319	293	369
0.4in² Al	449	376	344	439
0.5in² Al	503	420	382	494
Metric sizes				
Aluminium conductors				
95mm² Al	249	211	195	244
120mm² Al	286	241	223	280
150mm² Al	323	272	250	318
185mm² Al	367	309	283	363
240mm² Al	429	360	328	427
300mm² Al	486	407	369	486

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	65°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	231	197	187	252
0.15in²Cu.	284	242	229	312
0.2in²Cu.	333	282	267	369
0.25in²Cu.	377	318	301	422
0.3in²Cu.	421	355	334	476
0.4in²Cu.	491	413	388	564
0.5in²Cu.	544	456	428	633
Aluminium conductors				
0.3in²Al.	330	278	263	372
0.4in²Al.	388	326	307	444
0.5in²Al.	433	363	341	502

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	65^{o}C

Ratings based on Crater for MV paper cables

33kV (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED CABLES

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	256	211	199	252
0.15in²Cu.	317	259	244	312
0.2in²Cu.	372	303	284	369
0.25in²Cu.	425	343	321	422
0.3in²Cu.	476	384	358	476
0.4in²Cu.	560	448	416	564
0.5in²Cu.	624	497	460	633
Aluminium conductors				
0.3in²Al.	373	301	281	372
0.4in²Al.	441	354	329	444
0.5in²Al.	495	395	366	502

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	65^{o}C

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

Winter ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	273	224	208	252
0.15in²Cu.	338	276	256	312
0.2in²Cu.	399	325	301	369
0.25in²Cu.	457	370	341	422
0.3in²Cu.	574	415	381	476
0.4in²Cu.	607	489	446	564
0.5in²Cu.	679	545	495	633
Aluminium conductors				
0.3in²Al.	403	325	299	372
0.4in²Al.	479	385	352	444
0.5in²Al.	539	432	394	502

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	65^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	218	189	180	252
0.15in²Cu.	267	231	220	312
0.2in²Cu.	312	270	256	369
0.25in²Cu.	353	304	288	422
0.3in²Cu.	394	339	320	476
0.4in²Cu.	459	394	371	564
0.5in²Cu.	508	434	409	633
Aluminium conductors				
0.3in²Al.	309	266	252	372
0.4in²Al.	363	311	294	444
0.5in²Al.	404	346	326	502

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	65°C

Ratings based on Crater for MV paper cables

33kV (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED CABLES

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	244	204	193	252
0.15in²Cu.	301	251	236	312
0.2in²Cu.	354	293	275	369
0.25in²Cu.	402	332	311	422
0.3in²Cu.	451	370	346	476
0.4in²Cu.	529	432	402	564
0.5in²Cu.	589	478	444	633
Aluminium conductors				
0.3in²Al.	353	290	272	372
0.4in²Al.	417	341	318	444
0.5in²Al.	468	380	354	502

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 65°C

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

Spring ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	261	218	203	252
0.15in²Cu.	323	269	250	312
0.2in²Cu.	381	316	293	369
0.25in²Cu.	435	359	331	422
0.3in²Cu.	489	403	370	476
0.4in²Cu.	576	473	433	564
0.5in²Cu.	644	527	480	633
Aluminium conductors				
0.3in²Al.	383	315	290	372
0.4in²Al.	455	373	342	444
0.5in²Al.	511	418	382	502

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	65^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	203	180	172	252
0.15in²Cu.	249	220	209	312
0.2in²Cu.	291	256	243	369
0.25in²Cu.	329	288	274	422
0.3in²Cu.	366	320	304	476
0.4in²Cu.	426	372	352	564
0.5in²Cu.	470	410	387	633
Aluminium conductors				
0.3in²Al.	287	252	239	372
0.4in²Al.	336	294	278	444
0.5in²Al.	374	326	308	502

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	65°C

Ratings based on Crater for MV paper cables

33kV (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED CABLES

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	230	196	185	252
0.15in²Cu.	284	240	227	312
0.2in²Cu.	333	281	264	369
0.25in²Cu.	378	317	298	422
0.3in²Cu.	423	354	331	476
0.4in²Cu.	496	412	385	564
0.5in²Cu.	552	456	424	633
Aluminium conductors				
0.3in²Al.	332	277	260	372
0.4in²Al.	392	326	304	444
0.5in²Al.	438	363	338	502

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	65^{o}C

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

Summer ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	247	210	196	252
0.15in²Cu.	306	258	241	312
0.2in²Cu.	360	304	282	369
0.25in²Cu.	410	345	319	422
0.3in²Cu.	461	386	356	476
0.4in²Cu.	543	453	416	564
0.5in²Cu.	606	504	461	633
Aluminium conductors				
0.3in²Al.	362	303	279	372
0.4in²Al.	428	358	328	444
0.5in²Al.	481	401	366	502

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	65^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	215	188	179	252
0.15in²Cu.	264	230	218	312
0.2in²Cu.	308	268	254	369
0.25in²Cu.	348	302	286	422
0.3in²Cu.	388	336	318	476
0.4in²Cu.	452	390	368	564
0.5in²Cu.	500	430	405	633
Aluminium conductors				
0.3in²Al.	304	264	250	372
0.4in²Al.	357	308	291	444
0.5in²Al.	398	343	323	502

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	65°C

Ratings based on Crater for MV paper cables

33kV (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED CABLES

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	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	242	203	192	252
0.15in²Cu.	298	250	235	312
0.2in²Cu.	350	292	274	369
0.25in²Cu.	398	330	309	422
0.3in²Cu.	446	368	344	476
0.4in²Cu.	523	429	400	564
0.5in²Cu.	582	475	442	633
Aluminium conductors				
0.3in²Al.	349	289	270	372
0.4in²Al.	413	339	316	444
0.5in²Al.	462	378	352	502

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	65°C

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

Autumn ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Imperial Sizes				
Copper conductors				
0.1in² Cu.	259	217	203	252
0.15in²Cu.	320	268	249	312
0.2in²Cu.	377	315	292	369
0.25in²Cu.	431	357	330	422
0.3in²Cu.	484	401	369	476
0.4in²Cu.	570	471	431	564
0.5in²Cu.	637	524	478	633
Aluminium conductors				
0.3in²Al.	380	314	289	372
0.4in²Al.	450	371	340	444
0.5in²Al.	506	410	380	502

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	65^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

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				
Copper conductors				
70mm² Cu	237	200	190	257
95mm² Cu	285	240	228	313
120mm² Cu	324	273	258	359
150mm² Cu	364	305	288	406
185mm² Cu.	411	344	324	463
240mm² Cu	474	396	372	543
300mm² Cu	532	444	416	618
Aluminium conductors				
95mm² Al.	222	187	177	243
185mm² Al.	322	270	254	363
240mm² Al	374	312	294	427
300mm² Al.	421	351	330	488

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	65°C

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

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				
Copper conductors				
70mm² Cu	264	215	202	257
95mm² Cu	319	258	242	313
120mm² Cu	364	293	275	359
150mm² Cu	411	329	308	406
185mm² Cu.	466	372	347	463
240mm² Cu	541	430	400	543
300mm² Cu	611	483	447	618
Aluminium conductors				
95mm² Al.	248	201	189	243
185mm² Al.	365	291	272	363
240mm² Al	426	339	315	427
300mm² Al.	483	382	355	488

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	65°C

Ratings based on Crater for MV paper cables

TABLE G1 –win

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

Winter ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	280	227	211	257
95mm² Cu	340	274	254	313
120mm² Cu	386	313	290	359
150mm² Cu	440	353	325	406
185mm² Cu.	501	401	368	463
240mm² Cu	584	467	426	543
300mm² Cu	662	528	480	618
Aluminium conductors				
95mm² Al.	265	214	198	243
185mm² Al.	394	315	289	363
240mm² Al	462	368	337	427
300mm² Al.	526	418	381	488

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	65^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables.

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

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				
Copper conductors				
70mm² Cu	223	192	183	257
95mm² Cu	267	230	219	313
120mm² Cu	303	261	247	359
150mm² Cu	340	292	276	406
185mm² Cu.	384	328	310	463
240mm² Cu	442	378	356	543
300mm² Cu	496	422	398	618
Aluminium conductors				
95mm² Al.	208	179	170	243
185mm² Al.	301	258	244	363
240mm² Al	349	298	281	427
300mm² Al.	393	335	315	488

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	65°C

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

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				
Copper conductors				
70mm² Cu	251	208	196	257
95mm² Cu	302	249	235	313
120mm² Cu	345	284	266	359
150mm² Cu	389	318	298	406
185mm² Cu.	440	359	335	463
240mm² Cu	511	414	386	543
300mm² Cu	576	465	432	618
Aluminium conductors				
95mm² Al.	235	194	183	243
185mm² Al.	345	281	263	363
240mm² Al	402	327	304	427
300mm² Al.	456	368	342	488

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	65°C

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

Spring ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	267	221	206	257
95mm² Cu	324	267	247	313
120mm² Cu	370	304	282	359
150mm² Cu	419	343	316	406
185mm² Cu.	476	389	358	463
240mm² Cu	554	452	414	543
300mm² Cu	627	511	465	618
Aluminium conductors				
95mm² Al.	253	208	193	243
185mm² Al.	374	305	281	363
240mm² Al	438	357	327	427
300mm² Al.	498	405	369	488

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	65°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

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				
Copper conductors				
70mm² Cu	208	183	174	257
95mm² Cu	249	218	208	313
120mm² Cu	282	247	235	359
150mm² Cu	316	276	262	406
185mm² Cu.	356	310	294	463
240mm² Cu	410	357	338	543
300mm² Cu	459	399	376	618
Aluminium conductors				
95mm² Al.	194	170	162	243
185mm² Al.	279	244	231	363
240mm² Al	323	281	266	427
300mm² Al.	364	316	298	488

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	65°C

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

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				
Copper conductors				
70mm² Cu	236	199	188	257
95mm² Cu	284	239	225	313
120mm² Cu	324	271	255	359
150mm² Cu	365	304	285	406
185mm² Cu.	413	343	321	463
240mm² Cu	479	395	369	543
300mm² Cu	539	443	413	618
Aluminium conductors				
95mm² Al.	221	186	175	243
185mm² Al.	323	269	252	363
240mm² Al	377	312	291	427
300mm² Al.	426	351	327	488

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 65°C

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

Summer ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	253	212	198	257
95mm² Cu	306	256	238	313
120mm² Cu	349	293	271	359
150mm² Cu	395	329	304	406
185mm² Cu.	448	373	344	463
240mm² Cu	521	433	398	543
300mm² Cu	589	489	446	618
Aluminium conductors				
95mm² Al.	239	200	186	243
185mm² Al.	352	293	270	363
240mm² Al	412	342	314	427
300mm² Al.	468	388	354	488

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	65°C

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

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				
Copper conductors				
70mm² Cu	220	191	182	257
95mm² Cu	264	228	217	313
120mm² Cu	299	259	246	359
150mm² Cu	335	289	274	406
185mm² Cu.	378	325	308	463
240mm² Cu	436	374	353	543
300mm² Cu	488	418	394	618
Aluminium conductors				
95mm² Al.	205	178	169	243
185mm² Al.	296	255	242	363
240mm² Al	343	295	279	427
300mm² Al.	386	332	313	488

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	65°C

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

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				
Copper conductors				
70mm² Cu	248	207	195	257
95mm² Cu	299	248	234	313
120mm² Cu	341	282	265	359
150mm² Cu	384	316	296	406
185mm² Cu.	435	357	334	463
240mm² Cu	505	412	384	543
300mm² Cu	569	462	430	618
Aluminium conductors				
95mm² Al.	233	193	182	243
185mm² Al.	341	280	262	363
240mm² Al	397	325	303	427
300mm² Al.	450	366	340	488

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	65°C

Ratings based on Crater for MV paper cables

33kV CABLES (H type cable) 3 CORE SCREENED, OIL IMPREGNATED PAPER INSULATED, LEAD SHEATH AND ARMOURED

Autumn ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS - AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	265	220	205	257
95mm² Cu	321	266	247	313
120mm² Cu	367	303	281	359
150mm² Cu	414	341	315	406
185mm² Cu.	471	387	356	463
240mm² Cu	548	450	412	543
300mm² Cu	620	508	463	618
Aluminium conductors				
95mm² Al.	250	207	192	243
185mm² Al.	370	304	280	363
240mm² Al	433	355	326	427
300mm² Al.	493	403	368	488

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	65°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	258	185	176	239
120mm² Cu	354	254	239	336
185mm² Cu	450	322	303	439
240mm² Cu	522	374	351	518
300mm² Cu	587	420	394	591
400mm² Cu	668	477	446	688
500mm² Cu	744	532	495	778
630mm² Cu	836	595	553	896
Imperial				
Copper conductors				
0.1 in² Cu.	247	181	172	230
0.15in² Cu.	307	224	212	290
0.2in² Cu.	360	262	248	345
0.25in² Cu.	411	298	281	397
0.3in² Cu.	460	333	313	450
0.4in² Cu.	540	390	366	538
0.5in² Cu.	601	434	406	608
0.6in² Cu.	663	478	446	681
0.75in² Cu.	731	525	490	763
1.0in² Cu.	845	604	561	907

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	65^{o}C

Ratings based on Crater for MV paper cables

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	287	200	188	239
120mm² Cu	398	275	257	336
185mm² Cu	511	351	326	439
240mm² Cu	596	409	379	518
300mm² Cu	672	461	426	591
400mm² Cu	770	526	484	688
500mm² Cu	861	588	540	778
630mm² Cu	975	662	604	896
Imperial				
Copper conductors				
0.1 in² Cu.	273	195	183	230
0.15in² Cu.	342	242	227	290
0.2in² Cu.	403	284	266	345
0.25in² Cu.	462	324	301	397
0.3in² Cu.	519	363	337	450
0.4in² Cu.	613	427	395	538
0.5in² Cu.	686	476	440	608
0.6in² Cu.	761	526	484	681
0.75in² Cu.	843	581	533	763
1.0in² Cu.	983	672	613	907

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	65°C

Ratings based on Crater for MV paper cables

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH CABLES IN TREFOIL FORMATION

Winter ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	312	208	194	239
120mm² Cu	434	287	266	336
185mm² Cu	561	368	339	439
240mm² Cu	656	429	394	518
300mm² Cu	741	485	444	591
400mm² Cu	853	556	506	688
500mm² Cu	956	623	565	778
630mm² Cu	1087	703	634	896
Imperial				
Copper conductors				
0.1 in² Cu.	295	202	189	230
0.15in² Cu.	371	252	234	290
0.2in² Cu.	439	297	275	345
0.25in² Cu.	505	338	313	397
0.3in² Cu.	569	380	350	450
0.4in² Cu.	674	449	412	538
0.5in² Cu.	756	501	459	608
0.6in² Cu.	840	556	506	681
0.75in² Cu.	935	615	558	763
1.0in² Cu.	1095	714	644	907

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	65°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	240	176	168	239
120mm² Cu	329	241	228	336
185mm² Cu	417	305	288	439
240mm² Cu	484	354	333	518
300mm² Cu	543	397	374	591
400mm² Cu	618	451	423	688
500mm² Cu	687	502	470	778
630mm² Cu	771	561	523	896
Imperial				
Copper conductors				
0.1 in² Cu.	231	172	164	230
0.15in² Cu.	286	213	202	290
0.2in² Cu.	336	249	236	345
0.25in² Cu.	382	282	267	397
0.3in² Cu.	427	315	298	450
0.4in² Cu.	501	369	348	538
0.5in² Cu.	557	410	385	608
0.6in² Cu.	614	451	423	681
0.75in² Cu.	677	496	464	763
1.0in² Cu.	780	569	531	907

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	65°C

Ratings based on Crater for MV paper cables

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	270	192	181	239
120mm² Cu	373	264	274	336
185mm² Cu	478	337	314	439
240mm² Cu	556	392	364	518
300mm² Cu	628	441	409	591
400mm² Cu	718	503	465	688
500mm² Cu	803	562	517	778
630mm² Cu	908	631	579	896
Imperial				
Copper conductors				
0.1 in² Cu.	258	187	176	230
0.15in² Cu.	322	232	218	290
0.2in² Cu.	379	273	256	345
0.25in² Cu.	434	310	290	397
0.3in² Cu.	487	348	324	450
0.4in² Cu.	575	409	380	538
0.5in² Cu.	642	456	422	608
0.6in² Cu.	711	503	465	681
0.75in² Cu.	788	555	511	763
1.0in² Cu.	917	641	587	907

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	65°C

Ratings based on Crater for MV paper cables

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH CABLES IN TREFOIL FORMATION

Spring ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	295	202	189	239
120mm² Cu	410	279	259	336
185mm² Cu	528	357	330	439
240mm² Cu	617	417	384	518
300mm² Cu	698	471	432	591
400mm² Cu	802	538	492	688
500mm² Cu	898	603	549	778
630mm² Cu	1020	679	615	896
Imperial				
Copper conductors				
0.1 in² Cu.	281	197	184	230
0.15in² Cu.	352	245	229	290
0.2in² Cu.	416	289	268	345
0.25in² Cu.	478	329	305	397
0.3in² Cu.	538	369	341	450
0.4in² Cu.	637	435	401	538
0.5in² Cu.	713	486	446	608
0.6in² Cu.	792	538	492	681
0.75in² Cu.	880	595	542	763
1.0in² Cu.	1030	690	625	907

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	65°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	223	166	158	239
120mm² Cu	304	226	214	336
185mm² Cu	385	285	270	439
240mm² Cu	446	330	312	518
300mm² Cu	501	371	350	591
400mm² Cu	568	420	396	688
500mm² Cu	632	467	439	778
630mm² Cu	708	521	489	896
Imperial				
Copper conductors				
0.1 in² Cu.	215	162	154	230
0.15in² Cu.	266	200	190	290
0.2in² Cu.	311	233	222	345
0.25in² Cu.	354	264	251	397
0.3in² Cu.	395	295	279	450
0.4in² Cu.	463	345	326	538
0.5in² Cu.	514	382	361	608
0.6in² Cu.	566	420	396	681
0.75in² Cu.	623	461	434	763
1.0in² Cu.	718	529	490	907

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	65°C

Ratings based on Crater for MV paper cables

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	252	182	172	239
120mm² Cu	347	250	234	336
185mm² Cu	444	318	297	439
240mm² Cu	517	370	344	518
300mm² Cu	583	416	387	591
400mm² Cu	666	474	439	688
500mm² Cu	745	529	489	778
630mm² Cu	841	594	546	896
Imperial				
Copper conductors				
0.1 in² Cu.	242	177	167	230
0.15in² Cu.	301	220	207	290
0.2in² Cu.	355	258	242	345
0.25in² Cu.	405	293	275	397
0.3in² Cu.	454	329	307	450
0.4in² Cu.	535	386	359	538
0.5in² Cu.	598	430	399	608
0.6in² Cu.	662	474	439	681
0.75in² Cu.	732	523	483	763
1.0in² Cu.	851	603	554	907

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	65°C

Ratings based on Crater for MV paper cables

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH CABLES IN TREFOIL FORMATION

Summer ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	278	194	182	239
120mm² Cu	385	267	249	336
185mm² Cu	495	341	316	439
240mm² Cu	578	398	367	518
300mm² Cu	652	449	413	591
400mm² Cu	749	513	470	688
500mm² Cu	839	574	524	778
630mm² Cu	951	646	587	896
Imperial				
Copper conductors				
0.1 in² Cu.	265	189	177	230
0.15in² Cu.	332	235	219	290
0.2in² Cu.	392	276	257	345
0.25in² Cu.	449	314	292	397
0.3in² Cu.	505	353	327	450
0.4in² Cu.	597	416	384	538
0.5in² Cu.	668	464	427	608
0.6in² Cu.	742	513	470	681
0.75in² Cu.	823	567	518	763
1.0in² Cu.	962	656	596	907

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	65^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	236	175	167	239
120mm² Cu	323	239	226	336
185mm² Cu	410	302	286	439
240mm² Cu	475	350	330	518
300mm² Cu	533	393	371	591
400mm² Cu	606	446	419	688
500mm² Cu	675	496	465	778
630mm² Cu	756	554	518	896
Imperial				
Copper conductors				
0.1 in² Cu.	228	171	163	230
0.15in² Cu.	282	211	201	290
0.2in² Cu.	330	247	234	345
0.25in² Cu.	376	280	265	397
0.3in² Cu.	420	313	295	450
0.4in² Cu.	492	366	345	538
0.5in² Cu.	547	406	382	608
0.6in² Cu.	603	447	420	681
0.75in² Cu.	664	490	460	763
1.0in² Cu.	766	562	526	907

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	65°C

Ratings based on Crater for MV paper cables

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	266	191	180	239
120mm² Cu	368	263	246	336
185mm² Cu	471	335	312	439
240mm² Cu	548	389	362	518
300mm² Cu	618	439	407	591
400mm² Cu	707	500	462	688
500mm² Cu	790	558	514	778
630mm² Cu	893	627	575	896
Imperial				
Copper conductors				
0.1 in² Cu.	255	186	176	230
0.15in² Cu.	318	231	217	290
0.2in² Cu.	374	272	254	345
0.25in² Cu.	428	309	289	397
0.3in² Cu.	480	346	323	450
0.4in² Cu.	567	406	378	538
0.5in² Cu.	633	453	420	608
0.6in² Cu.	701	500	462	681
0.75in² Cu.	776	551	508	763
1.0in² Cu.	903	636	584	907

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	65°C

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH CABLES IN TREFOIL FORMATION

Autumn ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric				
Copper conductors				
70mm² Cu	292	202	189	239
120mm² Cu	406	279	259	336
185mm² Cu	522	357	330	439
240mm² Cu	609	416	383	518
300mm² Cu	689	469	432	591
400mm² Cu	791	537	491	688
500mm² Cu	886	601	548	778
630mm² Cu	1006	677	614	896
Imperial				
Copper conductors				
0.1 in² Cu.	278	197	184	230
0.15in² Cu.	349	245	229	290
0.2in² Cu.	412	288	268	345
0.25in² Cu.	472	328	305	397
0.3in² Cu.	531	368	341	450
0.4in² Cu.	629	434	400	538
0.5in² Cu.	704	485	445	608
0.6in² Cu.	782	537	491	681
0.75in² Cu.	869	593	541	763
1.0in² Cu.	1016	688	623	907

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	65°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Aluminium conductors				
185mm² Al.	351	252	237	342
240mm² Al.	409	293	275	406
300mm² Al.	462	331	310	464
Imperial				
Aluminium conductors				
0.1 in² Al.	193	141	133	179
0.15in² Al.	240	175	165	227
0.2in²Al.	282	205	193	270
0.25in² Al.	322	233	219	312
0.3in² Al.	361	260	245	353
0.4in² Al.	425	307	288	425
0.5in² Al.	475	343	321	482
0.6in² Al	528	381	356	543

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	65°C

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Aluminium conductors				
185mm² Al.	399	274	255	342
240mm² Al.	466	321	297	406
300mm² Al.	528	364	336	464
Imperial				
Aluminium conductors				
0.1 in² Al.	213	152	142	179
0.15in² Al.	267	189	176	227
0.2in²Al.	316	222	207	270
0.25in² Al.	363	253	235	312
0.3in² Al.	408	284	264	353
0.4in² Al.	484	336	311	425
0.5in² Al.	543	377	348	482
0.6in² Al	606	420	386	543

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	65^{o}C

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH CABLES IN TREFOIL FORMATION

Winter ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric				
Aluminium conductors				
185mm² Al.	437	287	265	342
240mm² Al.	513	337	309	406
300mm² Al.	583	383	350	464
Imperial				
Aluminium conductors				
0.1 in² Al.	231	157	147	179
0.15in² Al.	290	197	182	227
0.2in²Al.	344	232	215	270
0.25in² Al.	396	265	244	312
0.3in² Al.	446	297	274	353
0.4in² Al.	532	353	324	425
0.5in² Al.	598	397	363	482
0.6in² Al	670	443	404	543

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	65^{o}C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Aluminium conductors				
185mm² Al.	326	239	225	342
240mm² Al.	379	278	262	406
300mm² Al.	427	313	295	464
Imperial				
Aluminium conductors				
0.1 in² Al.	180	134	128	179
0.15in² Al.	224	166	158	227
0.2in²Al.	263	195	184	270
0.25in² Al.	299	221	209	312
0.3in² Al.	335	248	234	353
0.4in² Al.	395	291	274	425
0.5in² Al.	441	325	306	482
0.6in² Al	489	361	338	543

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	65°C

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Aluminium conductors				
185mm² Al.	373	263	245	342
240mm² Al.	436	307	285	406
300mm² Al.	494	348	323	464
Imperial				
Aluminium conductors				
0.1 in² Al.	201	146	137	179
0.15in² Al.	252	181	170	227
0.2in²Al.	297	213	200	270
0.25in² Al.	340	243	227	312
0.3in² Al.	382	273	254	353
0.4in² Al.	453	323	300	425
0.5in² Al.	508	362	335	482
0.6in² Al	567	402	372	543

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 65^{o}C

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH CABLES IN TREFOIL FORMATION

Spring ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric				
Aluminium conductors				
185mm² Al.	412	279	258	342
240mm² Al.	483	327	301	406
300mm² Al.	549	371	341	464
Imperial				
Aluminium conductors				
0.1 in² Al.	219	153	144	179
0.15in² Al.	276	191	178	227
0.2in²Al.	326	226	210	270
0.25in² Al.	375	257	239	312
0.3in² Al.	422	290	268	353
0.4in² Al.	502	343	316	425
0.5in² Al.	565	386	354	482
0.6in² Al	631	430	393	543

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	65°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Aluminium conductors				
185mm² Al.	301	223	211	342
240mm² Al.	349	259	245	406
300mm² Al.	394	292	276	464
Imperial				
Aluminium conductors				
0.1 in² Al.	167	126	120	179
0.15in² Al.	207	155	148	227
0.2in²Al.	242	182	173	270
0.25in² Al.	276	206	196	312
0.3in² Al.	309	231	219	353
0.4in² Al.	363	271	256	425
0.5in² Al.	406	303	286	482
0.6in² Al	450	335	316	543

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	65°C

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Aluminium conductors				
185mm² Al.	347	249	232	342
240mm² Al.	405	290	270	406
300mm² Al.	458	328	305	464
Imperial				
Aluminium conductors				
0.1 in² Al.	188	138	130	179
0.15in² Al.	234	171	161	227
0.2in²Al.	276	201	189	270
0.25in² Al.	316	229	214	312
0.3in² Al.	355	257	240	353
0.4in² Al.	420	304	283	425
0.5in² Al.	471	340	316	482
0.6in² Al	525	378	350	543

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	65^{o}C

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH CABLES IN TREFOIL FORMATION

Summer ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric				
Aluminium conductors				
185mm² Al.	386	267	247	342
240mm² Al.	452	312	288	406
300mm² Al.	513	354	326	464
Imperial				
Aluminium conductors				
0.1 in² Al.	206	146	137	179
0.15in² Al.	258	183	171	227
0.2in²Al.	305	215	201	270
0.25in² Al.	350	245	228	312
0.3in² Al.	394	276	256	353
0.4in² Al.	468	327	302	425
0.5in² Al.	527	367	338	482
0.6in² Al	589	409	375	543

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	65^{o}C

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Aluminium conductors				
185mm² Al.	320	236	232	342
240mm² Al.	372	275	259	406
300mm² Al.	420	310	292	464
Imperial				
Aluminium conductors				
0.1 in² Al.	177	133	127	179
0.15in² Al.	220	165	156	227
0.2in²Al.	258	193	183	270
0.25in² Al.	294	219	207	312
0.3in² Al.	329	245	232	353
0.4in² Al.	388	288	272	425
0.5in² Al.	433	322	303	482
0.6in² Al	481	357	335	543

Parameters

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	65°C

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH 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
		PVC	Rigiduct	
Metric				
Aluminium conductors				
185mm² Al.	367	261	244	342
240mm² Al.	429	305	284	406
300mm² Al.	486	346	321	464
Imperial				
Aluminium conductors				
0.1 in² Al.	199	145	137	179
0.15in² Al.	248	180	170	227
0.2in²Al.	293	212	199	270
0.25in² Al.	336	242	226	312
0.3in² Al.	377	271	253	353
0.4in² Al.	447	321	298	425
0.5in² Al.	501	359	333	482
0.6in² Al	559	400	370	543

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	65°C

Ratings based on Crater for MV paper cables.

33kV SINGLE CORE OIL IMPREGNATED PAPER INSULATED LEAD SHEATH CABLES IN TREFOIL FORMATION

Autumn ***DISTRIBUTION*** Current Ratings

SIZE AND TYPE OF CABLE CONDUCTOR	DISTRIBUTION CURRENT RATINGS-AMPS			
	CABLE IN GROUND	CABLE IN DUCTS		CABLE IN AIR
		PVC	Rigiduct	
Metric				
Aluminium conductors				
185mm² Al.	407	279	258	342
240mm² Al.	429	326	301	406
300mm² Al.	542	370	340	464
Imperial				
Aluminium conductors				
0.1 in² Al.	217	153	143	179
0.15in² Al.	273	191	178	227
0.2in²Al.	323	225	210	270
0.25in² Al.	370	257	238	312
0.3in² Al.	417	289	268	353
0.4in² Al.	496	343	316	425
0.5in² Al.	558	385	353	482
0.6in² Al	623	429	393	543

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	65°C

This is a 3 to 5 Day Rating ONLY.

Ratings based on Crater for MV paper cables.

TABLE K1 – win

33kV 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
		PVC	Rigiduct	
Metric				
Copper conductors				
120mm² Cu	382	315	299	372
150mm² Cu	428	355	336	424
185mm² Cu	486	403	380	490
240mm² Cu	561	466	439	575
260mm² Cu	584	487	458	603
300mm² Cu	634	529	496	666
350mm² Cu	677	565	530	715
400mm² Cu	714	598	559	763
500mm² Cu	795	666	622	864
630mm² Cu	880	745	693	993
Aluminium conductors				
120mm² Al.	297	245	232	289
150mm² Al.	333	276	261	329
185mm² Al.	379	315	297	382
240mm² Al.	439	365	343	450
260mm² Al.	459	382	360	474
300mm² Al.	498	415	390	522
350mm² Al.	535	446	418	564
400mm² Al.	566	474	444	605
500mm² Al.	638	535	500	693
630mm² Al.	726	609	567	811

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.

TABLE K1 – win

33kV 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
		PVC	Rigiduct	
Metric				
Copper conductors				
120mm² Cu	437	343	322	372
150mm² Cu	492	388	363	424
185mm² Cu	562	443	412	490
240mm² Cu	651	513	477	575
260mm² Cu	680	536	498	603
300mm² Cu	742	585	542	666
350mm² Cu	793	626	578	715
400mm² Cu	839	663	612	763
500mm² Cu	938	742	682	864
630mm² Cu	1057	834	764	993
Aluminium conductors				
120mm² Al.	340	267	250	289
150mm² Al.	382	301	282	329
185mm² Al.	438	345	322	382
240mm² Al.	509	402	373	450
260mm² Al.	534	421	391	474
300mm² Al.	582	459	425	522
350mm² Al.	626	494	457	564
400mm² Al.	665	526	486	605
500mm² Al.	753	596	548	693
630mm² Al.	864	682	624	811

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.

33kV 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
		PVC	Rigiduct	
Metric				
Copper conductors				
120mm² Cu	356	303	288	372
150mm² Cu	400	341	323	424
185mm² Cu	453	387	366	490
240mm² Cu	522	446	422	575
260mm² Cu	544	465	439	603
300mm² Cu	590	505	476	666
350mm² Cu	630	539	508	715
400mm² Cu	664	570	536	763
500mm² Cu	739	635	596	864
630mm² Cu	825	708	663	993
Aluminium conductors				
120mm² Al.	277	235	224	289
150mm² Al.	310	265	251	329
185mm² Al.	353	301	285	382
240mm² Al.	409	349	330	450
260mm² Al.	428	366	345	474
300mm² Al.	463	397	374	522
350mm² Al.	497	426	401	564
400mm² Al.	527	452	425	605
500mm² Al.	593	510	478	693
630mm² Al.	674	579	542	811

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.

33kV 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
		PVC	Rigiduct	
Metric				
Copper conductors				
120mm² Cu	412	334	313	372
150mm² Cu	464	377	353	424
185mm² Cu	529	429	401	490
240mm² Cu	613	497	463	575
260mm² Cu	640	520	483	603
300mm² Cu	698	566	525	666
350mm² Cu	746	605	561	715
400mm² Cu	789	641	593	763
500mm² Cu	882	716	661	864
630mm² Cu	993	804	739	993
Aluminium conductors				
120mm² Al.	321	259	244	289
150mm² Al.	360	293	274	329
185mm² Al.	413	335	313	382
240mm² Al.	480	389	363	450
260mm² Al.	503	408	380	474
300mm² Al.	548	444	412	522
350mm² Al.	589	478	443	564
400mm² Al.	626	509	471	605
500mm² Al.	708	575	531	693
630mm² Al.	812	658	604	811

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.

33kV 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
		PVC	Rigiduct	
Metric				
Copper conductors				
120mm² Cu	332	289	275	372
150mm² Cu	372	325	309	424
185mm² Cu	422	368	349	490
240mm² Cu	486	425	402	575
260mm² Cu	506	443	419	603
300mm² Cu	549	480	454	666
350mm² Cu	585	512	484	715
400mm² Cu	617	541	511	763
500mm² Cu	686	601	567	864
630mm² Cu	765	670	630	993
Aluminium conductors				
120mm² Al.	258	225	214	289
150mm² Al.	289	252	240	329
185mm² Al.	329	287	272	382
240mm² Al.	380	332	315	450
260mm² Al.	398	348	329	474
300mm² Al.	431	377	356	522
350mm² Al.	462	405	382	564
400mm² Al.	490	429	405	605
500mm² Al.	551	453	455	693
630mm² Al.	626	548	515	811

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.

33kV 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
		PVC	Rigiduct	
Metric				
Copper conductors				
120mm² Cu	388	322	303	372
150mm² Cu	436	363	341	424
185mm² Cu	497	413	387	490
240mm² Cu	576	479	447	575
260mm² Cu	601	500	466	603
300mm² Cu	655	544	506	666
350mm² Cu	700	581	540	715
400mm² Cu	740	615	571	763
500mm² Cu	827	687	636	864
630mm² Cu	931	770	710	993
Aluminium conductors				
120mm² Al.	301	250	236	289
150mm² Al.	339	282	265	329
185mm² Al.	388	322	302	382
240mm² Al.	450	374	350	450
260mm² Al.	472	393	366	474
300mm² Al.	514	427	397	522
350mm² Al.	553	459	427	564
400mm² Al.	587	488	453	605
500mm² Al.	664	552	511	693
630mm² Al.	761	630	581	811

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.

TABLE K4 – aut

33kV 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
		PVC	Rigiduct	
Metric				
Copper conductors				
120mm² Cu	350	300	285	372
150mm² Cu	393	337	320	424
185mm² Cu	445	383	363	490
240mm² Cu	513	442	418	575
260mm² Cu	535	461	435	603
300mm² Cu	580	500	472	666
350mm² Cu	618	534	503	715
400mm² Cu	653	564	531	763
500mm² Cu	726	627	590	864
630mm² Cu	810	700	656	993
Aluminium conductors				
120mm² Al.	272	233	222	289
150mm² Al.	305	262	249	329
185mm² Al.	347	299	283	382
240mm² Al.	401	346	327	450
260mm² Al.	420	362	342	474
300mm² Al.	455	393	370	522
350mm² Al.	489	422	398	564
400mm² Al.	518	448	421	605
500mm² Al.	583	504	474	693
630mm² Al.	662	573	537	811

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.

33kV 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
		PVC	Rigiduct	
Metric				
Copper conductors				
120mm² Cu	407	332	312	372
150mm² Cu	458	375	351	424
185mm² Cu	522	427	399	490
240mm² Cu	604	494	461	575
260mm² Cu	631	516	481	603
300mm² Cu	688	562	522	666
350mm² Cu	735	601	558	715
400mm² Cu	778	637	590	763
500mm² Cu	869	711	657	864
630mm² Cu	978	798	734	993
Aluminium conductors				
120mm² Al.	316	258	243	289
150mm² Al.	355	291	273	329
185mm² Al.	407	333	311	382
240mm² Al.	473	387	361	450
260mm² Al.	496	406	378	474
300mm² Al.	540	441	410	522
350mm² Al.	581	475	441	564
400mm² Al.	617	505	468	605
500mm² Al.	698	571	528	693
630mm² Al.	800	653	600	811

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.

TABLE L1 –win

33kV 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
		PVC	Rigiduct	
Copper conductors				
0.1 in^2 Cu	275	228	217	261
0.15in^2 Cu.	342	283	269	333
0.2in^2 Cu.	398	330	312	390
0.25in^2 Cu	455	378	356	457
0.3in^2 Cu.	505	419	395	510
0.35in^2 Cu	555	461	434	569
0.4in^2 Cu	590	492	463	611
0.45in^2 Cu	627	524	491	657
0.5in^2 Cu	657	549	515	691
0.55in^2 Cu.	688	575	539	731
0.6in^2 Cu	728	608	569	781
Aluminium conductors				
0.1 in^2 Al.	100	83	79	95
0.15in^2 Al.	138	114	108	134
0.2in^2Al.	171	142	134	168
0.25in^2 Al.	227	189	178	228
0.3in^2 Al.	276	229	216	279
0.35in^2 Al.	323	268	252	331
0.4in^2 Al.	362	302	284	374
0.45in^2 Al	405	338	317	424
0.5in^2 Al.	469	392	368	493
0.55in^2 Al.	521	436	409	554
0.6in^2 Al	526	440	411	564

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.

33kV 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
		PVC	Rigiduct	
Copper conductors				
0.1 in^2 Cu	312	247	232	261
0.15in^2 Cu.	391	309	289	333
0.2in^2 Cu.	455	360	337	390
0.25in^2 Cu	525	414	386	457
0.3in^2 Cu.	584	460	429	510
0.35in^2 Cu	645	508	472	569
0.4in^2 Cu	686	543	504	611
0.45in^2 Cu	733	579	536	657
0.5in^2 Cu	768	607	562	691
0.55in^2 Cu.	807	638	589	731
0.6in^2 Cu	857	676	623	781
Aluminium conductors				
0.1 in^2 Al.	113	90	84	95
0.15in^2 Al.	157	124	116	134
0.2in^2Al.	196	155	145	168
0.25in^2 Al.	262	207	193	228
0.3in^2 Al.	319	252	235	279
0.35in^2 Al.	375	295	274	331
0.4in^2 Al.	420	333	309	374
0.45in^2 Al	473	374	346	424
0.5in^2 Al.	548	433	401	493
0.55in^2 Al.	612	484	447	554
0.6in^2 Al	619	489	450	564

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.

TABLE L2 –spr

33kV 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
		PVC	Rigiduct	
Copper conductors				
0.1 in^2 Cu	258	219	209	261
0.15in^2 Cu.	320	272	259	333
0.2in^2 Cu.	371	316	300	390
0.25in^2 Cu	424	362	343	457
0.3in^2 Cu.	471	402	380	510
0.35in^2 Cu	517	441	417	569
0.4in^2 Cu	550	471	444	611
0.45in^2 Cu	584	500	471	657
0.5in^2 Cu	611	524	494	691
0.55in^2 Cu.	640	549	516	731
0.6in^2 Cu	676	580	545	781
Aluminium conductors				
0.1 in^2 Al.	94	80	76	95
0.15in^2 Al.	129	110	104	134
0.2in^2Al.	160	136	129	168
0.25in^2 Al.	212	181	171	228
0.3in^2 Al.	257	220	208	279
0.35in^2 Al.	301	257	242	331
0.4in^2 Al.	337	289	273	374
0.45in^2 Al	377	323	304	424
0.5in^2 Al.	436	374	352	493
0.55in^2 Al.	485	416	392	554
0.6in^2 Al	489	419	394	564

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.

TABLE L2 – spr

33kV 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
		PVC	Rigiduct	
Copper conductors				
0.1 in^2 Cu	295	240	226	261
0.15in^2 Cu.	369	300	282	333
0.2in^2 Cu.	430	349	328	390
0.25in^2 Cu	495	402	375	457
0.3in^2 Cu.	550	446	417	510
0.35in^2 Cu	607	492	458	569
0.4in^2 Cu	646	526	489	611
0.45in^2 Cu	690	560	520	657
0.5in^2 Cu	723	588	545	691
0.55in^2 Cu.	759	617	571	731
0.6in^2 Cu	805	653	604	781
Aluminium conductors				
0.1 in^2 Al.	107	87	82	95
0.15in^2 Al.	148	121	113	134
0.2in^2Al.	185	150	141	168
0.25in^2 Al.	247	200	187	228
0.3in^2 Al.	301	244	228	279
0.35in^2 Al.	353	286	266	331
0.4in^2 Al.	396	322	300	374
0.45in^2 Al	445	362	336	424
0.5in^2 Al.	516	419	389	493
0.55in^2 Al.	576	468	433	554
0.6in^2 Al	582	472	437	564

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.

TABLE L3 – sum

33kV 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
		PVC	Rigiduct	
Copper conductors				
0.1 in^2 Cu	241	210	200	261
0.15in^2 Cu.	298	260	248	333
0.2in^2 Cu.	346	302	287	390
0.25in^2 Cu	395	345	328	457
0.3in^2 Cu.	438	383	363	510
0.35in^2 Cu	481	420	398	569
0.4in^2 Cu	511	448	424	611
0.45in^2 Cu	543	475	449	657
0.5in^2 Cu	568	498	471	691
0.55in^2 Cu.	595	521	492	731
0.6in^2 Cu	628	550	519	781
Aluminium conductors				
0.1 in^2 Al.	87	76	73	95
0.15in^2 Al.	120	105	100	134
0.2in^2Al.	149	130	124	168
0.25in^2 Al.	197	172	163	228
0.3in^2 Al.	240	209	199	279
0.35in^2 Al.	279	244	231	331
0.4in^2 Al.	314	275	260	374
0.45in^2 Al	350	307	290	424
0.5in^2 Al.	406	355	336	493
0.55in^2 Al.	451	395	373	554
0.6in^2 Al	454	398	375	564

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.

33kV 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
		PVC	Rigiduct	
Copper conductors				
0.1 in^2 Cu	278	232	219	261
0.15in^2 Cu.	347	289	272	333
0.2in^2 Cu.	404	337	317	390
0.25in^2 Cu	465	387	362	457
0.3in^2 Cu.	517	430	402	510
0.35in^2 Cu	570	473	442	569
0.4in^2 Cu	607	506	472	611
0.45in^2 Cu	647	538	501	657
0.5in^2 Cu	679	565	525	691
0.55in^2 Cu.	712	592	550	731
0.6in^2 Cu	755	627	581	781
Aluminium conductors				
0.1 in^2 Al.	101	84	80	95
0.15in^2 Al.	140	116	110	134
0.2in^2Al.	174	145	136	168
0.25in^2 Al.	232	193	181	228
0.3in^2 Al.	283	235	220	279
0.35in^2 Al.	331	275	257	331
0.4in^2 Al.	372	310	289	374
0.45in^2 Al	418	348	324	424
0.5in^2 Al.	484	403	375	493
0.55in^2 Al.	540	449	417	554
0.6in^2 Al	546	453	420	564

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.

33kV 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
		PVC	Rigiduct	
Copper conductors				
0.1 in^2 Cu	254	217	207	261
0.15in^2 Cu.	315	270	257	333
0.2in^2 Cu.	365	314	298	390
0.25in^2 Cu	417	359	340	457
0.3in^2 Cu.	463	398	377	510
0.35in^2 Cu	508	437	413	569
0.4in^2 Cu	540	466	440	611
0.45in^2 Cu	574	495	467	657
0.5in^2 Cu	601	519	489	691
0.55in^2 Cu.	629	543	512	731
0.6in^2 Cu	664	574	540	781
Aluminium conductors				
0.1 in^2 Al.	92	79	75	95
0.15in^2 Al.	127	109	103	134
0.2in^2Al.	157	135	128	168
0.25in^2 Al.	208	179	170	228
0.3in^2 Al.	253	218	206	279
0.35in^2 Al.	295	254	240	331
0.4in^2 Al.	331	286	270	374
0.45in^2 Al	370	320	302	424
0.5in^2 Al.	429	370	349	493
0.55in^2 Al.	477	412	388	554
0.6in^2 Al	480	415	390	564

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.

33kV 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
		PVC	Rigiduct	
Copper conductors				
0.1 in^2 Cu	291	239	225	261
0.15in^2 Cu.	364	298	280	333
0.2in^2 Cu.	424	347	326	390
0.25in^2 Cu	488	399	373	457
0.3in^2 Cu.	542	444	415	510
0.35in^2 Cu	599	489	456	569
0.4in^2 Cu	637	522	486	611
0.45in^2 Cu	680	556	517	657
0.5in^2 Cu	713	584	542	691
0.55in^2 Cu.	748	612	568	731
0.6in^2 Cu	794	648	600	781
Aluminium conductors				
0.1 in^2 Al.	106	87	82	95
0.15in^2 Al.	146	120	113	134
0.2in^2Al.	182	149	140	168
0.25in^2 Al.	244	199	186	228
0.3in^2 Al.	297	243	227	279
0.35in^2 Al.	348	284	265	331
0.4in^2 Al.	391	320	298	374
0.45in^2 Al	439	359	334	424
0.5in^2 Al.	508	417	387	493
0.55in^2 Al.	567	464	431	554
0.6in^2 Al	574	469	434	564

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.

TABLE M1 – win

33kV THREE CORE OIL FILLED LEAD SHEATHED DUCTLESS.

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	
Copper conductors				
0.1 in^2 Cu	274	226	215	257
0.15in^2 Cu.	336	278	278	322
0.2in^2 Cu.	394	326	326	383
0.25in^2 Cu	449	371	371	442
0.3in^2 Cu.	503	415	415	501
0.35in^2 Cu	548	454	454	552
0.4in^2 Cu	589	487	487	600
0.45in^2 Cu	621	515	515	637
0.5in^2 Cu	650	541	541	672
0.55in^2 Cu.	678	565	565	706
0.6in^2 Cu	713	595	595	746
Aluminium conductors				
0.1 in^2 Al.	99	82	78	93
0.15in^2 Al.	136	112	106	129
0.2in^2Al.	170	140	133	165
0.25in^2 Al.	224	185	175	221
0.3in^2 Al.	275	227	215	274
0.35in^2 Al.	319	264	249	321
0.4in^2 Al.	361	299	281	367
0.45in^2 Al	401	332	313	411
0.5in^2 Al.	464	386	363	479
0.55in^2 Al.	514	428	402	535
0.6in^2 Al	515	430	403	538

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.

33kV THREE CORE OIL FILLED LEAD SHEATHED DUCTLESS.

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	
Copper conductors				
0.1 in^2 Cu	309	244	230	257
0.15in^2 Cu.	354	302	284	322
0.2in^2 Cu.	450	355	333	383
0.25in^2 Cu	515	403	379	442
0.3in^2 Cu.	580	455	424	501
0.35in^2 Cu	634	498	464	552
0.4in^2 Cu	684	536	499	600
0.45in^2 Cu	722	567	527	637
0.5in^2 Cu	757	597	554	672
0.55in^2 Cu.	791	624	578	706
0.6in^2 Cu	832	658	609	746
Aluminium conductors				
0.1 in^2 Al.	112	89	84	93
0.15in^2 Al.	155	121	114	129
0.2in^2Al.	194	153	143	165
0.25in^2 Al.	257	202	189	221
0.3in^2 Al.	317	249	232	274
0.35in^2 Al.	368	289	270	321
0.4in^2 Al.	419	329	306	367
0.45in^2 Al	466	366	340	411
0.5in^2 Al.	540	425	395	479
0.55in^2 Al.	600	473	438	535
0.6in^2 Al	601	475	440	538

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.

TABLE M2 – spr

33kV THREE CORE OIL FILLED LEAD SHEATHED DUCTLESS.

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	
Copper conductors				
0.1 in^2 Cu	256	217	207	257
0.15in^2 Cu.	316	268	255	322
0.2in^2 Cu.	368	313	298	383
0.25in^2 Cu	419	356	338	442
0.3in^2 Cu.	468	398	377	501
0.35in^2 Cu	511	435	411	552
0.4in^2 Cu	548	467	441	600
0.45in^2 Cu	578	493	465	637
0.5in^2 Cu	605	517	488	672
0.55in^2 Cu.	631	540	509	706
0.6in^2 Cu	664	569	536	746
Aluminium conductors				
0.1 in^2 Al.	93	79	75	93
0.15in^2 Al.	127	108	102	129
0.2in^2Al.	158	135	128	165
0.25in^2 Al.	209	178	169	221
0.3in^2 Al.	256	218	206	274
0.35in^2 Al.	297	253	239	321
0.4in^2 Al.	336	286	270	367
0.45in^2 Al	373	318	300	411
0.5in^2 Al.	432	369	348	479
0.55in^2 Al.	478	409	386	535
0.6in^2 Al	479	411	387	538

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.

33kV THREE CORE OIL FILLED LEAD SHEATHED DUCTLESS.

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	
Copper conductors				
0.1 in^2 Cu	293	238	224	257
0.15in^2 Cu.	363	293	277	322
0.2in^2 Cu.	425	345	324	383
0.25in^2 Cu	486	393	369	442
0.3in^2 Cu.	546	441	413	501
0.35in^2 Cu	597	483	451	552
0.4in^2 Cu	644	520	484	600
0.45in^2 Cu	680	549	512	637
0.5in^2 Cu	713	578	537	672
0.55in^2 Cu.	745	604	561	706
0.6in^2 Cu	784	637	591	746
Aluminium conductors				
0.1 in^2 Al.	106	86	82	93
0.15in^2 Al.	146	118	111	129
0.2in^2Al.	183	148	139	165
0.25in^2 Al.	242	196	184	221
0.3in^2 Al.	299	241	226	274
0.35in^2 Al.	347	281	262	321
0.4in^2 Al.	395	318	297	367
0.45in^2 Al	439	355	330	411
0.5in^2 Al.	508	412	383	479
0.55in^2 Al.	564	458	425	535
0.6in^2 Al	566	460	427	538

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.

33kV THREE CORE OIL FILLED LEAD SHEATHED DUCTLESS.

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	
Copper conductors				
0.1 in^2 Cu	239	208	199	257
0.15in^2 Cu.	295	256	244	322
0.2in^2 Cu.	343	299	285	383
0.25in^2 Cu	390	340	323	442
0.3in^2 Cu.	436	379	360	501
0.35in^2 Cu	475	414	393	552
0.4in^2 Cu	509	444	421	600
0.45in^2 Cu	537	469	444	637
0.5in^2 Cu	563	492	466	672
0.55in^2 Cu.	587	513	486	706
0.6in^2 Cu	617	540	511	746
Aluminium conductors				
0.1 in^2 Al.	87	76	72	93
0.15in^2 Al.	118	103	98	129
0.2in^2Al.	148	129	123	165
0.25in^2 Al.	194	169	161	221
0.3in^2 Al.	238	207	197	274
0.35in^2 Al.	276	241	228	321
0.4in^2 Al.	312	272	258	367
0.45in^2 Al	347	303	287	411
0.5in^2 Al.	401	351	332	479
0.55in^2 Al.	445	389	368	535
0.6in^2 Al	446	390	369	538

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.

33kV THREE CORE OIL FILLED LEAD SHEATHED DUCTLESS.

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	
Copper conductors				
0.1 in^2 Cu	276	230	217	257
0.15in^2 Cu.	341	283	268	322
0.2in^2 Cu.	400	333	313	383
0.25in^2 Cu	457	379	356	442
0.3in^2 Cu.	513	425	398	501
0.35in^2 Cu	561	465	435	552
0.4in^2 Cu	604	500	467	600
0.45in^2 Cu	637	529	493	637
0.5in^2 Cu	669	556	518	672
0.55in^2 Cu.	699	580	541	706
0.6in^2 Cu	736	612	570	746
Aluminium conductors				
0.1 in^2 Al.	100	83	79	93
0.15in^2 Al.	137	114	108	129
0.2in^2Al.	172	143	135	165
0.25in^2 Al.	228	189	178	221
0.3in^2 Al.	280	232	218	274
0.35in^2 Al.	326	270	253	321
0.4in^2 Al.	370	306	286	367
0.45in^2 Al	411	341	318	411
0.5in^2 Al.	477	396	369	479
0.55in^2 Al.	529	440	410	535
0.6in^2 Al	531	442	411	538

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.

TABLE M4 –aut

33kV THREE CORE OIL FILLED LEAD SHEATHED DUCTLESS.

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	
Copper conductors				
0.1 in^2 Cu	252	216	206	257
0.15in^2 Cu.	311	265	253	322
0.2in^2 Cu.	362	311	295	383
0.25in^2 Cu	411	353	335	442
0.3in^2 Cu.	460	394	374	501
0.35in^2 Cu	502	431	408	552
0.4in^2 Cu	538	462	437	600
0.45in^2 Cu	567	488	461	637
0.5in^2 Cu	595	512	484	672
0.55in^2 Cu.	620	534	504	706
0.6in^2 Cu	652	563	531	746
Aluminium conductors				
0.1 in^2 Al.	92	78	75	93
0.15in^2 Al.	125	107	102	129
0.2in^2Al.	156	134	127	165
0.25in^2 Al.	205	176	167	221
0.3in^2 Al.	252	216	204	274
0.35in^2 Al.	292	250	237	321
0.4in^2 Al.	330	283	268	367
0.45in^2 Al	366	315	298	411
0.5in^2 Al.	424	365	345	479
0.55in^2 Al.	470	405	382	535
0.6in^2 Al	471	406	383	538

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.

33kV THREE CORE OIL FILLED LEAD SHEATHED DUCTLESS.

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	
Copper conductors				
0.1 in^2 Cu	289	236	224	257
0.15in^2 Cu.	358	292	275	322
0.2in^2 Cu.	419	343	323	383
0.25in^2 Cu	479	391	367	442
0.3in^2 Cu.	539	439	411	501
0.35in^2 Cu	589	480	449	552
0.4in^2 Cu	634	516	482	600
0.45in^2 Cu	670	546	509	637
0.5in^2 Cu	702	574	534	672
0.55in^2 Cu.	734	600	558	706
0.6in^2 Cu	772	632	588	746
Aluminium conductors				
0.1 in^2 Al.	105	86	81	93
0.15in^2 Al.	144	117	111	129
0.2in^2Al.	180	148	139	165
0.25in^2 Al.	239	195	183	221
0.3in^2 Al.	294	240	224	274
0.35in^2 Al.	342	279	261	321
0.4in^2 Al.	389	316	295	367
0.45in^2 Al	432	352	328	411
0.5in^2 Al.	501	409	381	479
0.55in^2 Al.	556	455	423	535
0.6in^2 Al	557	457	424	538

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.

33kV THREE CORE OIL FILLED LEAD CORRUGATED ALUMINIUM SHEATHED DUCTLESS.

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				
Copper conductors				
120mm² Cu	384	317	299	377
150mm² Cu	431	356	336	430
185mm² Cu	484	399	376	488
240mm² Cu	553	459	431	570
260mm² Cu	575	477	448	595
300mm² Cu	620	514	482	649
350mm² Cu	662	549	514	701
400mm² Cu	692	575	538	740
500mm² Cu	762	635	593	831
630mm² Cu	835	696	648	932
Aluminium conductors				
120mm² Al.	299	247	234	294
150mm² Al.	336	277	262	335
185mm² Al.	379	313	295	382
240mm² Al.	436	362	340	448
260mm² Al.	456	378	355	471
300mm² Al.	491	407	382	514
350mm² Al.	529	439	411	559
400mm² Al.	557	463	433	594
500mm² Al.	622	518	484	676
630mm² Al.	696	581	541	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.

TABLE N1 – win

33kV THREE CORE OIL FILLED LEAD CORRUGATED ALUMINIUM SHEATHED DUCTLESS.

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				
Copper conductors				
120mm² Cu	441	346	323	377
150mm² Cu	498	390	364	430
185mm² Cu	561	439	408	488
240mm² Cu	645	506	469	570
260mm² Cu	672	526	488	595
300mm² Cu	727	569	526	649
350mm² Cu	779	609	562	701
400mm² Cu	817	639	589	740
500mm² Cu	904	709	651	831
630mm² Cu	998	781	714	932
Aluminium conductors				
120mm² Al.	344	270	252	294
150mm² Al.	388	304	284	335
185mm² Al.	440	344	320	382
240mm² Al.	508	398	370	448
260mm² Al.	532	417	387	471
300mm² Al.	576	451	417	514
350mm² Al.	622	487	449	559
400mm² Al.	656	514	474	594
500mm² Al.	737	578	531	676
630mm² Al.	830	651	596	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.

33kV THREE CORE OIL FILLED LEAD CORRUGATED ALUMINIUM SHEATHED DUCTLESS.

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				
Copper conductors				
120mm² Cu	358	304	288	377
150mm² Cu	401	341	323	430
185mm² Cu	450	382	362	488
240mm² Cu	515	439	414	570
260mm² Cu	535	456	430	595
300mm² Cu	576	491	462	649
350mm² Cu	614	524	493	701
400mm² Cu	643	548	515	740
500mm² Cu	707	605	567	831
630mm² Cu	774	662	620	932
Aluminium conductors				
120mm² Al.	279	237	225	294
150mm² Al.	313	266	252	335
185mm² Al.	353	300	284	382
240mm² Al.	406	346	326	448
260mm² Al.	424	361	341	471
300mm² Al.	457	389	367	514
350mm² Al.	491	419	394	559
400mm² Al.	517	441	415	594
500mm² Al.	577	494	463	676
630mm² Al.	645	552	517	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.

33kV THREE CORE OIL FILLED LEAD CORRUGATED ALUMINIUM SHEATHED DUCTLESS.

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				
Copper conductors				
120mm² Cu	416	336	315	377
150mm² Cu	469	378	354	430
185mm² Cu	528	425	397	488
240mm² Cu	607	490	456	570
260mm² Cu	632	509	474	595
300mm² Cu	683	550	510	649
350mm² Cu	731	589	545	701
400mm² Cu	767	617	571	740
500mm² Cu	849	684	630	831
630mm² Cu	935	752	691	932
Aluminium conductors				
120mm² Al.	324	262	246	294
150mm² Al.	366	295	276	335
185mm² Al.	414	333	311	382
240mm² Al.	478	386	359	448
260mm² Al.	500	404	375	471
300mm² Al.	541	436	405	514
350mm² Al.	584	470	436	559
400mm² Al.	616	497	459	594
500mm² Al.	692	558	515	676
630mm² Al.	779	627	576	774

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.

33kV THREE CORE OIL FILLED LEAD CORRUGATED ALUMINIUM SHEATHED DUCTLESS.

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				
Copper conductors				
120mm² Cu	333	290	276	377
150mm² Cu	373	325	309	430
185mm² Cu	419	364	345	488
240mm² Cu	478	417	395	570
260mm² Cu	497	433	410	595
300mm² Cu	534	466	441	649
350mm² Cu	570	497	469	701
400mm² Cu	596	520	491	740
500mm² Cu	656	573	540	831
630mm² Cu	717	626	589	932
Aluminium conductors				
120mm² Al.	260	226	215	294
150mm² Al.	291	253	241	335
185mm² Al.	328	286	271	382
240mm² Al.	377	329	312	448
260mm² Al.	394	343	325	471
300mm² Al.	424	370	350	514
350mm² Al.	456	398	375	559
400mm² Al.	479	419	395	594
500mm² Al.	535	468	441	676
630mm² Al.	598	523	492	774

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.

33kV THREE CORE OIL FILLED LEAD CORRUGATED ALUMINIUM SHEATHED DUCTLESS.

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				
Copper conductors				
120mm² Cu	390	324	304	377
150mm² Cu	440	364	341	430
185mm² Cu	495	409	383	488
240mm² Cu	569	471	439	570
260mm² Cu	592	490	457	595
300mm² Cu	639	528	492	649
350mm² Cu	685	565	525	701
400mm² Cu	718	593	549	740
500mm² Cu	794	656	606	831
630mm² Cu	874	720	664	932
Aluminium conductors				
120mm² Al.	304	253	237	294
150mm² Al.	343	284	266	335
185mm² Al.	388	321	300	382
240mm² Al.	448	371	346	448
260mm² Al.	469	388	362	471
300mm² Al.	507	419	390	514
350mm² Al.	547	452	420	559
400mm² Al.	577	477	442	594
500mm² Al.	647	535	495	676
630mm² Al.	728	601	554	774

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.

33kV THREE CORE OIL FILLED LEAD CORRUGATED ALUMINIUM SHEATHED DUCTLESS.

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				
Copper conductors				
120mm² Cu	352	301	286	377
150mm² Cu	394	338	320	430
185mm² Cu	442	379	359	488
240mm² Cu	505	434	410	570
260mm² Cu	525	451	426	595
300mm² Cu	565	486	458	649
350mm² Cu	603	518	488	701
400mm² Cu	631	542	510	740
500mm² Cu	594	598	562	831
630mm² Cu	759	654	613	932
Aluminium conductors				
120mm² Al.	274	235	223	294
150mm² Al.	308	263	250	335
185mm² Al.	347	297	281	382
240mm² Al.	398	342	324	448
260mm² Al.	416	358	338	471
300mm² Al.	448	385	363	514
350mm² Al.	482	414	390	559
400mm² Al.	507	437	411	594
500mm² Al.	567	488	459	676
630mm² Al.	633	546	512	774

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.

33kV THREE CORE OIL FILLED LEAD CORRUGATED ALUMINIUM SHEATHED DUCTLESS.

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				
Copper conductors				
120mm² Cu	410	334	313	377
150mm² Cu	462	376	352	430
185mm² Cu	520	423	395	488
240mm² Cu	598	486	453	570
260mm² Cu	622	506	471	595
300mm² Cu	672	546	507	649
350mm² Cu	720	585	542	701
400mm² Cu	755	613	567	740
500mm² Cu	836	679	626	831
630mm² Cu	921	746	686	932
Aluminium conductors				
120mm² Al.	319	260	244	294
150mm² Al.	360	293	274	335
185mm² Al.	408	331	310	382
240mm² Al.	471	384	357	448
260mm² Al.	492	401	373	471
300mm² Al.	533	433	402	514
350mm² Al.	575	467	433	559
400mm² Al.	607	493	457	594
500mm² Al.	681	554	511	676
630mm² Al.	766	622	578	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.

TABLE O1 – win

33kV THREE CORE IMPREGNATED PRESSURE GAS CABLES.

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	
Copper conductors				
0.1 in^2 Cu	257	217	207	246
0.15in^2 Cu.	316	267	255	307
0.2in^2 Cu.	377	317	301	373
0.25in^2 Cu	429	361	342	430
0.3in^2 Cu.	480	404	382	487
0.35in^2 Cu	519	437	413	532
0.4in^2 Cu	559	472	445	578
0.45in^2 Cu	594	502	473	619
0.5in^2 Cu	613	521	491	645
0.6in^2 Cu	677	573	539	726
Aluminium conductors				
0.1 in^2 Al.	199	168	161	191
0.15in^2 Al.	245	207	198	238
0.2in^2Al.	293	247	234	290
0.25in^2 Al.	334	281	266	335
0.3in^2 Al.	375	316	298	381
0.35in^2 Al.	411	346	327	421
0.4in^2 Al.	439	371	350	454
0.45in^2 Al	469	396	373	488
0.5in^2 Al.	488	413	389	511
0.6in^2 Al	544	460	432	580

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 taken from Crater for Gas cables.

TABLE O1 – win

33kV THREE CORE IMPREGNATED PRESSURE GAS CABLES.

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	
Copper conductors				
0.1 in^2 Cu	285	235	222	246
0.15in^2 Cu.	354	291	275	307
0.2in^2 Cu.	425	348	327	373
0.25in^2 Cu	487	398	373	430
0.3in^2 Cu.	547	448	419	487
0.35in^2 Cu	594	487	455	532
0.4in^2 Cu	641	526	492	578
0.45in^2 Cu	684	561	524	619
0.5in^2 Cu	709	584	544	645
0.6in^2 Cu	789	646	601	726
Aluminium conductors				
0.1 in^2 Al.	222	182	172	191
0.15in^2 Al.	274	225	213	238
0.2in^2Al.	330	270	254	290
0.25in^2 Al.	379	309	290	335
0.3in^2 Al.	427	349	327	381
0.35in^2 Al.	470	385	359	421
0.4in^2 Al.	504	414	386	454
0.45in^2 Al	539	442	412	488
0.5in^2 Al.	562	462	430	511
0.6in^2 Al	632	517	480	580

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 taken from Crater for Gas cables.

TABLE O2 – spr

33kV THREE CORE IMPREGNATED PRESSURE GAS CABLES.

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	
Copper conductors				
0.1 in^2 Cu	242	209	200	246
0.15in^2 Cu.	298	257	246	307
0.2in^2 Cu.	354	305	290	373
0.25in^2 Cu	402	347	329	430
0.3in^2 Cu.	449	387	367	487
0.35in^2 Cu	486	419	397	532
0.4in^2 Cu	523	452	428	578
0.45in^2 Cu	556	481	454	619
0.5in^2 Cu	577	499	471	645
0.6in^2 Cu	636	547	515	726
Aluminium conductors				
0.1 in^2 Al.	188	162	155	191
0.15in^2 Al.	231	200	191	238
0.2in^2Al.	275	237	226	290
0.25in^2 Al.	313	270	257	335
0.3in^2 Al.	351	303	287	381
0.35in^2 Al.	385	332	315	421
0.4in^2 Al.	411	355	336	454
0.45in^2 Al	439	379	358	488
0.5in^2 Al.	457	395	373	511
0.6in^2 Al	509	439	414	580

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 taken from Crater for Gas cables.

TABLE O2 – spr

33kV THREE CORE IMPREGNATED PRESSURE GAS CABLES.

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	
Copper conductors				
0.1 in^2 Cu	272	228	217	246
0.15in^2 Cu.	336	283	268	307
0.2in^2 Cu.	403	338	318	373
0.25in^2 Cu	462	386	363	430
0.3in^2 Cu.	518	434	407	487
0.35in^2 Cu	562	471	442	532
0.4in^2 Cu	607	509	477	578
0.45in^2 Cu	648	543	508	619
0.5in^2 Cu	673	565	527	645
0.6in^2 Cu	748	624	581	726
Aluminium conductors				
0.1 in^2 Al.	211	177	168	191
0.15in^2 Al.	261	219	208	238
0.2in^2Al.	314	262	247	290
0.25in^2 Al.	360	300	282	335
0.3in^2 Al.	405	338	317	381
0.35in^2 Al.	445	373	349	421
0.4in^2 Al.	477	400	374	454
0.45in^2 Al	510	428	400	488
0.5in^2 Al.	532	446	417	511
0.6in^2 Al	597	499	465	580

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 taken from Crater for Gas cables.

TABLE O3 – sum

33kV THREE CORE IMPREGNATED PRESSURE GAS CABLES.

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	
Copper conductors				
0.1 in^2 Cu	228	200	192	246
0.15in^2 Cu.	279	246	236	307
0.2in^2 Cu.	331	291	278	373
0.25in^2 Cu	376	331	315	430
0.3in^2 Cu.	420	369	351	487
0.35in^2 Cu	454	399	379	532
0.4in^2 Cu	488	430	408	578
0.45in^2 Cu	519	457	433	619
0.5in^2 Cu	538	474	449	645
0.6in^2 Cu	592	521	493	726
Aluminium conductors				
0.1 in^2 Al.	176	155	149	191
0.15in^2 Al.	217	191	183	238
0.2in^2Al.	257	227	216	290
0.25in^2 Al.	293	258	246	335
0.3in^2 Al.	328	289	275	381
0.35in^2 Al.	359	316	300	421
0.4in^2 Al.	384	338	321	454
0.45in^2 Al	409	361	342	488
0.5in^2 Al.	426	376	356	511
0.6in^2 Al	474	417	394	580

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 taken from Crater for Gas cables.

TABLE O3 - sum

33kV THREE CORE IMPREGNATED PRESSURE GAS CABLES.

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	
Copper conductors				
0.1 in^2 Cu	258	221	210	246
0.15in^2 Cu.	319	273	259	307
0.2in^2 Cu.	381	326	308	373
0.25in^2 Cu	436	372	350	430
0.3in^2 Cu.	489	418	393	487
0.35in^2 Cu	530	453	426	532
0.4in^2 Cu	573	490	459	578
0.45in^2 Cu	610	522	489	619
0.5in^2 Cu	634	542	508	645
0.6in^2 Cu	703	599	560	726
Aluminium conductors				
0.1 in^2 Al.	200	171	163	191
0.15in^2 Al.	247	212	201	238
0.2in^2Al.	296	253	239	290
0.25in^2 Al.	339	289	273	335
0.3in^2 Al.	382	326	306	381
0.35in^2 Al.	420	359	336	421
0.4in^2 Al.	450	385	361	454
0.45in^2 Al	481	411	385	488
0.5in^2 Al.	502	429	402	511
0.6in^2 Al	562	479	447	580

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 taken from Crater for Gas cables.

33kV THREE CORE IMPREGNATED PRESSURE GAS CABLES.

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	
Copper conductors				
0.1 in^2 Cu	239	207	199	246
0.15in^2 Cu.	293	255	244	307
0.2in^2 Cu.	348	302	288	373
0.25in^2 Cu	396	344	327	430
0.3in^2 Cu.	442	384	364	487
0.35in^2 Cu	478	415	394	532
0.4in^2 Cu	515	448	424	578
0.45in^2 Cu	547	476	450	619
0.5in^2 Cu	567	494	467	645
0.6in^2 Cu	625	543	513	726
Aluminium conductors				
0.1 in^2 Al.	185	161	154	191
0.15in^2 Al.	228	198	189	238
0.2in^2Al.	271	235	224	290
0.25in^2 Al.	308	268	255	335
0.3in^2 Al.	345	300	285	381
0.35in^2 Al.	378	329	312	421
0.4in^2 Al.	405	352	333	454
0.45in^2 Al	432	375	355	488
0.5in^2 Al.	449	391	370	511
0.6in^2 Al	500	435	410	580

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 taken from Crater for Gas cables.

TABLE O4 – aut

33kV THREE CORE IMPREGNATED PRESSURE GAS CABLES.

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	
Copper conductors				
0.1 in^2 Cu	269	227	216	246
0.15in^2 Cu.	333	282	267	307
0.2in^2 Cu.	399	336	317	373
0.25in^2 Cu	456	384	361	430
0.3in^2 Cu.	512	431	405	487
0.35in^2 Cu	555	468	439	532
0.4in^2 Cu	600	506	474	578
0.45in^2 Cu	639	539	505	619
0.5in^2 Cu	664	561	524	645
0.6in^2 Cu	738	621	578	726
Aluminium conductors				
0.1 in^2 Al.	209	176	167	191
0.15in^2 Al.	258	218	207	238
0.2in^2Al.	310	261	246	290
0.25in^2 Al.	355	299	281	335
0.3in^2 Al.	400	336	316	381
0.35in^2 Al.	439	370	347	421
0.4in^2 Al.	471	398	372	454
0.45in^2 Al	504	425	398	488
0.5in^2 Al.	525	443	415	511
0.6in^2 Al	590	495	462	580

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 taken from Crater for Gas 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

33kV Group Derating, Sustained Rating, Cyclic Rating, Distribution Rating, Laid Direct Rating, Duct Rating, Air Rating.