230 kV XLPE Power Cable

SW STANDARD WALL XLPE CORRUGATED SHEATH

CABLE CONSTRUCTION

- Concentric Stranded, Compact, or Segmental Copper or Alumimum Conductor
- Smooth Conductor Shield
- Super Clean XLPE Insulation
- True Triple Extrusion and Dry Cured
- Firmly Bonded Insulation Shield
- Copper or Aluminum Moisture Impervious Sheath
- Polyethylene Jacket with Extruded Semi-Conductive Outer Layer

CABLE DATA	
Voltage Characteristics (kV)	
Max Voltage Rating	245
BIL Rating	1050
Temperatures (°C)	
Nominal Conductor	90
Max. Emergency Conductor	105
Short Circuit Conductor	250
Minimum Installation	-10
Design Characteristics	
Design Standards	AEIC, IEC
Factory Test Voltages	265 kV / 60 min.
XLPE Loss Factor	0.0005
Relative Permittivity	2.3

Conductor Size (kcmil[1])	Conductor Dia.	Insulation Thickness	Diameter Over Insulation	Overall Jacket Diameter	Min. Bending Radius (install / perm.)	Capacitance	Charging Current	CU Cond & CU Sheath		AL Cond & AL Sheath	
								Cable Weight	30 mil Sheath[2] Short Ckt @ 0.5s	Cable Weight	50 mil Sheath[2] Short Ckt @ 0.5s
	(inches)	(mils)	(inches)	(inches)	(inches)	(pF/ft)	(A/kft)	(lbs/ft)	(kA)	(lbs/ft)	(kA)
1000	1.06	945	3.08	4.06	74/49	42.73	2.14	8.57	46.7	5.73	52.5
1250	1.19	906	3.13	4.13	75/50	47.03	2.35	9.35	47.4	6.00	53.2
1500	1.32	906	3.26	4.28	78/52	50.12	2.51	10.40	49.2	6.50	55.2
1750	1.43	906	3.37	4.40	80/53	52.63	2.64	11.40	50.6	6.94	56.9
2000	1.50	906	3.45	4.50	81/54	54.30	2.72	12.37	51.8	7.33	58.0
2500	1.73	906	3.73	4.84	88/59	61.24	3.01	14.64	55.7	8.51	62.5
3000	1.89	906	3.96	5.11	92/62	66.54	3.33	16.70	58.9	9.47	66.0
3500	2.07	906	4.07	5.23	95/63	69.00	3.45	18.48	60.3	10.16	67.7
4000	2.17	906	4.17	5.35	97/65	71.27	3.57	20.24	61.7	10.84	69.2
5000	2.48	906	4.48	5.71	103/69	78.41	3.93	24.73	66.0	12.40	73.9
6000	2.67	906	4.67	5.94	107/72	82.86	4.15	27.57	68.6	13.83	76.9

Copper Conductor Size (kcmil[1]) Load Factor @ 75%												
Ampacity[3] @ 90°C; per Figures on Page 2		1000	1250	1500	1750	2000	2500	3000	3500	4000	5000	6000
Single Circuit (Fig 1)	Amps	830	940	1020	1090	1160	1370	1490	1580	1660	1730	1810
Power Rating	MVA	331	374	406	434	462	546	594	629	661	689	721
Double Circuit (Fig 2)	Amps	710	790	860	910	960	1140	1230	1300	1360	1400	1450
Power Rating	MVA	283	315	343	363	382	454	490	518	542	558	578

Aluminum Conductor Size (kcmil[1]) Load Factor @ 75%												
Ampacity[3] @ 90°C; per Figures on Page 2		1000	1250	1500	1750	2000	2500	3000	3500	4000	5000	6000
Single Circuit (Fig 1)	Amps	660	750	820	890	950	1090	1190	1280	1430	1620	1760
Power Rating	MVA	263	299	327	355	378	434	474	510	570	645	701
Double Circuit (Fig 2)	Amps	560	630	690	740	790	903	980	1050	1190	1340	1440
Power Rating	MVA	223	251	275	295	315	360	390	418	474	534	574

[1]2500-6000 kcmil conductors are 5 segment Milliken conductors.
[2]Thicker sheath can accommodate more FAULT current.
[3]Based upon single point or cross bonding scheme.

230 kV XLPE Power Cable

SW STANDARD WALL XLPE LAMINATE SHEATH

CABLE CONSTRUCTION

- Concentric Stranded, Compact, or Segmental Copper or Alumimum Conductor
- Smooth Conductor Shield
- Super Clean XLPE Insulation
- True Triple Extrusion and Dry Cured
- Firmly Bonded Insulation Shield
- Copper or Aluminum screen wires/ laminate combination
- Polyethylene Jacket with Extruded Semi-Conductive Outer Layer

CABLE DATA	
Voltage Characteristics (kV)	
Max Voltage Rating	245
BIL Rating	1050
Temperatures (°C)	
Nominal Conductor	90
Max. Emergency Conductor	105
Short Circuit Conductor	250
Minimum Installation	-10
Design Characteristics	
Design Standards	AEIC, IEC
Factory Test Voltages	265 kV / 60 min.
XLPE Loss Factor	0.0005
Relative Permittivity	2.3

Conductor Size (kcmil[1])	Conductor Dia.	Insulation Thickness	Diameter Over Insulation	Overall Jacket Diameter	Min. Bending Radius (install / perm.)	Capacitance	Charging Current	CU Cond, CU Screen Wires, CU Laminate	AL Cond, CU Screen Wires, AL Laminate
								Cable Weight[2]	Cable Weight[2]
	(inches)	(mils)	(inches)	(inches)	(inches)	(pF/ft)	(A/kft)	(lbs/ft)	(lbs/ft)
1000	1.06	945	3.08	3.76	68/46	42.73	2.14	7.98	5.95
1250	1.19	906	3.13	3.81	69/46	47.03	2.35	8.72	6.19
1500	1.32	906	3.26	3.94	71/48	50.12	2.51	9.72	6.65
1750	1.43	906	3.37	4.06	74/49	52.63	2.64	10.66	7.08
2000	1.50	906	3.45	4.15	75/50	54.30	2.72	11.59	7.44
2500	1.73	906	3.73	4.45	81/54	61.24	3.01	13.68	8.53
3000	1.89	906	3.96	4.69	85/57	66.54	3.33	15.62	9.42
3500	2.07	906	4.07	4.81	87/58	69.00	3.45	17.35	10.09
4000	2.17	906	4.17	4.91	89/59	71.27	3.57	19.06	10.75
5000	2.48	906	4.48	5.25	95/63	78.41	3.93	23.40	12.23
6000	2.67	906	4.67	5.45	99/66	82.86	4.15	26.16	13.60

Copper Conductor Size (kcmil[1]) Load Factor @ 75%												
Ampacity[3] @ 90°C; per Figures on Page 2		1000	1250	1500	1750	2000	2500	3000	3500	4000	5000	6000
Single Circuit (Fig 1)	Amps	850	960	1050	1120	1190	1440	1570	1690	1800	1870	1980
Power Rating	MVA	339	382	418	446	474	574	625	673	717	745	789
Double Circuit (Fig 2)	Amps	720	800	880	940	990	1190	1300	1390	1470	1660	1770
Power Rating	MVA	287	319	351	374	394	474	518	554	586	661	705

Aluminum Conductor Size (kcmil[1]) Load Factor @ 75%												
Ampacity[3] @ 90°C; per Figures on Page 2		1000	1250	1500	1750	2000	2500	3000	3500	4000	5000	6000
Single Circuit (Fig 1)	Amps	670	760	840	910	970	1130	1250	1360	1450	1660	1820
Power Rating	MVA	267	303	335	363	386	450	498	542	578	661	725
Double Circuit (Fig 2)	Amps	570	640	700	760	810	940	1030	1120	1190	1360	1490
Power Rating	MVA	227	255	279	303	323	374	410	446	474	542	594

[1]2500–6000 kcmil conductors are 5 segment Milliken conductors.
[2]Weight based on screen sized at 279 kcmil which is calculated to accommodate 30 kA for 0.5 sec.
[3]Based upon single point or cross bonding scheme.